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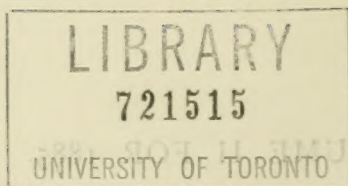
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AN ADDRESS

ON

THE GEOGRAPHICAL DISTRIBUTION OF DISEASE, AND THE PRESERVATION OF HEALTH IN VARIOUS CLIMATES.

Delivered at the Annual Meeting of the Metropolitan Counties Branch,

By WALTER DICKSON, M.D., R.N.,

Medical Inspector to the Honourable Board of Customs; President of the Branch.

GENTLEMEN,—I beg leave to return you my most sincere thanks for the very great honour you have been pleased to confer on me by advancing me to the distinguished post of president of this, the most numerous Branch of our great and important Association. I feel that this distinction is mainly due to my having taken a lively interest in the work of the Branch, and to my having held, for some years, through your kindly recognition, the offices of councillor and honorary treasurer. Although I have had the advantage of observing the conduct of your business by the eminent men who have preceded me, and more especially by the most able, zealous, and energetic president who has just retired, I fear I must claim your indulgence for many shortcomings in my year of office; but be assured, gentlemen, that my best endeavours will be made to promote, so far as in me lies, the welfare and prosperity of the branch, and thereby evince my most grateful acknowledgment of your kindness. When this high honour was at first and unexpectedly proposed, I preferred to accept it in that year when, in the usual rotation, it should be held by a general practitioner; inasmuch as, during an active professional life of more than forty years, almost equally divided between foreign and home service, my practice has been as much surgical as medical, the former preponderating in my earlier, the latter in my more recent years.

Having entered the Royal Navy at an early age, I was destined to spend eighteen years in active foreign service. I have therefore ventured to take as the main subject of this address, the geographical distribution and the numerical proportion of disease as they have come under my personal observation; subjects with which, in a continuous and varied service and much statistical labour, I have necessarily become familiar, and which, from their comparative novelty to the members of the branch, may perhaps possess some interest.

I was deeply impressed with the importance of these matters during my first and only home-appointment at Haslar Hospital, then, as now, the chief depot of the sick and wounded of the Fleet. Here also were to be found many interesting cases from distant stations—gun-shot wounds from Syria and China, which had been recently the scene of warlike operations; and numerous instances of tropical disease, and notably of dysentery of extreme severity, with intestinal ulceration so extensive as to excite astonishment that they should have survived the then long voyage, under sail, from China round the Cape of Good Hope, at a time when the modern luxuries of fresh and preserved provisions were comparatively unknown. The ships in port and the garrison of Marines afforded ample opportunities of surgical practice, and of treating indigenous as well as foreign types of disease. Of the surgical patients, nearly half consisted of various forms of venereal disease, and included, during the few months I was at Haslar Hospital, about three hundred cases of syphilis and cognate maladies, besides many severe accidental injuries from the fleet and the dockyard. And herein is one essential difference betwixt naval and military medicine. In the army, the surgeon has few opportunities of seeing cases of severe injury, or requiring operative procedure; while,

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in the navy, accidents of the gravest character are of frequent occurrence. Both, however, see a great deal of tropical and home disease, as developed in young subjects; of local inflammations, ulcers, etc.; and, as a matter of course, of what is termed enthetic disease. It is a matter of deep regret that, in deference to a small and ignorant, but clamorous, section of the community, the well attested benefits of the Contagious Diseases Acts have been withdrawn in great measure from those young men—compulsorily celibates—who form our fleets and armies, and whose inefficiency through these diseases is a serious loss to their country. One leading argument of the opponents of the Acts has been over and over again disproved; for, to all who know anything of our dockyard and garrison towns, it is a truism that the only chance of reaching or reclaiming the unhappy women in question was through the salutary care and discipline provided for them by beneficent legislation and control.

In my first voyage, in the flag-ship, to the Cape of Good Hope, the same prevalence of venereal disease was manifested; twenty per cent. of the whole number disabled in a crew of five hundred men having been cases of syphilis and orchitis, requiring withdrawal from duty, besides many minor cases not demanding such withdrawal. It was observed that, in those instances where mercurial treatment was not employed at all, or not carried sufficiently far, the cure of the local affection was retarded, and the risk of secondary constitutional disease much increased. The disease in all these cases had been contracted at Portsmouth, our stay at Madeira and Rio Janeiro, on the outward voyage, having been too brief for general leave to the ship's company.

At the Cape of Good Hope, the flag-ship was chiefly stationed at Simon's Bay, and the health of her crew was most satisfactory. The sick-list rarely exceeded three per cent. on strength, and the surgical cases greatly preponderated, chiefly wounds and other injuries. Circumstances were highly conducive to perfect health, such as a temperate and delightful climate, regular food, and duties just sufficient for the due exercise of the body, conjoined with the scrupulous cleanliness, order, and discipline characteristic of ships of war. Rheumatism and quinsy were the more severe forms of disease, due, doubtless, to the great vicissitudes of temperature (20° in twenty-four hours) that were often encountered; while disorders of the abdominal viscera were exceedingly rare. In December, 1845, the beginning of the hot season, but in cooler weather than usual, a singular epidemic prevailed, of the nature of pleurodynia, characterised by intense paroxysmal pain in the parietes of the chest, shoulders, and upper arms, without embarrassment of the respiration, and very little constitutional disturbance, but accompanied by great lassitude. The average duration of the attack was six days, and it yielded readily to simple diaphoretic treatment. Twelve cases occurred on board the flag-ship, and several others in other ships of the squadron and on shore. Occasional voyages were made to Mauritius, to St. Helena, and to the South-West Coast of Africa; and, on the latter station, the great increase of temperature (never under 80° Fahr.) had a marked effect on the health of the crew. The sick-list rose from three to six per cent. Many cases of febricula from insolation occurred, but only three cases of malarious fever in the boats' crews of fifty-two men, employed on detached service, chasing slavers; none terminated fatally. The amount of mortality and invaliding was extremely small in this ship, whether in temperate or tropical Africa.

An interesting episode in my service there, was the Antarctic Expedition of 1844-45, of which I had sole medical charge, as well as a share in the scientific observations. Proceeding South to 70° S. latitude, where impenetrable packs of ice prevented any further progress, and traversing five thousand miles of ocean, thickly studded with enormous icebergs, we were absent from the Cape of Good Hope during the whole of the Antarctic summer, making magnetic and meteorological observations in these remote and hitherto unexplored latitudes. Notwithstanding the laborious duties of a difficult and most hazardous navigation, and the stormy inclement weather we encountered, the crew of the *Pagoda* enjoyed excellent health, the sick-list not exceeding three per cent. during the whole South polar voyage. It was only when visiting West Australia

and Mauritius, returning through the milder latitudes of the Indian Ocean, that any medical cases at all occurred, and those unimportant. No trace of scurvy was manifested, antiscorbutics having been liberally used throughout the voyage, which possessed little medical but high scientific interest, as demonstrating, by innumerable icebergs of the largest dimensions known, the existence of great uninhabitable and inaccessible Alpine lands in the far south, and solving some important problems in Antarctic Meteorology and Terrestrial Magnetism, which will be found in the *Transactions of the Royal Society* for 1846.

My next service was on the West Coast of Spain and Portugal, first in the flag-ship at Lisbon, and afterwards in charge of a steamer stationed chiefly in the rivers Lima, Douro, and Tagus. In all these, and more especially on the left or southern bank, malaria prevails at certain seasons, with its results, ague and dysentery; but, although not far from the shore, the intervening space of water protected the vessel, which suffered but little. The climate was temperate and agreeable north of the Tagus, with much humidity at times from the strong Atlantic gales. South of the Tagus the summer heat was intense, but drier, and the atmosphere more African in character. Rheumatism and catarrh were the prevalent maladies. Bowel-complaints were rare; and although the sick list was high—seven per cent. on strength—it was chiefly made up of surgical cases, more especially venereal, contracted in the cities of Lisbon and Oporto, sometimes of unusual malignancy and tedious in recovery. It has been sometimes assumed that these phagedenic sores are due to a scorbutic taint, as they are often met with among seamen; but in this instance there was no lack of fresh fruit and vegetables, oranges and other fruits being exceedingly cheap, and consumed in abundance.

The same remarks will apply to my next service in the Mediterranean, chiefly in Sicily and Italy, where I spent about a year, mostly in the vicinity of Naples. With the exception of twenty cases of endemic malarious fever at the classic anchorage of Baia, the crew, nine hundred in number, enjoyed excellent health, the sick list rarely exceeding three per cent., chiefly made up of surgical cases; and the mortality from disease was very small. The ship, at that time the largest in the English Navy, was very spacious between decks, in admirable order, and her sanitary condition was excellent. The climate was highly favourable, the only exception being in the case of a few men whose lungs were undergoing consolidation and decay with progressive wasting of the body. Contrary to expectation, phthisical patients seemed to deteriorate more rapidly than in a less genial climate, or in the tropics, where in my experience the disease is rarely developed and kept long in abeyance.

My next station was very different—the West Coast of Africa—where, in charge of a steamer with a hundred Europeans, most of the rivers and coasts for 4,000 miles were visited during three years' constant and harassing service in the suppression of the slave trade. A high state of discipline and a more than usually rigid sanitation were observed, and with the best results; for in these three years only one death from disease occurred, and that from malarious fever, aggravated by intemperance. Endemic remittent fever was frequently met with, chiefly in the river Congo, in which the vessel once lay continuously for eight months. Here the boats were often away on detached service in pursuit of slavers, and from their nearer proximity to the banks and occasional landing were much more exposed to terrestrial poisonous emanations than the ship, which was seldom anchored at less than half a mile from the shore. The proportion of the boats' crews affected was generally one-third of the number of men employed in the service, and the period of incubation from the time of exposure to the malarious poison to the date of the febrile attack ranged from seven to fifteen days. Several of the cases were of great severity, with protracted convalescence. The treatment found to be most successful was the administration of moderate mercurial purgatives, and of quinine, ten or twelve grains daily for several days. The solitary fatal case was the only one which showed in its last stage yellowness of the skin and black vomit, but otherwise it seemed to differ in no respect from the other cases which recovered satisfactorily. The various forms of intermittent, remittent, and ephemeral fever occurred in considerable proportion, constituting thirteen per cent. of the whole amount of sickness. Next in importance and frequency were diseases of the bowels and abdominal viscera, comprising a few cases of dysentery and one of sporadic cholera of great intensity; but no mortality occurred from this cause. The ratio of this class of disease on the coast was twelve per cent. Diseases of the respiratory organs are little known on the West Coast of Africa among Europeans, but the natives suffer from them much, and of our twenty Kroomen (native seamen for local service) several were affected with pulmonary inflammation, and one died. There is necessarily a very great variety of climate in so extensive a line of coast, and those spots which are found

to be less inimical to Europeans are often, from comparative coolness and dryness, injurious to the indigenous races. The ratio of sick from all causes on this station did not exceed seven per cent., of whom more than half were surgical cases. Although the climate of tropical Africa must always impair, more or less, the European constitution, this and other instances have conclusively shown that, with due vigilance, mortality and invaliding may be reduced to as low a figure as in any station in the world; and this notwithstanding the very harassing nature of blockade duty and the privation necessarily involved. This may be understood when it is considered that salt and preserved meat, with lime-juice, was the chief aliment of all, that fresh provisions could only be issued on fifty days of each of these three years, and that leave on shore was only permitted on a very few occasions at St. Helena or Ascension. Yet no scurvy was in any way manifested, a sufficient proof that it is the privation of vegetable acid and not of fresh meat that causes that scourge of seamen.

During the whole period of commission, the daily sick list averaged six per cent. on strength, and the time lost by disease or accident was twenty-two days per man in each year on the station. Of the whole amount of incapacitating illness surgical cases constituted 54 per cent.; fever, in its various forms, 12 per cent.; diseases of the digestive organs, 16 per cent.; rheumatism, 10 per cent.; while diseases of the respiratory organs amounted to only 8 per cent., and chiefly among the Africans. The mortality-rate was 10 per thousand, and the invaliding rate for non-fatal disease was 30 per thousand, chiefly by reason of rheumatism, dysentery, ulcer and accidents, and in a few instances of debility after fever.

The scene now changes to a widely different region. War with Russia was proclaimed in 1854, and a fleet was hurriedly prepared for service in the Baltic. I was in medical charge of a steam corvette, with a crew of two hundred men, employed for the next two years in the northern inland sea, blockading the ports, and otherwise harassing and injuring the enemy. Almost continuously on the move, and often in very bad weather, with an indifferent crew, hastily got together, the ship, imperfectly fitted for a cold climate, was at first far from healthy, the sick-list being 12 or 15 per cent. on strength, and including some severe cases. The only endemic disease of this region is ague, but of this we saw but little. The outbreak of cholera which devastated Europe in 1854 reached Memel, in East Prussia, in September. We were in frequent communication with that port; and several of our men, who had landed, were attacked with diarrhoea, in two cases advancing into fatal cholera. A third fatal case occurred in a man who had not been on shore, or come into contact with those affected; while those who had sedulously attended the sick, rubbing their cramped limbs, escaped. Ulcer and abscess were common, and, with a low temperature, whitlow and frost-bite. When the Baltic was frozen, we annually returned to England for a few weeks, to refit. The extreme cold, as well as the brief summer of two months, was found to be more favourable to health than the raw humid climate that prevails in that inland brackish sea for half the year. Rheumatism and pulmonary inflammations were the natural result in those much exposed. In the second year of the war, our cruising was in the more sheltered Gulfs of Finland and Riga, and the ship's company had improved in health and discipline. The sick-list fell to 5 or 6 per cent., one-half of the average of the first year; while the time lost by sickness and accident diminished from thirty days to nineteen days per man. The mortality and invaliding rates can only be given approximately; but the former was probably not less than 35 per 1,000, and the latter 70 per 1,000, a fourth part being caused by accidental injuries incident to war-service. Of the total amount of incapacitating illness, 2 per cent. was caused by febrile disease, 18 per cent. by respiratory and 18 per cent. by digestive diseases, 11 per cent. by rheumatism, and 50 per cent. by surgical affections.

On the termination of the Russian war, the ship was ordered to the West Indies and Central America, and at once the great change of climate made itself apparent, less in the amount than the nature of the sick-list. We arrived on the station at the height of the rainy season, when the heat is most oppressive, the diurnal average being 85°. For some months we lay in the river San Juan de Nicaragua, where malarious fever (chiefly quotidian and tertian) was at that time prevalent: and, as the ship was in close proximity to the shore, several cases occurred. Ephemeral fever, or, as it is officially styled, febricula, was also rife, due, doubtless, to the high temperature; and at Belize, in British Honduras, during our brief visit, one case occurred, which assumed, in the last stage, the pathognomonic symptoms of yellow fever, as in the case I described in the river Congo. But a marked difference was found to exist betwixt the malarious fever of Western Africa and of Central America; the African, even when mild in its course, being accompanied by much debility and a

slow convalescence; while the American cases, though sharp, were brief, and followed by less prostration, and soon recovered. Febrile diseases at this time constituted 20 per cent. of the sickness, instead of, as in the Baltic, 2 per cent. Disorders of the respiration formed only 6 per cent. of the whole sickness, instead of 18 per cent., as in the northern climate. Disorders of the bowels were, at one period of our sojourn at Nicaragua, exceedingly prevalent; while the adjacent province of Costa Rica, whose waters fall into the river San Juan, was ravaged by cholera, which, however, did not reach us, except in the minor form of choleraic diarrhoea. Rheumatism was in half the proportion of Europe, though the rains were heavy and incessant. Abscesses and boils, due to hyperemia of the skin, were very common; as also obstinate ulcers, the result of mosquito-bites and slight wounds of the lower extremities. The proportion of surgical cases was 66 per cent., or two-thirds of the whole. On the Spanish Main and Central America, the mean daily number incapacitated was 6 per cent.; the time lost per man was at the rate of twenty-one days in the year; the mortality-rate was 30 per 1,000, and the invaliding-rate 45 per 1,000.

The winter months of 1856-57 were spent in a large frigate, with a crew of 500 men, in the West Indies, chiefly in the great Antilles, Jamaica, Cuba, and Hayti, and for a short time in the Gulf of Mexico. The climate at this season is comparatively cool and healthy, and the safety of the crew was further insured by great attention to ventilation, and prohibition of leave on shore. The results were most satisfactory. Although yellow fever was known to exist in or near the ports we visited, very few cases of febrile disease occurred on board, and those of a mild type. The amount of daily sickness did not exceed 4 per cent. (3.8), and the time lost by disease or accident was in the ratio of fourteen days *per annum* for each person. The proportion of surgical to medical cases was also very different from that which usually obtains in ships in the tropics, being 70 per cent. of the former, to 30 per cent. of the latter. Zymotic and febrile disease occurred in the insignificant ratio of 4 per cent., and bowel-disorders of 6 per cent., while respiratory and rheumatic affections did not exceed 20 per cent. of the total of sickness. Catarrhs were not uncommon at Vera Cruz, where, in February, cold northerly gales reduce the thermometric mean from 80° to 72°. Nearly all the cases of disease were unimportant, the surgical cases of the usual description; accidental injuries, abscesses, ulcers of the legs, etc., did well, and the mortality and invaliding were trivial, far less than they would have been on the home-station.

The very high state of health this ship's company enjoyed was the more remarkable, as they were physically inferior to the average crews of men of war, being composed mostly of landsmen picked up in the emergency of the Russian war, and many had suffered from syphilis contracted in England before coming to the West Indies. The constant scrupulous attention to cleanliness and ventilation; their good and regular, and, at the same time, varied diet; the lightness of their work, the ship being much in harbour; and the privation of all opportunity of dissipation on shore, chiefly contributed to the singular and exceptional immunity which the crew of this vessel enjoyed from tropical, and, indeed, all other serious disease during her sojourn in the West Indies.

As favourable a sanitary condition attended my next charge, that of a steam-frigate of 50 guns and 550 men, the flag-ship in India. The news of the formidable mutiny of the Indian army in the summer of 1857 had startled the country, and the ship was fitted out with great dispatch; scrupulous care, however, being taken to examine the crew as to their physical fitness for the trying work and climate they had to encounter. To the surgeon, this was an onerous duty, but the labour was found to be amply repaid by the superior material obtained both for resisting disease and for recovering from it. The voyage was circuitous, round the Cape of Good Hope, the Suez Canal being not yet in existence; but the ship arrived in the beginning of winter at Calcutta, in time to render essential service in garrisoning the capital, and, by its powerful armament, to inspire with confidence the alarmed European inhabitants. We remained in the Hooghly during that anxious and exciting time; and although, on the approach of hot weather, much sickness and mortality broke out among the shipping in the river from cholera and cognate diseases, we almost entirely escaped. This immunity was due, doubtless, in part to the fine physique of our crew, their high state of order and discipline, and the sedulous attention that was paid to their well-being in all respects; and also, I think, to our avoiding all water for drinking except that which we obtained by distillation on board. Only one fatal case of cholera occurred in a man who was taking colicium for rheumatic gout; catharsis was induced, soon running into cholera, with speedy death. I have observed several similar instances, both in England and

abroad, where, during cholera-epidemics, the disease seemed to be caused by any irritant of the bowels, at other times innocuous, and irrespective, apparently, of any specific germ or contagium.

In February, at Calcutta, the diurnal temperature ranges from 80° or 90° in the day, to 60° or under at night; and epidemic catarrh prevailed, fifty cases and several others of quinsy being placed on the sick-list in one week; while some who, in other climates, had suffered from ague, were now affected with that form of fever, but other forms of malarious fever were unknown. Afterwards, when the heat on the Hooghly became excessive, 90° to 100°, fever from insolation and bowel-complaints were prevalent; and even more numerous were ulcers, abscesses, and skin-eruption, often the result of slight wounds, mosquito-bites, etc., and extremely tedious to cure. In fact, during the first year we were on the Indian station, surgical cases greatly preponderated, constituting two-thirds of the whole. The men were occupied for part of the time in very arduous labour, recovering treasure from a wrecked and submerged steamer on the coast of Ceylon. Immersed all day in salt water, under a vertical sun, with extremities exposed to accidental injuries, it was no wonder that they suffered in this way, although singularly exempt from ordinary climatic disease.

Soon after, in June, 1858, a massacre of all the Christians at Djeddah, in Arabia, demanded a naval force to avenge it. We therefore proceeded to the Red Sea, and there spent the winter months of 1858 and 1859. We found it a monotonous but particularly healthy station, hot in the daytime, but the atmosphere so dry as to make a great heat endurable. The sick-list was only half of that in India and Ceylon. The only climatic disease was dysentery, but the cases were few and tractable. The excessive temperature was moderated by occasional tornadoes of wind and rain, leaving the air bracing and exhilarating, and I know of few climates to compare in salubrity and pleasantness with that of Arabia at this season.

The exigencies of the service required visits to Aden and the Somaui Coast, to compose differences that had arisen among the native tribes at Berberah, and to the Ajan coast, south of Cape Guardafui, to check piracy in that quarter. While at Aden we lost two men by cholera, contracted on shore. A few other cases occurred, which recovered. At Berberah, celebrated for its great fair, and at Djeddah, where thousands of Moslems assemble to make the pilgrimage to the holy cities, we had the interesting spectacle of many races from afar, as well as those Arab and African tribes with whom, unfortunately, we have recently become too well acquainted. We had now been eighteen months in India and Arabia, with sometimes very harassing and laborious duty, and a trying variety of climate and heavy sick-list; but, for the whole period, the mean number incapacitated for duty by disease and accident did not exceed six and a half per cent. The time thus lost per man amounted to 26 days in the year. The proportion of medical to surgical cases was as 40 to 60. The mortality from disease was only at the annual rate of 6 per 1,000, and the amount of invaliding was inconsiderable—30 per 1,000, and scarcely in any case from climatic or fatal disease. But although these results show a health condition unexampled, so far as I am aware, on that station, yet there was evidence that the vital force and energy of the crew were beginning to be impaired, and the change of climate we now made, on becoming the flag-ship in China, soon proved that endemic diseases, on that most trying station, asserted a firmer grasp, and were less amenable to treatment than in our fresher tropical experience of Bengal, Ceylon, and Arabia.

After an interesting voyage through the Straits of Malacca and Sunda, and a brief stay at Penang and Singapore, notable for a humid but healthy climate, we arrived at Hong Kong in May, 1859, the advent of the hot season. In June, we were in the North of China, forming the expeditionary force which, in an ineffectual effort to pass up the river Peiho, had to sustain a murderous fire from the heavily armed forts which commanded its entrance. In this disastrous attack, we suffered enormous loss, one-third of our whole attacking force being killed or wounded. The firing of the Chinese was accurate and destructive. Eighty of our men were slain by round shot or bullet, or drowned in the trenches in the attempt to storm the forts; and, of the 320 more or less severely wounded who were received on board, 7 per cent. subsequently died. During the few hours of the bombardment, about twenty amputations and other operations were performed, and, except in a few cases, who succumbed to shock, hemorrhage, or tetanus, with satisfactory results. To ensure ventilation in our overcrowded decks was no easy matter, and temporary hospital-ships had to be improvised and organised as soon as practicable. Of the hundred or thereabouts of wounded of the flag-ship and the tenders and gun-boats attached to her, who remained on board for some weeks, the progress was very gratifying; a few succumbed to

climatic disease, but no case of gangrene occurred among them. It was before the carbolic antiseptic period had set in with such good result to modern surgery; but I employed, and I think with great advantage, the only antiseptic then easily procurable, namely, chloride of zinc, and I can strongly recommend a weak solution of it as a valuable dressing for gun-shot and other wounds and ulcers. But this is a digression, although not without a bearing on our subject, inasmuch as the overcrowded state of the ship, and the mental depression incident to the heavy and unexpected loss in battle of so many gallant comrades, probably conduced to predispose to and intensify the climatic maladies that now began to assail us. For strategic reasons, and in order to obtain supplies, we were compelled to leave the Gulf of Pecheli, which in summer has a salubrious climate, for the coast of Central China and the mouth of the great river Yangtse, where malarious and enteric diseases have at that season much power and malignancy.

But, in addition to essentially climatic disease, two epidemics invaded us a few weeks after the action. Forty-four cases of small-pox appeared in the ship, all but one in men protected by vaccination. One-fourth of these were confluent and severe, with two deaths. In the others, the eruption was sparse and discreet, and pyrexia moderate. Simultaneous with this outbreak occurred a remarkable epidemic of conjunctivitis, formidable only by the great number of the crew affected. Within a week, nearly three hundred persons on board were blinded by inflammation, most of one eye only, but many of both eyes. A few days' simple treatment sufficed for recovery; but, as nearly half of the crew were simultaneously afflicted, the inconvenience of so disabling a malady may be imagined—at a time, too, when many were prostrated by wounds and disease. The importation of these epidemics could not be distinctly traced. We were cruising at the time, some distance from land, for the benefit of cooler and purer air; but communication by boats, etc., for provisions, water, washing of clothing, etc., was occasionally necessary. If this form of ophthalmia were contagious, it is remarkable that so many escaped. My assistants being disabled, I had to examine and treat nearly all these cases, and suffered no personal inconvenience. The same malady was found to exist at the time at various places on the coast, and in vessels at sea near it. But far more formidable were the malarious and enteric fevers, the diarrhoea, cholera, and dysentery, that infest the coast of Central China from June to October. These diseases seem to be attributable partly to climate, partly, I think, in our case, to impurity of water, the laudable practice of using only distilled water, to which I have referred as so salutary in our Indian experience, having been, from motives of economy, discontinued. For the remaining cool months of the year, the climate of this part of China is salubrious for Europeans; and in Northern China, where we spent all the summer of 1860, in co-operation with the military expedition to Peking, the climate was found to be agreeable, and the health of the force, both ashore and afloat, all that could be desired. In winter, it was extremely cold, the thermometer falling nearly to zero, and the sea, in the Gulf of Pecheli, was partially frozen round the ships. In Southern China, chiefly at Hong Kong, where we spent at various times twelve months, we had a considerable amount of sickness and mortality, mainly from bowel-complaints, culminating in dysentery, with its formidable concomitants of organic disease, intestinal, peritoneal, and hepatic.

In the winter months, the great alternations of temperature from hot days to chilly nights, and the very heavy labour the men had to undergo in connection with the expedition of the army to the North, told heavily on their health and vigour. Equally prejudicial, perhaps, was the dissipation into which they plunged on being allowed leave on shore, with abundance of money, after a long privation from such indulgence. The first fruits of this was a large accession of venereal cases, of which three hundred and twenty-two occurred in twelve months; but the number was greatly reduced so soon as the excellent sanitary regulations in the colony were enforced, but which, I fear, have lately, like similar sanitary measures in our garrison and dockyard towns at home, unfortunately fallen into disuse, to the great and serious detriment of our military and naval strength. In the cases of enthetic disease to which I have referred, there was no climatic peculiarity, and, with few exceptions, they yielded to the ordinary local and mercurial treatment. Subsequently, in some instances, cold and wet weather seemed to induce chronic rheumatism; but the normal secondary affections were rare, occurring in the ratio of only 7 per cent., and seemed to follow on simple soft sores quite as often as on the circumscribed and indurated Hunterian ulcers; and such has been my experience in the many cases that have come under my observation in many parts of the world.

Intestinal disease in China, leading to ulceration, is often, like

enteric fever in this country, exceedingly obscure in its origin and insidious in its progress, unattended with much pain; and even when medical attendance, as in the public service, is always at hand, the patient has concealed his ailment till profuse diarrhoea, mucosanguineous flux, or tenesmus, has aroused him to a sense of his danger, much intensified by his persistence in unsuitable diet or exhausting labour. It was no uncommon occurrence for the severest forms of illness and rapid death to befall men in the midst of their vocations or their pleasures. That the mode of living plays an important part in the causation of these maladies, is manifest by the almost total exemption (in my experience) of officers, whose exposure to general atmospheric influences was the same. Dysentery was by far the most fatal form of illness, causing seventeen deaths and twenty-nine invalidings, in thirty months, out of 185 cases. Of diarrhoea, 606 cases of severity occurred. Cholera was rare; only four instances occurred, two of which recovered, all contracted on shore, and not spreading on board, although most assiduously nursed by their ship-mates, who often rubbed the cramped limbs of the sufferers with hands polluted by the rush of liquid excreta. Destruction of all soiled bedding and clothing, disinfection by chloride of zinc, and such separation as can be partially effected in the limited area of a ship, were enforced, with perfect cleanliness and ventilation; and so successfully that, but for the indulgence of leave and the laborious nature of their duty in time of war, the crew, even in that climate, would have suffered little more than in our former experience of tropical and subtropical climates. We found the results better when it was possible to retain the sick on board the frigate, or in some of our improvised ship-hospitals, than when they were sent to the general hospital, then an old line-of-battle ship, in the most perfect order and apparent cleanliness, but whose timbers must have been permeated and saturated with the morbid poisons accumulated during some years of occupancy.

The coast of China is so extensive as to afford every variety of climate, and during the two years we spent there, the amount of sickness varied very much, and it would seem by reason of locality as well as of temperature. At Hong Kong, for example, there was more disease, even of the bowels, in the colder months extending from November to February, than in the warmer months of March and April, when the sick-rate and death-rate did not exceed our English standard. In Central China, it is in the three oppressively hot summer months that disease and death are rife; while in Northern China there does not seem to be any undue morbid influence affecting Europeans. With a body of from 800 to 1,000 men in my medical charge, and a general supervision as flag-surgeon of the sick-returns of the fleet, I had ample means of estimating the meteorological and topographical bearings on the Englishman's constitution, in the different localities which were the scene of operations.

In my own immediate experience, the mean number daily incapacitated by sickness or injury was 8 per cent., of whom 53 per cent. were medical cases, and 47 per cent. surgical; but the extremes were great. At one time, the sick-list, by reason of the epidemics I have described, and the number of gunshot and other wounds received in action, was swelled to 50 per cent. of the force, while at other times it did not exceed 3 per cent. The mean time lost per man was twenty-seven days *per annum*, of which fifteen days were from internal disease, twelve days from surgical ailments, and wound or accident. The mortality was at the annual rate of 41 per 1,000, of which 23 per 1,000 were from disease, and 18 per 1,000 from injury. There were invalided, that is, sent home by reason of physical incapacity, at the annual rate of 76 per 1,000—54 per 1,000 for disease, and 22 per 1,000 for injury.

The proportional incidence of the various classes of disease may be thus briefly stated.

Febrile diseases, including exanthem, occurred in the ratio of 13 per cent. of the whole amount of sickness. Rheumatism showed a ratio of 10 per cent.; respiratory diseases of 7 per cent.; digestive diseases of 25 per cent.; nervous diseases of 2 per cent.; venereal diseases of 10 per cent.; cutaneous and cellular tissue 15 per cent.; wounds and accidental injuries 16 per cent.

Of the annual death-rate of 23 per 1,000, 70 per cent. was caused by digestive maladies; and of the annual invaliding rate of 54 per 1,000 for disease, the proportion was 40 per cent. from such affections.

I trust I have shown in these remarks, based exclusively on personal experience, and embracing many climates and various conditions of life, that a high average of health and efficiency can be maintained by Europeans for a time in every kind of geographical position and variety of surroundings.

On board ship, at all events, from the Pole to the Equator, there need not be a greater ratio of sickness and mortality than in one's own

country, provided hygienic principles be carefully applied to the important matters of air, water, food, clothing, exercise and rest, employment and amusement, so far as these can be regulated with due regard to the exigencies and necessary discipline of the public service. We have seen how, not only in such favoured climates as the Cape of Good Hope and Mediterranean, but in remote regions, as the highest Antarctic latitudes, in the Red Sea, the West Indies, and in Northern China, the very highest standard of health and lowest mortality can be maintained for considerable periods, while even on such trying stations as the West Coast of Africa, Central America, Bengal, Ceylon, and Southern China, sickness may be kept down to as low a figure, and mortality and invaliding to even a less ratio than is found in the home service.

The chief exceptions I have had occasion to note as occurring in the Baltic in the first year of the Russian war, and in Central and Southern China in our last war with that empire, could be fairly accounted for. In the first instance, the physical character of the men was far below the average. Hurriedly recruited on the sudden outbreak of hostilities, often of unsound constitution, and not inured to hardship, they were exposed to incessant and most laborious duty in keeping the sea and blockading the Russian ports in the most inclement season of a wretched climate. Most of these men were ill-fitted to bear the fatigues and perils of war, which are always more trying in the form of sickness than of combat; and, in the first Baltic campaign, they suffered greatly from disease.

In the second instance, in China, a body of men who had been originally of exceptionally good physique, but tried by two years' continuous service in the tropics, and still more by the dissipations of Hong Kong, made a sudden and disastrous plunge into war with more than its usual horrors. They were immediately after exposed to the deadly climate of the Yangtse in the hot season, with spirits depressed by our heavy losses in action, and were less able to encounter the epidemic diseases which assailed them. To this may be added various privations, to some extent unavoidable, and one of the most important of which was that of the pure distilled water they had been so long in the habit of using, both for drink and ablution, and with so much advantage before their arrival on the Chinastation.

Too much attention cannot be paid to such details, all important in maintaining the health and efficiency of mariners. The Royal Navy of England has been a grand school of public hygiene for more than two centuries. Nowhere can experiments of the life-saving class be carried out more perfectly, and on a larger scale, than afloat, where all are circumstanced alike in regard to climate, food, clothing, exercise, and discipline. As the terrible scourges of typhus, dysentery, malignant ulcers, gangrene, and scurvy have long been banished from our home-fleets, so we may look confidently forward to the time when such minor evils as still exist, chiefly on foreign service, shall also disappear, and when that important section of our countrymen who form the first line of our national defence, and protect our world-wide colonies and commerce, shall enjoy as perfect a sanitary condition as can possibly fall to the lot of humanity.

Had time permitted, it was my intention to conclude, by way of contrast, with a short summary of professional work in London during the last twenty-three years, among a body of men differing from seamen in being of maturer age, averaging thirty-seven years, and in having the comforts of home life in our temperate climate, with not more exposure to the weather than falls to the lot of most middle-class citizens actively engaged in out-door employment between the ages of 20 and 65. Some years ago, in 1875, I presented, at the meeting of the Association at Edinburgh, a statistical paper on this subject, with reference chiefly to the important matter of mutual insurance against pecuniary loss from sickness, a matter ably handled by Sir James Paget, in his admirable address at the opening of the Health Exhibition last year, and which now possesses very considerable interest to our Association in connection with the well-matured scheme lately launched, and making, I rejoice to hear, very satisfactory progress. My experience is necessarily limited to a small section of the population; but the personal observation and records of 15,000 cases of illness have enabled me thus to summarise the ratios of disease as occurring among adult males in this metropolis.

Of 1,000 men, such as I have indicated, you may expect 40, or 4 per cent. to be daily incapacitated by sickness, accident, or infirmity; 12 annually to die, and 16 to become permanently incapacitated by age or chronic illness; and a loss of time, for each individual, from all kinds of incapacitating ailments, of 12 days *per annum*.

Of the various classes of disease, those of the respiratory organs were found to constitute 28 per cent. of the whole amount of sickness, rheumatism and gout, 14 per cent.; disorders of the digestive organs, 17 per cent.; nervous diseases, 9 per cent.; accidental injuries, sin-

gularly uniform in their proportion, 10 per cent. Disorders of the skin and cellular tissues, and other so-called surgical maladies combined with accidents, form 25 per cent. of the whole.

Zymotic diseases, comprising the various forms of fever, contribute the very small annual average of 6 per cent.; and, although many of these officers spend much of their lives on board vessels arriving in this great port from all parts of the world, no instance has occurred, in all these years, of any of them contracting disease of infectious character on board.

TWO LECTURES

ON

CHRONIC LARYNGITIS AND CHRONIC PHARYNGITIS: THEIR PATHOLOGY, SYMPTOMS, AND TREATMENT.

Selected from a Course of Lectures delivered during the Winter Session of 1885, at the Glasgow Royal Infirmary.

By DAVID NEWMAN, M.D.,

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LECTURE I.

GENTLEMEN.—In my last lecture, I called your attention to some of the acute diseases affecting the larynx and pharynx, and pointed out to you that not unfrequently, if proper treatment be not adopted during the earlier stages of the disease, acute or subacute inflammatory conditions may be followed by certain chronic histological changes in the mucous membrane and other structures of the parts. But, while it is true that chronic affections of the upper air-passages may be the sequel of previous more or less acute attacks, in the great majority of cases their commencement is insidious, and cannot be easily referred to such causes.

In their etiology and pathological anatomy, chronic pharyngitis and chronic laryngitis are so intimately connected with one another, and the diseases are so frequently associated together, that they may be very conveniently considered under one heading, while the symptoms, prognosis, and treatment will be illustrated by cases, and discussed separately.

I will, in the first place, occupy a few moments in the consideration of the etiology of chronic laryngitis and pharyngitis. You will meet with these diseases most frequently in adult males; females and children are not so commonly affected. They are less likely to be exposed to vicissitudes of weather, irritating gases, etc.; and, as a rule, greater demands are made upon the vocal organs of men, many of whom, such as clergymen, public speakers, schoolmasters, street-criers, etc., require habitually to overexert their voices.

Amongst the patients suffering from chronic catarrh who apply for relief at the out-door department for diseases of the throat at this hospital, the cause of the disease is, in many cases, easily traced to their occupation. Persons who are required to work in impure atmospheres, such as steel-workers, coal-miners, bone-grinders, or persons who are exposed to irritating gases, or who require to work in badly ventilated apartments, are very liable to the diseases we are at present discussing. Their etiology is also intimately connected with certain climatic conditions. At one season of the year, the symptoms may entirely disappear, while at another they may become greatly aggravated. With the return of summer, and a visit to the country or the seaside, the symptoms may remain in abeyance, only again to reappear when the patient, neglectful of former experiences, returns to his old mode of life. It may require but the first fogs of autumn to remind him of his former ills, either by an acute attack, or by an exacerbation of the symptoms. By every relapse, the liability to another attack is increased. I think it is undoubted that the structural changes produced by one attack of catarrh predispose to another: that is to say, the hyperæmia, swelling, and increased secretion which essentially constitute the phenomena which we call catarrh, after they have reached a certain pitch, tend to remain constant; the power of resistance of the mucous membrane is diminished thereby, so that, when it is submitted to the influence of an irritant, they are easily

raised to the level of a catarrhal inflammation. In other words, the patient becomes predisposed to catarrh. The more frequent the attacks, the more susceptible does the patient become, and the less likely he is to make a good recovery.

It is therefore of the utmost importance, when a patient shows a tendency to catarrh, to use every means in your power to prevent attacks from being repeated, even though they may be at first comparatively mild. In some cases of acute catarrh, as I mentioned to you in my last lecture, chronic changes may become established, even though the symptoms of the acute attack have subsided without being either severe or protracted, and have permitted the patient to resume his occupation without inconvenience. Such cases require to be carefully watched.

Now, gentlemen, while we must regard local causes as of the greatest importance, we cannot overlook the fact that chronic catarrh is, in certain cases, a local expression of a constitutional condition. There is present in some patients a debilitated state of health, which determines the persistence of the affection from which they suffer, even though the greatest care be taken to prevent local irritation. The strumous diathesis, rheumatism, and certain nervous affections predispose to the form of inflammation of which I am now speaking.

When these conditions are known to exist, it is of the greatest consequence that the patient should be taught to avoid all conditions which are likely to cause an exacerbation of the symptoms. Probably the most common causes of a fresh attack are exposure to wet, or a sudden alteration in the temperature of the surface of the body. Sudden elevation of temperature, as well as rapid lowering, may cause an attack of catarrh. Exposure to cold currents of air, getting the feet wet or cold, confinement in overheated or badly ventilated rooms, exposure to the heat of the sun, or inhaling dry air, may act as exciting causes in those predisposed to catarrh, and should, therefore, be carefully avoided.

Every one of you must have observed how at different times you are differently affected by exposure to cold, by getting a wetting, by errors in diet, by overwork, etc. At one time you escape unhurt, while at another you suffer from deafness, tonsillitis, nasal catarrh, acute pharyngitis, or laryngitis, or perhaps acute gastric catarrh; and, again, while some of you may find it necessary at all times to avoid exposure to such influences, others may be subjected to them without any evil effects.

Let us now consider very shortly the pathology of chronic pharyngitis and chronic laryngitis, and see in what respects the diseases correspond with and differ from one another. We may also endeavour to classify the various forms which these diseases may assume.

In a former lecture, while considering the normal histology of the pharynx and larynx, I pointed out to you that the mucous membrane of the pharynx may be divided into two very distinct regions. Above the posterior pillars of the arch of the palate, the mucous membrane is invested with a ciliated cylindrical epithelium, and contains a large number of glands. Below the posterior pillars, the mucous membrane possesses rudimentary papillae, and is covered with pavement-epithelium, like that of the mouth. Mucous glands are numerous over the whole posterior wall of the pharynx, and are easily seen with the naked eye. The epiglottis and the true cords are covered by stratified pavement-epithelium, while the rest of the laryngeal cavity is lined by cylindrical cells with vibrating hairs.

The mucous membrane covering the arytenoid cartilages is very rich in glands, and, on account of the constant movement of the cartilages during phonation, the mucous membrane and the glands contained in it are more apt to be subjected to undue irritation, and, as a result, the structures are liable to undergo a process of enlargement.

When speaking of acute catarrh, I indicated the histological changes produced, and stated to you that catarrhal inflammation of the mucous membrane was characterised by an initial hyperæmia, and subsequent swelling of, and increase of secretion from, the mucous membrane, as well as by an inflammatory enlargement of the lymph-follicles. The swelling of the lax submucous areolar tissue is doubtless largely due to the engorgement of the blood-vessels, and to œdema; but it is equally obvious that the increase in bulk of the mucous membrane in chronic cases does not arise from these causes, but is due, in great measure, to a proliferation of cells in the subepithelial connective tissue. If the inflammation be intense, it may lead to a necrosis of the superficial layer of the mucous membrane, and an ulcer may be the result; or resolution may be established by the infiltrating cells migrating towards the surface, or disappearing by lymphatic absorption. Where, however, the irritation is long continued, and the inflammation has become chronic, the cells of the connective tissue proliferate, and develop into fibrous tissue, while, at the same time, the mucous glands enlarge; and, as a result, vegetations, papillomatous outgrowths, or

cysts, may form, and the epithelium at the same time becomes modified, so that the parts which are normally covered by cylindrical ciliated cells come to be covered by stratified or squamous epithelium.

The increase in bulk of the follicular glands is not a true hypertrophy, but is due partly to an accumulation of secreted matter or of inflammatory products, and partly to a hyperplasia of the surrounding connective tissue. The contents of the glands may soften, and form minute pseudo-abscesses, which discharge, and leave small follicular ulcers. The swelling is usually marked by a ring of hyperæmic circumfollicular blood-vessels, while the glands themselves are pale dull grey, and vary in size from that of a pin-head to that of a small pea. The condition I have just described is frequently met with in chronic catarrh during the early stage; but, when the disease has been established for some years, the pressure exercised by the new connective tissue developed in the submucous layer induces atrophic changes in the glandular structures, or, by preventing the exit of the secretions, may cause the glands to dilate, and so cysts are formed.

When the development of connective tissue extends to a marked degree, fibrous bands, plates, little nodules, or even vegetations, which come to resemble tumours, may result. These inflammatory new formations are very common, both in chronic pharyngitis and in chronic laryngitis. New gland-tissue may doubtless also be formed; but, as far as my observations go, the bulk of such growths is made up of fibrous tissue, there being, if any, only a slight increase in the proper glandular elements. These formations should, therefore, be carefully distinguished from such non-inflammatory new formations as adenomata, etc.

From what I have just said, you will now understand why it is that chronic catarrh of the laryngeal and pharyngeal mucous membranes is, above all other causes, the most common in the production of new formations, inflammatory or non-inflammatory. Non-malignant growths frequently originate in acute and subacute forms of inflammation; but, while this is true, I think I am safe in saying that a very large proportion of the growths formed in the upper air-passages are essentially inflammatory in their structure, as well as in their origin, and should not, therefore, be designated tumours in the strict sense of the term.

It is only in the tonsil that hypertrophy, in the proper use of the word, is caused by chronic catarrh; it arises from an uniform increase in the histological elements of the gland; and so a smooth regular projection is formed, which must be carefully distinguished from the enlargement of the tonsil following repeated attacks of acute tonsillitis, in which the increase in bulk is due to fibroid induration of the organ. In the former condition, the tonsil is smooth on the surface, globular, and often pedunculated; even the depressions, which correspond to the orifices of the crypts, are effaced, and on section the tissue of the enlarged tonsil is soft and friable; whereas in the latter it is firm, and cuts with a creaking noise, the depressions of the crypts are unduly marked, and the surface is irregular.

Until now, gentlemen, I have confined your attention to the structural changes produced by prolonged inflammation; I have said nothing about interference with function. When, however, you consider the structural changes, it is at once evident what the changes in function must be. For instance, the hyperplasia of the mucous membrane and submucous tissue will cause the mucous membrane to be fixed and rigid, and so lead, in chronic pharyngitis, to pain or difficulty in deglutition; or when the larynx is involved, the movements of the delicate structures which form the laryngeal apparatus may be so interfered with that almost complete aphonia may result. In one of the cases which I will show you after the lecture, the interarytenoid fold has become so indurated as to prevent approximation of the cords, while in another case the ventricular bands have become swollen and thickened, and prevent the movement of the true cords, by offering a direct mechanical impediment to their approximation.

Again, the hyperæmia, enlargement, and tortuosity of the small vessels supplying the mucous membrane, lead to a diminution in the quantity, and an alteration in the composition, of the mucus secreted. This is a consequence of functional inactivity of the mucous and follicular glands; and, so you find that one of the first symptoms complained of by the patient is dryness of the throat, accompanied by a sense of pricking and heat, and a dry harsh cough, without much expectoration, unless the laryngeal and pharyngeal affections be complicated by bronchial catarrh. The mucus secreted is usually very viscid, and occasionally, when expectorated, is streaked with blood.

As a consequence of the alterations, which I have described as occurring in the epithelium, the cylindrical ciliated epithelium becoming replaced by stratified and squamous cells, there is a tendency for plugs of mucus to become lodged in certain localities, instead of being

propelled upwards by the cilia, and they are only expectorated after much coughing or "hawking."

Chronic catarrh of the upper air-passages may be conveniently described under three varieties:

1. Simple chronic catarrh, with increase in bulk of the mucous membrane, or what is sometimes called hypertrophic catarrh;

2. Catarrh in which the follicular glands are specially involved, or follicular catarrh;

3. Chronic atrophic catarrh, in which the mucous membrane is greatly reduced in bulk and the glandular structures are atrophied.

This classification may, I admit, be somewhat arbitrary, and cannot be applied in all cases; for, as a general rule, the various forms merge imperceptibly into one another. Even though this may be the case, I am certain you will appreciate the value of this classification when you come to deal with cases in your own practice, as it is of special value in connection with treatment. It is upon an accurate appreciation of the structural changes associated with each form of disease that your diagnosis must rest, and that the mode of treatment which you adopt depends.

To illustrate what I have said, I have brought three cases from the ward, and I will demonstrate them to you after the lecture. One is an example of simple chronic catarrh, affecting both the larynx and the pharynx; the second is a patient suffering from follicular catarrh; while the third is a man who has long suffered from laryngeal symptoms, and whose larynx now presents the characteristic appearances of chronic atrophic laryngitis. You will have an opportunity of seeing these cases after the lecture; but in the meantime I may read you a short note of the history of each case, and indicate to you what you should look for when examining them with the laryngoscope. After describing each case, I will indicate to you the local treatment which should be adopted, and, in doing so, I will only state the remedies I have found to be most beneficial, and shall not trouble you by enumerating all the different agents you might employ. At the end of the lecture, I will say a few words regarding constitutional treatment.

The case which I now show you is one of chronic pharyngitis and laryngitis, with increase in the bulk of the mucous membrane, or what is usually erroneously called hypertrophic catarrh of the larynx and pharynx. When this man came first under my observation, there was marked thickening of the pillars of the fauces, the soft palate was swollen, and the uvula elongated; the tonsils also were slightly enlarged. The posterior wall of the pharynx was uniform, and soft to the touch. The vessels supplying the mucous membrane were large and tortuous, and the surface of the membrane was covered by a layer of thick viscid mucus. The epiglottis was swollen and congested, and it was with considerable difficulty that a satisfactory examination could be made of the larynx. The laryngeal mucous membrane was found to be thickened and indurated, and the ventricular bands were so swollen that they completely overlapped the true cords, and concealed them from view. There was no indication of ulceration or erosion of the epithelial layer of the mucous membrane.

The history of this case is, that the patient has suffered from repeated attacks of catarrh during the last six months, associated with aphonia, dyspnoea, and difficulty in deglutition, accompanied by severe paroxysmal cough, with more or less profuse expectoration of viscid mucus, sometimes mixed with blood. On admission, there was no evidence of general constitutional disturbance.

After being in the ward for a fortnight, a note to the following effect was made in the journal. "The uvula and tonsils are now reduced in size, but the thickening of the false cords still persists, although the voice is improved; and, according to patient's statement, the pain in the region of the larynx, from which he suffered on admission, has now almost disappeared, and the cough has greatly improved."

Until the present time, I have been unable to make a posterior rhinoscopic examination, and therefore I have no information to give you regarding the condition of the postnasal space; but in a few days I hope to be able to show you the condition of the parts contained in it.

Usually, in this disease, the mucous membrane of the naso-pharynx is involved, and presents very much the same appearances as the lining membrane of the larynx and pharynx; there is also, in these cases, a tendency to hypertrophy of the pharyngeal tonsil; and, if the catarrh be of long standing, the inferior turbinated bones may also participate in the general tendency to enlargement. These conditions must be carefully looked for in all patients you examine, for, by failing to grasp the whole aspects of the case, your treatment may be rendered useless.

Now, gentlemen, what is the treatment you should adopt in a

case such as the one I have just described to you? The tendency in this form of catarrh, is to an accumulation of secretions, which, if allowed to remain, naturally act as local irritants; it is therefore necessary, whether the seat of the inflammation be the larynx, the pharynx, or the postnasal space, in the first instance, to employ applications which will cleanse the mucous membrane of the part. This is best accomplished by means of warm sprays, unless the patient suffer from dyspnoea, in which circumstance the use of the spray is contra-indicated, and steam-inhalations should be employed till the local irritation has become diminished.

The formula I usually employ for the spray is as follows. *R* Sodæ bicarb., \mathfrak{z} i; acidî carbol., grs. xx; glycerini, \mathfrak{z} ss; aquam ad \mathfrak{z} iv. M. This spray should be used at least three times a day, until the mucus has become reduced in amount and healthy in appearance. In some cases, particularly in those where there is much local irritation with dyspnoea, during the early stage, great relief is derived from the employment of vapour-inhalations containing either hydrocyanic acid or benzoic acid, and tincture of Tolu. You may prescribe the hydrocyanic acid as follows. *R* Acidî hydrocyanici dil., \mathfrak{z} i; aquæ, \mathfrak{z} iv; a teaspoonful in a pint inhaler, the water in which is heated to 90° Fahr.; and, in ordering the inhalation of benzoic acid and tincture of Tolu, you may direct three grains of the former, and eighteen drops of the latter to be placed in the inhaler. When the secretion of mucus is considerable, it is advisable to use ether and spirits of turpentine, with the agents I have just mentioned; and perhaps as good a combination as you can employ, is the one I now give you: *R* Ether, spirits of turpentine, benzoic acid, aa \mathfrak{z} ss; balsam of Tolu, \mathfrak{z} ii.

If there be much local irritation of the mucous membrane, remedies should not be applied by means of the brush; in fact, the brush should be employed as seldom as possible, seeing that most agents may be easily applied either by Hartewelt's drop-injector, by the spray, the inhaler, or the insufflator.

As soon as the desired effect has been obtained by the use of the alkaline spray, the pharynx or larynx should be sprayed with a solution of perchloride of iron. The following formula you will find convenient: *R* Perchloride of iron, grs. 36, glycerine \mathfrak{z} iv, water to \mathfrak{z} x. M. To be employed three times a day. In this form of catarrh, I have found it of advantage not to employ strong solutions, and also to avoid, as far as possible, irritation of the mucous membrane by the frequent introduction of instruments. In fact, it is of the greatest advantage to the patient to give the parts as much rest as possible, and adopt a treatment that will cleanse the mucous surface, allay irritation, and restore the functions of the glands.

Combined with local remedies, it is well to administer tonics internally, such as iron, strychnia, and sulphate of quinia; and you will find the employment of carbonate of ammonia, with spirits of ether and infusion of senega, of great value in such cases as the one I have just described to you.

In cases of chronic catarrh, with thickening of the mucous membrane, the patient may derive considerable benefit from the use of blisters; but, in order to get full advantage from them, it is not necessary to use a large blister, but rather to order small blisters to be applied frequently. My custom is to direct the patient to put on a fly-blisther, of the size of a shilling, over the larynx every second night, and to keep it on till morning. This should be continued for ten or twelve days, each blister being placed on a different part of the neck.

The second case which I wish to bring before you is one of follicular pharyngitis; I will postpone the consideration of the details of this case, and of the third one, till next lecture, but I will demonstrate the appearances observed on laryngoscopic examination now.

THERMIC DYSPNOEA.—Numerous experiments on dogs have led M. Richet to some interesting conclusions, which have been recently communicated to the Académie des Sciences. When general tetanus is produced in a dog by powerful and repeated electrical stimuli, the temperature soon rises; and, when it goes beyond 40.5° Cent., the frequency of the respiration is increased. This central thermo-dyspnoea is caused, according to M. Richet, by the action of heat on the nervous centres. By the application of cold water to the skin, the frequency of the respiration can be diminished, but for a short time only, unless the temperature has become inferior to 40.5° Cent. Dogs exposed to a temperature of 40° Cent. soon begin to breathe very rapidly, though the temperature of their body remains normal. M. Richet is of opinion that in this case the frequency of the respiration is caused by reflex action. This reflex thermo-dyspnoea can be prevented by the administration of chloral, and stopped by the application of cold water.

CLINICAL LECTURE ON SPINAL CARIES; AND ON IMPROVE- MENTS IN ITS TREATMENT.

Delivered January 23rd, 1885.

By RICHARD DAVY, M.B., F.R.S.E.,

Surgeon to the Orthopaedic Department, Westminster Hospital.

GENTLEMEN,—Since 1877, when the practical genius of Professor Sayre expressed itself in his manual, *Spinal Disease and Spinal Curvature*, British surgeons have paid much attention to the plaster-of-Paris jacket treatment; and my object to-day is to bring under your notice modifications of this treatment, as practised by myself and others at the Westminster Hospital; to specially direct your attention to a case of cervical caries, lately in Mark ward; and to conclude with some remarks on spinal caries, the outcome of practical experience during the past nine years.

In 1876, I utilised hammock-suspension of patients in applying the plaster-of-Paris jacket; and published my experiences, with illustrations, in *Surgical Lectures* (Smith, Elder, and Co., 1880). As you all know, I have never forsaken this plan, but can recommend it highly in private and hospital-practice; notably, in the cases of young children. Experience has shown, however, many improvements in this method of hammock-suspension. Allow me to demonstrate the steps of our present operation, and to introduce a case of curvature for plaster jacket application.

First Stage.—In Fig. 1, you will see the patient and hammock, placed ready for suspension, on an ordinary table. The hammock is really nothing more or less than a long piece of towelling (exactly of the width of the patient's chest, from armpit to armpit), sewn at one end around a split ash rod or broom-stick (2); and tied firmly by a slip-knot to the hook of a set of compound pulleys at the other. Two leathern bands receive the split rod, and are hooked up to a fixed iron rod. The cross-band of leather (1) slides up and down the two leathern bands, so as to neatly and comfortably support the patient's forehead. The iron rod and pulley hook receiver are securely fixed in wood, according to circumstances, and the ingenuity of the surgeon. The cords of the pulley-blocks are slack, and the patient is placed either on the back or side, or front, according to discretion and variety of curvature.

One word on vests: I am much pleased with the vests knitted in this hospital by one of the sisters, or by patients under her charge; they are made of thick fleecy (Leviathan) wool, and cost about half-a-crown each; they are reliable against pressure (*vide* Fig. 3). The only dinner-pad I have ever used is the dinner itself.

Second Stage.—The cord is drawn on the blocks, and thus the patient's body is lifted off the table. Having fixed the cord firmly, let an assistant remove the table aside. The bandages having been adjusted without any undue hurry, matters have reached the point illustrated in Fig. 2. The application of wet plaster bandages is not a clean process at any time. Let me advise you to have a big waterproof sheet on the floor to catch the splash; also to wear an apron with suitable sleeves. Rub your plaster in well; do not be above your trade. Your trouble will show itself in a strong and durable corset; and whatever is worth doing is worth doing well. From 12 to 20 bandages will be required; and, according to the temperature of the surrounding air and quality of plaster (always use the best), your patient will remain suspended from half an hour to one or two hours. The table may be placed underneath the patient's body, so soon as the surgeon has finished fixing the bandages; it gives a feeling of security to those who think it would be a long distance to fall from the hammock to the floor. The table does not touch the hammock. I may say with satisfaction that I have never encountered any accident or mishap in the many hundreds of cases which have been treated by this method. In weight, we have swung examples from one to 15 score pounds.

Third Stage.—An ordinary stretcher on poles, or the same hammock, may be used for conveying the patient to his bed, after the drying of the plaster. The knot tied in the pulley-cord is loosened, and the patient drops gently on the stretcher on the table. The hammock itself is then drawn through from between the vest and the plaster-bandages, and the patient's condition is well shown in Fig. 3.

According to the set of the plaster, the withdrawal of the hammock is effected either on the same day, or on the morning following the operation. A spatula (18 inches long) is sometimes useful to separate any adhesion between the hammock and bandages; but, as a rule, the withdrawal of the hammock is very easy; once, as a demonstration only, I drew the hammock away by means of the pulleys. The towel-hammock now before you has been already used for over twenty cases of suspension. The shifting of the soiled vest for a clean one is easily effected; and frequently the plaster corset has been worn for twelve months with great advantage to the patient.

Let me next draw your attention to an interesting case of cervical spinal caries, lately under my care in Mark Ward. I will read an abstract of the clinical report.

W. S., aged 18, schoolboy, was admitted into Westminster Hospital on May 24th, 1884, and died on June 8th, 1884, collapsed and exhausted. He was a palestrumous boy; his parents were both dead; had five healthy brothers alive; had enjoyed good health until two months ago. Then he complained of sore throat, and was treated for quinsy. At the same time, he had a so-called attack of pleurisy, which got better, leaving, however, his neck stiff. A fortnight before admission, a swelling came on the left side of his neck, extending for four inches from the occipital spine to his left ear; this abscess-sac was hard, resisting, and tender. Another abscess burst into his pharynx on the left side, and a probe, carefully introduced through his mouth, came down on exposed bone. He walked into the hospital, and was at once placed absolutely in the recumbent posture, and there maintained, with his head supported comfortably by the aid of sand-bags, ordered a generous fluid diet, and *ol. morrhuae*, ʒij ; *syr. ferri phosph.*, ʒj , three times a day; all discharge to be carefully cleaned from mouth. No improvement, beyond the freedom from pain, resulted, and he died exhausted on June 8th, 1884. There was no suddenness or exacerbation of symptoms immediately preceding death to lead me to suppose any pressure of the odontoid process on the spinal marrow.

Post Mortem Examination, Monday, June 9th, 1884, at 2 P.M.—Speaking generally, the viscera were healthy; and I shall confine my observations to the pathological appearances of the cervical spine and its surroundings. The occiput and upper five cervical vertebrae are now mounted on wire, ready for examination. The eroded articulations are the left occipito-atloid, the atlo-axoid, and the left joint between the axis and third cervical vertebra. All the bones below are healthy. A large abscess-sac enveloped these diseased articulations, spreading itself forward to the pharynx, where a small ragged aperture was found on the left side, and laterally and behind towards the left ear and occipital crest, where inflammatory processes were in progress. No skin-opening was present. This abscess was *extra duram matrem*; although no opening had taken place through the dura mater, yet the membrane was pouched on the left side, large enough to admit an olive-stone; the spinal arachnoid and a film of dura mater spinalis forming the wall of this oval dilatation. On looking down the spinal tunnel (after removal of the brain), the odontoid process of the axis was seen bulging, pushing the dura mater backwards, which acted as an intact ligament, preventing compression of the spinal cord. The spinal dura mater was firmly attached to the occiput (margin of foramen), to the posterior aspect of the axis, and to the third intervertebral disc of cartilage; and was hypertrophied by inflammatory organisation. The dura mater was blended with the occipito-axoid ligament. On turning this back, after division, the vertical part of the cruciform ligament (occipito-odontoid), that is, through medium of the transverse ligament (ligamentum suspensorium of Gray) was broken through, unattached below, but above was firmly united to the occipito-atloid and axoid ligaments and the dura mater spinalis. The two check ligaments were intact, but the left occipito-odontoid ligament was weakened by abscess-pressure or commencing softening. The transverse portion of the cruciform ligament was completely severed by the diseased process: its right portion was seen attached to the lateral mass of the atlas, but its left attachment was gone, and exposed bone was seen covered with pus of a soapy curd character. The basilar groove and process below were eroded by the pus, but the cranial contents were all healthy to the naked eye. All the synovial membranes in contiguity with the diseased portions of bone and ligaments were destroyed and unrecognisable. The skull-cap and brain were removed with my skull-tractor and saw—a plan I have advocated for rapidity in operating, absence of hammering, and conservation of the surgeon's fingers. The brain-section by the saw (after washing) was an extremely definite demonstration. There was nothing abnormal in the brain from without or on section; but the membranes and nerve-sheaths were thickened and vascular.

Now this is a very typical case of cervical caries, unilateral, with

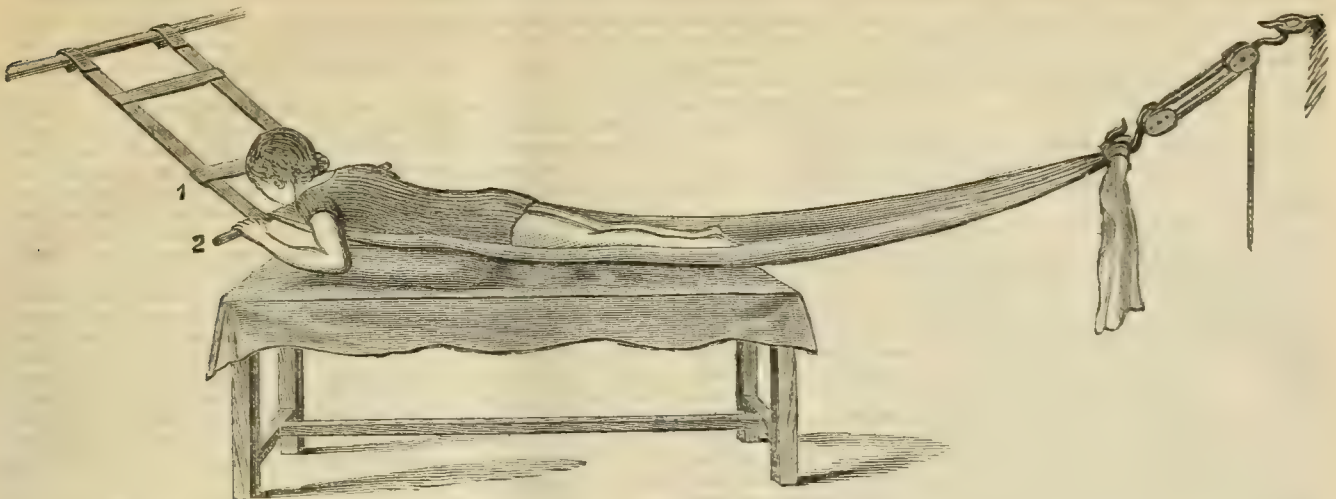


Fig. 1.



Fig. 2.

active joint-mischief going on: but its only distortion is a thick stiff neck (mistaken for quinsy). The exposed body of the second vertebra was detected by a silver probe in the pharynx. This examination was made while the boy was recumbent. Rest was rigidly maintained, but no benefit gained beyond freedom from pain. The boy died worn out by an exhaustive disease.

Use every endeavour, in similar cases, to arrive at an early and correct diagnosis. Much may be done in the way of prevention by anticipation; nothing in the way of cure after delay.

Professor Syme advocated the use of the actual cautery as a counter-stimulant in the early stages of cervical caries; and I can testify that the careful use of the hot iron relieves pain, and that a night's rest follows the use of this agent. The making of two short deep lines of cauterisation, one on each side of the cervical spinous processes, is the most direct way of gaining benefit.

It would be quite impossible to-day to enter on the question of steel spinal instruments. Amongst the poor, I have entirely given them up; amongst the rich, occasional benefit may result, at great expense and trouble; but the wearers thereof may be quoted as "fast bound in misery and in iron." In cervical caries, much head-support may be given and dead-weight relieved by the use of India-rubber air-collars. I have used these constantly in spinal caries of the cervical region since 1876, both in hospital and in private practice, and am amused to see the method advertised as new. The late Mr. James, of Exeter, ingeniously invented steel collars for throwing the dead-weight of the head on to the shoulders, and so permitting rational exercise. I have only used plain cylindrical collars, much like swimming-collars; they are easy, comfortable, and beneficial. In country practice, a dry piece of inflated gut answers very well: but in towns India-rubber is best, and is easily covered with fur, so as to imitate a victorine. At the seaside, I have repeatedly availed myself of these collars, so that sea-bathing may be indulged in, the head being strictly supported and balanced, while free movements and the most gentle form of extension are carried out in the act or pretence of swimming.

In cases of spinal caries (complicated with abscess), I have found it best to postpone opening the sac (whatever its contents may be) until pointing is so pronounced as to necessitate an outlet. You have lately

seen a boy in Mark Ward who has had a psoas abscess for three years, with pronounced fluctuation in Scarpa's triangle, and who has been wearing a spinal jacket with great advantage to his lumbar spine; and neither



Fig. 3.

retrogression nor advance in the amount of fluid in the sac has taken place. Surgical interference in these chronic abscess-cavities opens the first page of a large chapter of dangers; it must not be forgotten that

Some of these fluid collections solidify, or become absorbed, or remain quiescent. Yet in those cases where necrosed bone exists in conjunction with an abscess, and the dead bone is acting as an exciting factor of mischief, a dependent opening should be made in the loin or back, and the sequestra removed. I have frequently discussed this operation with the late Mr. C. F. Maunders, of the London Hospital, and have performed the operation so far back as May, 1879.

Permit me to draw your attention also to this girl's case, who is now quite well, and wearing a plaster-of-Paris jacket in Percy Ward (March, 1885).

A. R., aged 19, housemaid, has been under my care (off and on) for the last six years, and was readmitted this year, suffering from diseased lumbar spine and psoas abscess on the right side, discharging in the centre of Scarpa's triangle. She was compelled, in 1882, to have her right abscess opened; I removed, by open incision, 60 fluid ounces of pus, in March, and kept her at rest in bed for three months, washing out the abscess-cavity with weak iodine-solutions. The operation was demanded by reason of her right leg and thigh becoming greatly swollen, by pressure on the common, external, and internal iliac veins on that side. She made a complete recovery, and left for Brighton on July 11th, 1882, with the wound closed, and a spinal jacket put on by hammock-suspension. Early this year, 1885, she was readmitted, because the old wound had reopened; and was discharging a tablespoonful of pus daily. Again she was well nourished, well nursed, and well rested; and again, in March, 1885, she was discharged with the wound closed, and a new jacket on. She has had spinal jackets adjusted in 1880, 1881, 1882, 1883, 1884, and 1885; all have been very good ones, and the last two have been worn as ordinary clothing, by addition of eyelet-holes and lacing, after cutting open the cylinder.

While on the subject of psoas abscess, I will give you a sketch, showing the relationship of parts as they pass beneath Poupart's ligament, and an easy way of remembering the same.

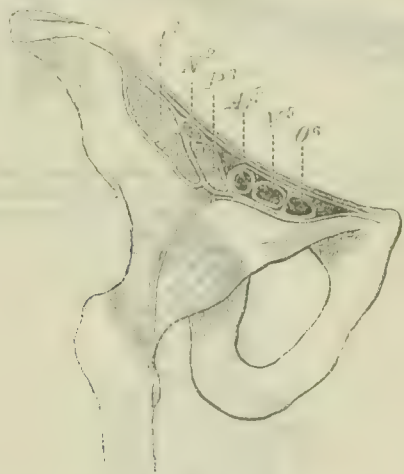


Fig. 1.

You will notice that the initial letters of *In Parvo* give the initial key to the following structures: 1. I. Iliacus muscle; 2. N. Nerve—*anterior crural*; 3. P. Psoas muscle; 4. Ar. Femoral artery; 5. V. Femoral vein; 6. O. Femoral opening.

This *memoria technica* carries *multum in parvo*; I generally mentioned it to my class, when lecturing on anatomy; some of you may find it worth remembering as surgeons.

There is an interesting clinical fact in this girl's case, corroborating Claude Bernard's experiments on the control exercised by the sympathetic in the neck over the corresponding pupil. At 2½ years' old, she had a cervical abscess on the left neck; this was opened at the Children's Hospital in Great Ormond Street, and a scar resulted, situate one inch over the left clavicle, and one inch and a half from the anterior border of the left sterno-mastoid tendon. The left pupil is permanently contracted (about size of No. 7 shot).

On February 27th, 1882, my colleague, Mr. George Cowell, examined her left eye, and kindly gave me the following note.

The left pupil was dilated under the influence of atropine; there was excessive hyperemia of the left optic disc, not amounting to neuritis. Hypermetropia requires convex glasses of 20 inches focus. R.V. = 38, L.V. 36, Hm. = 1. R.V. 22 nearly, L.V. 20. Possibly, the in-

trusion of cicatricial tissue on the middle cervical ganglion of the sympathetic, resting on the inferior thyroid artery, may explain the vaso-motor and nervous phenomena on the optic disc and iris respectively.

Let me conclude to-day by insisting on the importance of an early correct diagnosis of spinal caries, and the necessity for treating such on broad principles (both local and general), and, to avoid disappointment in treatment, to state how ridiculous it is for an educated surgeon to expect success when the disease is hereditary. The surgeon is called in far too late after the deformity is recognised; for the prevention of spinal caries opens out the wide field of inculcating amongst all the good of sanitation, temperance, regular living, and all such virtues that establish the sum total of well being.

Mechanically, those safeguards, under the direct control and manufacture of the surgeon, far excel any of the much vaunted instrument-maker; I must "praise the bridge that carries me over;" and, discarding cervical cases, and those complicated with abscess in other spinal regions (which, in my opinion, are best treated in the recumbent posture), I have not yet met with any case which cannot be well treated in the manner here described, and often used in our hospital. Spinal curvature is very rare amongst the lower animals, so far as I know, and is possibly one of the penalties we pay for walking in the upright position.

ON THE EMPLOYMENT OF DIGITALIS IN ACUTE FEBRILE DISEASE.

Read before the Bath and Bristol Branch.

By HENRY F. A. GOODRIDGE, M.D., F.R.C.P.,
Senior Physician to the Bath Royal United Hospital.

Two purposes have been sought to be accomplished by the administration of digitalis in acute fevers. One has been to reduce the febrile temperature. With this view Wunderlich used it in enteric fever; and many authorities, particularly on the continent, have followed his example. But the only doses which were found available in their hands were so large, that, having regard to the other physiological properties of the drug, they could hardly, in ordinary practice, be considered safe: while its advocates themselves claimed for it only a very moderate and ephemeral efficacy, looked upon its operation as rather indirect than direct, and, in short, had clearly no intention of placing it as an antipyretic on a par with quinine or its allies of more modern introduction. The other purpose for which digitalis has been used in acute fevers, is to give strength to the action of a weak heart, and to diminish the frequency of the pulse. The late Dr. Anstie, in an article, characterised by his wonted ability, which appeared in the *Practitioner* for September 1873, insisted upon the value of digitalis, given for this purpose in adynamic fevers, and particularly in enteric fever. He, however, adduced no cases in illustration.

There are, undoubtedly, two very common diseases in which, at certain stages of them, any remedy possessing the properties thus attributed to digitalis must be deemed most valuable. One is croupous pneumonia, where, along with high fever, we may have extensive consolidation of the lung, in perhaps a more or less damaged subject. We know that often the supreme question of prognosis in such a case is, whether the right ventricle will bear the overwork imposed upon it. If by any means we can succeed in enabling it to do this, and so tide over the crisis, we may save the patient; in the contrary event he will die. The other disease, and that which Anstie had more especially in view, is enteric fever. Here also we know what, in the third week (may be a little earlier or later), heart-failure means; what the short weak first sound and rapid dicrotous pulse at this period denote;—hypostatic congestion of the lungs, that may prove fatal. Of course, the free use of alcoholic stimulants is imperatively required in this, just as it was also in the previous, instance. But if we possessed a real heart-tonic, which would at once retard the heart's action, and give greater force to the ventricular contraction, at the same time also raise the tension of the arterioles, in all adynamic fever known to be low, how much better would be our prospects of successful treatment! Now, perhaps there is no therapeutic agent the physiological action of which has been more diligently and more thoroughly studied than digitalis; and various animals, from the lowest to the highest in the scale, have been laid under contribution for experimental research. The results obtained have been occasionally discrepant, and questions, I need not say, still remain for

TABLE I.—*Croupous Pneumonia.*

No.	Initials of Patient.	Sex.	Age.	Day of attack on which digitalis commenced.	Before digitalis.		Administration.	Total quantity taken.	After digitalis.		Result.	Remarks.
					Temp.	Pulse.			Pulse.	Temp.		
1	E. G.	F	25	6th	103	132	Tinct. \mathcal{M} x 6tis horis, 7th day 4tis horis (with am. carb.) to 10th day, \mathcal{M} xx besides in night-draught	5iv in 4 days	112	98.8	Recovery	Defervescence on 11th day (lysis). No appreciable fall of pulse-rate before temperature got to near normal, pulse never got below 88; very severe case. Parturition 6 weeks before attack.
2	S. S.	F	17	4th	103.3	132	Tinct. \mathcal{M} viii 6tis horis (with am. carb.), 8th day 8vis horis only to 9th day	3iiss in 5 days	68	98	Recovery	Defervescence on 7th day (lysis). Pulse fell with the temperature, not before; fell to 52 on 10th day, but rose to normal frequency after.
3	C. E.	M	24	7th	102.7	120	Tinct. \mathcal{M} viii 4tis horis (with am. carb.) to 10th day	3iiss (nearly) in 3 days	84	98.4	Relief	Defervescence on 10th day (crisis). Pulse fell rapidly with the crisis, not appreciably before; no depression of pulse followed (syphilitic subject).
4	W. B.	M	30	5th (?)	101.4	132	Tinct. \mathcal{M} x 4tis horis (with am. carb.)	5ii in 2 days	148	104.6	Death	Died on 8th day (notes imperfect). No <i>post mortem</i> . Complicated with diarrhoea.
5	E. P.	F	51	7th	102.6	92	Tinct. \mathcal{M} x 4tis horis (with am. carb.) to 9th day	5ii in 2 days	88	99	Recovery	Defervescence on 10th day (lysis). Neither temperature nor pulse-rate very high (tolerance of digitalis?).
6	G. E.	M	17	6th	103.6	132	Tinct. \mathcal{M} x 4tis horis (with am. carb.) 7th day \mathcal{M} v only, to 11th day	5iii in 5 days	60	98.4	Recovery	Defervescence on 11th day (lysis). Pulse fell with temperature, not appreciably before; left pneumonia, slight jaundice.
7	M. J.	M	35	6th	102	120	Tinct. \mathcal{M} x 4tis horis (with am. carb.)	5iiss in 36 hours	128	102.4	Death	Died on 8th day. Recent intemperance, grey hepatization of upper lobe of left lung (<i>post mortem</i>).
8	J. H.	M	21	6th	102.6	108	Tinct. \mathcal{M} x 6tis horis (with am. carb.) 7th day 4tis horis, 9th day 8vis horis to 12th day	5iv in 6 days	56	97.6	Recovery	Defervescence on 9th day (crisis). Pulse did not fall before crisis, then to 80 and was firmer, having previously been soft and dicrotic (syphilitic subject).
9	H. D.	M	25	4th	103.2	108	Tinct. \mathcal{M} x 6tis horis (with am. carb.) 5th day 8vis horis (\mathcal{M} xv twice in night-draughts besides) to 10th day	3iiss and upwards in 6 days	76	98	Recovery	Defervescence on 9th day (lysis). Pulse-rate variable somewhat, as was the temperature, in the earlier days, no permanent reduction until defervescence, fell to 64 after; patient intemperate.
10	S. G.	F	23	5th	103.4	132	Tinct. \mathcal{M} x 4tis horis (with am. carb.) to 8th day	5iii in 3 days	88	98	Recovery	Defervescence on 8th day (crisis). Pulse rapidly fell with the crisis, not before; secondary fever on 10th day, and pulse rose again to 128, never got below 72; attack during lactation.
11	A. D.	F	20	5th	104	132	Tinct. \mathcal{M} viii 6tis horis (with am. carb.)	5iii in 6 days	140	104	Death	Died on 11th day. An anæmic subject; pulse never below 120, nor temperature (except on three occasions) below 102. No <i>post mortem</i> .
12	S. L.	F	21	7th	104.2	160	Tinct. \mathcal{M} x 4tis horis (with am. carb.) to 8th day	5i in 24 hours	160	104.4	Recovery	Defervescence on 11th day (crisis) to 99.4°, but not to normal till 16th day; pulse not below 100 till after this date; very severe case, digitalis given for 24 hours without smallest effect on pulse.

solution; but there are two principal points upon which authorities seem pretty well agreed, and which for a moment we may recall.

The first is, that digitalis in moderate doses increases the force of the heart's action. Although observations on the isolated heart of the frog, as some of us may recollect who were in the physiological laboratory at Cambridge at the annual meeting of the Association in 1880, point very distinctly to this drug acting directly and locally upon the muscular tissue of the heart; the experiments of Traube and others leave no doubt that in the higher animals its influence is exerted chiefly through the vagus nerve; digitalis, indeed, acting as a stimulant to this nerve or its centre in the medulla. Obviously a more forcible contraction of the ventricle, however brought about, must promote the circulation in the coronary arteries; but, according to Gaskell, the vagus acts less as a motor nerve than as a trophic one, and he regards it as the nerve of nutrition of the muscular tissue of the heart. But we know that the vagus is also the inhibitory nerve of the heart, or, at least, that it dominates its inhibitory mechanism; so digitalis, in moderate doses, stimulating the vagus or its centre, reduces the frequency of the pulse; and this effect furnishes the most ready and reliable test of the action of the drug generally. The second point is, that digitalis increases arterial tension by constricting the arterioles. Whether this constriction be brought about through the vaso-motor nerves, or by a direct influence on the involuntary muscular fibre itself, there seems to be no question as to the fact, and there is evidence to show that it contributes somewhat to the action of the vagus in retarding the pulse. Thus, then, digitalis, in regard to its physiological properties, appears exactly to meet the requirements we have seen to arise in the course of pneumonia and enteric fever, and to give much promise of success if used as a remedy in such cases and in such conditions.

Have these expectations been realised in clinical experience? is the question we must now ask; and the answer, there can be little hesitation about it, must be in the negative. Twenty years ago, when the old doctrine that digitalis was always a depressant of the heart's action still retained a foothold in the minds of the profession, Thomas,

proceeding independently, made a trial of it in a number of cases of croupous pneumonia; and he found for result that it had but little action on the pulse before and up to the crisis of the disease. From their silence on the point, it would seem that English authorities have not cared to repeat Thomas's observations, or to verify them for their own satisfaction. Thus, in the only special treatise on pneumonia in our language, there is a short reference to the use of digitalis for antipyretic purposes, but nothing from the author's own experience, either on this use of it, or as a cardiac tonic. So likewise in the articles on pneumonia in Reynolds' *System* and Quain's *Dictionary*. In the latter, in a paragraph on the treatment of heart-failure, this drug is just adverted to, but in the briefest possible way. In the Collective Investigation Report, it is simply stated that, of the total number of cases, 1,037, digitalis was used in sixty-five cases; it seems that space would not allow any particulars to be given.

Having myself from time to time administered digitalis in croupous pneumonia and also in enteric fever, I have been induced to put together in a tabular form a few cases of each disease in which it was used. After what was said at the outset, it will be understood that the reduction of temperature was not at all my purpose; but there is one point here on which I would venture a remark. We are told that cardiac failure in pneumonia mainly depends upon the pyrexia present, and that the best way of obviating the former is to moderate the latter. Doubtless, to allay the pyrexia if possible is most important, and with this view I have given, occasionally, with great advantage, full antipyretic doses of quinine; this was done, for example, in Case XII of the pneumonia series, a very severe case. But I am not prepared to admit that the cardiac failure mainly depends upon this condition. The heart, or rather the right ventricle, is mechanically overworked by the consolidation of the lung, and in direct proportion to its extent; while the fever, if sharp, is usually short, and not to be compared in duration with what obtains in enteric fever, where the temperature may be for awhile equally high. I can see no reason, therefore, why we should not seek after any and every direct means of sustaining the power of the heart.

TABLE II.—*Enteric Fever.*

No.	Initials of Patient.	Sex.	Age.	Day of attack on which digitalis commenced.	Before digitalis.		Administration.	Total quantity taken.	After digitalis.		Result.	Remarks.
					Temp.	Pulse.			Temp.	Pulse.		
1	H. S.	F	14	20th	103.6	144	Tinct. M x 6tis horis. (with acid. hydrochl. dil.) to 22nd day	5i M xx in 2 days	104.4	132	Death	Died on 23rd day. Slight temporary reduction of pulse, though temperature rose. Lumbrici in stomach and bowels, hypostatic congestion of lungs. <i>Post mortem.</i>
2	G. P.	M	28	20th	104	120	Inf. 5ii 6tis. horis to 22nd day	5ii in 2 days	104	120	Death	Died on 27th day. Facial erysipelas made its appearance on 20th day. No effect of digitalis on pulse first administration, pulse rose in spite of it second.
2nd admin.				24th	103.8	140	Tinct. M viii 4tis horis (with tinct. ferri perchlor.) to 26th day	5iiss and upwards in 2 days	102.6	168		
3	J. S.	M	18	Relapse. 7th	104.5	136	Tinct. M x 8vis horis (with quinine gr. iii) to 14th day	5iiss in 7 days	103.8	120	Death	Died on 15th day of relapse from perforation of bowel. No digitalis in primary attack; it was continued nearly up to supervention of symptoms of perforation on 15th day. A little fall in pulse, corresponding to a little fall in temperature, then final rise to 178.
4	E. H.	M	24	26th	102.4	144	Tinct. M xx 4tis horis with ol. terebinth to 27th day	5ii in 24 hours	105	114	Death	Died on 28th day. Except on 26th, pulse was never above 124, and usually not much above 100; thus before taking digitalis on two or three occasions, when his temperature was 104°, his pulse was only about 90. Had two or three antipyretic doses of quinine, but without much effect.
5	S. S.	F	13	Relapse. 7th	102	140	Tinct. M x 6tis horis (with quinine and iron) to 19th day	5viii in 12 days	102	130	Recovery	Long convalescence. Pulse never got below 100, and was usually much higher. Temperature not permanently down to normal till after 47th day. Cold baths and antipyretic quinine in primary attack but no digitalis.
6	H. T.	F	14	27th	102	128	Tinct. M x 4tis horis, (with tinct. fer. perchlor.) to 29th day. Tannic acid also freely used	5ii in 2 days	104	100	Death	Died on 30th day. Intestinal hæmorrhage on 14th day, and again less profuse on 27th day. Effect of digitalis apparently nil.
7	E. F.	M	19	13th	102	104	Tinct. M x 8vis horis to 18th day	5iiss in 5 days	100	80	Recovery	Cold baths and antipyretic quinine until 13th day, then threatening hæmorrhage. Pulse fell with the temperature, but no obvious effect of the digitalis.
8	E. H.	F	15	21st	102	120	Tinct. M xv 4tis horis 23rd day 8vis horis tantum to 25th day	5vss in 4 days	98	80	Recovery	Cold baths and sodii salicyl. with occasional antipyretic quinine, to 16th day. Pulse did not begin to fall until 23rd day, when temperature first began to fall. Pulse irregular and intermittent on 24th day, and for four days after, but never got below 80. Furunculæ during convalescence.
9	S. S.	F	17	19th	104.2	124	Tinct. M xv 6tis horis, (with ol. tereb. and sp. æth.) 20th day 8vis horis tantum to 27th day	5vi nearly in 8 days	98	92	Recovery	Cold baths; one only during digitalis period (on 21st day). Sodii salicyl. for three days before digitalis. No pulse-fall until temperature began to fall on 26th day. <i>Relapse.</i> —No baths during digitalis period. Pulse fell to 56 on 18th day and remained low for some days, and was somewhat irregular and intermittent for awhile, but no fall again in relapse until temperature began to fall on 16th day.
				Relapse 7th	103.8	140	Tinct. M xx 6tis horis, (with pot. brom. and sp. æth.) 8th day 8vis horis tantum, 14th day 6tis horis again to 16th day	5x in 9 days	99	72		
10	J. H.	M	19	19th	101.6	132	Tinct. M x 8vis horis, (with acid hydrochl. dil. and cinchona) to 24th day	5iiss in 5 days	100	96	Recovery	Cold baths, but none during digitalis period. No fall of pulse until 22nd day, when temperature began to fall. Pulse never got below 72 and showed no irregularity after. First cardiac sound at one time, (before digitalis) "very papery."
11	C. F.	F	17	22nd	102.8	128	Tinct. M xv 4tis horis, (with ol. tereb. sp. æth., etc.), 24th day M x tantum to same evening	5iiss in 2 days	101	76	Recovery	Cold baths at first. Dichrotism marked. Pulse fell with temperature on 24th day, not before; was 60 only on 28th day, and had been irregular and unequal since 24th. <i>Relapse.</i> —No reduction in frequency of pulse, but rather reverse, until fall of temperature on 12th, and then not so marked as in primary attack; occasional irregularities again. Complicated with otitis media.
				Relapse 8th	103	124	Tinct. M vi 6tis horis to 13th day	5ii in 5 days	99.4	116		
12	A. F.	F	36	Relapse 6th	103.6	141	Tinct. M viii 8vis horis, (with ol. tereb. sp. æth., etc.) 10th day 6tis horis, 13th day 4tis horis to 15th day	5vss in 8 days	98.4	140	Death	Died on 20th day of relapse from perforation of bowel, which occurred on 15th day. Frequency of pulse undiminished, except on one or two occasions after antipyretic doses of quinine, and then not lower than 108. She was not under my (H.F.A.G.'s) observation during primary attack. Great exhaustion of strength. <i>Post mortem.</i>

In reference to the mortality noticeable in this Table it should be borne in mind that only in cases of more than average severity was digitalis employed.

To resume: the cases tabulated are few—a dozen of each disease—far too few for any generalising purpose. Still, if Thomas's conclusions are valid, these cases ought so far to show it; and so unquestionably they do. In every instance of recovery, with one doubtful exception, the pulse was found not to fall to any appreciable degree under the administration of digitalis until the arrival of the crisis, or rather of the defervescence, this being sometimes by lysis; while, in the three cases which succumbed the pulse-rate increased in spite of the digitalis. To exhibit these facts, however, satisfactorily, a separate chart of each case, with temperature and pulse-curves both delineated,

would be required, and this with twenty-four cases is a task I have been unable to undertake. Not to trespass upon the time of the meeting, I may shortly state that the same thing, *mutatis mutandis*, is found to hold in the enteric fever series; that is to say, that, as long as the temperature continues above a certain height, the digitalis does little or nothing towards reducing the frequency of the pulse.

The question remains, How is this enigma to be explained? A remedy marked out by its physiological properties as especially adapted to relieve certain conditions—a remedy, too, which does not often disappoint us in other cases, which does excellent service, for

instance, in certain forms of chronic heart-disease—how is it that this remedy, when administered to patients in those special conditions which we have been considering, fails to be a remedy—proves to be, for the occasion at any rate, powerless? Several years ago, Dr. Lauder Brunton, while studying the effect which high temperature in fever would have upon the vagus nerve, and the way in which this might modify the action of the remedies then employed, surmised that possibly the failure of digitalis to act upon the pulse, as observed by Thomas, might be due to paralysis of the inhibitory apparatus in the heart, through which the vagus acts upon it; and he performed experiments in order to test the truth of this supposition. The experiments were made on rabbits; but as these animals were found, from the natural quickness of their pulse, not so suitable for the investigation, Dr. Brunton has recently, in conjunction with Dr. Theodore Cash, repeated the experiments on the cat, in which animal, as in man, the inhibitory influence of the medullary vagus centre is more marked. Omitting details, which will be found in the *Practitioner* for October last, I feel I cannot do better than give the conclusion at which these observers arrived in their own words—namely, “that a high temperature lessens the inhibitory power of the vagus centre in the medulla to such an extent that digitalis, and probably all drugs which act like digitalis on this centre, lose, to a great extent, their power to restrain the action of the heart and slow the pulse. The administration of digitalis, or of drugs which act like it, to patients in a febrile condition is, therefore, likely to have much less effect on the pulse than at the normal temperature, and, if the temperature be very high, they may have no effect at all while this persists.” As already intimated, clinical illustration of this teaching is amply supplied in the tabulated cases. To take only that one before referred to for another purpose: A girl, aged 21, on the seventh day of her attack of croupous pneumonia, having a temperature of 104.2° and a pulse of 160, had one drachm of the tincture of digitalis given to her in divided doses during the ensuing twenty-four hours. At the expiration of that time, her temperature was 104.4°, and her pulse remained exactly at 160. I should add, the girl ultimately made a good recovery.

What, then, is the practical outcome of this subject? Shall we henceforth discard digitalis in our treatment of acute febrile disease? I do not see that this should follow. 1. Although I have no adequate results from experience to offer on the point, I am disposed to think that, by combining some antipyretic, as quinine, with the digitalis, better success may be obtained; if we were not able to hasten on the defervescence by this means, a good remission would be no small gain, whereby the action of the vagus would be for a brief space restored, and the digitalis would in the same measure find its opportunity. 2. It should not be forgotten that the crisis, or rapid defervescence with critical discharges, in fevers, and particularly in pneumonia, is in itself not unattended with danger. Symptoms of collapse may supervene, nay, a fatal collapse, as I have witnessed. Digitalis, if given judiciously, and in moderate doses, before the crisis, I think is some protection against this formidable event.

In conclusion, it is most important to bear in mind that the digitalis, given with so little manifest result during the fastigium, may take effect with cumulative energy after the crisis; otherwise, the unwary practitioner, getting no immediate response, may be tempted to push the dose, with the result by and by, when defervescence sets in, of having a grave toxic explosion. Drs. Brunton and Cash append a caution on this point, and more than one of my cases give a hint in the same direction.

SEVERE VOMITING IN PREGNANCY: MISCARRIAGE: DEATH, WITH REMARKS.

By P. HORROCKS, M.D.,

Assistant Obstetric Physician to, and Demonstrator of Practical Obstetrics at, Guy's Hospital.

M. L., aged 39, came to Guy's Hospital amongst my outpatients last July, complaining that she had been vomiting incessantly for three weeks. She considered herself two months pregnant. On examination, I found the uterus about the size of a two months' gestation; there was no malposition, and, with the speculum, no erosion. She appeared very anæmic, and in answer to inquiry, said she was always more or less pale, but that she had become much more so during the last few weeks, owing, she thought, to the vomiting, which prevented her from keeping any food down at all, so that she was practically starving. After treating her in vain for a fortnight, I took her into the hospital, and by rest in bed, with very careful dieting, and the trial

of various drugs, of which tincture of iodine, in minim doses, appeared to be of most service, she got so much better that she went out apparently cured on September 20th, having been in the hospital five weeks, and being now between three and four months pregnant.

Whilst in the hospital, it was found that she had a mitral systolic bruit, probably dating from an attack of rheumatic fever twenty years ago. There was no albumen in the urine.

About a week after leaving the hospital, her legs began to swell, and her urine escaped whenever she coughed; but she was not sick, except early in the morning.

Her husband came to the hospital early in November to say that she was much worse. I gave him an order for her admission, but for some days she was too ill to be brought. She was admitted on the second occasion on November 12th, under my colleague, Dr. Galabin, who has kindly allowed me to make use of the case. Sickness was not now a prominent symptom, but she had great dyspnoea and œdema of the lower extremities. The urine was of specific gravity 1010; it contained no albumen. Urine passed involuntarily.

On the 15th, she was very sick all day. On the 17th, she was suddenly delivered of a child, which breathed a few minutes and then expired. It appeared to be about equal to a six months' fetus. She seemed better for a few hours, when she became unconscious, dying the next day without regaining consciousness. At the *post mortem* examination, the uterus was not found to be displaced. There was no erosion of the cervix. It was enlarged, corresponding with the recent delivery, but nothing abnormal could be discovered about it. The liver was extensively diseased by a primary encephaloid carcinoma, the parts not infiltrated by cancer being fatty. The heart was large, and the mitral valve had old fibrinous deposits on it. The kidneys were healthy.

REMARKS.—The recent discussion on this very interesting question at the Obstetrical Society drew forth so much, and the time was so limited, that no opportunity was given to myself, amongst others, of making any remarks. Had there been more time, I intended to mention the above case, which seems to me well worth recording.

It may be that the cancer of the liver had nothing to do with the severe vomiting in this case; but, had there been no pregnancy, I do not think anyone would have thought there was anything strange in this symptom with such a lesion, whilst the vomiting itself was so severe as to be, at all events, very unusual from pregnancy only.

The liver-disease is interesting, also, in its bearing upon the reference made by Dr. Matthews Duncan to the researches of Hecker into the question of degeneration of the liver in pregnancy. Dr. Matthews Duncan drew attention to the difference between the sickness of pregnancy and the sickness *in* pregnancy, the former being that due to the pregnancy, and the latter being due to some other cause acting accidentally during the pregnant condition. Obviously these two forms of vomiting are quite distinct; and, in discussing the question scientifically, it is necessary to bear them well in mind, and so avoid all kinds of complications and differences of opinion which arise inevitably when one speaker is talking of one thing, and another of another thing.

But whilst this distinction is clear logically, it is by no means easy to be always certain with which form we are dealing, when a patient, who is pregnant, is attacked with severe vomiting; and I notice that the title of Dr. Graily Hewitt's paper is “Severe Vomiting in Pregnancy” and not *of* pregnancy. Now, if a case occur with severe vomiting in pregnancy, *plus* some disease which in itself is capable of producing severe vomiting, who can say that the vomiting is due to either the one or the other? Cases are on record where vomiting has not stopped, even after the induction of labour, and yet it is said that the vomiting was due to the pregnancy. Might there not have been some other cause in those cases?

When there is some obvious and well marked malposition of the uterus, and the replacement into its normal position is followed by the cessation of vomiting, it is tempting to say that the malposition had caused the vomiting. But it is quite certain that there are cases of severe vomiting in pregnancy without any malposition, and without any other ascertainable cause for the vomiting than the pregnancy either *ante* or *post mortem*, and which would therefore come under Dr. Matthews Duncan's “*of* pregnancy.” But where there has been no *post mortem* examination in a fatal case of vomiting, I do not think one is entitled to say that the pregnancy caused the fatal vomiting. It may have been the cause and the only cause, or it may have been an aggravation of some other cause, or it may have had nothing to do with it.

That pregnancy is a cause of vomiting is so well recognised, that vomiting is considered a symptom of pregnancy. At the same time, no one has ever yet proved in what way the vomiting is brought about.

It is easy to theorise, and to say it is a reflex action due to stretching of the uterine walls, but no one has got beyond the conception of the hypothesis. But, supposing for a moment that this is the correct interpretation of the ordinary vomiting of pregnancy, we are still a long way off the solution of the question what causes the severe vomiting in pregnancy. For, first of all, we must assume that the vomiting is due to the pregnancy, and not to some other unrecognised condition; in other words, that it is severe vomiting of pregnancy; and then we have got to show what particular part of the reflex loop is at fault. We see the motor end, that is, the vomiting apparatus, in excessive and dangerous action; and the question is, why does this occur.

One might resolve the numerous theories that could be brought forward into three kinds. 1. "Alteration in the stimuli;" by which is meant increase in degree or kind of that condition of the uterus, stretching of its fibres, or whatever it is, which causes the ordinary vomiting of pregnancy; and this increase may be brought about in numerous ways, including malpositions of the uterus. 2. "Increased irritability of the afferent nerves or reflex centres, or efferent nerves, which form the reflex loop between the uterus and the muscles engaged in vomiting." If it could be shown by microscopic examinations that, in these cases of severe vomiting, the spinal grey matter between the entrance of the afferent (uterine?) nerves, and the exit of the efferent nerves for vomiting (gastric, oesophageal, phrenic, pneumogastric, intercostal, etc.) was in a state of increased irritability, either from disease in itself or in neighbouring parts, it would not only help to explain these cases, but would in itself support the reflex hypothesis of the ordinary vomiting of pregnancy. But, so far as I know, no observations have been made in reference to the condition of the spinal cord in the severe cases of vomiting; so that we do not know, either negatively or positively, the condition of the so-called superficial and deep reflexes during life, nor of the normal or abnormal histological appearances of the spinal cord after death. 3. "Increased irritability of the muscles themselves, which produce vomiting." I have often heard Dr. Wilks say that excessive action of an organ is not generally due to disease of that organ; for instance, severe palpitation is not due to heart-disease, and severe vomiting is generally performed by a healthy stomach. Hence one does not expect to find a diseased stomach in these cases. At the same time, the muscular fibres in the stomach, without being diseased, might be more irritable from some cause or other, such as irritable ingredients in the blood, or pathological conditions of neighbouring parts—for example, hepatic disease.

All these theories on theories require supporting by many facts and observations, before they can be accepted as satisfactory.

Dr. Graily Hewitt has brought forward several facts in support of his view that malposition of the uterus is a cause of severe vomiting in pregnancy; but many cases are on record, amongst which I would place my own, in which no malposition existed. Hence it follows that the severe vomiting in pregnancy may be due to different causes.

In women, vomiting is set going more easily than in men; and any cause which would produce sickness in a non-pregnant state would act more potentially, if anything, if pregnancy existed. Hence the possible causes of severe vomiting in pregnancy are as varied as the causes of severe vomiting in a non-pregnant state.

Of the causes of severe vomiting of pregnancy we know very little at present; but one thing seems to me quite clear, and that is, that the excessive sickness is not always due to the same cause; and, even if it be accepted that malpositions of the uterus will sometimes produce the symptom, it will be found that cases occur where this cannot be the explanation.

THE PREVENTION OF CONSUMPTION.

By G. ROSS FRASER, L.R.C.P.Ed., Wark-on-Tyne.

IN the course of Dr. Hawksley's remarks, in the JOURNAL of June 6th, upon Parasitoides in the Treatment of Pulmonary Consumption, he raises the question whether the immunity alluded to is to be ascribed "simply to atmospheric exposure, or to the physiological or parasiticide action of the chemical products of certain burning bodies." According to Dr. Morgan, the non-prevalence of consumption among the crofter population of the Hebrides and north-western coast of Scotland is due to the antiseptic properties of peat-smoke, which, from the construction of their dwellings and the nature of the fuel used, they largely inhale. That consumption is eminently preventable, is evident from the fact that, in one set of circumstances, the population in question, to a large extent at any rate, escape this scourge, while in another they become victims.

If Dr. Morgan's clearly propounded views be correct, then we may in time be furnished with additional resources in dealing with the causes that lead to the phthisical state. But, surely, the happy immunity enjoyed by these people can, with good reason, be credited to other causes than to the real or supposed prophylactic virtues of peat or any other kind of smoke.

I have seen much of crofter life in the far north of Scotland, and can safely say that few other classes live under conditions so favourable to health and longevity. Their easy out-door life, plain but nutritious diet, by no means deficient in variety, warm homespun clothing, and the equable temperature, and the fairly good internal cubic space of their homely dwellings, go very far to account for their physical vigour and immunity from tubercular disease. Chimnied dwellings are gradually displacing those ancient dark domiciles in Sutherlandshire. These were low, but long in form. The fire was placed against a slightly raised piece of mason-work near the middle of the main apartment, the smoke finding exit through a barrel, *minus* top and bottom, fixed in an opening in the roof. The side-walls, from six to eight feet high, supported a roof whose ridge rose 10 or 12 feet above them, and, as no ceiling existed, the cubic space internally was generally large. From long exposure to peat-smoke, the bare rafters overhead acquired a black unctuous-looking coating, as if newly coal-tarred. This deposit had a powerful peaty odour, and every object within the hut was similarly affected. The aerial fumigation was complete, and yet consumption, although rare, was by no means altogether unknown. To a casual observer, these sable abodes might seem to reek with impurities. In reality, it was not so; for, while frequently under one roof, and in a sense with a common entrance, a strong walled partition with a door separated the bovine from the human inmates. The byre had openings in the walls and roof, and its door generally stood open, a large supply of fresh air being always necessary where cattle are "housed," on account of their size and normally high temperature (102°).

I have now before me a volume entitled *Dr. Beddoes on Consumption* (London, 1801). A part of the book is devoted to considerations on a modified atmosphere in consumptive cases. This modified atmosphere is no other than that of a well stocked byre. Patients of means grudging no expense in fitting up cow-houses, where they took up their quarters for lengthened periods; and, as usual in new methods of treatment in consumption, case after case is cited to prove its undoubted efficacy.

In support of his theory, Dr. Morgan remarks that, "when these Highlanders migrated to other parts of the country, or took up their abodes in chimnied dwellings, they suffered like their neighbours." This observation is at least equally true of many Highlanders, whether they be of the crofter class or not. The migration necessarily entails changes in their mode of living, not always of a healthful kind. Highlanders, as clerks or as university students, frequently suffer. It must always be so when young men accustomed to country life engage too abruptly in prolonged and sedentary work.

The term "chimnied dwellings" suggests an inquiry of the highest practical value. In reality, the assumed hygienic superiority of many of our chimnied dwellings is, to say the least, doubtful. In the great majority of them, direct communication with the external air by means of open chimney-flues (as far as bedrooms are concerned) is the exception and not the rule. I speak from observation. There is a widely prevalent custom of cramming bedroom-flues with sacks filled with hay or straw, for the purpose of excluding cold in winter, and in all seasons for protecting the grate and furnishings from the tarnishing effects of descending rains. If the establishment boast of a spare bedroom, the largest and best furnished is chosen for the purpose, while the remaining rooms are often too small and overcrowded, and frequently possessed of no flues to close. Is it surprising that families bred in this manner are seldom all well together? The evil is, no doubt, to a certain extent neutralised by the active outdoor habits of the young people during the day; but who can doubt that many of them, partly from this cause, grow up a "feeble folk," with a predisposition to pulmonary disease? Until the homes of the people, their schools, their workshops, offices, and warehouses, are constructed with more regard than generally prevails to sanitary requirements, no marked advance in the prevention of this disease can be looked for. The loss of many valuable lives by consumption is all the more painful from the certainty that, to a great extent, it might have been avoided. In the absence of pure air, physical exercise, sufficient food and clothing, antiseptics can be of little avail against the inroads of the bacillus. They are useful so far as they destroy atmospheric impurities. Their extended use in medicine and surgery has served a good purpose, by directing more general attention to the advantages of cleanliness and ventilation; but we cannot hope by their most

potent and skilful application alone to ward off the effects of persistent transgression of the terms, upon which it is possible for us to maintain our organism in that degree of health of which it is capable.

SURGICAL MEMORANDA.

CASE OF RECOVERY FROM MALIGNANT PUSTULE.

MR. F., aged 31, a veterinary surgeon, experienced on October 6th a stinging sensation at the back of the right wrist. A small bleb was formed, which he scratched off, and there was some tenderness of the elbow and arm-pit. He had a slight rigor. On October 8th, he was seen by Dr. Meadows, who prescribed some salicylate of soda and tincture of aconite, in frequent doses, as his temperature was 104°, and the rigors continued almost the whole of the day. A black eschar began to form on the afternoon of the 8th, and on the 9th it became about the size of a sixpence; its base was red and oedematous, and surrounded by some vesicles in a circular shape.

The temperature was nearly 104°: the patient felt cold, and his tongue was foul. I visited the case with Dr. Meadows, and we injected pure carbolic acid under the eschar, using an ordinary hypodermic syringe. Unfortunately, we could only introduce a small quantity, as it oozed out in the withdrawal of the syringe, and with it a serous-looking fluid. I dried some of this fluid on a cover-glass, stained it with methyl-violet, and found the well-known bacilli of anthrax. We prescribed large and frequent doses of soda-hyposulphite, and ordered also a large quantity of meat. Under this treatment, he rapidly improved.

On October 12th, we again injected carbolic acid. The temperature came down, and, as the patient said he felt all right, the hyposulphite of soda was reduced to three times a day. The eschar did not finally separate for nearly six weeks, and the ulcer then soon healed. I believe that the main remedy in this case was the injection of pure carbolic acid, a mode of treatment which does not seem very painful.

There was a clear history of the disease, which was contracted exactly twelve days before its first appearance, Mr. F. having examined the flesh of an animal that had died from anthrax.

W. E. BUCK, M.D. Cantab., Physician to Leicester Infirmary.

DIGITAL TENOTOMY IN PIANISTS.

THE operation referred to in the JOURNAL of May 30th, as practised by Dr. Forbes, of Philadelphia, promises to be one of great benefit to accomplished pianists, as well as to learners. In making some dissections on the dead body, with a view to determine the usual position of the slips of tendon which limit the action of the extensor of the ring-finger, I found that these vary very much in different cases; so that it becomes necessary to carefully determine their position by the eye and finger, during movement of the extensor-tendon, in each case before operation. I have just succeeded in freeing the ring-finger of the right hand of an accomplished lady pianist, without causing her much more pain than is felt from the prick of a needle. Before operation, she was able to raise the finger only five-eighths of an inch beyond the others. Directly after operation, she could raise the finger easily to one-and-a-half inches, without the least feeling of loss of control over its action. The division was, of course, made subcutaneously, so that only a minute wound was left in the skin, one-eighth of an inch in length.

NOBLE SMITH, Queen Anne Street, W.

THERAPEUTIC MEMORANDA.

QUININE IN THE TREATMENT OF PNEUMONIA.

IN the JOURNAL of June 20th, Dr. Suckling draws attention to the value of sulphate of quinine in the treatment of pneumonia, but states that he does not use it for children. My object is to prove that it is of as much use in the treatment of children as I have found, and he has shown, it to be in that of adults.

M. E., a girl, aged 5, was taken ill on April 28th. I was sent for on the 29th, and found crepitations everywhere except at the apices: temperature, 103°; pulse uncountable; respirations 40 and 45. I treated this case by blistering and the usual remedies; but, though the temperature fell to 101°, the pulse remained uncountable, and the respirations rose to 60 and 64. On the third day, the temperature being 104.5°, and the respirations 72, I gave a grain of the sulphate of quinine, with five grains of salicylate of soda every two hours. After three doses, the temperature was 99°, the respirations 45. Salicylate of soda I had been using before; I therefore attributed the fall

in temperature to the quinine, and continued its use in three-quarter grain doses until convalescence.

W. S., a boy, aged 5, seen first on June 19th, had been ill four days. I found immense crepitation over the mammary and scapular regions of the right lung; temperature 104.5°; pulse 150: respirations 39. I put on a large blister over the affected region anteriorly, and gave five grains of salicylate of soda, with three-fourths of a grain of sulphate of quinine every two hours. After two doses, the temperature was 99.2°; the following morning it was normal, and has never risen since.

These two cases show that the sulphate of quinine may be used with advantage in pneumonia in all stages, though certainly the best result may be expected from the early administration of the drug. Combination with salicylate of soda lessens that tendency to sickness often produced by quinine, and does not in the least interfere with its action. I never have found it necessary to give adults larger than three-grain doses of quinine under similar circumstances, and, after three doses, have generally reduced the temperature to normal. In all cases of inflammation within the chest, I never fail to blister with cantharides as early and as freely as possible, with the best results.

JAMES A. MYRTLE, M.B., C.M., Harrogate.

HYDROCHLORATE OF CUCAINE IN HAY-FEVER.

THE eye does not seem to be protected against the irritating action of the pollen-grain by two or three drops of a 2 per cent. solution of hydrochlorate of cucaine, though the inflammation and itching, arising from the swelling and bursting of the grain, are allayed and removed by its use.

I am trying stronger solutions. The violent sneezing and swelling of the mucous membrane of the nose, arising from the same cause, are removed by a few drops of a 1 per cent. solution, sniffed off a camel's-hair brush; so that, up to the present, I have been comparatively free from nose-symptoms.

Probably, the only way to ascertain the exact prophylactic effect, if any, of the cucaine, is to procure pollen which has a known irritating effect on the experimenter's conjunctiva, and to try its action on both eyes, having previously inserted solutions of varying strength into one of them; and these experiments I hope to carry out.

Apparently, as was anticipated, cucaine is at present our best topical application in the treatment of this distressing complaint, though I found vaseline of great service last hay-season for the nose. It certainly alleviates, and may be found prophylactic. The only other effect on the eye is a slight smarting, soon wearing off, and a little dilatation of the pupil, lasting about twelve hours. I hope that some other members may contribute their personal experience of its use in hay-fever.

J. WESTON BULL, M.D.,

West Chislehurst, S.E.

TOXICOLOGICAL MEMORANDA.

FATAL POISONING BY WHITE PRECIPITATE.

POISONING by white precipitate (ammonio-chloride of mercury) being comparatively rare, I forward the following brief notes of a case recently under my care. The patient was a baker, aged 52, formerly of intemperate habits. For several months, until June 5th, he had been a total abstainer. On that day, I delivered his wife of a still-born child. During his wife's confinement to bed, he resumed his old habits, consuming large quantities of gin daily, and keeping himself more or less constantly under the influence of liquor. At 7.30 on Sunday morning, June 21st, I was called to see him, and found him in bed in great pain, vomiting blood freely, with cold clammy perspiration; soft, feeble, but rapid pulse; bloody stools; and anxious expression. On search being made, a wine-glass was found containing a few grains of white powder, and a paper labelled "precipitate-powder-poison." He stated that he had also taken "some acid he had for his battery," which I found to be sulphuric acid; but he had taken only a few drops of the latter in water, and there were no signs of acid about the lips or mouth.

The treatment consisted in frequent doses of white of egg, which was generally quickly vomited, and doses of five minims of tinctura opii with ten minims of tinctura hamamelis, every quarter of an hour, which appeared to allay both the pain and vomiting. However, he never rallied, and died at 12.20, about five hours after taking the poison. None of the specific effects of mercury were present, the symptoms being purely those of irritant poisoning. On inquiry at the druggist's, I ascertained that the packet contained forty grains of white

precipitate; and, as the wife informed me that none of it had been used, I conclude he must have taken that quantity, *minus* only the few grains left in the glass.

E. HEAD MOORE, Falmouth.

CLINICAL MEMORANDA.

FOREIGN BODY IN INTESTINAL CANAL FOR A LONG PERIOD.

A. B., a little boy, aged 3 years, was brought to me a few months ago, with the following history. Three weeks before Christmas, 1883, he was playing with a brass coin, and swallowed it. His mother gave him several doses of castor-oil, and carefully examined the faeces, but without result. Ever since the above date, the child had complained of sickness, hardly a day passing without vomiting. Meat and raw apples always caused vomiting; bread and milk usually remained. The physical signs were negative. The child was under treatment for a couple of months, and improved somewhat, but the sickness still continued. This was attributed to improper feeding, and the idea of the coin being the cause was discouraged.

About the middle of May, 1885, the mother called upon me, bringing the little boy, and also the brass coin, which he had passed the night before. The coin measured seven-eighths of an inch in diameter, being a little larger than a halfpenny; it had not undergone any change as a result of its sojourn.

I think this case is of great interest, as showing the length of time a foreign body may be lodged in the intestinal canal without producing any serious mischief. What was the cause of the vomiting, and why some foods should cause this more than others, it is difficult to explain. I regard it as dependent upon some reflex influence. What was the situation of the coin? There was nothing to guide in forming an opinion upon this point; but, if it had been in the stomach, it would probably have been brought up during the continual vomiting.

J. LIONEL STRETTON, Kidderminster.

PATHOLOGICAL MEMORANDA.

NECROSIS OF THE WHOLE BONY LABYRINTH REMOVED AS A SEQUESTRUM FROM A CHILD.

ON the morning of the issue of the JOURNAL of June 13th, in which appeared an article on the above subject by Mr. Walter Pye, I removed an exactly similar specimen to that figured, also from the ear of a child. The sequestrum consists of a broad rough posterior part, gradually narrowing off to its anterior end; in the anterior part are seen the fenestra ovalis and parts, and distinct traces of the cochlea and all the semicircular canals. The history is, shortly, that of a weakly child, subject to "fits," or right-sided strokes, up to three years of age. At this time, an abscess began to form behind the right ear, and the face became paralysed on the right side. The abscess burst, and was followed by long continued suppuration. After occasional poulticing for two years, a bony mass began to be seen in the passage of the ear; and, seven weeks after this, again the child was brought to the Bolton Infirmary. The sequestrum was there found lying quite loose, and surrounded by weak granulation-tissue in the entrance to the external auditory meatus, and was immediately and easily removed, no bad consequences resulting. There is no history of scarlet fever or other illness beyond the "fits," though it occasionally had slight discharge from the ear. The child is now five years of age, and the paralysis of the right side of the face is complete.

The specimen is apparently as perfect as that figured; and I shall have pleasure in forwarding it for inspection, and also in furnishing any additional particulars, to Mr. Pye if he will let me know.

H. W. PHILLIPS, M.B., Senior House-Surgeon,
Infirmary, Bolton.

OBSTETRIC MEMORANDA.

CONCEPTION WITHOUT THE RE-APPEARANCE OF THE MENSTRUAL FLOW.

A REMARKABLE case of frequent conception, without any indication of the periods of ovulation, came under my notice a short time since. The report by Dr. Oakes of a similar case (JOURNAL, June 13th) may lead to the disclosure of more.

Mrs. S., aged 44, first menstruated at the age of 11, married when

she was 19 years of age, and menstruated a fortnight later. Since that time, she "has never seen her changes, but has always been able to draw off a half-pint of milk from her breasts." She has given birth to ten children who were born alive and vigorous at the full time; also one at the eighth month, one at the sixth month, and three at the fourth or fifth month of gestation.

I attended her in confinement on June 10th, 1884; she quickened in January of that year. She now informs me that she thinks she is pregnant again. Her last child is about a year old, and the breasts are as full as ever, although she says she must be two or three months advanced in pregnancy.

GEORGE A. RAE, L.R.C.P., L.R.C.S.E.,
Stoke, Devonport.

OPHTHALMOLOGICAL MEMORANDA.

THE USE OF ALUM IN PURULENT OPHTHALMIA.

IN the annotation headed "The Prevention of Blindness," in the JOURNAL of June 20th, it is announced that Mr. Vose Solomon, with a view to lessening the number of cases of blindness after ophthalmia neonatorum, has recommended that every note issued for the parish midwife shall be accompanied by a packet of alum, to be made into a wash "for the baby's eyes" on the appearance of any discharge from the eyelids. Though alum is one of the commonest remedies for conjunctivitis, its use is, in my experience, not unattended with danger, whenever there is any chance of the cornea being abraded, eroded, or ulcerated. In conjunctivitis, and especially in purulent conjunctivitis, one or other of these lesions is seldom absent. The danger is that the solution of alum, gaining access to the corneal cement, will dissolve it, and thereby facilitate perforation of the cornea. Other medicaments, equally efficient as alum, are free from this fault—namely, chloride of zinc, perchloride of mercury, boracic acid, etc.

JOHN TWEEDY, 24, Harley Street.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. THOMAS'S HOSPITAL.

EXCISION OF RECTUM FOR EPITHELIOMA: CURE.

(Under the care of Mr. SYDNEY JONES.)

R. E., aged 58, a grocer, was admitted on February 18th, 1885. His father died from accidental causes; his mother lived to the age of 101; two brothers died of consumption. He himself had always enjoyed good health until eight months before, when he first noticed bleeding after an action of the bowels; two months later, he had aching pain about the rectum; he improved under treatment, and was comparatively well until about a fortnight before admission, when he felt pain during defecation, and again had slight bleeding. He had had slight diarrhoea, and, during the whole of the eight months, had been steadily losing flesh.

On admission, he was thin, sallow, and anæmic, and complained of constant aching pain in the rectum. The bowels acted five to six times daily, the first motion being formed, those passed later being loose; he passed a small quantity of blood. Examination of the rectum showed slight annular constriction, commencing about an inch within the bowel, due to a new growth; the growth consisted of numerous firm papillary elevations on a hard base, situated chiefly at the back and sides of the rectum, and not surrounding it; the finger could be passed beyond it. The examination caused a good deal of pain. The urine, of specific gravity 1020, contained no albumen. There was no evidence of glandular affection, and the internal organs were healthy.

On March 4th, Mr. Sydney Jones excised the rectum. Ether having been given, the patient was placed in the lithotomy-position. An incision was made from the anus to the tip of the coccyx; two semilunar incisions were then made on each side of the anus, joining the other incision behind. A stout piece of silk was passed through the buttock on each side, and the edges of the wound drawn widely apart. The rectum was dissected up, all round, until the upper limit of the growth was reached, and then the bowel with the growth were separ-

ated with scissors from the part above. The gut was pulled down, and secured to the edges of the wound by means of silk sutures; drainage-tubes being placed, one on each side, and brought out behind. The wound was dressed with carbolised oil. The peritoneum was slightly wounded, but the wound was immediately closed by two cat-gut sutures of small size. Numerous vessels were clamped during the progress of the operation, and secured after the removal of the gut; little blood was lost, but the patient suffered much from shock, and a brandy-enema was given before he was removed to bed. The temperature in the evening was 98°.

March 5th. He slept well after the administration of a morphia-suppository (half a grain).

On March 7th, he complained much of pain in the perineum and in the lower abdomen, and slept badly. The pulse was 83, and the temperature 100.2° Fahr. The bowels acted without pain.

March 8th. He still complained of pain in the perineum, but had slept much better. The dressing was changed to chlorinated soda-lotion.

March 13th. There was a free purulent discharge from the wound. The stitches were all removed; the drainage-tubes still remained in position.

March 20th. The wound was discharging, but less freely, and was only dressed twice a day. He slept and took food well. The drainage-tubes were removed.

The temperature, which was normal before the operation and after March 15th, was, during the eleven days following operation, higher in the evening than in the morning, reaching on one occasion 103° (on the evening of March 10th); the average evening temperature was about 100°. He was kept in bed for three weeks or more until the wound was quite healed, and rapidly improved in health and weight. He was discharged on April 8th.

On April 14th, the patient came to the hospital, walking well and firmly; he had greatly improved in health, and had gained about a stone in weight. The anus presented a somewhat patulous opening, formed by the mucous membrane of the rectum, which was very slightly everted. He was not able to control his motions, but had no pain on action of the bowels, and said that he had obtained the greatest relief from the operation.

Towards the end of May, he presented himself again. The mucous membrane of the bowel was smooth, and apparently healthy. The anal orifice was contracting, and he had more power in retaining his faeces. He had improved wonderfully in appearance, and was gaining flesh. He was again seen on June 9th, when he expressed himself greatly relieved by the operation. The growth removed presented, microscopically, the characteristic appearances of epithelioma.

The above case affords a good illustration of the advantage, in malignant disease of rectum, of excision over colotomy, where it can be performed. Between three and four inches of the whole circumference of the bowel were removed. A small wound was made in the peritoneum during the removal of a gland found in the submucous tissue; but this was immediately closed by suture, so that no septic influence occurred. The great improvement in this patient's appearance, and his gain in flesh, make me hope that all mischief has been removed.

BOROUGH HOSPITAL, BIRKENHEAD.

TWO CASES OF FRACTURE OF THE SKULL: DEATH.

(Reported by Mr. H. E. RICHARDSON, L.R.C.P., M.R.C.S., House-Surgeon.)

CASE I.—Charles F., aged 19, was seen about 9 o'clock on the night of April 9th, 1885, walking along the main deck of a ship in course of construction. He suddenly disappeared, and, on search being made, he was found in the hold in an insensible state. He was admitted about 9.40 P.M. He was then insensible, the skin was warm, the pupils were contracted, equal, and responded only slightly to light. The pulse was weak, beating from 60 to 64 per minute, and very irregular; the breathing was feeble and shallow, 20 to 24 per minute. Every five or six minutes the breathing became stertorous; at the same time there was a short cough at intervals, while frothy saliva exuded from the mouth, and there was a general contraction of all the muscles of the body. In two or three minutes he relapsed into the quiet state again, breathing feebly and noiselessly. On the slightest movement this fit occurred. The right side of the face and forehead was abraded and contused, but no other injury was noticed. There was no reflex action on tickling the soles of his feet. At 11 P.M. the left pupil was dilated, and the right contracted. Urine was passed involuntarily.

April 10th, 12.30 A.M. The temperature was 101.2° Fahr.; the pulse

84; he had had several fits at intervals; the left pupil was more dilated, the right remained contracted. At 2 A.M. the temperature was 101.8° Fahr., the breathing was stertorous. At 3 A.M. the temperature was 101.6° Fahr.; the pulse 160; the respiration 28, and stertorous. Two minutes later the breathing suddenly stopped, the heart beating rapidly for nine minutes afterwards. During the first five minutes, he gave three or four gasps, but the heart did not stop beating for four minutes after the last gasp.

Necropsy.—April 11th, 2 P.M., by Mr. Richardson. On removing the scalp, some effusion of blood was found on the left side of the head, extending upwards and forwards towards the vertex. A fracture was then seen running along the coronal suture, chiefly on the left side, which separated when the skull-cap was removed. The membranes of the brain, on the left side, between the anterior and middle lobes, were bruised and extremely congested. The bruising extended from the fissure of Sylvius on the left side to the upper surface of the brain under the coronal suture. A small patch was also seen on the right hemisphere, which corresponded with the coronal suture.

CASE II.—John G., aged 15, was admitted at 5.30 A.M., on April 10th, 1885. It was stated that he had fallen down the hold of a ship. He was insensible, and could not be roused. There was a contusion around both eyes, and a small superficial wound, about a quarter of an inch long, on the right side of the nose. Blood trickled from the left ear and nostril. The breathing was stertorous; the pulse was 84, weak, but regular. Reflex action was well marked. At 10 A.M. the temperature was 98.4° Fahr.; the pulse 86, regular. At 5 P.M., the pulse was 132; three-quarters of a pint of urine were drawn off. He had taken sips of milk during the day. At 9 P.M. the pulse was very rapid and feeble; the breathing was stertorous; blood and serous fluid trickled from the left ear and left nostril; he moaned and was restless. The conjunctivæ were ecchymosed, the pupils were equal, and responded to light. At 10.10 P.M. respiration suddenly stopped; the heart kept beating for three or four minutes afterwards, during which time he made two or three short gasps.

Necropsy.—April 11th, 2.30 P.M., by Mr. Richardson. Nothing abnormal (except the bruising of face mentioned before) was noticed until the skull-cap and dura mater were removed. The surface of the brain presented congested patches here and there along the sulci, most marked on the posterior surface of the right hemisphere. At the base of the brain there was a laceration and contusion of its substance, extending from below the pituitary body to the bulbous part of the left olfactory nerve. The base of the skull presented a fissure, passing through the petrous portion of the temporal bone, along the left middle fossa, to the olivary process, which, together with the body of the sphenoid, were completely broken through. The fracture then extended to both sides of the crista galli. The cribriform plate of the ethmoid on the right side was more broken up than on the left.

DINNER TO DR. BANHAM.—Considerable regret has been felt in Sheffield among Dr. Banham's medical brethren at his departure from the town. He goes to Reading, where he has received the appointment of Physician to the Royal Berkshire Hospital. This regret expressed itself at a farewell dinner, which was held on Wednesday, June 17th, and was attended by many of his late colleagues at the Infirmary, medical school, and Medico-Chirurgical Society, in addition to others from Sheffield and the neighbourhood. The number present was close upon forty, and many others sent letters regretting their inability to attend. Dr. De Bartolomé, Senior Physician to the Infirmary, occupied the chair; and the proposal of the toast of the evening, "Health, long life, and success to Dr. Banham," was entrusted to Mr. Arthur Jackson, Surgeon to the Infirmary. This task he performed in a most graceful manner, expressing the regret felt by Dr. Banham's colleagues at losing so genial a colleague, and the medical profession so worthy a member. The cordiality that prevailed could not fail to be as pleasing to Dr. Banham as it was to his friends. The weekly board of the General Infirmary have testified their appreciation of Dr. Banham's services to that institution, for the past nine years, by recommending the governors to elect him on the honorary consulting staff.

VITAL ON THE TREATMENT OF SEBACEOUS CYSTS.—The mode of treatment followed by the author is thus described in the *Revue de Thérapeutique Médico-Chirurgicale*. An injection of from four to ten drops of ether is made into the cavity of the cyst, by means of a Pravaz' syringe, after the contents have been broken up by the needle. The injection is not painful, and must be repeated every other day. The tumour becomes tense, and after a variable time suppuration is set up. The pus escapes spontaneously, or through a small incision. The tumour disappears entirely in two or three weeks. There is no danger of erysipelas, and generally the scar is not visible.

REPORTS OF SOCIETIES.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JUNE 10TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Cystic Disease of the Ovary.—Dr. R. T. SMITH showed a large cystic ovarian tumour, which he had removed after death from a patient upon whom he was about to operate. She died from an apopleptic seizure.

New Needle-Holder.—Dr. EDIS showed a new needle-holder, which possessed some advantages over Hagedorn's needle-holder. The needle was designed by Mr. A. E. Nevins, of the Middlesex Hospital.

Specimens were also shown by Mr. REEVES, Bladder; Dr. BANTOCK, Fibroid of the Uterus and Salpingitis.

Shortening the Round Ligaments.—Dr. ALEXANDER (Liverpool) read a paper on the operation of correcting some uterine displacements by shortening the round ligaments. He said the operation had now been performed in nearly all the prominent cities in the world, and by most operators with more uniform success than generally befel any new operation. He never found any difficulty in finding and drawing out the ligaments. An incision was to be made upwards and outwards from the pubic spine, in the direction of the inguinal canal, for one and a half to two or three inches, according to the fatness of the subject. A considerable thickness of subcutaneous fat was then met with, which must be cut through by subsequent incisions, until the pearly glistening tendon of the external oblique muscle was reached. Midway through the fatty tissue an aponeurosis sometimes appeared, so firm and smooth, that it might cause the operator to think he was deep enough, but he would find no ligaments at this spot. The first stage of the operation consisted simply in cutting down upon the tendon of the external oblique muscle, until it appeared clean and shining at the bottom of the wound. The external ring was then found. The finger passed to the bottom of the wound detected the spine and the ring outside. Having isolated the external wound, and tied any little vessels, the next step was to find the end of the ligament. By everting all the structures upwards, the round ligament could be seen, generally at the lowest part, and with the white easily distinguished genital branch of the genito-crural nerve along its anterior surface and close to it. The ligament at this stage was more or less rounded in shape. It was an easily recognised flesh-coloured structure. When the ligament was identified, the small nerve on its surface was to be cut through without dividing any of the ligament. Then gentle traction was to be made, either by the fingers or by broad blunt-pointed forceps. Bands holding it to neighbouring structures were cut through with scissors. As soon as it began to peel out, it was left, and the opposite side begun. The final stage of the operation consisted in placing the uterus in position by the sound, and pulling out the ligaments until they were felt to control that position. A curved threaded needle, with fine catgut, was used to stitch each ligament to both pillars of the ring, and the external abdominal ring was closed without strangulating the ligament as it lay between it. The ends of the ligaments were now cut off, and the remainder stitched into the wound by means of the sutures that close the incision. A fine drainage-tube was inserted, and the wound washed out with carbolic or other lotion before these sutures were tied. The after-treatment consisted in rest. The tubes were removed on the second day, when the wound was dressed. The mortality of the operation might be set down as none. Three deaths had occurred, but they were due to preventable causes. As mortality did not seriously enter into any consideration of the results of this operation, the real question at issue was whether it fulfilled the intentions of the operator and satisfied the expectation of the patient. The operation was designed to correct certain uterine displacements, and these alone. Whether the discomfort of the patient would be thereby relieved, entirely depended on whether or not the symptoms were due to the displacement. To secure success, the operation must be properly performed, and the after-treatment must be rational, so that no strain might be placed on the ligaments until sound union had taken place.—Dr. MEADOWS wished to know for what purpose Dr. Alexander resorted to the use of the galvanic stem-pessary in the after-treatment of these cases. In his experience, the galvanic stems were so unsatisfactory that he had abandoned their use. Could not an ordinary stem be used?—Dr. PROTHORPE SMITH referred to a case in which Dr. Alexander had operated on a patient of his for acute retroflexion.—Mr. REEVES said the difficulty of the operation depended to a great extent upon the thickness of the abdominal walls. In thin subjects, the operation was easy.—Dr. HEYWOOD SMITH had performed the operation with satis-

factory results, and considered it a valuable addition to our therapeutical resources.—Mr. LAWSON TAIT had done only one of Dr. Alexander's operations. The woman was nine weeks recovering. The uterus was perfectly restored to its position. The wound suppurred, and the patient nearly died. He did not, therefore, feel very enthusiastic about the operation.—Dr. ALEXANDER said he used the galvanic stem merely for mechanical purposes; any stem would do. Shortening of the round ligaments did not seem to interfere in any way with pregnancy. He had operated in one case where the patient became pregnant, and had a child without any trouble.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, JUNE 4TH, 1885.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Lymphadenoma: Anæmia.—Dr. W. A. HOLLIS brought forward two cases of lymphadenoma. In the first, a boy aged 12, the tonsils, cervical and axillary glands, had become successively affected in 18 months; there were at first, also, reflex nervous symptoms, impaired power of standing, speaking, etc., and rhythmic movement of the arms. After an attack of pneumonia, mediastinal dulness remained, indicating glandular enlargement in that region. The second case occurred in a woman aged 21, and had lasted three and a half years, affecting the same glands as in the boy. In both, there were occasional pyrexial attacks and well marked leucocytosis.

The Anæmic State.—Dr. JOSEPH EWART read a paper on the anæmic state. This was manifested as an antecedent, accompaniment, or sequel, of specific fevers and "constitutional" diseases, of many local disorders, and of derangements which interfered with the nourishment of the blood or its depuration. As regarded the white and red corpuscles, it was probable that the same mode of genesis which led to their evolution in the blastema of the area vasculosa of the embryo, continued to ensure their renewal and repair during their fully developed condition in thoroughly oxidised blood. Why should it be doubted that the red corpuscles possessed independent and self-reproductive powers? They were the analogues of the lungs, modified in structure, constitution, and distribution, so as to effect the interchange of oxygen and carbonic acid in the minutest recesses of the economy. The various phases of the anæmic state were then detailed; and, with regard to treatment, it was needful to note diathesis and temperament. In most cases, regulation of the bowels, improved hygiene, and open-air exercise, sufficed, especially if coupled with removal of the cause. In others, ferruginous preparations were demanded; the necessity of keeping the bowels free by means of salines in all cases of constipation being remembered. It had often seemed to Dr. Ewart, in managing malarial and other forms of anæmia, in which there was frequently manifested great intolerance of steel, that changing the particular preparation employed, a reduction of the dose, or a diminution of the number of doses administered in a given period, sometimes sufficed to get rid of the fulness in the forehead, headache, indigestion, and gastric or intestinal irritation attributed to its use. But, in the main, in such cases, and they were numerous, perhaps the best plan was to give very minute doses indeed; to assimilate them, in this respect, as much as possible, to the condition in which they were found in chalybeate waters in a most diluted form, so that they might be taken between meals in large quantities of water during those periods of the morning and afternoon when out-of-door exercise could best be taken. In summer, Dr. Ewart invariably recommended such persons as could afford it to try the excellent chalybeate springs of St. Ann's Well, Brighton, Tunbridge Wells, or Harrogate; or the pure iron waters of Schwalbach or Spa; or the compound iron springs of Pyrmont, or St. Moritz, etc., under the direction of one of the physicians on the spot, and with the best results. Digestion, assimilation, and the nutrition of the blood, as regarded both albuminous material and the red corpuscles, were promoted by good but not too rich food, by drinking of the mineral waters, by open-air exercise, suited to the growing capabilities of the patient under the most agreeable surroundings of fine equable weather; by brilliant sunlight, tempered by abundance of shade; by society, and the best of music. The same mode of management was applicable to chlorosis, also, in anæmic Anglo-Indians, who had returned to this country after long residence in or near the tropics; but very free purgation to remove portal plethora in such patients was necessary when the treatment was conducted in this climate. In the winter, there was often practically no alternative. But, in summer, it was better to recommend them to drink, first, the saline waters of Carlsbad or Homburg on the spot, and to wind up with a course of any of the chalybeate springs already mentioned. Dr. Ewart concluded

his paper by detailing his experience of progressive pernicious anæmia, based on cases which had been under his own observation. The cases all proved fatal, and treatment was only, at the best, palliative.

REVIEWS AND NOTICES.

DISEASES OF THE TONGUE. By HENRY T. BUTLIN, F.R.C.S., Assistant-Surgeon, and Demonstrator of Practical Surgery and Diseases of the Larynx, St. Bartholomew's Hospital; lately Erasmus Wilson Professor of Pathology at the Royal College of Surgeons. Illustrated with chromo-lithographs and engravings. London: Cassell and Company. 1885.

MR. BUTLIN may be congratulated upon having written an excellent manual, scientific in tone, practical in aim, and elegant in literary form. The severe competition which prevails amongst junior workers in London hospitals has doubtless given rise to much hurried labour and intellectual scrambling. Useless compilations, whether in the form of separate books or of contributions to societies, have been the inevitable outcome of this race for notoriety; but there are a few amongst the strugglers who recognise their higher interests, and the real wants of the profession, and supply work in accordance with both. The author of *Diseases of the Tongue* has established his reputation as a pathologist, being the writer of numerous monographs of high interest in the archives of several societies. These papers were based upon valuable experience gained when filling the appointment of Surgical Registrar to St. Bartholomew's Hospital. To him, again, pathology is indebted for two important works on *Sarcoma and Carcinoma* and on *Malignant Disease of the Larynx*.

The present work is a complete treatise, being pathological, clinical, and surgical. For the convenience of surgeons, a new classification has been adopted. The affections to which the tongue is subject are arranged according to their clinical appearances, not after constitutional or pathological conditions which they represent. Thus we find chapters on "Eruptions of the Tongue," "Ulcers of the Tongue," "Patches and Plaques," and "Nodes and Nodules." Towards the end, lie two chapters on operations; they include details on after-treatment generally omitted in systematic works, such as the passages on nutrient enemata at page 374.

The most conspicuous feature, however, in *Diseases of the Tongue* are the eight coloured plates prepared by Mr. Godart from patients under the author's observation. They rival, if not excel, some of the most careful specimens of art to be found in the pages of European medical publications. Whilst speaking of this kind of art, it must be admitted that microscopic drawing has reached a high pitch of perfection in some of the London serials, and especially in many of the proceedings and transactions of societies. It is a good coloured series of naked-eye specimens that is rare in English medical works, but is certainly to be found in *Diseases of the Tongue*. In the language of the art-critic, the surface-colours are well interpreted. Mr. Godart may not always be a complete master of outline and of "carnations," for his lips are too uniform in shape and tint, and his teeth appear to be mostly upper central incisors, regardless of their situation; but there can be no doubt that he has succeeded in a thoroughly conscientious rendering of his subject. Although diseased tongues do not offer any field to Mr. Godart for what a critic once termed a style "grandiose in poetic idealism, and magisterial in execution and effect," still, to drop technical jargon, he has concentrated his talent on the faithful representation of disease, and painted morbid appearances so as to make them look very like nature. Figs. 1 and 3, plate i, representing a vesicular eruption on the tip of a drunkard's tongue, and a simple "raw tongue" in a young subject, are capital works of art, and so are some of the drawings of leucoma, fissures, and ulcers of the tongue. Fig. 2, plate vi, represents "mucous patches in secondary syphilis;" it is an especially good example of correct coloration, and has been well selected by the author. As the drawings of the commoner diseases will be of assistance to the student in the out-patient room, so will the illustrations of rarer affections be of use to the more experienced surgeon and practitioner.

A criticism of *Diseases of the Tongue* in detail is not feasible within the limits of the present notice, for the book consists of 433 pages of information, followed by a useful appendix of references to authorities quoted throughout the work.

The author has not neglected some of the rarer or more recently recognised morbid conditions which may affect the organ, such as "black tongue," wandering rash, and certain true neuroses.

As the book teems with information, it is satisfactory to find that it

contains a fair index, which, we think, might advantageously be made yet more complete in a future edition. One of the best features of this work is its extreme cheapness in relation to the quality and quantity of its contents and its illustrations. In this it keeps pace with some of the greatest improvements in contemporary medical literature.

QUEEN'S COLLEGES (IRELAND) COMMISSION. Reports of the Commissioners appointed by the Lord Lieutenant to Inquire into Certain Matters affecting the Queen's Colleges in Ireland; Minutes of Evidence; etc. Presented to both Houses of Parliament. 1885.

ANY impatience which was exhibited about the delay in the presentation of the result of the labours of the Commission must be set aside when we regard the vast amount of work gone over during this exhaustive inquiry. The evidence alone covers 525 pages of a large Blue Book, and the reports fill 104 pages. After wading through this ponderous volume, one feels painfully that a great deal of valuable time has been, to a certain extent, wasted; for there does not appear to us to be much progress made towards a settlement of the vexed Irish university question, nor can we see that the Report brings the question nearer the sphere of practical politics. Unquestionably, university education was in a comparatively sluggish condition in Ireland until the establishment of the three Queen's Colleges in Belfast, Cork, and Galway, in 1846. By their doors being open to all classes and creeds, the Roman Catholics and Presbyterians, who felt themselves debarred from entering Trinity College, Dublin, were enabled to avail themselves of the facilities which these Colleges afforded. The preponderance of Protestant professors appointed to fill the chairs of the Colleges, and the fact that the religious training of the Roman Catholic students was not considered by their clergy to be sufficiently provided for by the Crown, soon induced the members of that church to practically abandon these institutions. A few years later, the Queen's University was established in Dublin, with a view to confer degrees upon the students who had attended the College lectures in arts, medicine, and law, at Belfast, Cork, and Galway. Attendance upon a Queen's College course of lectures being necessary, the University was only utilised by those Roman Catholic students who were bold enough to attend one of the Colleges in defiance of the expressed command of their clergy; and such students, to judge from the statistics of Cork and Galway, were not a few. It would be most erroneous to infer, from the absence of the members of one denomination in any great numbers from the class-rooms, that the Colleges and University were not successes. Perhaps no other teaching institutions ever founded by the State could show more conclusive proof of the fulfilment of their mission—that is, the higher education of the middle classes in Ireland. The Roman Catholic clergy, however, insisting that the religious training of their youths should not be separated from their secular education, regarded the Colleges as "Godless," and a war was waged against them for many years. One outcome of this was the Royal University Act, passed by the late Lord Beaconsfield's Government. By this legislation, the grievance complained of was removed by the annihilation of the Queen's University, and the establishment, in its stead, of an examining board, called the Royal University, enabling students to present themselves from the various private religious and denominational colleges and schools through the country, without any attendance at the Queen's Colleges.

These colleges were, however, to remain as before—open to all who chose to avail themselves of the privileges afforded by their thorough and inexpensive educational training. This enactment, which had the hearty support of the late Earl Cairns, was the death-knell of pure non-sectarian education in a country which so much needed unmixed university training. The immediate result appears to be an increase in the demands (by those in whose interest the new Act was passed) for the withdrawal of the scholarship-grants in the Queen's Colleges; and thus the old hostility to the colleges, instead of being removed by the incomplete and fruitless legislative change, has become intensified, and hence the appointment of a Royal Commission.

Regarding the various matters investigated by the Commissioners, we have not space to even refer to many of them. It was felt that the Report was not likely to be unanimous, as some of the members of the Commission were known to hold opposite views upon the question. Doubtless, they endeavoured to come to a conscientious finding, but it has resulted in the regrettable and inevitable sending in of two distinct and separate reports; one signed by Professor William Jack, Deputy Surgeon-General Marston, and Mr. George Johnstone Stoney, F.R.S., the Secretary of the late Queen's Uni-

versity; and the other by the Chairman, Mr. R. P. Carton, an eminent Roman Catholic Queen's Counsel, and the Rev. Gerald Molloy, D.D., lately Vice-rector of the Catholic University.

From both Reports and from the evidence, we learn that the inquiry has disclosed nothing of which the colleges need be ashamed. There is a surprising amount of evidence proving the genuine nature of the work done by the three colleges in Ireland, and both Reports praise the teaching, and are unanimous that the students profit by it. The Report of Mr. Carton and Dr. Molloy goes to prove this in the most conclusive manner. These gentlemen say: "We have abundant evidence that, in all three colleges, the opportunities afforded to the students are exceptionally good, and that the progress made is satisfactory." This, coming from the two Commissioners, who, it may be inferred, look upon the colleges with less favour than their colleagues, may be accepted as highly satisfactory. The Reports differ about the standard of education; and, whilst the majority report that the students who enter the Queen's Colleges are, upon the whole, educated up to an "entrance standard," which is generally recognised as "reasonable," the minority report "that the general educational standing of the students who enter the Queen's Colleges of Cork and Galway is decidedly low."

This appears to us to be one of the most important statements in the Blue Book; and, far from proving the unfitness of these students to receive a share of the scholarships, shows the rapid progress they must make under the thorough teaching of the Cork and Galway professors.

We are, however, more directly interested in the consideration of these Reports from a medical point of view; and we believe that whatever good may result from the inquiry will most probably be in this direction, as valuable information was elicited about the medical education of the future practitioners of Ireland. It may be interesting to remember that, up till the dissolution of the Queen's University, the medical schools in the three Colleges continued to increase and prosper, Belfast taking the lead with nearly 400 medical students in 1881-1882, Cork with almost as many, and Galway with a little over 100. This represents a very large medical school; and, when the numbers are taken together, the question as to the standard of medical education to which the Colleges attain becomes one of the most vital to the interests of the public and the profession. The Commissioners, especially Dr. Marston, to whom much credit is due, laboured to produce proof of this important aspect of the question, first by a study of the evidences of the standard of education to which the students had been worked up before entering; secondly, by the evidences afforded by scholarship-examinations; thirdly, by the evidence of medical witnesses of repute; and, fourthly, by the evidence of the distinctions gained by the medical graduates at the army and navy examinations, and by their progress in after-life. In all these aspects, the evidence is overwhelming that the Colleges and the late Queen's University turned out medical men of a high class. When it is remembered that many, if not most, of these men would never have received an university training at all were it not for the Colleges, one can realise what a noble educational reform these institutions had been quietly exercising in the country since their opening in 1848.

Let us look at the prospects of the new Royal University, and see what improvements it hopes to make in the future education in medicine. Already we see by the evidence submitted that an alarming falling off in the numbers of medical students has occurred. In Galway, the number has fallen from 109 to 30; and, though this was partly owing to the new men who enter not being registered as medical students during their first year, it is evident all round that a decided diminution in the numbers will be the rule from henceforth, and from some points this might be regarded as a blessing.

The cause is clearly set out in the evidence of some of the witnesses. Thus, the degree of the late Queen's University was obtainable within four years. By the regulations of the Senate of the new university, the duration of the course is lengthened out to five years; and the class from which the students are taken, and for whom the Colleges were founded, is too poor to bear the extra expense entailed by the additional year of study. The result is that men who formerly underwent four years' collegiate training in the medical and accessory subjects demanded by the late Queen's University, now go to the licensing boards of Scotland and elsewhere, and procure a licence upon the minimum of knowledge. The men will be better educated in arts subjects, but it is clearly a mistake to practically put this education into the medical course, and make the difficulties of obtaining a good university degree in medicine much greater than they are in the Scotch universities.

The evidence taken upon "the facilities for clinical instruction in the medical schools of the Queen's Colleges," compels one to admire the

perseverance of the Irish student, and to condemn the unsatisfactory state of the hospital-accommodation, especially in Galway, and to some extent, in Cork, and, to a slight degree, even in Belfast, which has no arrangements for the teaching of pathology. No medical education can fit a man for the stern duties required of a physician or surgeon without ample clinical provisions. Such provisions do not exist in Galway, and we cannot see how they can be called into existence, owing to its geographical position.

There cannot be a dissenting voice to the recommendations of the Commissioners to grant superannuation to the medical men who hold chairs, and are compelled, by their scanty endowment, to practice their profession. Why such a state of matters has been so long permitted, is a mystery. The establishment of chairs of pathology in Cork and Belfast is an absolute necessity, as are also the appointment of assistants to some of the professors, and the separation of the chairs of anatomy and physiology, which have been hitherto held by one professor.

No notice of the Commissioners' Report would be complete without a reference to the main point at issue between the members of the Commission. This point may be fairly put in this way.

The Roman Catholic clergy say that, as they cannot advise their flocks to avail themselves of the teaching of the Queen's Colleges without sacrifice of religious principles, and as there is no such sacrifice in presenting themselves for degrees at the Royal University Examining Board, students of their persuasion are debarred from any share of the scholarships still given by the Crown to the Queen's Colleges, because they are driven to their private unendowed Catholic colleges for their education. They consider they are placed at a disadvantage with those who avail themselves of the Colleges, and they urge that the scholarships are public money given for the endowment of the academic youth of Ireland, the majority of whom are Catholics who cannot utilise the Colleges.

The Report of Mr. Carton and the Rev. Dr. Molloy puts this clearly when it says: "We desire to express our strong conviction, founded upon the evidence laid before us, that the time has arrived when it is necessary, as well in the interests of learning as in the interests of justice, to reconsider the whole question of endowments for university education in this country, and to take such measures as may be found needful to make these endowments available not to a small minority, but to the whole body of the academic youth of Ireland." "And, on the other hand, public policy would seem to demand that the Catholic people of Ireland should be admitted to a share in the State endowments for collegiate education, without being asked, in return, to make any sacrifice of their religious principles." In our sincere desire to see the university question settled in Ireland, we are sorry these gentlemen did not think of showing how the sacrifice of religious principles was ever required by any student attending the lectures in these absolutely non-sectarian colleges, delivered often by professors of their own religious beliefs.

We agree, however, with Mr. Carton and Dr. Molloy, that the time has come for a reconsideration of the question; because to every thinking mind the feeling of unrest and disquiet which prevails in even the minds of students in Ireland, is slowly injuring the prospects of university education in that country. No one seems to be sure what change will occur next, and everyone expects a change. This is the direct outcome of the last imperfect and temporising legislation. The religious difficulty must be faced in a spirit of justice; and if it be clearly shown that a Catholic student cannot attend a Queen's College lecture-room without a sacrifice of religious principle, liberal and generous provision must be made for his academic training without wounding his convictions. We are not, however, prepared to accept the logic of the Report, from which we have just quoted, which would lead us to some such startling issue as this. Suppose we accept the apparently fair claim, and say "these scholarships are founded by the State for the endowment of the education of the youths of Ireland, the majority of whom are Catholic, but who cannot conscientiously avail themselves of them; therefore, hand them over to them, or give them to the Royal University." The next step would be: "These professorships, these colleges themselves, are founded by the State for the same majority, therefore, hand them over also." There is no reason to think that even this would satisfy their demands. Indeed, it is already evident to those who observe the signs of the times, that there are indications of attempts to appropriate, by the same party, and for the same purpose, other endowments and properties, of a much higher value and importance than those of the Royal University.

We believe, upon the other hand, that the Commissioners, who, in their zeal for seeing fair play done to the colleges, have advised that medical students attending Galway College should, owing to the inadequate hospital-facilities, spend the last two years of their course in

Dublin or elsewhere, have made a mistake. This is not the way to advance university education. If Galway does not afford clinical facilities, Galway College should be closed; and we strongly advise that this college should be sold, or utilised for some educational purposes other than the training of men for the serious responsibility of battling with disease upon a limited and inadequate practical experience.

To our mind, the true solution of the difficulty must be met in some such way as this. Hand Cork, as a medical school, and Galway, as an arts college, over to the Royal University; affiliate them to it, as these colleges were once affiliated, and actually established, as university colleges of the late Queen's University. Restore the late Queen's University, or create an university upon exactly the same lines in Belfast, to which the present Belfast Queen's College, with more liberal endowments, should be constituted an University College, precisely as it was before the passing of the late Act. Everything points to the necessity for creating a great Northern University in the commercial capital of Ireland—an university, however, beyond the dangers or possibilities of sectarian narrowness or exclusiveness; open to all, and specially adapted to the educational wants of the hard working and industrious middle classes of Ulster, who have eagerly availed themselves hitherto of the advantages which the State has afforded for academic training.

Belfast has now a population of nearly one-quarter of a million, and is the centre of Ulster, with almost two million of people—a number approaching half the population of Scotland, with its numerous and wealthy educational endowments.

QUASI CURSORES. Portraits of the High Officers and Professors of the University of Edinburgh at its Tercentenary Festival. Drawn and etched by WILLIAM HOLE, A.R.S.A. Quarto. Edinburgh: J. and A. Constable. 1884.

THE year 1884 will be specially notable to those interested in educational pursuits, by the celebration of the 300th birthday of the University of Edinburgh. At this festival were gathered together the most distinguished celebrities in literature, science, and art, from every quarter of the civilised world, who assembled to offer their tribute of respect and congratulation, and to wish the northern seat of learning many returns of the auspicious occasion. On account of its national associations, its independence, and its acknowledged usefulness, there is probably no other institution in Europe which could have commanded such universal popularity, or have attracted so varied, representative, and illustrious a group of admirers, as the seat of learning of the Scottish capital. Although by no means the most ancient of British universities, that of Edinburgh is especially interesting to our profession, as it has for long been, and still pre-eminently remains, the acknowledged chief centre of medical education in the United Kingdom; and at no period of its career has it, in this respect, been more prosperous and flourishing than it is at the present time. Thousands of its *alumni* are scattered over the world, and in whatever portion of the globe their lot may be cast, all retain affectionate reminiscences of their Alma Mater, and feelings of gratitude for her past fostering care. The interesting celebration which has recently taken place will, therefore, have been followed by the kindly eye of all her sons, not only at home, but in far distant places; and in many a circle, past memories will have been revived, and the feelings of old days renewed.

The handsome work before us has been produced with the view of commemorating the occasion, and does so by placing graphically on record the likenesses and biographies of those who presided at the jubilee, and who entertained the memorable assemblage of *savants* who accepted the hospitality of the ancient capital of the north. It therefore constitutes a happy memento of the celebration, and a graceful compliment to those who, having been placed in official rank, had the honour of acting as the hosts of the festival.

Nothing could be in better taste than the exertions of the publishers to issue a memorial worthy of the event. The volume, admirably printed and bound, is an artistic production, alike creditable to the drawing-room table or to the shelves of the bibliophile. The number of copies has been limited, those for sale being confined to 100 folio and 750 quarto. This, by itself, must enhance their worth, and, in time to come, in addition to their intrinsic merits, will render them of priceless value to the lovers of biblical curiosities.

The contents of the book consist of the portraits of the present high officers and professors of the University, to each of which is appended his autograph, and a short sketch of his life and work. Preceding these is a page entitled *Umbra Quædam*, which has been devoted

to the representation of some of those no longer living. Among these may be mentioned the names of Sir W. Hamilton, Edward Forbes, Goodsir, Brewster, Syme, Simpson, Bennett, Christison, and Carlyle. It will be readily acknowledged that it is to the labours and reputation of these and others of the past generation that the present prosperity of the University of Edinburgh is mainly due. Through them it occupies the position it now holds in the estimation of the learned, and for which it has recently received the homage of the civilised world. In perpetuating the images of those who guide the barque now sailing in security, it has only been just to hand down a record of those who were chiefly instrumental in building her, and conducting her through the stormy times of the past. This has been gracefully and faithfully accomplished, and in the contents of the page of *Umbra Quædam*, Scotland may well feel proud of a selection of men who have done much to adorn literature and science, and to benefit mankind.

The productions of the artist, Mr. Hole, are praiseworthy in the highest degree. Each and all of his etchings are works of art. The likenesses of the different officials, as might be expected, vary in degrees of excellence, some of them being as nearly perfection as possible, others being perhaps not quite so happy in their resemblance. Not only does the artist aim at a faithful record of the facial lineaments, but he strives, by the attitude and surroundings, to make the picture as characteristic of the individual and his pursuits as possible; and the late student will recognise the accuracy, and oftentimes the humour, of the representation. Referring more particularly to our own Faculty, what could be more admirable than the pose of the Professor of Physiology, in the upper part of the plate devoted to his department? It is only to be regretted that this excellent piece of portraiture should be somewhat marred by an inferior production below. The Professor of Anatomy, again, is demonstrating, with characteristic attitude, his favourite theme, the convolutions of the brain. The Professor of Chemistry, while himself calmly appealing to the reason of his students, invokes less agreeably by his experiments their Schneiderian membranes. There is an admirable likeness of Professor MacLagan, the Nestor of the Medical Faculty. The work finally concludes with a modest sketch of the artist, in which, we must admit, he has failed to produce a flattering likeness of himself.

It would be out of place, in a scientific journal, to enlarge in further detail on this work. The briefness of our notice, however, is in no way to be taken as a measure of our appreciation of its merits. It is not only a graceful memento of an unique celebration, but in itself is an artistic production, well worthy of possession. As such, we can cordially recommend it to the consideration of the *alumni* of the University which it so ably and successfully represents.

NOTES ON BOOKS.

On the Diseases of Children, for Practitioners and Students. By WILLIAM HENRY DAY, M.D., M.R.C.P., Physician to the Samaritan Hospital for Women and Children. Second Edition. 1885.—In reviewing the first edition of Dr. Day's work, in 1881, we stated our opinion that it was a safe guide for practitioners and students. The new issue includes much original information, and contains some decided improvements. The chapters on the exanthemata are clear and concise, and the author has taken pains to demonstrate to the practitioner the importance of temperature as an aid to diagnosis. In the index, which is very complete, the passages on temperatures in different acute and subacute diseases are separately noted. A chapter has been added on tetany; and at page 216 will be found some interesting and original remarks upon the specific gravity of the urine in sick children, based upon 435 cases examined by the author. Dr. Day is strongly of opinion that, in the absence of any history of acute illness or organic disease, it is reasonable to believe that ascites may be caused by some morbid condition of the peritoneum favouring the secretion of serum into its own cavity. As before, a large proportion of the work consists of quotations from the clinical and pathological experience of contemporary writers. This can hardly be considered a disadvantage, for one physician cannot monopolise all the talent of his day, and if he only record his own opinions and discoveries much information will be lost to his readers. It would have been clearly unjustifiable to omit any mention of the true chemical nature of the brick-dust deposit in urine, simply because Dr. Garrod, and not the author, was among the first to point out the fact to the medical profession. *diagnosis illa vultu sua, extensio ad id adiacet ad id*

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 4th, 1885.

THE INTERNATIONAL SANITARY CONFERENCE.

THE resignation of Signor Mancini, Minister of Foreign Affairs for the Kingdom of Italy, can hardly be without some influence on the future of the International Sanitary Conference, which, as matters at present stand, is intended to re-assemble at Rome in November next. Signor Mancini was one of the prime movers in organising the Conference, and his absence from the Ministry may form a convenient reason for the abandonment of a gathering which gives but little prospect of securing any such success as was originally hoped for.

A review of the discussions which took place in the Technical Commission points to the fact, that a number of European powers were very anxious to get rid of quarantine as it has hitherto been practised; but that even the more advanced members of this school, notably the delegates from France, were not authorised to abandon the system altogether, and that, in their effort to place it on a new footing, they have, in point of fact, done little more than deprive true quarantine measures of their only chance of success. The period of five days' quarantine which, under the name of a "period of observation," has been decided on, is neither one thing nor the other. The only consistent attitude was adopted by England many years ago, when she decided that, although theoretically a truly stringent system of quarantine might be efficacious if it could be carried into effect with the accuracy of a scientific experiment, yet the certainty of its failure made it necessary to replace it by a system which had some real chance of success. In an efficient sanitary administration throughout the country, coupled with the adoption of such precautionary measures at our ports as are capable of execution, England has found an alternative system which, as it becomes more and more developed year by year, offers by far the most certain preventive against the diffusion of cholera, and, at the same time, tends to diminish sickness and mortality from many other diseases.

It was hardly expected, when the Conference met, that the English system would receive any large following; for, although the gathering took place at a time when the futility of quarantine measures had once more been abundantly proved by recent and disastrous experiences, yet the prospect of another impending European epidemic, and the certainty that the sanitary state of their ports and cities was not one to withstand the importation of the infection, were constantly present to the minds of the delegates, and hence they still clung with tenacity

to the form of quarantine, although they were prepared to abandon some of its substance. Indeed, it only needed a recurrence of cholera in Spain for France itself at once to impose the old-fashioned land-system of quarantine, which she herself joined in condemning as far back as 1874, and which her delegates have again this year declared to be useless. The present is evidently too much a period of panic for us to expect that a system of local sanitary administration, which shall work steadily in the direction of removing the causes of preventable disease, can be inaugurated in countries where the populations have been taught to place their trust in measures that are capable of being imposed at a moment's notice, and which appear to do away with the necessity of such permanent expenditure as is involved in effecting radical measures of sanitary reform. Under these circumstances, it is difficult to see what advantage can result from the re-assembling of the Conference in the autumn. Some of the nations represented still cling to the old-fashioned quarantine system; others, whilst recognising how useless quarantine has proved itself to be, have not the courage to substitute for it the system which gives real prospect of success; and Great Britain, which finds in this matter the strongest support from the Indian Government, will certainly not turn back from the path of steady progress in sanitary reform, which has become the more practicable for her since her populations have been taught to understand that it is essentially on their own efforts in the direction of cleanliness and health that they must rely, if they would rid themselves of the conditions which are essential to the life and spread of the cholera-poison. At the present date, therefore, no unity of action amongst the different nations can possibly be expected; and it will, perhaps, be best that the valuable material which will be collected together in the *Transactions* of the Technical Commission shall, in the first instance, be allowed time to diffuse itself throughout the world; and if it should hereafter prove that the experiences thus placed on record have had an influence in educating those who are responsible for the health of nations, then will be the time for an effort in the direction of securing international action of a rational sort.

We are by no means without hope that some such result may, in the end, be forthcoming, although the time for its realisation may still be distant. Since the epidemic of 1884, a significant demand for sanitary reform has already made itself heard, even in countries where every species of quarantine-regulations is still resorted to; and the large sums which have recently been spent in providing Naples with an improved water-supply, and which have been set aside for the general sanitary improvement of Toulon, are all indications of some steady progress in the direction in which England has, so far, taken the lead. But we must not forget that the English system may itself be at any moment subjected to a severe test. Cholera is once more not far distant from our shores, whereas both along our coast-line, and further inland, are many places where the sanitary defences are sadly incomplete, and where the infection of that disease could hardly fail to find the most favourable conditions for its development. We would therefore again most strongly urge upon authorities and their officers to lose no time in effacing the sanitary blots that remain in their districts, and, above all, to see that every condition that can give rise to the fouling of air and water shall be effectually done away with. Then, and then only, may we feel that we have done all in our power against the inroads of the fatal disease with which Europe is still ravaged.

THE PREVENTION OF THE POLLUTION OF RIVERS BILL.

A BILL bearing the above title has been before Parliament, having been prepared and brought in by Mr. Hastings, Earl Percy, and Colonel Walrond, with the object of superseding the existing Rivers' Pollution Prevention Act passed in 1876. As is well known to all persons intimately acquainted with the rivers of the United Kingdom, the working of the Act of 1876 has been far from satisfactory; the cause of its failure being, in some measure, due to the numerous saving clauses and loop-holes of escape which it affords to manufacturers and other offending parties, whilst another most potent cause of its inefficiency is, that the sanitary authorities, who are the very persons to whom the exclusive carrying out of the Act has been entrusted, are themselves amongst the greatest offenders.

The Bill in question has been supported by an association of members of river-conservancy, fishery and local boards, together with others interested in preserving our rivers from the reckless pollution which at present takes place. Most members of this Association must have had frequent experience of the almost insuperable difficulties attending the successful prosecution of offenders under the present Act; and in the new Bill drafted by Mr. Willis-Bund, chairman of the Severn Fishery Board, a strong effort has been made to strike out all passages in the old Act which have tended to render it inoperative, whilst a clearer definition of what shall constitute an offence has been added, together with provisions rendering the execution of the Act obligatory on all sanitary authorities. Thus the Act of 1876 provides that "every person who shall cause.....to be carried into any stream any poisonous, noxious, or polluting liquid proceeding from any manufacture.....shall be deemed to have committed an offence against the Act" unless "he shows that he is using the best practicable and reasonably available means to render harmless the liquid in question." The vagueness of this clause has been highly instrumental in occasioning the failure of the Act, since expert evidence has never been wanting to show that any liquid, however foul, is possessed of neither poisonous nor noxious properties.

The new Bill, on the other hand, seeks to do away with the possibility of such evasive interpretations by prescribing certain absolute standards of purity with which all liquids discharged into running water must comply. The standards of purity to be employed are those which, after very careful consideration, were recommended by the late Rivers' Pollution Commissioners as the result of an experience quite unique in its compass. These standards fix a limit for each noxious ingredient which may be present, either in suspension or in solution, in any waste liquid, and thus no opportunity is given for disputing the objectionable nature of a liquid not complying with these standards. Considerable difficulty formerly existed in working with these standards on account of one of them requiring the condemnation of "any liquid containing in solution more than two parts by weight of organic carbon, or 0.3 part by weight of organic nitrogen in one hundred thousand parts by weight," which involves the determination of the organic carbon and nitrogen in the liquid under suspicion. It is only within the last few years that all chemists of any reputation, both in this country and in America, have become agreed that the determination of the organic elements, carbon and nitrogen, is the only accurate and trustworthy method of ascertaining the pollution which water has suffered from organic matter. As the determination of

these elements requires special skill and appliances, it is to be hoped that the adoption of these standards will prevent the analysis of the liquids in question from being consigned to incompetent persons, who in the past have frequently brought discredit upon the attempts to check the pollution of rivers. A number of objections may no doubt be raised to the attempt to prevent the pollution of rivers by enforcing a hard and fast code of standards. Thus it may be urged that there is nothing to prevent any manufacturer from diluting his waste liquid with water taken from the river itself, so as to bring it below the prohibited degree of impurity, and so beyond the reach of the law. This is no doubt a formidable objection, which has apparently not been foreseen in the Bill; but it must be remembered that it would only be in those cases in which a manufacturer had a large head of water above him that such a process of dilution could be profitably employed, and that the actual pumping of an adequate volume of water from the river would generally entail a far greater expense than the adoption of some satisfactory mode of purification. In our opinion, the Bill should make provision that adequate penalties be imposed for such fraudulent dilution of waste liquids. It cannot be denied, however, that even the mere dilution of waste liquids would tend to mitigate some of the more serious forms of river-pollution. Thus the total refuse from a manufactory will not unfrequently produce but little harm, if it be continuously discharged over the whole twenty-four hours, whilst the most disastrous effects may result if the same refuse be, as is frequently the case, thrown into the river at one time. Again, the expense of adequately diluting the waste will increase as the quality of the river-water deteriorates, and this will thus exercise a natural control over this mode of evading the law.

There is, however, a far more serious objection to the adoption of standards than that already mentioned; for, these standards being wholly inelastic, they afford no greater protection to those streams which particularly require it than to those which are but little exposed to pollution. Thus it is obvious that a vast volume of water like the Thames will experience but little injury from the discharge of a quantity of refuse which would irretrievably foul a smaller stream; whilst again, the refuse from a single manufactory, although complying with the standards, may produce no perceptible effect, a similar discharge from twenty factories may so pollute the stream as to banish all aquatic life from its waters. No ready and effectual remedy can be devised to meet this objection, and there is nothing in the Bill which promises to deal with the matter from this point of view. The adoption of standards arranged according to a sliding scale would no doubt to some extent meet the case; but this would obviously introduce such difficulties and complications as to be altogether prohibitive.

It might be suggested that, in place of requiring effluents to be of a prescribed degree of purity, it would be more desirable for the law to deal with the relative condition of the river itself above and below a given source of pollution. All persons, however, who have had experience in investigating cases of river-pollution must be aware how extremely difficult or even impossible it is to fix a given polluted state of a river upon a definite source of pollution, the difficulty becoming greater the larger the river, and the more numerous the individual causes of pollution which exist side by side. The difficulty of obtaining representative samples above and below a given spot is in itself a sufficient objection to the adoption of such a course; for, if the sample taken below the point of entry of the polluting matter be

collected on the same side of the river as the manufactory, it will be unfair to the manufacturer, whilst if collected on the other side the result will be too favourable to him, and it is frequently not until many miles lower down that a complete mixture takes place. Again, many serious forms of river-pollution consist in the discharge of suspended matter, which, under ordinary circumstances, is chiefly deposited in the immediate vicinity of the point of entry, causing but little mischief lower down, until the next flood takes place, perhaps several weeks later, when the deposit is carried forward, creating a nuisance for many miles below. Indeed it is not reasonable to entertain the hope that if this Bill or any other even more stringent one should become law, most of our rivers can ever be restored to their original purity; and no encouragement should be given to the idea, still adhered to by many, that, after the purification of all sewage before its discharge into rivers, such rivers may with safety be resorted to as sources of domestic water-supply. It is not, however, unreasonable to expect that a rigorous enforcement of the new Rivers' Pollution Bill will preserve our streams in a state of such comparative purity that their waters may be readily available for manufacturing purposes, and that their selfish and reckless pollution by manufacturers and others may be prevented; in short, that the onus of purifying the water shall rest upon those who tend to pollute it, instead of as at present upon those who wish to use it in a legitimate manner.

It is in the greater facilities for putting the law in execution that the new Bill gives the chief promise of improvement; for the apathy and neglect of sanitary authorities, which has become fully demonstrated by experience in the past, is duly recognised and provided against. Since it has been found that sanitary authorities but rarely do their duty of their own free will, the new Bill provides that "if the sanitary authority refuse to institute proceedings, or, having instituted the same, refuse to prosecute the same with due diligence," any conservancy authority, or fishery board, or any owner or occupier, "may apply to the judge of the court in which such proceedings should be instituted, or are pending, for leave to institute proceedings in the name of, or to continue and prosecute and conduct in the name of, the sanitary authority, the proceedings instituted, and the court may permit the same proceedings to be so instituted or continued and prosecuted at the cost of the sanitary authority." This is, in our opinion, the clause which should prevent the new Act from becoming a dead letter like the old; for, as in many other cases connected with sanitary legislation, it is not so much that a new law is required, as that some guarantee of the existing law being put into force should be given.

POISONOUS ALKALOIDS IN THE URINE.

M. CHANTEMESSE has summarised the history of this subject in an article, of which the following is an abstract.

Professor Bouchard has drawn attention to the poisonous character of normal urine. This fact has been often previously asserted, its various constituents, from urea to potash-salts, being incriminated. In 1880, Pouchet found an alkaloidal substance in urine. Bouchard has lately proved that alkaloids normally exist in the bodies of living animals. They are formed in the intestine by the action of the vegetable organisms, which effect the intestinal putrefactive and fermentative processes. These alkaloids are absorbed into the blood, and appear in part in the urine.

The following physiological effects are stated by Bouchard to follow the injection of urine into the veins of a rabbit: contraction of pupils, slow respiration, muscular weakness, lowered temperature, abolition of reflexes, and torpor followed by death, which takes place by arrest of the respiration. Having established the poisonous character of urine, he sought next to determine the particular constituent to which this effect is due. He found that it required much more urea to kill an animal than was contained in a poisonous dose of urine. Uric acid was nearly harmless, as were the extractive matters, while the potash-salts, though undoubtedly poisonous, were not so in the small quantities contained in the urine injected. After decolorising with animal charcoal, the urine lost half its toxic power. The poison is not volatile, for it resists boiling and is equally present in extracts of urine as in urine itself. Extract of urine acted peculiarly; it did not cause contraction of the pupils, but produced salivation. This alkaloidal substance which produces salivation is met with also in muscle, liver, and blood. In normal urine its proportion is very small.

Lépine and Guérin have shown that these alkaloidal bodies are increased in various acute diseases, such as typhoid fever and pneumonia; but they have failed to find any increase in the urine of diabetes, catarrhal jaundice, cirrhosis with jaundice, alcoholic cirrhosis with jaundice, in the fluid withdrawn from the pleura and peritoneum of the last case after death, and also from the body of a patient dead of Addison's disease, or in the peritoneal fluid drawn off during life from a case of chronic peritonitis. The alkaloid found in the urine of typhoid fever stopped the heart in diastole, while that of pneumonia stopped it in systole.

THE amount of contributions to the Hospital Sunday Fund had, up to Thursday last, reached a total little short of £30,000.

IN the Medico-Legal column, we publish the report of a case of much public and professional interest. The prosecution was at the instance of the Medical Alliance Association.

THERE are three candidates for a seat on the Senate of the University of London, at the election to be held on July 7th: Professor Carey Foster, Mr. Philip Magnus, and Dr. R. F. Weymouth.

THE distribution of prizes at the Charing Cross Hospital to the students of the Medical School will take place this day (Friday, July 3rd), at 3.30; Sir Richard Temple in the chair.

WE understand that a sum of over £3,000 was realised by the bazaar recently held at Cannon Street Hotel, and opened by the Princess of Wales, on behalf of the North-Eastern Hospital for Children, Hackney Road. The committee are making strenuous efforts to wipe off the remainder of the debt (about £1,200) by the end of the year.

ACCIDENTAL INOCULATION OF SMALL-POX.

SINCE its intentional performance has been everywhere prohibited, inoculation of small-pox is so rarely seen that some interest attaches to two cases of its accidental occurrence, which have come under the notice of Professor Kaposi of Vienna. It may not be superfluous to remind our readers that, in inoculation, the local eruption appeared within a few days of the operation, running a course similar to that

of vaccination, but that, about six days after the vesicles had reached their full development, that is, at the termination of the natural incubation-period of small-pox, a more or less general variolous eruption followed. Such was the case in both of Kaposi's cases, each of whom was inoculated by washing the soiled clothes of her infant, which had died of confluent small-pox. In one woman, about twenty vesicles, rather larger than lentils, appeared on each hand, and in the other, on one side of the face, where inoculation was effected through abrasions of the integument. In the former, during the third week, the contrast between the primary vesicles then drying up and the secondary eruption at its highest development, existing side by side, was very instructive.

THE ATTITUDE OF CONVOCATION OF THE UNIVERSITY OF LONDON.

THE last subject which Convocation of the University of London will be invited to discuss at its meeting on July 7th, will be the examinations for the medical degrees. Convocation will be asked to express its approval of the resolve of the Senate to maintain the standard and scientific character of the medical degrees of the University. The resolution, in spite of its rather indefinite and colourless wording, would seem to be intended to induce Convocation to commit itself to a policy of opposition to the present movement, which has for its object a reasonable modification and improvement of the curriculum in its earlier stages. It will be curious to note whether the graduates who hold that the University must move with the times and widen its hold on the people, will be ready to sacrifice their dinner by remaining on in Convocation until this agendum is reached.

MEDICINE AND ORATORY.

ORATORS and poets have not in any age been backward to draw upon the fund of medical lore for similes and illustrations. The great school of Alexandria taught the world to talk about its spirits, high or low. Later theories were reflected in the smiling or splenetic humours which troubled our more immediate ancestors. "The heart of the city" is a phrase in every day use; and the simile has, indeed, been worn rather threadbare by its numerous applications at the hands of descriptive leader-writers or eloquent auctioneers. Prince Albert Victor is to be congratulated on striking into a different path when he spoke the other day of the City of London as "the nerve-centre of our trade and national life, whose intricate network is woven over the surface of the globe." The simile is apt, perhaps new; certainly it is a sign of the times, as marking the triumph of popular pathological and physiological theories.

SANITARY INSTITUTE OF GREAT BRITAIN.

THE ninth anniversary meeting of the Institute will be held, by the kind permission of the Board of Managers of the Royal Institution, in their lecture-theatre, Albemarle Street, on Thursday, July 9th, at 3 P.M. The chair will be taken by Sir John Lubbock, Bart., M.P. An address will be delivered by Dr. W. H. Corfield, entitled "The Water-Supply of Ancient Roman Cities," and the medals and certificates awarded to the successful exhibitors at the exhibition held at Dublin, in 1884, will be presented.

THE PRESIDENCY OF THE LOCAL GOVERNMENT BOARD.

POLITICAL exigencies have probably had as much to do as anything else with the relegation of the Presidency of the Local Government Board to a comparatively "back seat" in the new ministry; though we cannot but think it distinctly unfortunate that an office which, in the capable hands of its latest occupant, had at length taken its proper position in the counsels of the nation, should now, as it were, be degraded by its bestowal upon a minister who is not to have Cabinet rank. It may well be that, in the doling out of the new appointments, it was impossible to fit anyone whose claims to a seat in the Cabinet could not be denied into the chair of the Local Government

Board; and the new president, Mr. Arthur Balfour, is already spoken of as on the threshold of the Cabinet, as though his admission into that august body were only a matter of time. We are afraid, however, that the country will be disposed to look askance at this explanation, and will ask themselves whether Lord Beaconsfield's famous parody of the words of the wise king can really be held as an article of faith by his successors. The first president of the Local Government Board, Mr. Stansfeld, was a Cabinet Minister. He had great difficulties to encounter, and conquered many of them, though he had not the art of the *suaviter in modo*. Under Mr. Selater Booth, his successor, the position and dignity of the office receded rather than advanced; and the third president, Mr. Dodson, certainly did nothing to raise the department, though his position in the Cabinet gave him better opportunities of pressing upon the ministry the importance of local government work than were ever possessed by Mr. Selater Booth, to whom Cabinet rank was persistently denied. It was not until Sir Charles Dilke took the reins of office from the hands of Mr. Dodson that the Local Government Board really asserted itself, and showed the good work of which it was capable. The new president did no more than justice to his predecessor in the complimentary remarks which he made in his speech at Hertford on June 26th, upon Sir Charles Dilke's conduct of official business. Mr. Balfour said that he respected, in the very highest degree, the administrative and political abilities of Sir Charles Dilke, than whom he believed no living statesman was a greater master of detail, or more dexterous in the difficult duty of carrying controversial and complicated legislation through the House of Commons. This frank and generous praise will be entirely re-echoed by all those who have watched, as we have, the beneficial influence of a vigorous and practical mind upon the working of a piece of complicated machinery like the Local Government Department. Mr. Balfour himself is endowed with talents and energy of no common order, and his candid remark that he "would much rather follow Sir Charles Dilke in debate than succeed him in office," may, and probably will, stir him to a vigorous attempt to follow worthily in the steps of his distinguished predecessor.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

THE Annual Report of the Conservator to the Museum Committee of the College announces the completion of the fourth and last volume of the Pathological Catalogue by Sir James Paget, Dr. Goodhart, and Mr. Alban Doran, with the help of Mr. F. S. Eve. This volume comprises 511 pages, with descriptions of over 1,366 specimens; it includes the series of diseases of the urinary organs, of the nervous system, and organs of special senses, of the generative organs and breast, and the anatomy of stumps. The additions made to the Museum in this department will be found at least equal in value and number to those in preceding years. Mr. J. Bland Sutton has presented several series of specimens illustrating disease of the lungs, eye, and genito-urinary organs of the lower mammalia and birds. Amongst other pathological specimens, we may note a thin-walled cyst, which occupied the situation of the second branchial cleft (presented by Mr. W. Rose); a dermoid cyst from the skin over the breast of a man (Mr. Eve); fracture of the coronoid process of an ulna, from a case of dislocation backwards of a forearm (Dr. Lediard); a knee-joint upon which Ogston's operation was performed three years before the specimen was obtained (Mr. Davy); actinomycosis of the jaws of an ox (Mr. Lingard); and several interesting specimens of diseases of the stomach and intestines. In the department of comparative anatomy, to avoid the inconvenience consequent upon the storing of a large proportion of the osteological specimens in boxes outside of the show-cases in the Museum, it was deemed advisable to have a record of the part of the Museum or other portion of the building in which they are deposited; accordingly, a note has been made in one copy of the Catalogue opposite each specimen, showing where it is placed. The publication of the new edition of the Catalogue last year, and the im-

provement which has since been made in the appearance, condition, and arrangement of the specimens, have greatly enhanced the value of the osteological collection of the Museum. The most noteworthy addition to the osteological department during the year is that of a large St. Bernard dog, "Chang," frequently drawn in *Punch* by his owner, Mr. George du Maurier, by whom he was presented on his death in October 1883. After a somewhat prolonged maceration, owing to the greasy condition of the bones, the skeleton has been successfully prepared and articulated. The Conservator, Mr. Stewart, has prepared a very beautiful series of specimens of the membranous labyrinths of fishes; these, combined with the large series of ossicula of the mammalia added about ten years since, make the collection illustrating the comparative anatomy of the organs of hearing very complete. To the surgical instrument series have been added three models in bronze of ancient Roman specula and forceps. The physiological series includes several additions to the fine preparations of human anatomy dissected by Mr. Pearson. The new specimens were, according to custom, collectively exhibited for one week previously to distribution in the Museum. They were inspected with great interest by the Fellows who came to vote on Thursday.

CUCAINE IN LITHOLAPAXY.

PROFESSOR BRUNS, of Tübingen, reports a case in which he obtained local anæsthesia of the bladder and urethra, by injecting a cucaine solution, with the most gratifying result. The patient, a young man, had suffered for four years from stone in the bladder. Chronic cystitis was present, and evening feverishness. The injection of one gramme (mostly into the bladder itself, in a 2 per cent. solution, but also a little into the urethra) produced complete local anæsthesia for half an hour, during which time a very hard oxalate of lime calculus was thoroughly crushed, and removed without pain. After the injection, the patient assumed a different position, to bring the fluid into contact with the whole inside of the bladder; and after the operation, a little of a 10 per cent. of iodoform-glycerine emulsion was injected. The recovery was uninterrupted.

THE CONSTITUENTS OF ERGOT OF RYE.

AN advance has been made in our knowledge of the constituents and action of ergot of rye (*vide* Kobert, *Archiv für Exper. Pathol. und Pharmacol.*, Band xviii, p. 316, reviewed in the *Berlin Klinische Wochenschrift*, No. 21.) The practical result is, that the extractum secalis cornuti of the pharmacopœias is most unfitted for causing uterine action, for it contains only ergotic acid. Pure ergot of rye, undrained of oil, and gathered in the autumn, is to be recommended. There are three chief physiological constituents in spurred rye. The first is ergotic acid (which forms most of Dragendorff's sclerotic acid). This substance does not set up ergotism, but, in frogs, it causes paresis and anæsthesia; the animal may be made to appear dead for a week, the circulation still going on. Ergotic acid might apparently replace curare in experiments. Chronic feeding with ergotic acid causes no symptoms of any sort in rabbits, but hypodermic injections cause inco-ordination, general paresis, and death from paralysis of respiration. Sphacelic acid comes next, a resinous looking non-nitrogenous body. Given to fowls, this may cause the comb and wattles to become black and dry, even in a few hours, a true gangrene being set up. This is due to excessive contraction of the arterioles, causing extremely diminished blood-supply and hyaline thrombosis. After a fatal dose, retching, diarrhoea, and vomiting set in, with ataxy, and death may be due to tracheal obstruction. If the animal survive, much larger doses will now be required before the same symptoms are repeated. Long feeding with it caused loss of the wing in one fowl, the general health being undisturbed. A remarkable thickening of the skin was also noticed. The third pharmacological element is a basic substance, cornutin. This is not identical with the wholly inoperative "ergotin" of Tanret, but forms the main constituent of ergot of rye after its oil has been removed. It causes death with convulsions in animals.

The irregular contractions which it sets up in the uterus (gravid or not) have nothing to do with the true uterine tetanus consequent on taking large doses of secale cornutum, and which is to be ascribed to sphacelic acid. Cornutin causes convulsive ergotism; sphacelic acid causes gangrenous ergotism. Why in some seasons and neighbourhoods only sphacelic acid develops in spurred rye, while, in others, cornutin is almost the only constituent, is unknown.

GASTROTOMY.

OUR Berlin correspondent writes: The following case of removal of a foreign body from the stomach was reported in a recent sitting of the Dresden District Medical Society by Dr. Crédé. A man aged 25, of delicate frame, came into his clinic after having swallowed, a fortnight previously, the whole set of the teeth of his upper jaw. He had pushed the teeth down his throat because they were choking him, as he could not bring them up again. As they did not pass naturally, and signs of inflammation of the stomach became visible, Dr. Crédé performed the operation. A diagonal cut 15 centimètres long was made below the ribs, the stomach was taken out, and opened by a cut seven centimètres long in the centre of its anterior aspect; the set of teeth was removed, and the rent in the stomach sewn up by three sutures, one above the other. The stomach was then replaced in its proper position. There was no inflammation, discharge, or pain of any kind. The second day after the operation, the patient received liquid nourishment, and after a fortnight solid food. In three weeks, he was dismissed, and was able to resume his work. This is the second case of a set of teeth that had been swallowed being removed by an operation, and the seventh in which gastrotomy was resorted to. The greater number of cases were successful. The first three cases were those in which a knife, a spoon, and a fork, respectively, had been swallowed.

THE HEALTH OF NOMADIC POPULATIONS.

THE Association of Sanitary Inspectors were recently gratified with a paper, in Dr. B. W. Richardson's best manner, on a subject which, lying outside the ordinary pale of sanitary criticism, possessed greater attractions for both the lecturer and his audience. The sanitary condition and inspection of our homeless and nomadic populations are important questions, and the more important because it is no one's special business to look after them. Vagrants constitute one of the gravest difficulties, not only in the work of the poor-law, but also in that of the public health. These difficulties were not, however, the special concern of the lecturer, who defined the object of his inquiry as "to trace how far modifications of life among the homeless created varieties and extensions of disease amongst the rest of the community." There were (1) the pure vagrant, who wandered about without any provision which could be called a home, trusting to the casual ward, or any temporary shelter; (2) those who carried on an itinerant trade, and possessed a van, in which they lived and slept; and (3) the pure nomadic class, gipsies, who lived in tents, and slept on the ground in sheltered nooks, or under the brushwood of commons and moors. As to the vagrant classes, his opinion was that, while they were very helpless, by nature indolent, and by position placed in the most precarious conditions, there really was not much acute disease among them. They lived a comparatively short life, and became prematurely old, but they were rather exempt than otherwise from many of the diseases which resulted from luxury or comfort. Zymotic diseases were rare in this class, and diseases like consumption were also rare. A very important question was the influence which these people exercised in spreading contagious diseases. At first sight, it might appear that they were the best of agents for disseminating contagion. They travelled from place to place, they were not cleanly in their habits, they often wore garments which had been thrown away by infected persons, and they became the occupants of common lodging-houses, where many people were herded together. For all this, according to his observation, they did not seem to be disseminators of

disease. This is certainly opposed to general experience, and we fancy a good many medical officers of health will be inclined to traverse the accuracy of Dr. Richardson's deductions. Amongst the itinerant hucksters, however, Dr. Richardson admitted that epidemic diseases were by no means uncommon. Their children were often scrofulous, unhealthy, and feeble, while their adults were subject to consumption. These people were also subject to other constitutional diseases, particularly those affecting the chest, asthma, bronchitis, and the various forms of disease of the heart. They—perhaps, too, more than the vagrant classes—suffered from the effects of intemperance. As to the third class—the nomadic or gipsy class—the lecturer said that he could speak from considerable experience of their manners, habits, and diseases. Gipsies were constitutionally a very healthy race; and, as far as observation upon them went, they were more distinctly free from the fatal diseases of the community than any other class, so long as they retained their original nomadic mode of life. When they began to mix and live with the people generally, they suffered like other people, although even then their diseases were rather special in character. In their outdoor life—living in tents—they suffered from rheumatism, which was their most common enemy, but they were extraordinarily free from the other affections. He had never heard of an epidemic of small-pox among gipsies, nor seen one of them who was pitted with small-pox, although he believed they were very indifferently vaccinated. The gipsies were not intemperate, and many of them attained to considerable longevity. From these observations the lesson adduced was that, as soon as men began to aggregate in close localities, without due and proper sanitation, and with the means of obtaining "creature comforts" too much at command, they contrasted indifferently in regard to health with their apparently less fortunate brethren, who were content to confront nature in her wildest moods. No doubt over-crowding and the aggregation of great multitudes of people in towns lies at the root of many, if not most, of the maladies which make life less endurable, and the nearer we approach to pastoral simplicity of life and surroundings, the healthier we shall be. But, human nature being what it is, we fear that not even Dr. Richardson's attractive picture will tempt the majority of people to exchange their lot for that of the vagrant or the gipsy.

PROFESSOR TYNDALL'S GIFT TO AMERICA.

THE receipts from Professor Tyndall's lectures in the States in the year 1872 now amount to a fund of 32,400 dollars. The learned professor desired that the money should be devoted to the sustentation of science-fellowships; but a difficulty arose in satisfying the conditions of the deed of gift, and meanwhile the money has accumulated. Acting, however, upon a suggestion from the trustees of the fund, Professor Tyndall has now directed that the money shall be equally divided between the Universities of Columbia, Harvard, and Pennsylvania.

THE UNIVERSITY OF LONDON AND ITS MEDICAL DEGREE.

ON Wednesday last, a deputation from the Metropolitan Counties Branch of the British Medical Association, consisting of Dr. Bristowe, Mr. Morratt Baker, Mr. Pearce-Gould, Mr. Jonathan Hutchinson, and Mr. Macnamara, had an interview with the Senate of the University of London, to discuss certain proposals to widen the portals of the University for medical graduates. The subjects raised were, in the main, three. It was suggested that the requirements at the Matriculation Examination might be slightly reduced; a wider limit in the choice of subjects being granted to the candidate. In reference to the Preliminary Scientific Examination, it was pointed out that the Senate had already arranged for the examination to be held twice a year, and for the subjects to be arranged in three groups, any two of which could be taken up separately. The deputation urged that, in addition, when a candidate presented himself in all three groups of subjects, and failed to pass in one only, he should merely be required to pass in that

group of subjects at a subsequent examination. The deputation also asked that facilities should be given to men, who had finished their medical curriculum, to obtain the degree of the University by merely passing the requisite examinations, and without being compelled again to go through the curriculum. It was also pointed out that a greater uniformity in the standard of examinations was most desirable. The deputation having retired, the Senate at once adjourned.

ST. PETER'S HOSPITAL.

THE annual meeting of the governing body of this institution was held on Monday afternoon, at the hospital, Henrietta Street, Covent Garden, Mr. F. A. Bevan, the treasurer, presiding. The report showed that the in-patients for the past year numbered 232, being 88 in excess of any previous year. In the out-patient department, there have been 3,964 new cases, with a total of 29,089 attendances, showing a marked increase. The building fund debt had now been reduced to £700, and the committee were anxious to clear off this entirely, so as to commence a maintenance fund. The total income of the institution was £2,520, and the expenditure for the year was £2,300, leaving a balance in favour of the hospital of about £200. The report was adopted, and, after the transaction of routine business, the proceedings terminated.

OBSTETRICAL SOCIETY OF LONDON.

At a meeting of this Society on Wednesday, July 1st, Dr. Harvey, of Calcutta, exhibited a specimen of rupture of the uterus posteriorly close to the fundus; the placenta was adherent to intestine, and the child had been removed by abdominal section, but its life had not been saved. The precise nature of the pathological conditions being obscure, the specimen was referred to a committee for report. Dr. Priestley read "Notes of a Visit to some of the Lying-in Hospitals in the North of Europe, and particularly on the Advantages of the Antiseptic System in Obstetric Practice." The communication excited great interest; and Drs. West, Braxton Hicks, Playfair, Matthews Duncan, J. Williams, and Champneys, joined in the subsequent discussion. The general sense of the meeting was entirely in favour of rigid antiseptic treatment in private practice. It was urged that the most essential part of the system was careful washing of the hands in antiseptic solutions. Dr. Priestley believed that the use of the douche had been followed by results sufficiently satisfactory to justify its further employment. Drs. J. Williams and Champneys mentioned the results obtained at the General Lying-in Hospital during the past four and a half years. The total mortality was 0.66 per cent. The antiseptics that they had employed were carbolic acid, permanganate of potash, and corrosive sublimate. The results following the exclusive use of the sublimate appeared to prove its decided superiority, both as regards low mortality and relative absence of morbid conditions after child-birth.

CONSERVATIVE OVARIOTOMY.

PROFESSOR SCHATZ, of Rostock, has described in the *Centralblatt für Gynäkologie*, June 6th, a highly interesting case of pregnancy following double ovariectomy performed after a plan recently advocated by Schröder. On February 20th, 1880, Dr. Schatz removed from a girl aged 20 a large cystic tumour of the left ovary, including the outer third of the Fallopian tube, and all the ovarian tissue. The right ovary was distinctly enlarged and cystic; it was ligatured by means of three silk threads passed between it and the broad ligament, and cut away in such a manner as to leave a piece of ovarian tissue, hardly two millimètres broad, on the proximal side of the ligature. The right tube remained intact. An abscess formed, during recovery, in the track of a suture in the abdominal wound. On March 21st, when the period was due, severe pain was felt on the right side of the hypogastrium and right thigh, with vomiting and fever. The symptoms recurred on April 8th and May 8th. No de-

posit could be detected in the pelvis. The first "show" appeared on May 9th; it lasted three days, and was pale and scanty. It recurred on May 31st. In the interval, there were attacks of pain in the left groin. On June 11th, a swelling of the size of a plum was detected behind and to the left of the uterus, which was strongly anteflexed. On June 28th, severe sacral pain set in; it radiated to the left inguinal region, and disappeared at period, which was copious, and lasted for six days. On July 15th, the uterus was found to be small and retroverted. The catamenia thenceforward appeared regularly till the patient's marriage in April 1884. She became pregnant in September, and was delivered on May 12th of this year.

DEATH-RATE DURING THE PRESENT EPIDEMIC OF CHOLERA IN SPAIN.

THE official returns issued by the Spanish Government are admittedly incomplete, the severity of the epidemic in certain provinces having thrown public business into great confusion; an inspection of the returns issued, however, seems to show that the death-rate is not far below the average of all epidemics, which is put down at about 50 per cent. During five days of 24 hours between June 25th and 30th, the number of cases reported was 5,689, and the number of deaths was 2,663; representing a death-rate of nearly 47 per cent.

EXTIRPATION OF THE LUNG.

DR. DOMENICO BIONDI, of Naples, some time since proved that animals recovered after removal, by operation, of one entire lung. In a more recent communication, published in the *Wiener Medizinische Jahrbücher*, the same physician shows that animals may survive the removal of portions of lung artificially infected with tubercle. After injecting, by Ehrlich's method, masses of bacillus tuberculosis into the parenchyma of the lung, so that the clinical and anatomical symptoms of tubercle were produced, he removed, at the end of a few weeks, the diseased lungs; and in all cases recovery was complete. Whether pulmonary tubercle in man, not artificially produced, could be precisely diagnosed and localised to one lung, and then treated in the same manner, and whether total removal of the organ or excision of a diseased lobe would be, in such a case, the less perilous operation, are questions which can hardly be decided by the physicians and surgeons of to-day; yet, bearing in mind the surgical procedures, performed with success almost daily in this country, that were once considered impossible, and then unjustifiable, it is hardly unreasonable to believe that excision of the lung is an operation of the distant, if not of the immediate, future.

TRIGGER-FINGER.

SEVERAL Italian surgeons have recently published observations on the *dita a scatto*, or trigger-finger, first described by Rusconi in the *Gazzetta degli Ospitali* in 1878. This affection consists in a sudden check to voluntary extension or flexion of a finger, only overcome by a violent effort, or by the aid of the other hand, when the finger suddenly completes the desired movement with an audible snap. It most frequently attacks the thumb and ring-finger, but has been observed in other fingers, in several simultaneously, and also in the toes. The patients are generally between 40 and 60 years old, and men are less frequently affected than women. Rusconi has collected 36 cases. Romci has since (1884) described another case in the same journal above quoted; the patient was a woman, aged 65, and the ring-finger was the part affected. Solaroli, in the *Raccogliore Medico*, May, 1885, gave notes of a severe case, where the great toe was involved, in a strumous housemaid, aged 20. In one-third of the cases already observed, rheumatism was the predisposing cause; in others, there was a distinct history of injury; in some, the origin of the disorder could not be traced. There is generally severe pain, and in the cutaneous fold between the first phalanx and the palm a thickening has been detected. Possibly this condition may indicate some inflamma-

tory change in the tendons or their sheath, or even a loose cartilage, as in the knee-joint. Notta and Nélaton speak of a distension of the blind end of the synovial sheath at the free border of the palmar fascia, observed when the affected finger moves in the act of writing; some distinct protuberances have also been detected on the bulging flexor tendons. These swellings appear to press against the palmar fascia, and hinder further movements of the tendons. Notta has found a thickening of the long flexor tendon in a "trigger-thumb," and attributes the sudden check to the transverse aponeurotic fibres which pass across the sheath over the metacarpo-phalangeal joint. "Trigger-finger" is an obstinate disease and a great hindrance to work. Passive motion, fixing the finger in splints, shampooing, and electricity, have been tried as remedies. As surgical operations, excision of the tuberosities, tenotomy, and subcutaneous division of the palmar fascia, have been proposed; but none of these measures have proved of permanent benefit.

SYPHILIS IN RUSSIA.

THE Russian medical papers are constantly turning attention to the serious increase of syphilis in the north-western governments of Russia. The prevalence of venereal disease, and the existence of all kinds of immoral practices in Little Russia, have been long recognised, and the Sceptzi sect represent a reaction based upon aversion to the repellent vices of southern Slavonic peasants. The more hardy and industrious northern workmen are, it is now found, very subject to syphilis. Prochoroff (*Vratch*, No. 3, 1885) discovered that, in 1883, 35.5 per cent., out of several hundred patients in the rural hospital at Yamburg, in the Government of St. Petersburg, were syphilitic; and the proportion of similarly affected individuals not in hospital, in the same district, was still greater. The sources of infection were drovers of the district, who took the disease in the metropolis, and other villagers, who went occasionally to seek employment in the factories at Narva. As the Russian peasant, even near the capital, is very ignorant, thoughtless, and singularly defective in observation, it appears impossible for him to believe that there is any relation between a hard sore and the secondary symptoms. Hence, only two per cent. of the syphilitic cases examined by Prochoroff had indurated chancres; and these would probably have been overlooked in a freer country, where hospital-patients are not always thoroughly examined from head to foot. The same surgeon observed three cases of syphilis in countrywomen who had served as wet-nurses in the local foundling hospital. He had great success in treatment by subcutaneous injections of a one-per cent. solution of corrosive sublimate, all the symptoms disappearing in about ten days; but he gives no note of the after-history of his cases. As many of the symptoms of syphilis are mild, in comparison to other and more painful diseases, as some of the worst results are rare in Russia, and as the peasantry are careless of any disease, and attach no disgrace to this malady in particular, it is not surprising that it makes great way in the Czar's dominions. Smjrodsky has recently noted its increase in the capital, due, he believes, to the great frequency of secret prostitution, in the form of temporary concubinage, and habitual immorality amongst female attendants on the premises of victuallers and proprietors of public baths. He does not find any great degeneration of physical strength and health in the urban and rural districts where syphilis most prevails.

RARE FORM OF DISLOCATION OF THE SHOULDER.

A CASE of unusual dislocation of the humerus is described by Dr. K. E. Lindén, under the name of "luxatio humeri erecta," in the *Transactions of the Finland Medical Society*. The patient, a labouring man, aged 35, had been thrown down in a quarrel; and, while he lay on the ground, his opponent pulled his arm upwards, at the same time kicking him violently in the upper third of the left humerus. When Dr. Lindén saw the man, three days later, the humerus formed an angle of about 130 degrees with the acromion and clavicle; the forearm, which

was pronated, lay horizontally over the head; the arm was much contused, and the seat of severe pain; while the hand, which was supported by the right hand, was numb. All attempts at reduction caused much pain. The head of the humerus could be felt with unusual distinctness in the axilla, where it lay below and somewhat to the inner side of the glenoid cavity, resting against the lower border of the pectoralis major muscle. Reduction was effected, under chloroform, by making extension upwards and outwards. The arm was useless for six weeks; two and a half months after the injury, the man was able to work, though his arm was still weak. Dr. Lindén has been able to find only five cases of this form of dislocation recorded in medical literature: two by Middeldorpf, who first described it in 1858, and gave it the name of "luxatio humeri erecta;" one by Busch (1863); one by Nikolaysen (1873); and one by Alberti (1884). In all the cases, the arm was forcibly extended upwards when the displacement occurred. The symptoms in all resembled those described by Dr. Lindén as met with in his case: the head of the bone lay below the glenoid cavity, at the inner border of the scapula; the deltoid muscle was enlarged; the humerus was raised above the horizontal plane; and the forearm rested on the head, the hand being supported by that of the other arm. With regard to the difficulty of reduction, Dr. Lindén attributes it to the greater tuberosity of the humerus being caught against the edge of the cavity of the joint.

DR. G. E. PAGET.

On Monday last, the pupils and friends of Dr. Paget, Regius Professor of Medicine in the University of Cambridge, presented a marble bust of him to Addenbrooke's Hospital, Cambridge, of which institution he was a physician for 43 years, and is now consulting physician. The subscribers to the memorial included the Prince of Wales and Prince Albert Victor. The bust was presented to the hospital by the Master of Downing College, Dr. Birkbeck, in the presence of a large gathering of the governors of the institution and well known medical men. The presentation was accepted by the Lord Lieutenant of the County, on behalf of the governors of the hospital; after which, speeches expressive of the deep esteem felt for Dr. Paget were made by Professor Humphry on behalf of the medical staff of the hospital, by Alderman Deck on behalf of the Mayor and Corporation, and by Dr. McAlister on the part of Dr. Paget's pupils. A list of the subscribers, inscribed on vellum and bound in a book, was handed to the chairman, with a request that he would forward it to Dr. Paget.

NOVEL OPERATIONS.

WE reported some time since a new operation of subcutaneous division of the exterior tendon slips of the ring finger which had been performed successfully in America with the object and result of extending the range of movement of the fingers in pianoforte playing. This proceeding has been, it will be noted, repeated recently in London by Mr. Noble Smith, and with results which he records as satisfactory. Dr. Wallace, of Liverpool, performed, on Thursday of last week, June 25, abdominal section, and resected the urinary bladder in a female patient suffering from cancer of the fundus. On the seventh day, the patient was reported as practically convalescent from the operation. Leaving out of question cases where this procedure has become necessary through injury or complication occurring in the course of operations undertaken with other objects, this is, so far as we are aware, the first occasion on which the operation has been carried out as a deliberately designed and carefully executed proceeding.

REGENERATION OF THE SPLEEN AFTER TOTAL EXTIRPATION IN THE FOX.

PROFESSOR ETERNOD, of Geneva, publishes (*Rev. Méd. de la Suisse Romande*, January 15th, 1885) an interesting account of his researches on this point. His results are confirmatory of Tizzoni's. The chief

point of interest was that, four months after the spleen had been entirely removed, a nodule of newly formed splenic tissue was found, enclosing in its substance foreign bodies that could only have been introduced through the wound at the time of the operation. The nodule was 13 millimètres long and 8 broad; and apart from some embryonic tissue, in microscopic character it was almost identical with the normal spleen. Amongst the other conditions found, the most noteworthy were the new formation of adenoid tissue, especially in the lymphatic glands and in Peyer's patches, and the transformation of the parenchyma of lymphatic glands into splenic tissue. This last circumstance supports the view held for some time by Professor Eternod, that the spleen is only a vast elaborated lymphatic gland.

THE BERLIN UNIVERSITY HYGIENIC INSTITUTE.

PROFESSOR KOCH commenced, on the 1st of this month, a monthly course of lectures on Bacteriology in the University Hygienic Institute. The arrangements of this new institute, to which the building formerly occupied by the Polytechnicum has been assigned, are not quite completed, but some of the laboratories are so far fitted up that Professor Koch can now deliver courses to the University, similar, though on a more extensive scale, to those arranged last autumn and winter for civil and military medical men. Professor Koch's official connection with the Imperial Board of Health has now ceased. He will now devote himself as Professor of the University, and Director of the new Hygienic Institute, to bacteriological study in connection with hygiene.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE reconstructed Hospital for the Paralysed and Epileptic will be opened by H.R.H. the Prince of Wales this day (July 4th). The new hospital, which has been built on a modified pavilion-system, presents a handsome red brick front, with terra-cotta mouldings and ornamentations, to Queen's Square; the out-patient department has a front in Powis Place, and forms the ground floor of the second pavilion, which, as well as the third pavilion, contains wards for male patients; the wards for women and children are in the front block. The buildings are somewhat crowded together, but, accepting this drawback as inevitable, the architect, Mr. M. P. Manning, deserves the highest credit for the plans. The floors and staircases are fireproof throughout; teak is used for the surface in the wards and other rooms, and marble mosaic for the corridors; the walls are faced with Parian cement, except in the water-closets and lavatories, where glazed tiles are used. There are nine large wards, each provided with a day-room, kitchen, and the usual offices. The wards for adults contain from 15 to 17 beds; the ward devoted to children contains 22 cots; in addition, there are six beds for patients who desire private rooms; and about 50 beds are to be reserved for paying patients, and these wards will be divided up by curtains, as at St. Thomas's Home. The charge to patients occupying these beds will be only one guinea a week. The number of free beds will be upwards of 100. The cubic space is about 1,600 feet for each patient, if the day-rooms attached to each larger ward be included; if these be not included, the cubic space still does not fall below 1,200 feet. These day-rooms are a very pleasant feature of the building, and will present great advantages for the treatment of certain forms of nervous disease. We fear, however, that it will be found that the number of small wards is too limited; this difficulty, which has apparently been anticipated, has been only partially met by detaching a recess, containing one bed, from the main ward in several instances by a wooden screen. A handsome well lighted chapel is almost complete; it opens off the main corridor running from the entrance in Queen's Square. In the corridors connecting the different parts of the hospital, differences of level have been covered by inclined planes, and not by steps; wheel-chairs can thus traverse the whole extent of each floor. The great attention given to the sanitary arrangements of hospitals is a striking feature

in the plans for all new buildings. At Queen's Square, Mr. M. P. Manning has carried out a very complete and satisfactory system of drainage, which, at the outfall, comes into connection with the drainage-system devised for the Children's Hospital by Mr. Rogers Field; automatic flushing-tanks are placed at the head of each section of drains, and each section is disconnected, ventilated, and arranged for inspection. The w.c.'s are in separate blocks, connected with the wards by short cross-ventilated corridors; to this there is one exception, where it was, apparently, impossible to get cross-ventilation. The wards are heated by steam-coils standing in the centre; and, in addition, there are open fireplaces; a modification of Galton's ventilating grates is the pattern employed. Air is also admitted by Tobin's tubes, and there is an extraction-system connected with an upcast shaft in a tower, warmed by a steam-coil. There are French windows, but the upper frames open inwards, and thus admit of the ready entrance of a large bulk of air, with an upward direction. In the consideration of the plans, the Committee had the advantage of the advice of the late Mr. Netten Radcliffe, and, acting in the spirit of the advice given by him, a sanitary inspector will be appointed, whose duty it will be to make himself thoroughly acquainted with the sanitary arrangements, to take a general supervision of their working, and to make reports to the committee at frequent intervals.

IMPORTATION OF RAGS FROM SPAIN.

IN view of the outbreak of cholera in Spain, the Local Government Board have just re-issued the general order, which they allowed to lapse some months ago, prohibiting the importation into this country of rags from the Peninsula. The order provides that from June 23rd until November 1st next no rags from Spain shall be delivered over-side, except for the purpose of export, nor landed in any port or place in England or Wales; and that if any rags shall be delivered over-side or landed in contravention of the order, they shall, unless forthwith exported, be destroyed by the person having control over the same, with such precautions as may be directed by the medical officer of health of the sanitary authority within whose jurisdiction or district the same may be found. All officers of customs are empowered to prevent the delivery over-side or landing of rags in contravention of the order; and it is the duty of the sanitary authority to take proceedings against masters of ships, consignees, or other persons having control over any rags, who shall wilfully neglect or refuse to obey or carry out, or shall obstruct the execution of any of the above regulations. It is worthy of notice that the present order does not contain the proviso, inserted in those previously issued, to the effect that nothing in the order should be deemed to prohibit the delivery over-side or landing of any rags which might have been previously proved to the satisfaction of the sanitary authority into whose jurisdiction or district the same was brought, or any officer duly authorised by the sanitary authority for that purpose, and certified accordingly by such authority or officer, not to have come either directly or indirectly from any place where cholera had occurred during the current year. This discretionary power has doubtless been omitted in the present case in consequence of the outcry that was raised last year by certain manufacturers and traders against the unequal way in which the discretion was exercised by the local authorities at different ports. Stringency in the Humber and laxity in the Solent no doubt tended to divert the rag-trade from one direction to the other, whilst the uncertainty involved could not be of any advantage to the public health.

THE NOMENCLATURE OF DISEASES.

THE second edition, or first revision, of the *Nomenclature of Diseases*, has just been issued by the College of Physicians; a notice of the work appeared in the second volume of the JOURNAL for last year, page 418. Although retaining some hybrid words, such as "cellulitis," the *Nomenclature*, on the whole, encourages the employment of classical terms, or, at least, of words built on correct classical models. What such models should be, in our opinion, we had occa-

sion to indicate in a review of the late Professor Thorburn's work on *Diseases of Women* in the JOURNAL of June 27th, page 1297. It is satisfactory to find that the *Nomenclature* gives the correct orthography of aneurysm, a noun often spelt "aneurism" by those who write "syphon" for siphon. There is a recognised way of distinguishing *iota* from *upsilon* in English words derived from the Greek. The *Nomenclature* does not adopt a regular method of naming inflammations of special organs. Some authorities prefer "inflammation of ——" to "—itis." The former is apt to become inconvenient when it has to be frequently repeated; the latter opens medical literature to pedantry, bad Latin and Greek, and a suspicion of mystification. The *Nomenclature* spurns "otitis" and retains "metritis," but gives "inflammation of the vagina," probably objecting to "colpitis" as unfamiliar to most readers, and to "vaginitis" as unclassical. Turning to the classification of parasites, we find that the *Nomenclature* prefers *Dochmius duodenalis* (Leuckart) to *Sclerostoma duodenale* (Cobbold), and *Ancylostomum* (sic) *duodenale* (Dubini). As this parasite, to which frequent reference has been made in our pages during the past few years, may possibly make its appearance in the British Isles within a short period, much confusion will be saved if English practitioners use the official name *Dochmius*.

SCOTLAND.

UNIVERSITY OF EDINBURGH FINAL EXAMINATION.

THE final examination for degrees in medicine in Edinburgh University is pretty well over now. The Visitors from the General Medical Council (Drs. Bristowe and Kidd, and Mr. Holden) have been present, and on Saturday the list of the first batch of successful candidates was issued; another has been issued this week, and when all have been published, they will appear in the JOURNAL. It is impossible to give any ratio of the successful to the unsuccessful as yet, but, so far as the results have appeared, the proportion of the latter does not appear to be less than in previous years. Of 39 candidates who appeared as successful in the first, but four had passed the final examination with distinction.

ADDITIONAL HOSPITAL-ACCOMMODATION IN EDINBURGH.

THE action of the managers of the Royal Infirmary, Edinburgh, in discontinuing the treatment of cases of fever, which has now taken effect in such cases being in future received and treated by the corporation, will have the important result of enabling them to open an additional ward or wards in the infirmary for the reception of ordinary hospital-cases. The new infirmary contains at present two medical and two surgical wards, which have remained unused since the migration to the new buildings, owing to the lack of the necessary funds to enable the managers to open them. The general public will thus be benefited to a considerable extent, and the additional beds will be invaluable for clinical teaching in the large medical school. Similar action on the part of the directors of the Sick Children's Hospital will have a similar effect, as it not only liberates a considerable amount of income which was required to maintain the fever-wards, but will place at the disposal of the directors the wards in which fever-cases were created. It is expected that, after these wards (which are exceptionally good), have been disinfected, they will be opened for the reception of general cases, and this will of course add much to the usefulness of the institution as a medical charity and as a teaching-institution. As to the fever-hospital of the corporation, which may be said to have been inaugurated as a public institution on July 1st, it is to be hoped that suitable arrangements will be made for the instruction of students of medicine in the special class of cases it will contain. At a meeting of the Public Health Committee of Edinburgh Town Council, held on June 30th, it was remitted to four members of it to make inquiries and necessary arrangements as to the staff and management of the Fever-Hospital.

UNIVERSITY OF GLASGOW.

ACCORDING to present arrangements, the summer session in the medical faculty of this University will close on July 17th, although some of the practical classes will terminate at a still earlier date. On the 13th, the written examinations for the degree commence, and at their close the *viva voce* part will be immediately taken up. It is anticipated that Drs. Barnes and Bristowe, the visitors from the Medical Council, will be present at the oral examinations. As there are 125 candidates presenting themselves this year for the degrees in medicine and surgery, the work of those conducting the examinations will be tolerably onerous so as to have the lists ready for publication before the graduation ceremony. It may be mentioned that it has been decided to proceed immediately with the erection of the gateway from the old University in College Street. It is to be placed at the lower entrance of the University avenue, and the present intention is that it shall form part of a small building containing two or three moderate sized rooms, which may serve as a class-room and designing-room in connection with the recently established Chair of Naval Architecture.

CABS AND INFECTIOUS DISEASES.

IN Glasgow, last week, the parents of a child who had been suffering from scarlet fever, and who had sent the child in a cab a month after the beginning of the illness, and while the child was desquamating, were prosecuted at the Sheriff Court for the offence. They pleaded guilty, and were fined 7s. 6d. each. The Sheriff commented in most suitable terms on the gravity of the offence, and on the danger that came from people using cabs for the conveyance of persons suffering from infectious disorders.

IMPORTATION OF SMALL-POX FROM LONDON.

IN his last fortnightly report on the health of Glasgow, Dr. Russell gives some interesting facts about two cases of small-pox that were registered during the fortnight, and whose history he had been able to trace. The first case was that of a fireman on board a steamship sailing from Calcutta to London, where he was discharged on May 22nd, remaining there until the 29th. At that date, he came down to Glasgow, and on June 8th he was removed to the hospital with confluent small-pox. He was unvaccinated, and died in a few days. In the house where he fell ill there were four unvaccinated persons; and, though they were immediately vaccinated, the operation failed in the case of the patient's bed-fellow, who was removed to hospital on June 19th. In connection with these cases, Dr. Russell remarks that in January last he reported a precisely similar case of small-pox, brought from London by a seaman; and that every year several cases of importation have been, for some years back, brought under notice; and that, from observation of like outbreaks in various parts of the country traced to the metropolis, "it is obvious that the continuous prevalence of small-pox there is a standing menace to the whole country, and a matter of serious national interest."

THE DANGERS OF CITY PRACTICE.

THE recent Circuit Court in Glasgow made public the details of a case of some interest to the medical profession, inasmuch as it contains a lesson of warning for those whose duties may call them from time to time to minister to the wants of some of the poorest inhabitants of our large cities. Briefly, the facts are these. On the evening of April 23rd, a message was brought hurriedly by a young man to the consulting-rooms of Dr. Connor, to the effect that his services were required at a house in the vicinity. Having ascertained the facts of the case, Dr. Connor, accompanied by the messenger, at once went to the street, and he had no sooner entered the close leading to the court in which the house was situated than he was immediately seized by the throat from behind, and relieved of his watch, which was wrenched with such violence that the chain was broken. The pressure on the throat was continued, until he fell to the ground in an in-

sensible condition. It is scarcely necessary to state that the story about the woman in trouble was only a trick to get the victim to the spot, and the youth who acted as messenger actually took part in the assault. Through the exertions of the police, the assailants were apprehended, and the booty recovered. Although he suffered severely from the assault, Dr. Connor has now completely recovered, and he was able to give evidence against his assailants, who were found guilty, and sentenced to five years' penal servitude. Dr. Connor will have the sympathy of the whole profession in the painful circumstances in which he has been placed; but the occurrence brings out the necessity for special vigilance in connection with medical practice among the lower classes of the community in our large towns; and while, fortunately, such treatment as this respected practitioner met with while answering a summons for assistance is rare, its possibility has to be reckoned with. About two years ago, we drew attention to this same subject, when commenting on the case of Dr. Whitelaw, of Kirkintilloch, who was seriously assaulted and robbed in the country when taken from home on a trumped up message. It may be mentioned that the last time a medical man was garrotted in Glasgow was about twenty-five years ago, when the circumstances connected with the case were very similar to the present one.

THE PROPOSED NEW MEDICAL SCHOOL AT DUNDEE.

IN accordance with the promise alluded to in last week's JOURNAL, Professor W. T. Gairdner, of Glasgow, delivered an address on "Medical Education," on the occasion of the distribution of prizes and certificates to the students of University College, Dundee, at the close of the session. Naturally, a good deal of interest centred in the remarks he had to make on the proposal that has of late taken a very active form, and aims at establishing a medical school in connection with the College. Professor Gairdner favours the scheme, and, in the course of his address, he gave an outline of the plan which he would advocate. The medical school would, of course, be incorporated with St. Andrews University, but the scientific training of the students would be carried out in the classes at University College, while the Dundee Royal Infirmary might be utilised for practical instruction. To enable both branches to be carried on contemporaneously, he suggested there should be hospital-tutors who would illustrate the lectures given at the College by cases which happened to present themselves at the infirmary. In this way, two years might be most profitably spent in mixed theoretical and practical work, leaving the third and fourth years for clinical work, when he believed the students would be in every way better fitted for the reception of bedside-instruction. Any suggestions that are made by a teacher of Professor Gairdner's standing and authority must weigh powerfully in any further consideration of the new scheme; but the mere fact that it has received his sanction and approval must be a strong encouragement to proceed with the matter.

COMPULSORY REGISTRATION OF DAIRIES AND MILKSHOPS.

THE Scotch Board of Supervision has at last determined to act on the now well known and too often exemplified truth, "that disease is largely disseminated from dairies and milkshops in which any person is suffering from an infectious disorder;" and there has been issued a new Order in Council which is to take the place of that of February 1879. The principal features of the new regulations are the compulsory registration of all dairies, while special attention is to be directed to their state of cleanliness, to the persons employed about them, and to any conditions that might make them the centre of disease. Thus, the buildings used must be properly ventilated and drained, there must be a pure supply of water, and under no conditions is a milkshop to be used as a sleeping apartment. Anyone who is acquainted with the history of previous epidemics of disease due to contaminated milk-supply, will scarcely regard the restrictions enforced by the new order as severe or unnecessary; and we believe that still greater safety would have been attained had the Board of Supervision still further

exercised its powers, and given the local authorities in our large towns complete control over their respective milk-supplies. With the issue of this new order, the duties of the Board do not end. They have to see that the inspection which their regulations necessitate is such in reality, and is not merely a form.

ANNUAL EXCURSION OF THE ABERDEEN BRANCH.

THE Aberdeen, Banff, and Kincardine Branch of the Association held its annual excursion on Thursday of last week. There was a very large number of members present—almost 40. They spent the forenoon in Don Finella, and afterwards Professor Ogston gave an address on Arab Surgery, and some of his experiences in the Soudan; he also showed a number of trophies and curiosities which he brought with him from Suakim. The members afterwards dined together in Laurencekirk, and altogether a most enjoyable day was spent.

ABERDEEN PHILOSOPHICAL SOCIETY.

THE members of this Society held their annual excursion on Saturday last, when they visited the Castle of Kildrumny and the Tap o' Noth, and, after luncheon, the Picts' houses on the Moor of Clova.

THE FORBES DISPENSARY AT INVERNESS.

THE Court of Session have sanctioned a scheme whereby interest arising from certain funds may be diverted to the support of the Northern Infirmary at Inverness.

RIVER-POLLUTION AT DUMFRIES.

AN inquiry is at present being held at Dumfries, under the direction of Dr. Littlejohn, of Edinburgh, as to the pollution of the river there; and, if the memorial of the inhabitants correctly represent the state of matters, a speedy remedy is called for.

THE NEW PARK AT GOVAN.

THE public park, which was given some time ago by Mrs. Elder to the town of Govan, was formally opened on June 27th by Lord Rosebery, and handed over to the authorities. This densely populated suburb of Glasgow has reason to be congratulated on such a health-giving bequest.

IRELAND.

INTELLIGENCE has reached Dublin of the unexpected death of Dr. Davis Porter, army surgeon, at Wady Halfa, Egypt. He was nephew of the Rev. Dr. Porter, of Queen's College, Belfast, and volunteered for the Soudan, being attached to the 4th Dragoon Guards. He was the principal of the Wady Halfa Hospital, where he died from dysentery.

THE IRISH MEDICAL PROFESSION.

SOME prominent medical graduates state that, should the claims of the medical profession be overlooked in the distribution of State honours, Dr. Traill, Fellow of Trinity College, the projector of the electric railway in the north of Ireland and a medical man, will be invited to stand at the general election.

HEALTH OF CORK.

DURING the four weeks ending June 13th, the total number of births registered was 176, or 28.55 per 1,000; and the deaths 153. Exclusive of 28 deaths, which took place in the workhouse, the rate was 19.63. The birth-rate was higher and the death-rate lower than for the corresponding period of last year. During the month, there were very few cases either of enteric or typhus fevers treated by the dispensary medical officers.

REFORM OF THE UNIVERSITY OF LONDON: PROPOSALS OF CONVOCATION.

THE Committee of Convocation appointed on January 6th, to consider the proposals of the Association for Promoting a Teaching University in London, has received and adopted a scheme, drawn up by the Subcommittee nominated for this purpose. The members of this Subcommittee were, Lord Justice Fry, Mr. James Anstie, Q.C., Mr. W. S. Savory, F.R.S., Professor Thiselton Dyer, F.R.S., and Mr. A. McDowall.

The scheme involves a radical alteration in the constitution of the university. It provides for the admission of constituent colleges, the cessation of affiliation of colleges, and the creation of faculties and boards of studies. The senate would consist of a chancellor and vice-chancellor, the chairman of convocation for the time being, and not more than 30 ordinary members, of whom six would be nominated by the Crown, six elected by convocation, three by each of the four faculties, and one each nominated by the President of the Royal College of Physicians, the President of the Royal College of Surgeons, the Chairman of the Council of Legal Education, the President of the Incorporated Law Society, the Principal of King's College, London, and the President of University College, London, provided that these six bodies become constituent colleges. One-third of each group to retire each year, and the representatives of colleges to serve for three years. The constituent colleges would be divided into three classes: 1. Colleges intended to occupy the entire time of the students (e.g. the medical schools); 2. Colleges in which lectures of the most advanced kind are given (e.g. the Colleges of Physicians and Surgeons); 3. Colleges intended to aid the evening studies of persons engaged in business, or which otherwise do not fall into the first two groups. The members of these colleges would elect one or more teachers from each college, as representatives on the faculties; the number of members to represent each constituent college would be a matter of agreement. The institutions from which the university now receives certificates for degrees in medicine, would retain their right of giving such certificates, whether they became constituent colleges or not.

There would be four faculties, Arts, Laws, Science, and Medicine: each faculty would consist of the representatives of the constituent colleges, the examiners in the faculty during their periods of office and for three years after, and such persons eminent in the special studies, not exceeding six in number, as the faculty might elect. Each faculty would elect three members of the Senate, and members of a board of studies, who must be members of the faculty, but not examiners. The faculty would have the power to make recommendations to its board of studies and to the Senate.

Each board of studies would consist of not more than 21 nor fewer than six members elected by the faculty, and one member elected by Convocation for three years; one-third of the other members would retire yearly. The duties of the board of studies would be to consult on all matters connected with the faculty, to receive the recommendations of the faculty, to consult with and advise the examiners, and to advise the Senate as to the institution of new degrees, and as to any change in the regulations in force with regard to the degrees and examinations in its faculty. The Senate would not be permitted to act on these matters without the advice of the board of studies, which would also be empowered to make such recommendations to its faculty as it may think fit, with the object of insuring suitable and efficient teaching. Two or more boards of studies might meet for consultation. The examiners in each faculty might make such reports and recommendations to the faculty or its board of studies as they might think fit.

It is proposed that, in the first place, the faculty and college members should be added to the existing Senate, but that no new members should be appointed by the Crown or Convocation until the number of such members shall have fallen below six.

Candidates would still be admitted to all examinations without regard to the place of their education, except of candidates for the degrees in medicine, who would have, as heretofore, to show that they had passed through the required course of study in a constituent college, or a recognised medical school.

PRESENTATION.—On June 20th, some friends of Mr. R. T. Cæsar presented him with an illuminated address and a purse containing £125, on his giving up practice at Shirley, he being obliged to go abroad for the benefit of his health; and on June 25th the lodge of Odd Fellows also presented him with an illuminated address on his resigning the position of their surgeon, which he had held for twelve years.

THE BRITISH PHARMACOPOEIA.

THE new edition of the *British Pharmacopœia* will receive final revision at the meeting of the Pharmacopœia Committee on the 10th instant; the business of publication will then be immediately proceeded with, and the volume will probably be ready for issue within the following month. A meeting of the Executive Committee of the General Medical Council will be held on the same day.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of members of Council took place at the College on Thursday afternoon. The poll was kept open from two until five o'clock, and about 300 Fellows recorded their votes. The President, Mr. Cooper Forster, presided. At the close of the poll, the votes were counted, and were found to be the following:

For Mr. W. S. Savory, St. Bartholomew's	182, including 41 plumpers
„ Mr. O. Pemberton, Birmingham General	140 „ 12 „
„ Mr. N. C. Macnamara, Westminster	127 „ 4 „
„ Mr. F. J. Gant, Royal Free	73 „ 4 „
„ Mr. G. Cowell, Westminster	54 „ 16 „
„ Mr. F. Mason, St. Thomas's	52 „ 3 „
„ Mr. J. Rouse, St. George's	41 „ 1 „

As there were three vacancies, Messrs. Savory, Pemberton, and Macnamara, were declared by the President to have been duly elected.

UNIVERSITY COLLEGE, LONDON.

THE EARL OF KIMBERLEY, K.G., President of University College, on Tuesday distributed the prizes won by students in the Faculties of Arts, Laws, and Science during the session 1884-85.

THE DEAN of the FACULTY of Science (Dr. Graham, Professor of Chemistry) read the report, which showed that the number of pupils in the College was 841, the largest number returned since the foundation of the College; and there was reason to hope that, if the variety of the educational work undertaken in the College were better known, there would be a considerable increase in the number of students. Referring to the movement for the creation of a teaching University of London, he remarked that the President of their Senate had given much time and thought to carrying out the idea. A general committee and a special committee had been appointed, and representatives of their faculties had met these committees in consultation. As an outcome of this movement, the Convocation of the University of London had also appointed a committee to consider the relation of the University to the various teaching bodies. What action might eventually be taken to do away with or to lessen the evils of the present system of disassociating the teaching from the examining bodies could not yet be foreshadowed. The recent decision of the University of London, whereby students might present themselves for examination in the preliminary scientific (M.B.) subjects in January, as well as in July, was an instance of the evils arising from the action of an examining body unable to realise the injurious influence it had on education. It had produced great confusion in their science classes; it required sessional instruction to begin twice or thrice a year, and the frequent repetition of the subjects taught; while the constant reminder of the examination-requirements must alike injure the teacher and the student. It was to be feared that the action of the University of London and various medical examining bodies would produce an impression that science was to be taught and learnt, not for its own sake and for the sake of the educational benefits to be derived from such study, but solely to satisfy the requirements of various examining bodies, outside their college work, and, indeed, outside all educational work.

THE CHAIRMAN then proceeded to distribute the prizes, the recipients, especially the ladies, being loudly cheered by the students. At the conclusion of the distribution Lord Kimberley congratulated the College upon the report which had been read by the Dean, and, referring to the movement which was on foot for laying the foundation of a teaching University in London, the noble lord said he did not see precisely how the difficulties connected with it were to be removed, but he was bound to say that he sympathised with that movement. There was something unsatisfying to the educational mind that in this very great city there should not be some more complete and universal system. He did not think that at present any one saw how that end could be attained, but he was quite sure that it would be for the benefit of all institutions in this great city if they could be gathered together, as it were, and the teachers and managers of the examinations brought into close and immediate contact. He therefore looked with great

satisfaction at the movement which had been commenced, and also at the action of the Convocation of the London University, because it showed that there was a strong disposition on all hands to examine the question carefully and fully, with a view to see what could be done in this direction.

CHOLERA.

THE CHOLERA IN SPAIN.

OUR correspondent writes from Valencia on June 29th:

I have refrained writing to you till now, awaiting the upshot of the Royal Commission sent here for the purpose of ascertaining the nature of the "enfermedad sospechosa," as also about the Ferran inoculation. Their "dictamen" is this: 1. It is true Asiatic cholera that exists in the province of Valencia. 2. There does exist the virgula (without spores) in the attenuated preparations of Dr. Ferran. 3. The inoculation is harmless, and ought to be permitted, but with the intervention of the State, which ought to take the statistics of the vaccinated until it is definitely decided whether the system is prophylactic or not. 4. Dr. Ferran is a most approved disciple and enthusiastic follower of the school of Pasteur, and in their opinion merits the protection of Government. This report or memorial is signed by the President, Señor Alonzo Rubio, Señor Maestre San Jevan, and Señor García Sola. Señor San Martín says "that it is contrary to science to have official intervention, and that the Commission had encountered so many difficulties that it has not been able to study fully or well to form an united opinion; neither have they been able to appreciate, in the region of probabilities, the efficacy of the system." More than that, he says that "the individual carries the cholera with him; but that which exists in Valencia has not a contagious character." Señor Mendoza has not subscribed to the document.

On June 25th, permission was given to Dr. Ferran to continue his inoculation in the infected provinces. On the same day, he began in Valencia city, and from the awful panic prevailing here hundreds of all classes have flocked to him, every one paying two dollars and a half, or 10s., as minimum. I fear that in a short time we shall be able to test the value of "inoculation," as the cholera is making rapid and fatal havoc here and throughout the whole province; and Murcia fares no better, indeed far worse. The disease has leapt into Aragon as far as Huesca, on the N.E. base of the Pyrenees, and into Zarsagossa; also into Toledo and other cities and towns near Madrid. It is most remarkable that there is not a word about it from Barcelona, or from any part of Cataluña. The Catalans are more provident and practical than their neighbours; and it is to their interest to keep very reticent as well as prudent.

If such a "stampede" or panic, as there is here and in Murcia, occurred in Barcelona (the Liverpool of Spain) the commerce and mechanical industries of the whole country would be ruined. Here and in Murcia commerce is dead in every department. Public men are deserting their posts—and I am sorry to say numbers of medical men among them; all the better middle class that can flee are doing so, and numbers of servants of both sexes are leaving their places. The bulk of the English and Germans are gone, and others preparing to go. All this is from panic, as the disease has not yet reached the figures that would justify that.

I have had the honour of several visits from Drs. Van Ermengem, of Brussels, and Dr. Paul Gibier, of Paris, who have been here for the last ten or twelve days, working hard with their own "cultures," microscopes, etc. I feel sure they will give a true and full account of what they have done and seen. They leave to-day. Another commission will be here from the Government of France, consisting of Dr. Brouardel and two others, to study Dr. Ferran's system. Surely, with all these, the grand inoculation problem ought to be solved.

I see in one of the papers that, in several offices, large placards are put up, "Not to shake hands." It seems that not one of the 4,000 women engaged in the National Tobacco Factory have been stricken down, and the troops are all in excellent health, occasionally only has a civil guard been ill. Five of the family of Dr. Candela have died; and yesterday, one of the most esteemed of Valencia surgeons, Señor Pezet, was buried. He died in thirty hours. He was on one of the sanitary commissions. There can be no doubt that, for the next two and a half months, we have a gloomy picture before us. It was my intention to have joined the meeting of the Association in Cardiff; but now I feel I am more in the way of duty sticking to my post here.

Council. On hearing of the death of Dr. Mahomed, your Council instructed the President to send a letter of sympathy to his widow. Of the remaining members, none at any time took an active part in the affairs of the Branch. Several of the names, however, are widely known. Among them are those of Dr. Herbert Davies, formerly Physician to the London Hospital; Dr. Buchanan Baxter, lately Professor of *Materia Medica* in King's College; Mr. John Liddle, many years medical officer of health for Whitechapel; Mr. Netten Radcliffe, distinguished for his work in sanitary statistics; and Sir Erasmus Wilson, the eminent authority on diseases of the skin, and a munificent benefactor to the Royal College of Surgeons of England, the University of Aberdeen, and other institutions. Mr. John Mann and Mr. Francis Toulmin had each attained a great age in the pursuit of their calling as general practitioners.

"The unanimous election, at the last annual meeting of the Association, of Mr. Macnamara, the President of the Branch, to the honourable office of Treasurer of the Association, must have been a source of much gratification to the members of the Branch, as it was to your Council. Mr. Macnamara having thus become a permanent member of the Council of the Association, it is no longer necessary for the Branch to elect him as one of the representative members. Your Council suggest that the vacancies in the list of representatives caused by Mr. Macnamara's appointment as Treasurer, and by the death of Dr. Mahomed, should be filled by the election of Mr. H. T. Butlin and Mr. Frederick Wallace. Your Council have been unable hitherto to fill the vacancy caused by the death of Dr. Mahomed, in consequence of the absence of any provision, in the by-laws of the British Medical Association, for the filling of accidental vacancies in the Council. It is intended, however, to amend this omission at the annual meeting of the Association.

"In consequence of Dr. Mahomed having become an *ex officio* member of the Council of the Branch, through his election as a representative in the Council of the Association, a vacancy was caused in the list of ordinary members of Council. Your Council filled this vacancy by the election of Dr. Charles Davidson.

"The provision in Law 10, which prohibits the representative in the Council of the Association who retires each year from being at once re-elected, appears to your Council to be calculated to place the representatives of this Branch at a disadvantage, in comparison with the representatives of other Branches, in regard to whom no such restriction exists. An alteration in the law will accordingly be proposed for your consideration.

"The District Societies have continued their useful course; and thanks are due to the Honorary Secretaries, and to those members who have read papers and originated discussions at the meetings. The vacancy in the office of Secretary of the Hertfordshire District, caused by the lamented death of Mr. Ridgway Lloyd, has been filled by the appointment of Mr. Leslie Bates; and Dr. Hale White has been elected Secretary to the South London District, in place of Dr. Carrington, who has retired.

"Several matters of great professional and public interest have engaged the attention of your Council and of the Branch.

"At its first meeting in July last, your Council, at the suggestion of the President, appointed a subcommittee to consider what steps should be taken to facilitate the obtaining of degrees in medicine by London medical students, who at present labour under a great disadvantage in this respect, in comparison with students in other parts of the United Kingdom. The subcommittee held several meetings, and drew up an elaborate report, containing numerous statistical tables, which, after approval by your Council, was circulated among the members of the Branch; copies were also sent to the graduates of the University of London throughout the kingdom, and to the members of the Senate of the University. A largely attended general meeting of the Branch was held at the School of Mines on March 6th, to consider the subject; and a full report of the proceedings was published in the *BRITISH MEDICAL JOURNAL* of March 14th. In pursuance of one of the resolutions passed at the meeting, a deputation of members of the Branch had an interview with the Senate of the University on April 29th. The proceedings will be found reported in the *JOURNAL* of May 2nd. Your President has been officially informed by the Registrar of the University that the Senate have appointed a small subcommittee to consider the proposal made by this Branch, and has been asked to have a subcommittee of this Branch nominated, in order to meet the committee of the Senate in conference on July 1st. Your Council have accordingly appointed a subcommittee for that purpose. Your Council cannot turn from this subject without placing on record their high sense of the very valuable services of Dr. Gilbert Smith, the able and indefatigable secretary to the subcommittee appointed by the Council in July last, as

well as of the other members of the subcommittee, Dr. Bristowe, Dr. Bridgwater, Dr. Coupland, Mr. Rivington, Dr. Ord, Mr. E. Owen, and Dr. Curnow.

"Another subcommittee was, also at the suggestion of the President, appointed to consider whether it would be advisable to charge small fees to hospital out-patients. This subject was carefully considered by the subcommittee, who first drew up a preliminary report, which was circulated among many members. It contained the following questions. 1. Do you consider that the exaction of a small payment for medicine, with a careful registration of each applicant by the various hospitals, would be an advantage to the general practitioner? 2. Do you think it would induce many patients who now seek gratuitous advice at hospitals to consult medical practitioners for their ailments? 3. Do you consider that the bulk of the cases which seek relief at general or special hospitals and free dispensaries, would suffer from the exaction of a small payment for medicine? 4. Do you consider that the introduction of payments in the out-patient department of our hospitals, and the abolition of free dispensaries, would tend to promote the so called 'private dispensaries,' or do you think it would tend to the multiplication of provident dispensaries of a better class? In accordance with a suggestion by the subcommittee, which was approved by your Council, the subject was considered at meetings of the several districts in London, at which resolutions were passed, which are summarised in a second report which has been approved by your Council. It is therein recommended, as a result of the discussions on the subject, that "all hospitals should adopt the plan carried out at the London Hospital, of an inquiry into the circumstances of out-patients being entrusted to a paid officer of the hospital, and that governors should cease to grant out-patient letters unless to persons whom, from their personal knowledge, they know to be deserving, and in a condition to require hospital relief." A copy of the Report has been sent to each member of the Branch. In connection with this subject, the assiduous and useful labours of Dr. George Henty, Honorary Secretary to the North London District, who acted as honorary secretary to the subcommittee, deserve grateful acknowledgment.

"Your Council also appointed a subcommittee to examine the important subject of the dwellings of the poor in London, and nominated as secretary Dr. Mahomed, who had taken great interest in the matter, and who was chiefly instrumental in wishing the Council to take it into consideration. In consequence, however, of his lamented death, before anything could be done, the matter has fallen into abeyance.

"Your Council have also attentively examined the Lunacy Acts Amendment Bill now before Parliament. The subject was entrusted to a subcommittee, who suggested various improvements, which have been forwarded, with an explanatory letter, to the Lord Chancellor. In regard to this matter, the subcommittee has, with the consent of the Council, co-operated with the Parliamentary Bills Committee of the parent Association. Your Council desire to record their thanks for zealous and valuable work in this matter to Dr. Mickle, the secretary of the subcommittee, and for much useful assistance to the other members of the subcommittee, especially Dr. Savage of Bethlem Hospital, and Mr. Bristowe, barrister-at-law.

"Your Council have pleasure in reporting that the experiment made last year, of changing the time and place, of the annual meeting and dinner, was attended with a highly satisfactory result. At the dinner, 161 were present; and the amount of money received from the sale of dinner-tickets was more than sufficient to meet the expenses.

"From this brief summary of proceedings, it will be evident that the Branch and its Council have been engaged in much useful work during the year. Although the results obtained have not yet been all that could have been desired, much has been done; and your Council must now leave it to the Branch and to their successors in office to carry out what they have begun, and thereby to increase the already recognised reputation of the Branch as an organisation useful not only to the Parent Association, but to the whole medical profession and the general public.

"The ballot for the election of officers and Council has resulted in the unanimous approval of the list proposed by your Council; namely: President: Walter Dickson, M.D. President-elect: John S. Bristowe, M.D., LL.D., F.R.S. Vice-Presidents: Charles J. Hare, M.D.; Walter Rivington, M.S.; C. Macnamara, Esq.; E. Hart Vinen, M.D. Treasurer: Septimus W. Sibley, Esq. Secretaries: A. Henry, M.D.; W. C. Grigg, M.D. Eighteen Ordinary Members of Council (the names to which an asterisk is prefixed are those of new members of Council): *Charles A. Aikin, Esq.; W. Marrant Baker, Esq.; *Thomas Barlow, M.D.; J. Wickham Barnes, Esq.; *George P. Bate, M.D.; *Thomas Bryant, Esq.; *Thomas Buzzard, M.D.; *Alfred Cooper, Esq.; Sidney Coupland, M.D.; Charles Davidson, M.D.; Clement

Godson, M.D.; John T. Griffith, M.D.; George E. Herman, M.B.; *Berkeley Hill, Esq.; W. J. Mickle, M.D.; Arthur E. Sansom, M.D.; *Thomas Thynne, M.D.; *Hermann Weber, M.D. *Representatives of the Branch in the Council of the Association:* Thomas Bridgwater, M.B.; Henry T. Butlin, Esq.; William C. Grigg, M.D.; Septimus W. Sibley, Esq.; Frederick Wallace, Esq."

Mr. E. OWEN proposed: "That the report of Council now read be received, adopted, and entered on the minutes."

Mr. WALTER SMITH seconded the motion, and suggested that, in consideration of the increase in the membership of the Branch, the number of ordinary members of Council might be augmented.

The PRESIDENT thought that the proposal was good; but it was one which would require careful consideration.

The motion for the adoption of the Report was carried.

The Council of the Branch.—Mr. WALTER SMITH proposed:

"That it be an instruction to the Council to consider the question of enlarging the Council of the Branch."

Dr. GRIGG seconded the motion, which was carried.

Out-patients of Hospitals.—A report drawn up by a subcommittee on this subject, which had been adopted by the Council, and circulated among the members of the Branch, was taken as read. It contained a summary of the proceedings at the meetings of the several districts of the Branch, held to consider the subject, and concluded with the following recommendation:

"That, in the opinion of this Council, all hospitals should adopt the plan carried out at the London Hospital, of an inquiry into the circumstances of out-patients being entrusted to a paid officer of the hospital; and that governors should cease to grant out-patient letters, unless to persons whom, from their personal knowledge, they know to be deserving, and in a condition to require hospital-relief."

Dr. VINEN proposed, Dr. NORMAN KEER seconded, and it was resolved:

"That the Report of the Council on Out-patients of Hospitals be adopted and entered on the minutes; and that the new Council be authorised to take such steps as may appear advisable for carrying into effect the recommendations contained in the Report."

Treasurer's Report.—Dr. DICKSON, Treasurer, presented the balance-sheet for the year. The receipts, including a balance of £10 1s. 1d. from last year, amounted to £165 16s. 7d.; and the expenditure to £160 14s. 6d.; leaving a balance of £5 2s. 1d.

Dr. BRIDGWATER proposed, Mr. ROGERS-HARRISON seconded, and it was unanimously resolved:

"That the Treasurer's Report be received, adopted, and entered on the minutes; and that the best thanks of the Branch be given to Dr. Walter Dickson for the able and efficient manner in which he has discharged the duties of Treasurer during the last seven years."

Dr. DICKSON thanked the meeting for the vote, but said that much of the credit was due to the honorary secretary, Dr. Henry, who had undertaken the task of collecting the subscriptions.

Alteration of Law.—The PRESIDENT proposed, and Dr. GRIGG seconded, an alteration in the law of the Branch relating to the representatives in the Council of the Association; namely that, in place of the member retiring each year not being capable of re-election for one year, he should be at once re-eligible if thought advisable. The motion was carried.

New President.—Mr. MACNAMARA, after a few valdictory remarks, left the chair, which was taken by the new President, WALTER DICKSON, M.D.

Vote of Thanks to Retiring President.—Dr. HARE proposed, Dr. HENTY seconded, and it was carried by acclamation:

"That the cordial thanks of the Branch be given to Charles Macnamara, Esq., for his efficient and courteous conduct as President during the year; and especially for his able and judicious guidance and assistance in the consideration of those matters of professional importance which have been brought under the notice of the Branch."

Mr. MACNAMARA, in acknowledging the vote, said that he had acted from a sense of duty, and from a desire to increase the usefulness of the Branch. In doing this, he had always been loyally supported by the Council.

President's Address.—Dr. DICKSON delivered an address on the geographical distribution of disease, and the preservation of health, in various climates, founded on observations made during eighteen years' service as a medical officer in the Royal Navy.

Mr. SIBLEY proposed, Dr. FOTHERBY seconded, and it was resolved:

"That the cordial thanks of the Branch be given to Dr. Dickson for his able and interesting address."

Dinner.—The dinner, which took place at the Holborn Restaurant, was attended by upwards of 160 members and guests. The chair was

occupied by the President, Dr. Dickson; and among the guests was Dr. Crawford, Director-General of the Army Medical Department.

SOUTHERN BRANCH: ANNUAL MEETING.

THE annual meeting of the Southern Branch was held at Ventnor, Isle of Wight, on Thursday, June 18th; Dr. SINCLAIR COGHILL (President-elect) occupied the chair, and 40 members were present.

The late Mr. Martin Coates.—Dr. SINCLAIR COGHILL referred to the death of the President, the late Mr. Martin Coates, of Salisbury. The following resolution was unanimously adopted: "That the members of the Southern Branch of the British Medical Association desire to express their deep regret at the death of the President, Mr. Martin Coates, and to record their sympathy with all the members of the family, also their appreciation of his long and honourable career and high reputation as a surgeon."

President-elect: Annual Meeting in 1886.—Dr. Kealy, of Gosport, was unanimously elected President-elect, and Gosport was fixed for the place of meeting in 1886.

Officers and Council.—The following gentlemen were appointed officers of the Branch for the ensuing year. *Vice-Presidents:* G. A. K. Lake, M.D.; H. B. Norman, Esq. *Members of Council:* F. R. P. Darke, Esq.; J. R. Kealy, M.D.; Brigade-Surgeon C. Mackinnon; J. Neal, M.D.; Fleet-Surgeon W. Reid, M.D., R.N.; R. Shiels, Esq. *Representative on the Parliamentary Bills Committee:* D. Nicolson, M.D. *Representatives on the Council of the Association:* T. W. Trend, M.D.; J. Ward Cousins, M.D. Dr. Ward Cousins was also re-elected Honorary Treasurer and Secretary of the Branch.

Hydatid Disease of Lungs.—Dr. R. ROBERTSON read notes of two cases of hydatid disease of the lungs, which, in their history and in the physical signs and symptoms present, resembled cases of pulmonary phthisis, for which they had been mistaken. They were recognised by the expectoration of portions of hydatid cysts (two specimens of which were shown), but were peculiar among cases of phthisis in the insignificant amount of cough and emaciation exhibited, and, in one of the cases, from the persistence of bloody sputa.—The President (Dr. Coghill), and Drs. Driver and Ward Cousins commented on the cases.

Aneurysm of Aorta.—Dr. ROBERTSON also showed a specimen of aneurysm of the arch of the aorta, which had caused collapse of the left lung by pressure on the left bronchus, and in which death had resulted from rupture into the bronchus. Notes of the case were read, and of a second case of aneurysm presenting similar symptoms which had been mistaken for lung-disease.—Considerable discussion followed, in which Drs. Driver, Green, Groves, Kealy, Trend, Fleet-Surgeon O'Malley, and the President, took part.

Estimation of Urea.—Mr. GREEN (Sandown) read a paper on the importance of estimating the amount of urea passed daily.

Specimens, etc.—Dr. F. J. DRIVER (Southsea) exhibited many microscopic sections.—Dr. PLATTS (Ryde) exhibited Hodge's new truss, recently described in the JOURNAL.—Dr. Ward Cousins made some remarks on the treatment of congenital hernia in children, and also exhibited a new washable truss.

President's Address.—The President gave a short address on Anti-septic Inhalation in Chest-Disease.

During the afternoon, the members visited the Royal National Hospital for Diseases of the Chest.

Dinner.—The annual dinner was held at the Crab and Lobster Hotel, under the presidency of Dr. Sinclair Coghill.

BORDER COUNTIES BRANCH: ANNUAL MEETING.

THE eighteenth annual meeting of this Branch was held at Carlisle, June 26th, 1885; Dr. MUIR (Selkirk), President, in the chair. Twenty-five members and one visitor were present.

New Members.—The following new members were elected to the Branch: John Connel, M.D. (Peebles); R. W. Leeming, M.B., Kendal.

Report of Council.—The following report was read and adopted.

"A consideration of the present position of the Society enables the Council to report satisfactory progress. The number of members has increased, the financial condition is prosperous, and the work done bears favourable contrast with that of preceding years.

"There are now 120 members, 18 new members having been elected during the past year; one member has resigned, and four have left the district. With regret, the Council records the loss by death of Dr. W. A. F. Browne, who filled the office of President in 1875-76, and was formerly a very prominent member of the Branch.

"The income of the Branch has been £20 18s. 1d., namely, by balance from 1883. £5 4s. 8d.; and by subscriptions and interest,

£15 13s. 5d. The expenditure was £13 10s. 5d. The balance at the bank on December 31st, 1884, was £7 7s. 8d.

"Three meetings were held during the year; the first at Hawick, being the annual, the second at Kendal, and the last at Galashiels. Twenty-one members attended the Hawick meeting, 13 assembled at Kendal, and at Galashiels 20 members and five visitors were present. Hawick and Galashiels had never been previously visited by the Branch, and the Council records with satisfaction that a large increase to the roll resulted from thus breaking new ground. A discussion on Pneumonia, opened by Dr. Lockie, of Carlisle, formed the principal subject at the Galashiels meeting.

"Collective investigation secretaries were appointed in October last; Dr. Green, of Kendal, for Cumberland and Westmoreland, and Dr. Hamilton, of Hawick, for the Scotch counties.

"During the year, two new medical societies have been formed, namely, the Carlisle Medical Society, and the West Cumberland Medical Society. The Council express an earnest hope that these Societies will ever work in harmony with the Branch, and that the closer drawing together of medical men in special districts throughout the wide area of the Border Counties Branch, will tend to promote the objects for which the Branch was established."

The late Dr. W. A. F. Browne.—The following resolution was carried *nem. con.*

"That this meeting desires the President to express its sincere sympathy with the family of the late Dr. W. A. F. Browne, President of the Branch in 1875-76, in the bereavement which they, as well as the Branch, have recently sustained by his death."

Collective Investigation.—Dr. HAMILTON (Hawick) said he had no report from the Scotch counties, but that Dr. Green (Kendal) had received 21 cards duly filled up.

Officers and Council.—The following were elected officers and Council for the ensuing year. *President:* John Eaton, M.D. (Cleator Moor). *Council:* H. Barnes, M.D.; W. Brown, Esq.; J. Brydon, M.D.; T. F. I'Anson, M.D.; S. Lockie, M.D.; H. Mitchell, M.D.; J. Smith, M.D.; R. Somerville, M.D.; B. R. A. Taylor, Esq. *Secretary:* H. A. Lediard, M.D. *Representative in the Council of the Association:* H. Barnes, M.D. *Representatives in the Parliamentary Bills Committee:* H. Barnes, M.D.; R. Tiffen, M.D. *Auditors:* J. A. Macdougall, M.D.; G. Murphy, Esq.

Votes of Thanks.—The retiring President, the Council, and other office-bearers received votes of thanks for their services.

Places of Meeting.—The following places were chosen for meetings. Autumn, Maryport; winter, Carlisle; spring, Dumfries; the annual meeting to be subsequently fixed by the Council.

Presidential Address.—Dr. Muir retired from the chair, and Mr. C. S. HALL (Carlisle) gave his presidential address "On Some Points Connected with Medical Education," and received a vote of thanks.

The Thermometer.—Dr. HADDON (Hawick) read a paper on the "Value of the Thermometer in Practice." In the discussion which followed, the following members took part: the President, Drs. Brydon, Hamilton, Lockie, Somerville, Sanderson, Muir, Taylor, Maclaren, Grange, Macdougall, and Campbell.

Cases.—Dr. BARNES showed two female patients; the one being a case of leucocythæmia, and the other a movable kidney, and read notes.

Patent Medicines.—Dr. MUIR read a paper on the working of the Patent Medicines Stamp Act, and a resolution in favour of a repeal of the Act was unanimously agreed to.

Specimens, etc.—Dr. Maclaren showed the following casts: a tongue and half a tongue removed for epithelial cancer; internal intestinal strangulation; a mass of omentum removed from a hernial sac; and a cæcum, appendix vermiformis, and portion of small bowel, passed by a child *per anum*.—Dr. Lediard showed two boys who had had operations for the radical cure of hernia, performed five years previously, after Wood's method; also a patient whose tongue had been excised with scissors.

Dinner.—The members and friends dined together afterwards, 29 sitting down; Mr. C. S. Hall in the chair, Dr. Eaton and Dr. Muir being vice-chairmen. The usual loyal toasts were duly honoured, and some excellent music and other toasts brought a highly successful and enjoyable meeting to a close.

BEQUESTS AND DONATIONS.—The Savernake Cottage Hospital, Marlborough, has received £100 under the will of Mrs. E. Malpass.—Mr. Hen. William Franklyn, of Droxford, bequeathed £50 each to the General Hospital, the Royal Infirmary, and the Hospital for Sick Children, all at Bristol.—Messrs. Crosse and Blackwell have given £105 and Mr. W. Burdett-Coutts £100, to the building-fund of the new Great Northern Central Hospital.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH: ANNUAL MEETING.

The annual meeting of this Branch took place on June 23rd, at the Worcester Infirmary.

Officers and Council.—The following were elected officers for the ensuing year. *President:* T. Pike, M.D., Malvern. *President-Elect:* R. Thomason, Esq. *Honorary Secretaries:* G. W. Crowe, M.D., Worcester; H. C. Moore, Esq., Hereford. *Representative in the Council of the Association:* G. W. Crowe, M.D. *Representatives in the Parliamentary Bills Committee:* W. Strange, M.D.; G. W. Crowe, M.D. *The Council of the Branch* was re-elected, with Mr. Walter Moore (Stourport) in place of Dr. A. R. Smith (Hereford).

President's Address.—Dr. PIKE gave a short address on some of the relations between the Branches and their members.

Tubal Gestation.—Dr. THOMAS SAVAGE showed a tubal gestation, about eight weeks, in which a distended vein in the pampiniform plexus had burst, and filled the lower abdomen with blood, placing the patient very rapidly in *extremis*. The abdomen was opened, the blood scooped out, and the left broad ligament tied and cut away. A drainage-tube was inserted. The patient's condition was perfectly satisfactory on the sixth day.—Dr. Savage also showed a large myoma of the ovary.

Uterine Myoma.—Dr. SAVAGE read a paper on the surgical treatment of myoma of the uterus. He spoke against enucleation of tumours *per vaginam*, and described the conditions which indicated oophorectomy and hysterectomy. He advised recourse to the former operation, early in the history of the tumour, when it could be performed easily, and with almost absolute freedom from risk. The details of hysterectomy were pointed out, as also the dangers and the causes of death.—A discussion took place, in which Dr. Pike, Dr. Strange, and Mr. Lawson Tait took part. The latter spoke strongly in favour of early removal of the appendages in these cases, and against enucleation.

Charcot's Disease.—Dr. CROWE showed a patient with Charcot's disease of the hip-joint.

Dinner.—The members subsequently dined together at the Star Hotel.

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

THE forty-ninth annual meeting of this Branch was held at the Prince of Wales Hotel, Southport, on Wednesday, June 24th, 1885. Dr. WATERS (Chester), having taken the chair, introduced Dr. BARRON (Southport) as his successor.

President's Address.—Dr. BARRON delivered a long and very interesting address, reviewing the medical and surgical work done by members of the Branch. At the conclusion of the address, Dr. BALTHAZAR FOSTER, President of the Council of the Association, moved a vote of thanks to Dr. Barron for his address. This was seconded by Dr. WATKINS (Newton-le-Willows), and carried unanimously.

Report of Council.—Dr. GLASCOTT, the Honorary Secretary, read the following report of the Council.

"Your Council has the pleasure of again reporting that the condition of the Branch is in every respect a satisfactory one. During the past year, 69 new members have been elected to the Branch, 19 have resigned or left the district, and 11 have died, leaving 932 names on our roll of members. Amongst the deaths, we have to deplore the loss of two of the oldest members of the Branch—Dr. Noble and Dr. Whitehead; and, within the last few weeks, Dr. Thorburn, also of Manchester, has been removed from our midst.

"During the past year, efforts have been made to remove restrictions on the mode of nomination of members of the Branch Council and representative members in the Council of the Association; and, after repeated discussions at Council meetings held early in the year, a revision of certain of the rules was undertaken, and a special general meeting of the Branch was held at Chester in May last, at which the following important resolution was unanimously adopted: 'That the mode of nomination and election of the ordinary members of the Council be adopted in the case of representative members of the Branch in the Council of the Association.' Previously to the passing of this resolution, the representative members could only be nominated by the Council.

"In October last, probably the largest intermediate meeting ever held of this Branch met at Cheadle, on the kind invitation of the visiting physician and the medical superintendent of the asylum.

"Your Council has the pleasure of announcing that we have this day received a cordial invitation to hold a Branch meeting at Ashton.

under-Lyne, in the autumn of this year, and that a very hearty invitation has also been received from the members of the Branch at Lancaster, for us to hold our next annual meeting there. The invitation will be formally placed before you in the course of this meeting for your acceptance.

"Your Council has to regret the resignation of the post of local secretary for Lancaster, by Dr. William Hall, who has for many years held the post with advantage to the Branch. The name of Mr. William Hall, junior, will be submitted to you for election to the post.

"The financial condition of the Branch is good, the balance in hand at the end of the year 1884 being £127 12s. 9d., against £115 10s. 3d. the year before."

Dr. WATERS moved that the report and balance-sheet be adopted.

Mr. LUND (Manchester) seconded the proposition, which was carried.

Annual Meeting, 1886.—Dr. CHRISTOPHER JOHNSON (Lancaster) moved that the next annual meeting of the Branch be held at Lancaster, and extended a cordial invitation to the Branch, on the part of the members belonging to that ancient town.—Dr. SHUTTLEWORTH (Lancaster) seconded the motion, which was carried.

President-Elect.—Dr. JOHNSON proposed that Dr. Harker, of Carnforth, near Lancaster, be appointed president-elect for next year.—Mr. LUND (Manchester) seconded the proposition, which was unanimously passed.

Vice-Presidents.—On the motion of Dr. BARRON, seconded by Dr. WATKINS, of Newton-le-Willows; Dr. Davidson, of Liverpool; and Dr. Shuttleworth, of Lancaster, were elected vice-presidents.

Honorary Secretary and Local Secretaries.—The honorary secretary, Dr. C. E. Glascott, was re-elected. Mr. William Hall, of Lancaster; Mr. C. E. Steele, of Liverpool; Mr. J. E. Garner, of Preston; Dr. J. M. H. Martin, of Blackburn; Mr. J. Taylor, of Chester; and Mr. D. de Vere Hunt, of Bolton, were nominated the local secretaries.

Representatives in the Council of the Association.—The following were elected: G. B. Barron, M.D.; Alex. Davidson, M.D.; Charles E. Glascott, M.D.; Daniel J. Leech, M.D.; James Taylor, Esq.

Council of the Branch.—The following were elected: W. Alexander, M.D., Liverpool; F. J. Bailey, Liverpool; J. A. Ball, M.B., Heaton Norris; J. Barr, M.D., Liverpool; P. Braidwood, M.D., Birkenhead; S. Buckley, M.B., Manchester; J. E. Burton, Liverpool; J. S. Bury, M.D., Manchester; A. F. H. Cameron, Liverpool; W. Carter, M.D., Liverpool; J. A. Coutts, M.D., Waterfoot; C. J. Cullingworth, M.D., Manchester; W. M. Campbell, M.D., Liverpool; J. Corns, M.D., Oldham; J. Dreschfeld, M.D., Manchester; T. B. Eames, Stoneclough; A. M. Edge, M.D., Manchester; J. Farrar, Morecambe; H. M. Fernie, Macclesfield; W. H. Fitzpatrick, M.D., Liverpool; J. E. Garner, M.B., Preston; T. R. Glynn, M.D., Liverpool; F. M. Granger, Chester; A. Godson, M.B., Cheadle; W. Hall, Jun., Lancaster; J. Hardie, M.D., Manchester; De Vere Hunt, Bolton; A. Hamilton, Ashton; Leslie Jones, M.D., Manchester; A. Jamieson, M.D., St. Helens; T. Jones, M.B., Manchester; J. Lambert, M.D., Birkenhead; H. Colley March, M.D., Rochdale; E. H. Monks, Southport; G. W. Mould, Cheadle; Chauncey Puzey, Liverpool; E. Rayner, M.D., Stockport; D. Lloyd Roberts, M.D., Manchester; T. L. Rogers, M.D., Rainhill; J. Ross, M.D., Manchester; G. E. Shuttleworth, M.D., Lancaster; Starkey T. Smith, M.B., Warrington; C. E. Steele, Liverpool; G. Thomson, M.D., Oldham; C. Thorp, Todmorden; E. Waters, M.D., Chester; J. W. Watkins, M.D., Newton-le-Willows; F. P. Weaver, M.D., Frodsham; W. Whitehead, Manchester; G. A. Woods, Southport.

Alteration in the Laws.—Dr. CULLINGWORTH (Manchester) proposed, "That members present at the annual meeting shall have the power to substitute the names of any eligible members they please for those printed on the balloting paper, whether nominated by the Council or otherwise."—The proposition was seconded by Dr. J. BARR (Liverpool); it provoked a lively discussion, and was ultimately carried by a large majority.

Communications.—The following medical and surgical communications were presented to the meeting:

1. Robert S. Archer, M.B.: Case of Epigastric Abscess.
2. J. Brassey Brierley, M.D.: The Progress and Advantages of the Medical Sickness, etc., Assurance Society.
3. Reginald Harrison, Esq.: On the Treatment of Urethral Stricture by Internal and External Urethrotomy combined.
4. Francis Imlach, M.D.: 1. Calculus removed by Nephrolithotomy; 2. Ovary and Tube from a Recent Case of Pelvic Hematocele; 3. Pyosalpinx removed from a Diabetic Patient; 4. Prolapsed Ovaries from a patient with Suicidal Tendencies.
5. A. Emrys-Jones, M.D.: Notes on the Use of Iodoform in Eye-disease.

6. Wm. Walter, M.D.: Large Fibroma of the Uterus removed by Abdominal Section.

Luncheon was provided by the members of the Branch resident in Southport, at the Prince of Wales Hotel, from 12.30 to 2 P.M.

Dinner.—Seventy members of the Branch sat down to dinner at the Prince of Wales Hotel, at 5.30 P.M. Amongst the guests were Dr. Balthazar Foster, President of Council; Dr. Pilkington, the Mayor of Southport; and the Rev. F. R. Pearson.

YORKSHIRE BRANCH: SPRING MEETING.

THE spring meeting of the Branch was held at Doncaster on April 29th: the President (Mr. KNAGGS) in the chair.

The late Dr. Tibbits.—The following resolution was passed unanimously.

"That the Yorkshire Branch of the British Medical Association wish to express their great sympathy with Mrs. Tibbits and her family in the grievous loss they have sustained in the death of Dr. Tibbits."

Papers, etc.—The following were read.

1. Mr. McGill related a case of Nephrectomy.
2. Dr. Dyson related a case of Hemoglobinuria.
3. Mr. Charles Atkin read a paper on Acute Arthritis in Infants.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1886.

President: JAMES CUMING, M.D., F.R.C.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skeritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* F. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Muriell,

M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.

3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.

8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.

11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.

8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.

11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.

11 A.M.—Sectional Meetings.

2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.

3.30 P.M.—Music and Refreshments at the Windsor Gardens, Penrith, by invitation of Lord Windsor.

8 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

The following discussions and papers are promised up to the present time. Members desirous of reading papers or joining in the discussions are earnestly requested to communicate, without delay, with the Secretaries of the respective Sections, as the date of the annual meeting is a week earlier than usual.

SECTION A.—MEDICINE.

The following subjects have been chosen for special discussion.

1. The Clinical Aspect of Glycosuria. Introduced by F. W. Pavy, M.D. Dr. J. Milner Fothergill, Professor P. W. Latham, Dr. C. H. Ralfe, and Dr. G. H. Savage, will take part in the debate on this subject; and Dr. E. Markham Skerrett will contribute a paper on Acute Febrile Glycosuria.

2. The Treatment of Acute Rheumatism. Introduced by J. S. Bristowe, M.D. Dr. Sidney Coupland, Professor P. W. Latham, Dr. G. B. Barron, Dr. C. H. Ralfe, and Dr. E. Markham Skerrett, will speak in the discussion.

The following papers have been promised.

BRAMWELL, BYRON, M.D. 1. On Right-Sided Endocarditis. 2. (a) Demonstrations of Ulcerative Endocarditis; (b) Microscopical Sections and Drawings of (a) Cardiac Vegetations; (b) Kidneys; (c) Spleen; (d) Skin; (e) Choroid Coat of the Eye; (f) Membranes of the Brain; (g) Brain showing Micrococci.

COUPLAND, SIDNEY, M.D. On Gangrene of the Lung.

DRYSDALE, C. R., M.D. 1. The Treatment of Syphilis, and the alleged Prevention of Tertiaries. 2. On the Hygienic Treatment of Phthisis.

FOTHERGILL, J. Milner, M.D. When a Patient Dies of Exhaustion, of what does he Die?

GRIFFITHS, T. D., M.D. The Causes of the Localisation of Tubercle in the Apex of the Left Lung.

HARPER, H., M.D. 1. Extraordinary Coma in a Child. 2. Abnormally Shaped Skull.

HARRISON, A. J., M.B. A New Method of Treating Tinea Tonsurans.

MYRTLE, J. A., M.B. Cutaneous Eruptions traceable to Central and Local Nerve-Influences.

RABAGLIATI, A. C. F., M.D. A Criticism of the New Nomenclature of Disease.

SHEEN, A., M.D. Some Points in the Treatment of Enteric Fever.

SKERRETT, E. Markham, M.D. Cases illustrative of Rupture of the Pulmonary Air-Vesicles.

SMITH, R. Shingleton, M.D. On Intra-Pulmonary Injections.

STEPHENS, LOCKHART, ESQ. 1. A Case of Simple Stenosis of the Oesophagus, with specimen. 2. A Rare Form of Congenital Heart-Disease.

TATHAM, J., M.D. The Registration of Cases as carried out at the Hospital for Chest Diseases and Consumption, Brompton, and the Investigations proposed to be specially worked out.

SECTION B.—SURGERY.

The following discussions will take place.

1. A discussion on Bladder-Tumours, their Diagnosis and Treatment, will be introduced by Mr. R. Harrison. The following gentlemen have expressed their intention to take part in the debate: Professor Guyon (Paris), Dr. Stein (New York), Messrs. Knowsley Thornton, Swinford Edwards, Walter Whitehead, F. T. Paul, Hugh R. Ker.

2. Mr. F. Treves will introduce the subject of Operative Interference in Intestinal Obstruction. The following gentlemen will join in the discussion: Messrs. Lawson Tait, Greig Smith, A. F. McGill, Alfred Eddowes, A. W. Mayo Robson.

The following papers are promised.

BALL, C. B., M.D. Melanotic Sarcoma of the Rectum.

BISHOP, E. Stannmore, Esq. Enterorraphy, with a Description of a New Form of Suture.

CAHILL, T. E., Esq. The Latest Surgical Dressings.

FRANKS, KENDAL, M.D. The Application of Permanent Dressings in Antiseptic Surgery.

FREY, J. Farrant, Esq. Cure of Varices by Excision.

HUNT, De Vere, Esq. Rupture of the Kidney; Football Accident and Recovery.

JAMES, J. Brindley, Esq. On the Treatment of Lumbago and Rheumatic Pains by his Percutor.

KEETLEY, C. B., Esq. The Radical Cure of Hernia by Injection.

ROBSON, A. W. Mayo, Esq. Case of Enterectomy for Acute Intussusception; also a series of Surgical Cases illustrating the Use of the Eucalyptus-Air, and Dry Dressings.

ROTH, BERNARD, ESQ. Two Hundred Consecutive Cases of Lateral Curvature of Spine treated without Mechanical Supports.

SHEEN, A., M.D. Strangulated Hernia, with Cases.

SNOW, H. Z., M.D. The Non-Hereditary of Cancer.

STEPHENS, LOCKHART, ESQ. Suicidal Injury to the Stomach; Death from Internal-Hæmorrhage.

THOMAS, J. Davies, Esq. (South Australian Branch). Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac, and subsequent Free Drainage, based upon Thirty-two Cases.

SECTION C.—OBSTETRIC MEDICINE.

An Introductory Address is promised by the President.

The following papers are promised.

BARBOUR, A. H. Freeland, M.D. Anatomy of the Placental Site, with reference to the Third Stage of Labour and the First Days of the Puerperium.

HART, D. BERRY, M.D. The Mechanism and Management of the Third Stage of Labour. The oxy-hydrogen light will be used in illustration of the paper.

Dr. A. E. Aust Lawrence and Dr. Francis Imlach have promised to take part in the discussion on these papers.

MADDEN, T. MORE, M.D. On the Correlation of Topical and Constitutional Treatment in Gynecological Practice.

PLAYFAIR, W. S., M.D. The Proper Sphere of Constitutional and Topical Treatment in certain forms of Uterine Diseases.

It is hoped that Dr. Clifford Allbutt will be able to take part in the discussion on these papers. Dr. A. E. Aust Lawrence has also promised to assist.

DAVIES, D. A., M.B. Short Notes of a Case of Chronic Inversion of the Uterus.

GRIFFITH, G. de G., Esq. The Arrest of Post Partum Hemorrhage.

IMLACH, FRANCIS, M.D. On Pregnancy in Double Uterus, with a Successful Case of Porto's Operation.

KERR, NORMAN, M.D. Hot-water Injections in Post Partum Hemorrhage.

LAWRENCE, A. E. Aust, M.D. On the Septic Origin of Pelvic Inflammations.

MADDEN, T. MORE, M.D. On Ovarian Displacements.

REID, W. L., M.D. The Duty of Consultant and Practitioner in Relation to Puerperal Fever.

Dr. Priestley is expected to take part in the discussions.

Dr. Simon Fitch (Halifax, Nova Scotia) has signified his intention of bringing before the Section his Gynecological Inventions and Discoveries.

SECTION D.—PUBLIC MEDICINE.

The following papers are promised.

AITKEN, L., M.D., Rome. A communication on the result likely to be obtained from the recent meeting of the International Sanitary Conference on Cholera at Rome.

DAVIDSON, J. H., M.B. Summer Diarrhoea of Children.

DAVIES, J. V., Esq. The Natural Elements the most Reliable Disinfectants.

DRYSDALE, C. R., M.D. The Influence of Comfort in Lowering the Death-Rate.

GRIFFITH, G. de G., Esq. On Unity and Differentiation in Disease, and Unity of Poison in Diseases usually considered Separate and entirely Distinct; Evolution from one Unity or Common Origin, and of one Disease from another apparently quite Different.

JAMES, J. Brindley, Esq. Are Coroner's Juries Necessary?

LYDD-ROBERTS, J., M.B. Epidemic Pneumonia.

MARTIN, J. Esq. Over-pressure in Schools and Home-Lessons.

MAUNSELL, J., M.D. The Various Schemes of Medical Aid with a view of their Adaptation to the Requirements of the Present Day.

PAINE, H. J., M.D. Cholera and other Zymotic Diseases in their Relationship to Sanitation; Practically Illustrated.

PRINGLE, R., M.D. Cholera.

SWETE, H., M.D. A Real Danger, where there is a Constant Service-Supply of Water, of Disseminating Enteric Fever. Illustrated by an Exhibit.

VACHER, F., Esq. Is Summer Diarrhoea of Children One Disease or Many?

WELCH, H., M.B. (Title not communicated.)

WRIGHT, S. H., M.D. Some Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement.

Mr. T. J. Dyke will deliver an address.

SECTION E.—PSYCHOLOGY.

The following papers are promised.

CAMPBELL, T. A., M.D. Treatment of Maniacal Excitement.

MICKLE, W. J., Esq. Brain-Disease of Traumatic Origin; Cases.

TUCKER, D. Hack, M.D. Lunacy Legislation.

SECTION F.—OPHTHALMOLOGY AND OTOTOLOGY.

OPHTHALMOLOGY.

Dr. Arthur Benson will open a discussion on Atrophy of the Optic Nerve other than Glaucomatous.

The following papers are announced.

- ANDREW, Edwin, M.D. Extirpation of the Eyeball.
 BRAILEY, W. A., M.D. On Stretching of the Supra-trochlear Nerve.
 HARTIDGE, G., Esq. The Direct Examination of the Cornea and Lens.
 HEWETSON, H. B., Esq. 1. Antiseptic Precautions during Cataract and other Operations on the Eye, by means of Mr. Mayo Robson's Dry Eucalyptus Spray followed by Antiseptic Dressings. 2. The Treatment of Interstitial Keratitis by Syntectomy in the Acute and Semi-acute Stages without the Assistance of Specific Medicines or Counter-irritants.
 MOLES, P. H., M.D. Evisceration of the Eyeball.
 TAYLOR, C. Bell, M.D. 1. Precis of One Thousand Cases of Cataract-Extraction. 2. On the Treatment of Sympblepharon by Epidermic Grafts.

The following gentlemen will take part in the discussions: Edgar Browne, Esq.; Frederick Mason, Esq.; W. Charnley, Esq.; Professor McHardy; Frank Hodges, Esq.; Simeon Snell, Esq.

OTOLOGY.

Dr. F. M. Pierce will open a discussion on the Pathology and Treatment of Affections of the Ear termed Menière's Disease.

Dr. Woakes will open a discussion on Syphilis a Factor in Ear-Disease.

The following paper has been promised.

- HEWETSON, H. B., Esq. On the Immediate Improvement of Hearing following Division of Cicatrices in the Membrana Tympani.

SECTION G.—PHARMACOLOGY AND THERAPEUTICS.

The following arrangements have already been made in this Section:

1. The President will deliver his introductory address.
2. Professor Leech will open a discussion on the Duration of the Action of Medicines.
3. Dr. Talfourd Jones, Vice-President, will open a discussion on Hypodermatic Medication.
4. Dr. E. Long Fox will open a discussion on the Action of Diuretics.
5. The President, Professor Fraser, F.R.S., will open a discussion on the Action and Uses of Digitalis and its Substitutes.

Dr. Stockman will demonstrate the Action of some members of the Digitalis Group.

Professor Hay will contribute a paper on this subject.

Dr. Talpade will take part in this discussion.

Professor Hay will open a discussion on the Nitrites.

A debate on Anæsthesia, General and Local, will be opened by Dr. Dudley Buxton, followed by Professor John Chiene and Dr. Milne Murray, Mr. Woodhouse Braine, Mr. Bailey, Mr. Marcus Gunn, and Dr. Redwood.

Dr. Carl Küller, of Vienna, and Dr. Dujardin-Beaumetz, of Paris, will attend and take part in the proceedings of this Section.

In connection with the debate on Anæsthesia, demonstrations of various anæsthetics and apparatus will be given.

Gentlemen are invited to take part in the proceedings of this Section by joining in the discussions arranged, or contributing papers. Early intimation is requested to be made to one of the Secretaries of the Section. Short abstracts of papers to be forwarded to the Secretaries not later than July 23rd.

The following papers have been promised.

- AITKEN, Lauchlan, M.D. Subcutaneous Injection of Salts of Quinine and Ergotene.
 CURRIE, A. S., M.D. The Antagonism between Ether and Chloroform and Ether and Amyl-Nitrite.
 KERR, Norman, M.D. Ought Alcohol to be prescribed? and how?
 MARUNA, M.D., Esq. Short Notes on Extract of Quebracho.
 RAWLINGS, J. A., Esq. Dietary of Infants.

The Section will be asked to consider a proposal of Dr. Balthazar Foster, made through the Collective Investigation Committee, that this Section should discuss New Remedies, and make a selection for further investigation, in conjunction with the Collective Investigation Committee.

* * * Members intending to visit Cardiff during the Meeting, are requested to send in their names, and stating if accompanied by ladies, as soon as possible, to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

In order to facilitate the arrangements for the excursions, members, in sending in their names, should state if intending to go any of the following excursions.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.30. Here carriages will be in readiness to drive to Chepstow Castle, and then to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 p.m., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.40. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7.20 p.m., and reach Cardiff at 8.20 p.m. If preferred, those returning home eastwards may stop at Newport, and catch the mail at 9.5. Arrangements will be made about luggage.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taff Vale Railway Station at 8.20 A.M., and proceed by steamship *Sherbro*, from the Pier Head at 8.40 A.M., reaching Burnham at 10.30 A.M. At 10.40, the party will leave by train for Glastonbury, which will be reached at 11.15 A.M. The ruins of the Abbey will be visited. In the cemetery, tradition says, are buried King Arthur and his Queen, Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 1 p.m., the party will leave by train for Wells, reaching that station at 1.16 p.m. Luncheon will be served at 1.30 p.m., at the Swan Hotel, Wells, after which the Cathedral will be visited. The west front of the Cathedral is one of the noblest Gothic façades in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Afternoon tea will be provided at 5 p.m., at the Swan Hotel, and at 6 p.m. the return train will leave Wells; and the steamer will leave Burnham for Cardiff at 7.30 p.m., reaching there about 9.20 p.m.

3. *Caerphilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, a special train will be arranged over the Taff Vale Railway, and down to Caerphilly Castle by the Rhymney Railway, where refreshments will be provided. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion. Caerphilly Castle is one of the largest and grandest old ruins in the kingdom. (The arrangements for this excursion are not yet complete.)

4. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is an elevated cliff, standing 600 feet above the sea-level, and renowned for the singular view which it commands of the numerous and beautiful mazes of the river Wye. The Speech House is charmingly situated in the midst of the Forest of Dean, and is surrounded with forest-drives and open glades. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30. At Newport, they will change into the ordinary train for Symonds Yat, which leaves at 11.5, and reaches Symonds Yat at 12.46. Luncheon at 1 p.m., at the Symonds Yat Refreshment House. Tea at 5.30, at Speech House. The party will walk a distance of two miles to Lydbrook Junction, in time to catch the 3.20 train for Speech House, which will be reached at 4 p.m. They will return at 6.24, *via* Lydney, reaching Cardiff at 8.10. Those returning home eastwards can stop at Chepstow for the mail at 9.51.

ANNUAL MUSEUM.

The nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene,

as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

To EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

NOTICE OF SPECIAL BUSINESS.

Notice is hereby given that, at the Annual General Meeting to be held at the Town Hall, Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

Mr. DIX gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

Mr. GEORGE BROWN hereby gives notice that he will move an alteration in By-law 17, paragraph (D), so as to read:

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

FRANCIS FOWKE, General Secretary.

161A, Strand, London, June 18th, 1885.

THE LONDON SCHOOL OF MEDICINE FOR WOMEN.—On Tuesday last, at a meeting at the school-premises, Professor Gladstone, F.R.S., distributed the prizes to the students of the London School of Medicine for Women, and then gave a short address to the students, in which he said he had viewed with interest the progress of the movement for medical education for the past 30 years. Professor Harvey, M.D., of Calcutta, said that hundreds of thousands of Indians were suffering from the want of medical care. Mr. Norton gave notice of the foundation of the John Byron Scholarship from the proceeds of a legacy recently left to the school. A hearty vote of thanks to the chairman was proposed by Mrs. Westlake.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Unusual Forms of Urticaria.—*Articular Rheumatism accompanied by Phlebitis.*—*The Pseudo-Rheumatism accompanying Mumps or Parotitis.*—*Contagion of Mumps: Microbes in the Blood.*—*Cholera.*—*Hysteria in Man.*—*General News.*

DR. ERNEST BESNIER, in a recent clinical lecture at the St. Louis Hospital, described two interesting cases of urticaria in his wards. One of the patients was a young woman, aged 20, who was suddenly seized with *malaise*, lost her appetite, and had a general feeling of pain and lassitude. The same evening, she was covered with a pruriginous eruption, which was very abundant; it became confluent and redder, but, after a short time, the pruriginous character was less marked. On one occasion, she was seized with severe dyspnoea; the temperature was very high. She suffered extreme distress, vomited bile, and had severe colic; she was threatened with syncope. This condition lasted 24 hours. The eruption changed character. There was only a little redness diffused over the body. No cause can be assigned for the attack of nettlerash. The second patient suffered from a form of urticaria that Dr. Besnier says might be called autographic urticaria. On rubbing the skin, the impression remains; with blunt-edged instruments, words can be traced. This condition depends on the vaso-motor nerves, and is rarely met with. The patient in question had arthritic antecedents. His health had been greatly impaired by grief and anxiety; he became hypochondriacal, and suffered intensely from prurigo. There was considerable disturbance of the cutaneous vascular system. [This form of disease is well known to English medical writers, under the name of *facititious urticaria*.]

Dr. Letulle records an interesting case of rheumatic fever accompanied by phlebitis. The patient was originally attacked by primary pharyngitis, which was followed by articular rheumatism. The first attack was followed by a second, complicated by endocarditis of the mitral valve and double pleurisy. The third presented phlebitis of the saphenous and femoral veins, then oedema, a high temperature, and pain. The presence of a clot in each vein was ascertained. The limb was wrapped in cotton-wool. M. Letulle believes that this form of phlebitis affects most often the veins of the leg, and most especially the left leg.

MM. Lannois and Lemoine publish some new facts concerning the rheumatic complications of mumps. Pains in the articulations during this malady occur more often in men than in women, independently of rheumatic antecedents. They always appear when the swelling of the parotid gland is diminished, and it is almost of normal size. All the joints may be invaded by these pseudo-rheumatic pains. The diagnosis between this form of rheumatism and true rheumatism is easily made. In pseudo-rheumatism, the articulations affected are neither hot nor red; the principal feature is stiffness of the joint. The pain is rarely considerable. In five or six days the symptoms disappear. Frequently they reappear when the ordinary habits are resumed, and the second attack may be followed by others.

M. Jaccoud, in a recent clinical lecture at the Hôpital de la Pitié, drew attention to a case of mumps presenting infectious symptoms. The patient entered after the first symptoms had abated. The swelling of the parotid glands had diminished; the right testicle was much swollen and very painful. The temperature was very high, at night reaching 40.4° Cent. (104.2° Fahr.); the subsequent evenings, it reached 41° (105.8 Fahr.). Endocarditis, affecting both the sigmoid and mitral valves, set in. Dr. Jaccoud regarded this complication as an indication of the infectious character of this case of mumps. Gradually the symptoms disappeared; but the cardiac *bruits* remained, though much enfeebled. M. Netter examined the blood of the patient, and found that it contained microbes. Dr. Jaccoud enumerates the three following symptoms as clinical indications of infection: fever, endocarditis, and transient albuminuria. M. Auguste Ollivier, in a communication to the Académie de Médecine on the contagious character of mumps, stated that the contagious character of this affection can be no longer doubted. MM. Capitan and Charrin have made some researches to ascertain the agent of this contagion, and assert that it is a special micro-organism contained in the blood and saliva. Inoculations made with it furnished negative results. M. Barth, in a recent thesis, published notes of a serious case of parotiditis in Dr. Bouchard's wards. Microbes were present in his urine and saliva. In the urine and saliva of a male child, aged 11, suffering from mumps, Dr. Ollivier observed epithelial cells, lymphatic corpuscles, short rods, and micro-

cocci, dispersed in couples or in fours. Zooglaea were also present, but gentian-violet did not stain them. The urine was highly coloured, limpid, free from albumen, and contained a considerable quantity of micrococci, arranged in small masses, two together; rods and bacteria were not so abundant as in the saliva. The saliva of children not suffering from mumps, examined by Dr. Ollivier, was free from rods, but contained micrococci and zooglaea, which were stained by gentian-violet. In their urine there were neither rods nor micrococci. M. Ollivier afterwards examined the saliva and urine of children suffering from parotiditis, and detected the presence of micrococci, diplococci, and zooglaea.

M. Marey, in his recent work entitled *Les Eaux Contaminées et le Cholera*, publishes the following facts gathered from official reports and documents lodged at the Académie de Médecine. Cholera is transmitted by man; it travels with him by land and by sea, slowly or quickly, according to the means of locomotion he possesses. Cholera is frequently imported by an arrival from a contaminated locality: it is not necessary that this person should have cholera; choleraic diarrhoea would spread the contagion. The contagious principle exists in the intestinal dejecta of the patients. Clothes worn by cholera-patients, and their soiled linen, propagate cholera in distant districts where they may be sent; moreover, they retain, during several weeks, their dangerous principles. Food prepared in the house of a cholera patient, and carried to another house, has communicated cholera to people who ate it. Of all callings, cholera-mortality is highest among linen-washers, whether they be washer-women or men. In the epidemic of 1832, 165 of this calling died. In high altitudes cholera is rare, but localities in low positions generally suffer severely, especially villages situated on the river banks, or near streams. The epidemic appears in succession in each village, following the course observed by the water.

M. Charcot has recently devoted some of his clinical lectures at the Salpêtrière to the study of six cases of hysteria observed in male patients. He classed, under hysteria, the affection known as railway-spine and railway-brain, a classification recognised as just by Putnam and Walton of America, and Page of England. M. Charcot quoted from their works. From 1875 to 1880, five doctoral theses have been written on hysteria in man. M. Klein, the author of one of these theses, collects 80 cases. M. Batault has collected 218, of which nine are M. Charcot's patients. M. Charcot told his pupils that hysteria in male subjects is not rare. It is an affection that is misunderstood and often overlooked. If it be occasionally recognised in weak young men of an effeminate type, who have suffered intense emotion, it is not admitted that a strong vigorous workman is susceptible to hysteria. Yet examples have been furnished by stokers after a railway-accident. Dr. Charcot attributes the ignorance concerning this neurotic affection in man to a false appreciation of it in female patients. In male patients, hysteria lasts a long time, and the symptoms are durable; with women, the contrary is the case. This difference leads those who have not a thorough knowledge of this neurosis to overlook its appearance among male patients. Even women sometimes present hysterical phenomena that remain permanent, which are difficult to modify, and sometimes resist all medical treatment.

The medical inspectors attached to the service organised for the protection of infant life, state that infants fed on milk from cows nourished by bruised malt suffer in health. Dr. Toussaint, of Argenteuil, believes that he can reckon six deaths from that cause. This milk is also unhealthy for adults.

M. Collin, of Paris, has invented two new forceps to be used in resections of ribs. One pair is used for cutting, and resembles, in shape, a parrot's beak; it acts in the same way as English forceps. The second is used for dilating the ribs.

M. Vallin has read, before the Société d'Hygiène, some interesting notes concerning the use of tobacco. Dr. Deenisne has, since 1864, made communications on the subject to the Académie des Sciences. Cardiac nicotinism is manifested by an intermittent pulse and a tendency to faint. Among a hundred tobacco-smokers, discontinuance of smoking sufficed to remove the disturbance. Another note treated of the abuse of tobacco among children from 9 to 15 years. They suffered from chloro-anæmia. Their blood contained less than the normal quantity of corpuscles. In the carotid arteries there was a blowing sound; they were dull, and inclined to indulge in strong drinks. Chloro-anæmia resulting from tobacco-smoking may provoke pulmonary phthisis. Women who smoke suffer more severely than men, the cardiac symptoms being more severe and more frequent.

MEDICAL MAGISTRATE.—Dr. Balthazar W. Foster has been placed on the Commission of the Peace for the county of Warwick.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—Will you allow me to correct an important error in my letter, which appeared in the JOURNAL of June 20th, an error which has just come to my knowledge, and which I am grateful for having had more accurate official information communicated to me, that now enables me at once to rectify it? I stated "that the office of examiner in surgery was restricted almost exclusively to members of the Council" of the College; whereas this is certainly not an absolute rule. As exceptions may be mentioned the present president, and both the vice-presidents, each of whom was elected by the Council, as an examiner in surgery, before he became a member of Council: and the last two such examiners elected are not on the Council. I feel that I ought to have ascertained these facts, or have remembered the more recent exceptions, before making a statement, which, however, had reference to the principle of generally combining the two offices of examiner in surgery and member of the Council.—I am, yours obediently,
FREDERICK JAMES GANT.
London.

ELECTRICITY versus HANGING.

SIR,—I have read, with interest, your article on "Death by Electricity" in your issue of March 14th. It was my lot to be acting-surgeon to the chief gaol of this colony, between two and three years ago, and in that capacity I was the unwilling spectator of human misery on the scaffold. It is needless to repeat here what I have seen. Having read of the Hatfield and other accidental deaths from a powerful electric shock, and at the same time bearing in mind certain local sad scenes, the idea then presented itself, of a certain and rapid death for a criminal—minus blood, the rope, or occasional torture.

The following suggested itself to me. The condemned man standing on a metal plate in a corridor, in some convenient part of the prison, and the religious service being read, at a given signal, let the full current be turned on, with the result of causing instantaneous death. It is not edifying for a medical man to have to write on the subject of procuring death when his mission is exactly the opposite one; but when the law says death, it should be the aim of our profession to make it as painless as possible.

Again, if the electric light gain in public favour, and our gaols be lighted thereby, the same machine might be utilised. I mentioned the subject to various medical friends, while on leave in England last year.—I remain, your obedient servant,

British Guiana.

HENRY DALTON, M.D.

BIOLOGY AND MEDICAL STUDENTS.

SIR,—I observe a growing tendency, in the discussion about medical degrees for London students, either to object to biology altogether as a preliminary study for medical students, or to object, at any rate, to the amount which is now required of candidates for the preliminary scientific examination at Burlington House.

I should be very glad to know the grounds on which this objection is based, and should be glad to see, either privately or in your columns, some statement of those grounds. Those who are prominent in the present discussion of the conditions of the London medical degree, have not, I believe, an adequate knowledge of what constitutes the elementary zoology and elementary botany, which at present form, under the name biology, part of the preliminary scientific curriculum. It is practically a new subject, taught and examined in by new methods, and very different indeed from the botany and comparative anatomy which those medical men who studied more than ten years ago, were obliged to attend. This being the case, I feel some doubt as to whether the objections which have been raised against biology are rarely based on sufficient knowledge of the present state of things.

On the other hand, I should like to ask any medical graduate who has, within the past ten years, attended a properly organised practical course of instruction in biology, as required by the University of London, whether he regrets the time so spent, or whether he will not, on the contrary, bear testimony to the assistance which he has derived from this preliminary study, in dealing subsequently with the more special courses of physiology and anatomy which form part of a medical curriculum. And again, I would ask teachers of physiology whether they have or have not found that the student who is well-grounded in biology, is more fitted to receive instruction in physiology than the student who has not been so trained. I think that the evi-

dence of these two classes of persons would be of more value in this matter than the opinion of medical practitioners of many years' standing.

The schedule of the University in biology consists essentially of a list of ten specified animals, and of twelve specified plants, which the candidate is expected to have dissected and thoroughly studied, so far as the appliances of a college laboratory permit. He is expected to know the leading points in the structure and life-history of these organisms, and to be able to compare them one with another, and of his own knowledge to speak of their agreements and differences.

The time required for this course of study is, approximately, 120 lectures (that is 30 weeks, with four lectures a week) and 40 whole days (of six hours), or, better, 80 half days (of three hours) in the practical class, under the supervision of skilled demonstrators. The appliances necessary are a well lit laboratory, with ample space for each student, microscopes, dissecting apparatus, diagrams, and a proper supply of the animals and plants of the schedule. Lastly, a competent teacher and experienced demonstrators are essential.

The opposition to biology as part of the preliminary studies of the medical student arises, there is reason to fear, in some cases, from the difficulty which there must necessarily be in providing such a course of instruction, and such appliances and staff as I have above indicated, in some of the London medical schools. My experience as an examiner has convinced me, and I know that the conviction is shared by others, who have been my colleagues, that candidates have hitherto been rejected in botany and in zoology at the preliminary scientific examination, not because the questions were difficult or the standard high, but because the rejected candidates had, in by far the majority of cases, never received a proper course of instruction such as I have sketched above.

It seems to me that it is desirable, not that the University should lower its requirements so as to enable students who have been prepared in purely medical schools to pass, but that these purely medical schools should abandon their present attempt to teach preliminary science, and confine themselves to the teaching of subjects for which their appliances are adequate, whilst not merely permitting but definitely requiring their students to take the instruction required in biology and similar subjects, at institutions which have been thoroughly equipped for the teaching of science, and are in no way their rivals or competitors in the bid for "medical entries."

It would seem ridiculous, were it not deplorable, that it should be necessary at the present day to insist on the value to a medical man of a fair knowledge of the range of organisation of the lower animals and of plants. Not merely the advantage, but the necessity of such knowledge is admitted by the whole of Europe outside London. Those who at present declare that the very small amount of this knowledge required of university graduates in medicine, is excessive or altogether worthless, are in nearly every instance not themselves in possession of the knowledge which they declare to be useless as a training, and as an introduction to medical study. Whilst they may justly point to their own positions as an illustration of the fact that biology is not necessary for the making of a professional success, they are open to the suspicion of being unwilling to allow the new generation to enjoy advantages which they did not receive, and in the present administration of which they can have no share.

It will be conceded that the opinion of a majority of the medical profession as to the proper subjects of medical education, though extremely valuable, can only be regarded as decisive; and it cannot be so regarded, owing to the fact that the practice of the medical art, and the progress of medical knowledge, are not invariably equally the subjects of one man's attention and interest. By the time a man has attained some weight in the profession he may (happily it is not always the case) have lost interest in those fundamental studies which form the secure foundation of medical knowledge.

The general complaint, to the effect that the medical student of the present day cannot give sufficient time to the acquirement of strictly professional knowledge, owing to the large amount of time which he is induced to give to preliminary subjects, is not a reasonable one. The preliminary and accessory subjects should be, and as a matter of fact are, no more extensive than is absolutely reasonable, and therefore necessary. The whole difficulty in London medical education arises from bad organisation and bad teaching, both of the preliminary and of the more strictly professional subjects. The student's time is insufficient, because any length of time given to incompetent and ill organised teaching is insufficient. Instead of demanding a lowering of university requirements to the level of their insufficient arrangements, the medical schools of London should organise their teaching, and not only provide London students with the best appliances and with the material conveniences of study, but should allow the student

to attend the best teaching available in the metropolis, in whatever hospital or college it may be given. When the London schools cease their present system of protecting inferior teachers by taking composition-fees from students, and paying such teachers without reference to the value of the teaching given, then London will perhaps be able to hold its own against Edinburgh as a medical school. If every medical student in London were to pay his fees and receive his tickets at a central office, and were then allowed to use each separate ticket—whether for a preliminary, an accessory, or a clinical course—at any school in London, one course here and another there, we should see three remarkable results: 1, a number of incompetent teachers would disappear; 2, competent teachers would attract large classes; 3, there would be an end of the complaints about the curriculum of the University, and of proposals to lower it so as to enable London teachers to retain students who now go to Scotland. A stimulus would be given to teaching, for want of which it is at present falling into decay. Could we obtain, in addition to such an organisation, and as a condition of it, the admission by the University of every teacher whose class attains a certain size—say 50—to the right of acting as co-examiner with the University examiner in the examining of the teacher's own class, we should have the basis of a healthy university system, which would practically put London schools in the same position as are the Scotch universities.

The attempt to mend the thoroughly bad state of medical education in London, by throwing overboard a Jonah or two, in the shape of biology and physics, will only lead to disaster. What we must try for is a reasonable organisation, and a healthy spring of action; the abolition of educational "rings" and monopolies, and the substitution of the "Lehrfreiheit" and "Lernfreiheit," as nearly as may be, which have proved successful in Germany.—Yours faithfully,

E. RAY LANKESTER.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACTION UNDER THE APOTHECARIES' ACT.

LAST week, in the Bow County Court, before Mr. Prentice, Q.C., and a jury, a case brought under the provisions of the Apothecaries' Act was decided. The plaintiffs were the master and wardens of the Society of Apothecaries, who sought to recover a penalty of £20 from Mr. A. W. Tulby, accoucheur and dealer in patent medicines, of Brunswick Road, Poplar, for having acted as an apothecary without being duly qualified according to law. Mr. Lewis Glyn was counsel for the plaintiff society, and Mr. Ruegg appeared for the defendant. In stating the case, Mr. Glyn said the proceedings were taken under the Apothecaries' Act of 1815. Poor people had recourse to unauthorised persons when in need of medical advice, and they were often supplied with utter trash and rubbish, which not unfrequently did them positive harm. He understood that the defendant would contend that he was beyond the Act, because he carried on business conjointly with a surgeon; but a surgeon had no more right to act as an apothecary than an ordinary druggist. It would be proved that in various instances the defendant had committed a clear and undoubted breach of the law. Several witnesses were called to show that either they themselves or their children had been treated medically by the defendant for chronic asthma, measles, etc. He had sometimes called at their houses, and they paid for the medicines supplied. They admitted, in cross-examination, that the medicines had a beneficial effect, and that the defendant was popular in the district. For the defence, it was endeavoured to be proved that the defendant did not compound or prescribe any medicines, and that he merely acted as assistant to a surgeon, in which capacity he was entitled to do what he had done. The jury found that the defendant had acted illegally as an apothecary, and the learned judge awarded the plaintiffs the statutory penalty of £20 with costs.

A QUESTION OF DUTY.

SIR,—I shall feel very much obliged if you will give me your opinion on the following point.

I was recently called to a case of attempted suicide by cutting the throat. Is it my duty to see that this is reported to the police, or is it my duty to simply attend the case, and leave the police to find out for themselves what has occurred? I may mention that I am the divisional surgeon of police.—I am, Sir, your obedient servant,
DUTY.

* The omission of all details of the surrounding circumstances which led to the lamentable catastrophe alluded to by "Duty," deters us from offering any other than what may be regarded as debatable and indefinite advice. We venture, however, to express our personal view on the point; namely,

that unless the deed was committed or attempted in the hope of escaping from the legal consequences of a felonious act, in contradistinction to what we would term a moral and mortal sin, we are clearly of opinion that it does not devolve upon our correspondent to apprise the official authorities of the painful circumstance, and that it is simply his duty to do the best he can professionally for his unfortunate patient, whose recovery, moreover, might be jeopardised, or, at least, greatly retarded, by "Duty's" suggested step. If, it may be fairly asked, our correspondent was unofficially connected with the authorities in question, would he deem it his duty to communicate the fact to them? Let conscience dictate the answer, and his line of action in the matter be guided thereby.

FEE TO AN ASSISTANT.

AN ASSISTANT.—Our correspondent is, we think, bound in honour to hand to Dr. B. the fee received from Dr. A., which, most probably, Dr. B. will be liberal enough to allow him to retain.

MILITARY AND NAVAL MEDICAL SERVICES.

MEDICAL OFFICERS OF FOOT-GUARDS.

M.D. asks the following questions.

1. What are the various allowances, and their separate amounts, drawn by surgeons attached to a battalion of foot-guards?
2. What are the various subscriptions, and their amounts, which a surgeon is expected to pay?

. The pay and allowances of the medical officers of the three regiments of foot-guards are the same as those of all other army medical officers, according to rank. The regimental subscriptions probably differ in each regiment, and, to a certain extent, must vary in the different battalions of the same regiment according as they are respectively quartered in or near London, in Ireland, or on foreign service. Our correspondent had, therefore, better make inquiries on this point of one of the medical officers of the regiment in which he may be interested.

RELATIVE RANK AND TITLES.

SIR,—Referring to "Medical Staff's" letter in the JOURNAL of May 16th, 1885, I cannot quite coincide with his remarks *apropos* to military titles being conferred on military surgeons whilst in the service. It would cause jealousy and discontent throughout the army, and would place medical officers, more or less, in a false position. Nevertheless, I think that some provision ought to be made, on the retirement of medical officers, which would give them a defined military status, when, perhaps, after many years' service, real professional work is put aside for a well earned repose. This could easily be obtained by giving medical officers, according to the length of their service, an honorary step in military rank on retirement instead of the usual departmental titles, which, for obvious reasons, cannot be utilised, and are consequently worthless. Such a concession would necessitate no extra expense on the Government, and, at the same time, give satisfaction to a large body of deserving officers.—I am, sir, etc. F.S.A. India.

ARMY MEDICAL SERVICE.

ACTING-SURGEON ALEXANDER VALENTINE, 1st Ayrshire and Galloway Artillery Volunteers, has resigned his appointment, which bore date October 13th, 1883.

Mr. J. P. MASSINGHAM has been appointed Acting-Surgeon to the 1st Shropshire and Staffordshire Artillery Volunteers, and Mr. A. G. DUDID, M.B., takes the same position in the 3rd Buchan Volunteer Battalion of the Gordon Highlanders, otherwise the 3rd Aberdeen Volunteers.

Surgeon A. G. MILLER, of the 1st Edinburgh Volunteers (the Queen's City of Edinburgh Rifle Volunteer Brigade), has been granted the honorary rank of Surgeon-Major.

Mr. W. L. MORGAN has been appointed Acting-Surgeon to the 1st Oxfordshire (Oxford University) Rifle Volunteers.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE HEALTH-OFFICERSHIP OF BUGLANTON.

OUR opinion has been asked as to the propriety of the conduct of one medical practitioner in accepting, at a salary of £5 a year, the health-officership of Buglanton (a small town of about 1,500 inhabitants near Congleton), in replacement of another medical man who had for some years held the office at £10 a year. Certain of the circumstances are differently stated in the letters which have been addressed to us from both sides; but the broad facts appear to be as follows. The Local Board, for reasons which need not be speculated upon, determined not to re-elect their old officer, and (having in any event determined to reduce the salary to £5) offered the appointment to the gentleman in whose conduct is now complained of. He appears to have protested at the reduction of salary proposed by the Board, "and, when he accepted the appointment, he stated that he would hold it for one year; but that, had he known the salary had been reduced to £5, he would not have been a candidate."

This was a reasonable *caveat* on his part, and, although it might have been wiser for him to have declined the appointment until the circumstances of the existing health-officer's supersession had been fully ascertained, we cannot say that his action was "a breach of medical etiquette." Of the extraneous allegations which are imported into the discussion, we need say nothing. We are not in a position to adjudicate upon them, and they only complicate unnecessarily the main issue. The fact is that local boards for wretchedly small districts like Buglanton ought to be summarily suppressed. Years ago, when there was no effective control over the creation of separate local government districts, tiny villages that wanted the control of their own highways furnished themselves with all the apparatus of a local board. Derbyshire and Yorkshire showed especial alacrity in this respect. Of recent years, a population of about 3,000 persons has been, very properly, regarded as the minimum unity for separate sanitary government. But, meanwhile, nothing has been done for the amalgamation or merging of districts like Buglanton, that are too small for administrative purposes. Five pounds for looking after 1,500 people, living in an area of 2,852 acres, is not too princely; but, by comparison with larger districts, it can hardly be said to be disproportionately small. And though, when there is a question of principle at stake, the mere amount at issue goes for nothing, in this particular case, the grievance appears to us to resolve itself into the caprice of a small local authority, which does not bear investigation, and does not, indeed, deserve it. We recommend both our friends, therefore, to accept the situation, as it stands.

THE OPINION OF WOOLWICH ON MEDICAL OFFICERS OF HEALTH.

IN a report made to the Local Government Board by their inspector, Mr. Spear, at the beginning of the year, the sanitary administration of the town of Woolwich was criticised, and great emphasis laid on the anomalous position in which it is placed by the blunders of legislative enactments in not being, as other towns are, compelled to appoint a medical officer of health. Mr. Spear pointed out the importance of a permanent and skilled medical adviser, and put his finger on several defects of overcrowding, unsatisfactory drainage, arrangements for dealing with infectious disease, etc., which he showed could scarcely be thoroughly dealt with by a sanitary authority, however able and public spirited, without a medical officer. To this, the local sanitary authority—the Woolwich Local Board—in a long report just published, entirely decline, without further evidence than they at present possess of the utility of medical officers, to assent. They point out that the practitioners in the neighbourhood now report nearly all cases of infectious disease to the sanitary inspectors, which they could probably not do to a rival who might hold the appointment of medical officer. They also say that the town is as healthy, as well drained, and as little afflicted with overcrowding, as other localities where medical officers exist. They are, however, quite open to conviction, and invite the Local Government Board to furnish them with the names of districts within the metropolis in which the requirements mentioned in Mr. Spear's report exist, in order that they may make further inquiries.

CONSULTATIONS ON PAUPERS.

SIR,—Will you kindly inform me what is the general custom or professional etiquette under the following circumstances?

The friends of a parish case, or a benevolent district-visitor, desire, and are willing to pay, for a second opinion. The medical officer refuses to meet another practitioner, not on the ground of any personal animosity against the consultant suggested, but on the broad principle that, taking all things into consideration, he does not think a parish case entitled, while it remains under his care, to a second opinion, unless the case were of that particular urgency that he himself desired, and took the initiative in obtaining a fellow practitioner's advice. Should the friends take the case off the parish, and place him as a private patient in the hands of the consultant, the matter is clear enough; but the question is, should a neighbouring practitioner refuse to see the case without meeting or getting the consent of the parochial medical officer, and, by thus refusing, deprive the man of a second opinion, or would he be justified in seeing the case, for one visit only, and expressing very guardedly his opinion upon the general prospects of it? On the one side, it is unfair to the poor to be refused a second opinion; and, on the other, a medical man is hardly justified, if he may be said upon these grounds, in visiting a case under the care of another, and expressing himself, however guardedly, when the opinion has not been formed or acquiesced in by the medical officer, and when a manifest injury might unwittingly be done under these circumstances.

What bearing would the offer of a fee to the medical officer by the friends of the case have upon this point? If no fee were offered, one can partially understand the reluctance to devote special time and trouble over a consultation. If any fee were refused, would this alter the course of action of the consulting practitioner?—Yours,

ARBITRATOR.

. We hold that if a patient be under the charge of the parochial medical

officer, who is responsible to the guardians for the due performance of his duty, he would be justified in objecting to a consultant, whoever he may be, being called in, unless he, the medical officer, was of opinion that such consultation might be of benefit to his patient. Lady visitors and benevolent persons are very apt to suggest that some gentleman in whom they have confidence should be called to see some interesting sick pauper. If, as our correspondent puts it, this lady visitor, or benevolent person, should be disposed to take the case entirely off the parochial medical officer's hands, then he or she is clearly at liberty to call in one or a dozen consultants; but so long as the medical officer is in charge of the case, there is no right existent whereby any medical man can see the case without the assent of such medical officer; and in the very rare contingency of the visitor so offering to pay a fee to both parties, it is distinctly optional to the medical officer to meet, or refuse to meet, any such consultant.

THE CONWAY BOARD OF GUARDIANS AND THEIR DISTRICT MEDICAL OFFICER.

WE learn from the *Liverpool Daily Post*, of June 13th, that at the meeting of the above Board, held the preceding day, the Rev. W. Venables Williams presiding, some remarkable proceedings took place. The chairman read a letter from Mr. Davies, who declined to accept £10 annually for the supply of cod-liver oil and quinine, and for extra fees, to which it had been the object of the chairman to compel Mr. Davies to assent, under a threat, of personal consequences, if he did not comply. He then proceeded to comment on our article of June 6th, in which we drew attention to what was being attempted by the chairman and certain of the Guardians of the Conway Union; for we are pleased to note that they are not unanimous in the matter. "He would deal with the matter," the chairman said, "as it had now become a matter, not of local but national importance." He then read the article, which was based on a report which appeared in the *Liverpool Daily Post* of May 30th. To this he had replied, that six ounces of quinine had been dispensed between 18 patients, and not 50, as alleged in that article, and that it was untrue that the board room was cleared, and the matter was discussed *in camera*. He had a copy of the report, and it contained nothing of the kind. He found, therefore, that this information had been supplied from some other source than the *Daily Post*. He then commented upon the resolution passed by the Council of the Poor-law Medical Officers' Association, published in the *JOURNAL* of June 13th, and denounced it "as insolent to the board, and offensive to himself as chairman." He further expressed himself, in very strong language, as regards the interference of the Poor-law Medical Officers' Association. Mr. Davies was called in, and questioned as to the persecution and annoyance to which he had been subjected; when he denied all knowledge of the article in question, or of the resolution of the Poor-law Medical Officers' Association. The chairman then insisted on his answering whether he had been subjected to persistent annoyance and persecution, to which Mr. Davies replied "No," "but he must qualify that answer." The Chairman: "Have the Board fettered you in any way?" Mr. Davies: "He felt that he had been fettered; when going to Llandudno, one set of guardians wanted one thing, and one set another." "Then," said the chairman, "we are one body, and have not two sets. We have no distinction of party here." He was then questioned as to whether he was a member of the British Medical Association, and of the Poor-law Medical Officers' Association, to which he replied that he was. He also acknowledged that he had communicated with the Council on this subject. "Then," said a guardian, "you are the we."

The chairman then proceeded with his comments, charging Mr. Davies with making fraudulent claims, and misrepresenting himself and the board to those "irrepressible busybodies in London;" to which Mr. Davies quietly replied "that he was proud to belong to both of those associations, and to find that they were supporting him in a quarrel which was none of his seeking." He then asked leave to retire, to which the chairman replied, "Oh, no; you must stay here; you must stand firm." The board then proceeded to pass a resolution, condemnatory of the resolution of the Poor-law Medical Officers' Association, and of their interference between the board and their officer on a matter still in dispute. The resolution was carried with one dissentient voice, to wit, Mr. John Roberts of Llandrillo; as was also one withholding the cheque for the quarter's salary and extra medical fees, two of the guardians opposing this last resolution.

It will be seen from the above that the chairman has succeeded in inducing his colleagues, as he intimated in the letter we lately published, not absolutely to refuse to pay, but to withhold the salary.

It will also be noted that the chairman, in the said letter, whilst disclaiming any personal feeling in the matter, does not deny that it was on his initiative that pressure was put on Mr. Davies to accept the offer of £10 a year for expensive medicines and extra fees; and, finding that he would not agree to this, he caused the cod liver-oil and quinine to be dispensed by a local druggist, with the result that it became, as might have been expected, a more costly procedure. Finding such was the case, he again renewed his attempt to force Mr. Davies to accept his original offer, with the result we have seen.

Again referring to Mr. Williams's letter, it will be noted how he construes the expression he had made use of, "that this was done out of revenge at the board having ordered the medicines to be supplied by a local chemist," and the intimation he conveys that the medical officer had some guilty knowledge of fraudulent substitute of grey powder and bismuth for quinine, etc., when all that Mr. Davies was empowered to do was to write a prescription, which was countersigned by the relieving officer, and then taken to the druggist.

PRESENTATION.—A very handsome marble timepiece has been presented to Dr. Arthur Finegan by the nurses and attendants of the Northumberland County Asylum, Cottingham, Morpeth, on the occasion of his leaving to assume the position of Medical Superintendent of the Castlebar Asylum, County Mayo, Ireland.

MEDICAL CORONER.—Dr. Joseph Smith, of Naas, has been elected coroner for the northern division of the county of Kildare, *vice* Hayes, resigned.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 8th, 9th, 10th, and 11th, the following candidates were successful.

Licences to practise Medicine and Midwifery.—W. E. Dawson, Clacton-on-Sea, Essex; B. Lane, Ballycarton, Londonderry; A. J. Luther, Ballyrgan, co. Limerick; J. J. Norton, Dublin; R. C. Thacker, Mageny, Queen's College, Dublin; J. H. Foley, Wexford; F. S. Gramshaw, Easingwold; E. Lambkin, Dublin; D. M. O'Callaghan, Mortimer, Berkshire; M. P. O'Donovan, Rathmines; C. J. Perrot, Donnybrook.
Licence to practise Midwifery only.—J. Barron, M.D., Templepatrick; G. Clarke, M.D., Portadown; J. Moore, M.D., Newcastle West; S. J. Moore, M.D.R.U.I., Belfast; W. R. Parker, M.R.C.S.Eng., Kirkdale, Liverpool; W. Rankin, M.B.Glasg., Churchton, Londonderry.

The following Licentiate in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the Supplemental Charter of December 12th, 1878, has been duly enrolled a Member of the College.

H. I. Kirkpatrick, Lic. Med. 1876, Woodbridge, Suffolk.

ROYAL UNIVERSITY OF IRELAND.—A public meeting of the Senate was held on Wednesday, May 27th, 1885, under the presidency of the Right Hon. Lord Emly, Vice-Chancellor. Dr. Creed Meredith announced that the following honours had been awarded at the Second Examination in Medicine: First-Class Honours, A. E. I. Birmingham, Catholic University School of Medicine; Second-Class Honours, J. W. Wilson, Belfast; First-Class Exhibition of £40 to A. E. I. Birmingham. At the Examination for the Degree of Master of Surgery, First-Class Honours to W. J. Cowden, Belfast, and a special prize of £20. At the Examination for the Degree of Master of Obstetrics, First-Class Honours to F. J. Tresilian, Cork, and a special prize of £20.

The following Degrees were conferred.

Degree of M.D.—S. Alexander, J. Barron, J. R. Burrows, A. Corry, and G. B. Crawford, Belfast; M. H. Curtin, and T. W. Dwyer, Cork; R. English, Belfast; G. H. Foot, and R. E. Foot, Cork; M. H. Hannigan, Catholic University School of Medicine; W. R. Hawkins, and D. Hennessy, Cork; W. J. Loughrey, Belfast; J. M'Alcer, Galway, and Catholic University School of Medicine; M. M'Carthy, Cork; W. B. R. M'Wha, Belfast; G. F. H. Marks, Cork; J. Meenan, Carmichael College of Medicine; J. Musgrave, J. J. Nagle, and J. J. O'Brien, Cork; R. Petticrew, and E. L. Pooler, Belfast; J. Ryan, Galway, and Catholic University School of Medicine; J. M. Savage, Belfast; W. Sexton, Galway; J. H. Sharpe, Carmichael School of Medicine; N. Smyth, and R. Thomson, Belfast; F. J. Tresilian, Cork; M. J. Whitty, Cork, and Catholic University School of Medicine; and S. Wilson, Belfast.

Degree of M.B.—R. M. Griffin, Ledwich School of Medicine; J. P. O'Byrne, Catholic University School of Medicine; and J. J. Walsh, Royal College of Surgeons, and Ledwich School of Medicine.

Degree of M.Ch.—J. Barron, W. J. Cowden, M.D., and G. B. Crawford, Belfast; M. H. Curtin, T. W. Dwyer, R. E. Foot, and W. R. Hawkins, Cork; J. M'Alcer, Galway, and Catholic University School of Medicine; M. M'Carthy, Cork; W. B. R. M'Wha, Belfast; G. F. H. Marks, Cork; J. Meenan, Carmichael College of Medicine; J. Moore, M.D., and J. Musgrave, Cork; J. P. O'Byrne, Catholic University School of Medicine; R. Petticrew, and E. L. Pooler, Belfast; J. Ryan, Galway, and Catholic University School of Medicine; W. Sexton, Galway; N. Smyth, and R. Thomson, Belfast; F. J. Tresilian, Cork; J. J. Walsh, Royal College of Surgeons, and Ledwich School of Medicine; and M. J. Whitty, Cork, and Catholic University School of Medicine.

Degree of Master of Obstetrics.—M. Connery, Cork; A. Corry, Belfast; M. H. Hannigan, Catholic University School of Medicine; D. Hennessy, M. M'Carthy, and M. M'Swiny, Cork; W. B. R. M'Wha, and R. Petticrew, Belfast; J. Ryan, Galway, and Catholic University School of Medicine; W. Sexton, Galway; and F. J. Tresilian, Cork. This Degree was also conferred upon the following gentlemen, in lieu of the Diploma in Obstetrics which they had heretofore obtained: W. Barter, P. Blackall, J. W. Bullen, J. Craig, T. Cromie, B. Hosford, G. J. W. Johnston, W. J. Le Grand, H. Lewers, S. M'Kee, J. M'Murray, M. M'Vicker, B. Mangan, R. H. Matthews, J. M. Prendergast, W. Roulston, W. Rutherford, J. Sheedy, J. Strahan, and P. B. White.

UNIVERSITY OF DUBLIN.—At the Trinity Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday, June 8th, 1885, and following days, the successful candidates passed in the undermentioned order of merit.

W. S. Dobbin, W. Leah, G. T. Revington, A. E. Switzer, E. Hogben, W. P. Morgan, W. C. Poole, A. E. Dixon, A. S. Patton, C. Garner and H. J. Hadden (equal), J. D. Wynne, J. M. Dav, E. W. A. Gray, A. Findlater and W. B. Stokes (equal), W. A. Ardagh, F. A. G. Davis, R. L. Donaldson, T. Du B. Whaite, J. J. Russell, W. I. Donaldson, W. V. Macmahon, E. G. Newell.

At the corresponding Examination for the Degree of Bachelor in Surgery (B.Ch.), held on Monday, June 15th, 1885, and subsequent days, the successful candidates were arranged in order of merit as follows.

A. S. Patton, E. Hogben, A. E. Switzer, R. K. Johnston, W. C. Poole, W. P. Moran, W. A. Ardagh, C. Garner, J. T. Bouchier-Hayes, R. L. Donaldson, J. M. Day, K. J. Farmer, G. T. Revington, J. J. Russell and J. D. Wynne (equal), T. Du B. White, D. Conway and N. M. Falkner (equal), A. J. Boyd and R. J. Montgomery (equal), G. Hilliard.

At the Summer Commencements in Trinity Term, held on Thursday, June 25th, in the Examination Hall of Trinity College, the following Licence in Surgery and Degrees in Medicine and Surgery were conferred by the University Caput, in the presence of the Senate.

Licentiate in Surgery.—D. Conway.

Bachelors in Surgery.—W. A. Ardagh, J. T. Bouchier-Hayes, A. J. Boyd, J. M. Day, R. L. S. Donaldson, E. J. Farmer, C. Garner, E. Hogben, R. K. Johnston, R. J. Montgomery, W. P. Morgan, A. S. Patton, W. C. Poole, G. T. Revington, J. J. Russell, A. E. Switzer, T. Du B. White, J. D. Wynne.

Bachelors in Medicine.—W. A. Ardagh, J. T. Bouchier-Hayes, F. A. G. Davis, J. M. Day, A. E. Dixon, W. S. Dobbin, R. L. S. Donaldson, W. I. Donaldson, A. Findlater, C. Garner, E. W. Gray, H. J. Hadden, E. Hogben, W. Leah, W. P. Morgan, E. G. Newell, A. S. Patton, W. C. Poole, G. T. Revington, J. J. Russell, W. B. Stokes, A. E. Switzer, T. Du B. White, J. D. Wynne.

Doctors in Medicine.—F. G. Goodman, T. Harrison, W. F. Law, J. F. Pollock, J. E. B. Purdon, R. W. C. Taylor.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 25th, 1885.

Baronoff, Paronnag-Jean, 46, Guilford Street, Russell Square.

Bigger, William Grimsdall, M.R.C.S., Riverview, Londonderry.

Hutchinson, Procter Selby, M.R.C.S., 16, Cavendish Square, W.

On the same day, the following gentleman passed his Examination in the Science and Practice of Medicine, Surgery and Midwifery, and received a certificate to practise.

Rigg, Vincent John, White House, Fillongley, Coventry.

MEDICAL VACANCIES.

The following vacancies are announced.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN. Ophthalmic Surgeon. Applications by July 7th.

CHELSEA HOSPITAL FOR WOMEN.—Resident Medical Officer. Salary, £60 per annum. Applications by July 6th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Assistant-Physician. Applications by July 30th.

LIANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to the Committee of Visitors, Knowle, Fareham, by July 8th.

LONDON TEMPERANCE HOSPITAL.—Assistant House-Surgeon. Applications to the Honorary Secretary, Temperance Hospital, Hampstead Road, N.W.

MANCHESTER ROYAL INFIRMARY DISPENSARY AND LUNATIC ASYLUM.—Honorary Obstetric Physician. Applications to the Chairman of the Board by July 18th.

ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £150 per annum. Applications by July 18th.

ROYAL CORNWALL INFIRMARY.—Honorary Physician. Applications by July 8th.

ST. THOMAS'S HOSPITAL.—School Demonstrator of Physiology and Practical Physiology. Applications to Mr. G. Rendle.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Shrewsbury. —Junior Assistant Medical Officer. Salary, £100 per annum. Applications by July 8th.

SUSSEX COUNTY HOSPITAL, Brighton. —Assistant House-Surgeon. Salary, £40 per annum. Applications by July 15th.

WESTERN GENERAL DISPENSARY, Marylebone Road. —Junior House-Surgeon. Salary, £63 per annum. Applications by July 11th.

MEDICAL APPOINTMENTS.

BRANWELL, H. M.B., appointed House-Surgeon to the Newcastle-on-Tyne Infirmary, *vice* I. Waddy, M.R.C.S.Eng., L.R.C.P.Lond., who has been promoted to the office of House-Physician.

FENWICK, Charles, L.R.C.P. and S.Ed., appointed Medical Officer to the Raphoe Dispensary of Strabane Union, *vice* R. Little, L.R.C.S.I., deceased.

FINEGAN, Arthur, L.K.Q.C.P. and L.M., L.R.C.S.I., Assistant Medical Officer, Northumberland County Asylum, Morpeth, appointed Medical Superintendent of the District Asylum, Castlebar, County Mayo, Ireland.

GARSTANG, E. M., M.R.C.S.Eng., L.R.C.P.Ed., appointed Honorary Surgeon to the Bolton Infirmary and Dispensary.

THURSTON, Edgar, L.R.C.P.Lond., L.S.A., appointed Superintendent of the Presidential Museum, Madras.

PUBLIC MORTUARIES.—At an inquest held at the St. Pancras Coroner's Court on Tuesday, at the close of the inquiries, the foreman of the jury desired to enter an emphatic protest, on behalf of himself and fellow-jurors, against the disgraceful mortuary accommodation, or rather want of accommodation, in St. Pancras. A rider was appended to each of the verdicts, declaring "that the present dangerous and unhealthy state of the mortuary, and the want of proper accommodation for the holding of inquests, showed that the St. Pancras Vestry had no consideration for the living, and a total disregard of the dead."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 p.m.—Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopaedic, 2 p.m.—Hospital for Women, 2 p.m.

TUESDAYSt. Bartholomew's, 1.30 p.m.—Guy's, 1.30 p.m.—Westminster, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 3 p.m.—St. Mark's, 9 a.m.—St. Thomas's (Ophthalmic Department), 4 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

WEDNESDAY ..St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Great Northern Central, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2 p.m.—National Orthopaedic, 10 a.m.—King's College, 3 to 4 p.m.

THURSDAYSt. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.—North-west London, 2.30 p.m.—Chelsea Hospital for Women, 2 p.m.

FRIDAYKing's College, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—East London Hospital for Children, 2 p.m.

SATURDAYSt. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 1; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ETYMOLOGY OF "DOCTOR."

SIR,—Now that a subject of great importance to medical men, namely, the title by which they are recognised by the public, is under discussion, both by correspondents in the JOURNAL and by members of the Metropolitan Counties Branch of the British Medical Association, a few words on the philology of the term "Doctor" may not be out of place.

An idea seems to prevail amongst certain educated men that it is of academic origin, and that, apart from an university degree, it is a meaningless absurdity. That such a misconception should have ever arisen, only shows what custom and prejudice can do.

Like many words in the English language, "doctor" bears two meanings, an original classic interpretation, and a popular conventional signification.

With regard to the first, "doctor," as every schoolboy knows, is a Latin word, signifying teacher; in this sense, it was used by Horace and by Cicero. It was not until the twelfth century A.D. that it became an academic title, when it was adopted by the University of Bologna, and subsequently by that of Paris, which latter, in the year 1145, first gave the degree of Doctor of Divinity; it came into use in the English universities during the reign of Henry the Third. In the English translation of the New Testament, which bears the stamp of authority of the English universities, the word *διδάσκαλος* is, in several instances, translated doctor. There is no reason to suppose that the *διδάσκαλοι*, or doctors, referred to in the New Testament—for example, Gamaliel—were university graduates. They received their authority from the Sanhedrim, or from the Greater Synagogue, which were not educational establishments, but were the central authorities of the Jewish hierarchy, and would correspond to our ecclesiastical courts. It is therefore evident that the prefix "doctor" existed before universities were instituted, and that the title, on the authority of our own universities, belonged to men never having taken an university degree. So far as regards the word in its classical signification.

When the conventional meaning, a practitioner in the art of healing diseases, began to be in common use, it would be difficult to say. How it originated is not far to seek. In times past, it was used as a title for experts and teachers in all the faculties; but then the priest or monk kept to his chapel or cloister, and the lawyer to his desk; but the physician went about among the people, and thus they began to understand and to use physician and doctor as interchangeable terms. That they were so acknowledged by high authority, in the reign of Henry the Eighth, is apparent in his Charter to the Royal College of Physicians. "Memoratus doctoribus, Joanne Chambre, Thomâ Linacre, Ferdinando de Victoria Medicis nostris, Nicholao Halsewell, Johanni Francisco, et Rob. Yaxley Medicis." Here, *doctoribus* and *medicis* are in apposition, and accordingly mean the same thing. In this sense, it is also used by Shakespeare, Dryden, Collier, Johnson, and Swift.

Whether it is possible at this time of day, even if it were desirable, to alter a title established by precedent and custom of centuries, in every English-speaking nation, and supported by common law and the authority of all the great writers in the English language, is very doubtful; it is much more probable that a healer of diseases will be "doctor" to the end of all time.—I am, sir, your obedient servant,

PHILOLOGIST.

FORCEPS asks.—Will some teacher of midwifery kindly tell me where to obtain the best dummy fetus and pelvis, or any contrivance suitable for lecture-room demonstration?

ALOPECIA AREATA AND RINGWORM.

SIR,—I am glad that Dr. Alder Smith has opened a discussion, by his letter in the JOURNAL of June 20th, p. 1277, on the subject of the vegetable parasitic maladies. Owing to an omission on my part, a whole paragraph was cut out of my memoranda of May 23rd, which gives to my axioms an insufficient data. The paragraph should have denoted that my patient had "parasitic syphilis of the beard, common ringworm on the neck and hand, and also alopecia on the scalp."

The first point to which Dr. Smith alludes, is the occurrence of bald places in ordinary ringworm, and he quotes the following paragraph from Dr. Living. "Tinea tonsurans occasionally produces smooth bald shining patches of the skin, bearing a close resemblance to alopecia areata." This is so graphic a description of alopecia areata, that, taking it alone, it reads like an exact description of a case of this malady. The fact that too energetic treatment will produce, in common ringworm, permanently bald patches, has not escaped my observation, and I have alluded to it in an article on the treatment of ringworm; but such patches are structureless, whilst, in any case of alopecia areata, the hair-follicles can always be recognised, even with the naked eye.

The next point which Dr. Alder Smith confutes is the contagiousness of alopecia areata; and I must confess "that children with this disease may safely be admitted into schools," was a paragraph, coming as it did from one having all the authority which Dr. Smith undoubtedly possesses, which startled me. I prefer, at this time, to base my arguments upon clinical facts observed by myself; and the four following cases, which came before me amongst the outpatients of St. John's Hospital, on June 19th, bear so pertinently upon the subject, that I will give a copy of the rough notes which I made at the time.

F. C., aged 13, has two absolutely bald patches on the scalp, which have not been treated. He has a brother with common ringworm of the neck, which appeared after the one now under observation.

In S. G., aged 27, hair has been dropping off for three or four years. The first patch came on the nape of the neck. At the time he was attacked, his father had bald patches on his whiskers and scalp. They both lived in the same house, and used the same chairs and hair-brush. His brother's children, with whom he often mixes, have common ringworm.

T. P., aged 52, has typical patches of alopecia areata on the scalp and whiskers. He has a daughter, aged 21 (whom I am treating), with alopecia areata, and he also has a son with common ringworm of the neck and scalp.

T. F. has alopecia areata. He has four children, but they are free from ringworm. He is unable to trace the contagion.

I cannot bring my mind to make these facts square with any belief than that 1, alopecia areata is a contagious disease; 2, alopecia areata and ringworm have a common origin; 3, the manifestations produced are due to the soil on which the fungus grows.

Dr. Smith saves me the trouble of proving that parasitic syphilis and ringworm are caused by the same fungus, because it follows that things which are equal to the same are equal to one another.

Dr. Alder Smith has been more fortunate than I have, if he have seen an adult scalp with patches on it which were covered by chalky scales and nibbled hairs, such as we see in all cases of common ringworm. I should readily admit that I have, on several occasions, met with a condition which would represent the

transition-stage between this disease and alopecia areata. My friend, Dr. Pocock, sent me such a case a few weeks since, in which there were circumscribed patches on the scalp, and on these patches were a few straggling hairs, but there was not the slightest scalliness. The patches felt smooth like old china, but they were not absolutely bald.

I must confess that I have never been able to grasp the exact value of the words "perverted nutrition" to satisfactorily explain the cause of alopecia areata. We must believe it to be a sort of vague pathological nomad, which pitches its camp in different positions, and there produces its ravages: it must be capable also of travelling from one being to another, of spreading over a series of years, of influencing all ages, but limiting its attentions to those positions which are exposed to the atmosphere. Dr. Smith is satisfied to put this state forward as the cause of alopecia areata. I will venture to assimilate his own words, and prophesy that "few will agree with this statement."

I think it would be of importance if we had this debatable matter settled once for all; it is with a feeling of some humility that one has to acknowledge the position of our own profession towards these very common maladies. Here are diseases which are coming under our observation every day, and whilst one section of our profession teach the noncontagious character of alopecia areata, there is another group who declare the disease is highly contagious. I have avoided raising any fresh issues in this letter; but, in conclusion, I would ask permission to state that the microscopic evidences in the three diseases are not contradistinguishable.—Faithfully yours,
TOM ROBINSON.
9, Princes Street, Cavendish Square, W.

WITH reference to the letter of Dr. Alder Smith, in the JOURNAL of June 20th, Dr. J. H. STOWERS writes that his first case occurred over ten years ago, and, since the publication of the notes referred to, he has seen other examples. Two instances of extensive alopecia have occurred, apart from treatment, among the last fifty cases of scalp-ringworm of which he has notes: the one developing, while ringworm was spreading, with its characteristic fractured hairs, etc.; the other not appearing until an interval of several months after the ringworm had entirely vanished. As the result of long continued investigation, Dr. Stowers has entirely failed to prove alopecia proper to be a parasitic affection. Well marked ringworm of the scalp, in a woman over 30 years of age, whose child had simultaneously the same disorder (both proved by microscopic examination) has recently been under his care. Ringworm of the beard (*tinea barbe*), due also to the same fungus (*trichophyton tonsurans*), occurs often than is generally supposed, in consequence of the secondary folliculitis and dermatitis masking the original affection. But more careful and constant microscopic examination, after cleansing the hair-stumps and epithelium with ether, and soaking, not less than several hours, in liquor potassæ, will display the vegetable parasite in remarkable abundance and size. Whether the hair fractures or not, necessarily depends upon the extent of disorganisation of the shaft consequent upon the presence of fungus. Dr. Alder Smith's conclusions, therefore, correspond with Dr. Stowers's experience in each particular.

DR. F. J. CLENDINEN mentions a few cases in which he saw, at St. John's Hospital, under the care of Dr. Robinson. 1. The father had alopecia areata, his daughter also had alopecia areata, and another member of the family had ringworm. 2. The sister had ringworm, and brother had alopecia areata. 3. Both brother and sister had alopecia areata. Dr. Living speaks of these cases as being hereditary. In this case there was no family history. 4. The patient had alopecia areata, tinea tonsurans, and tinea scycosis. 5. The contagion could not be traced; the patient said he got the disease from the hairdressers. In this case the patient had had it just below the occipital protuberance, where the head comes into contact with the headrest of the hairdresser's chair. Having the clinical facts before us, as mentioned above, why, as Dr. Robinson points out, does not alopecia areata bear the same relation to ringworm as ringworm does to tinea scycosis?

HAY-FEVER.

SIR,—Having myself suffered for many years from the above annoying complaint, I am desirous of publishing the following formula, which, painted inside the nostrils twice a day, has afforded me considerable relief. R Cucurbit gr. 4; collod. flexilis ʒj; olei ricini ʒss.—I am, etc.,
G. H. R. DABBS, M.D.
Shanklin, Isle of Wight.

INTERMITTENT FILTRATION.

SIR,—In your notice of a work bearing the above name, which appeared in the JOURNAL of June 13th, page 1205, you say that "the credit of inventing intermittent filtration no doubt belongs to Dr. Frankland." I must ask you to do me the justice to correct this statement, as, long before Dr. Frankland suggested its adoption, I published the proposal, and a mode of carrying it out, in a pamphlet entitled "The Sanitary Question, and Treatment of Towns' Refuse," and extensively distributed at the time, copies being handed to the Rivers Pollution Commissioners, Dr. Frankland and Mr. Chalmers Morton, when they honoured me with a call in Manchester soon after their appointment.

Dr. Frankland is, I am sure, the last man to accept a credit to which he is not fairly entitled, and can well afford to be just in this instance. It is easy to understand how, having read the proposal in my pamphlet, he was led to try some experiments, which resulted in his advocating its adoption, himself forgetting even its origin.

Sir Thomas Hesketh, then M.P. for Preston, was good enough to interest himself in my work, and distributed a number of copies of my pamphlet amongst members of the House of Commons, and gave me introductions to others likely to be interested in the question; but, being before my time, I found myself simply met with a reception such as is accorded to many who are in advance of their day.

I am not aware that Dr. Frankland has ever himself claimed the credit of the invention, though he has been named by others as the inventor. Believing, as I still do, that the plan of cleansing sewage by passing it through parcels of natural soil at intermittent periods ranks before all other plans, I cannot, in justice to myself, submit to being deprived of the credit of its origination. I offered to exhibit a model of my intermittent filtration system at the International Inventions Exhibition this year, but was not granted the space to do so, I believe, on the ground that I had exhibited at the Health Exhibition of last year my ash-sifting closet-system, for which I received a gold medal.—Your obedient servant,
J. CONYERS MORRELL.
112, The Grove, Ealing, W.

W. S., asks to be informed of some place on the continent suitable for a gentleman suffering from nervous exhaustion, during the month of October and November.

POISONING BY ICE-CREAMS.

SIR,—With reference to the cases of "poisoning by ice-creams" mentioned in the JOURNAL of June 13th, page 1213, allow me to suggest that the symptoms of poisoning shortly after eating yellow ice-creams are probably caused by the yellow chromate of potash being used to impart the yellow colour. A case of poisoning by chromate of potash has recently occurred in this town in which the chromate was taken by mistake for "flowers of sulphur." The case is interesting from the fact that poisoning by chromate of potash is of very rare occurrence; and if any reader of the JOURNAL has met with a case of poisoning by chromate of potash, I hope he will publish it, with an account of the symptoms. Cases of poisoning by bichromate of potash have occurred from time to time.—Yours faithfully,
JOHN MARSHALL, L.R.C.P.Lond., Dover.

HOME FOR THE INTEMPERATE.

SIR,—Can any of your readers kindly inform me of a home for the cure of intemperance, where a gentleman could be received by paying £100 per annum? Such information would greatly oblige, yours truly,
A. S.
Dalrymple Home, The Cedars, Rickmansworth, Hertfordshire. Apply to the Superintendent, R. W. Branthwaite, Esq.

EXPERIMENTS ON ANIMALS.

SIR,—Can you or any of your readers kindly inform me where I can find the leading arguments in favour of vivisection?
A MEMBER.

* A Member is referred to the publication issued by the Association for the Advancement of Medicine by Research, published by J. W. Kolckman, 2, Langham Place, W., and also to the BRITISH MEDICAL JOURNAL, vol. i, 1880, pp. 114, 468, 560, 596, 665; vol. ii, 1880, pp. 53, 400; vol. i, 1881, pp. 133, 660, 777, 1013; vol. ii, 1881, p. 836; vol. i, 1882, pp. 60, 429, 880, 885; vol. ii, 1882, pp. 219, 748.

CORRECTION.

By an accident in printing the JOURNAL of June 20th, the last line of the first column of page 1255 is missing in some copies. The last sentence of the paragraph, in its complete form, is, "The first number will contain a series of contributions by leading British authorities."

PUBLIC MEDICAL OFFICERS AND POLITICS.

SIR,—Is a medical officer of health, or a district medical officer, or a public vaccinator, or a certifying factory surgeon, permitted by the central authorities to take an active part in political warfare, such as canvassing, addressing meetings, etc.?—Yours, etc.,
ADVANCED LIBERAL.

* No restraint is, so far as we are aware, put upon the expression of the political views or proclivities of any medical man holding a public office.

SHELTER FROM THE EAST WIND.

M.D. asks for information respecting any place where a patient might be sent who cannot stand the effects of an easterly wind. He asks if Torquay or Ventnor are perfectly sheltered from this wind?

* Scarcely any seaside health-resort can be said to be perfectly sheltered from the east wind. Torquay and Ventnor are only partially sheltered. But particular localities in several health-resorts are more sheltered than others. Perhaps about the best sheltered health-resort in this respect is Bridge of Allan; near Stirling, or Grange on Morecambe Bay, if one reside at its new hotel, Llanfairfechan, in North Wales, might also be tried.

EXCESSIVE SWEATING IN THE AXILLA.

SIR,—I shall be glad if you, or any of your correspondents, can assist me in the following case.

The patient is a young man, aged 25; he enjoys good health, and is free from any systemic weakness; his habits are strictly temperate; he has suffered from excessive sweating in the axilla for the past two years. I have tried numerous remedies without any permanent relief internally. I have given iron, quinine, strychnine, liquor arsenicalis, belladonna, atropia, sulphuric acid, phosphoric acid, fluid extract of ergot. Local applications have been tried in the form of dusting powders, bismuth, oxide of zinc, starch, sanitary rose-powder, boracic acid, oleate of zinc, zinc-ointment, solution of nitrate of silver (40 grains to an ounce), solid nitrate of silver, collodion, tannic acid and glycerine, liniment of belladonna, application of hot and cold water, vinegar and water. There is no appearance of a local lesion, such as thickening or flinning of the epidermis.—Yours faithfully,
INQUIRENS.

THE QUESTION OF TYING THE UMBILICAL CORD AFTER LABOUR.

SIR,—In your issue of February 21st, 1885, page 397, there is a paragraph relating to the question of tying the umbilical cord after labour ending thus: "but the present practice of tying is both safe and wise." May I venture to raise the question of the necessity of tying the cord in two places?

Those practitioners who have been in the habit of only tying once, and allowing the placental end of the cord to bleed into a receptacle (thereby saving the bedclothes) will no doubt bear testimony to the advantage of the same method, and to the fact that the placenta, being reduced in bulk (by evacuation of contained blood), comes away much more easily. This practice I learnt from my father, and there is no doubt that it is right, because conforming to the laws of nature. Should the hemorrhage in rare cases prove excessive, the second ligation could be easily used.

The importance of this method of tying only once increases now that it is a settled point that the accoucheur's hand should be on the uterus during expulsion of the foetus, and until the placenta is also expelled.

With the left hand on the uterus, and the right hand left free for emergencies, or engaged in turning the patient on her back, the nurse can be safely trusted to tie the cord once, and so the most important duties of the accoucheur at the most important time are not interfered with.—I am, sir, your obedient servant,
W. E. HAEON, formerly Resident Accoucheur, Queen's Hospital, Birmingham.

Christchurch, New Zealand.

P.S.—I should be glad to hear if any member can give any case in which he ever regretted following the plan of only tying once.

* A SURGEON should consult a medical agent.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. N. E. Davies, Sherborne; Dr. G. W. Twiss, Sarkamatto, Egypt; Dr. Ward, Birmingham; Dr. D'Arcy W. Thompson, Dundee; Dr. Haughton, London; Mr. G. H. Percival, Northampton; Dr. A. Hughes Bennett, London; Ignoramus; Mr. N. Hardcastle, Newcastle-on-Tyne; Mr. Constable, Ash, near Sandwich; Dr. Pearson Nash, London; Mr. E. N. Garstang, Bolton; Mr. C. M. Jessop, London; Mr. Arthur Jackson, Sheffield; Dr. W. R. Elliston, Ipswich; Dr. Cullimore, London; Mr. A. H. Benson, Dublin; Dr. W. Nicholson, Greenwich; Dr. Alfred Sheen, Cardiff; Mr. Biddle, Kingston-on-Thames; Messrs. Street, Brothers, London; The Rev. G. Howard Wright, London; Mr. S. G. Sloman, junior, Farnham; Mr. J. Lionel Stretton, Kildermister; Mr. J. Vose Solomon, Birmingham; Mr. Charles Fenwick, Exeter; Dr. Crowe, Worcester; Mr. E. H. Moore, Falmouth; Mr. W. Jones Morris, Portmadoc; Our Glasgow Correspondent; Dr. Myers, London; Dr. C. S. Redmond, Gateshead; Mr. Joseph Smith, Streatham; Mr. M. Handfield Jones, London; Dr. Wallace, Greenock; Dr. Herbert Stowers, London; Mr. J. H. Mawson, Thornton, Bradford; Dr. A. E. Lawrence, Bristol; Dr. Clendinnen, London; Dr. Norman Kerr, London; Mr. J. A. Myrtle, Harrogate; Dr. E. W. Hope, Liverpool; Messrs. Fisher and Stead, Long Melford; Mr. Richard Jeffreys, Chesterfield; Dr. R. W. Savage, London; Mr. Alex. Ford, Waterford; Our Liverpool Correspondent; Mr. C. O. Elkerton, London; Our Berlin Correspondent; Mr. C. J. Workman, Teignmouth; Dr. Harkin, Belfast; Dr. Strypar, Shrewsbury; Mr. T. G. Parrott, Bournemouth; Mr. L. Humphry, Cambridge; Mr. A. E. Lloyd, Rhyl; Our Aberdeen Correspondent; Mr. J. B. Clarkson, Liverpool; Dr. W. Millar, Florida; Mr. R. Gray, Armagh; Mr. E. S. Gunn, London; Mr. W. H. Evans, Bredon; Dr. F. Pearce, Haslemere; Mr. F. St. G. Mivart, London; Mr. R. Harrison, Liverpool; Dr. Maxwell, Woolwich; Dr. E. Penny, Alfreton; Mr. J. C. R. Crewes, Truro; Mr. B. Burford Rawlings, London; Dr. Maunsell, London; Dr. Huggard, Geneva; Messrs. G. Mason and Co., London; Dr. A. Sheen, Cardiff; Our Aberdeen Correspondent; Messrs. Starley and Sutton, Coventry; Dr. Neale, London; Dr. Jackson, Hexham; Messrs. Mayer and Meltzer, London; Messrs. Thomas Cook and Son, London; Mr. F. G. Hopkins, London; Dr. Theodore D. Achard, London; Mr. R. C. Benington, London; Messrs. Street and Co., London; Mr. A. Thorn, London; Dr. J. Macpherson, London; Mr. H. Fox, Bristol; Dr. W. M. Campbell, Liverpool; Dr. Rogers, London; Dr. S. H. C. Martin, London; Dr. Brailey, London; Mr. J. Pringle, Holme; Messrs. Ingram and Royle, London; Mr. E. White Wallis, London; Dr. Grant Bey, Cairo; F.S.A.; Mr. James Byrne, Londonderry; Messrs. Walker and Co., London; Mr. Schafer, London; A Member; Dr. D. Burns, London; Dr. Moore, Dublin; Dr. C. Elliott, Clifton; Mr. Trendell, London; Dr. Noel Paton, Edinburgh; Messrs. Brand and Co., London; Mr. George Eastes, London; Inquirers; Mr. M. E. Thomson, Northampton; The Secretary of the Charing Cross Hospital Medical School; Mr. H. Waite, Leeds; Our Birmingham Correspondent; Our Paris Correspondent; Mr. Nunn, London; Our Edinburgh Correspondent; Our Dublin Correspondent; Mr. E. Thurston, London; Dr. R. Lee, London; Dr. W. Wilson Hope, London; Dr. Joseph Rogers, London; Mr. Alex. McDougall, jun., Manchester; Dr. E. Diver, Kenley; Dr. J. Wallace, Liverpool; Mr. Bernard Roth, London; Mr. James Robertson, Birmingham; Our Valencia Correspondent; Dr. A. H. Newth, Hayward's Heath; Mr. B. L. Tandy, Bury St. Edmund's; Mr. Asatosh Basu, Margherita, etc.

BOOKS, ETC., RECEIVED.

Pathological Mycology. By G. Sims Woodhead, M.D., and A. W. Hare, M.B. C.M. Edinburgh: Y. J. Pentland. 1885.

Suicide, its History, Literature, Jurisprudence, Causation, and Prevention. By W. Wynn Westcott, M.B. London: H. K. Lewis. 1885.

Contributions to the Surgical Treatment of the Tumours of the Abdomen. Part I. Hysterectomy for Fibrous Tumours of the Uterus. By Thomas Keith, M.D. Edinburgh: Oliver and Boyd. 1885.

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TWO LECTURES ON CHRONIC LARYNGITIS AND CHRONIC PHARYNGITIS: THEIR PATHOLOGY, SYMPTOMS, AND TREATMENT.

Selected from a Course of Lectures delivered during the Winter Session of 1885, at the Glasgow Royal Infirmary.

By DAVID NEWMAN, M.D.,

Surgeon in Charge of the Department for Diseases of the Throat and Nose at the Royal Infirmary, and Dispensary-Surgeon, Western Infirmary ;
Pathologist and Lecturer on Pathology, Royal Infirmary, Glasgow.

LECTURE II.

GENTLEMEN,—At my last lecture, I drew your attention to some points in connection with the pathology and symptoms of chronic catarrh of the larynx and pharynx, and at the same time I brought under your notice a case in which, as a result of inflammation, the mucous membrane and the submucous connective tissue had become greatly increased in thickness. To-day I shall show you a case of follicular pharyngitis and laryngitis, associated with enlargement of the tonsils, elongation of the uvula, and complete aphonia; also a case of chronic atrophic laryngitis; and I shall indicate to you the remedies which should be employed in the treatment of such cases, and at the end of the hour I shall make some remarks regarding the constitutional treatment of those predisposed to catarrh.

The first mentioned case may be shortly described as follows. The patient is a boy, aged 14, who has suffered for some time from discomfort about the larynx, always troublesome, but seldom amounting to actual pain. He has a slight cough, with scanty expectoration, which is frequently mixed with saliva, and he complains of a difficulty in swallowing, a fulness and stiffness about the throat, and he suffers from the sense of the presence of a foreign body in the larynx, which sometimes gives rise to a persistent tickling cough, particularly at night and in the early morning. When first seen at the dispensary, he suffered from complete aphonia.

On inspection, the mucous membrane of the fauces is seen to present an irregular granular appearance; small pale reddish nodular prominences cover the surface of the mucous membrane, and these are in many instances surrounded by zones of injected vessels. It is with difficulty that a good view can be had of the larynx, on account of the local irritation; but, as far as can be ascertained, the aphonia is the result of paralysis of the adductor muscles of the vocal cords, and the mucous membrane of the larynx is affected in the same way as that of the pharynx. The tonsils are considerably enlarged, irregular, and deeply marked on the surface, and firm in consistency. They almost meet in the middle line when the mouth is open, and are separated from one another only by the relaxed uvula.

This, gentlemen, is a case of follicular pharyngitis and laryngitis in its early stage, complicated by enlargement of the tonsils, and elongation of the uvula. It is quite evident that the latter conditions should be attended to first; and what I intend to do is this. I shall reduce the size of the tonsils by the repeated application of the actual cautery, in the same way as you have seen me use it in several other cases; and after the tonsils have been sufficiently reduced, I shall, if necessary, remove a portion of the uvula, either with a pair of curved scissors and vulsellum-forceps, or by the uvulotome; and I will then proceed to treat the conditions of the larynx and pharynx. Without first improving the condition of the tonsils and uvula, and so removing a constant source of irritation, any attempt to cure the disease of the larynx and pharynx is certain to prove unsuccessful. Suppose, however, that you have a case of uncomplicated follicular catarrh; or, suppose, a month hence, you have to treat the case I have just described, when the tonsils and uvula have been restored to their normal size; what should you do, first, as regards internal remedies, and second, in respect to local applications?

During the early stage, you will find great good derived from the internal administration of iodide of potassium and the local application of tincture of iodine, and the employment of a gargle or spray containing chloride of sodium, bicarbonate of sodium, and chlorate of potassium. When, however, the granulations are large in size, firm

in consistency, and numerous, it is necessary that they should be destroyed separately; and the method which I would advise you to adopt is the one recommended by my late friend and predecessor, Dr. David Foulis, namely, the actual cautery. You have frequently seen me apply it in such cases, and I am sure you must have been astonished by the fact that the patients seldom complain of much pain after its use. It is, to my mind, a much simpler method of destroying the granulations than any other at present in use. The electric cautery has certainly its advantages in hospital-practice; but in the treatment of private cases outside of one's own consulting-room, it has certain inconveniences which practically exclude it from general use.

For cauterisation of the pharynx and tonsils, a few months ago, I adopted M. Paquelin's thermo-cautery, and now use it in preference to any other instrument. The point of the thermo-cautery is rounded, and not larger than a small pea, and is attached to a handle nine inches long. In using the instrument, a small speculum, just large enough to allow the cautery to pass through it, is introduced into the mouth, and its point placed against the part which is to be destroyed. The thermo-cautery, raised to a white heat, is then passed along the speculum, and held in contact with the granulation or diseased tonsil for a single moment. By using the speculum, the danger is prevented of burning other parts than those which are intended to be cauterised, and, by employing the thermo-cautery at a white heat, the pain of the operation is reduced to a minimum. The pain, indeed, is so slight during the operation, that, on several occasions when I have applied the cautery at a white heat, the patient complained more of the irritation of the speculum against the pharynx than of the burning by the cautery. The pain after the operation is not more severe than when caustic applications are used.

We may now inquire into the case of chronic atrophic laryngitis. According to the statement of the patient, his "trouble commenced as far back as September, 1882." At that time, he was superintending experiments in the manufacture of sulphate of ammonia, and at this work not only was he required to subject himself to great variations in temperature, but he also had to breathe air loaded with irritating vapours. At first, the local sensations were not very marked. He then complained only of a slight roughness and dryness about the throat, accompanied occasionally by a tickling cough, without much expectoration, except in the morning. During the succeeding winter, the patient was engaged superintending the erection of gas-plant at Wantage, in Berkshire, and was exposed to cold and changeable weather. Towards the beginning of 1883, the symptoms became aggravated, and the alteration in the voice more marked. At that time, the patient found, when he attempted to sing (he was at one time a good singer), that he could scarcely take a single note, although there was then no very marked alteration of his voice as observed in ordinary conversation, unless he overexerted it, either by talking for a long time or by speaking loudly. When the voice was used unduly, considerable fatigue was experienced; the voice became hoarse, and on several occasions he suffered from complete aphonia. During the summer of 1883, the patient's condition was greatly improved by a prolonged residence in the country and rest from work; but, soon after his return to business, late in the autumn of 1883, he suffered from an acute attack of laryngitis, accompanied by a moderate bronchial catarrh; and when this acute attack passed off, the old symptoms from which he suffered returned, and persisted during the whole succeeding winter. The only fact of importance during this period was that the expectoration, from being small in quantity, became gradually increased in amount, and whereas formerly it was of a whitish grey colour and of viscid consistency, it now became more fluid; and on several occasions, during a period of three months, the sputum was observed to be streaked with blood. During last summer (1884), he experienced no improvement; and on October 4th he was admitted into the Royal Infirmary, suffering from a subacute attack of bronchitis, for which he was treated by Dr. Perry; and after he recovered from this illness, he was placed under my care on account of the laryngeal condition.

On laryngoscopic examination, the mucous membrane of the larynx was observed to be in a state of hyperemia, the injection of the vessels being most marked at the base of the epiglottis and at the vocal cords. There was no very marked change in the mucous membrane of the fauces beyond slight hyperemia; but the soft palate was very thin and flaccid, and presented a dry glistening appearance. The mucous membrane of the larynx, instead of presenting the normal pink velvety appearance, was dry and glistening, smooth, and covered at parts by thick viscid mucus. The arytaeno-epiglottidean folds and the interarytenoid fold were, however, considerably thickened, and, just at a point intermediate between the two arytenoid

cartilages, a small erosion, extending through the epithelial layer, was seen. The vocal cords were greatly indurated, irregular in outline, and at the posterior extremity of the left cord, close to the arytaenoid cartilage, there was a deep ulcer with thickened edges, which prevented the cords from coming into complete contact during phonation. On the anterior third of the right cord, there was the mark of an old cicatrix, which interfered slightly with the contour of the cord. This cord was also paralysed, and the left cord was dragged across the middle line; so that, when the glottis was closed, it presented a peculiar oblique and irregular appearance, oblique because of the partial paralysis of the adductor muscles on the right side, and irregular from old ulceration and the contraction of cicatrices.

The following note was made on January 28th.

"Since the patient was admitted to the hospital, according to his own statement, he has improved considerably. There is less pain now during phonation, and the characters of the voice are altogether improved; when he was admitted, aphonia was complete, whereas at the present time, although the voice is hoarse and very harsh, still phonation is distinct during ordinary conversation. When the patient overexerts himself, however, either by prolonged speaking or talking very loudly, the voice becomes cracked and not to be depended upon. With moderate exercise, and particularly in the evening, the voice is very good, so that, to use the patient's own words, he hardly knows that there is anything the matter with his throat. When silent for some time, as, for example, in the morning, he finds considerable difficulty in forming words. A laryngoscopic examination made to-day shows that in some respects matters have improved, while in others they remain very much as they were on admission. The ulcer situated on the interarytenoid fold has now completely healed, and its situation is marked by a very small cicatrix. The contour of the true cords is more regular, and they meet almost completely during phonation. The small vessels supplying the mucous membrane of the larynx are still enlarged and hyperæmic. The surface of the mucous membrane is dry and glistening, and on the left superior thyro-arytenoid fold there is a small erosion of the epithelium."

In all the three cases which I have shown to you, the patients suffered, when admitted to the hospital, from complete aphonia, and in each case the loss of voice was due to different causes. In the first case, it was the result of thickening of the ventricular bands; whereas, in the latter case, the aphonia was caused, partly, no doubt, by the ulceration and rigid condition of the cords, but also by thickening of the interarytenoid fold, and the paralysis of the right vocal cord. In the second case, it was due to a paralysis of the adductor muscles of the larynx from exhaustion.

I have quoted these three cases, instead of entering into a general description of the diseases, because I consider the cases to be typical; or, in other words, they represent the structural changes most frequently met with in chronic laryngitis and chronic pharyngitis; and, moreover, you have the advantage of seeing and observing the laryngoscopic appearances for yourselves. It is upon your accurate appreciation of the structural changes associated with each disease that your diagnosis must rest; there is nothing absolutely distinctive in the symptoms, but the laryngoscope, as you will see, easily reveals the true nature of the disease.

Now, gentlemen, while the above statement is true in a considerable number of the cases which will come under your notice, I may say that, in chronic laryngitis, the voice is affected earlier in the history of the disease, and the alterations in the voice are more marked, than when the pharynx alone is involved. In chronic pharyngitis, on the other hand, the patient suffers more from a feeling of constriction, and difficulty or pain in swallowing; but, although there may be hoarseness and feebleness of the voice, and pain when an effort is made to articulate, there is seldom complete aphonia. This fact can be easily understood, when you remember that the aphonia in chronic laryngitis is most usually caused by a lesion which interferes with the mobility of the parts concerned in articulation, such as thickening or oedema of the superior thyro-arytenoid ligaments, of the aryteno-epiglottidean folds, or the mucous membrane of the ventricles of Morgagni. You may, however, have complete aphonia without any intralaryngeal lesion, as some of you saw in a patient (a school-teacher), who has been attending the out-door department for some weeks, and has now completely recovered her voice; and in this boy, who is at present under treatment in Ward X for chronic enlargement of the tonsils, you have an example of aphonia without any apparent mechanical obstruction to the movements of the larynx.

As regards the treatment of chronic atrophic catarrh of the larynx and pharynx, I may say that few diseases demand such a multiplicity of resource as it does. But, while you may try many agents, there are few remedies so good as those I am about to mention to you; in many

cases they are of great service, in others, however, they seem to do little good.

For this form of catarrh, when the pharynx is involved, you should apply a strong solution of carbolic acid to the part; a ten per cent. solution of pure carbolic acid in glycerine, is the best preparation to employ when the mucous membrane is dry, and the quantity of secretion small. In cases of laryngitis, instead of using carbolic acid, solution of nitrate of silver (one drachm and a half to the ounce of water) should be carefully introduced into the larynx by means of the laryngeal douche. For the first week, the application should be made daily, or even twice a day. During the second week you may use it less frequently, say every second day, and so on, gradually increasing the length of the intervals.

Simple or medicated steam-inhalations are, in my experience, of very little use; but the employment of a spray of five grains of sulphate of zinc to the ounce of water is often beneficial, when combined with the treatment I have just mentioned. When there is pain in the larynx or surrounding parts, blisters, applied externally in the same way as I advised you to employ them in cases of catarrh during its early stage, are often of great use.

We may now pass on to the consideration of constitutional treatment; and I will ask your attention, in the first place, to some points in general domestic hygiene to which you will find it necessary to attend. The points in the management of patients who are liable to attacks of catarrh I may state broadly.

First, the temperature of the skin and of the inspired air should be kept as equable as possible, not only during the twenty-four hours, but also during the various seasons of the year. Secondly, the action of the skin should be stimulated as far as possible. Thirdly, the diet should be carefully regulated. And, fourthly, if there be any obvious cause, either external to the individual or depending upon some internal condition, which may keep up the irritation of the mucous membrane and the consequent catarrh, it should be attended to.

In order to maintain the uniform temperature of the skin, it is necessary that underclothing should be made of a bad conductor of heat; that the suit of underclothing should vary according to the season of the year, and that it should cover the entire body, with the exception of the hands, and head and neck. In a climate such as ours most people, but especially those who are liable to suffer from catarrh, should cover the entire body with some woollen material during the whole year; but the weight of the garments, or the proportion of wool contained in them, must vary according to the temperature of the atmosphere. One frequently meets persons who wear comparatively little underclothing, and this error is almost as common amongst the rich as among the poor. Many affirm that they cannot wear flannel or woollen cloth next the skin; in such instances, silk or washed leather may be substituted. The great object should be to keep the skin at an uniform temperature, and prevent the underclothing from becoming moist with perspiration. Persons who are subject to catarrh should be careful to change their underclothing frequently, and always change on going to bed, a fresh suit being worn the following day. It is also necessary that every article of clothing which may become damp should be changed as soon as possible; this remark is specially applicable to the coverings of the feet and lower extremities.

It is also necessary that the patient should breathe an atmosphere of uniform temperature. The bedroom should be warmed by means of a fire, especially in cold and damp weather. This is a precaution which is frequently neglected. How common it is for even those who suffer from chronic catarrh to pass from a well heated public room, to undress in a bedroom where the temperature may be 20° or 25° Fahr. lower. Most patients cannot leave this country during the winter season; in such cases, if possible, they should remain indoors in cold and damp weather, or when they go out, wear a respirator. Cold winds and night-air should be carefully avoided.

The functions of the skin should be scrupulously attended to and maintained in an active state, by the employment of either a douche or spray, the bather's feet being kept warm by being placed in hot water, while the rest of the body is being sprayed or sponged with cold water. Brisk friction should then be employed, and the body dried as quickly as possible. Sea-bathing should not be indulged in as a rule.

The question of diet is one of great importance, for undoubtedly a large number of the cases of catarrh trace the origin of their suffering to dyspeptic disturbance. I have not sufficient time at my disposal to go into this question fully; I shall therefore only indicate very briefly the points which should be attended to.

Meals should be taken regularly, and not at too long intervals; the diet should be at all times nutritious, especially if there be much

emaciation; the quantity of sugar taken should be reduced to a minimum, and the patients should partake freely of fresh fruits and vegetables, while such articles of food as potatoes and rhubarb should be avoided. As to the use of stimulants, no definite statement can be made; each case must be judged of on its own merits. In old persons, or in patients with a feeble circulation, alcoholic stimulants are of service; and probably there is no better one than whisky in small quantities, twice a day, in aerated water. Tobacco-smoking is positively injurious in all cases of chronic catarrh.

The only other particulars which I have now to consider are some of the external influences or internal conditions upon which the catarrh may depend. The former I mentioned when considering the etiology of the disease; it is not necessary, therefore, for me to allude to them now, further than to say that, as soon as the immediate cause of the affection is discovered, the removal of the patient from exposure to it is the first thing called for.

There are, however, some constitutional conditions with which the various forms of chronic catarrh are associated, which demand your attention; and amongst these I may mention struma, gout, rheumatism, certain nervous affections, and cardiac diseases, which, by inducing congestion of the mucous membrane, keep up the symptoms of catarrh. Anæmia also is frequently associated with chronic catarrh of the larynx or pharynx.

These conditions must, in all cases, be looked for, and when detected, they should be treated according to their requirements. In the great majority of cases, tonics are called for; and iron, especially its astringent preparations, is of great value, particularly when combined with quinine and strychnia. Cases of dry catarrh are frequently associated with gout, a disease we very seldom see in Glasgow; and in such instances, the greatest possible good is said to be derived from the administration of colchicum and alkalies; whereas, in cases where the quantity of mucus secreted is large, you will find that the patient will derive considerable relief from the use of lozenges containing half a grain of cubebs, one to be taken every three or four hours.

AN ADDRESS

ON

THE INVESTIGATION OF THE CAUSES OF CANCER.

Delivered at a Combined Meeting of the East Anglian, South Midland, and Cambridge and Huntingdon Branches.

By HENRY T. BUTLIN, F.R.C.S.,
Assistant-Surgeon to St. Bartholomew's Hospital, etc.

ALMOST at the same time at which I received a very kind invitation from one of your secretaries, Dr. Elliston, to speak on the subject of cancer at this meeting, I received a note from Professor Humphry, containing a suggestion that, with a view to restrain the discussion within practicable limits, I should speak "especially with reference to the prevalence of the disease in East Anglia."

I should have been very pleased to have carried out this suggestion, had it been in my power to do so with advantage. But, in truth, it is not in my power; and, had it been so, the chief, if not the only reason for my presence here to-day might have ceased to exist. Of the prevalence of cancer in East Anglia, I know no more than Mr. Haviland's map of the distribution of cancer shows; and, in that map, some parts of this and of the neighbouring counties appear to be very free from cancer, while other parts appear to furnish a very large number of cases. I have brought the chart with me, and hope to hear from the members who are present how far they regard it as correct, with all other information on the subject which they may be able to offer.

But, first, I will ask permission to draw the attention of this meeting to the circumstances which led to this inquiry on cancer, and to what may be the outcome of it.

After instituting several inquiries on subjects chiefly medical, it was thought desirable by some of the members of the Collective Investigation Committee that an inquiry should be founded on a surgical subject; and Dr. Mahomed invited me to propose a subject suitable for investigation. I suggested the subject of cancer, partly on account of the interest which it has ever had for myself personally, partly because attention has on several occasions within the

last two years been directed to the increasing mortality from the disease, which is apparent on the returns of the Registrar-General. Two papers were published during the course of 1883 and 1884, one by Mr. H. P. Dunn, the other by Mr. Bowreman Jessett, both of them pointing out the increase of cancer in the kingdom, both of them resting on the statements of the Registrar-General, both of them containing theories to account for the continual increase. Mr. Dunn says that the increase is due "(a) to the success attending the legislative measures and other means for the preservation of the infant population, by which a large proportion of persons reach adult age, and the general healthiness of the community is increased; (b) to the greater prominence which, in the present day, prevails of the most predisposing causes of the disease—such as the fecundity of women, the prevalence of high nervous tension, and the existence of possibly greater general luxury in the mode of living."

Taking the second of these propositions first, there is absolutely no proof at present that very fruitful women and highly nervous people are peculiarly liable to cancer; nor is there any reason to believe that the offspring of the very fruitful and the highly nervous are more susceptible than other persons to the disease. The answer to the first proposition lies on the face of it: the success with which infants are reared is no certain index to the general good health of the community, and it might much more reasonably be maintained that the bringing to adult age of vast numbers of delicate infants is far more likely to lower than to raise the general standard of health throughout the country. The large number of cancers which are registered in many of the most populous towns is surely not consistent with the theory that cancer is a disease of persons in robust health; and a very limited experience of cases of cancer suffices to prove that it is not partial in its attacks, but affects the weak and delicate as frequently as the strong and healthy.

Mr. Jessett is more cautious in the conclusions he deduces; but he is a strong believer in the inheritance of cancer, and in the predisposition to the disease caused by mental strain and worry. He does not, however, furnish any proofs of the correctness of his views; and when he asks the question, "Do not the statistics which I have placed before you (namely, those of the Registrar-General) tend also to prove that cancer is passed down from generation to generation?" the reply must unhesitatingly be "No, they do not tend to prove the inheritance of cancer; they tend to prove that cancer is increasing, and that the causes of cancer are either increasing, or are acting with continually increasing vigour."

But, while I am not content to accept the views of Mr. Dunn and Mr. Bowreman Jessett, or the conclusions which they draw from the statements of the Registrar-General, I must thank them for having pointedly drawn attention to the increasing mortality of cancer manifested in the Government returns. On that account their papers are very valuable, for they have been in the hands of many persons of our profession who would not be likely to study attentively the Government statistics, or even to read the remarks by which the statistics are prefaced by the Registrar-General.

Of course, it is always possible to object to the Government-returns on the ground that it is impossible they should be absolutely accurate, that even careful medical men are liable to error in diagnosis, and that many cases of reported cancer are not truly cases of that disease. The Registrar-General himself appears to consider that a part at least of the increased mortality observable in his statistics may be attributed to causes of such a kind, but rather to improvement in medical knowledge than to the reverse; for in 1881, he says: "The death-rates from cancer were at their maxima, doubtless owing to increased accuracy of diagnosis, by which the deaths ascribed to definite causes are always increasing at the expense of the indefinite class."

I am quite ready to admit that the Government-returns cannot be absolutely accurate, nay, that they are probably, necessarily, far from accurate; and I am quite ready also to admit that a better knowledge of diagnosis may enable practitioners to classify under the head of cancer a certain number of cases which were formerly left unclassified, or placed under some other head. But it must not be forgotten that increased accuracy of diagnosis may act in the opposite direction, and may lead to the classification under other headings of a certain number of cases which were formerly classified as cancer.

Thus, of external affections, cases of tuberculous ulcer of the tongue are far less likely now than formerly to be confounded with cancerous ulcers. Even admitting that the returns are larger than they ought naturally to be, by reason of some such causes as these, it can scarcely be maintained that the large and continuous increase which is manifested is wholly fictitious.

It occurred to me some time ago that the surest method of discovering the truth would be to compare the returns of some of the

cancers of external parts of the body at intervals of ten years. Taking, for example, cancer of the breast, and comparing the returns of 1863 with those of 1873, and again of 1883, and allowing for the increase in the population at the end of each ten years, it would be easy to ascertain whether the disease had increased out of proportion to the population, and whether the increase bore a direct relation to the general increase of the death-rate from cancer of all parts of the body. There are so few chronic diseases of the breast of which persons die, that it is scarcely possible to err in the diagnosis of fatal cases of mammary cancer. The returns, too, would certainly be below rather than above the actual number of cases; for women often die of secondary affections which are not traced to their connection with the primary tumour of the breast, either because the primary disease has been overlooked, or because it has existed many years, and has been for a long time quiescent, or has even shrivelled, or because the secondary affection has not taken the form of definite tumours, and no *post mortem* examination has been made. Although the intention has long been in my mind, it was only during the course of last month that I carefully examined many volumes of the Annual Reports of the Registrar-General, and, to my surprise, discovered that the Government statistics of cancer are not made up for the cancers of each part of the body. With very few exceptions, all the cancers are included under the general head of cancer; and the deaths are arranged for males and females in several columns, according to the age at which the deaths occurred. Remembering that Dr. Walsh's work on *Cancer* contained the relative proportions in which the cancers of different parts of the body were observed forty years ago, I took down the book, and found, to my great disappointment, that the statistics were founded on the Paris returns. I therefore wrote to Dr. William Ogle, of Somerset House, feeling sure that, if anyone could tell me whether such statistics as I sought existed, it would be he; and also feeling sure that I should learn from him whether the Government possessed any material from which it might be possible to frame them. In a letter containing some very interesting remarks on the frequency of chimney-sweeps' cancer, which will, I trust, ere long be published, Dr. Ogle replied: "I am sorry to say that the statistics you ask for are not to be had. The deaths from malignant disease are only abstracted in the aggregate; that is to say, without any distinction either of organ affected or of precise character of the disease. In a very considerable proportion of the cases, the medical man simply gives 'cancer' as the cause, without further particulars; so that it would, to say nothing of the labour, be quite useless to attempt to discriminate between the several kinds or the different sites."

It appears, therefore, impossible at the present moment, and for many years to come, to discover whether there is a steady and continual increase of cancer of every part of the body, or whether the increase which is apparent on the returns is due to a large increase of the cancers of one or more parts of the body, while the relative numbers of cancers of other parts remain stationary, or are actually diminishing. This is the more to be regretted, because a knowledge of such facts as these is of vast importance, not merely in estimating the general increase in cancer, but in assisting us to discover to what extent some of the alleged causes of cancer act, or, indeed, whether they really can be regarded as causes of cancer. In the presence of a disease which we believe to be continually advancing in our midst, and against which we can claim no medical, and only a very partial surgical success, it is impossible to estimate too highly the importance of discovering, as thoroughly as possible, the exact nature of the causes which tend to its production, how far those causes may be assumed to act singly or in combination, and how far it is possible to diminish or remove them.

It has been said that statistics may be made to prove anything, and certainly our national statistics have been used to support the wildest and most improbable theories. But it is quite conceivable that statistics prepared from materials furnished with a certain definite object, may be used with the happiest result in discovering the etiology of cancer.

There is one cancerous disease which we believe to be, more certainly than any other, due to the presence of a local irritant, soot-cancer or chimney-sweeps' cancer. It occurs so frequently in sweeps, and so rarely in men of any other calling, unless they are exposed to the continual contact of soot or some similar irritant, such as tar, that the reasons for regarding it as a disease of essentially local origin, due to the actual contact and action of the soot upon the skin of the scrotum, appear at first sight to be incontestable. But suppose for a moment that inquiries were made in every part of the kingdom on the subject of soot-cancer, and that the result of those inquiries was to show, not only that soot-cancer is almost limited in its occurrence

to sweeps, but that it occurs only in the sweeps who inhabit certain localities, or that it is limited in its occurrence to certain families of sweeps, there would then be a strong presumption in favour of the view that the effect of the local irritant is highly favoured by the conditions existing in those localities, or by certain local or constitutional peculiarities derived by inheritance; and, on the other hand, it might fairly be assumed that the local irritant is powerless to induce cancer of the scrotum in the absence of these predisposing conditions.

If we look at what has already been done by statistics, chiefly drawn up by the profession, it must be confessed that they have added largely to our knowledge of cancerous diseases. We have learned from them that, although women are far more often than men the victims of cancer, yet men enjoy a monopoly, or almost a monopoly, of cancer of the lip, and are many times more liable than women to cancer of the œsophagus and tongue; and it appears that, if the generative organs of the two sexes be left out of the question, more men than women die of cancer.

We have learned that cancers of epithelial origin (that is, true carcinomata) are almost unknown in persons under adult age; and that they increase in frequency as age advances, becoming proportionately more numerous during each decennial period of life.

From our knowledge of the relative liability of the two sexes to the disease, we may assume that occupation and habits of life have something, perhaps much, to do with the production of cancer; but that there are still more powerful predisposing elements in the female generative organs—the breast and uterus. And, in the continual search for the conditions which attract cancer so frequently to these organs, we are led to attribute much to the great and frequent changes which they undergo in the course of the life of a woman—changes not merely in their size and in the quantity of blood which they contain, but in their intimate structure, and particularly in the structure of their epithelial elements.

From our knowledge of the increasing liability to the disease caused by advancing age, we are led to believe that the degeneration of our epithelial tissues which, as a part of the universal degeneration of the body, belongs to the later period of our lives, renders them more and more liable to become the seat of cancer.

Knowing thus much, or believing we know thus much, of the etiology of cancer, we might be disposed to accept, as a part of the lot which we derive from nature, a certain liability of the female generative organs and of some degenerating tissues to cancer. But, happily, a continual desire to increase our knowledge of the laws which regulate the occurrence of disease, and the constant hope of discovering some remedy for diseases which at present defy the utmost we can do against them, stimulate us to renewed exertion.

Individual research and observation have during the last ten or fifteen years been successful in discovering what may be regarded as almost a new series of relations of cancer, conditions to which the term "precancerous" has been applied. Two of the most characteristic of them are leucoma of the tongue and a diseased condition of the mammary areola. The former is a frequent precursor of epithelioma of the tongue; the latter an occasional precursor of carcinoma of the breast. The precursory or precancerous condition is in both cases inflammatory, is characterised by long duration and a very slow and chronic course, and is very little influenced by constitutional treatment or local applications. Neither the leucoma nor the affection of the areola inevitably leads to cancer; but the number of instances in which epithelioma of the tongue has been preceded by a chronic inflammatory condition is very large, and the number of observations of cancer of the breast preceded by an affection of the areola is increasing: so that the relationships already assume much greater importance than they possessed five years ago.

There are several questions in the etiology of cancer, respecting which either very little is known or there exists a wide diversity of opinion, and which can only with great difficulty be worked out by individual research. Of such a kind are the questions which have been raised in the inquiry on cancer now issued by the Investigation Committee. It has for many years been taught, on very high authority, that cancer is a disease largely due to inheritance; and the impression that it is possible to inherit the disease has gained even a stronger hold on the public mind than on the mind of the profession. If the theory be correct, and there is grave reason why the children of cancerous parents should be regarded as peculiarly liable to cancer, the sooner and more clearly this is recognised the better shall we be able, in a certain number of instances, to advise and treat our patients. But the evidence on which it rests is not conclusive.

The mere circumstance that two members of the same family, perhaps not very nearly related to each other, and both belonging to a family consisting of many members, die of cancer, is not a family

history of cancer; and I quite agree with Mr. Cripps that, where only two members of the same family are attacked by cancer, they ought to be nearly related, and that we ought to be cognisant of a very large proportion of instances of such a kind, before the theory of inheritance is accepted on that ground. Even then it would be necessary to discount the evidence by a careful investigation into all the circumstances by which the cancerous members of the family were surrounded, particularly with respect to the locality in which they resided, and the existence of other possible predisposing causes of cancer.

I have, on more than one occasion, pointed out the peculiarities which have been noticed in the transmission of cancer by inheritance. The cancer derived by inheritance is not necessarily of the same variety as the cancer from which it was inherited. It does not necessarily or usually affect the same part of the body; it may arise in widely different tissues; it may attack a person of the opposite sex; and it may occur at a very much younger age in the offspring than in the parent. If it be urged that the same objections may be made against the inheritance of other diseases regarding which there is far less doubt, and gout may be given as an example, the reply must be that the evidences of the inheritance of those diseases is far stronger than that on which the inheritance of cancer rests; and, were it not so, I suspect we should not be so ready as we are to accept their hereditary character. I have no intention of denying that cancer may be inherited; but the evidence which is at present before us is not satisfactory. On that account, we are seeking information on the subject from a source which has not hitherto been used, and are trying to gain, from those who are acquainted with the families of cancerous persons, facts which may tell largely in favour of or against the theory of inheritance. I have written letters to a large number of men, residing in different parts of the country, begging for information particularly on this subject, and asking those who have been many years in practice in the same town or village whether they can give us an account of any family in their practice in which cancer has been very prevalent.

It has been pointed out, in the statement by which the cancer-cards are accompanied, that Mr. Haviland, who has paid great attention to the geographical distribution of disease, considers that the high and dry localities are unfavourable to the occurrence of cancer, and that the disease flourishes particularly in those parts of the country which are low and flat, are covered by alluvium, and are watered by many streams which frequently overflow their banks and flood the surrounding country. Mr. Haviland's statements and statistics have attracted hitherto comparatively little attention, doubtless owing to the circumstance that they have not been brought very prominently before the profession. The intention of the Investigation Committee is that they shall be much more widely known; and it is hoped that the Committee may be able, with the co-operation of medical men in all parts of the country, to extend his observations, and to confirm or correct them in accordance with the facts which it collects.

The result of the present inquiry, so far as locality is concerned, will, I trust, be to obtain more detailed information respecting the habitations of the cancerous, and a better knowledge of the parts of the country which are least favourable to the development and growth of cancer; but it is hoped that the inquiry will not end here. Some of the letters I have received make it probable that cancer of certain organs is far more prevalent in some districts than cancer of other organs which may be said to be almost equally predisposed to cancer. I am not sure how far the present inquiry will elicit that fact, if, indeed, it be a fact; but it has already raised a suspicion of it, and has, therefore, laid the foundation for other and more extended investigations on cancer.

The work which the Collective Investigation Committee is undertaking on the subject of cancer is thus far quite within its capacity, and the capacity of the Association, to carry out; but there are other questions in the etiology of cancer which ought, in the interests of the public, to be investigated, and which, if they be not beyond the strength of the Association, are matters rather fitted for the attention of the Government than of an association of the profession. Of these, the first and most important is the classification of the cancers of different parts of the body, with a view to discover which of them are increasing, or whether they maintain, year by year, the same relation to each other, and to the total returns of cancer. As far as can be seen, the Government is not likely to undertake such an investigation unless the necessity for it be pressed repeatedly and forcibly upon it.

Now this is a matter in which the profession may very properly, and to the great advantage of the public, act. Nor do I think that any body of the profession can do more to promote such a project

than the splendid and powerful Association of which we are members. Memorials proceeding from its several Branches, from the Investigation Committee, and from the Association as a whole, cannot fail to produce an impression upon the Local Government Board. But the part which the profession can and must take in this matter, does not end with a mere suggestion to the Government. In order that such an inquiry should thoroughly succeed, it is essential that each individual member of the profession should lend his assistance to the Government by furnishing such accurate death-certificates in cases of cancer as lies within his power. Even if this entailed a much greater amount of labour on every medical man than it is at all likely to do, I feel sure the labour would be cheerfully borne; for our profession has justly gained the reputation of great readiness to sacrifice much for the public good; but, in truth, in most instances, a word added to the certificate usually given would suffice for all the purposes of the inquiry; and, in a vast proportion of cases of external cancer, there is no difficulty in supplying the desired word, for the original seat of the disease has long been known to the patient or the medical attendant.

A LECTURE

ON

BOUGIES, THEIR USE AND ABUSE.

By F. SWINFORD EDWARDS, F.R.C.S. Eng.,
Surgeon to the West London Hospital, etc.

THE use of urethral bougies and sounds dates back to the earliest days of surgery. Apparently in those days, stricture not being known, they were used only for pushing back impacted calculi and other foreign bodies which obstructed the outflow of urine. Guaynerius, who wrote in 1440, mentions the use of wax bougies for this purpose.

Ferri, in the middle of the 16th century, described various kinds of bougies for breaking down caruncles; but it was not till Hunter by his writings directed the attention of surgeons to the permanent obstructions of the urethral passage, that bougies came into general use for dilating purposes, (see Voillemier, *Dictionnaire des Sciences Médicales*, vol. x).

The varieties of bougie which are employed at the present day may be classified thus:

For Diagnostic Purposes.—1, *Bougie à boule*, metal or gum-elastic; 2, the urethrometer, designed by Otis.

For Treatment.—1, Steel; 2, silver; 3, pewter bougies or sounds; 4, French gum-elastic: *a*, olivaire; *b*, coudée; *c*, bicoudée; 5, English gum-elastic; 6, filiform of gum-elastic, whalebone, or catgut.

For Guide Purposes.—The pilot or guide bougie.

Besides these, we have Lallemande's *porte caustique*, a bougie or catheter for applying nitrate of silver to the deep urethra; also soluble bougies, by means of which medicaments are applied to the urethral surface in a base of gelatine, cacao-butter, or wax.

Let us take the consideration of these various varieties in the order in which I have enumerated them, and first we come to the *bougie à boule*. This is made either of gum-elastic or of metal, and is used purely for purposes of diagnosis. The shaft is thin, and terminates in a bulbous head, which may be made cone, pear, olive, or acorn-shaped, the last two varieties being the ones I usually use. The metal bougies have this advantage over the gum-elastic. They are more durable, and can be used possibly with more precision. The soft instruments are, however, more comfortable to the patient.

By the aid of these instruments, we are able to determine the exact situation and extent of any strictures, inequality in the mucous membrane, ulcers, or tender and inflamed areas. If we examine an average sized healthy urethra, with one of these *bougies à boule* whose bulb measures No. 22 of the French scale, we shall find that it will probably pass, without any difficulty or much discomfort to the patient, for about six inches.

Here one usually meets with a slight resistance, but not enough to impede the passage onwards of the instrument into the bladder. Now, if the bougie be gently withdrawn, as the bulb leaves the prostatic urethra, two distinct catches may be felt, about half an inch apart; the first not so marked as the second, and sometimes indeed scarcely discernible. These catches are due respectively to the posterior and anterior layers of the triangular ligament. In a healthy urethra, on further withdrawing the bougie, no other obstruction is experienced until one reaches the meatus, where another catch may occur. These

three catches then indicated the narrowest parts of the normal urethra.

In examining for stricture, it is well to bear these points in mind, for I have on several occasions seen surgeons—myself included—misled, diagnosing stricture (a pathological condition) when there was none. This is, of course, a serious mistake for the patient, as he is probably subjected to a course of needless, nay, mischievous instrumentation. That this may prove harmful to the patient, I firmly believe, by, to use a term of Mr. Savory's, "nursing into existence" a true organic stricture. It is easy for us to comprehend the course of events leading to such a dire event. The passage of the instrument, irritating the membranous urethra, causes spasm and congestion, followed by inflammation; and this leads in time to a deposition of neoplastic tissue.

In examining, with a view to stricture, my method of procedure, in conjunction, I believe, with that of my colleagues, is as follows. It is well to be provided with several sizes of searcher, as this special kind of bougie is sometimes named, say Nos. 14, 18, 22, 26, and 30. The patient, standing in front of me with the penis well exposed, I attempt to pass No. 22 through the meatus; but, should I fail, I now take the next size bougie, namely, No. 18, and find that this passes readily for 2 inches, but no further. No. 14 is now taken, and passed for 5½ to 6 inches, without any resistance; let us suppose that at this point only a slight impediment is experienced, and the instrument passes on into the bladder. On withdrawing it, a distinct catch is felt at 6 inches, where we found a slight resistance to the introduction. It is clear, then, that we have here an urethra strictured in three places; namely, at the meatus, at two inches from the meatus, in the antescrotal portion of the urethra, and at the junction of the bulbous with the membranous urethra; that is, at the site of the anterior layer of the triangular ligament.

It is a matter now for determination, as to what method to employ for the relief, or possibly cure, of this condition. If you believe in the doctrine of the American school as enunciated by Otis—namely, that strictures are curable—you will probably measure the urethra with the urethrometer. Having found the capacity of the individual urethra before you, which, let us say, measures 30 millimètres in circumference, you will proceed to cut the two penile strictures, using probably Otis's dilating urethrotome, passing afterwards *bougie à boule* No. 30, as far as the deep stricture, to make sure that all the constricting fibres have been divided. The third stricture (of our typical case) is not now dealt with, in the hope of its being chiefly, if not entirely spasmodic, and dependent on the two anterior ones.

Should, however, you be a follower of the other school, which says "once a stricture always a stricture," then you will first try gradual interrupted dilatation; and, if this do not succeed, you may have to call to your aid continuous dilatation, or internal urethrotomy.

A point with regard to the use of the *bougie à boule* is that it, of all kinds of bougies, is apt to set up spasm. This occurs at the spot where the urethra is surrounded by the compressor urethra muscle. Sometimes the spasm excited is sufficient to prevent the passage of the instrument. Should this occur, take a *bougie à boule* with a tapering point, or pass a small *bougie olivaire* first. You will then, after a minute or two, succeed in passing your "searcher." This also holds good in cases of spasm where you wish to pass a catheter. Here is a case bearing on this point. Not long ago, a distinguished officer in the Army Medical Department consulted my colleague, Mr. Coulson, in reference to cystitis, for which he had sought relief in vain. It was agreed that I should daily wash out and inject his bladder. On the first occasion, a full sized catheter passed easily into his bladder, the urethra being caught unawares; but, on subsequent occasions, I was obliged to pass a small *bougie olivaire* before the full sized catheter would pass. The spasm, in this case, was distinctly felt by the patient.

I believe that spasm exists in many more cases than surgeons imagine, either associated with organic contraction, inflammation, or congestion, or independent of these, being then reflex in its nature.

It is a matter of common knowledge that under chloroform a bougie, which before the administration of the narcotic could not be passed, has slipped in easily, muscular spasm being allayed. Again, it has fallen to my lot on more than one occasion to see cases of presumed organic subpubic stricture, accompanied by stricture of or near the meatus, vanish, after the complete division of the anterior stricture. After the operation for ligature of piles, how often one meets with retention of urine due to reflex spasm! Sir Henry Thompson, speaking of this, says:

"Spasmodic stricture is an exceedingly useful excuse for the failure of instruments. It is a refuge for incompetence. When you cannot pass a catheter, and wish to desist, it is a convenient thing for the

operator to say, 'there is spasm.' I do not think that you ought ever to fail in passing an instrument because there is spasm. Spasm may prevent the urine from going outwards. I do not know that it ever prevents the instrument from going in. In most cases it is failure of the hand, not spasm of the urethra."

I agree with Sir Henry that one ought not to fail in passing an instrument because there is spasm, that is, some instrument; but spasm may certainly prevent the passage of a given instrument.

Besides the *bougie à boule*, there is the urethrometer devised by Dr. Otis for purposes of diagnosis. It consists of a small straight cannula, of size No. 8 F., terminating in a series of short metallic arms, hinged upon the cannula and upon each other. At the distal extremity, where they unite, a fine rod running through the cannula is inserted. This rod, which is worked by a screw at the handle of the instrument, when retracted, expands the arms into a bulb-like shape capable of expansion up to forty millimètres. A thin rubber stall drawn over the end of the closed instrument protects the urethra from injury, and prevents the access of the urethral secretions to the interior of the instrument. When introduced into the urethra and expanded up to a point which is recognised by the patient as filling it completely (and yet easily moving backwards and forwards), the index at the handle then shows the normal circumference of the urethra under examination. In withdrawing the instrument, contractions at any point may be exactly measured.

The advantages of this instrument are these. 1. By means of it we can measure the size of the urethra, and ascertain the locality and size of any strictures present without reference to the size of the meatus. 2. It enables the surgeon to complete the examination of several strictures by a single introduction of the instrument, and, by reduction of its size, to avoid the pain which usually attends the withdrawal of the *bougie à boule*.

Its disadvantages are, 1. Often a little bleeding accompanies its use. 2. By reason of the bulb being covered by India-rubber, the sensations conveyed to the hand are somewhat masked. To obviate this, Messrs. Mayer and Meltzer are now making, at my suggestion, a urethrometer whose bulb will not be so delicate as in Otis's instrument, and one which I hope to be able to use without the stall.

I now pass on to the consideration of bougies which are useful in the treatment by dilatation, and first and foremost comes the *bougie olivaire*. This has now quite superseded the English gum elastic, and, as a rule, all metal instruments, as there can be no question that its introduction is attended with less discomfort to the patient than that of steel or silver instruments. The characteristics of a good *bougie olivaire* are as follows. It must be soft and pliable, not too bulbous at its extremity, with an easily bendable neck.

Let us suppose that we have before us a case of stricture that we wish to treat in the usual way, namely, by gradual interrupted dilatation. Having found out the number, situations, and sizes of the contractions, either by the urethrometer or *bougie à boule*, should the patient not be lying down, get him to do so; if this be his first experience of instrumentation, you may thereby save him a nasty fall should he faint during your manipulation, an occurrence which sometimes takes place. Warm the bougie by passing it two or three times through the hand. This will also have the effect of removing any dust which might be on it. (I take it for granted that, if the bougie have been used before, it has been well cleaned.) The cleanliness of all instruments which are introduced into the urethra is a matter of the utmost importance. Who will say that, where cystitis and urethral pyæmia follow the introduction of instruments, this may not sometimes have been due to impurities introduced on or through them?

Whilst passing the bougie through the hand as suggested, give it a slight curve. I have known this curve to make all the difference between success and failure.

As to the size of the bougie; one two or three sizes smaller than the capacity of the smallest stricture should be selected; that is, if the patient have several. This is passed gently and removed after a minute or two; we may then succeed in passing one larger than the estimated size of the stricture. Let us imagine that, in this case, the size of the smallest of the strictures is 14 millimètres. The first bougie passed is 12, followed by 15. In two or three days, the patient comes again, saying that he has passed urine in a larger stream. On this occasion, we commence with 13 or 14 (a size or two smaller than the bougie last introduced); 16 will now probably pass easily, and so on at each successive visit until the stricture has been dilated to the size thought requisite, usually No. 22, equal in size to 12 English, or rather more; though, in some cases of capacious urethra, it is necessary to continue dilatation to 25 or 30. The next step is to teach the patient to pass a bougie himself, and to insist on his passing it once a week regularly. It is better, perhaps, to name a day on which this

is to be done. Should the patient neglect the regular use of the bougie, recontraction will almost inevitably take place. I do not believe that any organic stricture, the same being situated outside and around the mucous membrane, is to be cured in this way. If it be capable of cure, it can only be by complete division of the neoplastic tissue, which is to be effected by urethrotomy.

All cases must not be expected to go as smoothly as this. The urethra may become inflamed and irritable; if so, other means must be employed to calm the urethra before again having recourse to the bougie. A patient's food and drink, as also the weather, may make a difference in what is known as the temper of a stricture. In the majority of cases of stricture of large calibre, with care and trouble, one succeeds in so dilating a stricture that a patient will get on very comfortably, passing a bougie for himself at stated intervals.

There remain, however, a good many cases where the dilating process is not attended with success, owing to the resiliency or what not of the stricture; for such cases, an operation is necessary. Of the metal bougies or sounds used for dilating purposes, I prefer a pewter one. It is heavy enough to pass in of its own weight. Its point is made on the type of the *bougie olivaire*, being sufficiently bulbous to prevent the catching of the end in the *lacuna magna*—which, by-the-by, ought easily to be avoided, whatever instrument is used, if only you recollect its whereabouts—or any other of the urethral-follicles. Its diameter is greatest about the curve; the shaft, being smaller, is not so liable to be held by a small meatus; and, lastly, you may give the instrument any curve or shape you may think fit.

One sometimes meets with a case where a curved metal instrument will pass after every form of flexible has failed. Regarding the method to be employed in the introduction of curved metal instruments, as to whether one should practise the *tour de maître*, or pass the instrument straight in, keeping the concavity always pointing towards the pubes, seems to me to be of as small importance as the standing on the right or left of the patient. A dexterous surgeon ought to be able to pass an instrument either way and from either side. Certain it is, that several times failing with the *tour de maître* from the left, I have succeeded on trying it from the opposite side. The introduction of the finger into the rectum, or the pressing upon the perineum with the fingers as a point of support, after the instrument has been introduced as far as the bulbo-membranous urethra, are methods to be resorted to for guiding the point of the bougie through the triangular ligament, where often a slight difficulty occurs.

As to the use of the English gum elastic catheter, I know of only one set of cases where this is useful, and this is where the third lobe of the prostate is enlarged. Pass the catheter down to the seat of obstruction, now withdraw the stylet for one inch, and the point of the instrument will be tilted upwards, thereby enabling the catheter to ride over the protruding gland. The *coudée* and *bicoudée* catheters answer this purpose very well. This is their special function, and for it they were designed.

For the treatment of strictures of small calibre, we have the filiform gum-elastic, whalebone, and catgut bougies. Each of these has its own special and peculiar attributes. For instance, the filiform are made sometimes with a corkscrew-like twist at the end; this you will find most useful, when the stricture is at all tortuous, with its orifice situated eccentrically—that is, to one side or other of the canal. The whalebone bougie is of special use, by virtue of its rigidity, for passing through dense and callous strictures. Its extremity can be bent at will, where it is necessary to direct its point to one side or other in cases of eccentric stricture. The advantages attaching to the catgut are almost all shared by the whalebone, with this one exception—namely, that if a catgut, being passed through a stricture, be left *in situ*, it will swell slightly, thereby dilating the stricture more rapidly than can be accomplished by the other varieties.

Long catgut and whalebone bougies are also used in the rail-road or tunnelled catheter—an English gum-elastic catheter, open at both ends; the catgut, having been passed through the stricture into the bladder, acts as a guide for the passage of the catheter, which is pushed on over the bougie.

The filiform bougie is often used as a guide or pilot, being, in these cases, screwed on to either a catheter, urethrotome, or some dilating instrument, as Harrison's. With several varieties of the filiform bougie, one rarely comes across a case of impassable stricture; at least such has been my experience in many hundred cases of stricture. Syme used to dwell with force on the fact, in which all surgeons of much experience in urinary diseases concur, "that there are really very few strictures which are impassable, if only the surgeon be dexterous and patient." I need not point out to you that this dexterity is only to be acquired by constant practice. If Syme taught this in his day,

how much more ought it to hold good in ours, seeing how much better instruments are at our disposal!

In cases where one or more false passages accompany a stricture of small calibre, and it is desired to get a bougie into the bladder, a good method of procedure is as follows.

Suppose you pass a filiform, and you feel that it has left the urethra and entered a false passage (this may be indicated by the grating or creaking sensation conveyed to the hand), leave it there; it will block up this road at all events. Now, pass another; should this likewise pass into a false passage, take a third; and, should there be no more false passages for it to go into, it must per force enter the orifice of the stricture.

You will find that injection of the urethra by oil is an useful adjunct when endeavouring to pass a filiform bougie through a tight stricture; and, better still, is the plan of getting the patient to pass a few drops of urine at the time of manipulation.

I must just say a few words on the treatment of stricture by continuous dilatation—that is, the leaving in of a bougie or catheter for a lengthened period. I must own that I am no friend to this method of treatment, believing it to be more fraught with danger to the patient than internal urethrotomy. Neither do I hold with the practice of tying in a catheter after the operation of internal urethrotomy. The irritating presence of an instrument in the urethra will almost certainly set up an inflammation of both the urethra and bladder; and we may congratulate ourselves if our patient escaped with nothing worse, in the way of urethral fever, leading to suppression of urine and death. Perineal abscess, extravasation of urine, and orchitis, are other local complications. Any, or all, of these may succeed the mere passage of a bougie; but they are certainly more likely to occur in the treatment of stricture by continuous dilatation.

In conclusion, I will formulate a few rules which may be of service in using a bougie or catheter; firstly, as to what ought to be avoided.

1. Avoid being misled as to the presence of stricture by the deep perineal fascia.

2. Avoid the use of force in introducing an instrument. You will do more harm than good. *Après* of this, I will quote you a passage from Mitchell Banks, on diseases of the genito-urinary organs. "The one rock ahead is the desire which the hospital-surgeon (who must operate *coram publico*) has, even in the present day, to get into the bladder at all costs. The unhappy patient being brought into the theatre before a crowd of students, the surgeon considers it a point of honour to get something—if only a No. 1—into the bladder. After 20 minutes' prodding, with all sorts of instruments, this No. 1 is finally jammed in; the surgeon triumphs, and the patient is led away, bleeding profusely, and possibly with a false passage. A week's rest in bed with hot fomentations to the perineum, would probably so have softened down this patient's stricture, that No. 3 or 4 would have gone in quite easily, to the great facilitating of further treatment."

3. Avoid hæmorrhage if possible. Mr. Savory, in the *St. Bartholomew's Hospital Reports*, "On Spasmodic Stricture of the Urethra," says: "Whenever blood follows the introduction of an instrument, is it not a sign that in one respect at least, mischievous force has been employed?" To this I would reply "Not always," as it is sometimes a necessary part of the cure, as when a patient is suffering from an obstructed urethra, due to a valve, wart, or bridle, the breaking down of which must necessarily be accompanied by a few drops of blood. It is in these cases that cure follows on the use of the bougie alone. I recollect the case of a graduate of Oxford who came to see me in reference to his stream of urine, which was diminishing in volume, and escaped forked. He had, in addition, pain in the bulbo-membranous urethra. On the passage of an instrument, and slight gleet. After passing a No 22 *bougie olivaire*, on two occasions, my patient was cured. On each occasion, the passage of the instrument was followed by a drop or two of blood. I imagine that in this case some wart or bridle was broken down.

4. Avoid continuous dilatation—if interrupted is inapplicable to the case, practise, in preference, urethrotomy. Cystitis is caused by continuous dilatation, but cured by internal urethrotomy.

5. Avoid tying in a catheter after internal urethrotomy; pass a bougie on the second or third day.

6. Avoid instrumentation in purely spasmodic strictures.

7. Do not imagine that, because in a given case a so-called full-sized bougie, No. 22 or 25, passes easily through the penile urethra, there can be no stricture sufficient to set up a spasmodic stricture in the deep urethra, or to keep up a gleet.

I would now offer the following advice.

1. Use great care in the introduction of all instruments; see they

are smooth, clean, in good condition, and well lubricated, and if of metal, warmed.

2. Always use soft elastic bougies, if possible, and see that the *bougie olivaire* has a pliant neck.

3. More benefit is derived from a bougie which passes easily through a stricture than from a larger one, which is tightly held, and requires force to send it through.

4. It is well, before passing a bougie, to give it a curve, the concavity of which, on introducing it, should look towards the pubes.

5. When using a pilot bougie, always see that the screw is firmly fixed. After the bougie has been used several times, it is apt to become rotten at its junction with the screw. Should this be the case, on withdrawing the instrument through the stricture, the pilot might be left behind in the bladder, necessitating further prolonged operative measures for its removal. I once met with an accident of this kind, the pilot remaining behind in the bladder. I saw the patient two days afterwards, and, after performing internal urethrotomy for a stricture, was able to extract the bougie by means of a lithotrite.—[*Vide* BRITISH MEDICAL JOURNAL, 1882.]

TWO CASES OF BRONCHOPNEUMONIA TREATED WITH BLEEDING AND ICE.

By DAVID B. LEES, M.D., F.R.C.P.,

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CASE I.—Emily B., a domestic servant, aged 15, but looking older, came among my out-patients at St. Mary's Hospital on January 24th last, complaining of cough, shortness of breath, and sharp cutting pain in the left side. She had been ill for about ten days, and thought that she had taken cold from sleeping in a damp bed, having on several occasions awoke during the night to find herself shivering. I found that there were a patch of dullness in the second left inter-space in front, and *râles* over the greater part of the left lung, and also at the base of the right. There was much dyspnoea, and the temperature was over 104°. By the kindness of Dr. Cheadle, I was enabled to admit her into the hospital under my own care. She was at once put to bed, and hot poultices applied to the chest.

January 25th. She had slept fairly during the night, but this morning had much distress in breathing. The dyspnoea was very obvious. There was restlessness; the lips were livid, and the cheeks dusky. Temperature 105°; pulse 136, regular, and fairly strong; respirations 44. The urine was of specific gravity 1030; it contained urates, but no albumen; chlorides were present. The bowels had not been opened during the last four days. The sputum was copious, viscid, not rusty. There was dullness over the whole of the front of the left side of the chest to the nipple-level; the breathing, however, being simply harsh, and not tubular. Resonance was somewhat impaired below the angle of the scapula on both sides; and at both bases, in front and behind, was an abundance of moist *râles*, heard during expiration as well as during inspiration. These physical signs, combined with the high temperature, seemed to denote a severe bronchitis extending to the smaller tubes, with commencing consolidation of the left upper lobe. Taken with the symptoms of great dyspnoea and lividity, they seemed to render it necessary at once to give relief to the overstrained right heart, without waiting for the slower action of purgatives and emetics. Venesection was, therefore, performed at 11 A.M., ten ounces of very dark blood being drawn off. The relief to the dyspnoea was immediate, manifesting itself even while the blood was flowing; and the lips lost their blueness. An enema was administered, after which the bowels were opened twice.—At 12.30 P.M., the temperature had fallen to 103.6°, the pulse remaining at 136, and the respirations still in number 44, but much quieter. The patient felt much more comfortable.—At 9 P.M., the temperature was again 105°; but the lips were red, and the dyspnoea had not returned. An emetic was ordered, to clear the bronchial tubes of the very copious secretion, and a mixture, containing ten drops of antimonial wine and ten grains of bicarbonate of soda, with half an ounce of liquor ammoniac acetatis, to be taken every four hours.

January 26th. She was relieved by the emetic, and had slept fairly well. The cough was less troublesome; the lips were rather more blue again, and the cheeks somewhat dusky. Temperature 105.6°; pulse 144; respirations 48. The right side of the chest was forcibly expanded during inspiration, especially in its upper part. The left front was dull from the clavicle to the nipple-level, with bronchial breathing under the clavicle. There was dullness also about the posterior

edge of the left scapula. At both bases, *râles* were heard as before. The heart was normal.

It was obvious that, though the immediate urgency had been met, the pulmonary symptoms were advancing in gravity. It was therefore determined to give up the poultices, which had been used for two days, and to try the effect of cold applications. Directions were given that the patient should be sponged, first with tepid and then with cold water. This change proving pleasant to her, an ice-bag was applied to the left chest at 3 P.M. Immediate benefit seemed to follow. At 8 P.M. she looked tranquil and easy; the lips were redder; the temperature had fallen a degree and a half (to 104°); and the frequency of the pulse had lessened by 28 beats per minute, being now only 116. The respirations were still 46 per minute, but without marked dyspnoea. The physical signs also had improved, there being now fair resonance from the clavicle to the second rib. From the second rib to the mamma there was still dullness, with bronchial breathing, and coarse *râle* during inspiration only. At the right anterior base there was still moist *râle* to be heard, during both inspiration and expiration. Pain in the left side continued.

January 27th. The ice-bag had been kept on all the night. Slight delirium was observed early this morning. The temperature had fallen continuously, and at 5 o'clock this morning was only 98°. After 8 A.M., however, it rose again, and at 4 P.M. stood at 105.8°, the highest temperature throughout the illness. Pulse 126; respiration 40. I found that the left apex was still improving, the resonance having now reached as low as the third rib; and over this area the breathing was fairly normal, only the expiration a little prolonged. There was still dullness from the third rib downwards, but the breathing over it was less harsh, and there were expiratory as well as inspiratory *râles*. There were still moist sounds at the right base as before. So far there was improvement, but the rise of temperature was accounted for by the discovery of fine inspiratory crepitation at the angle of the left scapula, and bronchial breathing in the axilla. Obviously a fresh portion of lung had been attacked. The ice-bag was continued, and senega substituted for the antimonial wine.

January 28th. The temperature had again fallen to 98°, and the pulse to 82. The respirations still numbered 44. The dullness was now limited to a small area at the anterior border of the left axilla, over which loud moist *râles* were heard, with hardly any bronchial breathing. There was diarrhoea yesterday, the bowels being opened twelve times, and she was sick after the medicine, which was therefore changed to quinine. At 2 P.M. the temperature began to rise again, but the highest point which it attained was 103°.

January 29th. Temperature 98°; pulse 108; respiration 36. She was taking food well. In the afternoon there was another (and final) rise of temperature to 104.2°. I found that the signs on the left side were still improving, but there was now dullness in the first inter-space on the right side, which had hitherto been quite normal, and harsh inspiration as low as the second rib. It seemed as if the right lung were about to follow the example of the left. Another ice-bag was at once applied to the right apex. To my surprise, I found next day (January 30th) the right apex perfectly normal; with good resonance and natural breathing. Pulse 84; respiration 42; temperature 96.7°.

On the 31st the temperature was 98.4°, at or about which it remained; the pulse 84; respirations 36. There remained only some slight impairment of resonance over the left lung posteriorly, and the catarrhal sounds had quite disappeared.

From this time convalescence was uninterrupted, and when I examined her chest, before her departure for a convalescent home, I found everything perfectly normal.

CASE II.—On February 3rd, I was asked to see, in consultation with Mr. Langston, of Westminster, a female infant aged 6½ months. She had been seriously ill for two days, and had had a slight cough for several days previously. She was believed to have taken cold from exposure to cold winds. The temperature was 103.4°. There was some active distension of the alae nasi, with cough, which was evidently painful. On examining the chest, we found that there was only very slight impairment of resonance over the right back, with dryish *râles* over the upper lobes behind, and a good deal of moist *râles* over the bases, both before and behind. We directed that a large turpentine-stupe should be applied to the chest, to be followed by the use of linimentum terebinthinæ, and that a bronchitis-kettle should be kept constantly on the fire, the temperature of the room being maintained at 65° Fahr. By the mouth, she had been taking milligramme-granules of acetonine and of scillitine; these were now exchanged for similar granules of emetine.

February 4th. Temperature 103.5° (last night, 104°). There was now decided dullness over the root of the right lung, with bronchial

breathing and sharp *râles*. Loud normal breathing was heard over the left lung, with some moist *râles* at the left base. She was ordered to continue the emetine, and to have large mustard and linseed poultices.

February 5th, 7 P.M. Temperature this morning 103.5°, now 104°. The child had been very restless to-day, and cyanosed. During the afternoon, it was said to have been "quite black" around the mouth. Even by artificial light, it was easy to see that the face was dusky. The respirations were exceedingly hurried. On careful counting, there were found to be 28 inspirations in 15 seconds, or 112 in the minute. The heart's action was comparatively slow, very little more than 100 per minute. Over the right ventricle, the second sound was loudly accentuated; and even amidst the noisy inspirations, of about the same frequency as the cardiac action, the thud of the pulmonary valves could be clearly heard. It was evident that the strain on the right ventricle was rapidly becoming more than it could bear, and that, unless immediate relief were afforded, many hours would not elapse before arrest of its action would result. Three leeches were immediately sent for. Meanwhile, the child was placed in a tepid bath rapidly cooled. It remained in the bath for five minutes, but the effect was to raise the rectal temperature from 104° to 105°. Probably, a reduction of temperature would have followed a longer immersion; but, the leeches having arrived, they were immediately applied over the sternum. They took well, and the bleeding was afterwards encouraged by a poultice. It was estimated that the amount of blood drawn off was about an ounce, which may be considered equivalent to a moderate venesection in the adult. It was very interesting to watch the immediate relief which followed. Even while the leeches sucked, the breathing became much slower and deeper; indeed, the frequency of respiration sank to the rate of 50 per minute, less than one-half of its former amount. The pulse, on the other hand, became more rapid, and was noted to be fully 120. An hour later, the respirations numbered between 60 and 70, and the pulmonary second sound was found to be much less accentuated. The emetine was discontinued, and it was determined to lay aside the poultices, and try the effect of external cold. An ice-bag was therefore laid over the upper posterior right chest, and directions were given that milk or broth should be administered (without stimulants), and the temperature taken every hour.

February 6th. The child had slept fairly, and the cough was less troublesome. She had taken nourishment well, sucking the bottle strongly, which on the previous day she quite refused. The temperature had been over 104° all night, and for three hours was 105°. The lips and cheeks were still decidedly dusky, but nothing like so much so as the day before. The father said he "would hardly have noticed it to-day." The heart seemed now to have quite recovered itself; there was no accentuation of the pulmonary second, and the action was much more frequent, nearly 200 in the minute. The respirations were about 80. There was less dullness over the inner margin of the scapula, but perhaps a little extension of dullness outwardly, and over this spot were some sharp *râles*. During the day the temperature fell till it reached 101.7°, when the ice-bag was removed according to instructions. Next day (February 7th) it was noted that there was distinctly less dullness over the scapula, but that at its outer edge the *râles* persisted. The left lung was now absolutely normal. In the evening, the thermometer again marked 103°, and the ice-bag was reapplied, but was soon removed, as the child was thought to be restless under it. The temperature, however, had fallen to 102.6° in the morning of the 8th, and to 102° in the evening.

February 9th. The temperature was now only 100.3°. The colour was much improved, no longer dusky. The cough was looser. The child lay quietly.

February 10th. A sudden accession of pyrexia had occurred, the thermometer standing at 105.6°. There were no new signs in the right lung, but a patch of dullness with harsh breathing was now found over the root of the left lung, which for the last two days had been normal. There were also sharpish *râles* at the angle of the left scapula. Respirations, 70; pulse, 170. The *alæ nasi* were again working freely. There was no stress on the pulmonary second sound. The ice-bag was reapplied, and an immediate fall of temperature followed. At 8.45 A.M., when the ice was again applied, it stood at 105.4°; at 10.30 A.M., 102.6° (a fall of nearly three degrees in less than two hours); at 12.30 P.M., 101.6°; at 2.30, 100°; at 4.30 P.M., 98.8°; at 9.30 P.M., 101°. It was directed that the ice should be used whenever the thermometer marked 102°.

February 12th. Morning temperature, 103.4°. There was now fresh dullness over the left apex posteriorly, with harsh breathing. Evening temperature, 101°.

February 13th. At 3.30 A.M., the thermometer suddenly rose to

106°. The ice-bag was reapplied, and a rapid reduction followed. At 9 A.M., it was only 102.4°; respirations, 170; pulse, 60. The child seemed fairly comfortable, and inclined to play with a watch held in front of it. The dull spot at the left apex had now quite cleared up, but there was a finger-tip area of dullness behind the edge of the left scapula. The *râles* had nearly disappeared.

February 14th. The physical signs in the lungs had now quite disappeared, but the temperature continued to be high (morning 101.5°; evening 104°). This proved to be due to the co-existence of internal otitis resulting in posterior basic meningitis. At all events, most of the symptoms of that disease were present. Under vigorous treatment, including paracentesis of the tympanic membranes, these symptoms entirely passed away; and, after an illness of seven weeks, the child recovered perfectly, and has since remained well.

I reserve for a subsequent communication the details of the later part of the case, which are of great interest, my object at present being simply to discuss the treatment of the pneumonia. But to prevent any misapprehension, it will be well to add that the first symptoms of the otitis were present before the ice-bag was first used. The aural inflammation was a part of the original catarrh; and I have seen several cases in which a similar otitis of catarrhal origin (sometimes with, sometimes without, accompanying bronchitis or pneumonia) has caused death by producing posterior basic meningitis. But for further details on this subject, I must refer to a forthcoming paper by my colleague Dr. Barlow and myself.

REMARKS.—The true indication for bleeding in pneumonia seems to be the approach of failure of the right heart to overcome the greatly increased pressure in the pulmonary artery, due either to extensive consolidation of lung, or to overwhelming engorgement. Evidence of this approaching failure was present in each of the cases above narrated. In the former, the necessity for bleeding was in my opinion urgent; in the latter, it was not urgent but imperative. In both, the relief afforded was marked and immediate. It is doubtful, however, whether it would in either case have been more than temporary but for the beneficial influence of the cold applications. The superiority of the ice-bag to the poultices which it replaced was very obvious in each case. The older patient was conscious of increase of comfort during its use, and the application was therefore continuous, both by day and by night. In the case of the baby, the ice was removed when the temperature sank to 102°, and replaced when a further rise occurred.

ON GONORRHOEAL RHEUMATISM IN INFANTS, THE RESULT OF PURULENT OPHTHALMIA.

Read before the South London District of the Metropolitan Counties Branch.

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IN THE BRITISH MEDICAL JOURNAL, of February 28th, 1885, I published a short note of a case in which two joints of an infant were inflamed, in association with purulent ophthalmia. This case was thus put forth in an incomplete form, because I believe that the relation of purulent ophthalmia and joint-disease as cause and effect is an entirely new observation, and I wished at once to court the criticism of the profession upon the case.

My desires in this respect have not been disappointed. Among my colleagues the case was received with becoming scepticism, but its course and termination left no alternative explanation, save an accidental acute inflammation, without injury, of two distinct joints; and the friendly doubts of my colleagues in almost every case ended in their being convinced of the correctness of my views. Nor were my critics confined to my own colleagues. My friend, Dr. Thomas Barlow, for whose views I always entertain the highest respect, wrote by the next post, begging me to be very careful to exclude the possibility of syphilitic epiphysitis, the importance of which I admit, and upon which I am able, I think, to satisfy the most rigorous of critics. The course and termination of this case will now be given in detail; and, by the kindness of a colleague, I am able to supplement it by another which, taken alone, is deficient in materials from which to draw any exact conclusions, but which, read in connection with my own, will probably be admitted to belong to the same category. The following is a detailed account of my case.

M. B., aged 34, first brought her infant son, aged eighteen days, to see me, on February 12th, 1885. She had been twice married. By her first marriage she had given birth to five children, all of whom

were living and healthy. None of these had suffered from rash or snuffles. She married a second time five years ago, and the infant brought was the second child of this second marriage. The elder child of the second marriage was now $2\frac{1}{2}$ years of age; she had suffered from no syphilitic symptom. A week later, she was brought for my inspection, and appeared quite healthy. The mother had never had a miscarriage, rash, sore-throat, or any symptom attributable to syphilitic infection.

About a fortnight or three weeks before her labour, she noticed that she was suffering from a thick purulent discharge, and accused her husband of having infected her. He at first made one of the usual excuses, but afterwards, on her discovering that he was attending at the hospital for a discharge from the urethra, admitted his culpability. A day or two after birth, the child was noticed to have a purulent discharge from the eyes, and was treated from the hospital with alum lotion.

Of the inoculation of gonorrhoeal virus, as the cause of the purulent ophthalmia, there cannot, therefore, be a shadow of doubt; for all three patients, father, mother, and infant, who had been inoculated in succession, were under hospital treatment at the same time.

About a fortnight after birth, whilst the discharge from the conjunctiva of the infant was still profuse, the mother noticed that its left knee was enlarged and painful, and that the child cried when it was moved. A little later the left hand was observed to drop, and the left wrist was noticed to be painful on movement.

The case was referred to me by my colleague, Dr. Horrocks, on account of the condition of the knee. On examination, the knee was found greatly enlarged. It contained a considerable quantity of fluid, so that the patella floated, and was sufficiently red to indicate a possible tendency towards suppuration. The swelling was not simply a distension of the synovial membrane, but the enlargement was equally distributed above and below, so that it could not be traced to inflammation of either epiphysis. The mother said the knee had gradually increased in size since she first noticed it painful. The wrist was enlarged but not red. It creaked on movement, and this caused pain, so that the child cried. The only treatment employed was the application of dilute lead lotion over the inflamed joints.

February 19th. The wrist was more swollen, and somewhat red. The knee was less inflamed, but not diminished in size. The purulent ophthalmia was still profuse. A stronger lotion of alum was now ordered (eight grains to the ounce of water) to be dropped into the eyes every half hour after bathing away the discharge.

February 26th. The effect of the increased strength of the lotion upon the eyes had been very marked. The purulent discharge had almost entirely stopped. The wrist was much better, and was but very slightly swollen. The knee also was better, but still large, and somewhat hot.

March 5th. The eyes were now well, and the corneae were quite clear. The wrist had recovered, and could be moved without pain. The knee was very much less inflamed, and less swollen. The redness of the surface had disappeared.

March 25th. The inflammation of the knee had quite subsided, and the joint could be moved without pain.

April 9th. The child was again brought up for inspection. It had greatly improved in health and strength. The joints were well. It showed no sign of inherited syphilis.

In the note which I first sent to the JOURNAL upon this case, I remarked that "I am not aware that any connection between ophthalmia neonatorum and synovitis has ever been observed or described; but there seems no just reason if, as is generally supposed, the synovitis of gonorrhoea is the result of absorption of morbid products from the urethral mucous membrane, why the conjunctival mucous membrane should not offer an equally favourable absorbing surface. It is scarcely probable that the inflammation of these two joints could be referred to any other cause; and, in my own mind, there exists no doubt whatever that this is a case of gonorrhoeal rheumatism, consequent upon absorption from the conjunctival surface." The subsequent progress and termination of the case bear out most strongly the correctness of the diagnosis.

It will be observed that, whilst the discharge remained profuse, during the following week, the wrist-inflammation increased, and the condition of the knee showed little or no improvement. A stronger lotion, frequently applied to the eyes, at once diminished the discharge; and, relatively to its decrease the joint-affection began to mend. This accords with my experience of gonorrhoeal rheumatism having its origin in the urethra, though it scarcely agrees with the teaching of some authorities, who speak of the joint-affection decreasing when the discharge becomes more profuse, and increasing with a diminution of the secretion. This doctrine I believe to be altogether erroneous,

and conducive to incorrect and ineffectual treatment. It is true, that gonorrhoeal rheumatism often comes on in the later stages of the gonorrhoea, when there may be little more than a gleet present; but the surgeon should always direct his efforts first to the cure of the discharge, and the joint-affection will then give little trouble. I have known both discharge and rheumatism to extend over a period of nine months, owing to the depressing influence of large doses of alkalies, and both to disappear in the course of two or three weeks, when an effectual remedy was administered for the cure of the original malady.

The treatment which was adopted for the relief of the joint-affection in the case of the infant was purely local, and of the simplest kind. Neither fixation of the joints nor pressure was employed; but a lotion of dilute subacetate of lead was merely applied to the surface, to assist in lowering the inflammation. The resolution and recovery cannot, I think, be attributed largely to the application over the joints, but must be traceable rather to the removal of the original source of infection, and to the general improvement in health. Were the joint-affection in any way related to syphilis, such rapid recovery, apart from any specific treatment, would scarcely be possible, or at least improbable. But the absence of any syphilitic taint in this case may, I think, be accepted as certain. The only ground, indeed, for suspicion is that the father, being of such a moral tone as to contract gonorrhoea and infect his wife therewith, might also have become at some time infected with syphilis. The history of the mother, and of her several children, is, however, devoid of any suggestion of specific disease. Nor was the joint-inflammation traceable to any epiphyseal enlargement. We must, therefore, regard this joint-affection as quite distinct from anything syphilitic.

It will be observed that, whilst the synovitis of the wrist-joint never reached any high degree of inflammation, the knee presented so acute an arthritis as to suggest the possibility of suppuration. The subsidence of the acute inflammation, without suppuration, is in itself some evidence of this gonorrhoeal origin of the synovitis, a point to which I will again allude before closing this paper.

For the following case, I am indebted to my colleague, Mr. Davies-Colley, who kindly hunted it up in an old note-book, after discussing with me the case already related. There can, I think, be no doubt that the arthritis in this case was of precisely similar origin. It was headed in his note-book, after first seeing the child, "Pyæmic abscess of knee-joint in a newly born child;" but the subsequent history states that the joint recovered without suppuration.

L. J., aged three months and two weeks, was first seen on May 2nd, 1874. The mother had suffered from discharge ever since her confinement (seventh child). The child had bad eyes four days after birth. It attended under Mr. Higgins for gonorrhoeal ophthalmia. The left knee-joint had been affected about eight days. It had now the left knee-joint red, and full of fluid. May 13th. There was diarrhoea; the knee was less. June 3rd. She was better; the knee was nearly well; it had not suppurred. The only treatment mentioned is aqua calcei.

This case taken alone would prove little, inasmuch as, there being but one joint affected, it would be easy to attribute the inflammation to some accidental or external cause; nor was its relation to the ophthalmia apparently conjectured at the time. But, studied in connection with the other case, it will be observed to present great similarities. The acuteness of the inflammation was such that the presence of pus in the joint was at first suspected; and the subsidence of this intense inflammation without suppuration is, as before remarked, very characteristic of gonorrhoeal arthritis. We have no details by which to exclude inherited syphilis; but, had any symptoms appeared, they would doubtless have been noted. Here, then, is a case in which the gonorrhoeal ophthalmia ran on for three months, and then became associated with an acute arthritis of the knee, accompanied by much effusion. The arthritis subsided without treatment. Is it reasonable to suppose that this arthritis was an accidental and independent disease of the joint? Judging by analogy it must, I think, be allowed that the probability is in favour of the arthritis being occasioned by the pre-existing ophthalmia. Such, at least, I would emphatically state, is my own most decided opinion of the case.

Gonorrhoeal rheumatism is a disease concerning which, I believe, some very erroneous opinions exist; and, before closing this paper, I wish to make some remarks on the disease as it is more commonly met with in young adults. It is undoubtedly frequently overlooked; and the patients, wishing to preserve their reputations for morality, often do their best to deceive their medical attendants. I remember, when I was clinical clerk, that a young man was admitted at the beginning of the session into the clinical ward, with subacute rheumatism. He remained in till after Christmas, being, in succession, under the care of three dif-

ferent physicians, who treated him according to the most approved plans for ordinary rheumatism. At last, the diagnosis was made by old Nurse Jackson, who said he was a "nasty dirty fellow," and that she had "changed his sheets often enough, and would stand it no longer." About two months ago, two young men attended on the same day among my out-patients, each with effusion into the left knee-joint. In neither was there a history of injury. My suspicions were aroused by this fact, their healthy appearance, and their ages (between 17 and 20); and I inquired as to gonorrhoea. One admitted a discharge, but the other stoutly denied having anything of the kind. Still unsatisfied, I made the man pull down his trousers, and, squeezing his urethra, demonstrated, to his great discomfort, before all the students, the existence of a purulent discharge.

These are instances of the subacute form, attacking in the two latter cases only one joint. The diagnosis is made by the discovery of a purulent discharge from the urethra, the absence of sprain or injury; few joints attacked; little pain, except on movement; and a good deal of synovial effusion. This is the most common form, and the one most generally recognised. It occurs in females, as well as in males. A few years ago, when Patience was still a venereal ward, a woman was there placed under my care with gonorrhoea, and synovitis of both knees, accompanied by the most extensive effusion. There was little pain, and no constitutional disturbance, but it was many weeks before I was able to cure this woman of her gonorrhoea and gonorrhoeal synovitis. I have seen several other cases in young women, and I believe there is no justification for the remark made by the writer in the last edition of the *System of Surgery*, edited by Mr. Holmes, that "gonorrhoeal rheumatism is rarely, if ever, met with in females." Rather, I would suggest, medical men are a little too charitable, and a little too apt to trust to the histories that young servants give them in explanation of a particular synovitis. The difficulties in the way of unloosening a falsehood are very great, and it is obviously impossible to force an examination, as one frequently does in the case of a male. Hence, many cases of gonorrhoeal synovitis are overlooked, and regarded as of rheumatic origin.

There is another form of gonorrhoeal rheumatism which takes the form of an acute arthritis, accompanied by high fever, acute pain, redness and swelling—symptoms closely resembling suppurating arthritis—but which rarely suppurates. We are indebted to Mr. Davies-Colley for drawing attention to this form. I remember when he first brought his observations before the Hunterian Society, on April 10th, 1878. He was careful then to distinguish from gonorrhoeal rheumatism this which he believed to be a peculiar arthritis occurring in women; but it was the opinion of many who heard his paper that he was describing only a peculiar form of gonorrhoeal rheumatism. My own experience at that time rested chiefly upon a remarkable case I was asked to see, in 1877, by a medical colleague. It was that of a married woman who was seized with an acute arthritis of the left knee, accompanied with very high temperature, great pain, redness, and swelling. The case had been seen by Mr. Callender and Mr. Mauder (both since dead), and they had agreed that there was pus in the joint, and that incisions should be made. My colleague differed from these distinguished surgeons, and took me to see the case. I fixed the limb rigidly on a McIntyre's splint, and applied an ice-bag over the knee, under which treatment the inflammation gradually subsided, but a stiffened knee remained. Subsequent events which transpired left me in little doubt as to the origin of the arthritis. Mr. Davies-Colley's paper was afterwards published, June 1878, in the *Obstetrical Journal*; but it was not till 1881 that he corrected his opinions by a paper in the *Guy's Hospital Reports*, wherein he gives a clear account of the acute form of this affection, and admits that it occurs in males as well as in females.

An instance of acute gonorrhoeal inflammation attacking the ankle and foot was admitted into Samaritan Ward under my care, in July last year, as a case of erysipelas. A man, aged 21, who had contracted gonorrhoea two months previously, was seized, about a month before admission, whilst sitting quietly, with sudden pain in the right foot, which was followed by great heat and swelling. His medical man at first thought it was an attack of gout, and subsequently told him he had obstructed blood-vessels. There was much swelling and redness, with some oedema over the whole of the dorsum of the right foot. The swelling extended forward to the clefts of the toes. Acute pain was caused by pressing back the metatarsal bones, and his ankle-joint was fixed and swollen. No other joint was affected. His temperature was 99° on admission, and rose to 100° on the third day. He was cured of the discharge in about ten days, and left the hospital well, three weeks after admission.

I have now given instances of the two forms of gonorrhoeal rheum-

atism, each occurring both in males and in females. It will be observed that, in the infantile cases detailed, the inflammation of the knee resembled the acute arthritic variety, threatening to suppurate; but I would throw it out as a suggestion that it is highly probable that the milder variety may also be met with in connection with purulent ophthalmia, and, in this case, would be very liable to be overlooked. I make this suggestion, not merely from analogy, but because the inflammation of the wrist in my case never reached the height of the inflammation of the knee; and, therefore, the two forms may possibly be found in the same individual, or the type may be throughout of the milder kind.

ABSTRACT OF A CLINICAL LECTURE ON TORTICOLLIS, AND ITS TREATMENT BY TENOTOMY AND NEURECTOMY.

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Cases of torticollis, or wry neck, may be divided into two great classes, namely, congenital and acquired. Congenital wry neck depends upon actual shortening or contraction of the sterno-mastoid muscle of one side of the neck; the deformity is, as a rule, not observed until the child is a few months old, and it often happens that little attention is paid to it for several years. As the child grows older, the deformity becomes, however, more and more marked, the affected muscle, which may be two or three inches shorter than its fellow, standing out prominently beneath the skin, and the head being twisted so that the ear is approximated to the shoulder of the affected side, while the chin is turned towards the opposite one.

In severe cases, the deep cervical fascia is often found much contracted, dense cord-like bands running obliquely across the triangles of the neck from the clavicle towards the chin and ear; associated with the wry neck, slight lateral curvature of the cervical portion of the spine is often present, with arrested development of the corresponding side of the face.

Congenital torticollis, in many cases, appears to be the result of injury received at the time of birth; for example, contusion or laceration of the sterno-mastoid muscle. This is probably followed by inflammatory changes in the muscular tissue, and, as repair gradually takes place, so much cicatricial contraction ensues, that the muscle becomes permanently shortened. In two cases of this kind, recently under my care, there had been a transverse presentation, while, in a third, labour had been extremely difficult, and the forceps had been employed.

The condition sometimes met with in infants, and known as "induration of the sterno-mastoid," though occasionally syphilitic in its origin, is more commonly the result of injury during delivery. It seems not unlikely that, in neglected cases of this kind, torticollis may eventually develop. As already mentioned, torticollis is frequently found associated with arrested development of the face on the same side; and Dr. Ross has suggested that the combination of these two conditions is of nervous origin, that is, the result of a deficiency of some part of the brain, a condition of porencephaly possibly existing.

In most cases of congenital torticollis, operative interference will be required; for the deformity, being due to actual shortening of the affected muscle, cannot, as in many cases of the spasmodic affection, be overcome by manipulation or gradual extension, instrumental or otherwise.

The usual plan is to divide the muscle subcutaneously close to its attachments to the sternum and clavicle, and the safest method is to make a small puncture, just above the clavicle, in the space between these attachments; through the opening a director should then be introduced, and passed close behind the sternal attachment, until its end can be felt projecting beneath the skin on the inner margin of the muscle; a blunt tenotomy-knife should then be run along the groove of the director, and the tendon divided from behind forward; the clavicular origin of the muscle, which, in most cases, also requires division, should then be treated in the same way, the director being passed behind it, from within outwards, through the same opening.

By this method there is, I think, less risk of wounding the large vessels which lie in close relation with the muscle at the point of division, namely, the carotid artery, and the internal, external, and anterior jugular veins.

It is advisable to perform the operation under the carbolic spray, so as to guard against the entrance of septic material into the sub-

cutaneous gap left after the muscle gives way, which it usually does with a distinct snap as the assistant make extension upon the head at the moment of division.

The operation is not altogether free from danger, for it may be accompanied by abundant hæmorrhage, and Mr. Erichsen refers to three cases where it was followed by fatal results. (*Science and Art of Surgery*, eighth edition, vol. ii, p. 502.)

After the operation, the puncture should be closed with a pad of lint and collodion, the head being placed in an easy position upon a pillow. On the second or third day, the wound will generally have healed; and extension, combined with manipulation, should then be commenced, so as to completely overcome the deformity, which the division of the muscle will, in many cases, have only partially relieved.

This may be effected by a modification of the plan recommended by Dr. Little. A felt cap, or a plaster-of-Paris bandage, well padded, is applied to the head, and another bandage to the waist: one end of a piece of elastic tubing is then attached to the cap, or head-bandage, just behind the ear of the unaffected side, and the other end to the waist-bandage beneath the opposite nipple. The elastic extension, which thus acts in a line parallel to the unaffected sterno-mastoid, is then tightened until the head is brought into the proper position, and it should, at first, be worn by the patient day and night.

In some cases it will also be found necessary to employ a second piece of elastic, attached above to the head-bandage, and below to the back of the waist-bandage.

Combined with the extension, manipulation should be practised two or three times a day for ten minutes on each occasion; the patient's shoulders being fixed by an assistant, the chin should be twisted round towards the affected side, and the head bent over as far as possible to the sound side, or the patient, if sufficiently old, may stand before a looking-glass and practise these movements himself.

This treatment should be continued until the deformity is quite corrected, and the head can be held perfectly straight; but, in many cases, it will be advisable that the elastic extension should still be worn daily for a short time; for, unless this be done, the deformity frequently tends to relapse.

Four cases of congenital torticollis, occurring in children aged 4, 7, 9, and 10 years, under my care in the Clinical Hospital, have recently been treated in the way described, with excellent results; in three of these, where the deformity was well marked, it was found necessary to employ elastic extension for some weeks after the operation; in the remaining case, where it was of a slighter nature, manipulation alone was sufficient to prevent any relapse.

Acquired torticollis is usually due to spasmodic contraction of the sterno-mastoid muscle of one side of the neck, though other muscles may also become involved. The spasm may be either of a tonic or a clonic character; consequently two varieties of the affection may be described.

In *tonic spasmodic torticollis* the spasm is usually the result of some central or reflex irritation; it may follow an injury to the head, or be associated with cervical caries, or with some cause of reflex irritation, for example, inflamed cervical glands, worms, etc.; it is occasionally met with in hysterical subjects, or simply as the result of exposure to cold. The deformity produced is similar to that met with in the congenital affection, but differs in this fact, that the contraction disappears completely under anæsthesia, and more or less so during sleep; in slight cases, it can also be often overcome on forcibly straightening the head.

In the treatment of these cases, all causes of irritation should be carefully sought for, and upon their removal the spasm will usually gradually disappear. When it is dependent upon spinal caries, the treatment must be directed to that condition, of which the torticollis is merely a symptom. A well marked case of this kind, occurring in an out-patient, a girl, aged 16, was recently sent to me by Dr. Ross; on fixation of the head and neck, and keeping the parts completely at rest, the contraction of the muscle rapidly disappeared.

The following case, recently under my care in the hospital, illustrates the treatment which may be required when the torticollis is due to some central cause. A woman, aged 27, received a blow on the left side of the head, 21 months previously to her admission into the infirmary. This was followed, in the course of a few weeks, by pain in the head and left side of the neck, and symptoms of torticollis gradually developed, the left sterno-mastoid and trapezius becoming rigidly contracted. The following treatment was adopted: blisters over the mastoid process, bromide of potassium internally, elastic extension and manipulation applied in the way described. At the end of three weeks, she was able to hold the head quite straight without any effort. She was then made an out-patient, being directed to wear the

extension for a few hours daily. When last seen, six weeks subsequently, there was no tendency to any return of the spasm, and she was perfectly well, with the exception of occasional attacks of headache, which were at once relieved by bromide of potassium.

In other instances, when the spasm is of a more severe nature, and not amenable to simple treatment, operative treatment, for example, neurectomy, may be required, as is illustrated by the following cases.

CASE 1.—A man, 27 years of age, in October, 1880, sustained a severe injury to the back of the head, which laid him up for some weeks. Eighteen months subsequently he began to develop symptoms of spasmodic torticollis, and this became at last so extreme, that he was obliged to give up his occupation of clerk, being quite incapacitated from writing. He had previously been seen by both Dr. Leech and Dr. Ross, and for some months had carefully followed out treatment; galvanism, blisters, bromide of potassium in large doses, and various other drugs were tried, but without any real benefit; latterly the spasm had become so severe, that an instrument had been specially made for him, but he was unable to wear it, as attempts to straighten the head seemed to increase the force of the spasm. Dr. Leech, accordingly, recommended that a portion of the spinal accessory nerve should be removed, and the patient was admitted into the hospital under my care in February, 1883.

On admission, the left sterno-mastoid and trapezius were found to be rigidly contracted, the former muscle standing out prominently beneath the skin; the head was completely fixed, so that it was impossible to straighten it, even by the employment of considerable force.

On February 9th, 1883, neurectomy was performed. An incision, three inches in length, the centre of which was opposite the angle of the jaw, was made along the anterior border of the sterno-mastoid muscle; the deep cervical fascia having been divided to the same extent, just in front of the sheath of the muscle, the latter was drawn back with a retractor, and, after a little careful dissection along its under surface, with the end of a director, the nerve was found running almost vertically downwards, just before entering the muscle, almost exactly on a level with the angle of the jaw, which may be taken as a guide to it. A third of an inch of the trunk of the nerve was removed, and, a drainage-tube having been inserted beneath the muscle, the wound was closed.¹

The good effect of the operation was manifest when the patient came from under the influence of anæsthesia; the sterno-mastoid was no longer tense and rigid, but soft and relaxed. On the following day, when the wound was dressed, the position of the head was much improved, for though it still remained somewhat drawn over to the same side, the patient could himself temporarily straighten it by a slight effort. It appeared as though the muscle, from having its points of origin and insertion so long approximated (namely, for a period of six months), had become actually shortened.

The wound was somewhat slow in healing, but the patient was able to leave the hospital on the fifteenth day. While an in-patient, and also after his discharge, he was directed to practice daily bringing his head into a straight position, and then to try to maintain it so as long as possible. At the end of six weeks, he found that he could keep it quite straight without much effort, for about half-an-hour at a time, and that the period was daily increasing. Three months later, the contraction was quite overcome; the head was straight, and its movements free. When last seen, more than two years after the operation, there was no indication of any tendency to return of the spasm, with the exception that, when much exhausted, he felt a kind of dragging sensation at the side of the neck.

Clonic spasmodic torticollis is characterised by a constant to-and-fro movement of the head, due to alternate contraction and relaxation of the sterno-mastoid muscle. The spasm may, at first, affect the sterno-mastoid of one side only, but in many cases other muscles gradually become involved; for example, the trapezius, as well as the scapuli, splenii, and obliqui, and occasionally the muscles of the face, shoulder and arm; consequently the condition present will vary with the particular muscle, or groups of muscles that are affected.

The cause of the spasm is usually obscure; in many instances it gradually comes on without any assignable cause, the patient being otherwise in good health.

The treatment of these cases is extremely unsatisfactory; internal remedies, such as sometimes prove useful in tonic spasm, are not, as a rule, followed by any or only by very temporary benefit.

¹ In my last two cases, I have made a counter opening at the posterior margin of the sterno-mastoid, and then left a tube running beneath the muscle, from one opening to the other; in this way, the wound is drained from behind, and at its most dependent point; consequently, if suppuration take place—always a dangerous complication in this region—there will be free vent for the pus.

Subcutaneous division of the sterno-mastoid has been performed, but without success, the spasm returning as forcibly as ever after healing has taken place. (H. Lee, *Clin. Soc. Trans.*, vol. vi, p. 120.)

Excision of a portion of the spinal accessory nerve has proved successful in cases reported by De Morgan (*Med.-Chir. Rev.*, July 1866), Wood (*Clin. Soc. Trans.*, vol. vi, p. 116), and Annandale (*Lancet*, 1879, i, 555), where other muscles than the sterno-mastoid had also become involved. In the following instance, this treatment was followed by marked benefit.

CASE II.—A man, aged 21, was admitted into the Manchester Infirmary last summer under Dr. Leech, suffering from clonic spasm of the right sterno-mastoid and deep muscles on the same side of the neck. The spasm had come on somewhat suddenly, about six months previously, and quite incapacitated him from following his employment as a labourer.

The sterno-mastoid never became completely relaxed, but always stood out prominently beneath the skin, so that the head, in addition to being affected with a constant to-and-fro movement, was held rigidly drawn over to one side, and could not be straightened. The patient was in the hospital for some weeks, and as treatment failed to give any relief, neurectomy was performed, at Dr. Leech's suggestion. The operation, which was performed on January 11th, 1885, has been followed by a marked improvement in his condition; he can now hold his head quite straight and still, for a considerable period; the right sterno-mastoid, which formerly stood out beneath the skin, is quite relaxed, and the spasm, when it now appears, is of a much milder character, being due to contraction of the deep muscles of the neck. So long as an apparatus is worn, similar to that already described, the head remains perfectly straight, and he is now able to follow his occupation, which, previously to the operation, he had been obliged to give up.

In another somewhat complicated case of spasm, affecting generally the muscles of both sides of the neck, recently under my care, neurectomy was again performed, but without much benefit.

CASE III.—The patient was a man 53 years of age, and the symptoms had been present for about four months; he had been seen by Dr. Ross, and at his suggestion, portions of both spinal accessory nerves were removed. Though both sterno-mastoids became quite paralysed, very little relief was, however, afforded by the double neurectomy, and in the course of a few weeks his condition was not much different from what it had been previously to the performance of the operation.

From a consideration of these cases, it must, I think, be allowed that excision of a portion of the spinal accessory nerve, before it enters the muscle, is well worth trying in cases of spasmodic torticollis, when all other plans of treatment have been attempted and failed.

The more purely the case is one of tonic torticollis, and the more the spasm is confined to the sterno-mastoid muscle, the more likely is the operation to be successful; and, as described, the cure was complete in Case I, which was of this nature. When, however, other muscles are involved, and when the spasm is of a clonic nature, there is much less probability of success; though in Case II the result has been very satisfactory, and would certainly encourage one to perform the operation again under similar circumstances.

In Case III, where the spasm was very general, little benefit was expected from the operation, and, as was anticipated, the relief afforded by it was very slight, and merely of a temporary nature.

A CASE OF DIABETES MELLITUS CURED BY REMOVAL OF THE UTERINE APPENDAGES.

By FRANCIS IMLACH, M.D.,

Honorary Surgeon to the Liverpool Hospital for Women.

K. G., a widow, aged 31, consulted me on February 12th, 1885, on account of leucorrhœa and pelvic pain. A diagnosis of pyosalpinx was made out; and, as she seemed ill and wasted, operative treatment was suggested. On the 22nd, she mentioned that for a month she had been afflicted with insatiable thirst and sleeplessness; that the bowels were habitually constipated, and the urine greatly increased in quantity. On testing a sample of urine, of specific gravity 1036, no albumen was found; but, on boiling with Fehling's solution, it became evident that she was passing sugar. Menstruation was regular, and, though painful, not profuse. All thoughts of operation were abandoned. She undertook to live upon gluten-bread and biscuits, fish, meat, and buttermilk; to give up starchy food and sugar, and as much as possible to restrict her drink. Soap-and-water

enemata were ordered, and bromide of ammonium prescribed for the sleeplessness. Under this treatment, the urine became reduced (from an unknown quantity) to five or six pints *per diem*; but, when samples were tested with Fehling's solution and by the differential density method, there was little diminution in the sugar. On March 16th, three minims thrice daily of Clemens's solution of arseniate of bromine were substituted for the bromide of ammonium; and, a fortnight later, the dose was increased to ten minims; but, roughly estimated, the excretion of sugar continued unaltered. On April 15th, she passed 2,560 grains in 24 hours. As she was becoming rapidly weaker and more emaciated, she was admitted into hospital on May 15th, where the antidiabetic diet was strictly maintained. On May 16th, 1,200 grains of sugar were excreted. On May 19th, the uterine appendages were removed. The right Fallopian tube was thickened in its walls, occluded at both ends, and distended with pus. The left tube was thickened, but not occluded at its fimbriated extremity, and contained only a little muco-pus. Both ovaries were so firmly adherent in the pelvis, that their removal was somewhat difficult. The fundus of the uterus, which was bound by dense adhesions to the sacrum, was liberated. The patient recovered without a bad symptom, and with a surprisingly level temperature-chart. She got out of bed on the ninth day, and left hospital on June 3rd. Unfortunately, I am unable to add a complete account of the urine passed subsequent to the operation, as, through an error, no quantitative measurements of the sugar were made. During the first 24 hours, between six and eight ounces of urine containing sugar were drawn off every six hours. The specific gravity during the first six hours was 1028, next it fell to 1014, and then rose to 1034.

Date.	Ounces of Urine in 24 hours.	Specific Gravity.	Sugar.	Diet.
May 20	17	1034	Present	Milk and Soda.
" 21	21	1030	"	Barley-water.
" 22	16	1030	"	"
" 23	15	1032	"	Beef- ^{tea} .
" 24	13	1030	"	Rice-pudding.
" 25	16	1030	"	Ordinary fare.
" 26	17	1030	Absent	"
" 27	18	1028	"	"
" 28	22	1024	"	"
" 29	22	1020	"	"
" 30	24	1024	"	"
" 31	24	1022	"	"
June 1	24	1020	"	"
" 2	18	1024	"	"

The sugar, tested daily with Fehling's solution, gradually diminished until May 26th, when it finally disappeared. On June 12th, the urine was normal, and of specific gravity 1020. For a week previously she had been at home on ordinary fare, except that she took no rice-pudding, and put no sugar in her tea. She then took rice-pudding daily, with unlimited sugar, until June 19th, when the specific gravity of the urine was 1010, and not a trace of sugar could be detected. There is no longer constipation, and her strength is already almost completely restored.

REMARKS.—Glycosuria being persistent under antidiabetic regimen, and the health worse, operation was offered as a forlorn hope. Sir J. Paget makes no allusion to diabetes mellitus among "the various risks of operations;" but Dr. Dickinson, in his able work on the subject, says that "surgery is attended with unusual danger;" and Dr. Wm. Roberts states that "operations for diabetic cataract generally fail from uncontrollable suppuration of the eyeball." Beyond this element of danger, there was the fear lest the operation should do no good. Diabetes and pyosalpinx are not known in association. The patient was married ten years previously, had a still-born child a year later, and became a widow two years before I saw her. As the pelvic pain was of indefinite origin, the pyosalpinx was probably of ancient date, whereas the diabetic symptoms were recent. Still, there remained the possibility that removal of the suppurating tubes might cure the disease. There was a further argument: the younger the person, the less hope of ultimate recovery from diabetes. "The development and exercise of the sexual functions," says Dr. Wm. Roberts (*Renal Diseases*, 4th ed., p. 256), "appear to have a marked effect in increasing the liability to diabetes in both sexes; and the diminished frequency of the disease in women after the age of 45 (as compared with men) corresponds with the earlier decline of sexual activity in the female sex." And not only is diabetes less frequent among women after 45; it is also less acute, and does not kill nearly so quickly. By induction of the menopause, it was hoped that the acute diabetes might become chronic.

CASE OF IMPERFECTLY DEVELOPED PENIS IMPROVED BY OPERATION.

By JAMES MURPHY, B.A., M.D., ETC.,

Surgeon to the Sunderland Infirmary; Lecturer at the University of Durham College of Medicine, etc.

MRS. R. was confined of her first child (male) in October, 1883. Nothing unusual was observed at his birth. The medical man and friends declared the child to be a very fine baby, and nothing was thought to be amiss till he was three weeks old, when Mrs. R. took to washing him herself, when, being an intelligent and observant person, she noticed that, though his scrotum was quite normal as to development and contents, there was, as far as she could discover, no penis, and he passed his urine through a small hole in the lower portion of the abdomen, in the place where the penis ought to be. She drew her husband's attention to it; and, he concurring with her that there was something radically wrong, the advice of a neighbouring druggist was sought, who pronounced it to be a rupture, and supplied a truss, which was worn for a week or two. As this did not give satisfaction a surgeon was consulted, who appears to have removed a little skin, as was evidenced by the cicatricial tissue round the opening. The mother assured me the only effect it had was to seriously narrow the meatus, so that the child had much difficulty in passing urine.

The mother next consulted Dr. Shelley, who at once recognised the real state of affairs, suggested an operation, and kindly placed the patient under my care.

The condition was as previously mentioned, and is very well shown in Fig. 1. The pubes and the part below it was as level as a female's;

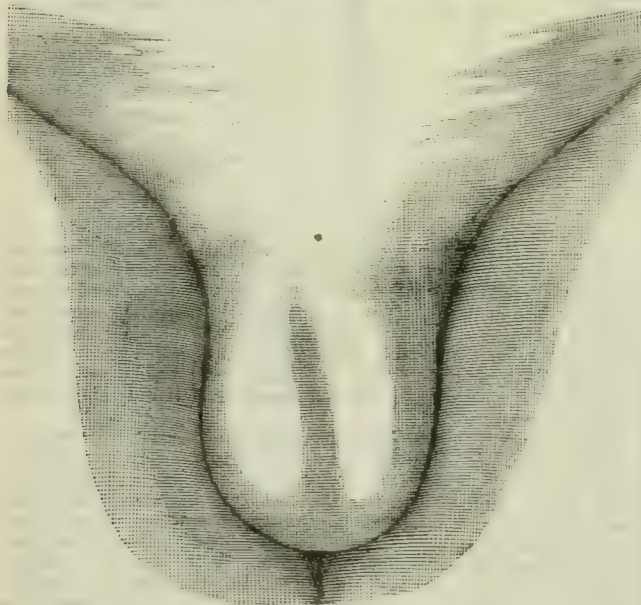


Fig. 1.

in fact, it looked as if the penis had been amputated at its very root, and a cicatrix had formed, leaving a very small aperture, through which the urine was with very great difficulty voided; but on seizing the skin on each side of this meatus, and making pressure downwards and backwards, a small swelling, apparently the glans penis covered over, could be distinguished. I therefore passed a director through the meatus, and made a small straight incision on the superior, and a similar incision on its inferior aspect, and then had the satisfaction of being able to turn out a quite normal glans, which had been bound down by skin and adhesions, but the body that followed was very small indeed. I left the organ *in situ*, and next day it and the surrounding mucous membrane were much swollen; I therefore reduced it, and saw the patient daily for a week, at each visit pressing the glans out; this position it generally retained for a couple of hours, and then slipped back again. At the end of a week, the mother was able to manipulate

it herself, and she pressed it out daily for a few weeks to prevent contraction of the orifice. It has now been quite healed for several months, and protrudes and recedes of its own accord. Its appearance in the former condition is well represented in Fig. 2, which is drawn from a cast, for which I am indebted to the kindness and dexterity of my colleague, Mr. Morgan.

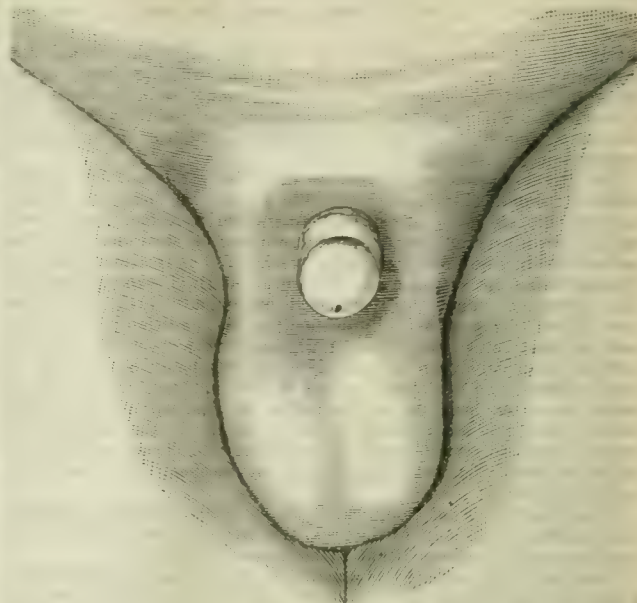


Fig. 2.

In conclusion, I may state that, though the organ is not quite such as other children possess, the operation has given every satisfaction to the child's parents and to myself, as I really had very scanty material to work upon. At this early age the only use of a penis is as an aqueduct, a function it now amply fulfils, as I have had demonstrated on my coat-sleeves several times; and if hereafter it comes to be used for another purpose, I have but little doubt that it will be equal to its requirements, as it is considerably longer than shown in the cast, for so mercurial an organ is not seen to its full advantage under chloroform, which had to be administered before the cast could be taken.

OPHTHALMOLOGICAL MEMORANDA.

CHANCRE OF THE EYELID IN INFANTS.

In the JOURNAL for June 20th, p. 1257, attention is drawn to the investigations by M. Baudry of Lille, of the origin of chancre of the eyelid occurring in children, as recorded in the *Memoires de la Societe Francaise d'Ophthalmologie*. M. Baudry states that the method of infection remained very obscure until he traced it to the practice among French women of using their saliva to moisten the eyelids of nurslings, when agglutinated by conjunctivitis. So far back as 1863 (BRITISH MEDICAL JOURNAL, vol. i, p. 236; also Braithwaite's *Retrospect*, 1864, p. 290) I recorded the case of an infant, 8 months old, affected with a chancre of the eyelid having a hard base. The parents proved to be quite healthy, but the child had been nursed and fondled by its aunt, who, on examination by me, was found to be suffering from fissured tonsillar ulcers, which afforded a discharge, and her skin also was covered with a copper-coloured eruption.

The child, in this case, got blotches on the buttocks after the primary sore had cicatrised under mercury. The commissure of the mouth became fissured, a chancre appeared on the mother's breast from suckling her infant, and she also had secondary symptoms.

In the first instance, then, the infant contracts a primary sore of the eyelid from the secondary ulceration of its aunt's mouth, and the mother of the child is primarily infected by the secondary disease presented by her offspring's mouth. The case refuted the observation of M. Diday, who denied that inoculation could take place from the secretion of a secondary sore.

J. VOSE SOLOMON, F.R.C.S., Birmingham.

OBSTETRIC MEMORANDA.

RUPTURE OF THE UTERUS: RECOVERY.

On April 27th, 1884, I was called to attend Mrs. K., with her second child. On my arrival she had one pain, and then a sudden cessation. On examination, I found the head of the child impacted in the pelvis (labour had only existed about two hours). I then gave a dose of liquor ergotæ, and attempted to deliver with forceps. Finding I was not successful, I sent for my friend Mr. H. Tribe, who managed, with the utmost difficulty, to deliver her in about 15 minutes. The placenta followed almost immediately, also an immense amount of hæmorrhage. On examining the uterus, we found an extensive rupture of the fundus, through which the hand passed, and we could feel the intestines and spleen. We gave brandy and ether, and also at intervals injected subcutaneously a drachm of sulphuric ether. She seemed to be moribund. She was pulseless and blanched; the pupils were fixed and dilated. We persisted with ergot and ether, and remained during the night, expecting every moment that death would ensue. To our great surprise, she rallied; on the next day, still more so. She was fed on brandy and milk, and ergot was administered every three hours. On the third and fourth days, she had persistent diarrhœa, which was with difficulty overcome by compound chalk mixture. After this she made a rapid recovery, she being about in three weeks.

I cannot conclude without thanking Mr. Tribe for his valuable assistance, without which the poor woman would have hardly recovered.

WALTER BUCHANAN, Chatham.

CONVERSAZIONE AT THE MIDDLESEX HOSPITAL.—A *conversazione*, organised by the President and officers of the Students' Medical Society, was held at the Middlesex Hospital on July 2nd. At least 2,000 visitors were present. The board-room and new out-patient department were decorated, and proved admirably suited for the reception of the guests, and for the exhibition of the various objects of scientific interest. The special feature of the evening was the illumination of the gardens of the hospital. An excellent musical entertainment, under the direction of Mr. G. A. Osborne, was provided in the school. In the anatomical theatre, Dr. B. W. Richardson delivered an interesting address on "Medical Poets." No profession had produced so many poets as physic. Of what might be called prose-poets, brilliant examples were such men as William Harvey, Arbuthnot, William Hunter, Sir Thomas Watson (who had taught practice of medicine in the Middlesex Hospital School), James Fernandez Clarke, Mr. Stephens (of Finchley), and others. Among poets of fame who had been more or less connected with the practice of medicine, he instanced Sir Thomas Browne (the author of the *Religio Medici*), Sir Richard Blackmore, Sir Samuel Garth, Mark Akenside, John Armstrong, Oliver Goldsmith, Erasmus Darwin (the grandfather of the late Charles Darwin), Nathaniel Coltar, George Crabbe, David Muir, and John Keats. From each of these authors Dr. Richardson gave extracts, and at the conclusion of the address a hearty vote of thanks was accorded to him. The band of Messrs. Lucas played a charming selection of music in the gallery of the museum during the evening.

MESSRS. THOMAS COOK and SON, the well known conductors of tourist expeditions, propose to conduct a party, after the termination of the meeting of the Association in Cardiff, through Devonshire and Cornwall. The tour will occupy one, two, or three weeks, according to the inclination of those joining it. In the first week, visits will be paid to Torquay, Dartmouth, Totnes, Kingsbridge, Plymouth, and other places of interest in South Devon. The second week will be occupied in visiting Penzance, Falmouth, Helston, the Land's End, and adjacent places; and in the third week, the tourists will start from Plymouth, and visit Launceston, Bude, Ilfracombe, Lynton, etc. Detailed information may be obtained on application to Messrs. Cook, at their office, Ludgate Hill. From the programme, it is evident that the proposed tour will form a very agreeable appendage to the annual meeting.

PRESENTATION.—Mr. E. J. Domville, upon retiring as chief medical officer to the Exeter Branch of the United Patriots' Friendly Society, has been presented with a pair of silver-plated breakfast-dishes, bearing the following inscription: "Presented by members of the Exeter Branch of the United Patriots to Edward J. Domville, Esq., as a small token of their respect and regard, and for his invaluable and energetic services as their chief medical officer from 1875 to 1885;" Browning's poems in four volumes, and an illuminated list of the names of the subscribers (about 120 in number).

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

UNIVERSITY COLLEGE HOSPITAL.

CHRONIC AND PROTRACTED PELVIC CELLULITIS.

(Under the care of Dr. GRAILY HEWITT.)

[Notes by Mr. E. H. YOUNG, Clinical Clerk.]

Mrs. C., aged 24, was admitted November 21st, 1884. The patient had been married one year; she had never been pregnant. The illness had lasted for three years. The only cause that could be assigned was overstretching the arm while washing a floor. The illness began soon after this. First a gnawing-pain was noticed over the right iliac fossa; it was paroxysmal, and was worse after exercise. Two months later, a lump was noticed in the right side; it was felt on pressure at the spot where the pain existed. The pain and the swelling increased; she was constipated, and in April, 1882, she became very ill. Purgatives chiefly were used. She suffered from profuse perspirations, and rigors occasionally occurred. In July, 1883, the lump and the pains had disappeared; but in September, 1883, the swelling returned, together with the pains. The patient had been ill ever since, and the swelling in the right side above Poupart's ligament had gradually extended. Menstruation was tolerably regular. She had generally leucorrhœa previously to her menstrual periods. A peculiar sensation, hardly pain, was felt after action of the bladder. She had emaciated during the last three years. She had night-perspirations, rigors occasionally, and frequent headaches.

The patient was pale and weak. A smooth elevated hard resistant swelling occupied the right hypogastric region, reaching to a quarter of an inch beyond the middle line, and rising to the level of the umbilicus. It was dull on percussion, and slightly tender to the touch. On vaginal examination, the under surface of this swelling could be felt, and the swelling was made out to be about one inch thick; it was not very easily reached by the finger, and was close to the uterus on the right side. At the back of the vagina, in Douglas's pouch, in the middle line was felt a nodule, of the size of a nut; it was very tender. The uterus was a little too near the pubes, and was not very movable. The sound showed normal direction of the uterine canal.

Dr. Graily Hewitt considered the case one of long standing pelvic cellulitis, the effusion having extended upwards from the side of the uterus in the space between the peritoneum and the abdominal muscles in front, and having a flattened form, thicker below, and thinning off at the edges. The patient weighed six stone, four and a half pounds. The pulse was about 96; the temperature rose to 102.6° in the evening, and fell to 99° in the morning. The urine was normal. She was placed on a nourishing liquid diet; hot vaginal injections and hot fomentations externally were employed. Small doses of iron and quinine were ordered.

On December 6th, there was a threatening of conversion of the swelling into an abscess, sharp pains and throbbing; but the symptoms subsided, and the swelling began to diminish. After this date, the course of the case was very slow. The patient was kept in bed, and carefully nourished; counter-irritation by applications of liquor iodi was employed. The temperature became reduced, and the patient took more food. Constipation was occasionally troublesome.

On January 5th, 1885, it was noted that the lump in Douglas's pouch was still present and slightly larger; the main effusion was much less in area, and tenderness was limited to one small spot. No evidence of fluctuation could be obtained.

On February 3rd, she was allowed to get up, but six days later the pain had returned, and the swelling again increased, and the temperature was again elevated. Accordingly, she was ordered to be kept in bed. Blisters were next employed, and, on February 19th, the patient was much better.

On February 28th, she was allowed to sit up a little. She felt better, eat and slept well.

On March 9th, the swelling again increased, with recurrence of pain.

On March 12th, she was obliged to leave the hospital for family reasons. She was much improved in general health, and had gained five pounds in weight.

REMARKS BY DR. GRAILY HEWITT.—Dr. Graily Hewitt, in a

clinical lecture on this case, said that it was in some respects a peculiar one, for the malady—pelvic cellulitis—appeared to have originated in a strain, and its nature seemed to have been misunderstood previously to her coming into the hospital. The presence of rigors, the swelling, pain, and night-sweatings, were symptoms of pelvic cellulitis; and, coupled with the result of the examination made, no doubt remained that the case had been one of pelvic cellulitis from the beginning (three years ago). The case showed how long this disease might be protracted. In this particular case, Dr. Graily Hewitt believed that this excessively long duration was due to insufficiency of rest, and to a feeble condition of the nutrition. While the patient was under observation, and great care taken as regards rest and nourishment, no manifest improvement occurred for some weeks; indeed, at first, the emaciation increased, and weight was lost; and later on, when the swelling had diminished, and it was thought safe for the patient to get up, the slight exertion taken brought back the symptoms in three or four days, and the patient had to return to bed. These facts show the imperative necessity of protracted rest in such cases. As regards the treatment, this was finally effectual in producing decided improvement, but the effusion had not completely disappeared when she left the hospital. At one time, there was a suspicion that pus would form, and that the swelling might be got rid of by a surgical procedure; but this did not occur, the effusion remaining a hard cake-like layer in the position indicated, slightly softening as it diminished, and hardening again on recurrence of the symptoms. The presence of the nodule in Douglas's pouch, which became enlarged and tender coincidentally with the other swelling, showed the identical nature of the two. Dr. Graily Hewitt stated that, in cases of chronic pelvic cellulitis, he had many times observed a very remarkable effect on the effusion produced by increasing the quantity of nourishment administered; and in cases which had been making no advance for some time, the result of administering easily assimilated food (soup, beef-essence, milk, etc.) in frequent doses was often such as to show the great efficacy and importance of this method of treatment. The above case was cited as being exceptionally difficult, and as being one which offered unusual obstacles to complete recovery.

ST. MARY'S HOSPITAL.

A CASE OF TREPHINING OF THE MASTOID PROCESS FOR THE RELIEF OF PAIN.

(Under the care of Mr. OWEN and Mr. PYE.)

[The notes of this case were taken by Mr. EUSTACE CALLENDER, dresser to the surgical in-patients.]

Emma H., aged 18, was admitted on December 16th, 1884. She had had good health until two years before, when, on September 6th, 1882, she was attacked by acute pain behind and within the right ear. For this she attended as an out-patient at Guy's Hospital, and three weeks later (September 28th) was admitted therein. There were at that time a discharge from the right ear, and swelling of the same side of the head and face. An incision was made, upon the day of her admission, over the mastoid process. A small carious opening was found leading into the mastoid cells, from which a little pus escaped. A drainage-tube was inserted, and the wound dressed.

She went on well from that time, and left the hospital, with the wound nearly healed, on October 17th. The tympanic membrane had a large perforation in it, and a good deal of wax was removed from the ear.

From that time she was free from pain until six months before her admission into St. Mary's Hospital; she then began to suffer again from acute headache on the right side, earache, and tinnitus, which continued with slight intermissions.

On examination, the cicatrix of the former operation could be distinctly seen. There was no discharge from the ear, behind and below which there was some slight swelling, painful on deep pressure, but not markedly so. The patient had all the appearance of suffering greatly. The pain was described as "a headache, not an earache," and was distributed over the side of the head; it was said to be intermittent, and worst at night, when she hardly slept. The right eyebrow was often seen to twitch. Her temperature, pulse, and respiration were normal.

Up to December 23rd, the usual antineuralgic remedies were tried without effect. On that day, four leeches were applied behind the ear; but these also gave no relief.

December 24th. Mr. Owen made an incision (ether having been administered) over the mastoid process, one inch in length, and parallel with the old one. The bone appeared to be healthy on the outside; it was then bored with a trocar, and a grooved needle inserted. There was a smart escape of blood, from the lateral sinus

apparently, (or from the mastoid vein?), but no pus. The bleeding was arrested by a compress, and the patient sent back to bed.

January 16th, 1885. Since the operation there had been no improvement or noteworthy change of any kind, save that the headache had for the past fortnight varied very regularly; days of acute suffering, with a rapid pulse, alternating with ones of less pain and of normal pulse-rate. In Mr. Owen's absence, the patient was now under Mr. Pye's care. She was again put under ether, and, under antiseptic precautions, a semi-elliptical incision, about two inches in length, was made down to the bone, exposing the mastoid process. The outer table of the bone of the process was then removed with a small cranial trephine, the centre of the crown being a little below the centre of the bone. No pus was found, but the cancellous tissue was very vascular, and bled very freely. The mastoid vein was also wounded, and bled. All bleeding was easily arrested by pressure, and the wound was lightly dressed with salicylic wool.

January 17th. The patient slept well, and in the morning was entirely free from headache. The wound was merely said to be a little sore. Temperature 97.8°.

January 18th. She was still free from pain. The expression of the face had quite altered, the constant look of suffering having disappeared.

January 21st. On the 20th, there was complaint of great pain "inside the bone behind the ear." She slept badly after chloral and bromide of potassium. Temperature 100°; pulse 120. All sutures were removed, and the bone gently probed. Two or three beads of pus escaped, and this was almost immediately followed by relief of pain. The temperature fell, and she went to sleep.

February 2nd. From January 21st until this, the date of her discharge, she remained free from all pain. A little pus was discharged from the wound for a few days after the probing, but it was soundly healed before she left.

She was seen again in the middle of March. There had been no more pain or trouble, and she looked well and happy.

REMARKS BY MR. PYE.—The interest of this case seems to lie in the immediate relief of painful inflammatory tension within the mastoid cells which the trephine afforded, although there was no suppuration within the bone. The character and locality of the pain are also noteworthy. It was clearly not a trigeminal neuralgia or "tic," but, on the other hand, there was no real earache or discharge from the ear, and the existence of any local swelling at all was doubted by some who saw her, so that it was, in any case, very slight. Had it not been for our knowledge of her history during her stay in Guy's Hospital (for which we are indebted to the present Registrar), it is doubtful whether the symptoms she presented when she came to St. Mary's would have warranted the somewhat serious step of opening up the mastoid cells, even with strict antiseptic precautions.

NORTH STAFFORDSHIRE INFIRMARY.

MALIGNANT DISEASE OF UPPER AND LOWER JAWS: EXCISION OF RIGHT UPPER AND LOWER JAWS: RECOVERY.

(Under the care of Mr. SPANTON.)

[From Notes taken by Mr. S. K. ALCOCK, House-Physician.]

ELI B., aged 55, shoemaker, was admitted into the infirmary, under Mr. Spanton, on January 31st, 1885. The patient first noticed, in June, 1884, a swelling in front and above the right upper lateral incisor teeth. He was seen by a surgeon, who extracted five teeth. The upper jaw was soon afterwards implicated, the swelling becoming apparent on the face, and extending simultaneously along the roof of the month. He suffered considerable pain at night. The enlargement on the lower jaw began in November, 1884, and increased more rapidly than that in the upper. The patient's mother died of cancer of the breast at the age of 55.

On admission, there was a large tumour involving the alveolar portion of the right upper jaw, with a papillary surface, extending along the roof of the palate as far as the commencement of the soft palate. The skin was not implicated. There was also a large tumour connected with the lower jaw of the same side, extending from above the angle to the canine tooth. The skin was affected over an area half the size of a sixpence; and the alveolus, with the mucous surface, appeared to be involved in the growth.

An operation for removal of the upper jaw was performed on February 7th, by Fergusson's incisions, the bone being excised well beyond the limits of the growth. Rapid recovery took place; so that the following week, on February 14th, excision of the lower jaw was able to be performed, the bone being divided through the ascending ramus and near the symphysis menti. The affected skin was also taken by an elliptical incision. Erysipelas followed this operation, and recovery

was therefore slow. He left the infirmary on March 30th, fairly well in health, but with evident indication of extension of the disease in the neighbourhood of the lower incision. Microscopic examination gave the following results. Both tumours were epitheliomatous. There was marked epithelial intrusion into the deeper structures, preceded by sarcoma-like masses of inflammatory exudation-cells. Cell-nests were numerous. The tumour of the upper jaw had a free quasi-papillomatous surface towards the palate. The erosion of the maxilla was well marked, the bone-trabeculae being pitted, and osteoclasts occupying the cavities.

REMARKS BY MR. SPANTON.—This case is recorded, as it affords a good example of the intercurent character of what appears to be very properly regarded as only varieties of one disease. In the growth of the upper jaw, which commenced first, we have most largely developed the sarcomatous element, affecting chiefly the bone and deep parts; while in the lower jaw the elements were almost wholly epitheliomatous, involving more especially the superficial structures. We have, in fact, the same morbid disposition to develop something, that something being apparently determined to a considerable extent by the circumstance of which tissue happens to be the first one to be invaded. On the free mucous surface we had true papilloma, then, deeper, what would be regarded as genuine sarcoma, and towards the skin typical epithelioma. It becomes more and more evident that these are to be regarded rather as varieties than as distinct diseases of tissue. Two other cases at present under my care illustrate the same thing. One in a young man, who had a large papilloma, of the size of a nutmeg, on one side of the tongue, perfectly soft, and free from any definite indication of malignancy. This growth was removed by scissors and cautery in March; and the patient has recently again presented himself with a large unmistakable epithelioma occupying that part of the tongue from which the previous growth had been removed. For this his tongue has been excised; but there is glandular enlargement, and every indication of true malignancy. Another patient, a middle-aged married woman, has an epithelioma of the right side of the tongue, of small size, which has existed about two years without causing her much trouble. Now she has sought advice on account of an enlargement of the tonsil of the same side, which, from its character, appears to be undoubted sarcoma—firm, smooth, elastic, painful, and rapidly increasing. The practical lesson to be drawn from such cases appears to me to regard all morbid growths of this class as objects for removal as early as possible, whether truly malignant in appearance or not; for no one can tell how soon any one of them may take on a more active form of malignancy, when interference is of little or no avail.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

FRIDAY, JULY 3RD, 1885.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair.
ANNUAL MEETING.

Reports.—Dr. ABERCROMBIE, Honorary Secretary, read the report of the Society, which showed that its position was very satisfactory.—Mr. STREATFIELD, Treasurer, read the Treasurer's report, which was also satisfactory. Both these reports were adopted. Several alterations in the regulations were proposed by the Council and adopted; among others, the abrogation of the rules by which a member resident in India or the colonies could be elected without being nominated by three members of the Society to whom he was known. It was determined to appoint a librarian.

Proptosis and Optic Atrophy.—Mr. MARCUS GUNN showed a living specimen of symmetrical enlargement of the upper half of the face, with proptosis, optic atrophy, and anosmia. The patient was a female, aged 22, married. About 11 months ago, neuralgia in both temples and vomiting set in, when the patient was two months pregnant with her first child. The neuralgia had continued. The sight of the left eye began to be dim two months before her confinement in February last. Two days before the birth of the baby, she became quite blind in the left eye, and remained so for one month, when the vision gradually improved until June 5th, when she again became suddenly blind in this eye. The day after the birth of the baby, she became suddenly blind in the right eye, and continued so for a fortnight, when the vision of that eye steadily improved. Two months before confinement, the face became slightly swollen, and the eyeballs prominent; these symptoms considerably increased. The patient

had disliked the sight of objects of a blue colour. There was no history of fits or syphilis. The face was pale and puffy; there was prominence of both eyeballs, and swelling of the upper part of the face, very marked in the eyelids. The deformity of the face was bilaterally symmetrical. There was apparently some thickening, and marked tenderness over the whole of both superior maxillary bones, and over the ramus of the jaw on both sides, and especially near the zygomatic processes. There was complete anosmia. The pupils were of medium size; the right was active to light, the left barely so. Both optic discs were atrophied; the veins were large and rather tortuous. There was no albuminuria. The patellar reflexes were normal. Facial paralysis set in suddenly on July 3rd. Antisyphilitic treatment had been of no avail.

Congenital Aniridia.—Mr. LANG showed a mother and son, in both of whom the iris on both sides was totally deficient. Both patients had lateral nystagmus; the mother had a lamellar cataract in the right eye; the left eye had been cataractous, and had been operated on unsuccessfully; the child had strabismus in both eyes. The mother had had two other children; the second had aniridia; the boy shown was the third.

Double Glioma.—Mr. LANG showed a child who had first come under his care when 16 months old, in March 1882. The right eye was then excised for glioma; the left appeared healthy, but, in January, 1884, the patient was again brought with a growth in the left eye in the front part of the retina at the inner side. A secondary growth subsequently developed in the episternal notch.—Dr. W. A. BRAILEY remarked that the growth was very exsanguine.

Tubercle of Choroid.—Mr. LAWFORD exhibited microscopic preparations of a tubercular deposit in the choroid, obtained from the right eye of a child aged 5 years. The growth had been observed by the ophthalmoscope during life, as a yellow patch surrounded by a grey halo in the yellow spot region, and a sketch was made of it. The child died of tubercular meningitis; and at the necropsy, miliary tuberculosis of the lungs, heart, and liver, was found. Microscopically, the nodule in the choroid presented all the evidences of tubercle, except the presence of the bacillus tuberculosis, which, though carefully looked for, was not proved to be present. The bacilli were easily obtained in specimens of the meninges taken from the base of the brain of the same patient.

Reflex Ophthalmitis.—The PRESIDENT, before inviting discussion of his paper, read on May 14th, briefly recapitulated the chief theories which had been put forward. 1. There was a disturbance of a hypothetical trophic centre for the eyes. 2. There was a progressive neuritis advancing from one eye to the other along the optic or ciliary nerves or their sheaths (or the lymph-spaces). 3. The infective agent was transferred by the blood-circulation and became active in the other eye either because it was arrested by the small size of the capillaries and the favouring influence of light (Berlin), or because the infective elements found a suitable nidus in the tissues of precisely similar character in the fellow organ (Hutchinson). Professor Berlin's theory predicated the existence of germs, Mr. Hutchinson's did not.—Mr. HENRY POWER, after commenting on the great interest and importance of the subject raised by the President's paper, criticised the views put forward in it, on the ground that many facts were left unexplained. How were the greater frequency and rapidity of the disease in children than in adults to be accounted for? Wounds of the ciliary region were much more apt to produce sympathetic ophthalmia in children than in adults; he had been accustomed to attribute this to their restlessness, the wanton removal of bandages, and the difficulty of keeping young children in a dark room for many weeks. He thought that there was strong evidence that sympathetic ophthalmitis was an extension from the original disease. It was true, that a very considerable interval might elapse; this was a difficulty in either theory. He quoted one case of foreign body in the eye (a rivet impacted in the optic nerve), where, for twelve years, frequent attacks of inflammation occurred. How was it that this patient could go about for so long without suffering from more than slight sympathetic ophthalmia? He also referred to cases of relapse after apparent recovery from sympathetic ophthalmia. These occurrences appeared to be explicable upon the theory that the inflammation travelled along nervous tracts better than by the theory advanced by Mr. Hutchinson.—Mr. SPENCER WATSON thought that an objection to the theory was, that other sense-organs did not suffer from sympathetic inflammation. The only example of sympathetic inflammation occurring elsewhere than in the eye, was the occasional occurrence of inflammation sympathetically in joints. The eye was the only sense-organ where the anatomical arrangements afforded a ready channel for the transference of inflammation by continuity of tissue. He did not agree with Mr. Power that sympathetic oph-

thalamia was more common in children than in adults; children, he thought, bore wounds of the ciliary region better than adults.—Dr. NOYES (New York) observed that the active theory of the day was the theory of propagation by bacilli. All the theories fell under one of three categories; the spread of the disease was set down to the agency of nerves, the agency of lymph-channels, or to the agency of bacilli. All these theories were so wanting in any sound scientific basis, that he was not ashamed to say that he had not arrived at any final opinion. It was necessary to recognise that sympathetic ophthalmia occurred under various conditions, and to distinguish clearly between sympathetic irritation and true sympathetic inflammation. The theory which attributed sympathetic inflammation to the agency of bacilli taught that, if the first eye were septically infected, the second eye if it became affected became the seat of sympathetic inflammation; whereas, if the first eye were not affected by a septic inflammation, then the second eye suffered from sympathetic irritation. He referred to cases of trigeminal neuralgia accompanied by herpes zoster ophthalmicus, where the eye of the affected side was lost, with subsequent sympathetic affection of the other eye. An objection to the nervous theory was, that wounds of the ciliary region were not invariably followed by sympathetic affections. He quoted a case in which a foreign body had remained in front of the iris for nineteen years, and referred to other similar cases; but, as a contrast, he mentioned a case in which a piece of percussion-cap was impacted in the iris. After some years of quiescence, atrophy of the lens occurred, and coincidentally neurotic irritation of the other eye. In other cases, the bony shells found in damaged eyes set up neurotic irritation; the removal of the shell was followed by recovery. A shrunken eyeball might be very sensitive, and yet no neurotic irritation might ever be produced. He had observed two cases in which the removal of the cicatricial tissue at the apex of the orbit was followed by a relief of the sympathetic symptoms of the other eye. It was true that excision of a portion of the optic nerve was not always successful, but von Graefe used to perform subscleral division of the ciliary nerve with success. Dr. Noyes said that he especially desired to urge that, before resorting indiscriminately to excision of the eye, the possibility of saving the eye with useful vision should be fully discussed. He felt that he hesitated much more now than he formerly did in advising excision.—Mr. NETTLESHIP said that the theory of blood-infection accounted for some of the phenomena of the disease more easily than any other; it accounted for the simultaneous appearance of changes, such as neuro-retinitis or iritis in widely different parts of the eyeball. The difficulties in the way of accepting the theory were, that it was hard to understand how the incubation period could ever be so long as it sometimes actually was, or why the disease should break out in the sympathising eye at a considerable interval after the removal of the infecting eye. Two other questions might be asked which would perhaps tell as much against as for the theory under consideration. How could exceptional but well-attested cases be explained in which parts outside the eye, such as the eyelashes, underwent organic change in the course of sympathetic inflammation? and how was it that the exciting eye might be but slightly damaged, though the sympathising eye suffered profoundly, even to total blindness? The severity of the disease in the sympathising eye must, he thought, be dependent upon the number of germs which it contained; if these were bred in the exciting eye, why did it not suffer in proportion? On the other hand, if they were not simply carried by the blood, but multiplied in it, how did the other tissues of the body escape serious change? As regarded the theory of direct transmission by continuity of tissue, there were difficulties in regard to all the paths along which the disease had been thought to travel. Deutschmann's view that septic inflammation was conducted along the optic nerves, met with a certain amount of support from clinical facts. Failure of sight, papillitis, or papilo-retinitis were, for instance, among the earliest phenomena of the disease, and in cases of traumatic inflammation of the eyeball, it had been proved that inflammation could travel up the optic nerve. But iritis or keratitis punctata had been present in all cases, or nearly all, which had shown early retinal or neural changes, and all these phenomena might be accounted for upon the supposition of inflammation of the choroid. The clinical proofs that were required in support of this theory were, that the changes should appear at the disc some time before they were seen in other parts of the eye, and that failure of vision should precede the other visible alterations. Again, according to the transmission theory, basic meningitis ought sometimes to be seen as a sequel. In mild cases too, on the optic nerve theory, the disease should sometimes be confined to the optic nerve, but except, possibly, in a case of Dr. Brailey's, this was hitherto unknown. Again, in retrobulbar neuritis there was no evidence

that the inflammation ever spread upwards to the other eye, though it went downwards to the disc on the same side. The chief objection to the theory of transmission along the filaments of the fifth or sympathetic nerves was that the path would be so very long and narrow; the nerve-twigs, however, were so very difficult to examine, that it was easily to be believed that inflammatory changes in them might escape detection.—Dr. MILES thought that sympathetic irritation and inflammation, though they had some symptoms in common, ought to be separated. The connection between them was that the former dilated the lymph-spaces, and so allowed the more easy transit of infective elements. As to the difficulty raised with regard to the long interval between the injury and the sympathetic inflammation, he did not think that that was conclusive against the bacterial theory. It was not known how long a period might be necessary for their passage along the lymph-spaces.—In reply to Dr. BRAILEY, Dr. MILES said that it was difficult to say whether the micro-organisms must be invariably introduced.—Dr. BRAILEY compared the evidence in favour of the President's view with that which seemed to support one of the most recent and plausible of the other views, the theory of direct transmission along the substance of the optic nerve or the sheath-space around it. In favour of the former, was the fact that cells from a choroidal sarcoma were transmitted through the blood to other organs, such as the liver. But, on the other hand, he knew of no instance in which they had lodged, and produced a sarcoma in the choroid of the opposite side. Similarly, a purulent ophthalmitis might produce a purulent meningitis without any direct continuity, but it did not produce a purulent choroiditis of the opposite side. Again, there was some little physical evidence in favour of direct transmission, namely, the finding of inflammatory cells after enucleation in the loose tissue between the nerve-sheaths; there was also the case recorded by Snellen, where an injury to one eye resulted not only in sympathetic disease of the other, but also in total deafness, with every symptom of acute meningitis; and, finally, the experiments of Deutschmann, who produced papillitis of the one eye by injections into the vitreous body of the opposite.—The PRESIDENT said that the arguments used had not convinced him that his theory was untenable, though he was not prepared to adopt it strongly. It was a theory that was applicable to other diseases, such as multiple periostitis. He agreed with Dr. Noyes that excision of the injured eye after the development of sympathetic inflammation did no good, and ought not to be performed if there were any hope of useful vision in the injured eye. The occurrence of relapses was not conclusive against the theory, for inflammation in any situation might recur when an organ recovering from inflammation was again exposed to irritation. With regard to the argument used by Dr. Brailey, it was to be noted that occasionally a malignant growth of one eye did recur in the other. The sequence of the development of secondary growths in cases of malignant disease was very irregular; the intervals were sometimes very long; further, it was not safe to argue from the behaviour of one class of morbid element what would be the behaviour of another; for instance, from the behaviour of malignant elements to that of inflammatory elements. In reply to Mr. JESSOP, he said that he did not agree with Mr. Spencer Watson that children were less liable than adults to sympathetic inflammation.

Concluding Business.—As this was the last meeting of the session, two papers, one by Mr. Critchett, on a case of Extreme Retinal Irritability, and the other by Dr. Walter Edmunds and Mr. Lawford, on the Pathological Anatomy of Optic Neuritis, were taken as read.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MAY 1ST, 1885.

J. B. BRADBURY, M.D., President, in the Chair.

Remarkable Risings and Fallings of the Bodily Temperature.—Professor PAGET brought forward a case of disease of the spinal cord, which had been under his observation in Addenbrooke's Hospital for a long time, and showed the temperature-chart recording the remarkable variations of the bodily temperature.

Recovery from Cervical Paraplegia.—Dr. BRADBURY showed the patient, a girl, aged 16, who had been under his care for a year in Addenbrooke's Hospital. When she was admitted on April 30th, 1884, there was a previous history of sore-throat, and a year before she had attended as out-patient for pain and stiffness in the back of the neck, which had continued. On April 6th, while at work, she felt twitching in the right arm and leg, and occasional involuntary movements, and, on April 13th, lost all power in the right arm and leg. At this time, twitching began in the left arm and leg, and, after a week, paralysis, not complete, in the leg; there was also considerable loss of

sensation in all the limbs, and the catheter had been necessary for about a week. On admission, paralysis of the right arm was complete, and nearly so of the right leg and left arm; but she had fair power of movement of the left leg. Sensation was blunted in all the limbs. The patellar reflex was exaggerated in both knees, most in the right, and right ankle-clonus was well marked. Urine had to be drawn off twice daily. Feces were passed unconsciously. She complained of much pain at the back of the neck, and was unable to turn her head. There was tenderness on pressure over the cervical spines. During the next few months, the paralysis increased, and involuntary startings and attacks of rigidity in the limbs were noticed; and, on August 20th, the right side of the face was partially paralysed. The muscles all responded well to the faradic current. In September, the rigidity was less frequent, and there were signs of returning power in the arms. The urine contained pus, and occasionally blood, and was often offensive. From this time, the improvement continued steadily; and, in April, 1885, she was able to walk about, and had fair use of both her arms. There was still some pus in the urine. The temperature throughout the illness showed remarkable variations, on one occasion reaching nearly 107°, and falling again to 97°; the variations were frequently followed by a free discharge of pus from the bladder. There were still well marked thickening of the tissues, and prominence of the spines of the upper cervical vertebrae, and some projection could be felt in the pharynx; the patient was unable to move her head quite freely. Dr. Bradbury said it was a typical case of "cervical paraplegia," as described by Sir William Gull. The lesion was probably limited to the portion of the cord corresponding with the third cervical vertebra, which was, no doubt, the seat of caries, followed by pachymeningitis and myelitis. The treatment consisted in rest in bed, the head being kept fixed between sand-bags. No drugs appeared to influence the course of the disease.

YORKSHIRE BRANCH.

MONDAY, APRIL 20TH.

SAMUEL KNAGGS, M.R.C.S., President, in the Chair.

Nephrectomy.—Mr. MCGILL read notes of a case of nephrectomy. The patient was a girl, aged 19, who, for two years, had been suffering from frequent and painful micturition; the pain extended from the left loin to the urinary meatus, was intermittent in character, and often of great severity. The urine had usually been turbid, and at intervals of a pink colour. Six months ago she first noticed a tumour in the left loin. Since that time, her symptoms had been much aggravated, the pain being persistent. On examination, a movable tumour could be felt projecting from beneath the left ribs, extending nearly to the umbilicus, and downwards as far as the iliac crest. The urine was faintly acid, highly albuminous, and contained a large quantity of pus and a few red blood-corpuscles. Nephrectomy was performed by the lumbar incision, made transversely, midway between the last rib and the crest of the ilium; the kidney was easily exposed, and projected from the wound. A strong silk ligature was then passed over the kidney, and tied as tightly as possible round the strictures passing into the hilum. The vessels and ureter were next divided with scissors, and the kidney removed. As an additional precaution against hæmorrhage, a second ligature was then applied to the divided stump. The operation was remarkably bloodless. The kidney removed was large, strumous, and cystic. The patient died four hours after the operation. A *post mortem* examination showed that death was due to hæmorrhage, a large amount of blood being extravasated into the retroperitoneal tissue. The ligature contained the ureter and loose cellular tissue. The right kidney was normal. It was evident that, owing to the strain on the vessels, caused by the extrusion of the kidney through the wound, they had slipped out of the ligature when divided. As the kidney was twisted when the vessels were divided, they did not bleed until they had retracted from the external wound and untwisted; thus, the apparent bloodlessness of the operation was accounted for. Mr. McGill knew of another case where death had been caused by the slipping of the ligature; he thought it would be advisable to clear the vessels from all surrounding tissue, and apply the ligature in position before extruding the kidney.

Hæmoglobinuria.—Dr. DYSON related a case of this disease. The patient was a bricklayer, aged 30. He had a chancre nine years ago, an ulcerating node three years ago, and a large sternal node in October last. For the latter, he came under treatment at the Sheffield Public Hospital, and, at the same time, stated he had "shivering attacks, and passed blood." The attacks presented the usual characteristics of the disease; they were excited by cold and exposure; the symptoms were rigor, great rise in temperature (104° Fahr.), and then a sweating stage. The urine passed after the rigor was of a dark port-

wine or pitch-black colour, contained much albumen, methæmoglobin (by the spectroscope), granular debris, granular nucleated cells, casts, and oxalates in abundance. In two accurate observations, the albumen and hæmoglobin appeared and disappeared from the urine at the same time. No icterus was present either during or after the attacks. The patient had suffered from the disease for about a year, and there was nothing of the kind in his family. There was no urticaria or gastro-hepatic disturbance. Iodide of potassium (which speedily cured his node), quinine, and iron and quinine did not prevent the recurrence of the attacks. A mercurial course had a marked benefit; the patient only having one modified attack since the drug was commenced, and these attacks ceased altogether after the drug had been given eight days. The condition of the blood, and the general health and strength, were greatly improved by the mercury. Four months had elapsed since the last slight attack; the patient was working hard, and under great exposure. Dr. Dyson called special attention (1) to the association of the syphilitic dyscrasia, and the rapid apparent cure of the hæmoglobinuria by mercury; (2) to the methæmoglobin found in the urine immediately after it was voided; (3) to the appearance and disappearance *pari passu* of the albuminuria and hæmoglobinuria; and (4) to the absence of icterus during and after the attacks.

Acute Arthritis in Infants.—Mr. C. ATKIN read a paper on acute arthritis in infants, and described a case he had seen lately, which differed from epiphysitis, pyæmia, and the catarrhal inflammation of Volkmann. Two joints were affected with a painless purulent exudation. Phlegmonous inflammation, redness, and swelling of the synovial membrane, and secondary deposits, were wanting. After death, no primary focus could be discovered. The epiphysal lines were healthy. Mention was made of the special micrococcus found in these cases by Krause, which, he stated, very much resembled the "streptococcus pyogenes" of Rosenbach, and the "scarlatinal-diphtheria chain coccus" of Löffler, though differing from them in character and inoculation results. Löffler had denied that Krause's organism was a special one, as he had produced suppurations of joints in animals by inoculation with the "cultivation fluid of scarlach-diphtherie;" these experiments had recently been confirmed by Heubner and Bahrdt.

REVIEWS AND NOTICES.

SURGICAL OPERATIONS. Part I. The Ligature of Arteries. By Sir WILLIAM MAC CORMAC, F.R.C.S., Surgeon and Lecturer on Surgery at St. Thomas's Hospital. London: Smith, Elder and Co. 1885.

It is true that, in many works in surgery and its allied sciences, one main object of the book is to make the author, whereas the author's experience ought rather to ensure the character of the book. In the present instance, we recognise that the author has been so identified with the subject that we should search in vain for one who would be likely to represent more thoroughly the modern views and experience of English surgery. We, therefore, look with more than usual interest into this first instalment of what may prove a standard work.

Works on operative surgery, distinct from the text-books on surgery, have been rare of late years; and those that exist in our own language have generally been limited to modest proportions. We are glad to see that the size of this book (large octavo), without being cumbersome, is such as to allow the introduction of good-sized plates, and these will probably be even more required in the other parts which are to follow. For the student and for the practical surgeon, the size of the illustrations should, we think, be such as to make reference easy. But if the work is of a convenient portable size, there are other considerations of a practical character which are more important. The type is certainly excellent, and the engravings are a credit to the work. They are unquestionably better than have been produced in any English work on the subject, and they possess a clearness as well as vigour and artistic skill which is very uncommon. This is chiefly due to the work of Mr. Anderson, who is recognised as one of the most able draughtsmen among English surgeons and anatomists.

A few of the engravings are printed with some colour: and it is so obvious that further clearness is given by this means, that we think the author might further develop this plan, or suggest, in his introductory remarks, the advisability of students undertaking this supplementary work for themselves in regard to all the anatomical plates which are not already coloured. The type is clear, and the arrangement under distinct headings makes reference easy. The plates are very numerous, as is seen by the fact that, in 136 pages which constitute this part I, no fewer than 93 wood-cuts occur; and we are pleased

to find that, when necessary, for the clear understanding of the text, an engraving is sometimes reproduced. This we notice in two instances.

We have considered these technical matters relating to the work as they strike us first of all, on taking up the book, and they are by no means unimportant.

If we now examine other matters of more real importance, we must notice that the language is clear and forcible. The sentences are terse, and the descriptions rather erring on the side of brevity; but the work is essentially a practical work, and there is little scope for classical writing. The worker will be thankful for the clearness of arrangement and of language. Under the head of ligature of a particular artery, we find first a paragraph headed "indication," in which are given the circumstances under which the operation may be required, and some account of the history of the operation, with mention of important clinical cases. Then follows a second paragraph, headed "surgical anatomy," in which the account given is very thorough and accurate, and the engravings are numerous and good, and many of them original. A paragraph headed "guide," gives generally the most practical means of finding the vessel; and then, under the heading "operation," comes a full description of the proceeding, given clearly and tersely.

We are tempted to give an example of the style and substance of the writing from what is essentially an important section, but it represents very fairly the rest of the work. It is an account of the method recommended of applying the ligature (page 18). "Carefully select and test beforehand the quality of the ligature-thread, as its rupture during application may inflict serious injury on the vessel." Here follows an account of the different materials used for ligatures. "Whatever be selected, the ligature should be round, smooth, of uniform moderate thickness, and the knot must be tightly drawn, to ensure the complete division of the internal and middle coats. A return has recently been made in some instances, and more especially in the case of large and not very healthy vessels, to the practice of simply constricting the vessel. A broad tape-like ligature of animal substance is used, and the inner and middle coats are not divided. When the vessel is thoroughly isolated and exposed, separate the margins of the wound with retractors. Pick up one edge of the divided sheath with the forceps. Insinuate the end of the needle gently around the vessel with a slight lateral to-and-fro motion, seizing the other margin of the opening in the sheath as the aneurysm-needle comes round, to facilitate its emergence (Fig. 21). The aneurysm-needle is often more easily passed unarmed. The eye can be readily threaded afterwards. If a portion of the sheath catch on the end of the needle, it should be scratched through with the finger-nail or knife. Avoid the use of any force. Carefully avoid all unnecessary disturbance of, or dragging upon, the artery, not only during the process of exposure, but in the act of applying the ligature.

"Push the main vein aside with the finger, which will at the same time empty it of blood, and place it in less danger of injury. Pass the needle with its convexity turned towards the vein, and towards the principal nerve also, if possible.

"Before tying the knot, assure yourself that the blood-current can be arrested by the ligature, and that nothing besides the vessel shall be included.

"Tie strongly but steadily, always strictly at right angles to the long axis of the vessel, and with force sufficient to divide the inner and middle coats with the first loop of the ligature. Immoderate force is never required. Press the forefinger of each hand well down in the wound, so as to prevent the artery from being drawn forwards out of its sheath (Fig. 22)."

This is a fair specimen of the practical character of the work; but the account given of the pathological and physiological processes involved in repair after ligature and in the cure of aneurysm is fully consonant with recent advances in these subjects, and we notice with interest some valuable figures of restored collateral circulation from the Musée Dupuytren and the Richmond Hospital, Dublin, as well as from St. Thomas's Hospital, whence the author naturally draws his chief supplies.

Every surgeon has, of course, his own way of doing things, and a preference for certain instruments; but, after looking at the book carefully, we are forced to the conclusion that the descriptions and advice given are free from any fault of narrowness, and we can find nothing to which a teacher can raise any objection; on the contrary, the book may be accepted as a thoroughly reliable companion and guide. This first part promises well for the rest of the work, and we shall look forward with much interest to the more important parts which are to follow. It is a credit to author and publisher alike, and seems likely to fill a void which has long been felt in the surgical literature of this country.

We notice that the author has avoided everything which savours of mere statistics, and in this we think he may be right; but we imagine that, in the rarer operations which will follow, this principle will not be so strictly adhered to. The author's own experience is large, and would be very acceptable to the profession in some form. We, however, recognise that his object is a practical one, and probably his words in the preface to this first part indicate the scope of the whole work, "to give a brief but accurate statement of the manner in which the operation may be performed, and in each case of illustrating by diagrams the anatomical relations of the parts." We congratulate the author upon the admirable manner in which he has succeeded in carrying out his object, and we also congratulate the spirited publishers upon bringing so well finished a work within the reach of every student as well as practitioner.

NOTES ON BOOKS.

A Manual of Health Science, adapted for Use in Schools and Colleges, and suited to the Requirements of Students Preparing for the Examinations in Hygiene of the Science and Art Department, etc. By ANDREW WILSON, F.R.S.E., F.L.S., etc. London: Longmans, Green, and Co. 1885.—When the examination in hygiene was instituted by the Science and Art Department a few years ago, it was wisely ordered that no payments should be made on the results of the instruction of pupils in hygiene who had not passed the examination in animal physiology. This manual, if we understand aright the author's purpose, is intended not only to meet this regulation, but also to afford to the general reader a popular account of physiology, hygiene, and ambulance work. The manual, which is written in a pleasant style, and contains numerous illustrations, appears better fitted to meet the wants of the latter than of the former class.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPERMEABLE FLOORING.

FROM the hygienic not less than the artistic point of view, the employment of parquet flooring has much to recommend it; and the fact that it has not met with more general adoption has been due, not to any lack of public appreciation of its value, but rather to the costliness by which its use has hitherto been attended. This want has now been met in a highly satisfactory way by the solid one-inch parquet flooring of Bucher and Durrer, introduced into this country by Messrs. Scheibler, Brothers, and Co., 23, New Broad Street, E.C. Messrs. Bucher and Durrer are the proprietors of large tracts of Hungarian forests, and are able to supply woods, well seasoned, from their own saw-mills, at exceedingly low and reasonable prices. These floors have the advantage of being durable and solid, and have no interstices to catch the dirt, but have smooth and washable surfaces, with a choice of artistic designs. On hygienic grounds alone, we can express the hope that this impermeable flooring will come into extensive and general use, if not in our houses, at any rate in all our public institutions.

INSTRUMENT FOR DILATATION OF THE CERVIX UTERI.

SIR,—In your issue of June 20th, Dr. John W. Taylor, of Birmingham, describes a new uterine dilator. In justice to Dr. Protheroe Smith, we beg to inform you that several years ago we made an instrument in every respect the same as that described, except that the bag is inflated by a foot-bellows, which has an advantage over the inflating syringe, as it leaves the hands free. Dr. Protheroe Smith is still using his instrument, and, we believe, with very good results.—Your obedient servants,
MAYER AND MELTZER.

SIR,—In the JOURNAL of June 20th, I notice the description of an instrument for dilatation of the cervix uteri, by Mr. J. W. Taylor, of Birmingham. If he will refer to the JOURNAL, of May 29th, 1880, page 817, he will see that his idea is not a new one. A similar instrument was made for me, at that time, by Messrs. Walters and Co., and figured in the JOURNAL. Practically the instrument is of very little value. The hollow sound is very fragile, and the bags are always in trouble. If the cervical canal is already sufficiently patent to admit the instrument with ease, further dilatation may as readily and safely be effected with Hegar's dilators, without wasting time.—I am, etc.,
J. A. MANSELL MOULLIN.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

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Sanitary and Medical Affairs in
Parliament.

THE manner of the announcement made in the House of Commons on the 7th instant by the Chancellor of the Exchequer, with reference to the course of business during the remainder of the session, was as satisfactory as was the reception accorded to it by the Opposition. As to the matter of Sir Michael Hicks-Beach's announcement, we are hardly in so good a position to judge, since medical and sanitary matters have of late years formed a very small part of legislative programmes. There are, however, two Bills referred to by the leader of the House which have a more or less medical interest, and which appear worthy of further discussion even in the short span of life which still remains to the present Parliament. The first of these is Mr. Jesse Collings's Bill for the removal of the electoral disqualification at present attaching to the acceptance of parochial medical relief. This Bill has excited much attention and interest both in and out of Parliament, and has been persistently brought forward by its author on each and every opportunity that presented itself. Whatever may be the opinion of the majority on the question—and there seems little reason to doubt what that opinion is—it is on every ground most desirable and important that the issue should be definitely raised in the House, and decided, not according to the proximity of the dinner-hour, but upon the merits of the question.

It is a little difficult to fathom the actual attitude of the new Government with regard to this Bill, for the declarations of Sir M. Hicks-Beach concerning it were a little ambiguous. On Monday he told Mr. Collings that the Government thought the matter was one "which should be dealt with;" and on Tuesday he went a little out of his way to give, as we read it, a more favourable construction to those words than they had been regarded as bearing. He remarked: "When I said that in our opinion the matter should be dealt with, I meant that it should be dealt with in the sense in which he (Mr. Collings) desired, and it should be dealt with soon, because it would not be reasonable to deal with it in a way which would not admit of the franchise being exercised in the coming election, by those who have now been admitted to the franchise. What I would venture to say to the House on this subject is, that we will undertake, if the House gives us the control of its time for which we ask, that means shall be found to enable the House to express its judgment on the question, our view of the matter being that which I have stated."

Apparently this can only be taken to mean that the Government assent to the principle of Mr. Collings's Bill, and will not, so far as they are concerned, oppose its passing. Otherwise it could hardly be regarded by them as a non-contentious bill of the kind, with which alone it is their intention to proceed. The other Bill is one of minor importance, being simply a measure authorising the concentration of various Scotch public departments, including those which deal with the public health, poor-law, and vaccination, under the control of a single officer, with the title of Secretary of State for Scotland. No great amount of feeling has been manifested with regard to this Bill, and no doubt need be entertained that its progress through both Houses will be easy if the Government take it in hand. There is, however, a second Scotch Bill, of larger dimensions and wider scope, as to which Mr. Buchanan and Mr. Dalrymple, as representing the Treasury, had a pleasant little controversy later on in the evening. This is the Burgh Police and Health (Scotland) Bill, a huge and lumbering measure to the defects of which we have more than once drawn attention, and which is now undergoing a leisurely revision at the hands of a Select Committee of the Lords. All that Mr. Dalrymple would say of this Bill was that, "as he understood, it would be turned out in some amended form, but whether it would be possible to proceed with it this Session or not he could not say." This was, however, purely the diplomatic caution of a new official, as it is now beyond question or argument that the Bill cannot possibly get through this Session. In fact, the Government evidently intend to do nothing more than what is absolutely necessary for the carrying on of the business of the nation until after the elections.

There was, however, one omission from the Chancellor's speech which was a little remarkable. Speaking on Wednesday week at Hoxton, Sir Charles Dilke made the gratifying announcement that certain of the less drastic and debatable recommendations of the Royal Commission on the Housing of the Poor had been embodied in a Bill which it was originally intended that Lord Salisbury should introduce into the Upper House, and himself (Sir Charles Dilke) in the House of Commons. The change of Government would, he said, make no change in this respect; and "although the efforts which the Bill would make to remedy the evils existing in regard to dwellings of the industrial poor might be small, they would be the forerunners of larger endeavours in the future."

The notion of a Bill jointly introduced and carried through by leaders of two opposing political parties is so excellent an innovation in Parliamentary amenities, that some little disappointment is excusable at the silence which Sir M. Hicks-Beach observed with regard to the measure in question. Let us hope, however, that this was purely accidental, and that the Bill is, notwithstanding present appearances, to be brought forward and pressed through its several stages before Parliament is dissolved.

Continued on page 70.

A DUTCH PHYSICIAN ON CONSULTANTS.

It having been suggested in Holland that consultants were becoming less and less necessary, so that general practitioners would soon be able to depend entirely on themselves, a very sensible article on the subject has been published, in the *Nederlandsch Tijdschrift*, by Dr. J. C. G. Evers, who, having been forty-two years in practice, first as a general practitioner, and subsequently as a consultant, has now entirely re-

tired, and may, as he suggests, be therefore looked upon as a disinterested observer.

He calls attention to the great care that medical men should take not to allow it to be thought that they hold a brother practitioner's opinion in light estimate. Not only should they always do to others as they would be done by, but they should be careful to look at a case from the same point of view as the practitioner in whose charge it may be. He remarks how frequently an incautious word, dropped before a patient, may cause him to lose confidence in his medical attendant. More is to be gained, too, to look at the matter from a purely selfish point of view, by speaking well of one's colleagues than by attempting to detract from their perhaps well earned reputations. A layman, in a very respectable position, was heard to say of a somewhat newly established practitioner at the Hague: "He must be a clever man, for he praises Dr. S.'s skill;" the latter gentleman being a senior and much respected member of the profession. It is of the greatest consequence that a patient's confidence in his medical man should not be shaken, especially when, as is frequently the case in rural districts, there is no other practitioner whose services are available.

The practice of patients leaving their own medical man, and taking surreptitious advice from other practitioners or consultants, is not, of course, to be recommended; but there are many cases where, if not justifiable, it is excusable. Thus, many persons, who, through their own misconduct, have contracted a malady, have not the courage to acquaint their family medical man with the circumstance, and thus prefer to consult some stranger in, perhaps, a distant town. Again, some ladies feel a great repugnance to taking advice about gynecological matters from a man whom they frequently meet in society, and, therefore, have recourse to strangers. It must be added, too, that, in some instances, practitioners have only themselves to thank for their patients going off to strangers, because of their own unguarded way of talking about them and their complaints. It is not, therefore, justifiable to act in such a high-handed manner as the practitioners of four contiguous districts, some distance from Leyden, did, who agreed to refuse to attend any person who ever resorted to surreptitious advice.

Again, no man is infallible, and very serious errors of diagnosis are sometimes left undetected, and, indeed, unsuspected, until brought to light by a "second opinion;" which, of course, ought not to be, though it sometimes is, obtained without consultation or co-operation. Dr. Evers mentions cases in which either he or others had unfortunately blundered, illustrating what Sir William Jenner always impressed upon his students, "that more mistakes are made by not examining, than by not knowing." Two cases of "lumbago" were ultimately found to be caries of the lumbar vertebræ. A little child suffered from fever and pain, which she was too young to localise. Her spine was not examined, but paraplegia supervened, vertebral disease being the cause. A beggar was admitted, at the beginning of the winter, with pain in the leg; and, as the writer did not wish his clinic to be used as comfortable winter-quarters for people of the patient's profession, he got rid of him, notwithstanding the discovery of a small movable tumour attached to the pelvis. The man afterwards died at the municipal infirmary, and the tumour proved to be a sarcoma, and was doubtless the unsuspected cause of the pain in the leg. A soldier in prison, who had been thought to be hypochondriacal, and thus punished for neglecting duty, was found to be suffering from stenosis of the pulmonary artery, and general anasarca. At the

necropsy, the foramen ovale and ductus arteriosus were found to be imperfectly closed, and, notwithstanding a cyanotic appearance, the poor man had been forced to do military duty, and punished for insubordination when he failed. Several cases of unsuspected hernia are also mentioned, which, but for a "second opinion," would probably have remained undetected and untreated.

SOUNDING THE DEPTH OF VICE.

THE *Pall Mall Gazette* has published, during the last three or four days, a series of articles describing horrible depths of vice, licentious cruelty, and sexual infamies, in connection with the systematic depravation of young girls, which have produced a profound sense of horror, indignation, and disgust throughout the whole community. There are those—and it is not surprising that there should be—who find, in the prominent publication in a daily paper of details of atrocities so incredible, in language so outspoken, an evil which is in itself a shock to the delicacy of the lay mind. As to the method in which such facts should be made public, and as to the extent to which it is permissible to denounce the horrors of a criminal trade, and of an unspeakably cruel and debasing traffic, there may well be grave differences of opinion; but of one thing we feel certain, and that is, that a great end will be served by this exposure, undertaken, as we feel assured it was, with intense sincerity, and with an overruling hatred and fierce anger of practices which have too long secretly prevailed in our midst, and have too long passed unscathed by public indignation. Desperate diseases need strong remedies. A cancer such as this, which is eating away the vital morality of whole classes of society, spreading widely, ravaging the unprotected classes, calls for the knife. It has been applied publicly, red-hot, and with an unsparing hand. Unsullied witnesses to the purity of domestic life—bishops, prelates, clergymen of all denominations, members of both Houses of Parliament—have openly and at once acclaimed the moral courage of those who have not hesitated to submit themselves to the most painful ordeal in order to search out the evil, and who have therein braved that form of censure which they could not but have foreseen. Such hidden cesspools of vice honeycombing the earth on which we tread, must be removed. The process is not a savoury one, and the method adopted is one which must shock and give pain to many who deserve to be spared such suffering; but who shall say that the purifying process is not a work deserving of words of encouragement and acts of support, from those who would fain see this great city relieved from the stain of horrors such as those which the *Pall Mall Gazette* has openly exposed?

To be effective, prompt action must follow. It is for the Legislature and for the Home Office at once to deal with these revelations. Law is violated, purity and morality are outraged, by the existence of such abominations. The claim to advance the age of protection for young girls is made out to the fullest; and we see no reason why that age should not be extended, even beyond that limit which is at present demanded. But this will not suffice. Well considered measures must be taken to uproot this fearful system, by means such as those which have been brought into play to arrest gambling. Not only the law-givers must act, but the full forces of the law must be brought into play; and, if they are insufficient, they must be strengthened. This is an age of leagues, and it may be hoped that a league will be formed which will wage this crusade, not only in London, but in other great

towns, until it shall become as dangerous to carry on the infamous traffic which has been exposed, as it is to secretly manufacture and treasonably retail dynamite. It is a kind of treason more felonious than any other: treason against every principle which men should hold dear; conspiracy to poison the well-springs of home life, and to dissolve the ties which favour most the sacred bonds of society.

With regard to the medical practitioners, to whom reference is made as making examinations and signing certificates, we trust that their participation was entirely in ignorance of the aim of the other parties concerned. Were it otherwise, we need not say with what horror such conduct would be regarded, and how severe should be the punishment dealt. The medical profession will always be found on the side of purity; delicacy and even decency have suffered by this exposure; but horrible depths of vice have been exposed, and, once laid bare, they must be extirpated.

OUR Berlin correspondent announces that Dr. Paul Vogt, Professor of Surgery at the University of Greifswald, died last week.

QUARANTINE has been abolished at Alexandria as regards arrivals from Madras and Portuguese ports. Llyod's agent at Malta telegraphs that all vessels from Spanish ports will be detained in quarantine five days.

PROFESSOR BILLROTH, of Vienna, has lately received from the King of Portugal the large gold collar and star of the order of St. James, for skill and knowledge. The decoration is one which is very rarely bestowed. Some time ago, Dr. Billroth was called to the Portuguese Court to consult in a surgical case.

PROFESSOR BAMBERGER, the eminent physician and clinical teacher, has been appointed Rector Magnificus of the University of Vienna. The *Allgemeine Wiener Medizinische Zeitung* speaks of the appointment in terms of high satisfaction, characterising it as most happy, and in full accord with the spirit of the time.

THE Town Council of Moscow having refused to water the streets, the Governor-General applied to the Society of Russian Physicians for their opinion on the subject. They replied that it was necessary for the public health that the streets should be watered. It remains to be seen whether the Town Council will accept the opinion of the profession, or act according to their own antiquated notions.

OUR Paris correspondent writes: The Barotte prize, of 3,400 francs, awarded to the inventor of the most important and useful invention for agriculture, has been bestowed on M. Pasteur, for his discoveries in contagious diseases. The Académie des Sciences has definitely awarded its biennial prize, a sum of 20,000 francs (£800), to M. Brown-Séquard.

THE Association for the "After-Care" of Poor and Friendless Female Convalescents on Leaving Asylums for the Insane, held its anniversary for 1885 at Bethlem Royal Hospital. There were present, among others, Dr. John Ogle (in the chair), Dr. Savage, Dr. D. Hack Tuke, Dr. Norman Kerr, Dr. Seward, Dr. Fly Smith, and Dr. Clay Shaw (Honorary Treasurer). Several ladies were present. The desirableness of opening a home for mental convalescents was recognised. It was resolved that the result of further efforts should be communicated to an adjourned meeting. Contributions may be forwarded to Dr. Clay Shaw, Banstead Asylum, Sutton, Surrey,

or to the account of the After-Care Association, Union Bank, Argyll Place.

CAMBRIDGE MEDICAL GRADUATES' CLUB.

THE annual meeting and dinner of the Cambridge Medical Graduates' Club will be held at the Holborn Restaurant, on Wednesday next, July 15th, at 7.30 P.M., W. Howship Dickinson, M.D., in the chair. Any graduate who has received an invitation to join the club, may become a member by applying to either of the honorary secretaries, Dr. J. K. Fowler, 35, Clarges Street, Mayfair, or Dr. Steavenson, 39, Welbeck Street, W.

THE LATE DR. THUILLIER.

OUR Paris correspondent writes: A bust of Thuillier was unveiled a few days ago, at the École Normale Supérieure. M. Pasteur presided at the ceremony, making a suitable and touching address. M. Goblet, the Minister of Public Instruction, dwelt on the ability and merit of the deceased, who, it may be remembered, was a victim to cholera when a member of the Mission to Egypt in 1883. The parents of M. Thuillier were present on the occasion.

ST. ANDREW'S GRADUATES' ASSOCIATION.

THE annual meeting of the St. Andrew's Graduates' Association was held on June 30th, at 11, Chandos Street, Cavendish Square. The following office-bearers were re-elected. *President*: B. W. Richardson, M.D.; *Treasurer*: J. H. Paul, M.D.; *Secretary*: J. M. Menzies, M.A. The report of the Honorary Treasurer showed a balance of upwards of £90 in favour of the Association. A committee was elected to report to the Council on legislation as bearing upon the Scottish Universities, and upon the University of St. Andrews in particular.

SCLEDERMA IN THE ADULT.

M. NICHOLICH, of Trieste, has recently presented to the Académie de Médecine de Paris, a memoir in which the symptoms and etiology of this interesting affection are carefully described. He considers it as an inflammation of the cutis and subcutaneous tissue produced by some nervous trouble, and ending in atrophy. The exciting cause is generally a chill. In two cases, the patients' condition has been greatly improved by prolonged massage.

NEW BUILDINGS FOR THE JOINT EXAMINATION.

WE understand that the negotiations for obtaining a building in which to conduct the conjoint examinations of the Royal Colleges of Physicians and Surgeons, on the Duke of Bedford's estate near Long Acre, have fallen through, and that there is every probability that a site will be secured on the estate of the Duchy of Lancaster, near the Thames Embankment.

REDUCTION OF AN OLD DISLOCATION OF THE ELBOW-JOINT.

IN a case of dislocation backwards of both bones of the forearm, M. Nélaton decided to try reduction, although the accident had happened 158 days before he saw the patient. He ruptured numerous adhesions by means of forcible movements of the joint, and then replaced the bones in their normal position by traction and extension. The patient now begins to use her arm, and there is good reason to hope that a satisfactory result will be obtained.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE National Hospital for the Paralysed and Epileptic was formally opened by His Royal Highness the Prince of Wales, on Saturday last. The new building, which was described last week, forms a memorial to the late lamented Duke of Albany. The ceremony was performed in the recreation court, before a large assemblage; the hospital was subse-

quently open for inspection. The ceremony included a religious service, conducted by the Archbishop of Canterbury; and after the Prince of Wales had declared the building open, a number of ladies presented purses to the Princess of Wales for the building fund. About £80,000 has already been expended in the hospital and the site.

PRECAUTIONS AGAINST CHOLERA.

In consequence of the alarming spread of cholera in Spain, the Swansea Port sanitary authority have issued stringent instructions to the pilots that no vessel having sickness on board is to be admitted into the docks until examined by the medical officer. The custom authorities have adopted the most stringent quarantine-precautions. The Town Council of Dover have decided to adopt very strict precautionary measures with regard to the importation of rags, etc., from Spain. In case of any such imports being landed, they are to be at once destroyed.

PROFESSOR VON FRERICHS.

THE question of Professor von Frerichs' successor has been at length settled. The late Professor, it will be remembered, was Director of the First University Medical Clinic. Professor Leyden, who has been provisionally acting as director, has now been appointed in Professor Frerichs' place, and Professor Gerhardt has been appointed Director of the Second University Clinic, in place of Professor Leyden. In future, both clinics will stand on an equality.

ROYAL COLLEGE OF PHYSICIANS.

At an extraordinary meeting of the College, held on Friday, July 3rd, a report was received from the Building Committee to the effect that the negotiations for the purchase of land in Long Acre, jointly with the Royal College of Surgeons, with a view to the erection of an examination-hall, had failed. The Committee had, however, secured the offer of another site, near the Embankment, which, in their judgment, was greatly superior to the proposed site in Long Acre, and suggested that the two Colleges should sanction its acquisition. The opinion of the Fellows present was in favour of this suggestion, and the report was referred back to the Building Committee, with instructions to take steps at once to obtain estimates for the erection on this site of a hall, in accordance with plans already prepared. The College of Surgeons have concurred in this decision.

VACCINATION AND SMALL-POX IN PERU.

A CORRESPONDENT writes to us:—The Inspector of Vaccination in Lima has sent a circular to the official vaccinators, who, it must be remarked, are the only medical men allowed to vaccinate, laying down, amongst other regulations, that six insertions, three on each arm, must always be made. The vaccinators are also instructed to remit, from time to time, specimens of fresh lymph to the Director of the Municipal Chemical Laboratory, that he may examine it microscopically. Vaccination is not compulsory, and it is stated that the consequence is that more than half the population is believed to be unvaccinated, and the deaths from small-pox are becoming so numerous as to alarm the inhabitants, amounting recently to an annual death-rate of two per thousand, or 2,000 per million.

VOLUNTEER SURGEONS' ANNUAL DINNER.

THIS annual gathering at the Freemasons' Tavern, on July 8th, passed off satisfactorily, as many as 50 setting down to dine. The Right Honourable the Earl of Wemyss and March occupied the chair. There were present to represent the army, Sir Joseph Fayrer, K.C.S.I., Surgeon-General Don, Surgeon-Major Evatt, and the officers in command of the Medical Staff Corps at Aldershot. Most of the prominent men in the Volunteer Medical Service were present, who, with speeches and songs, managed to pass a pleasant evening. The Earl of Wemyss devoted himself in his speeches to urge the volunteer-surgeons to organise their department. He said that the volunteer branch of the service was deficient in organisation to such an extent as to render

the force almost useless, and he begged the surgeons now present before him to organise themselves into a workable machine, and to remove by their exertions one at least of the wants which beset the usefulness of that enormous force. Earl Wemyss believes in the volunteer army (which, as Lord Elcho, he did much to organise) as firmly as ever; and expressed himself, if possible, still more willing to work for the service, which, as everyone knows, he has been mainly instrumental in organising and maintaining. Before the dinner, a meeting of the Volunteer Medical Staff Association was held, Surgeon-Major Evatt being in the chair. Mr. Cantlie, the Honorary Secretary to the Association, mentioned, amongst other important works done by this Association, that the latest undertaking to form a dining-club for volunteer-surgeons was likely to prove eminently successful. It was resolved that the dinner be held annually on the first Wednesday of the Wimbledon meeting; and it was decided at the meeting that the members of the Volunteer Medical Staff Corps have the privilege of joining in the festival.

PROPOSED HOSPITAL FOR CHILDREN AT GATESHEAD.

AN influential meeting has been held at the Council Chamber, Gateshead, the Mayor in the chair, for promoting the establishment of a Hospital for Sick Children; and the following resolutions have been passed: "That, in the opinion of this meeting, it is desirable to establish a hospital for sick children for (Gateshead and district)." "That the gentlemen present form themselves into a committee, with power to add to their number, for the purpose of carrying the first resolution into effect." The cost of building and furnishing is estimated at £1,200, towards which the executor of the will of Mr. Frederick Glenton has promised £500, Mrs. Sothern £250, and Miss Brown £250, and Lady Northbourne has given £50; and there is every probability of the remainder being subscribed quickly.

OVARIOTOMY IN BELGIUM.

AN interesting event was celebrated by a festival at Ghent last week. Dr. Boddaert, one of the most distinguished of Belgian surgeons, having completed one hundred cases of ovariectomy, received thereupon the congratulations of many of his professional brethren. Sir Spencer Wells was to have been present, but was unavoidably detained in London. A letter from him was treated as the proposal of the toast of the evening, and a reply was sent by telegraph that the company were drinking his health in bumpers of champagne. Considering that Sir Spencer Wells performed ovariectomy in Brussels for the first time in 1865, and had a successful case in Ghent with Dr. Boddaert in 1871, when the operation was still a novelty, it is not a little surprising that one Belgian surgeon should already have had one hundred cases. It is a remarkable illustration of the rapid advance of surgery, and of the influence of British upon Continental practice.

A CASE OF CHLOROMA IN NORWAY.

DR. F. G. GADE, of Christiania, has had a case of the rare disease called chloroma, chlorosarcoma, green cancer, and periosteal and metastatic sarcoma, which was first described by Balfour in 1834, and of which ten cases have already been recorded. Gade's case was in a little girl aged 5, who first suffered from anemic symptoms, and then from a tumour of the left cheek, with toothache, tinnitus aurium, otorrhœa, deafness, and continually increasing exophthalmos. Nine weeks after these symptoms appeared, she died with pyrexia and great prostration, without having exhibited any phenomena of cerebral mischief. At the *post mortem* examination, an immense number of greenish-yellow and greenish-grey fibrous tumours of sarcomatous structure were found in various situations, but more especially connected with the periosteum. They were found on the dura mater, in the internal ear, in the orbit, in the periosteum of the skull and facial bones, in large numbers on the sternum, on the ribs and vertebral column, also in the liver, kidneys, colon, lateral ligaments, and the medulla of

the bones; also on the lower extremities there were a number of livid spots, the largest of which contained a butter-like substance. The case is very similar to those previously recorded, which were all in children. The green colouring matter, which can be dissolved out by maceration in chloroform as a dark green oily liquid, is not related, according to Gade, agreeing with Otto, either to the blood or to the biliary-colouring matter, but is formed from fat-granules, great numbers of which are found in the cells of the neoplasm.

SCROTAL CALCULI.

DR. SCHKOTT, of Moscow, has recently described, in a Russian medical periodical, the case of a patient, aged 27, who, when a child, was subject to some obscure disease of the scrotum, and noticed, later on, that he apparently had developed a third testicle, much harder than the two normal glands. For seven years before he came under Dr. Schkott's care in hospital, he frequently passed blood in his urine, and for two years micturition and coitus had been attended with pain. The third testicle reached the size of a goose's egg. Three months before admission he struck the scrotum, which inflamed and suppurated. The abscess burst, and left a fistulous track. On passing a probe into the track, three hard substances, which could be moved separately, were distinctly felt. On passing a catheter, a fistula was detected in the membranous part of the urethra. The scrotum was incised, and seven uric acid calculi were found in a capsule of connective tissue, fitting closely against each other. Dr. Schkott excised the sac after extracting the calculi, and closed the urethral fistula first with catgut, and then sutured the scrotal wound with the same material. The fistula opened up again, but was successfully closed by a second operation.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

The annual meeting of the Ophthalmological Society of the United Kingdom, was held on Tuesday, July 7th. The greater part of the evening was given up to the discussion of Mr. Jonathan Hutchinson's paper on reflex ophthalmitis. Dr. Noyes, of New York, and Mr. Nettleship, reviewed the various theories which have been put forward, and Mr. Henry Power urged several objections to the theory advanced by the President, who, however, could claim the support of Professor Berlin for his main contention, which was, that infective particles cast off from the injured eye found their most congenial soil in similar tissues of the symmetrical organ. For Professor Berlin these particles were micro-organisms, while Mr. Hutchinson suggested that they might be elements of the inflamed tissue, in fact, spermatic particles. The following officers and Council were elected for next year. *President*: Jonathan Hutchinson, F.R.S. *Vice-Presidents*: Sir William Bowman, Bart.; F.R.S.; *George Johnson, M.D., F.R.S.; Thomas Reid, M.D. Glasgow; *T. Symptom, Lincoln; T. Shadford Walker, Liverpool; J. C. Wordsworth. *Treasurer*: J. F. Streetfield. *Secretaries*: *Seymour Sharkey, M.B.; W. A. Brailey, M.D. *Other Members of Council*: *John Abercrombie, M.D.; *Sidney Coupland, M.D.; George Cowell; G. A. Critchett; *Walter Edmunds; *W. Adams Frost; E. Nettleship; Priestley Smith, Birmingham; Simeon Snell, Sheffield; *J. B. Story, Dublin; John Tweedy; W. Spencer Watson. The gentlemen whose names are marked with an asterisk (*) were not in the Council, or did not hold the same office during the preceding year.

FOREIGN BODIES LEFT IN THE ABDOMEN AFTER LAPAROTOMY.

IN a recent number of the *Transactions of the American Gynaecological Society*, Dr. H. P. C. Wilson, of Baltimore, contributes a paper on this important subject. He is convinced that the accidental inclusion of forceps, sponges, etc., in the peritoneal cavity after laparotomy, is a much more frequent cause of death than is generally supposed. Dr. Wilson has been able to collect 21 cases, of which six, including his own, have been published. This shows that more

than two-thirds of all the known cases never come to light; and, from the want of necropsies, the unknown must be very much more numerous. Six of the 21 cases occurred in the United States, Dr. Wilson's being the only one that has been published. Out of 15 in Europe, five have been published. Of the six American cases, a sponge was left behind in five, and a pair of forceps in the sixth. Two of the six died, and four recovered after the timely extraction of the foreign body. In three, the error was detected at or immediately after the close of the operation. In one a sponge, and in one a pair of forceps, were discovered after the patients' death. In one (Dr. Wilson's), the presence of the sponge in the abdominal cavity was not suspected till it worked its way to the surface months after the operation, and was successfully removed from an abscess-cavity near the umbilicus by Dr. G. H. Hooking. Of the 15 European cases, 10 have never been published, and are mentioned by Dr. Wilson on the authority of Mr. Lawson Tait, who added an eleventh in his own practice, where the error arose through a sponge having been torn in halves. The same accident occurred in one operation performed by Dr. Kocher, of Berne, and is published in a paper on Ovariectomy in Switzerland, which appeared in the *BRITISH MEDICAL JOURNAL* of January 28th, 1882. In two cases in Sir Spencer Wells's operative experience, a foreign body was left in the peritoneal cavity—a sponge in the first, and a pair of forceps in the second instance; in both, the patient recovered after remedy of the oversight. In the fourteenth of the European cases, a sponge was found at the necropsy of a patient of Dr. Carl Braun; and in the fifteenth, a case of Dr. Gustav Braun, a bull-dog forceps was found under similar circumstances.

CHARING CROSS HOSPITAL.

THE distribution of prizes to the students of the Charing Cross Medical School took place on Friday, July 3rd, at the Medical School, Chandos Street. Sir R. Temple, Bart., occupied the chair. The report stated that, during the past year, the number of new students had been 60, against 50 during the previous year, and was certainly the largest entry in the history of the school. The number of students in all years now in attendance was 180. The Llewellyn Scholarship had been awarded to W. J. Colborne, the Golding Scholarship to R. E. Fasnacht, the Governors' Clinical Gold Medal and the Pereira prize also to W. J. Colborne, and the senior anatomy prize to H. C. L. Arnim. The Chairman, in the course of an address after the distribution of prizes, doubted whether the benevolent public really comprehended the full importance of institutions like the Charing Cross Hospital; for, besides curing the sick, they were the means of offering medical instruction to the profession. The public should understand that, without hospitals, there could hardly be a medical profession. If preventive as distinguished from curative medicine was really to be effective, that could only be done by public opinion becoming enlightened. It was to the enlightening of that opinion that the aid of the medical profession was so potent and effective, and to that question they were responsible before Providence and their country for giving sound advice to all their non-professional brethren. On the motion of Sir J. Fayer, a vote of thanks was passed to Sir R. Temple for presiding.

CHOLERA PRECAUTIONS IN ENGLAND.

IT would, we think, be satisfactory and reassuring to the public mind if the Local Government Board would publish or give details of the reports of their medical inspectors as to the inspection recently made of the sanitary defences of the various English ports against an invasion of cholera. Mr. A. J. Balfour, replying to a question from Lord C. J. Hamilton, said, on Tuesday last, that during the present year more stringent inspection had been made by the six medical inspectors of those districts of England where cholera would be more especially expected to prevail. This inspection is now almost completed as regards the ports and riparian districts of England, and is being pur-

sued in other districts which it is supposed would suffer from a visitation of cholera. The regulations in regard to cholera are still in operation in France and Italy; and, as regards the importation of rags from Spain, it has been prohibited until November 1st. This is all very satisfactory so far as it goes; but the country demands some more visible signs of industry on the part of the local authorities in carrying out the recommendations made to them.

CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS.

ON Wednesday, July 1st, a conversazione was given at the College, Pall Mall East. It was attended by many hundreds of guests, who were received by the President of the College, Sir W. Jenner, Bart., and other officials. The rooms of the College were all thrown open, and the library was tastefully decorated with banks of roses placed in the recesses of the walls, with palms, and with masses of calceolarias, ferns, etc., arranged around the gallery railings. Oil paintings and water-colour drawings, engravings, etchings, photographs, and sculptured busts, sent by various exhibitors, were on view in large numbers, and were examined by a critical audience. Dr. Cobbold contributed specimens of rare entozoa from man and animals; the Zoological Society of London sent three cases of living reptiles. Dr. Handfield Jones showed microscopical specimens of cerebral arteries; various old books and MS. from the College library were exhibited; Dr. Parry showed the method of using his neat and handy test-pellets for albumen and sugar, and many other interesting exhibits were on view. The band of the Royal Artillery performed a selection of music during the evening, and made an otherwise enjoyable gathering still more pleasant.

PROPOSED REFORM OF THE UNIVERSITY OF LONDON.

THE report drawn up by Lord Justice Fry's Committee of the Convocation of the University of London is undoubtedly a very able document. The full digest of it, which we printed last week, will have sufficed to show that it does not err on the side of timidity, but proposes alterations which would change the whole structure of the University. It would transfer the government of the University from a Senate nominated chiefly by the Crown to a Senate chiefly elective. The colleges and teaching bodies would elect three-fifths of the members, Convocation would elect one-fifth, and the Crown would nominate one-fifth. The representatives of the teachers, therefore, would be a working majority, while yet the whole conduct of the University would not be committed to them, as in the rival scheme of the Association for promoting a teaching university. Such a surrender, it is argued by many, would be undesirable. It is contended that an university ought to be in sympathy not only with the teachers who instruct its undergraduates, but with the professions which its graduates follow. The Senate would also be advised in its action by boards of studies, consisting almost entirely of teachers, so that the influence of the teachers would be very large, in fact preponderant. What would be the actual result of the deliberations of such a body as the Senate here proposed, must be very difficult to foresee; how far conflicting views and interests would neutralise each other, and how far it would be possible to bring about the centralisation of the teaching of preliminary science advised by Professor Lankester in his able letter published last week, only experience can show. Yet it is impossible to avoid the suspicion that no modification of the University of London will ever bring its degrees within the range of the majority of the medical students of London. Sir James Paget, the Vice-Chancellor, said to the deputation from the Metropolitan Counties Branch that the Senate felt it incumbent on them to maintain the standard and scientific character of the medical degrees; and Convocation, at its recent meeting, passed by a large majority a resolution expressing approval of this resolve. The large majority by which Professor Carey Foster was nominated to the Senate also shows that the graduates would view any alterations which would diminish the importance of the degrees with great jealousy, while at the same time the report of

the Committee shows that they are anxious to see such alterations made as would render the University more popular, and more able to move with the times. On the whole, therefore, while important reforms are probably pending in the University of London, it is apparently improbable that the demands of the London School or the London students for a title of doctor accessible to the mass of those who pass the examinations in medicine, surgery, and midwifery, such as those of the new conjoint board, will be satisfied by the University; and a large field will probably still be left open to the action of the colleges, now in conference in regard to the matter of degrees.

UNIVERSITY OF LONDON.

A MEETING of Convocation took place on Tuesday evening last at the University Buildings in Burlington Gardens. Dr. F. J. Wood, the Chairman of Convocation, presided. There was very little business transacted particularly interesting to the medical graduates. The result of the voting for the nomination of a list of three persons to be presented to Her Majesty, for the selection therefrom of a Fellow of the University to fill the vacancy in the Senate caused by the resignation of Viscount Cardwell, was—for Professor Carey Foster, 397; Dr. R. F. Weymouth, 276; and Mr. P. Magnus, 179. Mr. Eurrigh moved, "That, in the opinion of this House, a degree in Engineering ought to be instituted by the University." It was decided to refer the subject to the Annual Committee for consideration and report. Mr. J. W. Bone having proposed a resolution, having for its object the revision of the list of educational institutions connected with the University, it was explained by Mr. McDowell and the Chairman that the Committee of Forty had prepared a scheme which would shortly come before the House, and the motion was withdrawn. The Chairman stated that a meeting of Convocation for the reception of the report of the Committee of Forty would probably be held on Tuesday, the 28th instant. Mr. Tyler moved, and Mr. Lynn seconded, a resolution that the clerk should state, on the printed minutes of each meeting of Convocation, the number of members in attendance. This was carried; but a further proposition, that the names of members attending should be published, was, on the amendment of Sir Julian Goldsmid, carried on a division by 36 to 28. Mr. A. Bassett Hopkins, M.A., next called for certain information with respect to the *ex officio* members of the Annual Committee, and moved two resolutions on the matter—one, that a new standing order be inserted between standing orders 66 and 67, to the effect that any *ex officio* member of the Annual Committee who should have failed to attend its meetings for two whole years should be deemed to have withdrawn his name from the committee; and the other, that standing order 64 be amended. They were rejected by a large majority. Dr. W. J. Collins moved: "That this House desires to express its approval of the resolve of the Senate, as intimated by the Vice-Chancellor, to maintain the standard and scientific character of the medical degrees of this University," alluding to the movement which was being made in a contrary direction, remarking that the question which lay at the root of the matter was whether they were prepared to let down their standard, or whether they should not adopt the wiser plan of screwing up the candidates; and adding, that candidates who wished for a lower standard should go to the Apothecaries' Company. He trusted that they would strengthen the hands of the Senate by passing that resolution. The resolution having been seconded by Dr. E. W. Roughton, was carried, with only two dissentients.

IODIDE OF POTASSIUM IN HABITUAL ABORTION.

M. GOSHKKEVICH, writing in the *Vratch*, says that, though it is usually believed that iodide of potassium tends to produce abortion, and its use is, therefore, generally avoided in pregnancy, he advises that it should be given in cases of habitual abortion. The causes of this are obscure, but the best known of them is undoubtedly syphilis. With this in view, he prescribes the iodide even when no syphilitic symptoms have

been recognised, and gives two cases to prove the advantage of this. The heart-sounds and movements of the fetus, both of which had become almost imperceptible, improved under five grains three times a day, and diminished whenever the medicine was stopped. In each case, the normal period was completed, though previously both the patients had been accustomed to miscarry during the second half of pregnancy.

SCOTLAND.

ARCHERY IN EDINBURGH.

THE ancient pastime and practice of archery is still a favourite in Scotland, and in Edinburgh is well recruited from the medical profession. At a competition of the Queen's Scottish Body Guard of Archers, held last week, Dr. Argyll Robertson gained the Spens Anniversary Medal.

EDINBURGH UNIVERSITY EXAMINATION HALL.

THE removal of the medical classes to the new University buildings in Edinburgh has, of course, placed a considerable amount of accommodation at the disposal of the Senatus; and we are glad to know that a portion of it will be utilised in the formation of an examination hall. Plans for the same (on a scale which, when complete, will provide accommodation for nearly 250 candidates at a written examination) have been prepared by Mr. R. Morham, City Superintendent of Works, and are actively being pushed on. It is expected that the arrangements will be completed by the end of autumn. The cost will probably be about £1,000, and the convenience it will secure is well worth it.

ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

DURING the month of June, there were treated in the wards of the Sick Children's Hospital, Edinburgh, 115 patients, of whom 61 were in the hospital on May 31st, while 54 new cases were admitted during the month; of 43 cases dismissed during the month, 37 were cured, and six relieved. The average daily number of in-patients was 62. In the dispensary, 603 cases were treated as out-door patients, and 11 children were vaccinated. The total number of patients treated during the month was 729. Of 277 new cases, 197 were from Edinburgh, 52 from Leith, and 28 from other places.

ROYAL MATERNITY HOSPITAL, EDINBURGH.

THE arrangements for the autumn months in the Royal Maternity and Simpson Memorial Hospital will be, that Dr. Halliday Croom will succeed Dr. Keiller as physician on duty; Dr. Berry Hart will succeed Dr. Underhill as assistant-physician; and Mr. J. Haig Ferguson, M.B. and C.M., and Mr. H. S. Buckle, B.A., will succeed Mr. Wm. Cotton, M.B. and C.M., and Dr. W. G. Anglin, as house-surgeons.

GLASGOW ROYAL INFIRMARY.

THE annual elections in the medical and surgical departments of this hospital and its dispensary staff will take place on August 3rd. The chief interest, of course, centres in the vacancies created by the retirement of Dr. Scott Orr from the post of visiting physician, and of Dr. Ebenezer Watson from that of visiting surgeon. For the vacancy in the medical wards, there will be several candidates. The names of Drs. Anderson, Dougal, Gemmell, and McVail, are already mentioned as being among the competitors. The first two are at present assistant-physicians to the Royal Infirmary, while Drs. Gemmell and McVail are on the dispensary staff of the Western Infirmary. There are likewise a number of candidates for the post of visiting surgeon, it being understood that Drs. Fleming, Adams, Whitson, Renton, and Newman, will compete for it. The first three are already assistant-surgeons to the hospital, while the last two are dispensary surgeons to the Western Infirmary; Dr. Newman being, however, in addition,

pathologist to the Royal Infirmary. From such a list of candidates, there should be no difficulty in the directors selecting worthy successors to the very excellent men of whose services the hospital is soon to be deprived.

MEETING OF THE BRITISH ASSOCIATION IN ABERDEEN.

OUR Aberdeen correspondent writes: The local bodies are doing their utmost to make the visit as attractive as possible. The Natural History Society has issued a circular, soliciting contributions of specimens—zoological, botanical, geological—of local products, to form a local museum illustrating the products—flora and fauna—of the districts. The Artists' Society has arranged a magnificent collection of oil-colours by English and foreign artists, and the exhibition will be open to members of the Association. To facilitate the arrangements of members who may reside a little distance from town, the railway-companies have agreed to make special arrangements. The *conversazione* will be held in the new Art Gallery and Gray's Art School. In addition to the excursions already notified in this JOURNAL, we may mention that Her Majesty has been graciously pleased to grant permission for an excursion-party visiting Balmoral.

ABERDEEN ROYAL INFIRMARY.

AN adjourned quarterly court of the managers was held on April 22nd, to consider a motion whereby it is sought to exclude from the infirmary fever and other infectious diseases, which, it is maintained, should be provided for by the local authority. After considerable discussion, it was agreed to remit to the committee of managers to inquire and report as to what arrangement can be made with the local authority on the matter of fever-patients.

LONGEVITY ON DEESIDE.

JEANIE BROWN died recently near Braemar, at the ripe age of 80, and only about four days after the demise of a sister named Isabella, who was also in her 76th year. Of the same family, a brother (James) died three years ago, at the age of 80, and another brother (John) three years before, at the age of 84. The aggregate age of the four is 320 years, giving an average of 80 to each. They were remarkably healthy, and of very simple and frugal habits as regarded food. None of the four were ever married; and the only surviving member known of the family is Elizabeth, who is still hale and hearty, although on the borders of fourscore.

FORFARSHIRE MEDICAL ASSOCIATION.

THE annual meeting of the Forfarshire Medical Association was held at Arbroath on Thursday, July 2nd. Dr. Keith Anderson, President of the Association, occupied the chair. A satisfactory financial report was submitted by Dr. Macleod. The office-bearers for the ensuing year were elected, as undernoted: Dr. Watson (Montrose), President; Dr. Lawrence (Montrose) and Dr. Rorie (Dundee), Vice-Presidents; Dr. Stalker (Dundee), Secretary; and Dr. Reid, Treasurer; together with a Council and Local Secretaries for the various towns in the county. It was determined to hold the next meeting at Montrose. Papers on hydrothorax, neuralgia, etc., were read and discussed.

THE WEATHER OF JUNE.

THE results of the weather-statistics for the past month show one or two noticeable features. With the exception of the North of Scotland, the rest of the country has had a greatly diminished rainfall, and in the south the drought has been somewhat severe. Along with this deficiency of rain, there has been a very general lowness of temperature, and the month was colder than the average in all parts. At the same time, there were days of great heat, but they were in turn followed by others exceptionally cold, so that the variations in the temperature were often very marked. One other point of interest may be mentioned in connection with the month's weather-record, and that is the almost total failure of the storm-warnings sent from America. In

scarcely any instance were the Scotch coasts visited by any of the storms which left the American coasts, and were intimated as likely to make themselves felt on our shores. It is not easy to explain this departure from the accuracy which has usually accompanied previous warnings.

THE NEW MARINE STATION AT MILLPORT.

It was intimated some time ago in the JOURNAL that it was proposed to establish on the west coast of Scotland, at Millport, a branch from the Government Research Station at Granton, and we are now able to announce that the work has actually begun. At the end of last month, the screw-yacht *Medusa* and the *Ark*, a covered barge, on which the investigations will be carried on, arrived at Millport, under the charge of Mr. Pearcey, and operations have already commenced. It is intended to investigate the fauna of the Clyde, and to prepare and publish as complete a list as possible of the animal organisms of the firth, with some account of their habits and peculiarities. The work will be continued during the months of July and August, and will be under the superintendence of Mr. Murray and Mr. Pearcey.

PRECAUTIONS AGAINST CHOLERA IN SCOTLAND.

In view of the prevalence of cholera on the Continent, and the possibility of its introduction into Scotland through the channel of the commercial relations which exist with affected districts, the Board of Supervision, under the powers conferred by the Public Health (Scotland) Act, have issued to all the local authorities in Scotland within whose district there is a port or harbour, a series of cholera regulations. These, in the main, deal with the importation of rags from Spain, which is, for the present, forbidden; and it is laid down that the term is to include cuttings of new materials as well as old rags. If the instructions issued are fully acted up to, they should effectually prevent this branch of traffic being any source of danger to the country. The regulations are to be in force until November 1st.

THE REPRESENTATION OF THE SCOTCH UNIVERSITIES.

ANY uncertainty that has existed as to who would be the candidate in the Liberal interest for the Universities of Edinburgh and St. Andrew's, has been set at rest by Mr. John E. Erichsen having agreed to stand for the seat. This decision was come to in reply to a requisition recently sent to him by the Universities Liberal Association. Mr. Erichsen's opponent will be Mr. J. H. A. Macdonald, who has been appointed Lord Advocate under the new Government. The eminent position of Mr. Erichsen, and the interest which he has always taken in matters affecting the welfare of the medical profession, constitute claims which will, no doubt, be recognised by a large proportion of the electors. The acceptance by Mr. Erichsen of the candidature for the representation of the Universities of Edinburgh and St. Andrew's of necessity puts a stop to the movement that was on foot in certain quarters, to bring him forward in the Liberal interest for the Universities of Glasgow and Aberdeen. In fact, it is not unlikely that the matter will end here, and that, at the coming election, no opposition will be made to the return of the present member, whose admirable discharge of his Parliamentary duties, and the interest he has always shown in all university matters, has won him the support and favour of many of the moderate Liberals in his constituency.

IRELAND.

VICE-REGAL APPOINTMENTS.

His Excellency the Lord-Lieutenant has been pleased to appoint Dr. Edward Hamilton, Professor of Surgery in the Royal College of Surgeons, and Surgeon to Steevens Hospital, to be Surgeon-in-Ordinary to His Excellency; and Dr. Archibald Hamilton Jacob, Professor of Ophthalmology in the Royal College of Surgeons, and Ophthalmic Sur-

geon to the Richmond, Whitworth, and Hardwicke Hospitals, to be Surgeon-Oculist to His Excellency and the Vice-regal Court.

THE REUBEN HARVEY MEMORIAL PRIZE.

THE first award of this prize, established as a memorial to the late Dr. Reuben Harvey, of Dublin, has just been made. The prize is a triennial one, being the accumulated interest during that period of a trust-fund, awarded by two examiners, one appointed by the President of the King and Queen's College of Physicians, and the other by the President of the Royal College of Surgeons in Ireland, to the writer of the best essay on a subject selected by the candidates themselves, evidencing original research in animal-physiology. The competition is open to students of the Dublin Schools of Medicine, and to graduates and licentiates under three years' standing of the Irish licensing bodies. Only one essay was sent in: but this, we understand, was one of much merit, and the examiners had no hesitation in recommending that the prize, which amounted to £20, should be awarded it. The subject of the essay was, "The Changes Occurring in the Skin in some forms of Disease." In accordance with one of the provisions of the competition, the essay was illustrated by drawings, representing the appearances described in it, and was also accompanied by numerous microscopical preparations. Mr. Henry T. Bewley, M.B., a distinguished student of the University of Dublin and of the School of Physic, was the author of the essay.

LUNATICS IN THE CORK WORKHOUSE.

DR. NUGENT, one of the Inspectors of Lunatic Asylums in Ireland, recently visited the lunatic department of the Cork Workhouse, and, in his report to the guardians, states that there were 35 males, two of whom were epileptic, and the remainder hopelessly demented. In the female wards, there were 110, 20 of whom were epileptic, and 90 either idiotic or chronically insane, without any reasonable expectation of mental improvement. He does not see the expediency of transferring, as proposed, 25 of the present inmates to the district asylum, as any acute or dangerous patient can be at once admitted by the resident physician. The new day-room about to be constructed will prove most beneficial; and he advises running a transverse two-storied building for 26 or 28 beds at the end of the airing yard. After some discussion, the following resolution was adopted: "That we request the medical officers to carry out the order made by the board on the 7th April, to the effect that the medical officers be requested to make out a list of those lunatics at present in the house who are capable of being cured or improved." From Dr. Nugent's report, the cases in the Cork Workhouse are not suitable cases for a district asylum; but, as the guardians do not receive any capitation-grant from the Government, it may explain their wish to have them transferred to the county asylum.

CORK DISTRICT LUNATIC ASYLUM.

THE guardians of the Cork Union had arranged for 25 lunatics to be transferred from the workhouse to the district asylum, but Dr. Nugent, an Inspector of Lunatic Asylums in Ireland, does not appear to be in favour of the proceeding. His objections are, first, that the cases to be removed being chronic and incurable cases, cannot well be benefited in the district asylum, and that the poor-house is the proper receptacle for them. Secondly, that a recent inspection shows that there were 914 inmates in the asylum, and that, as 930 beds are about the nominal number available, having a due regard to all exigencies, the proposed transfer of 25 chronic patients, when violent and urgent cases may be excluded is most injudicious. At a meeting of the governors this week, it was stated that Dr. Eames, the medical superintendent, had selected 23 inmates, and the Board desired to know from him whether these additional inmates ought to be admitted. Dr. Eames stated that, at present, there were 921 inmates in the asylum, and that he considered the institution overcrowded. As the chairman pointed out that if the Board acceded to the view that the workhouses were

to be relieved of the care and maintenance of paupers, idiots, and harmless lunatics, there would be no end to the extent of enlarging the asylum. After some discussion it was decided to admit the 23 inmates, and it was referred to the House Committee and Dr. Eames as to the advisability and necessity of increasing the accommodation of the house.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At an extraordinary meeting of the Council on Thursday, July 3rd, 1885, the Council having confirmed their resolution of the 11th ult., removing a person practising in New Zealand, convicted of felony, from being a Member of the College, it was resolved that the person in question be informed of the resolution, and be called upon to return his diploma; and that the Secretary do inform Mr. Miller, Registrar of the General Council of Medical Education and Registration of the United Kingdom, of the resolution.

A report, dated June 19th, from the Joint Building Committee of the Royal Colleges of Physicians and Surgeons, was then read. It announced the failure of the negotiations with the agent of the Duke of Bedford for a lease of a plot of ground situated in Long Acre; and a recommendation that the two Colleges jointly do take on lease for 99 years, at a ground rent of £2,200 *per annum*, a piece of land now to be let facing the Embankment Gardens, bounded on the east by Savoy Street, on the west by Savoy Hill, on the north by a block of chambers, and on the south by Savoy Place. This piece of land comprises an area of 22,740 square feet, and the land-tax is redeemed.

A letter of the 25th ultimo, from Mr. Edwin William Alabone, was read, in reply to the communication addressed to him in pursuance of the resolution of the Council of the 11th ultimo, denying that he has ever made any secret of his original discovery for the cure of consumption; stating that, with reference to the passage in his work complained of by the Council, he had no idea that it constituted an offence against the by-laws, expressing his deep regret at having published it, and intimating his willingness to withdraw it. The Council accepted Mr. Alabone's explanation of the circumstances under which the objectionable passage was published; and, in consideration of the deep regret he has expressed at having thus committed an offence against the by-laws, they would not at present take any further action in the matter, on condition that he should at once withdraw from circulation all the copies of his work which contain the objectionable passage, and that he should submit to the Council, for inspection, any new edition which he may intend to publish.

A letter was read from Mr. Thomas Clarkson, of Darley, Ripley, in reply to a letter addressed to him in pursuance of a resolution of the Council of the 11th ultimo, stating that he considers it rather arbitrary that the Council should require him to discontinue the issue of his advertisements after his having explained the nature of his remedy; and that, having paid for advertising to the end of the year, he can only promise to seriously consider the question when that time arrives. The Council having considered the case, it was moved and seconded that the advertisements issued by Mr. Thomas Clarkson were prejudicial to the interest and derogatory to the honour of the College, and disgraceful to the profession of surgery; and that, in consequence of the issue thereof by him, and his refusal to discontinue them, he be removed from being a Member of the College.

At a quarterly meeting of the Council, held on Thursday, July 5th, the minutes of the preceding meeting were confirmed.

Drs. Bristowe, Dickinson, Gee, and F. T. Roberts were re-elected examiners in medicine, and Drs. John Williams and G. E. Herman examiners in midwifery, for the ensuing year.

Mr. Henry Power and Mr. W. Cadge were elected joint Professors of Surgery and Pathology. Messrs. Stewart, Brailey, Alex. Hill, and Treves were elected Professors in Comparative Anatomy and Embryology.

Dr. Woodbridge was elected Lecturer on Anatomy and Physiology, and Mr. Bland Sutton Erasmus Wilson Lecturer in Pathology.

Mr. Savory was unanimously elected President of the College for the ensuing year, Mr. Wood and Mr. Henry Power Vice-Presidents.

A special vote of thanks was awarded to Sir James Paget, for his services in the revision, correction, and completion of the Catalogue of the Pathological Collection in the Museum of the College. The vote was moved by Sir T. Spencer Wells, seconded by Mr. Marshall, and carried unanimously.

Mr. Marshall gave a special notice of motion that the Council should, by some permanent record, show their appreciation of the voluntary services of Sir James Paget for over forty years in the Museum of the College.

CHOLERA.

THE CHOLERA IN SPAIN.

Our correspondent writes from Valencia: The cholera has spread rapidly in this city and province in the last week, and has equally increased in fatal intensity. It has now entered the upper and mercantile classes, and in numbers of cases its work has been sudden, sharp, and short. People of all ages are cut down in from four to 12 hours; and if they survive 36 or 40 hours, by far the majority of these recover. The only sheet-anchor of treatment that I hear of is "laudano de Sidenham" and the disinfectants. Crude phenic acid and chloride of lime, called here "polvos de gas." In the suburbs of this city, the places most severely scourged are the Grao or harbour of Valencia and Cabañal. These are both two miles from this, to which runs a tramway every eight or 10 minutes. They also join on to each other. The latter is the great sea-bathing quarter of the Valencianos; and at the former there are large floating baths. Both localities are without a shadow of drainage; all the filth and garbage of the houses are thrown into the streets, and when a fall of rain occurs (which has been the case since my last letter), the black stinking mud and filthiness are indescribable. All the houses are damp and offensive and dark. There could not be a better breeding-ground for any kind of zymotic germs. The inhabitants are fishermen of the dirtiest type, harbour-labourers, with a sprinkling of store-keepers. The disease has been most virulent in the Cabañal, and the Cholera Hospital has been full to overflowing, as also the one at the Grao.

I am sorry indeed to state that some of our countrymen have been cut off in the last three or four days. Captain Nicol (of Glasgow, whom I knew), of the steam-dredger *España*, going on shore, was seized in the street, where he fell down attacked, and was allowed to remain there three hours, although people were passing; when one of the men from the dredger saw him, and dragged him to the hospital, where he was denied admittance. He was then taken to an empty schoolroom, where he died, 30 hours later, and was buried in the common grave. The cook of the steamship *Ross* also died in a few hours; also a Norwegian; and yesterday a young Englishman, whose parents live here, and are iron-founders. He was cut off in 20 hours.

The death-rate to-day shows for this city and province 783 attacks and 412 deaths, which is a fearful increase since my last notice. I told you the troops were then all right. Within the last two days, the Colonel and also the Commandant of the regiment "Biscaya" have fallen victims, and 12 or 14 of their men. We have in this city 8,000 troops of all arms, and I am told to-day that the bulk of the men have orders to disperse to their homes. The municipality have been compelled to hire all the men that offer to guard the houses, that is, to see that they are isolated, as their staff of police was not sufficient for the duty. The disease is assuming a fearful aspect among asylums of various kinds, and also in the schools and colleges, in and about this city. To-day, I see it has broken out in the Orphan Asylum of San Vicente Ferrer (the patron saint of Valencia), which is a large establishment for the education of boys. The panic in this city is simply indescribable. People are afraid to go out into the streets, and the better classes simply shut themselves up in their houses, and will neither take in their accustomed newspaper, or allow the word "cholera" to be uttered. People are still fleeing north, and the Barcelona train is crowded daily with the panic-stricken. I know two men who, after they were inoculated, fled from their houses, leaving their wives and children. In the city and province of Murcia, matters are equally bad, if not worse; but what surprises me much is, that cholera has taken a sudden leap into the Royal summer quarters of Aranjuez, attacking yesterday 201, and killing 70. A very few days of such work will kill every one in the place. King Alfonso, without leave, made his escape to the place, to visit the sick, returning the same day, and has got his ministers into a broil for allowing him to do so.

I had a letter from an old friend, surgeon to the Lead Mining Company in Linares, Andalusia, who informs me as yet no case has occurred there, and that Cordova and Seville are also free as yet.

I dare say, by the time this reaches you, you will have the details of the falling through of, or the sudden return of, the French Commission sent here to study and examine into Dr. Ferran's cholera-inoculation, the chief being Dr. Brouardel. They left this suddenly the day before yesterday. I believe they expected to be here a month. The Ferranist paper, *Las Provincias*, gives as the reason for their hurried departure that Dr. Ferran refused to let them into the secret of how he attenuates his cultures for inoculation. Its adversaries state that the Commission found nothing to study worthy of science

and left in disgust. Since Dr. Ferran has again been permitted to inoculate, large numbers crowded his place for two or three days. I expect to see, in a short time, the whole so-called "grand discovery" exploded, seeing that both the inoculated and re-inoculated send their quota of victims to the cemetery. As yet, not one word do we hear of a case in Cataluña. What and when the end of this invasion will be God only knows! If it is so very bad now, at the beginning of the hot season, none can foretell what it may be by the middle of August.

A DECREE gazetted, Paris, July 8th, requires any person receiving a traveller from Spain, to notify the fact to the Municipality. Posts of observation are also to be created near Toulouse, Foix, and Perpignan.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTemperance.—A schedule of inquiry upon this subject has been prepared by the

Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTH OF ENGLAND BRANCH.—The annual meeting of the North of England Branch will be held at Hexham, on Thursday, July 16th.—DAVID DRUMMOND, Honorary Secretary.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting will be held at Braintree, Friday, August 7th, at 2.30 P.M. Dr. Elliston, of Ipswich, President of the East Anglian Branch, will preside. Agenda.—1. To decide time and place of next meeting. 2. President's address. 3. The Radical Cure of Hernia, by C. B. Keetley, Esq., London. 4. Notes on a Case of Myxedema, by C. E. Abbott, Esq., Braintree. 5. Twin Abortion, by J. Sinclair Holden, M.D., Sudbury. 6. A short Account of the New Association of Members of the Royal College of Surgeons, by C. E. Abbott, Esq., Honorary Secretary of the Association for Essex. 7. Coxeter's Obstetric Vade Mecum will be shown by Mr. Abbott. After the meeting there will be high tea at the Horn Hotel. Any member wishing to be present, or to read a paper, or to exhibit a case, is requested to notify his intention to the honorary secretary on or before Tuesday, August 4th.—WILLIAM THOMAS JACKMAN, Coggeshall, Essex, Honorary Secretary.

SOUTHERN BRANCH: SOUTH WILTS DISTRICT.—The annual meeting of this district will be held at the Angel Hotel, Salisbury, on Wednesday, July 22nd, at two o'clock. Luncheon will be provided at one o'clock. Members intending to be present, or wishing to read papers, are requested to communicate as soon as possible with the Honorary Secretary, H. J. MANNING, Laverstock House, near Salisbury.

YORKSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Town Hall, at Halifax, on June 24th; W. ALEXANDER, M.D., President, in the chair.

President's Address.—THE PRESIDENT, after being introduced by the retiring President, Mr. Knaggs, gave a short address.

Having welcomed the members to Halifax, the President referred to the profession of medicine as one attended by a high standard of mortality. This he attributed chiefly to the cares and anxieties for success in practice, and the overtaxing of the mental and bodily powers, combined with exposure and fatigue. In addition, there was the necessity, often attended with difficulty through limited means, of maintaining a proper social status. Notwithstanding these depressing agencies, a sense of honour would deter the medical practitioner from availing himself of any discreditable acts to achieve an unmerited reputation. An union of skill, zeal, and sympathy with the sick of every class was expected, and no doubt scientific knowledge improved confidence; and it behoved the members of the medical profession to keep up their acquaintance with real improvements in the art of medicine. Taking a retrospective view through a period of more than fifty years, Dr. Alexander said that in his early days the magic of names—as those of Cullen and Brown—was omnipotent, and blood-letting and purgatives constituted the principal treatment of the day. Since that time, the labours of many minds through many years had resulted in the general advancement of medicine. The clinical thermometer, the microscope, the urinary test-case, all of comparatively recent origin, were now regarded as indispensable; they proclaimed the steady advance made in the healing art in recent years. The President then referred briefly to the improvements in therapeutics, and to the increase of candidates for degrees in science, literature, and medicine in the universities. In conclusion, he referred to the admission of women to degrees, as foreshadowed by Tennyson, and showed a portrait of a lady graduate of the University of London, in which she was represented with her hand resting on a human skull.

Report of Council.—On the motion of Dr. CLIFFORD ALBUTT and Mr. MCGILL, the following report of the Council was adopted:

"The Council of the Yorkshire Branch do not feel that they have much to report of the proceedings of the last year. For the first time, four, instead of three, meetings were held. Owing to a mistake on the part of the Secretary, the Batley meeting was not as successful as it would otherwise have been.

"The Council have to regret the greatly to be lamented death of Dr. Tibbits, of Bradford. He was attentive at its meetings, and thoroughly interested in all branches of medical science, and in the work of the Yorkshire Branch. Owing to his death, and owing to other unforeseen circumstances, the committee appointed at Scarborough have not been able to report on the treatment of infectious diseases in the borough hospitals of Yorkshire.

"The Council beg to express their sincere thanks to their *confrères* in Halifax for relieving them of a difficulty about the annual dinner by guaranteeing the expenses.

"The Council have again to regret that, though Parliament has sat since November last, no time has been found for Mr. Mundella to bring in his Medical Reform Bill.

"The Council recommend that the next annual meeting be held at Bradford."

Representatives on the Council of the Association.—Messrs. T. R. Jessop (Leeds), and Arthur Jackson (Sheffield), were re-elected Representatives of the Branch on the Council of the Association.

Next Annual Meeting: President-elect.—It was carried, on the motion of Mr. MIALl and Dr. LEEK: "That the next annual meeting be held at Bradford, and that Dr. Goyder be the President-elect."

Officers and Council.—The following officers were elected. *President:* W. Alexander, M.D., Halifax. *President-Elect:* D. Goyder, M.D., Bradford. *Secretary and Treasurer:* Arthur Jackson, Esq., Sheffield. *Permanent Vice-Presidents:* T. C. Allbutt, M.D., F.R.S.; J. Ball, Esq.; M. de Bartolomé, M.D.; W. Burnie, M.D.; W. F. Favell, Esq.; S. Hey, Esq.; Arthur Jackson, Esq.; T. R. Jessop, Esq.; J. Keeling, S. Knaggs, Esq.; W. Matterson, M.D.; R. H. Meade, Esq.; P. E. Miall, Esq.; S. W. North, Esq.; T. Pridgin Teale, Esq.; C. G. Wheelhouse, Esq. *Council.*—York: J. Ramsay, M.D. Bradford: D. Goyder, M.D.; A. Rabagliati, M.D. Sheffield: W. Dyson, M.D.; G. S. Taylor, Esq. Scarborough: C. F. Hutchinson, M.D. Halifax: T. M. Dolan, M.D.; Solomon C. Smith, M.D. Leeds: E. Atkinson, Esq.; C. J. Wright, Esq. Wakefield: S. Holdsworth, M.D. Barnsley: M. T. Sadler, M.D. Ripon: R. M. Bowman, Esq. Harrogate: G. Oliver, M.D. Rotherham: J. Hardwicke, M.D. Huddersfield: J. S. Cameron, M.D. Hemsworth: T. M. Leak, Esq. Heckmondwike: F. B. Lee, Esq.

Vote of Thanks.—Dr. S. C. SMITH proposed, and Dr. Mossor seconded, the following resolution, which was carried unanimously: "That the best thanks of the meeting be given to the Mayor for his kindness in granting the use of the Council Room for the meeting."

Papers.—The following papers were read.

1. Dr. James Braithwaite: A third Case of Gastrotomy for Extra-uterine Gestation.
2. Dr. J. W. Eastwood: A Case of Overpressure in a Female.
3. Dr. Dolan: Medical Sick and Benefit Society.
4. Dr. Clifford Allbutt: A Case of impending Death from obscure Cardiac Disease permanently relieved by Caffeine.
5. Mr. E. Atkinson: Gunshot-Wounds of the Head in Civil Practice.

ABERDEEN, BANFF, AND KINCARDINESHIRE BRANCH: SUMMER MEETING.

The summer meeting of this Branch was held in the Gardenstone Arms Hotel, Laurencekirk, on Thursday, June 25th, at 3.30 p.m. There were 34 members and guests present; and the chair was taken by the President, Dr. KEITH, of Aboyne.

New Members.—Dr. Scott and Dr. Cheyne of Aberdeen were unanimously elected members of the Branch; and Dr. Stewart, H.M.S. Clyde, Aberdeen, Dr. Faulkner, of Rhynie, and Dr. Oliphant Walker, of Skene, were nominated for election at the annual meeting.

Communication on Intemperance.—A letter from Dr. Isambard Owen, Secretary to the Collective Investigation Committee, calling attention to the Inquiry into Habits of Intemperance, was submitted to the meeting, and the schedules of the Collective Investigation Committee thereon distributed.

Arab Medicine and Surgery in the Soudan.—Professor OGSTON, the President-elect, delivered a most interesting address on this subject, and gave an account of the life of the Soudanese, which he illustrated

by a number of objects, including amulets, weapons, articles of dress, riding gear, ornaments, etc., brought from the seat of war. He described the superstitions and religious rites of the Arabs, their modes of warfare, and their treatment of diseases and injuries, and adverted to the difficulties encountered by our medical staff in the discharge of their duties in the Soudan. At the close, a very hearty vote of thanks was accorded to Professor Ogston for his interesting address.

Excursion.—A number of the members, after being hospitably entertained by Dr. Ironside, of Laurencekirk, took part in an excursion from Laurencekirk to Den Finella in the forenoon, and the party was photographed in Den Finella, and afterwards at Laurencekirk, by Dr. Mackenzie Davidson, of Aberdeen.

Dinner.—After the meeting, the party dined together at the Gardenstone Arms, where the chair was again taken by Dr. Keith. A vote of thanks to Dr. Keith brought the meeting to a close, and the party returned to Aberdeen in the evening.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Hospital, Swansea, on June 23rd, 32 members being present.

Vote of Thanks.—Dr. SHEEN (Cardiff), the retiring president, having vacated the chair to give place to Mr. GEORGE A. BROWN (Tredegar), the incoming president, a cordial vote of thanks was unanimously accorded to Dr. Sheen for his services as president during the past year.

Report of Council.—The following report was received and adopted.

"The Council of the South Wales and Monmouthshire Branch herewith present you with its fifteenth annual report.

"Since the last annual meeting at Cardiff in June, 1884, we have had one meeting at Abergavenny in October, and one at Pontypridd in April of this year. Both meetings were well attended, especially the latter, owing to the attraction of a discussion on Chorea, opened by Dr. Isambard Owen, Secretary to the Collective Investigation Committee. At this meeting also, a discussion took place relative to the desirability of establishing a medical school at Cardiff, in connection with the South Wales and Monmouthshire University College, and an opinion in favour of such a school, which shall, for the present, carry a student on to the first M.B. Lond., was almost unanimously expressed. Six representatives of the Branch were appointed on a joint committee to confer with the College authorities on the possibility of forming such a school.

"The arrangements for the annual meeting of the Association at Cardiff in July are progressing satisfactorily, and there is every prospect of the meeting being a successful one.

"A statement of account is appended herewith, which shows a balance in hand of £21 2s. 4d.

"The number of members has increased to 195.

"The autumn meeting will be held at Tredegar, and the spring meeting at Carmarthen. The next annual meeting will be at Cardiff."

New Members.—The following were elected members of the Association and Branch: H. Harlock, The Infirmary, Brecon; W. P. Dester, Grangetown, Cardiff; Wm. Williams, Tylorstown, near Pontypridd. The following were also elected members of the Association: E. S. Wood, Pontypool; Rees S. E. Davies, New Tredegar; R. R. Hunter, Bridgend Asylum; R. C. Hunter, Pontypridd; J. H. Turner, Cardiff.

Election of Officers.—The following were unanimously elected. *President Elect:* H. N. Davies, Esq., Cymer. *Members of Council:* Talford Jones, M.B.; W. T. Edwards, M.D.; Eben Davies, Esq.; J. F. Fry, Esq. *Honorary Secretaries:* A. Sheen, M.D., and D. Arthur Davies, M.B. *Representative of the Branch on the Council:* Alfred Sheen, M.D.

President's Address.—The President delivered an able and interesting address, which dwelt chiefly with the teaching value of the mistakes which are made in practice, and with "specialism."

Papers.—The following were read.

1. Dr. Griffiths (Swansea) made some remarks on a new method of operating in cases of Intra-uterine Polypi, and showed a new Uterine Endoscope.
2. Mr. Rawlings (Swansea) read a paper on some Dietetic and Therapeutic Agents.

EDINBURGH BRANCH: ANNUAL MEETING.

The annual meeting of the Edinburgh Branch was held on June 23rd, Surgeon-Major BLACK presiding.

Branch Council.—Professor Chiene was elected the Representative of the Branch on the Council of the Association, and Dr. Gibson on the

Parliamentary Bills Committee. Drs. J. W. Moir (St. Andrew's), Smart, Bramwell, and J. Jamieson, were elected members of the Branch Council, in room of Mr. A. G. Miller (resigned), and Drs. Wilson, Playfair, and Ronaldson, who retired by rotation.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Old Anatomical Museum, Cambridge, on Friday, June 12th, 1885; W. A. ELLISTON, M.D., President, in the chair.

Council, etc.—Mr. T. W. Crosse (Norwich), and W. A. Elliston, M.D. (Ipswich), were elected Representatives of the Branch in the Council of the Association. The ex-President, Mr. Symmons (Colchester), was elected a permanent Vice-President of the Branch. The Branch Council was re-elected, with the addition of Mr. F. Haward.

Report of Council.—The report of the Branch Council was received and adopted. It included the election of several new members; the approval of a code of rules for the Essex district of the Branch, recently established, with Mr. Jackman as Honorary Secretary; the appointment of Ipswich as the place for the annual meeting of 1886; and the re-election of Dr. Elliston as President.

The members afterwards joined the Cambridge and Huntingdonshire and South Midland Branches in a combined meeting.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

The Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.R.C.S., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar; Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh.

Vice-Presidents: J. Talfourd Jones, M.B., Brecon; W. Muriel, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M. Meeting of 1884-85 Council. Council Chamber, Town Hall.

3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.

5 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.

11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.

2 to 5 P.M. Sectional Meetings.

5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.

8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.

11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.

11 A.M.—Sectional Meetings.

2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.

3.30 P.M.—Music and Refreshments at the Windsor Gardens, Penrith, by invitation of Lord Windsor.

5 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

The following discussions and papers are promised up to the present time. Members desirous of reading papers or joining in the discussions are earnestly requested to communicate, without delay, with the Secretaries of the respective Sections, as the date of the annual meeting is a week earlier than usual.

SECTION A.—MEDICINE.

The following subjects have been chosen for special discussion.

1. The Clinical Aspect of Glycosuria. Introduced by F. W. Pavy, M.D. Dr. J. Milner Fothergill, Professor P. W. Latham, Dr. C. H. Ralfe, and Dr. G. H. Savage, will take part in the debate on this subject; and Dr. E. Markham Skerritt will contribute a paper on Acute Febrile Glycosuria.

2. The Treatment of Acute Rheumatism. Introduced by J. S. Bristowe, M.D. Dr. Sidney Coupland, Professor P. W. Latham, Dr. G. B. Barron, Dr. C. H. Ralfe, and Dr. E. Markham Skerritt, will speak in the discussion.

The following papers have been promised.

BRAMWELL, BYROM, M.D. 1. On Right-Sided Endocarditis. 2. (a) Demonstrations of Ulcerative Endocarditis; (b) Microscopical Sections and Drawings of (c) Cardiac Vegetations; (d) Kidneys; (e) Spleen; (f) Skin; (g) Choroid Coat of the Eye; (h) Membranes of the Brain; (i) Brain showing Micrococci.

COUPLAND, SIDNEY, M.D. On Gangrene of the Lung.

DRUMMOND, E., M.D. 1. Malarious Melanemia. 2. The Influence of Geographical Position upon the Phenomena of Fever.

DRYSDALE, C. R. M.D. 1. The Treatment of Syphilis, and the alleged Prevention of Tertiaries. 2. On the Hygienic Treatment of Phthisis.

FOOTHERGILL, J. MILNER, M.D. When a Patient Dies of Exhaustion, of what does he Die?

GRIFFITHS, T. D., M.D. The Causes of the Localisation of Tubercle in the Apex of the Left Lung.

HARPER, H., M.D. 1. Extraordinary Coma in a Child. 2. Abnormally Shaped Skull.

HARRISON, A. J., M.B. A New Method of Treating Tinea Tonsurans.

MYRTLE, A. S., M.D. Syphilitic Eruptions; their Successful Treatment by Mercury and the Sulphur Springs of Harrogate, after the Method practised at Aix-la-Chapelle.

MYRTLE, J. A., M.B. Cutaneous Eruptions traceable to Central and Local Nerve-Influences.

PAVY, F. W., M.D. Albuminuria in the apparently Healthy.

RABAGLIATI, A. C. F., M.D. A Criticism of the New Nomenclature of Disease.

SEEN, A., M.D. Some Points in the Treatment of Enteric Fever.

SKERRITT, E. MARKHAM, M.D. Cases illustrative of Rupture of the Pulmonary Air-Vesicles.

SMITH, R. SHINGLETON, M.D. On Intrapulmonary Injections.

STEPHENS, LOCKHART, ESQ. 1. A Case of Simple Stenosis of the Oesophagus, with specimen. 2. A Rare Form of Congenital Heart-Disease.

STRACHAN, J., M.D. Puzzling Conditions of Heart and other Organs dependent upon Neurasthenia.

STRATON, C. R., ESQ. Chorea; its Pre-choreic Stages.

TATHAM, J., M.D. The Registration of Cases as carried out at the Hospital for Chest Diseases and Consumption, Brompton, and the Investigations proposed to be specially worked out.

SECTION B.—SURGERY.

The following discussions will take place.

1. A discussion on Bladder-Tumours, their Diagnosis and Treatment

will be introduced by Mr. Reginald Harrison. The following gentlemen have expressed their intention to take part in the debate: Professor Guyon (Paris), Dr. Stein (New York), Messrs. Knowsley Thornton, Swinford Edwards, Walter Whitehead, F. T. Paul, and Hugh R. Ker.

2. Mr. F. Treves will introduce the subject of Operative Interference in Intestinal Obstruction. The following gentlemen will join in the discussion: Messrs. Lawson Tait, Greig Smith, A. F. McGill, Alfred Eddowes, A. W. Mayo Robson.

The following papers are promised.

ADAMS, W. Esq. Observations on the so-called Congenital Dislocation of the Hip-Joint.

BALL, C. B., M.D. Melanotic Sarcoma of the Rectum.

BISHOP, E. Stanmore, Esq. Enterorraphy, with a Description of a New Form of Suture.

CAHILL, T. E., Esq. The Latest Surgical Dressings.

COUSINS, J. Ward, M.D. 1. The Treatment of Infantile Hernia, and a New Washable Splint. 2. The Treatment of Retention of Urine with a Capillary Catheter.

FRANKS, Kendal, M.D. The Application of Permanent Dressings in Antiseptic Surgery.

FRY, J. Farrant, Esq. Cure of Varices by Excision.

HUNT, De Vere, Esq. Rupture of the Kidney; Football Accident; Recovery.

JAMES, J. Brindley, Esq. On the Treatment of Lumbago and Rheumatic Pains by his Percutor.

KEETLEY, C. B., Esq. The Radical Cure of Hernia by Injection.

OWEN, Edmund, Esq. Caries of the Cervical Vertebra.

ROBSON, A. W. Mayo, Esq. Case of Enterectomy for Acute Intussusception; also a series of Surgical Cases illustrating the Use of the Eucalyptus-Air, and Dry Dressings.

ROTH, Bernard, Esq. Two Hundred Consecutive Cases of Lateral Curvature of Spine treated without Mechanical Supports.

SHEEN, A. M.D. Strangulated Hernia, with Cases.

SNOW, H. L., M.D. The Non-Hereditary of Cancer.

STEPHENS, Lockhart, Esq. Suicidal Injury to the Stomach; Death from Internal Hemorrhage.

THOMAS, J. Davies, Esq. (South Australian Branch). Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac, and subsequent Free Drainage, based upon Thirty-two Cases.

A recent dissection and other specimens will be exhibited by Dr. Bennett.

SECTION C.—OBSTETRIC MEDICINE.

An Introductory Address is promised by the President.

The subjects chosen for discussion are the following.

1. The Mechanism and Management of the Third Stage of Labour, introduced by Dr. Berry Hart, M.D. Dr. Hart will use the Oxy-hydrogen light in illustration of his paper. Dr. A. E. Aust Lawrence has promised to take part in the discussion. Dr. A. H. Freeland Barbour contributes a paper on the Anatomy of the Placental Site, with reference to the Third Stage of Labour and the First Days of the Puerperium.

2. The proper sphere of Constitutional and Topical Treatment in certain forms of Uterine Disease. Introduced by Dr. W. S. Playfair. Dr. Priestley, Dr. Clifford Allbutt, Dr. Imlach, Dr. A. E. Aust Lawrence, and Dr. D. Lloyd Roberts, are expected to take part in the discussion; and a paper is contributed by Dr. More Madden, on the Correlation of Topical and Constitutional Treatment in Gynæcological Practice.

The following papers are promised.

DAVIES, D. A., M.B. Short Notes of a Case of Chronic Inversion of the Uterus.

GRIFFITH, G. de G., Esq. The Arrest of Post Partum Hemorrhage.

IMLACH, Francis, M.D. On Pregnancy in Double Uterus, with a Successful Case of Porro's Operation.

KERR, Norman, M.D. Hot-water Injections in Post Partum Hemorrhage.

LAWRENCE, A. E. Aust, M.D. On the Septic Origin of Pelvic Inflammations.

MADDEN, T. More, M.D. On Ovarian Displacements.

PRIESTLEY, W. O., M.D. On the Occasional Latency and Insidiousness of Grave Symptoms in connection with the Puerperal State.

REID, W. L., M.D. The Duty of Consultant and Practitioner in Relation to Puerperal Fever.

Dr. Simon Fitch (Halifax, Nova Scotia) has signified his intention of bringing before the Section his Gynæcological Inventions and Discoveries.

SECTION D.—PUBLIC MEDICINE.

The President, Mr. T. J. Dyke, will deliver an address.

The following papers are promised.

AITKEN, L., M.D., Rome. A communication on the result likely to be obtained from the recent meeting of the International Sanitary Conference on Cholera at Rome.

DAVIDSON, J. H., M.B. Summer Diarrhoea of Children.

DAVIES, J. W., Esq. The Natural Elements the most Reliable Disinfectants.

DRYSDALE, C. R., M.D. The Influence of Comfort in Lowering the Death-Rate.

GRIFFITH, G. de G., Esq. On Unity and Differentiation in Disease, and Unity of Poison in Diseases usually considered Separate and entirely Distinct; Evolution from one Unity or Common Origin, and of one Disease from another apparently quite Different.

JAMES, J. Brindley, Esq. Are Coroner's Juries Necessary?

LYOYD-ROBERTS, J., M.B. Epidemic Pneumonia.

MARTIN, J., Esq. Over-pressure in Schools and Home-Lessons.

MAUNSELL, J., M.D. The Various Schemes of Medical Aid, with a view of their Adaptation to the Requirements of the Present Day.

PAINE, H. J., M.D. Cholera and other Zymotic Diseases in their Relationship to Sanitation; Practically Illustrated.

PRINGLE, R., M.D. Cholera.

SWETE, H., M.D. A Real Danger, where there is a Constant Service-Supply of Water, of Disseminating Enteric Fever. Illustrated by an Exhibit.

VACHER, F., Esq. Is Summer Diarrhoea of Children One Disease or Many?

WELCH, H., M.B. (Title not communicated.)

WRIGHT, S. H., M.D. Some Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement.

SECTION E.—PSYCHOLOGY.

The following papers are promised.

CAMPBELL, J. A., M.D. Treatment of Maniacal Excitement.

MICKLE, W. J., M.D. Brain-Disease of Traumatic Origin; Cases.

TUKE, D. Hack, M.D. Lunacy Legislation.

SECTION F.—OPHTHALMOLOGY AND OTOTOLOGY.

OPHTHALMOLOGY.

Dr. Arthur Benson will open a discussion on Atrophy of the Optic Nerve other than Glaucomatous. The following gentlemen will take part in the discussions: Messrs. Edgar Browne, Frederick Mason, W. Charnley, M. M. McHardy, Frank Hodges, and Simeon Snell.

The following papers are announced.

ANDREW, Edwyn, M.D. Extirpation of the Eyeball.

BRAILEY, W. A., M.D. On Stretching of the Supra-trochlear Nerve.

HARTBRIDGE, G., Esq., The Direct Examination of the Cornea and Lens.

HEWETSON, H. B., Esq. 1. Antiseptic Precautions during Cataract and other Operations on the Eye, by means of Mr. Mayo Robson's Dry Eucalyptus Spray followed by Antiseptic Dressings. 2. The Treatment of Interstitial Keratitis by Syndetomy in the Acute and Semi-acute Stages, without the Assistance of Specific Medicines or Counter-irritants.

MILES, P. H., M.D. Evisceration of the Eyeball.

SNELL, Simeon, Esq. On the Causes of Blindness in the Innates of and Workers at Blind Institutions; 111 cases.

TAYLOR, C. Bell, M.D. 1. Precis of One Thousand Cases of Cataract-Extraction.

2. On the Treatment of Symblepharon by Epidermic Grafts.

OTOLOGY.

Dr. F. M. Pierce will open a discussion on the Pathology and Treatment of Affections of the Ear termed Menière's Disease.

Dr. Woakes will open a discussion on Syphilis a Factor in Ear-Disease.

The following paper has been promised.

COUSINS, J. Ward, M.D. A New Inflator, Evacuator, and Injector; with Remarks on Chronic Middle Ear-Disease.

HEWETSON, H. B., Esq. On the Immediate Improvement of Hearing following Division of Cicatrices in the Membrana Tympani.

SECTION G.—PHARMACOLOGY AND THERAPEUTICS.

The following arrangements have already been made in this Section.

1. The President, Professor Fraser, F.R.S., will deliver his introductory address.

2. Professor Leech will open a discussion on the Duration of the Action of Medicines.

3. Dr. Talfourd Jones, Vice-President, will open a discussion on Hypodermatic Medication.

4. Dr. E. Long Fox will open a discussion on the Action of Diuretics.

5. The President will open a discussion on the Action and Uses of Digitalis and its Substitutes.

Dr. Stockman will demonstrate the Action of some members of the Digitalis Group. Professor Hay will contribute a paper on this subject. Dr. Talpade will take part in this discussion.

Professor Hay will open a discussion on the Nitrites.

A debate on Anaesthesia, General and Local, will be opened by Dr. Dudley Buxton, followed by Professor John Chiene and Dr. Milne Murray, Mr. Woodhouse Braine, Mr. Bailey, Mr. Marcus Gunn, and Dr. Redwood. In connection with the debate on Anaesthesia, demonstrations of various anaesthetics and apparatus will be given.

Dr. Carl Köller, of Vienna, and Dr. Dujardin-Beaumetz, of Paris, will attend and take part in the proceedings of this Section.

Gentlemen are invited to take part in the proceedings of this Section by joining in the discussions arranged, or contributing papers. Early intimation is requested to be made to one of the Secretaries of the Section. Short abstracts of papers to be forwarded to the Secretaries not later than July 23rd.

The following papers have been promised.

AITKEN, Lauchlan, M.D. Subcutaneous Injection of Salts of Quinine and Ergotine.

CURRIE, A. S., M.D. The Antagonism between Ether and Chloroform and Ether and Amyl-Nitrite.

KERR, Norman, M.D. Ought Alcohol to be prescribed? and how?

MAKUNA, M.D., Esq. Short Notes on Extract of Quebracho.

RAWLINGS, J. A., Esq. Dietary of Infants.

The Section will be asked to consider a proposal of Dr. Balthazar Foster, made through the Collective Investigation Committee, that this Section should discuss New Remedies, and make a selection for further investigation, in conjunction with the Collective Investigation Committee.

*** Members intending to visit Cardiff during the Meeting, are requested to send in their names, and stating if accompanied by ladies, as soon as possible, to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Hulsewell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

In order to facilitate the arrangements for the excursions, members in sending in their names, should state if intending to go to any of the following excursions.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.30. Here carriages will be in readiness to drive to Chepstow Castle, and then to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 p.m., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.40. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7.20 p.m., and reach Cardiff at 8.20 p.m. If preferred, those returning home eastwards may stop at Newport, and catch the mail at 9.5. Arrangements will be made about luggage.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taff Vale Railway Station at 8.20 A.M., and proceed by steamship *Sherbro*, from the Pier Head at 8.40 A.M., reaching Burnham at 10.30 A.M. At 10.40, the party will leave by train for Glastonbury, which will be reached at 11.15 A.M. The ruins of the Abbey will be visited. In the cemetery, tradition says, are buried King Arthur and his Queen, Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 1 p.m., the party will leave by train for Wells, reaching that station at 1.16 p.m. Luncheon will be served at 1.30 p.m., at the Swan Hotel, Wells, after which the Cathedral will be visited. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Afternoon tea will be provided at 5 p.m., at the Swan Hotel, and at 6 p.m. the return train will leave Wells; and the steamer will leave Burnham for Cardiff at 7.30 p.m., reaching there about 9.20 p.m.

3. *Caeprhilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, a special train will be arranged over the Taff Vale Railway, and down to Caeprhilly Castle by the Rhymney Railway, where refreshments will be provided. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion. Caeprhilly Castle is one of the largest and grandest old ruins in the kingdom. (The arrangements for this excursion are not yet complete.)

4. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is an elevated cliff, standing 600 feet above the sea-level, and renowned for the singular view which it commands of the numerous and beautiful mazes of the river Wye. The Speech House is charmingly situated in the midst of the Forest of Dean, and is surrounded with forest-drives and open glades. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30. At Newport, they will change into the ordinary train for Symonds Yat, which leaves at 11.5, and reaches Symonds Yat at 12.46. Luncheon at 1 p.m. at the Symonds Yat Refreshment House. Tea at 5.30, at Speech House. The party will walk a distance of two miles to Lydbrook Junction, in time to catch the 3.20 train for

Speech House, which will be reached at 4 p.m. They will return at 6.24, *via* Lydney, reaching Cardiff at 8.10. Those returning home eastwards can stop at Chepstow for the mail at 9.51.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.
The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDY-MAN, Esq., 42, Crockherbtown, Cardiff.

NOTICE OF SPECIAL BUSINESS.

Notice is hereby given that, at the Annual General Meeting to be held at the Town Hall, Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

MR. DIX gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

MR. GEORGE BROWN hereby gives notice that he will move an alteration in By-law 17, paragraph (D), so as to read:

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 18th, 1885.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

A New Method of Intestinal Suture after Enterectomy.—Acute Gall-stone Colic in Typhoid Fever.—The Criminal Responsibility of Drunkards.—Acute Alcoholism treated by Strychnia.—General News.

MM. DUPLAY and ASSAKI have tested a new method of intestinal suture on animals. One end of the divided intestine is invaginated into the other, and the mucous membrane of the upper end is immediately in contact with that of the inferior. A double thread is passed through the canal thus formed, and only two or three superficial sutures are then inserted. About 15 days after the operation, the passage is perfectly free. Microscopic examination demonstrated that there was uninterrupted continuity of the serous membrane, and not the slightest indication of an inner valvular projection.

To the 18 cases of gall-stone colic during typhoid fever collected by Hagenmüller in 1876, Dr. Goix, of Lille, adds another. The patient was recovering from typhoid fever, when she was suddenly seized with violent pains in the right hypochondrium, which were most intense in the region of the gall-bladder, where there was a hard swelling, painful on pressure; the patient manifested symptoms of jaundice—fever, yellow skin, discoloured stools, and shivering fits. After an interval of five or six days, there was violent diarrhoea; pus and bile were present in the evacuations, but there were no calculi. The patient recovered rapidly.

M. Mottel, at a recent meeting of the Académie de Médecine, treated the important subject of the responsibility of criminal drunkards. Crimes, murders, etc., committed when the perpetrators are under the influence of drink, are much on the increase. Alcoholism at the present time presents unusual characteristics. M. Mottel believes that MM. Dujardin-Beaumetz and Audigé's researches explain this. Manufactured spirits currently sold are more toxic than pure vinous alcohols; they contain empyreumatic substances, which exercise a most dangerous influence on the nervous system, which is manifested by sudden fits of frenzy, and savage and brutal impulses. Magistrates are at a loss how to judge a criminal who suddenly commits a crime without any reason or previous intention. If the momentary delirium were the result of a former cerebral lesion of alcoholic origin, the medical expert's evidence would give some clue; but after the momentary influence of these manufactured spirits has passed away, the drunkard is in a normal condition, and no symptoms can be detected suggesting the probability of a return of mad impulses. M. Mottel cited a curious case of the questionable responsibility of a murderer. An Italian, who always worked in compressed air, and was of excessively sober habits, allowed himself to be overpersuaded by his companions, and drank large quantities of alcoholic liquors. About 12 o'clock at night, he was alone in the streets trying to find his home, when suddenly, without the slightest provocation, he drew his knife, and stabbed several people at the corner of a street. One among them died from the wounds inflicted by the Italian. The murderer was with difficulty captured. As soon as he reached the station-house, he fell into a profound sleep. The next morning, when questioned, he did not deny the crimes imputed to him, but said, if true, he had no idea how it happened. Working in compressed air induces neuralgia, nervous disturbance, and in some cases produces a general cerebral condition, which increases alcoholic susceptibility. The jury disregarded these considerations, but the final judgment took them into consideration, and a less severe sentence was passed than otherwise would have been given.

Dr. Lardier, of Rambervilliers, has for some time treated acute alcoholism with strychnia, observing Dr. Luton's indications. In a case of delirium, he administered eight milligrammes of strychnia in

twenty-three hours. During the first few days, pills containing five milligrammes were given to the patient every two hours, but with negative results. Then more pills were given in the two hours, also a hypodermic injection. Thus, in less than a day, the patient had swallowed eight milligrammes of strychnia. His condition quickly improved. He slept well, and symptoms of strychnia-poisoning were absent.

M. Gavey has invented a stethoscope which consists of a small bell-shaped box, with walls made of some material capable of vibration. The inferior extremity is open, and a diaphragm is fixed on it. At the top of the bell there is an India-rubber tube; the small bell-shaped box serves as a metallic sound-board. It is attached by its apex inside another much larger bell, which collects the sound-waves. The diaphragm and walls of the free sounding-board serve as condensers of the sound-waves. This instrument is also a cardiograph and sphygmograph, as well as a stethoscope.

M. Redard has invented an instrument for the removal of soft traumatic cataractous lenses by aspiration. It consists of a flat metal cannula. Its aperture is larger than that of Bowman's instrument. The cannula is fixed on to a glass-tube, which can be removed and replaced by a sharp pointed cannula, or by another terminating in a perforated capsule. An India-rubber tube is fixed on to the glass tube, which terminates in a small mouth-piece, to be placed in the operator's mouth. A small safety-valve placed in the India-rubber tube allows the aspiration to be unimpeded, and prevents air from returning to the instrument. This instrument is easily taken to pieces and cleaned.

M. Gavey has presented to the Société de Médecine et de Biologie an instrument, intended to register the degree of locomotion evidenced by the brain in the cranium.

At a recent meeting of the Société Médicale des Hôpitaux, M. Troisier showed a man with superficial cysticerci. They presented the aspect of small tumours; they were painless, and unequal in size; about 38 were counted; the tongue was free from them. One of the tumours was removed from the muscular aponeurosis; the circle of hooks was clearly seen. There was no reason to believe that there were cysticerci in the viscera. On a previous occasion, M. Troisier showed a patient with *Cysticercus cellulosus*; his wife also had *Tœnia solium*; the patient was free from this affection before marriage, the cysticerci appearing a few months subsequently.

CORRESPONDENCE.

BIOLOGY AND MEDICAL STUDENTS.

SIR,—As two of the resident medical officers in the Westminster Hospital have within the past few years passed with honours through the examinations of the University of London, I asked one of them to kindly write me his opinion as to the communication from Mr. Ray Lankester in your number for July 4th. I beg to enclose Mr. Swain's letter on the subject. As Mr. Ray Lankester has raised this question, I am in hopes that you will find space in the JOURNAL for further correspondence. The subject is one of the greatest importance to London medical students, for it is largely due to the complicated matriculation and the preliminary science examinations that so many of them are driven from the metropolis to seek degrees in other universities.—I am, etc.,

C. MACNAMARA.

"Westminster Hospital.—July 5th, 1885.—Dear Mr. Macnamara, It seems to me that, when Mr. Ray Lankester asks anyone who has 'attended a properly organised practical course of instruction in biology . . . whether he regrets the time so spent,' he advances an argument, which is quite untenable, against those who wish for the exclusion of this subject from the ordinary curriculum. For it is not to be expected that any right thinking man can regret adding such interesting studies to his store of knowledge, nor would he deny that such knowledge, when obtained, may have assisted him in the attainment of subsequent branches of his professional studies. But this has clearly nothing to do with the fact that we deny that this biology is in any way essential to our study of physiology and anatomy; for many of us who have been through the curriculum of the University of London must feel that we could have attained the same standard of physiological and anatomical knowledge without this preliminary study of biology. Hence, we do not say that we regret our acquaintance with biological science, but we affirm that we should have made equally good practitioners without it.

"Finally, when Mr. Lankester states that he fears the opposition is due to the difficulty in providing such a course in some of the medical schools, and that the older members of the profession do not wish the

new generation to enjoy privileges from which they themselves were debarred, he attributes unworthy motives to those of you who are labouring zealously and honestly for the welfare and advancement of the London medical student. This accusation is, however, more a question for those of you who are lecturers to decide.

"I have not written a formal answer to his letter, because I thought it would look better from one of more authority than myself; but these remarks may be taken as the testimony of one who, 'within the last 10 years,' has been through the course of instruction in biology required by the University of London.—Yours sincerely,
"J. SWAIN."

THE COMMA-BACILLUS AND CHOLERA.

SIR,—The question of a commission to investigate the disputed points as to the relation between the comma-bacillus of Koch and cholera having been mooted by Dr. Hime and Mr. Watson Cheyne should not be let drop, because Dr. Klein has received the proposal unfavourably.

The "Note on the so-called Cholera-Bacilli" by Dr. Klein, in the JOURNAL for May 16th, page 986, would seem to show that the author, after all that has been written by Dr. Koch and Mr. Cheyne, still relies on the microscopic appearances alone for his diagnosis, as he writes:

"He will there find crowds of the very identical 'cholera-bacilli' accurately represented by Mr. Cheyne in his Figure 6, as well as the typical comma-bacilli of Koch." "In some places in the stained cover-glass specimens, the material thus obtained appears to be 'almost a pure cultivation' of them."

This would appear to show that Dr. Klein is not yet fully aware of the necessity of making gelatine-cultivations, in order to distinguish whether the commas which he found were identical with those of Koch or not. If Dr. Klein wish to give us information of which we can make use, he ought to state when he uses the modern methods of cultivation, and when he trusts to the microscopic appearances alone.

As he is unwilling to give his brethren in the profession the advantage of the information that such a commission as Mr. Cheyne proposes would certainly collect, it would be of great importance to the members if the Association took up the matter, and had the whole question thoroughly investigated by gentlemen acquainted with the modern methods of micro-parasitical research.

Before concluding, I wish to ask a question of those who have worked at the subject. What is the best way of staining the comma-bacillus of Koch in sections of the intestine? I have been trying to do this in specimens of intestine obtained by Dr. Emmerich in Naples, but have only succeeded in a very few sections by leaving them for 24 hours in Loeffler's alkaline methylene-blue solution, washing in 0.5 per cent. acetic acid in water, and then transferring from alcohol to cedar-oil. In these few sections, I find the bacilli in enormous numbers deep in the tissue of the intestine, especially around the Lieberkuhnian follicles. I am strongly inclined to believe that the difficulty arises from the length of time the specimens have been in alcohol.

I may state, at the same time, that Dr. Emmerich and others in Munich, who have tried to stain the comma-bacilli in sections, have for so far entirely failed. The only persons, as far as I at present recollect on the continent, who state in their writings that they have been successful, are Drs. Koch and Van Ermengen.

I therefore believe, from the experience of numbers who have tried it, that it is very difficult to stain the comma-bacilli of Koch in sections from specimens which have been long in alcohol. Both the gentlemen named above, as well as Dr. Klein, have had the opportunity of using fresh specimens, and this may explain why they have found it easy.

Hoping soon to hear that a commission has been arranged for, I am, etc.,

CHARLES WORKMAN, M.D.

Findlingstrasse 22, Munich.

THE ROYAL COLLEGE OF SURGEONS AND ITS MEMBERS.

SIR,—We have the honour to forward to you a copy of the petition prepared by the Association of Members of the Royal College of Surgeons for presentation to the Privy Council.—We are, sir, your obedient servants,

WARWICK C. STEELE; J. NIELD COOK; W. ASHTON ELLIS.

1, Florence Terrace, Ealing.

To the Queen's Most Excellent Majesty in Council:

The humble petition of the Members of the Royal College of Surgeons of England—sheweth,—That whereas a Petition has been prepared for presentation by the President and Council of the Royal College of Surgeons of England, praying for a supplemental Charter, or alterations in the existing Charters pre-

viously granted to the said Royal College, your humble petitioners approach your Most Gracious Majesty respectfully to point out that in the present Charters the Members of the said College (in proportion to the Fellows of 14 to one) have no status of any kind in connection with the governing body.

Your petitioners most humbly submit that it would be both equitable and politic that the whole body of Members should have a voice in the conduct of a corporation of which they are, and always have been, numerically and financially, the mainstay. At present the Council—elected by only twelve hundred Fellows—deals absolutely with the interest, property, and moneys of the College, whilst sixteen thousand Members are wholly unrepresented.

The Fellows are of two classes, numerically nearly equal, namely (1) Members of the College before 1813, who have been elected on the nomination of six Fellows; and—(2) Members who attain their Fellowship by examination—the fees payable and the advantages of each class being equal. The Council consists of 25, who are elected for eight years by the Fellows out of their own number, but of these none are eligible for election except the few who practise pure surgery. The Council accordingly monopolizes the power and privileges, and disposes of the funds in entire independence of the remaining Fellows and Members, from whom the income is mainly derived.

Your petitioners do, therefore, most earnestly pray that, before granting any Charter or supplemental Charter to the said Royal College, their present position may receive Your Majesty's gracious consideration for measures of relief, which will create and secure for the Members (who so largely contribute to the prestige and welfare of the said College) the right of representation and other privileges which should belong to a corporate body; further, that an inquiry may be instituted into the constitution of the Council, the election of examiners, the conduct of examinations, and the expenditure of the College funds, matters into which your petitioners believe thorough investigation is necessary, as well for the interests of the College as for its Members.

Finally, your petitioners very humbly pray that in the event of no petition for a Supplemental Charter or otherwise being presented by the Council of your Royal College, Your Majesty will be graciously pleased, in your wisdom, equity, and discretion, to sanction and provide for certain alterations being made in the present existing Charter so that it may contain such provisions as are herein unmentioned.

1. That all Members having been registered may, conjointly with Fellows, exercise the privilege of electing the Council.

2. That a moiety of the Council may consist of Members of not less than ten years' standing.

3. That eight Censors may be appointed, half of whom shall be Members—two to be elected by the Crown, two by the Council, two by the Fellows, and two by the Members.

4. That Members of Council and Censors may be elected for three years, and may be re-elected for a similar period, but shall not be eligible for a third term until out of office for one year or more.

5. That Members and Fellows may be permitted to vote by voting papers.

6. That Members may be eligible for examiners.

7. That the Council formed as above shall elect the examiners annually, but that only one-third of the Council shall be permitted to act in that capacity.

8. That Members as well as Fellows may be present at *visa voce* examinations.

9. That no fees of any kind be paid to College funds by Fellows or Members on election to office.

10. That the Council shall prepare a yearly report, together with an account of income and expenditure of the College funds duly audited by the Censors and a public accountant, and after submission for approval to the Fellows and Members (annually summoned for this purpose by the President of the College) shall, on adoption, cause the same to be published in the medical journals.

11. That extra power may be given to the Council to suspend or revoke the licence of any Fellow or Member on proof of infamous conduct, professional or otherwise.

And your petitioners will ever pray, as in duty bound, etc.,

OBITUARY.

HOWARD BENDALL, M.D.

It is with much sorrow we record the death of Dr. Howard Bendall, at the early age of 31.

From boyhood Dr. Bendall wished to devote himself to science and to medicine; and, when 22 years old, he became a student of the University of Edinburgh. His fellow-students must well remember him, quiet and reserved, yet full of power. He always evinced a much greater aptitude for morphology, physiology, and chemistry, than for the so called practical branches of his profession. After his graduation he took the post of house-surgeon to the Perth Royal Infirmary, and afterwards to the Queen's Hospital, Birmingham. In spite of rather delicate health and fatiguing hospital duties, he found time for scientific work, which he carried on first at the Pathological Laboratory in Edinburgh, and afterwards at the Physiological Laboratory, Mason College, Birmingham. He was chiefly engaged at this time in the study of the pathology of farcy, and the nature of fat embolism. The results of his researches were presented as a graduation thesis in 1882, when he was awarded a gold medal. So much was his work appreciated that, in addition, he received the Syme Scholarship (£100 tenable for four years), one of the greatest honours the University of Edinburgh has to offer to her graduates.

About this time his health gave way, owing chiefly to blood-poisoning from a dissection-wound, and he was soon ordered abroad for a sea-voyage on account of serious chest-symptoms that had arisen. While in India at this time he caught very severe remittent fever, and the exhaustion produced more than counterbalanced the benefit pre-

viously derived from rest and sea-air. Repeated voyages to Calcutta possibly delayed the progress of the disease; but he gradually became weaker, and died at home on June 18th.

In his work he was thorough and unselfish. Somewhat speculative, he was carried away by his studies, and thought often too little of his own advancement. He will be much missed.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

MR. A. J. GREER has been gazetted Major in the 1st Volunteer Battalion of the Princess of Wales's Own Yorkshire Regiment (late the 1st North Riding of Yorkshire Volunteers). He entered the army as Assistant-Surgeon July 23rd, 1852; became Surgeon September 11th, 1860; Surgeon-Major July 3rd, 1872, and retired on half-pay with the honorary rank of Deputy Surgeon-General July 7th, 1877. From *Hart's Army List* we learn that Mr. Greer served with the 21st Fusiliers in the Eastern campaign of 1854, and up to July 5th, 1855, including the battles of Alma, Balaclava, and Inkerman, the siege of Sebastopol, the storming of the Quarries on June 7th, and the attack on the Redan on June 18th, for which he was mentioned in despatches. He has the medal with four clasps, the fifth class of the Medjidie, and the Turkish medal.

MR. J. B. CLARKSON, L.R.C.P. and S. Edin., Surgeon Superintendent under the Crown Agents for the Colonies, who has held a commission as Lieutenant in the Liverpool Press Guard (19th Lancashire) Volunteers since July 22nd, 1882, has been appointed a Lieutenant in the Reserve of Officers.

From a telegram received at the War Office, dated Cairo, June 24th, we learn that Surgeon H. H. JOHNSTON, M.B., left for England, invalided, in the *Argo* on that day.

Surgeon-Major J. B. KELLY, serving in Madras, has been granted leave to England for six months on medical certificate.

The *Army and Navy Gazette* says "that a modification of the existing medical system in the army—so far as to attach permanently to each regiment an officer of the Medical Staff and a non-commissioned officer of the corps—has been under consideration for some time past. The proposed arrangement would not affect the station hospital system, which would still be maintained as at present. A return to the old and popular system of attaching medical officers to regiments would give great satisfaction throughout the service, and would tend directly to reduce the numbers on the sick returns, as many simple cases which are now sent to hospital could then be treated regimentally."

Surgeon-Major THOMAS RAMSAY has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service November 1st, 1858, became Surgeon, March 1st, 1873, and Surgeon-Major, October 18th, 1883. Mr. Ramsay served in the Afghan war in 1879-80, and was at the battle at Charasiar on October 6th, 1879, and during the subsequent investment of Cabul (medal with two clasps). He was also in the Egyptian war of 1882, and has the medal and Egyptian bronze star for that campaign.

The resignation of the Commission held by Surgeon-Major C. W. MARRIOTT, M.D., in the 4th Battalion of the Royal Warwickshire Regiment (the 2nd Warwick Militia) has been cancelled.

According to a telegram received at the War Office, dated Cairo, July 5th, Surgeons F. J. JENCKEN, M.B., W. H. P. LEWIS, and J. McD. STEWART, arrived from up Nile sick, on July 3rd.

Deputy Surgeon-General C. C. DEMPSTER died at Tamore, County Waterford, on June 20th, in his 52nd year. His commission as Assistant-Surgeon dated from May 5th, 1854; Surgeon, June 20th, 1865; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, November 27th, 1879. He retired on half-pay with a step of rank, March 23rd, 1881. According to *Hart's Army List*, Mr. Dempster served with the 46th Regiment, in the Crimea, from November 8th, 1854, to May 20th, 1856, including the siege and fall of Sebastopol, and attack of June 18th (medal with clasp, and Turkish medal). He accompanied the expedition into the Hazara district, under Sir Sydney Cotton, in October and November, 1857 (medal with clasp), and was in medical charge of the Movable Column from Ferozepore, after Tantia Tope, in February and March, 1859. He served in the New Zealand war of 1863-65, and was with the 50th Regiment at the storm and capture of Rangia-whia, on February 21st, 1864—mentioned in despatches (medal).

Surgeon THOMAS CARTER, of the 4th Battalion of the Princess of Wales's Own Yorkshire Regiment (the North York Militia), has been promoted to be Surgeon-Major.

Acting Surgeon J. J. NEVILLE, of the 3rd Lancashire Artillery Volunteers, and Acting Surgeon SAMUEL McBEAN, of the 3rd Volunteer Battalion of the Northumberland Fusiliers (late the 1st Newcastle-on-Tyne Volunteers), have resigned their commissions.

Surgeon ARTHUR WOOD, M.D., died on the 7th instant, at Earl's Court, Kensington, in the 80th year of his age. He entered the Army Medical Service as Hospital Assistant, December 22nd, 1825; became Assistant-Surgeon, November 19th, 1826; Surgeon, August 21st, 1840; and retired on half-pay November 1st, 1856. Dr. Wood served with the 9th Lancers in the Gwalior campaign in 1843 (medal), and in the Sutlej campaign in 1846, including the battle of Sobraon (medal).

Deputy Inspector-General EDWARD HOWARD, late of the 20th Foot, died at Bedford on the 28th ultimo, aged 69. Mr. Howard joined the 20th Regiment as Assistant-Surgeon, April 29th, 1842; became Surgeon, February 24th, 1854; Surgeon-Major, April 29th, 1862; and went on half-pay with a step of rank, June 22nd, 1867. He served with his regiment through the Russian war of 1854-55, including the battles of the Alma and Inkerman, the siege of Sebastopol, and the assault on September 5th (medal with three clasps, 5th class of the Medjidie, and Turkish medal). He also served during the Indian Mutiny, and was in the actions at Chanda, Humeerpore, and Sultanpore, and at the siege and capture of Lucknow (medal with clasp).

INDIAN MEDICAL SERVICE.

SURGEON A. BARCLAY, M.B., Bengal Establishment, is confirmed in his appointment of Secretary to the Surgeon-General and Sanitary Commissioner with the Government of India.

Surgeon H. P. DIMMOCK, Bombay Establishment, Officiating Civil Surgeon of Shikarpore, has passed the examination in Sindhi.

The services of Surgeon C. G. W. LOWDELL, Bombay Establishment, are replaced

at the disposal of the Military Department from the date on which he may be relieved of the medical charge of the 2nd Regiment Central India Horse by Surgeon-Major R. Caldecott.

Deputy Surgeon-General J. HENDERSON, M.D., Madras Establishment, has been appointed to the administrative medical charge of Her Majesty's forces, Western District, Madras.

Surgeon-Major W. FARQUHAR, M.D., Madras Establishment, has been promoted to be Brigade-Surgeon, *vice* J. Henderson, M.D., who has been promoted.

Surgeon J. CRIMMIN, Bombay Establishment, Officiating Medical Officer 4th Native Infantry, is directed to act as Civil Surgeon at Aden, in addition to his other duties, during the absence of Surgeon-Major E. Colson, on privilege leave, or until further orders.

Surgeon-Major S. B. HALLIDAY, Bombay Establishment, Medical Officer 13th Bombay Infantry, is directed to act as Civil Surgeon at Rajkote, in addition to his other duties, during the absence of Surgeon-Major F. C. Barker, M.D., or until further orders.

Surgeon H. P. JERVIS, Bombay Establishment, has been appointed to the medical charge of the Roman Catholic Orphanage School, Poona, with effect from April 8th.

The Governor in Council has appointed Surgeon-Major G. WATERS, L.R.C.S., L.R.C.P. Edin., Bombay Establishment, to be a Member of the Municipal Corporation of the City of Bombay, *vice* Mr. J. Macfarlane, J.P., who has resigned.

Surgeon-Major H. A. LEWIS, Bombay Establishment, is transferred from general duty Mhow Circle to general duty Presidency Circle.

Surgeon A. MILNE, M.B., Bombay Establishment, is transferred from general duty Presidency Circle, to general duty Scinde Circle.

The undermentioned gentlemen have been granted leave of absence for the periods specified:—Surgeon-Major G. HENDERSON, M.D., Bengal Establishment, for three months on medical certificate; Surgeon-Major A. BARRY, M.D., Bombay Establishment, for six months on medical certificate; Surgeon-Major G. C. HALL, Bengal Establishment, Superintendent of the central prison at Allahabad, privilege leave for three months; Surgeon J. C. H. PEACOCKE, Bombay Establishment, Acting Deputy Sanitary Commissioner Western Registration District, for one year on medical certificate; Surgeon-Major B. C. KEELAN, Bombay Establishment, Civil Surgeon and Superintendent of the Medical School at Hyderabad, Scinde, for one year on medical certificate.

Surgeon R. G. COOPER, Bombay Establishment, officiating in medical charge of the 2nd Sind Horse, died of cholera at Jacobabad, on the 1st ultimo. Mr. Cooper joined the service on April 2nd, 1881, but has no war record.

Surgeon-Major E. M. ROSS, Madras Establishment, who was doing duty with the Hyderabad Subsidiary Force and the Hyderabad Contingent, died at Secunderabad, Decca, on the 1st ultimo, aged 48. He entered the army February 10th, 1859, and attained to the rank of Surgeon-Major, February 10th, 1879. He also is not credited in the *Army List* with any war service.

Surgeon-Major ANDREW SKEEN, Bengal Establishment, medical officer to the Maharajah of Putiala, died at Kussowlie, Punjab, on June 10th. He entered the service March 31st, 1865, and became Surgeon-Major 12 years thereafter. He does not appear to have been in any campaign.

Surgeon-Major D. D. CUNNINGHAM, M.B., Bengal Establishment, has been appointed Honorary Surgeon to the Governor-General.

Surgeon A. DUNCAN, M.D., Bengal Establishment, has been appointed to the officiating medical charge of the 5th Bengal Light Infantry, *vice* Surgeon J. M. Young, dead.

Surgeon J. C. SMITH, Bengal Establishment, has been appointed to the officiating medical charge of the 19th Punjab Infantry, *vice* Surgeon J. W. Johnston, who has been granted leave.

Surgeon S. F. BIGGER, Bengal Establishment, has been appointed to the officiating medical charge of the 20th Punjab Infantry, *vice* Surgeon A. E. R. Stephens, who has been granted leave.

THE NAVY.

The following appointment has been recently made at the Admiralty: Mr. C. J. WORKMAN, to be Surgeon and Agent at Teignmouth and Shaldon.

The following appointments have been made at the Admiralty during the past week: H. F. D. STEPHENS, Surgeon, to the *Grappler*; N. C. ROSS, Surgeon, to the *Cambridge*; MATTHEW DICAN, Surgeon, to the *Duke of Wellington*; W. R. M. YOUNG and A. B. MURDOCH, Surgeons, to the *Alexandra*, additional.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 6th.

The Lunacy Bill.—The Earl of SELBORNE inquired whether the Government intended to proceed further with the Lunacy Bill.—The Marquis of SALISBURY replied that there was every disposition, on the part of the Government, to proceed with the Bill, if the arrangements for business in the House of Commons were such as to enable so complicated a measure to be passed this session.

HOUSE OF COMMONS.—Monday, July 6th.

Parliamentary Elections Medical Relief Bill.—The CHANCELLOR of the EXCHEQUER, in reply to Mr. JESSE COLLINGS, said that as, in the opinion of the Government, the Medical Relief Bill was one which should be dealt with, he would include that in the statement which it would be his duty to make to-morrow.

The Lunacy Commission.—On the vote to complete the sum of £15,225 for the Lunacy Commission, Dr. FARQUHARSON suggested that the legal members of the Commission should be abolished, and that additional medical members should be appointed in their places.—Mr. MOLLOY complained of the regulations affecting private lunatic asylums, and asked that the Committee should be informed of the

policy of the Government with regard to these asylums.—Mr. HIBBERT asked whether it was the intention of the Government to proceed with the Lunacy Bill.—Mr. GRANT impressed on the Government that great dissatisfaction was felt as to the private lunatic asylums, and particularly as to the ease with which a person might be confined in one of them. The initial step was to procure the signature of two medical men, and on this a man might be confined. He urged that no one should be confined in a private asylum unless he were first taken before a magistrate.—Sir H. HOLLAND said that the Government were fully alive to the gravity of the question. The necessity of thorough investigation and inspection of private asylums was apparent. With regard to the Bill introduced into the House of Lords by the late Lord Chancellor, the Government were in favour of that measure generally. There was a general feeling that the mode of incarceration was not satisfactory, but as to whether cases should at once be brought before magistrates there was some difference of view. Lord Shaftesbury was strongly of opinion that it was not desirable to bring every case at once before a magistrate. In many cases, it was undesirable to delay the proper detention of dangerous lunatics by bringing them before a court; but the greatest fear was that, if this were made the law, people in the middle class would not bring cases of lunacy before the public at all, but would keep them in their houses, thereby lessening the chances of recovery.—The vote was agreed to.

Tuesday, July 7th.

The Cholera.—Lord C. HAMILTON asked the President of the Local Government Board whether, having regard to the serious increase of the cholera-epidemic in Spain, and its possible approach to England, the Government had taken any steps of a preventive character through the various port sanitary authorities and other local authorities.—Mr. A. BALFOUR replied that, during the present year, an inspection had been undertaken, by six medical inspectors, of the districts of England where cholera might be more specially expected to prevail. This inspection was almost complete as regards the port and riparian districts of England, and was being pursued in other districts most likely to suffer from cholera in the event of its introduction. Sanitary authorities were met and counsel taken with them, and their more immediate duty of preparation against cholera, as well as their general sanitary duties, were impressed on them. The regulations which were in force during the prevalence of cholera in France and Italy were still in operation. An order had been issued prohibiting, until the 1st of November next, the importation of rags from Spain.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PUBLIC ANNOUNCEMENT OF CHANGE OF RESIDENCE.

A. E. L.—However great may be our correspondent's "horror of it being thought he was advertising himself or his practice," by inserting in the local papers for a period of three months the proposed "preliminary and subsequent announcement" of his intended change of residence, such an act would justly be regarded as a gross breach of an important ethical rule of professional life.

If an intimation of the contemplated removal be really necessary, we would refer him to the suggestion made in the JOURNAL of the 27th ultimo, page 1316, column 2, under the head of "Notification of Change of Address."

MEDICAL ETIQUETTE, OR BUSINESS.

JUSTITIA.—The question submitted by our correspondent does not "resolve itself into one of medical etiquette," but a purely business transaction for private arrangement between the respective interested parties. Even were it otherwise, we should not, in the absence of the "agreement" mutually entered into, feel justified in tendering advice on the subject, other than to suggest an amicable settlement of the amount in dispute, to which, as far as we are able to judge from "Justitia's" relation of the case, he would appear to be justly entitled. Be that as it may, be will, in our opinion, do well to avoid litigation.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

WE are asked by Mr. Wickham Barnes, Honorary Secretary of the Poor-law Medical Officers' Association, to state that a meeting of that association will be held at Cardiff during the meeting of the British Medical Association. All Poor-law medical officers, and others interested in the subject, are earnestly invited to attend, as matters of great importance in reference to the future of Poor-law medical officers will be discussed. Mr. Barnes would also feel obliged if, prior to the

meeting, every Poor-law medical officer throughout the kingdom would send him a post-card, stating Yes, or No, as regards their approval of the Lords' Amendment in reference to Poor-law Medical Relief.

PRIMARY AND SECONDARY CAUSES OF DEATH.

SIR,—What is the "primary cause of death," as required on a death certificate?

I have a patient, we will say with scarlet fever, who develops uræmia and convulsions, and dies. Is not the primary cause of death "convulsions"? Is the word "primary" taken to indicate the importance of the symptom as contributing to death, or its priority of appearance? Some time ago I saw a letter or paragraph stating, if I remember rightly, that the "primary" is the "immediate." In the directions given in the book of forms, it is very distinctly stated, "Write the causes of death . . . under each other, in the order of their appearance, etc."—Yours truly,

IGNORAMUS.

*, The meaning of the words "primary" and "secondary," taken in connection with the following instruction, printed in the beginning of the Book of Forms for Medical Certificates, "write the causes of death, when there are more than one, under each other, in the order of their appearance, and not in the presumed order of their importance," scarcely admits of a doubt. Scarlet fever would certainly be the primary cause of death in the supposed case named by our correspondent.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 2nd, 1885.

Brock, James Harry Ernest, M.R.C.S., 30, Bartholomew Road, N.W.
Rushbrook, Thomas, M.R.C.S., 22, Rutland Street, Hampstead Road, N.W.
Smith, Samuel Gordon, M.R.C.S., 76, Barnsbury Road, N.

MEDICAL VACANCIES.

The following vacancies are announced.

- BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, Warwick Square, S.W.—House-Surgeon. Applications by July 20th.
- BRISTOL DISPENSARY.—Two Medical Practitioners. Applications to Mr. E. Stock, 57, Queen Square, Bristol, by August 6th.
- BRISTOL MEDICAL SCHOOL.—Medical Tutor. Salary, £100 per annum. Applications by July 22nd.
- DONEGAL UNION.—Medical Officer, Laghey Dispensary. Salary, £120 per annum, and fees. Applications to Mr. Wm. Hammond, Honorary Secretary. Election on July 20th.
- DEACONESS' INSTITUTION AND HOSPITAL, The Green, Tottenham.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Laserson, Tottenham, by August 1st.
- EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by July 16th.
- EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Assistant-Physician. Applications by July 30th.
- HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant-Physician.
- INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon. Salary, £70 per annum. Applications by July 15th.
- MANCHESTER ROYAL INFIRMARY DISPENSARY AND LUNATIC ASYLUM.—Honorary Obstetric Physician. Applications to the Chairman of the Board by July 18th.
- MANCHESTER ROYAL INFIRMARY, MONSIEUR FEVER HOSPITAL.—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.
- ROCHESTER AND DISTRICT FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £200 per annum. Applications to H. T. Kybett, 55, High Street, Chatham, by July 16th.
- ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £150 per annum. Applications by July 18th.
- ROYAL INFIRMARY, Ryde, Isle of Wight.—House-Surgeon and Secretary. Salary, £50 per annum. Applications by July 28th.
- SUSSEX COUNTY HOSPITAL, Brighton.—Assistant House-Surgeon. Salary, £40 per annum. Applications by July 15th.
- WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by July 11th.
- WHITTINGHAM COUNTY ASYLUM, Preston.—Assistant Medical Officer. Applications by July 20th.
- YORK COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum. Applications to R. Holtby, 5, New Street, York, by July 25th.
- YORKSHIRE HOSPITAL, Leeds.—Professor of Chemistry. Applications by July 14th.

MEDICAL APPOINTMENTS.

- BALL, J. B., M.D., M.R.C.P.Lond., appointed Assistant-Physician to the West London Hospital, Hammersmith, vice F. G. D. Drewitt, promoted.
- BRISTOW, W. Moss, M.R.C.S.Eng., L.R.C.P.Edin., appointed House-Surgeon to the Liverpool Royal Infirmary.

DAWSON, A. William, M.B., late House-Surgeon, appointed House-Physician to the Liverpool Royal Infirmary.

DREWITT, F. G. D., M.D. Oxon., M.R.C.P. Lond., appointed Physician to the West London Hospital, Hammersmith, vice J. C. Thorowgood, M.D., F.R.C.P. Lond., resigned.

GARSTANG, Edward M., M.R.C.S. Eng., L.R.C.P.E., appointed Honorary Surgeon to the Bolton Infirmary and Dispensary.

HUGHES, Samuel, M.B., C.M. Edin., M.R.C.S. Lond., L.S.A. Lond., appointed House-Surgeon to the Liverpool Royal Infirmary.

LUCE, James Johnstone, M.D. St. And., L.R.C.P. Edin., M.R.C.S. Eng., late Resident Physician at Seafeld House, Liverpool, appointed Resident Physician and Superintendent at the Hydropathic Establishment, Windermere.

MAJOR, Herbert C., M.D., appointed an Honorary Physician to the Bradford Infirmary.

MOODY-WARD, R., B.A., M.B. Oxon., M.R.C.S., appointed House-Physician to Guy's Hospital.

NEVILLE, J. J., L.R.C.P. and S.E., appointed Certifying Surgeon, under the Factory Act, for Chorley, vice W. Paterson, M.D.

PHILLIPS, F. B. W., M.A., M.B. Oxon., M.R.C.S., appointed House-Physician to Guy's Hospital.

RODMAN, T. H., M.B., M.R.C.S., appointed House-Surgeon to Guy's Hospital.

WATKINS, A. M., M.R.C.S. Eng., L.R.C.P. Lond., appointed House-Surgeon to the Liverpool Royal Infirmary.

WEIGHTMAN, A. E., L.R.C.P. and L.R.C.S. Edin., appointed House-Physician to the Liverpool Royal Infirmary.

WORTHINGTON, S., M.B., F.R.C.S., appointed House-Surgeon to Guy's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

DOWNES.—On 6th July, at Compton Street, Eastbourne, the wife of Dr. E. Downes, of a daughter.

TURNER.—On the 30th June, at Holmwood, Bournemouth, the wife of Henry Guntton Turner, of a son.

THE LATE DR. CRICHTON.—A monument of polished red granite, in the form of an obelisk, has been placed over the remains of the late Dr. Crichton, in Walton Cemetery, with the following inscription: "In affectionate remembrance of Duncan Crichton, M.D., who died December 18th, 1884, aged 43 years. This memorial has been erected by his friends and patients in testimony of his singular devotion to an arduous profession, his solicitude for the relief of the suffering, and his kindness of manner to all who knew him." On the right-hand side are the words, "Multis ille bonis flebilis occidit" (Horace); and, on the left-hand side, "Non ut diu vivamus curandum est sed ut satis" (Seneca).

METROPOLITAN CONVALESCENT INSTITUTION.—At the half-yearly meeting of this institution, situated at Kingston-on-Thames, it was stated that the total number of patients admitted during the six months was 2,129; the subscriptions to the general fund had amounted to £2,642 13s. in annual subscriptions, £584 19s. 10d. in donations, and a legacy of £500 had been received. To the sea-side branch, the annual subscriptions had amounted to £646, and donations to £244. The report concluded by expressing regret that the donations had fallen off; and the committee hoped that increased help would be forthcoming, in order to meet the expense of the 600 beds in the three homes. The report was unanimously adopted.

THE LATE DR. HESLOP.—At the last monthly meeting of the General Committee of the Birmingham General Dispensary, it was resolved: "That the General Committee join with the Medical Committee in recording their sincere regret for the loss sustained by the town and the medical profession of Birmingham by the death of Dr. T. P. Heslop, who for many years was a much valued honorary officer of this charity."

DEATH IN THE CRICKET FIELD.—On Saturday afternoon a sad fatality occurred on the Waddon cricket ground, at Croydon. A cricketer, named Henry Street, aged 22, was batting, to the bowling of George Snelling, when the ball struck Street behind the left ear, knocking him down. Medical assistance was summoned, but the unfortunate man's injuries proved fatal.

TYPHOID FEVER AT SWANSEA.—There are reported no fewer than 400 cases of typhoid fever in Swansea, and quite a scare is said to prevail among the inhabitants. The outbreak is considered to be due to sewage matter being allowed to run from surrounding farms into the reservoirs.

SUPERANNUATION.—Mr. John MacDonogh, late medical officer for the Clapham district of the Wandsworth and Clapham Union, has obtained a superannuation allowance of £80 *per annum*.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAYSt. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAYKing's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ...St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., ; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—I am very glad to see that Mr. Jabez Hogg has drawn attention to the fact that only three out of the eight candidates recommended by the Committee of Examination were elected to foundation-scholarships; as, after the trouble taken to investigate the various claims, a much larger number ought to have been successful.

I cannot, however, agree with the concluding paragraph of Mr. Hogg's letter; as, by carrying out his suggestion, the College would practically be turned into a provident society, if only subscribers were admitted to its benefits. Instead of a by-law being passed restricting candidates in this way, I should like to see an effort made to increase largely the income, so that a greater number of pensioners and foundation-scholars might be elected, and thus the plethora of candidates reduced.

With Mr. Hogg's letter should be read your article in the same number on "What becomes of Medical Students?" as this shows that a large percentage never do well, and, therefore, could not become subscribers. It is from this class that many applicants must be expected, and I, for one, should be very sorry to see them excluded.—I remain, sir, your obedient servant,
TEIGNMOUTH.

CHARLES J. WORKMAN.

SIR,—Mr. Jabez Hogg deserves the thanks of the supporters of the Royal Medical Benevolent College for reminding them by his letter of the duty of using their votes wisely and well.

The plan followed in constituting the Committee of Investigation and Recommendation was doubtless the best that could have been adopted, when the question was discussed in 1879. The majority, if I remember rightly, expressed an opinion that the full power of election should be placed in the hands of such a committee, so as to abolish all the evils of canvassing; but they did wisely not to insist on their opinion in the face of the strong opposition of many old and valued supporters of the College. I for one approved of all the power being placed in the hands of a committee, but I would point out that, under the present rule, the committee should not be disheartened because their recommendations are not universally acted upon. They are acted upon by many, and would be accepted by more, if it were not that there happened to be amongst the candidates the children of former friends, acquaintances, fellow-students, or others in whom, for various good reasons, a natural interest is felt. To refuse votes to such, while liberty is left to individual subscribers to use their votes as they please, is difficult, and would appear hard-hearted and unkind. Probably most subscribers consign to the waste-paper basket the applications, however pressing, of unknown candidates, and vote for the official list, unless some reason such as I have indicated exist for acting otherwise. I think it likely that, amongst the unofficial successful candidates at the late election, there were some whose cases appealed strongly to personal sympathies, and that this fact, not want of appreciation of the efforts of the Committee of Selection (or weak yielding to the solicitations of traffickers in votes) may have accounted for the greater neglect of the official recommendations on this than on former occasions. It may be some consolation to Mr. Hogg and others who take so praiseworthy an interest in the institution, to have from a subscriber who is in thorough sympathy with their efforts, an explanation of the reason of his own neglect of the official recommendation on this and on some other occasions, and I feel sure that the same feelings will account for the action of many others.

With respect to Mr. Hogg's suggestion that none but subscribers or the children of subscribers should be entitled to benefit from the charity, I think that its adoption might have a very injurious effect on the interests of the College. Surely it is from those of the profession whose pecuniary position is fairly assured that the College receives its chief support. To adopt the suggestion would be to give something of the character of provident or mutual assurance to the institution, and would not enhance its claims on the more wealthy. That more general support should be obtained is most desirable, and with some little self-denial most members of the profession might subscribe; but it is not so much to struggling practitioners, from which class most of the candidates must come, as to the affluent and prosperous, that the College should look for support. By the latter, it is not supported as well as it should be. Surely it is the duty of the prosperous to aid in this way their less fortunate brethren, and that the number of subscribers to the College is not larger, must, I think, be due to its existence and needs not being brought sufficiently to the individual attention of members of the profession. If the committee were to send a special appeal to every member of the profession who does not subscribe at present, there would, I believe, be a good result.—I am, sir, A SUBSCRIBER FOR MANY YEARS.

INHALERS.

SIR,—In the review which appears in the *JOURNAL* of June 27th, on Dr. Hassall's work on Inhalation, allusion is made to Dr. Lees' inhaler, which requires notice from me.

As a good deal of attention has been given of late years to the subject of the treatment of disease by inhalation, which is one really of considerable importance, it occurs to me that it might be discussed at the meeting at Cardiff this year.

Instead of pointing out the errors into which the writer of the review on Dr. Hassall's work has fallen, probably from a want of practical knowledge of the subject, I shall have the pleasure of demonstrating practically the principal improvements which have been made in inhalers of late years at the Cardiff meeting. If Dr. Hassall attends the meeting, he will be able to explain the advantages of his "globe," but if he is not there, I shall take the opportunity of doing so.—I am, yours, etc.,
6 Saville Row, W.

ROBERT J. LEE.

HOW TO DISINFECT VACCINE LANCETS.

SIR,—For the past three years I have not had a single "bad" arm after vaccination, and I attribute it to sterilising the lancet by heating it in the flame of a match to dull redness immediately before the operation. As soon as the lancet is hot I wipe it to get away the charred mass, if any; then when I can bear the blade with comfort against my cheek I operate on the arm in the usual way. Before adopting this process an arm now and then would be angry and inflamed; now I never see hardly a bluish on any arm. The thing is simple because every house contains the means (lucifer matches) of through disinfection.—I am, yours faithfully,
S. Elgin Road, St. Peter's Park, London, W.

WM. FEARNEY.

NURSES' SUPERANNUATION FUND.

MR. J. PAUL BUSH (Clifton) asks for information on the subject of "framing rules and regulations, etc., for a hospital nurses' superannuation fund;" also if any London or provincial hospitals have such a fund.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND THE PROPOSED NEW UNIVERSITY FOR LONDON.

SIR,—I am a L.R.C.P. Lond., M.R.C.S., L.S.A. When I passed the L.R.C.P. examination, I was quite under the impression that it gave a man a right to call himself Doctor if he chose to do so, and most decidedly a "right to the title by courtesy," which "M.R.C.S." did not.

Had I not been under this impression, I doubt much whether I should have spent the money over the diploma, as, if it is of no value other than a mere legal right to practise, the M.R.C.S., L.S.A., or any other qualification effects the same object; but I do not think I shall ever regret having passed it; and for this reason, that I take diplomas or degrees of whatever source to be outward and visible signs of knowledge, or at least of education; and I shall never regret the extra work I did in Chemistry, Diseases of Women, and Pathology, for the College of Physicians, of which subjects not so much was required at the Hall. Therefore—and this is the point I want to bring out—the value of a diploma or a degree is in proportion to the difficulty of obtaining it, which means the excess of work over that done by others; and we must admit that this is recognised not only by the profession, but by the public. Now there is a great call out for the degree of M.D. amongst some of the profession; and there is a talk about a new university, which is to grant the M.D., as I understand it, to any doubly qualified man who can pass an examination in certain subjects. What is it they, namely, the agitators, want? Is it merely to be able to write M.D. after their names? or is it so that they may go forth to the world as better than they are? or what?

Take the first—to be able to write M.D. after their names. In the first place, would it be an honour? We know some men holding the title of M.D. who prescribe for sixpence, and are to all intents and purposes tradesmen. So the fact of being M.D. *per se* is of no advantage. Let those that think otherwise get the title of M.D. from anywhere they like. An unregistrable one, so far as I can see; if a man have a legal qualification besides, would be as good as any other; and I doubt if anyone could dispute his right to use it on his cards if he chooses, and on his doorplate, and to call himself Doctor. Is not the end attained?

Now take the other side. It sounds unpleasant "to wish to appear as better men than we are;" but is it not a fact nevertheless? Is it not a fact that, having done good work in obtaining diplomas, and seeing the advantages accruing to others holding good degrees as M.D., we are desirous of being on the same footing as they are—they who undoubtedly have done more work, if not actually medical studies, in the allied sciences? Is it fair to them that we should do so?

Once more, I have said, the value of a degree is in proportion to the difficulty of obtaining it. And if we are going to have a new university which is, practically speaking, to open its arms to doubly qualified men—for it would amount to this if it admitted L.R.C.P.s and M.R.C.S.s (it must, I think, admit M.R.C.S., L.S.A.s)—what would be the value of the degree as a degree? Simply none. Besides, I doubt much whether it matters to nine out of 10 general practitioners what diplomas or degrees they hold. It is only those in the higher walks of the profession—hospital physicians, consultants, etc.—who are obliged to hold degrees; and why? Because it is a rule in every hospital of note, I believe, that the physicians must be graduates of an university, and Members of the College of Physicians, or must become so within twelve months of their appointments. This is a good rule. It ensures getting men of education and training to fill these responsible posts. I think these hospitals would bar graduates who had obtained their degrees in the manner proposed for the Albert University, and quite rightly so, but it would be a most uncomfortable degree to hold.

No, if we are to have a new university, and it is to be made easier to obtain a degree for men already qualified, and, perhaps, in practice, which arrangement I should be most happy to see, let it be done in an honourable manner, and let the degrees be worth having; let it be the outward and visible sign of superior education which it is now supposed to be.

A "Junior Practitioner" in the *JOURNAL* of June 27th proposes a final test examination, leaving out theory of medicine, chemistry, and pathology. I maintain that so many men would be eligible for, and able to pass, this final test-examination, that the value of the degree would be represented by a cypher. I should propose just the very opposite. Let every candidate either bring proof of having passed an university matriculation, or make it imperative for him to pass an equivalent, in which I should say mechanics, hydrostatics, pneumatics, heat, light, sound, etc., should be necessary subjects, some knowledge of these subjects being indispensable to one wishing to investigate for himself and understand the phenomena we are constantly meeting. Then I would make chemistry and pathology important for similar reasons, the final examination in medicine and therapeutics of the standard, say of Durham. If a man held the diploma of the Royal College of Surgeons, I would not make it imperative for him to pass again, unless he wished to have a C.M. degree. In fact, I would propose a course similar to that required at Durham, less residence and surgery. By this means I believe all to whom it would be an advantage, and all who really loved their work, and would be likely to get on, would be able to obtain a degree which it would be an honour to hold.—I am, sir, yours faithfully,
R. C. B.

ACCIDENTAL VACCINATION.

SIR,—The following case may interest your readers. A few weeks ago I was asked to see a woman, whom I found to be suffering from what at first sight looked like facial erysipelas. On examination, I found, just over the left nasal bone, a circular sore covered with a dark scab, from beneath which a clear discharge was exuding. The sore had all the appearances of a vaccine-vesicle at about the eighth day, which had been rubbed and ruptured. On inquiry, I learned that, among others, I had vaccinated the child of the patient about a fortnight previously, and that the discharge of lymph from the arm, having been very copious, was wiped up with the mother's pocket-handkerchief; and, although the woman thought she had had no scratch on her nose, I have no doubt that the inoculation occurred in this way. The case ran pretty much the usual course, the inflammatory oedema speedily yielding under the application of lead-lotion, and the sore is now healed; the woman's face, of course, is permanently disfigured by the resulting scar.

The case would teach mothers to be careful how they handle the arms of their children after vaccination.—I am, sir, yours truly,
Stokenchurch, Oxon. G. NICHOLSON STATHERS.

M.R.C.P. QUALIFICATION.

LENTIGER asks if any of our correspondents can inform him what Latin author or authors form the subject of examination for Scottish medical graduates who propose to go forward for the above qualification.

THE CONSTANT ELECTRIC CURRENT.

SIR,—I am in need of an apparatus for generating electricity, and have made inquiries concerning the principal forms of "constant current" batteries in vogue. It seems to me that all are more or less cumbersome, and that they are liable to go out of order when not in use, and require a good deal of attention. A lay friend, versed in electricity, suggests the use of a small "dynamo" machine. It appears that a small one, to be driven by hand, could be got at less cost than the average price of a battery. It would certainly share with batteries in general the disadvantage of being cumbersome, but it would never get out of order, and would require very little keeping up. My reason for writing is to ask, through the valuable medium of the JOURNAL, whether any of your readers have tried this way of generating primary electricity for medical purposes, and if so, whether they can commend it?—Yours truly,
C. E. DOUGLAS, M.D.
Cupar Fife.

* * All attempts hitherto made to construct a dynamo-machine suitable to the requirements of medical men have failed. Gaiffe, of Paris, and others have spent much time and ingenuity in trying to solve the problem, but in vain. The difficulties are: (1) to obtain a continuous, equable current, without reversals; (2) to graduate this current with sufficient fine adjustment; (3) to produce a high enough electro-motive force (at least 30 volts) by the work of one man. The best galvanic batteries are the Leclanché (as made by Schoth, 230, Euston Road) and the new sulphate of mercury one (by Thistleton, 1, Old Quebec Street, W.). The former can be readily kept in order, taken to pieces, and recharged by any intelligent person. A useful battery may be obtained for from four or five guineas. A full discussion of these matters is to be found in the second edition of De Wetteville's *Medical Electricity*.

HAY-FEVER AND HEMOPTYSIS.

SIR,—A lady, 32 years of age, suffered from hay-fever for over a year. No remedy seemed to have any permanent effect, and the fits of continued sneezing, with thin watery discharge from the nose, occurred every morning on rising, or on going to bed. After one of these attacks, she was seized with hemoptysis. She was treated by me for this complication in the usual way, and with success. So long as the bleeding from the lung continued, she never sneezed once; directly it stopped, the sneezing began again. Examination with the stethoscope divulged no lung-disease, nor was it traceable in her family. She underwent a successful operation for nasal polypus, by Mr. Savory, when she was 17 years old; but I can discover no signs of another polypus.—Yours truly,
V. FOULAIN, M.D.
124, Fulham Road, S.W.

PERMANGANATE OF POTASH.

SIR,—Will you permit me, what must be for myself, a final word upon this subject?

The unaltered pills, which began this controversy, were made of kaolin, vaseline, and paraffin, as mentioned in my letter of April 11th, and very probably according to the formula of the *Extra Pharmacopœia*. Mr. Martindale's letter does not prove that his pills are dissolved in the stomach; and they may be disintegrated, but not dissolved in the lower parts of the intestinal canal. Dr. Bampton, of Plymouth, suggests unguentum resine as an excipient, since kaolin does not answer; and if the drug can be safely and profitably administered in pills, this suggestion deserves attention.

My contention still stands to the effect that this drug "must be administered as carefully as arsenic," and with the same precautions; and Messrs. Corbyn, to whom I mentioned my views upon this subject, tell me that they have a liquor potassæ permanganatis of moderate strength, and this preparation, if it can only disguise the nauseous taste of the drug, is clearly an approach to the necessity of the case.

There has been sent me, by Messrs. Burroughs and Wellcome, a bottle containing a large number of tablets of the permanganate, but with no definite directions upon either the bottle or the papers enclosed with it, other than "the dose, one to four, as may be indicated." Now, if this bottle be supplied, invariably to the public, as it was sent to me, there would be clearly danger, as I have found, and as Mr. Martindale and others also show. However, in a letter which preceded it, a paper of clear directions was sent, and this should always go with the drug itself. As a mouth-wash, in obstinate ulcerations of the gums, these tablets, dissolved in water, have a more beneficial effect than any other remedy I have used. Four grains are an excessive dose, no matter in what way, or in whatsoever vehicle the drug may be conveyed.—I am, sir, obediently yours,
Mandeville Place.
FRED. SIMMS.

AN EASY METHOD OF BOOKKEEPING.

SIR,—At a time when most general practitioners are beginning a new half year's book-keeping, I should be glad to furnish particulars of a method which I have tried for twelve months, and found to answer admirably. For ten years past, my practice has averaged £650, and I have worked it single-handed, so that my half-yearly posting and account-making used, until I tried this new method, to be a complete bugbear. I would advise those similarly placed to try the same method. It has the advantage of requiring no book, except an ordinary ledger, the index of which I place by preference at the end. Instead of making entries first in a day-book and afterwards transferring them into a ledger, I enter them at once in the ledger, apportioning to each account two columns (that is, a whole page). The one column contains the usual ledger-entries in cipher, such as "Mar. 31 'x' 5vj," which means that, on March 31st, there was a visit paid, and a new six-ounce mixture sent. The other column is devoted to the corresponding prescriptions, which are given in cipher also. Thus, "Mrs. —, Mar. 31, R. M. fer. cit. c 2 (5ss)," which means that Mrs. —, on March 31st, had a mixture of citrate of iron and quinine, half a drachm to the six ounces. I may mention also that, opposite the first entry, in the space usually allotted to folio, Mrs. would already have been entered, and that the above reference is made because the two columns do not necessarily advance *pari passu*.

At the end of half-year, I have nothing to do but transfer the totals to account forms; and, in the meantime, I have the double advantage of being at once able to refresh my memory as to the character of previous prescriptions in any case, or to make out an account when specially requested to do so, without having to search through countless pages of the old fashioned day-book.—I am, sir, yours faithfully,
M.R.C.S.Eng. and L.S.A.

P.S.—I keep, in addition to the foregoing, several pages devoted to casual patients, the entries being, however, very similar, except that the name is given in full each time.

PARTNERSHIPS.

SIR,—Would you kindly permit me to ask through your JOURNAL what is the best course for one to pursue on entering into partnership in a large middle-class practice, and if there is any book published on it that could be recommended. Any information regarding the drawing of agreements, and the different points which should be brought out prominently in the same, will be thankfully received.—I am, etc.,
MEDICUS.

* * Our correspondent's best course will be to apply to one of the medical agents whose advertisements are to be found in the JOURNAL.

CHOLERA.

DR. KINKEAD.—Dr. Cunningham's work, *Cholera, What Can the State do to Prevent It?* is an official publication printed by the Superintendent of Government printing, Calcutta, 1884. A copy, we should think, could be had at the India Office. It is a supplement to the twentieth annual report of the Sanitary Commissioner with the Government of India, 1883.—With regard to the other question, as to the best authorities on the treatment of cholera, we may refer the questioner to the article Epidemic Cholera, by the late Dr. Edward Goodeve, in Dr. Russell Reynolds's *System of Medicine*, vol. i, and to the article Cholera, in Dr. Quain's *Dictionary of Medicine*, vol. i, by Mr. C. Macnamara.

OBSERVATIONS ON REPRODUCTION.

SIR,—A correspondent in the country sends me some observations on reproduction that you may consider worthy of record. He writes, "I have a most curious fact or two to relate with regard to breeding of rabbits, and this fact is verified still further under my own observation. When I commenced to breed rabbits, my first buck was a black one. Although he has been dead over six months, all those does who had young ones by him, continue to have from two to four black ones, and it seems they will continue to do so. I do not like black ones, as they do not do so well as grey ones."

"A gentleman had a splendid greyhound bitch; she got with a lurcher dog; of course that brood was drowned. The next time she was sent to a famous dog near Derby; as the result, two of the pups had tails like the lurcher."

"I knew a woman who was married to a black man. She had two children by him, and he died. Two years after, the woman married again, to a white man. The first child by that marriage had one black hand, and its hair was deep black and curly. Can you account for these facts?"

I know his observation on the rabbit may be taken as correct, for I know how separate his rabbits are kept. The observation on the lurcher carries out that on the rabbit. Do any other correspondents know of like cases to the human one? Such cases are instructive, showing that marriages have much influence on future offspring, even after the first husband is dead.—Yours truly,
T. R. ALLINSON, L.R.C.P.Ed.

* * The subject concerning which Mr. Allinson writes was ably investigated, many years ago, by Dr. Alexander Harvey, then of Aberdeen. Our correspondent should consult Dr. Harvey's papers in the *Edinburgh Medical Journal*, for October 1849, and October and November, 1850; also a pamphlet by him *On a Remarkable Effect of Cross-Breeding* (Edinburgh, 1851).

A HEALTH-RESORT NEAR LONDON.

SIR,—I am very desirous of ascertaining, for medical reasons, whether there are any localities within an hour's railway of London, where one could find surroundings in respect to soil and vegetation somewhat similar to Bournemouth; a soil of sand or gravel, with very little grass, and plenty of firs and pines; not too bleak in winter, and yet not relaxing in summer. I would not presume to trespass upon your columns with such a question as this were it not a matter of real importance, and I shall be most grateful to any of your readers who may be able and kindly disposed to furnish me with the information. Weybridge has been mentioned, but I have an impression, perhaps a mistaken one, that it is not good for persons with a tendency to asthma.—Yours faithfully,
Cossington House, Bridgwater.
A. D. GRAHAM.

THE ASSOCIATION OF TONSILLITIS WITH THE RHEUMATIC DIATHESIS.

SIR,—It has frequently been asserted that there is a connection between tonsillitis and rheumatism. In almost every case I have been able to trace either excessive muscular or nervous exhaustion, but scarcely in one the slightest history of rheumatism. Of course, there must be the previous existence of the particular constitutional predisposition or tendency. The following is the history of the last three cases I have attended.

1. A servant was very hard worked at the time in getting things into a new house which her mistress had taken, and had been getting her meals very irregularly.

2. A man had not long before undergone a rather severe operation in London, and before he had thoroughly regained his strength, came home and cohabited with his wife. This man was a great bicycle-rider, and he told me he had frequently been attacked before after a long and fatiguing journey.

3. A coachman, a very anæmic and weakly looking individual, had just returned to his wife after her first confinement.

In neither of these three cases was there the slightest history of rheumatism. It is frequently, I believe, associated with anything which tends to exhaust muscular or nervous energy.—I am, sir, your obedient servant,
Surbiton.
F. P. ATKINSON.

METHOD OF ADMINISTERING PEPsin.

SIR,—The method of administering pepsin as described by Dr. Prosser James in the JOURNAL of May 16th, is one that I have adopted for some time past, though not in any fixed formula. I have prescribed pepsin, giving directions for each dose to be mixed with the salt taken on the plate at each meal, and to be eaten as a condiment. This mode of prescribing pepsin, although not so elegant as as Dr. James's "sal pepticus," has a decided advantage over any particular formula, inasmuch as it leaves the prescriber free to order whatever dose he may consider beneficial, or to make the addition of other drugs that are frequently necessary to meet the requirements of certain cases.

For instance, decided benefit is derived by the addition of a minimum dose of hydrochlorate of morphia in cases of painful digestion. An eighth of a grain of hydrochlorate of morphia and five grains of pepsin, mixed with rather less than twice its bulk of common salt, is quite indistinguishable by the taste from common salt. So simple can the directions be made to the patient, that it seems a pity to hamper oneself by prescribing fixed formula.—I am, etc.,
Grand Parade, Brighton.
WILLIAM J. STEPHENS.

INTRAVENOUS INJECTION OF MILK IN CHOLERA.

SIR,—In the JOURNAL of June 6th, page 1148, I observe my father's name, the late Dr. E. M. Hodder, F.R.C.S. Eng., of Toronto, mentioned in connection with the intravenous injection of milk in Cholera. I have often heard him speak of those cases, and remember that he used to say, the cows were milked at the door of the hospital and the warm fresh milk injected. This appears to be a most important detail. The late Dr. Bovell, of Toronto, was, I think, associated with him in the experiments.—Yours faithfully,
J. W. S. HODDER
Newry, Surgeon-Major Medical Staff.

IS SPASMODIC CONTRACTION OF THE UTERUS ON THE PLACENTA EVER CAUSED BY TRACTION OF THE CORD?

SIR,—Dr. Drinkwater's practical and interesting letter on the "Management of the Third Stage of Labour" in the JOURNAL of April 25th, incidentally again raises the question of the necessity, in certain cases, of removing the placenta by gentle traction of the cord.

My object in writing this communication is to elicit the practical experience of obstetricians on this subject. I do not ask for opinions, but verified cases. It cannot be seriously argued that spasmodic contraction of the uterus is ever caused by a slight traction of the cord, which does not put so much strain upon it, as sometimes happens when, either from abnormal shortness of the cord, or from its being twisted round the neck of the child, it is, at the birth of the child, forcibly put on the stretch, in which cases I have never met with contraction.

Again, a great amount of traction is put on the cord when the mother is in an upright posture at the birth of the child, but no difficulty about the expulsion of the placenta has ensued. In Churchill's *Midwifery* (1866, 5th edition, p. 504) nothing is said of traction of the cord causing irregular contraction of the uterus; on the contrary, in some cases of such irregular contraction, it is advised that "steady and firm traction should be made by the cord, and maintained for some time without relaxation, at the same time that firm pressure is made upon the uterus."

I have recently had another case of spasmodic contraction of the uterus upon the placenta, where no traction whatever was made upon the cord, but (as in the case which I communicated to the JOURNAL of March 1st, 1884) the placenta was broken down; and I am inclined to think that this abnormal and unhealthy state of the placenta in each case was partly, if not wholly, the cause of the spasmodic contraction of the uterus. These are the only two cases of spasmodic contraction which have come under my care during nearly twenty years of midwifery practice.—Yours faithfully,
W. L'HEUREUX BLEKNARNE.
Buckingham.

P.S.—Let it not be imagined that I am an advocate for removing the placenta in all cases by traction of the cord. All I argue for is this; that, in certain cases, the removal of the placenta by gentle traction of the cord is a perfectly justifiable and scientific operation.

NITRITE OF AMYL AN ELIMINATOR OF URIC ACID.

SIR,—In reply to Dr. Handford's memorandum in the JOURNAL, of June 20th, endeavouring to criticise my paper on this subject, which was published on May 23rd, I must ask him again to peruse that paper carefully, and deliberately to weigh its statements. He will then find that, although it is true that my pathological case, 1, was "complicated by the administration also of nitro-glycerine," and, therefore, the evidence derived from it is to be held until I find a willing subject for my promised check-experiment, to be to that extent vitiated, it is not the fact that my physiological experimental case, 2, was thus complicated. Dr. Handford has apparently written without considering whether the urine, of which I speak as having been passed at 4 o'clock, was, on purpose, passed before nitro-glycerine was given. I need hardly repeat that the specimen referred to was secreted under the influence of the nitrite of amyl alone. Case 3, I am ready to admit, may have been an instance of *fallacia non sequitur*. That is one reason why I said "further research is manifestly required." But then Dr. Handford neither adduces proof of the alleged insufficiency of evidence in the one case, nor of fallacy in the other. He only avers that my results are "quite as likely" to have been due to concentration of urine (which he of course has never seen) as to the nitrite of amyl. Now, as we are getting past the days of acceptance of speculation and dicta and "quite-as-likelys," even in medicine; and, as Dr. Handford informs us that he has previously wrought at the quantitative estimation of uric acid, I call upon him to produce the evidence of counter-experiments on the lines which I necessarily pursued, to which he can easily add the usual extended and more exact methods. If he take up the gauntlet, I am sure he will find the research to be the most useful and interesting on the subject of uric acid in which he has ever engaged; and then he will be in a position absolutely to affirm or deny my conclusions that nitrite of amyl is an eliminator of uric acid, and a rational therapeutic agent in gout.—I am, etc.,
ARCHIBALD D. MACDONALD, M.D. Edin.
26, Spellow Lane, Liverpool.

DEGREES AT THE UNIVERSITY OF LONDON.

SIR,—I do not understand, from your remarks and those of your correspondents, that it is seriously proposed to lower the standard of degrees, but merely to increase the facility of obtaining the ordinary pass-degree in any subject. Where the shoe pinches is, the inability to take advantage of a second opportunity in the course of the year, if, from any cause, a candidate fails to obtain, say his M.B. in November. It is certainly hard on him, particularly if in practice, to have to wait twelve months before he has another chance. This requires reform.—Yours truly,
M.R.C.S.

SPERMATORRHEA.

SIR,—I shall esteem it a great favour if, in your column of answers to correspondents, you will give me the address of a London physician who can be trusted in the treatment of a case of spermatorrhea.—I am, etc.,
A PROVINCIAL.

* * * Any hospital-surgeon may safely be consulted.

QUERIST.—M. Bouchard's communication is published in *Comptes Rendus Hebdomadaires des Séances de la Société de Biologie*, No. 41, December 12th, 1884. (Masson, 120, Boulevard St. Germain, Paris.)

ZETA.—The questions asked by "Zeta" would be best answered by any of the medical agents whose advertisements appear in the JOURNAL.

DR. TALFOURD JONES.—Too late for this week; reached us as we were going to press.

THE HAIR FALLING OFF.

SIR,—The formula given by "F.R.C.S." in the JOURNAL of May 2nd will be found in the *Companion to the British Pharmacopœia*, under the name of Linimentum Crinale. The first edition (1864) contained a formula for it, but the present improved formula occurs in the third edition (1866) of that work.—We remain, sir, your obedient servants,
P. W. and A. H. SQUIRE.
413, Oxford Street.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Willoughby, London; Mrs. Sheil, London; Mr. W. G. Ruckwood, London; Mr. James Startin, London; Dr. A. H. Newth, Hayward's Heath; Mr. E. White Wallis, London; Dr. J. Thompson, Bideford; Dr. Harris, London; Mr. G. St. George, Lisburn; Mr. C. Roberts, London; Dr. R. Dale, Sunderland; Dr. Maunsell, Huddersfield; Dr. Campbell, London; Mr. Roth, London; Canon J. Howe, Knowle, Warwickshire; Dr. T. G. Lyon, London; Dr. Eastwood, Darlington; Dr. S. Davies, Cairo; Dr. Maxwell, Woolwich; Dr. V. Poulain, London; Dr. C. Lovegrove, Hythe; Our Aberdeen Correspondent; Dr. Crautoun Charles, Streatham; Dr. Murrell, London; Mr. J. M. Menzies, London; Dr. Sheen, Cardiff; Mr. J. J. Bisford, Penarth; Dr. F. Pearce, Haslemere; Mr. J. Wilson, Wanlockhead; Mr. George Eastes, London; Mr. James Crombie, Brentford; Dr. D. W. Finlay, London; Dr. Thin, London; Mr. J. Bellamy, London; Mr. T. R. Allinson, London; Mr. H. G. Turner, Bournemouth; Mr. L. Hill, London; Mr. E. Stock, Bristol; Messrs. Ingram and Royle, London; Dr. W. Webb, Widsorth; Messrs. Street and Co., London; The Secretary of the Dental Hospital of London; Dr. J. Rogers, London; Mr. W. S. Jebb Scott, London; Mr. M. R. J. Behrendt, Burringham; Mr. Otto Hehner, London; Mr. W. L. Emmerson, Melton Mowbray; Mr. Arthur Jackson, Sheffield; Dr. E. Tricomi, Naples; Dr. C. Workman, Munich; Mr. T. Hope Lewis, Auckland; Mr. W. W. Wagstaffe, Sevenoaks; Mr. T. Lambert Hall, Dilwyn; Mr. J. A. Waring, Norwich; Mrs. M. M. Davies, Swansea; Mr. J. Robertson, Birmingham; Our Berlin Correspondent; Mr. W. T. Jackman, Goggeshall; Mr. H. J. Manning, Salisbury; Messrs. Brin Frères, London; Mr. J. Byrne, Londonderry; Dr. G. M. Thompson, Bellaghy; Our Correspondent at Valencia; Mr. C. Hyslop, Church Stretton; Dr. J. B. Ball, London; Dr. Laserson, Tottenham; Mr. C. Wickham, Devonport; Dr. D. Williams, London; Mr. J. Kirkley, South Shields; Dr. C. W. Marriott, Leamington; Mr. H. W. Adams, London; Mr. J. Cooper Stawell, Laghey, Donegal; Dr. Myers, London; Mr. R. A. Dykes, Bath; Mr. M. E. Thomson, Northampton; Brigade-Surgeon R. J. W. Orton, Newcastle-under-Lyme; Mr. Ernest Bower, Colchester; Mr. W. L. Blenkarne, Buckingham; Dr. Alex. Ferguson, Peebles; Mr. R. Holtby, York; Our Dublin Correspondent; Our Edinburgh Correspondent; Mr. W. May, Bradford; Mr. A. Wilkinson, Tynemouth; Mr. Heard, Truro; Dr. W. Curran, London; Dr. T. Jones, Brecon; Mr. P. M. Davidson, Congleton; Dr. N. Kerr, London; Mr. E. J. Wade, London; Mr. B. Marshall, Manchester; Mr. J. K. Kelly, Glasgow; Dr. Markham Skerritt, Clifton; Mr. R. M. Ward, London; Mr. Shirley Murphy, London; Mr. W. K. Fayle, Parsonstown; Mr. F. Hewitt, London; Mr. J. Tomlinson, London; Zeta; Mr. T. H. Mitchell, Catford; Mr. D. Davies, Bristol, etc.

BOOKS, ETC., RECEIVED.

Von Ziemssen's Handbook of General Therapeutics. London: Smith, Elder, and Co.
The Anatomy of the Intestinal Canal and Peritoneum. By Frederick Treves, M.D., London: H. K. Lewis. 1885.
Diseases of the Brain. By W. R. Gowers, M.D. London: J. and A. Churchill. 1885.
Retrospect of Medicine. Edited by James Braithwaite, M.D. London: Simpkin, Marshall, and Co. 1885.
Handbook for the Instruction of Attendants of the Insane. London: Baillière, Tindall, and Cox. 1885.
Lectures on Diseases of Children. By Robert J. Lee. London: Baillière, Tindall, and Cox. 1885.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE "BRITISH MEDICAL JOURNAL."

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REMARKS

ON THE

TREATMENT OF URETHRAL STRICTURE,
BY COMBINING INTERNAL AND
EXTERNAL URETHROTOMY.*Read before the Lancashire and Cheshire Branch.*

By REGINALD HARRISON, F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary, and Lecturer on Clinical Surgery
in Victoria University.

I PURPOSE, in the following paper, detailing the treatment of certain cases of stricture of the urethra, where, for reasons presently to be stated, the operations of internal and external urethrotomy were combined for a single purpose. It will be seen that the cases were of an exceptional nature, not permitting treatment by dilatation, and necessitating the adoption of other measures for their relief. In thus speaking, in a manner, apologetically for what was done, it is because I feel that, as matters at present stand, a person with a stricture had better employ dilatation in some form or other, so long as he can keep himself comfortable, and the size of the urethra is not progressively diminishing. When a patient finds himself liable to attacks of sudden retention, and other serious inconveniences, then it becomes necessary to seek further means of relief. With the views that at present prevail in reference to internal urethrotomy, there will be not a few who would probably, under the circumstances I have mentioned, urge the claims of this procedure. I must, however, in reference to the latter operation, express myself as differing materially from many other surgeons of large experience, for whose opinions I entertain much respect. It is not my intention to convert these remarks into a full criticism on internal urethrotomy: but, as I have been in the habit for a considerable number of years of carefully inquiring into the history and previous treatment of all cases of stricture that have come under my care, both in hospital and in private practice, I cannot refrain from noticing what appear to me to be the chief defects in this operation, and which, in my judgment, neutralise the advantages claimed for it.

In the first place, internal urethrotomy is extremely liable to be followed by a form of fever which is exceptional, unexplainable, and occasionally fatal. It is not the ordinary wound-fever of operations; it is generally ushered in with a rigor, and, in its course, presents every degree both of mildness and of severity. It is occasionally attended with suppression of urine, and it sometimes proves fatal in cases which seem well adapted for operation; and, after death has happened, no satisfactory explanation as to its causation or pathology can be offered.

In the second place, internal urethrotomy does not furnish better permanent results than other methods of treatment; some of the worst cases with which I have had to deal have been those where the stricture has been divided from within. Nor can it be urged that the use of the bougie is ever dispensed with, even after the most successful performance of the operation: to operate on a person and to require him to continue the introduction of an instrument for the remainder of his life, indicates that only a partial good is to be hoped for at the best.

With important contingencies such as these to provide against, it is not surprising that some surgeons hesitate to adopt internal section otherwise than under very exceptional circumstances. Still, on the other hand, it is impossible not to see that, so far as the operation is concerned, there is much to recommend it on theoretical grounds.

On carefully considering the whole subject, it seemed that, if it were possible to assimilate the performance of internal urethrotomy with some other operations on the urinary apparatus, where there was an absence of any special form of fever or septic intoxication following them, and where the wounds inflicted did not heal with a scar-tissue, which subsequently manifested an inordinate disposition to contract, we might mitigate, if not entirely remove, the more prominent objections connected with internal urethrotomy to which I have alluded. If, for instance, we take the operations of lithotomy and of perineal section, where the urethra is more or less involved in

the wound, and where, at the same time, provision is made for the escape of urine from the bladder by the newly formed passage, we shall find both proceedings free from the subsequent occurrence of rigors, and from the development of the special form of wound-fever which, in varying degrees, almost constantly follows internal urethrotomy. If the temperature-charts be taken, say of 50 cases each of lithotomy, of perineal section, and of internal urethrotomy, we shall see whether such a statement is not warrantable, whatever the deduction therefrom may be. I cannot remember an unexplainable rigor following immediately upon a lithotomy; but, in my experience, after internal urethrotomy, it has been almost constant. In what lies the difference? Are the anatomical and physiological arrangements in the female sex sufficient to account for its entire immunity from anything resembling urinary fever or intoxication as observed in the male, in all cases involving operative interference with the female urethra?

Why do not persons suffering from tight oesophageal strictures suffer from rigors and fever after the passing of bougies, even when it is evident that the operation has occasioned some breach of surface?

Mr. Berkeley Hill thus speaks (BRITISH MEDICAL JOURNAL, 1879) of what he has observed. "About three years ago, I tied in a catheter in every alternate case, in a series of 38 urethrotomies, leaving the urethra unprotected from the urine in half the cases, without regard to the lightness or gravity of the case. On comparing the after-progress of these cases, I found that elevation of temperature and rigors occurred in both sets of cases, but far more frequently in the set where a catheter was not tied in. Though shivering was not invariable, a rise in temperature always took place where a catheter did not lead off the urine during the first 24 hours. This effect of the flow of urine over the wound is unmistakable. The temperature after the operation remains normal for as many hours as the patient refrains from micturition. But within half an hour after urine has flowed through the urethra, the thermometer shows unnatural heat, in some cases not rising above 100° Fahr., and subsiding in five or six hours to a normal range. When the re-action is great enough to produce higher elevation of temperature and rigor, the amount of previous kidney-degeneration is probably considerable, and the approach to danger is pretty close. In Mr. Davies's table, there are 20 cases where the temperature, after incision of subpubic strictures, was noted hourly; in 12 a catheter was tied in, in eight it was omitted. In all of the eight, the temperature rose in the 24 hours, the lowest being 102° Fahr., and the highest 106.6° Fahr. Of the 12 where the catheter was tied in, in six the temperature remained normal throughout. In three others, the temperature remained normal until after the catheter had been removed. In the last three cases, notwithstanding the presence of the catheter, the temperature rose, on the night of the operation, to 100°, 102°, and 103° Fahr. respectively, becoming normal next day."

The only case I have seen where rigors and fever, such as are here referred to, happened after an operation for stone, was once when, by reason of a stricture, I failed to extract a stone which lay embedded in the walls of the urethra, immediately behind the contraction. I preferred, after a trial, to dilate the stricture, and to leave nature to complete the process of expulsion, which she speedily did at the next act of micturition. The canal was somewhat lacerated by the forceps, and consequently the condition was not unlike that of an internal section for stricture. Notwithstanding a sharp attack of urinary fever, extending over two days, in connection with this almost trivial incident, the patient made a good recovery.

Since I have been engaged in the investigation of the circumstances under which urinary fever is provoked, with the view of avoiding it in practice, an important communication has been made to the Société de Biologie, by Professor Bouchard (BRITISH MEDICAL JOURNAL, June 6th, 1885), who has drawn attention to the poisonous effects of normal urine when injected into the blood, even in small quantities. It seems exceedingly probable that these effects are due to the presence of certain alkaloids in the urine. From a chemical standpoint, the whole subject is worthy of the most careful investigation. If it be found possible to determine precisely the substances capable of producing such poisonous consequences as are usually attributed to the alkaloid group, it will necessarily follow that we shall learn how to avoid the conditions under which these substances are produced.

Again, though the urethra is cut with the knife, and is often torn or scraped during the extraction of rough stones with the forceps, I have never known, in a personal experience of something like 100 cases of lithotomy, in persons of all ages, a stricture of the urethra to follow, but I have known, within this category, two instances where

persons were permanently cured of bad strictures by an extension of the wound necessary for the removal of the stone.

A rupture of the urethra following a blow or contusion of the parts, is generally regarded as exposing the patient to an almost certain risk of a stricture of the worst kind. This liability is, I believe, from some experience of these injuries, largely influenced by the conditions under which the patient is placed immediately after the accident; in other words, the liability to urinary fever, and to subsequent stricture, is mainly determined by the line of treatment that is pursued. Let me take two examples; 1, where the urethra was completely torn across, and there could be no doubt as to the treatment; and, 2, where the rupture was partial, and less heroic measures were, with the best intentions, employed.

Three years ago a middle-aged man fell, on his perineum, across a joist, and completely ruptured his urethra, about the membranous portion. My house-surgeon at the infirmary could not pass a catheter. I saw the patient within an hour of his accident, had him placed under ether, managed to slip a staff into his bladder, and made him a median perineal urethrotomy: through this the urine drained for several days. The patient made just as good and rapid a recovery as any case of median lithotomy I have seen, and is now as sound as if he had been operated on for stone, instead of having had his urethra torn across. He has not a sign of stricture, nor is he now likely to have. Five years ago an omnibus conductor was kicked behind the scrotum, and bled from the penis. He was found to have a partial rupture in his membranous urethra. A soft catheter was, however, introduced into the bladder, and was retained for ten days, when the patient began to pass his urine naturally. During this period, the temperature-chart showed many variations which gave cause for uneasiness. He apparently made a good recovery. Twelve months afterwards, he again came under treatment, for a stricture of the worst type. Instances such as the former, which are not exceptional, point to the conclusions that a stricture is by no means a necessary consequence of a ruptured urethra, and that the development of the contraction has a relation to the treatment that immediately follows the infliction of the lesion.

My own observations on this point appear to correspond with those of Dr. Max Oberst, of Halle, who states (*Volkmann's Sammlung Klin. Vorträge*, No. 210) that, if this injury be treated by a free outlet for the urine, and effusion from the internal wound, it need seldom excite serious apprehension; but if, on the other hand, it be not judiciously dealt with, it will in many instances not only threaten the life of the patient, but permanently impair the urethra.

Further, it must be noted how unfavourable are the conditions for producing the best kind of repair which generally attend the operation of internal urethrotomy. The section which is requisite for the division of the contraction necessarily paralyses the urethra to the extent, or rather more, of the wound that has been inflicted. Hence the process of repair has to be carried on with the wound soaked in the urine that is left behind to stagnate, and to undergo change, after each act of micturition. This is a very different condition from the incontinent flow of urine over the glazed and granulating open wound of a lithotomy, or of a perineal section. In one case, it is merely contact of urine with open surfaces; in the other, retention within a confined space.

Amongst the most valuable contributions made to the surgery of the urinary organs must be included the late Professor Syme's observations (*On Stricture of the Urethra and Fistula in Perineo*, Edinburgh, 1849) on the treatment of stricture by perineal section—a communication which may be regarded as the most important one we possess on the radical treatment of this affection. In it we have, not only provision for the complete division of the stricture, but also for avoiding those contingencies to which I have referred as seriously interfering with the more general acceptance of internal urethrotomy. Amongst the few specimens I know of, where there is evidence that a stricture had been permanently cured, is one that recently came under notice at the Royal Infirmary. It was from a patient, aged 46, who died of chronic Bright's disease, in Dr. Davidson's ward, in February, 1885.

When ten years old, he injured his perineum, and subsequently suffered from stricture and urinary fistula of the worst type. In 1867, Mr. Bickersteth performed Syme's perineal section for him. In 1869, he was known to be quite well; and, during his recent residence in the Royal Infirmary, Mr. Bickersteth took care to determine that the stricture had not returned, though no precautions appear to have been taken by the patient during this long interval of time. After his death from renal causes, as mentioned, the urethra was removed and carefully examined. No sign of stricture could be found; in fact, the calibre of the urethra, along the line where the section had been made,

was positively larger in proportion to the rest of the canal; it seemed to have yielded somewhat under the pressure of urine.

I have frequently resorted to Syme's operation, with excellent results, where it was possible to include the whole of the stricture within the limits of a perineal incision. It is clear that this proceeding is not applicable to some very obstinate strictures, by reason of their position and relation to the perineum. For instance, strictures within the limits of the scrotum, or in the penile urethra, are obviously beyond a legitimate reach of it.

A careful consideration of the various points to which I have already given prominence led me to conclude that it might be possible advantageously to combine the two operations of external and internal urethrotomy. In doing so, my object was to secure that the healing process following the division of the stricture should proceed without being subjected to those influences, immediate and remote, which I have ascribed to the presence of stagnant urine in the wound. I desired to put in, as Gouley (*Diseases of the Urinary Organs*, p. 76, New York, 1873) expresses it, "a cicatricial splice," which should be formed under circumstances most favourable to kindly repair. How this was to be done, will best be understood by a perusal of the cases I will now relate. The first case, which served to lead up to the more complete development of the process, is as follows.

CASE I.—J. McL., aged 36, came under my notice at the Royal Infirmary in May, 1884, with a tight bulbous stricture. Fourteen years previously, internal urethrotomy had been performed. With care, he kept well until within the last 12 months, when, by neglecting the use of the bougie, the stricture returned; it was a dense one, and would not yield to dilatation. On June 6th, I performed Holt's operation, with a smaller divulsor than usually employed. After this was done, a full sized bougie passed readily into the bladder. There was much febrile excitement afterwards, and on the 10th, a considerable perineal tumefaction could be felt. The patient's condition was such as to cause me some anxiety. With the view of averting abscess, and possibly extravasation of urine, on the 11th I passed a grooved staff, opened the perineum, and introduced a drainage-tube into the bladder. The point where the urethra was opened was just behind the stricture that had been divulsed. The patient made a good recovery; and when he was last seen, eleven months after the operation, a No. 10 bougie passed easily, and he was urinating normally. This case is merely introduced as being a suggestive one in connection with others that followed. It pointed to the local and general advantages that immediately followed the complete withdrawal of the urine from contact with the divulsed portion of the urethra.

CASE II.—J. C., aged 45, was admitted on July 2nd, 1884, with a tight stricture of the bulbous urethra, perineal fistula, and a chronic orchitis. On July 9th, I succeeded in passing through the stricture a No. 2 English bougie. In the evening he had a severe rigor, and was feverish afterwards. On July 11th, I divided a long stricture with Maisonneuve's urethrotome. I then placed the patient in the lithotomy-position, passed a grooved staff, opened the membranous urethra, and inserted a drainage-tube into the bladder. No rigor or fever followed, and the urine drained clear of the stricture. Twice a day the urethra was washed out from the external meatus with an antiseptic fluid; for 19 days the urine drained by the perineal tube. After the drainage-tube was withdrawn, the wound closed, and the patient left the infirmary on August 15th, passing a full stream, and with a urethra admitting a large sized instrument.

CASE III.—P. McQ., aged 45, was admitted on June 10th, 1884. He had a urethra which was impervious just behind the scrotum, and numerous fistulae, through which pus and urine trickled. The first thing to be done was to make him an urethra, or rather, a direct way into his bladder. In the course of 17 days, I succeeded in doing this by taking a line which I thought as nearly as possible corresponded with the original urethra. Along this I passed a urethrotome, and made him a passage which would admit a good sized staff. Then I did him a perineal urethrotomy for drainage; the new urethra was washed out with an antiseptic fluid frequently from the front, with the result that, by August 16th, all the fistulae had closed but one, and the patient returned home urinating normally, and passing a full-sized instrument.

CASE IV.—E. C., aged 25, was admitted in January, 1885. He had a tight stricture in front of the scrotum, and a urinary fistula, with indurated edges, through which urine passed. By the urethra, the patient voided his urine in drops. On January 15th, I divided the stricture with a Watson's urethrotome. I then pared the edges of the fistula, and closed it with silver wire. A perineal urethrotomy was next performed, and a drainage-tube passed into the bladder. It is not necessary to follow the case throughout. On February 21st, he was discharged well; that is to say, his fistula and perineal opening were

both closed. He urinated naturally, and a full-sized bougie could be passed. He has reported himself once since as quite well.

CASE V.—W. C., aged 39, was admitted on January 2nd, 1885, with the history of a stricture extending over 12 years. He had undergone, some years ago, Holt's operation, at a Birmingham Hospital. He had a tight long stricture about the bulb, and a less important one behind it. In addition, he had an orchitis, which was suppurating, and required opening. The principal stricture was long and cicatricial, such as is generally seen when from any cause the operation of rupture or division of a stricture has failed. I could only pass an extremely fine instrument to commence with, and it was not till February 6th that I had made sufficient progress to get in a urethrotome. Having succeeded in doing this, I divided both strictures internally. In doing so, the longer stricture was so hard that the instrument failed at first to accomplish what I desired, I therefore had to reintroduce it, and to use it more freely. To satisfy myself that every source of constriction, along the whole length of this very distorted urethra, had been removed, I introduced Gross's dilator, and, having somewhat separated the blades, after the instrument had fairly entered the bladder, I withdrew it. I thus satisfied myself that every cause for stricture had been removed. In doubtful cases, after internal urethrotomy, I have thus used Gross's dilator with advantage; to operate and to leave a single band of contracted tissue undivided, however slight, is to provide a cause for the development of another stricture. After I had satisfied myself that the stricture had been removed, I introduced a grooved staff, and opened the membranous urethra for the passage of a drainage-tube into the bladder. The progress of this case was somewhat delayed; in the first place, the internal urethral incisions had been so free, that some blood-clots were retained in the anterior section of the canal and suppurated; it was further necessary to make a median antescrotal incision, to give exit to this discharge. I have since provided against the latter contingency in cases where I have had to make the internal urethrotomy freer than usual, by introducing a piece of drainage-tube through the external meatus, and bringing it out from the perineal wound by the side of the bladder drainage-tube; this permits any blood to drain off, and affords a ready means for washing out this portion of the canal with an antiseptic fluid. In this way the urethrotomy-wound can be made to heal, not only without contact with urine from the commencement, but free from the constant presence, in a confined space, of the products of the healing process. In other cases, where the internal cut has been small, I have found it sufficient to have the anterior portion of the urethra washed out frequently with an antiseptic fluid; this can be readily done by a syringe introduced at the external meatus, the fluid escaping by the perineal wound. I have thought it necessary to refer at some length to these details, inasmuch as they will be found to provide for the complete arrest of hemorrhage from the internal section, should such occur, and, further, for the application of the antiseptic system in the subsequent management of the wound, if this precaution be deemed desirable.

To continue with my case. In addition to the drawback which led to this digression, the patient had a pretty sharp attack of bronchitis, to which he appeared subject. The perineal drainage-tube was finally withdrawn on March 19th, by which time the cicatricial splice was soundly completed, and a full sized instrument could be passed into the bladder.

On April 23rd the patient was discharged well. On May 11th, 1885, he presented himself for examination. Both wounds were healed: he was passing urine, as he stated, in a full stream for the first time in his life, and a large bougie passed without any stricture being felt. What pleased me most was to find the steady improvement that had taken place in the tissues of the urethra; instead of being harsh and unyielding, they had become almost as soft and pliant as in the original state. This was obvious both from within and without.

I am indebted to my house-surgeons, Mr. Pearson and Mr. Dawson, for the careful manner in which the numerous details connected with the management of these, and other like cases, were carried out.

Sufficient illustrations have now been given of a method of operating which has, so far, justified my expectations. I shall proceed to notice some points which the cases suggest. Though it would be premature to speak of the combination of these two well recognised methods of operating, as affording a means of radically curing urethral stricture, there is much encouragement for such a hope in what has already been observed. I have now operated in this way on twelve occasions, without meeting with any discouragement; and though this number is not large, yet it includes the worst and most unpromising types of the disorder.

In the first place, it has been uniformly noticed that after the double operation we have never had a rigor, nor the development of that special form of urinary fever which frequently follows internal urethro-

tomy, and is occasionally fatal without forecast or explanation. If there have been any febrile excitement at any time after these operations, it has not been of an exceptional kind, but similar to what may follow the infliction of any wound, or it has been explainable by some such ordinary occurrence as the retention of matter in a disused fistula, or sinus. In the next place, we have been able to put into the urethra, at the point required and to the extent necessary, a cicatricial splice or interval of new tissue, formed and completed without contact with urine or other possible source of irritation. If the urine be capable, as it has been suggested, of forming, under certain conditions, poisonous alkaloids, their absorption by these wounds has been rendered well nigh impossible. The urethra has been placed absolutely at rest, and thus the process of repair has been facilitated.

We have already had evidence as to the different character of the scar-tissue which is produced by this process, compared with that which follows internal urethrotomy, where no special provision is taken to prevent the contact of stagnant urine and discharge with the healing wound. It is not difficult to imagine that the cicatrix in the two instances must differ.

One word before I finish, in reference to the kind of external urethrotomy that is performed. To speak of it as a perineal section is to convey a wrong impression. It should be described as a perineal puncture with a knife, completed with a probe, along which a drainage-tube is conducted into the bladder, the process usually occupying a couple of minutes, or thereabouts. It is not necessary to introduce the finger into the bladder at all; in fact, this should be avoided, as it may cause a prostatitis. I operate in the following manner. The patient being placed in the lithotomy-position, and a grooved staff introduced, I puncture the membranous urethra with a long straight finger-knife, one inch in front of the anus, the back of the knife being towards the rectum; the incision is slightly enlarged forwards, so as to permit the introduction of the index finger; if the staff be found exposed at the bottom of the wound, as it generally is, all well and good; if not, I reintroduce along my finger to the bottom of the wound a somewhat blunt though pointed knife (made for the purpose), with which I clear away the few fibres that remain between the tip of the finger and the groove; if a sharp knife be thus used, either the wound is made unnecessarily large, or the finger may very easily be cut. The plan of the incision is first to make it fit the finger, and subsequently the drainage-tube; if this be done accurately, there is practically no bleeding. When the groove of the staff is felt, Wheelhouse's small probe-pointed gorget is slid along it, the staff is withdrawn, and the drainage-tube passed along the concavity of the gorget into its position. The proceeding that I have thus described is merely for the purpose of drainage, and for placing the urethra at rest. It is, of course, preceded by the performance of internal urethrotomy, which at once admits the passage of a full-sized sound.

It may be urged, What is to be done with those cases where it is found impossible to pass even the smallest instrument to commence with into the bladder? All I can say is, that in practice I do not meet with these cases; where urine will escape, an instrument will enter. The great improvement that has recently taken place in urethral instruments for such purposes has almost entirely removed the impassable stricture. Where there are fistulae, and the urethra is at some spot impervious both to urine and to instrumentation, we have a very different condition of matters. One of the cases illustrates what may be done in the manufacture of a new urethra, capable of permanently discharging its normal function.

The drainage-tubes I employ are usually of gum-elastic, four or five inches in length, and somewhat less in thickness than an ordinary index-finger. They are secured by an eye on each side, through which a tape can be passed; they are also fitted with a piece of India-rubber tubing, by means of which the urine is conducted into a receptacle by the patient's bedside. In some cases, where the floor of the bladder is very irregular, or is sacculated, a double drainage-tube is preferable. The length of the drainage-tube in its relation to the interior of the bladder is of importance. It should be just within the bladder, and no more. I have drainage-tubes of different lengths, and verify their suitability to each particular case by rectal examination. After they have been inserted in this way, a correct fit and thorough drainage is obtained.

In conclusion: why persons should so frequently have an exceptional form of fever after internal urethrotomy, and why wounds of the urethra should so often be followed by the formation of an unusual kind of scar-tissue, are points worthy of our most careful inquiry. For it may be said truly that much of the future surgery of the urinary organs depends upon the more complete elucidation of these two questions. If this paper in any degree contribute towards the consideration of these topics, its primary object will be attained.

ABSTRACT OF AN ADDRESS ON THE ASPECTS OF MEDICINE AS A PROFESSION, AND ON THE TRAINING AND WORK OF MEDICAL MEN.

Delivered at the Annual Meeting of the Border Counties Branch.

By C. S. HALL, M.R.C.S. Eng., Carlisle,
President of the Branch.

Judging by the number of students who fail to complete their education, together with those whose after career is a failure, it is manifest that many serious mistakes are made; and that it would have been better for such men had they attempted some other calling in life, more suitable to their capacities, and more congenial to their tastes. Bearing in mind the amount of hard study that must be encountered, the number of examinations to be passed, the anxious and laborious nature of medical practice associated, as it necessarily is, with a keen and ever-increasing competition—one cannot but feel that only such lads as possess brain-power above the average, together with sound physical health, should be encouraged to enter upon so arduous a profession as that of medicine. It is useless to aim at too high a standard, or, indeed, to lay down any precise rule; but it is desirable, both for their own interest, and for that of the public, that those who undertake the study of medicine should be men above, or certainly not below, the average, in intellect, education, and character.

It appears that considerable difficulty is experienced by a large number in obtaining the primary certificate necessary for registration by the General Medical Council; and that every year there is an increasing number of rejections. It is clear, either that many of the applicants must have been exceptionally dull, or that they have been badly taught. The latter is often doubtless the fact, and it is a further proof, if such be needed, that the system of teaching adopted in many schools is exceedingly defective. The comparatively short period of time allotted to a medical student at college, is in danger of being more and more burdened by the multiplicity and variety of the subjects to be encountered. It should be the aim of the student to acquire thoroughly what is indispensable; and this he will be more likely to do, if he avoid muddling his brains with more than he can grasp. It may be well that he should be first taught "how to think," and then he will be better prepared to be taught "what he should think about." With a view to remedy the ever increasing demands on the student, it is desirable that the order, time, and course of the various subjects should be definitely arranged, so that a uniform system may be adopted in preparing students for the various examinations. It is also further needful, that there should be one uniform test for a diploma to practise, and that this should be the same throughout the United Kingdom. It is desirable that examining bodies should publish in their calendars or reports both the written and the *visà voce* questions. This would both act as a check on unreasonable examiners, and serve to indicate to candidates the lines on which they ought to work.

The education of the present age has a tendency to cramming; it attempts too much. Subjects are learnt by the mere mechanical effort of the memory, rather than intelligently worked out, and practically applied. It is a system of cramming for an examination, rather than a sound and solid preparation for the real work of life.

Some years ago, when the General Medical Council was duly constituted by Act of Parliament, much good was expected to result from its formation. It was naturally expected that this body would lose no unnecessary time in arriving at some intelligible and definite conclusions, as to the nature, order, and time of the various subjects to be undertaken by students, together with many other matters of interest to the general practitioner. These expectations have not been realised. This assembly, which has amongst its numbers some of the most able men in the profession, has proved to be a very costly and unproductive machinery, resulting in little else than endless discussion and purposeless deliberation. We stand in need of a thoroughly representative council, a body of men which shall include not only those interested in colleges and charters, but also a liberal proportion of members chosen from, and elected by, the medical practitioners.

When legally qualified, the beginner has apparently a wide field of work from which to choose, such as the Army, Navy, civil appointments, and private practice. The country practitioner, especially, leads a laborious life. Thomas Carlyle speaks of him as "continually scurrying hither and thither in his gig; now at a birth, and now at a death, he is perpetually on the confines of existence." Both rural and urban medical men have their drawbacks and advantages. But it has sometimes occurred to me, that the two might now and then exchange places, for a short time, with mutual advantage. Such a change of air and scene would especially benefit those living in very large towns, to whom the pure air and the charming scenery of the country in the summer time must do good; and, on the other hand, it would probably prove advantageous to the country practitioner for a short time to take charge of a practice in a populous centre.

I would venture to suggest the desirability of forming a local medical society, wherever there are a sufficient number of medical men in the neighbourhood, and it does not require many to accomplish it. These local efforts need in no way whatever diminish the strength and *esprit de corps* of the various Branches, which would be very undesirable; but, on the contrary, tend rather to add to their numbers, to increase their popularity, and to extend their sphere of usefulness.

With most of us, our professional work is our means of livelihood; so is the lawyer's, so is the clergyman's. But with all of us, I doubt not, it is something more, and that something more just makes all the difference between the purely commercial and the professional.

The science of medicine and surgery is continually advancing. The successive learners of one generation become the advanced teachers of the next. Very different is it with the profession of the law, which has advanced tardily onwards, with but comparatively little progress. Divinity, of which I would speak with respect, is said, by some, to be centuries behind. It is at least unfortunate that some of its own followers, if not actually afraid of science, seem to fear that they may be unable to reconcile themselves and their views with the teachings of the scientist. Very different is it in the broad and unfettered school of medicine. The open book of nature is ever before us, and we gladly welcome all science, all knowledge, and all truth. It is fortunate for mankind that the science of health and healing is gradually becoming more complete, and more potent for good. Medical men are thus enabled to teach and to carry out the laws of health. Thus do they help to make men happier, because they assist to make them healthier. Nor do they limit themselves to these, their especial duties; but it may honestly, and truthfully be said, that they are ready to join in every effort for the advancement of science, the comfort and happiness of those about them, and the good of mankind at large.

THE LEPROSY-BACILLUS.

By JOHN LINDSAY STEVEN, M.D.,

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THE general characters of the leprosy-bacillus (*bacillus lepræ*) have been so thoroughly investigated, and so well described, within the last five or six years, that my chief reasons, and also excuse, for recording the results of the examination of the following case are (1) that I may add to the, as yet at least, comparatively small number of investigations on this subject, and (2) that I may point out how far my own somewhat limited observations agree with what has been recorded by others.

Since the publication of Virchow's book on tumours, there has been but little difficulty experienced in assigning to leprosy its place amongst those diseases whose chief morbid feature consists in the development of areas of granulation-tissue in different parts of the body. Next to Virchow, perhaps, we owe one of the most careful and accurate accounts of the histology of leprosy to Dr. R. Thoma,¹ and we are also much indebted to the labours of various Norwegian investigators on this subject. The next advance in our knowledge of leprosy was made when it was demonstrated that a bacillus was always to be discovered in the areas of morbid tissue. The bacillus was first demonstrated, in 1873, to the Medical Society of Christiania, by Hansen, of Bergen.² The discovery does not seem to have excited very much attention, until the publication, in 1879 and 1880, of

¹ Beiträge zur pathologischen Anatomie der Lepra Arabum.—Virchow's Archiv, Bd. lvi., p. 455.

² The Characteristics of Leprosy, Nord. Med. Arkiv, vol. i, No. 13.

Neisser's³ very careful and elaborate investigations, when Hansen at once proceeded to establish his claim to priority by publishing, contemporaneously in English, French, and German,⁴ a paper on the subject. In addition to the work done in Norway and Germany, very careful investigations have been carried out in France, by Cornil and Suchard;⁵ and in our own country the labours of George Thip,⁶ of London, in this particular department of research must also be mentioned. Following upon the discovery of the organism, came the attempt on the part of many to reproduce the disease in the lower animals by means of inoculation. The results of these experiments have been rather conflicting, some seeming to show that it is not possible to reproduce the disease, whilst others would indicate that at least a localised leprosy may take place. With special reference to this department of the inquiry may be mentioned, in addition to the above, the works of Köbner,⁷ and of Damsch.⁸

The man whose skin I have had the opportunity of examining, is a patient in the cutaneous wards of the Western Infirmary, Glasgow, under the care of Professor McCall Anderson, at whose request I undertook the investigation, and to whose kindness I am indebted for the following particulars of the clinical history. He is a hawker of coals, aged 25, and was admitted to the infirmary on February 4th, 1885, complaining of a tubercular eruption of the face, arms, and legs of nine years' duration, and of aphonia of one year. The following is the note, entered in the ward-journal, of his condition on admission. There are patches on the upper and lower extremities, rounded in form, and varying in size from a cherry to a walnut. These patches have always tended to grow to a certain size, to remain so for an indefinite period, and then gradually to become less, and disappear, leaving only a staining and slight thickening of the skin. The features are greatly distorted, the tissues being infiltrated, and the natural lines of the surface much exaggerated. The skin of the forehead is thickened and corrugated, and the tissues above the eyelids project and hang down so much as to interfere with vision, especially of the left eye. The eyelashes and eyebrows are almost gone. The lips are enormously increased in size, and, since he fell on his face a year ago, there has been on the forehead and nose a tendency to ulceration. On the arms the eruption is chiefly confined to the extensor surfaces, extending from the shoulder to the wrists, being macular over the shoulder, but elsewhere tubercular. The hips and front of the knees, and the posterior surfaces of the legs and feet, are also involved. The skin of the feet has a more or less white and silvery appearance, and there is a tubercular condition of the scrotum and prepuce. He cannot speak above a whisper; the tongue presents deep fissures, and there is a slight difficulty in swallowing.

From these notes it will be seen that the case is one of typical tubercular leprosy, and, as the history and treatment have been fully recorded by Dr. Anderson,⁹ it is unnecessary to dwell further upon it. I may simply add that the patient was born and brought up in India, where he contracted the disease, that he has been under observation more or less for a period of six years, and that, in 1879, when he was for a lengthened period under Dr. Anderson's care, he was considerably benefited by treatment.

Having thus briefly described the main features of the case, I now proceed to indicate the methods by which the bacilli were sought for and found.

The surface of a large, and not very old, tubercle on the left forearm was frozen with ice and salt, and then a small elliptical portion of the skin was excised. This was at once placed in absolute alcohol, in which it was kept for some days to harden, after which sections were made. As the portion of skin I was able to get was very small, it had to be very cautiously dealt with; notwithstanding, I managed carefully to prepare and examine about thirty specimens. Two dyes were made use of to stain the bacilli, namely, fuchsin and gentian-violet; and two different methods of procedure were employed, namely, Ehrlich's method for tubercle-bacilli and Gram's method. As the former of these methods is now well known and ex-

tensively employed, it is unnecessary to describe it further: but, as Gram's method is much more recent, and gives very beautiful results, I may perhaps be excused for referring to it a little more in detail.¹⁰ Ehrlich's solution of gentian-violet in anilin-oil water is prepared in the following way. Four parts of anilin-oil are placed in 100 parts of water, shaken well for about a quarter of an hour, and then filtered; the filtrate should be perfectly clear. To 100 parts of this anilin-oil water solution, five parts of a saturated solution of gentian-violet in alcohol are added, and the dye is ready for use. Now comes the first step in Gram's method; the sections, which must have been hardened in alcohol, are transferred from absolute alcohol to the above solution for a few minutes. They are then transferred, for from one to three minutes, to an iodine solution prepared as follows: iodine, one part; iodide of potassium, two parts; distilled water, 300 parts. They are then brought into absolute alcohol, which practically decolorises them, and, after treatment with oil of cloves, are mounted in Canada-balsam in the usual way, or they may be preserved in glycerine. With either of these methods, the bacilli were easily demonstrated, although perhaps the most beautiful results were obtained by Gram's method. In order to study the exact relationship of the organisms to the tissue-elements, a number of the sections were double-stained, the contrast dye being Bismarck-brown; and a few sections were carefully examined without staining, in order, as far as possible, to investigate the histology of the condition.

Having thus indicated the methods of investigation, I shall now proceed to describe the appearances observed. With regard to the histology of the skin, it may be stated that the results of the examination, both of stained and of unstained preparations, agreed in the main with those of Thoma. The epidermis was unbroken, and showed all the layers of epidermic cells in a healthy state, with the exception, perhaps, that the deeper layers were unduly pigmented. As has been described and figured by Thoma, the rete mucosum was separated from the underlying leprosy tissue by a thin layer of connective tissue. Beneath this thin layer came a dense infiltration of cells, which was more or less unbroken and continuous under the skin in a horizontal direction, and extended in depth from the rete mucosum to the subcutaneous fatty tissue. In the subcutaneous adipose tissue, it was found that the continuous character of the cell-infiltration had disappeared, and had given place to more or less rounded masses of granulation-tissue (sometimes not at all unlike tubercles), which were often of considerable size. It was evident that these masses had replaced the normal adipose tissue, because they were often observed to be surrounded by coarse connective tissue bands, apparently the normal connective tissue trabeculae of the subcutaneous tissue; and here and there, where the infiltration was less dense, round cells were seen insinuating themselves between the individual fat-globules, and obviously exercising pressure upon them. Often, too, a few fat-globules were observed still remaining in the midst of a nodule of new cell-growth. As regards the nature of the cells composing this new growth, there can be no doubt that they mostly presented the characters of ordinary leucocytes or lymphoid corpuscles. Here and there they presented the appearance of epithelioid cells, and very rarely, if at all, were any cells of the nature of typical giant-cells observed. It is not at all improbable, I think, that the presence of large or epithelioid cells in the growth is to be explained, as shall be pointed out afterwards, by the action of the bacilli upon the round cells of the leprosy tissue.

As regards the bacilli, they were present in the skin in simply enormous numbers, so much so as at first sight to suggest the idea that the swelling was probably in some measure due to the aggregation of the organisms. Examined with the A. A. of Zeiss (about 60 or 70 diameters), the sections presented the appearance as if the nuclei of the connective tissue were stained; this nuclear appearance being by far the most pronounced in the areas of granulation-tissue, and scarcely at all elsewhere. (In what follows, I shall describe the appearances as observed in specimens prepared with gentian-violet, in which the organisms are blue or violet in tint, although exactly the same remarks apply to specimens treated with fuchsin, for which dye the organisms have great avidity.) With the D. of Zeiss, it was seen that the blue staining of the sections was caused by two conditions: (1) by the presence of innumerable exceedingly minute rod-shaped bodies, and (2) by rounded blue-stained corpuscles, often of considerable size. The bacilli were situated in the rounded masses of granulation-tissue, as well as in the more diffuse infiltrations of round cells, but they were scarcely, if at all, to be discovered in the more normal portions of the sections. Thin states that, in one of his specimens,

³ *Breslauer Arztl. Zeitschr.*, 1879, Nos. 20 and 21; also *Weitere Beiträge zur Ätiologie der Lepra*, Virchow's *Archiv*, 1881, Bd. lxxix, page 514.

⁴ *Bacillus Leprosi*, Virchow's *Archiv*, Bd. lxxix, p. 32; also *Quarterly Journal of Microscopical Science*, N. S., vol. xx, p. 92.

⁵ Note sur le Siège des Parasites de la Lèpre.—*Ann. de Dermatol. et de Syphiligraphie*, Tom. II, No. 4. Cornil has also made the following communications: Note sur le Siège des Bactéries dans la Lèpre et sur les Lésions des Organes dans cette Maladie, *Bull. de l'Acad. de Méd.*, No. 3; also *Gaz. Méd. de Paris*, No. 44; also *l'Union Méd.*, Nos. 134, 178, and 179.

⁶ On the Bacillus of Leprosy, *Med.-Chir. Trans.*, London, 1883. Second series, vol. xviii, p. 315; also *Brit. Med. Jour.*, July 19th, 1884, p. 109.

⁷ Uebertragungsversuche von Lepra auf Thiere.—Virchow's *Archiv*, Band lxxxviii, p. 282.

⁸ Uebertragungsversuche von Lepra auf Thiere.—Virchow's *Archiv*, 1883, Band xcii, p. 20.

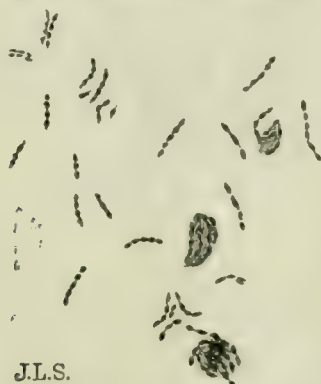
⁹ *Glasgow Medical Journal*, April 1885, vol. xxiii, p. 303.

¹⁰ *Fortschritt der Med.*, 1884, p. 185. Also *Microscopische Technik*, von Dr. C. Friedländer, Zweite Auflage, Berlin, 1884, p. 49. Also *Practical Pathology*, by G. Woodhead, M.D. Second edition. Edinburgh, 1885, p. 515.

he found the organisms in the epidermis, but I have been unable to verify this, my observations in this regard agreeing with those of Cornil and Suchard. A more careful examination of the rounded blue-stained corpuscles, already mentioned, showed that they were lymphoid cells swollen out and distended by the numerous bacilli contained in their interior. This observation was confirmed by the examination of sections which had been treated with Bismarck-brown as a contrast-stain. It was then seen that, while the great mass of lymphoid corpuscles composing the new morbid tissue absorbed the brown colour greedily, those containing bacilli retained their original violet colour, and were generally somewhat larger and rounder than the other cells of the part. It thus became evident to me that the presence of the bacilli exercised some important alteration in the constitution of the cells, leading them to give a different colour-reaction from the others; and in this, as I found out afterwards, my observations agreed entirely with those of Neisser, who showed that the effect of the bacilli was to bring about an alteration in the chemical constitution of the affected cells. It thus becomes not at all improbable that the so-called "lepra-cells" are simply the granulation-tissue cells, altered by the presence of the organisms in their interior.

The general arrangement of the organisms was often suggestive of their being contained within the lymphatic spaces; and I have more than once observed a narrow line of cells, containing organisms, or of free bacilli, extending through one of the strands of connective tissue already described, the whole appearance suggesting that these elements were contained in a minute lymphatic channel. I have also occasionally observed that the large bacillus-holding cells assume an elongated shape, as if they were contained within a very minute space or tube. These remarks with reference to the intimate relationship existing between the morbid process and the lymphatics are in agreement with the earlier histological researches of Thoma, and the more recent observations of George Thin and others, on the bacillus of leprosy. In addition to being contained within the cells, I am also of opinion that the bacilli exist abundantly in the free state, and then they are generally situated within the lymphatic spaces. Sections of blood-vessels were frequently observed in the specimens, but, so far as I could make out, no bacilli were contained within them. With regard to the presence of the organisms in the blood-vessels, considerable difference of opinion seems to exist; but Thin states that he has, in some instances, discovered them in the blood-vessels of the tubercles, and in this he is borne out by Köbner and others.

In order to study more particularly the characters of the bacilli themselves, the sections were subjected to examination by means of Zeiss's one-eighteenth oil-immersion lens; the entire system, by careful measurement, having been found to magnify about 1,600 diameters. The bacilli were then seen to be fine minute rods of considerable length, occurring either singly, or in groups, or in the interior of cells, as has been already described. They were often



LEPROSY-BACILLI.—The illustration shows the individual organisms, and also the appearance they present when in groups or in the interior of cells. The beaded appearance produced by the spores is also shown, $\times 1,600$.

sharply pointed at each extremity; and almost all of them contained small rounded spores, which varied considerably in size in some instances, the larger spores being in the centre. The beaded appearance produced by the spores is very striking, and has been tolerably well reproduced in the woodcut, the drawing for which was made to scale with the aid of the camera lucida. Neisser states that the bacilli may contain from two to three spores; but, as may be seen in

the illustration, I was frequently able to count five. In addition to being sharp at the extremities, the bacilli are often slightly curved. According to Neisser, the organisms are often surrounded by a mucoid covering; but this I have been quite unable to demonstrate. So far as I have been able to measure the bacilli, my results agree with those recorded by other observers; namely, from four to six micromillimètres (that is, about one-five-thousandth of an inch, or from about one-half to three-fourths of the diameter of a red blood-corpuscle). I compared the organisms with specimens of the tubercle-bacillus; and, while there can be no doubt that there is a great similarity in many points between them, I am of opinion that the leprosy-bacilli are considerably smaller and finer. With regard to the size of the bacilli, it is interesting to note that Cornil has shown that they are much smaller in the skin than in some parenchymatous organs; for example, the testicles, where they may measure from 12 to 15 micromillimètres. In the woodcut, I have endeavoured to show the appearance presented by the bacilli when they are contained in the interior of cells; and for this purpose I have drawn three of the large distended cells already described.

I have thus endeavoured to give an accurate account of my examination of the skin in this typical case of leprosy, and so to add to the number of those observations which, I think, indubitably prove that leprosy is a disease entirely dependent upon the presence and development of a specific organic virus. As my investigations have been wholly limited to the examination of a portion of the skin excised from a living patient, I have not thought it either necessary or right to discuss the condition of the internal organs, or to enter into the question of inoculation; but I may add that the researches of others, especially those of Neisser, have abundantly shown that, wherever the lesions of leprosy are situated, there the bacillus is to be found; and that, while the results of attempts to induce the disease in animals are still conflicting, some trustworthy experiments would seem to indicate the possibility of its inoculation.

NOTE ON THE LATENT PERIOD, INFECTIONOUSNESS AND MORTALITY OF TYPHUS FEVER.

By E. W. HOPE, M.D.,

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1. *Latency*.—Extremely variable periods have been assigned to the latency of typhus fever; a circumstance which may be accounted for by the fact that, under conditions in which the disease is usually met with, the poison is far less intense than that of most other zymotics, and, consequently, a susceptible individual may be, and, as a rule is, exposed to its infection many times, and for prolonged periods, ere he exhibits symptoms of having contracted the disease; so, in most cases, as there is no evidence to show the actual time of inception, the period of incubation can only be guessed at. In a disease such as small-pox, in which infective power is far stronger, the incubative period is readily determined; for, in most instances, susceptible individuals are attacked at the very first exposure to contagion.

Reliable information upon the latent period is furnished by those cases in which there has been but one single brief exposure to contagion, and infection has resulted from it; in typhus, such cases are extremely rare; the actual onset of the disease, however, is usually sufficiently sudden and marked to enable the patient to determine it within a few hours, and his experience is quite trustworthy in the matter.

In the following examples, the period of incubation was within a few hours of ten days.

1. John and Elizabeth C., aged 25 and 27 respectively, visited some friends who lived in a part of the city two miles distant from their own home, who were suffering from typhus. The visit was made on September 23rd, and they stayed about an hour. They had not previously visited this house, and they did not return to it, and there was no fever in the neighbourhood of their own home. On October 3rd, they both developed the initial symptoms of typhus.

2. G. B., aged 16, returned from sea on January 24th, and slept in a house where there were two cases of typhus, he probably occupying the same room. On the night of February 3rd, he experienced the initial rigors of the disease.

3. E. S., aged 24, and her two children, aged 4 and 6, went to a house in which was a case of typhus fever. The two children

sickened ten days after their arrival at the house, and the mother succumbed the day following.

4. A woman, M. N., convalescent from typhus fever, was discharged from hospital, and went to the house of a sister. She slept each night with this sister, who contracted fever, apparently from her, and sickened eleven days after the first night's exposure.

Corroborative evidence (1) that the period of incubation is, in the majority of cases, about ten days, and (2) that the most infectious period of typhus is from about the tenth day, is furnished by the fact that, when cases are treated in private dwellings, there is a singular uniformity in the time which elapses before other inmates of the house succumb to the disease. Eighty cases have recently come to my notice, in which the first patients were treated at home; in the great majority of these instances, a period of twenty-one days elapsed before fresh sickness occurred (*vide* Table A). Now, it is generally admitted that a typhus patient is most likely to impart infection from about the tenth day of his illness, and this leaves a period of about ten days for the incubation of the disease in the individual next attacked. That the patient is most infectious after the tenth day, is further evidenced by Table B, which shows eighty consecutive cases of removal before that day, and no spread of the disease occurred.



II. *Infectiousness.*—In regard to infectiousness, it is well known that the people amongst whom typhus fever spreads most readily, are those who are enfeebled by prolonged want, insufficient clothing, filthy personal habits and surroundings, or by intemperance. People of this class are also those who overcrowd the worst dwellings; and the fœtid atmosphere which results from this crowding together of squalid human beings constitutes another important factor in the propagation of the disease. The poison, however, is readily got rid of by free ventilation, by means of which it must be at once diluted and oxidised, so that a few feet give under such circumstances sufficient protection.

It is extremely probable that, in the passage of the contagion from person to person, proximity equivalent to actual contact with infected persons or things, or remaining in and rebreathing the same atmosphere in the same room for a more or less prolonged period, is essential, and it is very doubtful if typhus is ever communicated from household to household in any other way.

A localised outbreak of the disease in Carlton Street, recorded by Dr. Taylor, shows that the disease confined itself to those courts and houses from which there was free communication with infected persons, and spared that court, which was shut off from the rest. The infected area is shown on the accompanying plan. It is surrounded by warehouses, and consists of five courts and twelve adjacent street-houses. It will be seen from the plan that four of the courts and the twelve houses admitted of ready intercommunication, and from these, as is indicated on the plan, no fewer than eighty cases of fever were removed during a few months. But, in the fifth court, not a single case of typhus occurred, although it is built back to back with one of the other courts, and contiguous to the three street-houses which suffered most severely. The only entrance to this court being in Cotton Street, it did not admit of ready communication with the infected dwellings. It must be mentioned that the houses in this court are of precisely the same character as the infected houses in construction, drainage, water-supply, etc., and the population is as numerous, and of the same social position, habits, and character. On the other hand, there are very many instances in which a number of persons acquainted with one another, living in streets more or less widely apart, contracted fever by paying friendly visits to those already sick. In several instances, as many as forty or fifty persons were infected in this way.

As regards the *modus operandi* of the disease in attacking a family, when all the members of a family are equally exposed to infection, the children, with scarcely an exception, are the first to be attacked. Adults, especially if their health be good, may resist infection for weeks or months, although they may be living even in the same rooms with the sick persons. Typhus is, like most other zymotics, a disease to which childhood is more susceptible than adult age (*vide* Table A).

The period at which the infection from the patient becomes most intense, is from about the tenth or eleventh day. If the patient be removed to hospital prior to this, the disease is usually checked.

A period of about three weeks elapses, from the introduction of the disease into a household, to the next case of illness; after the second case, the intervals are irregular, owing chiefly to the varying powers of resistance, differences in degree of exposure, concentration of poison, and the like.

It may seem a truism, but nevertheless it is one which needs to be emphasised, that the reason that typhus fever is constantly prevalent in Liverpool, is on account of its infectious character. Its chief incidence is not, as might be thought, in cellars and alleys, amongst the very poor and the very squalid (where we must always expect some), but in houses and streets of good construction, chiefly inhabited by people of the artisan and labouring class. In former years the common lodging, tramp, and emigration houses, and cellars, furnished four-fifths of the total cases, but now they are almost free from it, owing to the excellent system of sanitary supervision employed. The inhabitants of these tenements comprised 40,000 of the poorest and most squalid. The number also, removed from the courts (with a population of 60 to 70,000 poor people) is far below that occurring in houses on the open street, and their percentage of mortality is one-half less (*vide* Table C). The mortality amongst cases reported as "treated at home," reaches an appalling figure. It would seem that cases occurring amongst the very poor are quickly sent into Hospital, while those in the better-class houses are "isolated and treated" at home; but even under the skilled guidance of the medical attendant, the disease spreads sooner or later, and the "sacred professional confidence" which forbids notification to the sanitary authority, is maintained at a price disastrous to the ill-starred patients and their families.

III. *Mortality.*—In regard to the mortality from this disease, I have notes of 2,588 cases, most of which were treated in the Liverpool fever-hospitals during last year. In the early years of life, although the illness in its clinical features is severe, the mortality is extremely low; but in adult life, and especially with advancing years, typhus is one of the most fatal diseases. Mortality-statistics will, therefore, be largely governed by the average age of the patients; in the case of hospitals, much will depend upon the period at which the patient is received. The too common practice of "treating the patient at home" until he is moribund, and then getting him removed to hospital, is very reprehensible.

The following table gives the mortality of the total number of cases referred to, at different ages.

Age.	Total.	Died.	Mortality per Cent.
Under 10 years	553	9	1.6
10 to 30 years	1,331	125	9.4
Over 30 years	704	339	47.6
Total	2,588	473	18.3

TABLE A.—Typhus Fever.

Number	Name.	Sequence in regard to Age and Sex.							Approximate interval in commencement of illness between						
		1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	1st and 2nd.	2nd and 3rd.	3rd and 4th.	4th and 5th.	5th and 6th.	6th and 7th.
1	Davis	M 8	F 10	M 11	F 18	F 20	M 28	F 29		8 weeks	day or two	same day	same day	2 weeks	2 weeks
2	Thorpe	M 7	M 10	F 9	F 10	F 28	M 34	M 12		3 1/2 "	3 1/2 weeks	day or two	day or two	same day	same day
3	Cullen	F 14	M 10	F 28	F 16	F 10				2 1/2 "	1 day	1 week	"	10 days	
4	Cooper	F 19	M 9	F 6	F 43	M 11				2 1/2 "	same day	8 days	"		
5	Parker	F 8	M 9	M 10	F 40					16 days	same day	3 weeks	same day	9 days	same day
6	Quinn	F 6	M 2	F 16	M 3	M 11	F 34			3 weeks	same day	7 days	same day	13 days	
7	Rowson	M 12	M 5	F 17	M 11	M 38	M 34			3 weeks	4 days				
8	Nesbitt	F 8	F 50	F 49						4 "	2 weeks	same day	7 days	2 days	
9	Cunningham	F 9	F 16	F 11	M 25	F 23	M 20			3 "	same day	7 days	"	4 "	7 days
10	Murphy	F 5	M 14	M 16	M 3	M 50		M 25		16 days	4 days	3 "	same day		6th 7th & 8th
11	Crowes	F 14	M 16	F 8	F 9					3 weeks	11 "	11 "	same day	same day	
12	Malrony	F 9	M 5	M 13	F 16	M 15	F 20	F 24	F 22	1 "	2 weeks	11 "	"	4 "	
13	McDermott	F 13	F 5	M 4	F 8	F 14	F 17			1 "	2 weeks	7 "	2 weeks	same day	
14	Joyce	F 9	M 8	F 2	M 12	F 4	F 36	F 40		3 "	same day	7 "	2 weeks	same day	
15	Hunt	F 7	F 9	F 13	F 15	F 35				3 "	2 weeks	7 "	"		
16	O'Sullivan	F 11	M 9	F 13	F 14	F 39				3 "	1 day				
17	Donnelly	M 10	F 11	F 40						2 "	10 "	day or two	same day		
18	Taggart	M 11	F 36	F 14	M 43	M 12	F 10			15 days	5 "	same day	"	"	
19	Richards	M 10	M 7	M 15	F 8	M 45	F 40			8 "	same day	12 days	"	"	
20	Lumsden	F 12	M 10	M 14	F 40					8 "	3 weeks	few days	"	"	
21	Commins	F 27	M 25	M 26	M 29					same day	few days	10 days	same day		
22	Hailey	M 8	M 3	M 4	F 24					3 weeks	7 days	same day	day or two		
23	Macmahon	F 8	M 3	F 26	M 10	F 14	M 58			3 weeks	4 "	5 "	day or two		
24	Morris	F 36	M 40	F 6	F 12	F 11				3 "	4 "	5 "	"		
25	Sharples	F 13	F 13	F 47						3 "	14 "	4 "	2 or 3 days	same day	day or two
26	Manzham	M 8	F 10	F 37						11 days	4 "	2 or 3 days	same day	day or two	
27	Abbott	F 40	F 12	F 8	M 57					7 "	3 weeks	day or two	same day	day or two	
28	Abley	M 5	M 10	M 33	M 6	F 35	M 7			3 "	1 week	1 week	3 weeks	day or two	
29	French	M 34	M 8	F 10	M 9					2 "	1 "	day or two	day or two	same day	day or two
30	Harrison	M 5	F 20	M 40	M 25					3 "	1 "	1 week	3 weeks	day or two	same day
31	Murray	F 13	M 14	F 37	F 8	F 4	F 11	F 12		2 "	same day	2 weeks	same day		
32	Faschelt	F 6	F 52	M 2	M 10	M 35				3 "	6 days	day or two	"	"	
33	Jenkins	F 11	F 12	F 16	F 37					3 "	2 weeks	same day	"	"	
34	McKomisky	M 2	F 14	M 11	F 22					6 days	2 weeks	"	"	"	
35	Smith	F 11	M 5	M 7	F 43	M 58				3 1/2 weeks	10 days	"	"	"	
36	Hutchins	F 12	M 9	M 41	F 40	M 34	M 2			3 "	2 weeks	"	"	"	
37	Macbride	F 14	F 16	F 44	M 43	M 50	F 30			1 "	3 days	"	"	"	
38	Chird	M 20	F 7	F 5						3 "	14 "	7 days	same day	few days	few days
39	Royden	M 44	F 18	F 44	M 20	M 10				2 1/2 "	20 days	same day	same day	few days	few days
40	Grealey	F 19	F 17	F 8	F 43	M 45	F 3	M 23		3 "	day or two	10 days	"	6th 7th & 8th	same day
41	Gibson	F 11	M 8	M 13	M 17	M 15				3 1/2 "	4 days	7 "	15 days	same day	same day
42	Dwyer	F 8	F 40	M 14	F 16	M 48	M 16	M 15	F 40	3 "	3 "	same day	3 weeks		
43	Mumford	M 8	F 6	F 11	M 54					3 "	few days	"	"	"	
44	Hampton	F 34	M 12	F 10	F 39	M 41				3 1/2 "	8 weeks	same day	same day		
45	Woods	F 12	M 5	M 48	F 40					9 days	3 1/2 weeks	12 days	same day		
46	Mulvey	F 12	M 13	F 8	M 5	M 3				5 "	12 days	same day	"	"	
47	Watkins	F 10	M 18	F 17	F 40	F 42				2 "	same day	2 weeks	same day	"	
48	Gick	F 16	F 10	F 33						4 "	9 days	same day	"	"	
49	Poster	M 10	M 46	F 17						3 days	3 weeks	same day	"	"	
50	Jordan	M 10	M 16	M 12	M 43	F 39				3 "	2 weeks	same day	"	"	
51	Melia	M 35	F 32	F 7	M 6					4 "	9 days	same day	"	"	
52	Godove	M 14	F 35	F 3						3 days	3 weeks	same day	"	"	
53	McDonald	M 48	F 45	F 44	M 8	M 11	M 14	F 18		3 "	2 weeks	few days	few days	10 days	9 days
54	Manning	F 40	M 9	M 7	F 12	M 28	F 30	F 26		4 "	same day	"	"	"	
55	Rawlinson	M 40	F 5	M 7	F 11	F 30				3 "	4 days	15 days	5 "	day or two	day or two
56	Crosbie	F 30	M 16	M 17	F 10	F 43	M 45	F 19		4 "	6 "	same day	18 "	same day	
57	Boland	M 13	M 5	M 16	M 9	M 47	M 3			few days	same day	5 days	same day	12 days	same day
58	Weston	F 6	M 8	M 14						14 days	3 weeks	4 "	same day	same day	few days
59	Dorean	F 38	F 9	F 10	M 8	M 36				3 "	3 1/2 weeks	day or two	day or two	1 day	
60	Macnamara	M 5	F 10	F 9	F 35					16 days	2 weeks	1 week	2 1/2 weeks	few days	
61	Hatchen	F 12	F 5	F 9	F 3	M 40	M 10	M 11		same day	3 "	same day	12 days	same day	few days
62	Miller	F 24	M 19	M 30						3 "	3 1/2 weeks	day or two	1 day		
63	Evans	M 20	M 21	M 15	F 12	F 40				3 1/2 "	day or two	day or two	1 day		
64	Parsons	F 13	F 5							16 days	3 1/2 weeks	1 week	2 1/2 weeks	few days	
65	Williams	M 26	M 20	F 19	F 15	M 24				same day	3 "	same day	few days		
66	Stanley	M 19	M 22	F 4	F 6	F 24				4 weeks	same day	10 days	"		
67	Matthews	F 14	M 16	M 12						3 "	5 days	7 "	"		
68	Hunter	M 9	M 10	F 16						3 1/2 "	7 "	"	"		
69	Murphy	M 9	F 30	F 20	F 55	F 22				same day	same day	same day	same day	day or two	day or two
70	Chew	M 9	M 12	F 14	F 15					2 1/2 weeks	few days	few days	"		
71	Lind	M 13	F 15							2 1/2 "	same day	same day	same day	day or two	day or two
72	Macculloch	M 9	F 7	M 4						3 "	same day	same day	same day	day or two	day or two
73	Rycroft	F 10	F 14	F 46						2 1/2 weeks	few days	few days	"		
74	Cadley	F 20	F 14	F 8	F 50	F 20				2 1/2 "	same day	same day	same day	day or two	day or two
75	Carroll	F 7	F 40							3 "	same day	same day	same day	day or two	day or two
76	Pye	F 16	F 8	F 4	F 6	M 38	M 17	M 36		few days	day or two	3 weeks	1 day	same day	day or two
77	Caulfield	M 6	F 8	F 10	M 37	M 11	M 9	M 16		same day	3 weeks	1 day	"	same day	day or two
78	Macanally	M 12	F 15	F 34	F 4					3 weeks	day or two	1 day	"	same day	day or two
79	Hutton	F 6	F 36							same day	day or two				
80	Gilroy	M 4	M 13	M 2						same day	day or two				

NOTE.—Fatal cases are in *Italic*. * Case 1 contracted the disease by visiting a friend, her younger relatives were the first infected. Case 1 in numbers 24, 27, 29, 38 and 39 contracted the disease in the same way. Cases marked † are lodgers. M male, F female.

TABLE C.—Incidence of Typhus Fever during the last six months of 1883. 1109 Cases.

	Total cases.	Occurring in Street Houses, 601.			Occurring in Court Houses, 441.			Occurring in Cellars, 42.			Occurring in Tramp, Lodging, and Emigrant Houses, 25.		
		Recovered.	Died.	Mortality.	Recovered.	Died.	Mortality.	Recovered.	Died.	Mortality.	Recovered.	Died.	Mortality.
Removed to hospital	1001	405	118	22.5 per cent.	365	50	12.0 per cent.	35	5	12.5 per cent.	17	6	26 per cent.
Reported as treated at home	108	38	40	51.2 per cent.	16	10	38.4 per cent.		2		1	1	

Hospital attendants, etc., are not included in this Table.

The subjoined returns for the various hospitals have been kindly furnished by Dr. Oldham, for Netherfield Road Hospital; by Dr. Tisdall, for Mill Road; Dr. Meeson, for the Smithdown Road Hospital; and Mr. Hagger, for the Brownlow Hill Hospital. These returns are set out in the subjoined table.

Mortality from Typhus Fever in various Hospitals in Liverpool.

Institution.	Sex.	Age under 10.			Age 10 to 30.			Age above 30.			Total.		
		Total.	Died.	Mortality per cent.	Total.	Died.	Mortality per cent.	Total.	Died.	Mortality per cent.	Total.	Died.	Mortality per cent.
Mill Road Hospital	M.	24	0	0	59	1	1.7	37	22	59.5	120	23	19.1
	F.	22	1	4.5	56	4	7.1	49	18	36.7	127	23	18.1
Netherfield Road Hospital	M.	10	0	0	56	6	10.7	21	9	42.8	87	15	17.3
	F.	18	1	5.5	64	5	7.8	47	24	51.0	129	30	23.2
Brownlow Hill Hospital	M. & F.	195	5	2.5	301	80	13.3	235	123	52.3	1031	208	20.1
Smithdown Road Hospital	M.	80	0	0	167	8	4.8	94	54	57.4	341	62	18.2
	F.	66	0	0	174	10	5.7	127	52	40.9	367	54	14.7
Cases referred to in Table A.	M.	73	1	1.3	65	5	7.7	38	23	60.5	176	29	16.4
	F.	65	1	1.5	89	6	6.7	56	22	39.3	210	29	13.8

LIQUOR SODA ARSENIATIS P.B.

A NOTE FOR THE PHARMACOPEIA COMMITTEE.

By TALFOURD JONES, M.B.,

Physician to the Infirmary, Brecon.

WHENEVER I order liquor soda arseniatis P.B. for a patient, I always prescribe a dose which in fluid bulk is about twice that of either of the other two arsenical liquors of the *British Pharmacopœia*. About ten years ago, in discussing the matter with a friend, I found it necessary to work out, on paper, the relative strengths of the arsenical preparations. I have just come across my notes, which are in the old notation; and, finding from the JOURNAL of July 4th that the new *Pharmacopœia* is about to be published, I think it may be useful to draw the attention of the Pharmacopœia Committee to some facts respecting the strength and dose of the arseniate of soda solution.

Taking the atomic weight of arsenic at 75, and of oxygen at 8, and of arsenious acid (AsO_3) at 99; taking also sodium at 23, and water (H_2O) at 9; then arseniate of soda ($2\text{NaO}, \text{H}_2\text{O}, \text{AsO}_3 + 14\text{H}_2\text{O}$) = 312; and dried arseniate of soda = $312 - (14\text{H}_2\text{O}) 126 = 186$. Arsenious acid, therefore, contains $\frac{2}{3}$ of arsenic, and anhydrous arseniate of soda $\frac{1}{3}$ of arsenic; that is, 99 parts of arsenious acid or 186 parts of anhydrous arseniate of soda contain 75 of the metal arsenic. By rule of proportion, we get the following result—99:186::1:1.87; that is, 1 grain of arsenious acid contains as much arsenic as 1.87 grains of the dried arseniate; consequently four grains of dried arseniate will contain 1.87×4 , that is, 7.51 grains, or as 99 is to 4, so is 186 to 7.51. The liquor arsenicalis P.B. contains four grains of arsenious acid per fluid ounce; and the official dose is two to eight minims. The liquor arsenici hydrochlorici P.B. contains the same proportion of arsenious acid, and the dose is the same. The liquor soda arseniatis P.B. contains four grains of dried arseniate of soda per fluid ounce, and the official dose is five to ten minims. I have shown that one grain of arsenious acid is equal to 1.87 of the dried arseniate, and that four grains of arsenious acid are equal to 7.51 grains of the dried arseniate. It follows, therefore, that the liquor arsenicalis and the liquor arsenici hydrochlor. contain nearly double as much arsenic as the liquor soda arseniatis. The dose, therefore, of the latter should be nearly twice that of the former.

It would be better, however, if the Committee of the new *Pharmacopœia* were to direct that the strength of the liquor soda arseniatis should be increased, and this could be managed by ordering 7.51 grains of dried arseniate to be used per ounce, instead of four grains as at present. Assuming that my calculations are correct, this would make the liquor soda arseniatis precisely equal in arsenical strength to the other pharmacopœial solutions.

The official dose of arsenious acid is $\frac{1}{10}$ to $\frac{1}{2}$ grain. A corresponding dose of a four grains to the ounce solution of arsenious acid would be exactly represented by two to ten minims, but the official dose of

the liquor arsenicalis and the liquor arsenici hydrochlorici is two to eight minims. It ought to be two to ten minims. The dose of the liquor soda arseniatis, if altered as I suggest, would be precisely that of the other solutions, i.e., two to ten minims; but at present the proper dose is from four to nearly 20 minims. It is quite certain that the majority of patients cannot take continuously, for any lengthened period, more than $\frac{1}{2}$ th grain of arsenious acid, or five minims of liquor arsenicalis, and it would be well if Dr. Garrod's method of describing the dose were adopted in the *Pharmacopœia*. He taught in my time, at University College, that the dose of arsenious acid should be $\frac{1}{10}$ to $\frac{1}{2}$ th grain, or occasionally to $\frac{1}{2}$ th grain, and the dose of liquor arsenicalis two to five minims, or occasionally to 10 minims. Surely this is a much better guide for the inexperienced than the wording of the *Pharmacopœia*.

I have just looked at several authorities, and find that the majority of authors on medicines, therapeutics, and skin-diseases are unaware of the difference in strength of the pharmacopœial solutions, though there are a few who are quite aware of it. Thus Squire says:—"The liquor soda arseniatis is about the same strength as the liquor arsenicalis." Wood says:—"The solution of arseniate of soda, four grains to one ounce, may be used instead of liquor arsenicalis in similar doses," and so on. Ringer and Murrell state that arseniate of soda is much less powerful than arsenious acid. Brunton says:—"It acts like other preparations of arsenic, but does not irritate the stomach so much, and may be given in larger doses"; and he quotes a nearly full dosage for the dried salt. Garrod always taught that the dose of arseniate should be much larger than the dose of arsenious acid, and it is quite clear from the dosage quoted in his work on *Materia Medica* that he was and is fully alive to the difference between the pharmacopœial solutions.

But no authority to whom I have access speaks so plainly on the point as Dr. Frederick Roberts. In his most useful and compact *Notes on Materia Medica and Pharmacy*, published in 1884, Roberts says:—"The liquor soda arseniatis is about half the strength of the other pharmacopœial solutions."

Writers generally say the liquid arseniate is less irritating, or is not so powerful, or does not so readily affect the system as the liquor arsenicalis.

In most cases, this opinion is based upon an insufficient dosage; still, it is possible, and I am inclined to this belief, that there is some truth in it; for the liquid arseniate holds in solution a definite salt, whereas the liquor arsenicalis is not a simple arsenite of potash, but is a compound of free arsenious acid, arsenite of potash, and carbonate of potash; and it is very probable that an arseniate may act in a somewhat milder way than an arsenite, plus free arsenious acid.

ON PARALDEHYD AS A HYPNOTIC.

Read before the East Sussex District of the South-Eastern Branch.

By G. F. HODGSON, M.R.C.S. Eng., etc.

PARALDEHYD has been known to chemists for a considerable time; but, as in chemical constitution it is only a modification of aldehyd, and as the latter was known, whether swallowed or inhaled, to produce convulsions and coma, and altogether to be too violent in its action to be safely available in therapeutics, it was too hastily assumed that paraldehyd would be the same.

Less than three years ago, it occurred to Dr. Cervello, of Palermo in Sicily, to test its powers; and, having administered some to rabbits and dogs, and thereby producing in them peaceful sleep, on arousing from which they immediately seemed as before, and at once began to feed, he then ventured to try it on himself. In the course of an hour, he took one drachm, which produced a strongish drowsiness, without any other unpleasant effect. This encouraged him to give it to other people, healthy and sick, with the result of soon proving it to be a valuable hypnotic, devoid of all danger, unless given in such a large quantity as nobody would think of using.

Soon after this, the remedy was employed in Italy and Germany, and of late in this country. In the *Medical Chronicle* (February 1885), Dr. Leech, of Manchester, has contributed a carefully written article upon it; and a medical officer to one of the asylums at Northampton has recently eulogised it in the *Lancet*.

I believe that, taken altogether, my own prescriptions of it have now amounted to nearly or quite two quarts. It was expensive at first, half-a-crown for half an ounce; now, a pint may be had for 14s. As it was not at all generally kept by dispensing

chemists, I bought it wholesale, as imported from Germany, and dispensed it myself, which has given me the advantage of acquiring a practical knowledge of it pharmaceutically as well as therapeutically; and I can quite join with others who have used it in believing it to be a very valuable medicine. The sleep produced by it is calm, closely resembling that of health, with no unpleasant premonitory or after-effect, and its action is prompt. It seems appropriate in most diseases where a hypnotic is necessary: mania, hypochondriasis, delirium tremens, migraine, and the multifarious minor diseases in which insomnia prevails, being all benefited by it. A great advantage is its non-depressing influence on the heart, in which respect its use is often much to be preferred to that of chloral-hydrate.

Again, in gout, it is very preferable to chloral-hydrate. Liebreich held that the latter, after absorption, undergoes decomposition, setting free, in the blood, chloroform and formic acid, which last might aggravate the effects of the pre-existing uric acid dyscrasia. Others deny this chemical decomposition of chloral-hydrate in the system, and, whether it occurs or not, I do not pretend to know; but clinical observation leads me firmly to believe that the insomnia of gout, whether acute or chronic, is much more advantageously treated by paraldehyd than by chloral-hydrate, the latter medicine having seemed to prolong the acute attacks, and to have promoted their recurrence when given for the insomnia associated with a gouty constitution; whereas paraldehyd has seemed to have the reverse influence, and to help maintain the excretion of urine well charged with its normal solid constituents.

I know of only two conditions in which the use of paraldehyd is objectionable, namely, in irritable or inflamed states of the throat or of the stomach, which its acidity is pretty sure to aggravate; and, indeed, this pungency is to be borne in mind when prescribing it for any case, and free dilution always provided for. The following formula I find the best.

R Pulv. tragac. comp. ʒj; syrup. aurant. ʒiv; paraldehydi ʒj; sp. chlorof. ℥xv; aquam ad ʒiij.

In mild cases, one such dose at bedtime suffices for the night; in more severe cases, its repetition may be necessary in an hour or a few hours; and such repetition answers better than giving a larger dose at once.

By combination with morphia or with bromides, the soporific effect of both medicines seems enhanced.

As an anodyne, the power of paraldehyd is feeble. It acts principally upon the cerebrum, and partially on the medulla. It is antagonistic to strychnia, as proved by its preventing (when given beforehand) an otherwise fatal dose of strychnia from killing a rabbit or other small animal (*Société de Thérapeutique*, quoted by the *Medical Press*).

The powerful smell of paraldehyd is disagreeable to some people, and especially so the persistency with which the breath is tainted with it, twenty-four hours often scarcely sufficing for its departure after a dose; but then, as Dr. Leech remarks, this fact is a great security against its being taken clandestinely, as chloral no doubt is. When the drug is administered *per rectum*, the breath is still tainted by it. How it might answer in the sleeplessness of inflammatory and febrile diseases, I do not know, but I should expect not so well as chloral-hydrate.

Paraldehyd (πράπα, side by side) is an isomeric modification of (acetic) aldehyd. At ordinary temperatures it is a colourless and inflammable fluid, whose specific gravity is 0.998, therefore just a trifle lighter than water, and with a powerful odour, somewhat resembling æthanolic or nitric ether. Mixed with a little water it appears oily, and with a larger quantity, on shaking, mixes well.

Aldehyd (alcohol dehydrogenatum) is an organic compound, intermediate between alcohol and acid. It is derived from alcohol by abstraction of two atoms of hydrogen, and is converted into acetic acid by the addition of one atom of oxygen.

There are numerous aldehyds (acetic, benzoic, ænanthyl, salicylic, valeric, etc.). Nearly all of them are liquids which volatilise, and they are prone to decomposition, mere exposure to the air converting them into acids. Some of them exist ready formed in plants, or are given off as volatile oils on distilling the plants with water; thus cinnamic aldehyd constitutes an essential part of cinnamon oil, salicylic aldehyd of oil of spiræa, and so on. Aldehyd, acted on by chlorine, is converted into chloral.

These chemical details may be thought a little superfluous in a therapeutical subject, but, to my mind, it is interesting to understand paraldehyd's place in nature: and, moreover, as other aldehyds besides our acetic friend may have their paraldehyds, possibly some of these also may be found, some day, to possess valuable medicinal virtues.

OBSTETRIC MEMORANDA.

A SERIES OF CONSECUTIVE ABNORMAL PRESENTATIONS IN THE SAME PATIENT.

CONSIDERING that abnormal presentations are comparatively rare, I think the following may be of interest to the profession.

R. J., aged about 40, with a somewhat narrow antero-posterior diameter of pelvis, has been attended by me in the following labours.

No.	Date.	Presentation.	Mode of Delivery.	Sex.	State.
1	Nov. 6th, 1877	funis and head	long forceps	F.	dead.
2	Oct. 16th, 1878	hand, head and funis	version	M.	"
3	Jan. 3rd, 1880	hand	"	M.	"
4	Feb. 11th, 1881	funis and head	natural	F.	alive.
5	Aug. 20th, 1883	hand	version	M.	dead.
6	Dec. 14th, 1884	breech	podalic	M.	alive.

The patient had previously been attended by another medical man, but as R. J. is a most eccentric and erratic character, it was impossible for me to understand from her whether these labours had been natural or not.

In case No. 3 the funis was tied in a knot, an incident which I have only come across in one other case, when the funis was not only tied in a knot, but measured no less than 50 inches in length, and was moreover, wound four times round the neck of the child, which was, nevertheless, born alive.

Case No. 6, I treated on its own merits, reduced it to a podalic presentation, and effected delivery as speedily as possible; the child was born alive, and is still alive and well. In all six instances the woman made a good and uninterrupted recovery.

REMARKS.—It would be interesting to know what were the real causes of these abnormal presentations. The patient herself is so erratic, and her mind in a general state of "topsey-turvydom," that her own statements are not to be relied upon; but her neighbours have told me that, each time she is pregnant, "she rolls about in the garden, at the back of the cottage, so as to bring on a miscarriage." Whether this stands in relation to cause and effect, as to the abnormal presentations, would be an interesting question to solve.

W. L'HEUREUX BLENKARNE, M.R.C.S., L.S.A.

Buckingham.

CLINICAL MEMORANDA.

THE INFLUENCE OF PURE AIR ON SEPTIC PNEUMONIA.

THE following case illustrates in so marked a manner the curative power of pure air, that I think it is worthy of being placed on record.

A young man, ten days after a pleasure-trip to London, was seized with variola. The attack was severe, the pustules being confluent over a large part of the face. There was much delirium, both of the noisy and of the quiet type. He was treated in a very small room, under great difficulties both in the way of cleanliness and of ventilation. About the middle of the second week, there was much improvement, the pustules drying up without breaking, the delirium giving way to clear-mindedness, and the tongue losing its thick fur. On the morning of the thirteenth day, however, he had a rigor, the temperature running up to 104.6°, accompanied by a feeling of "short breath," and pains in various parts of the body, including the right side of the chest. The same day, profuse diarrhoea came on, and delirium returned. Physical examination of the chest gave no positive results until two days later, when decided (though distant) bronchial breathing was detected in the right chest, under the outer part of the clavicle in front, and about the spine of the scapula behind. Two days later, the bronchial breathing was louder, and was supplemented by impaired resonance and sharp moist sounds in the regions indicated above. From this time up to the twentieth day, the patient remained desperately ill, with temperature varying from 102° to 104°, more or less constant diarrhoea, dry brown tongue, and low delirium; the physical signs in the chest remaining exactly as described. The morning of the twentieth day showed temperature 103.4°, pulse 134; the evening gave temperature 103.4°, pulse 132. At 10 P.M. on that day, he was removed to a large airy room, or rather hall, generally used as a corn-chamber. On the following day, a wonderful change was evident, the temperature at noon being 98.4°, and the pulse 106; while the tongue was moist, even clean in front; and the mind clearer. At 6.30 P.M., the temperature was 100.5°, the pulse 120. The physical signs of the chest were as before, with the addition of mucous rhonchi in the right chest generally. On the next day, at 4.30 P.M., the temperature was 99.6°, the pulse 110. The

patient had had some quiet natural sleep. On the following day, at 4.30 P.M., the temperature was 100.2°, the pulse 120. For the next week, the temperature ranged from half a degree to one degree above normal, in afternoon or evening. Afterwards it was permanently normal. The general improvement was correspondingly rapid, so that, in a fortnight from the date of his removal, he was sitting up. The physical signs were very slow to disappear; so slow, indeed, that I began to think that I might have made a mistake, and overlooked at first what were really the signs of a phthisis of a date anterior to his present illness, especially as the bronchial breathing had assumed a marked "blowing" character, suggestive of cavity, and there was some history of cough and expectoration. But by six weeks from the date of his removal to "hospital," all abnormal signs had disappeared; and I cannot but feel that he owes his lung, if not his life, to the plentiful pure air of the corn-chamber.

EDWARD PENNY, M.D. Lond.

THERAPEUTIC MEMORANDA.

THE USE OF ALUM IN PURULENT OPHTHALMIA.

IN a note under the above title (JOURNAL, July 4th, p. 16), Mr. John Tweedy commits himself, as it appears to me, by statement or implication, to the following propositions.

1. In the initial stage of ophthalmia neonatorum, the cornea is abraded. 2. A solution of alum of only 30 grains to the eight ounces of water is a dangerous remedy, from its liability to facilitate perforation of the cornea at the point of abrasion. 3. This danger should be met by placing in the hands of ignorant poor mothers, in lieu of my suggested packet of 60 grains of alum, a packet containing an irritant and dangerous poison—chloride of zinc or corrosive sublimate which also is not very soluble in water.

To the first and second propositions, my experience, which, with all humility be it said, must have necessarily been much larger than Mr. John Tweedy's, affords not the slightest support. As to the third proposition, before it could become practicable, I conceive some alteration in the Sale of Poisons Act would be necessary. As to boracic acid, it is a nice antiseptic, with slight, if any, astringent properties, far inferior as a curative agent to alum in the disease we have been discussing.

J. VOSE SOLOMON, F.R.C.S.

SURGICAL MEMORANDA.

DIGITAL TENOTOMY IN PIANISTS.

THE case related by Mr. Noble Smith in the JOURNAL of July 4th, of subcutaneous division of the slip of tendon connecting the common extensor tendons of the middle and ring fingers, must be of great interest to all practical musicians.

Being fond of music, and to some extent a performer on both piano and organ, and also daily engaged in the performance of delicate surgical manipulations in the shape of operations upon the eye, I am anxious to know whether the division of the connecting tendon, whilst allowing greater freedom and independence of movement to the ring-finger, in any way diminishes the general strength and grasp of the hand.

All pianoforte-players know well the extreme difficulty of overcoming what musicians term the "weakness of the third finger;" and, whilst allowing that much may be done by careful and diligent practice to stretch the uniting tendon, still it must be acknowledged that the results of such practice, in the great majority of cases, are disappointing, and not proportionate to the amount of time and labour that are expended upon them. I feel sure that musicians generally would hail with delight such a simple procedure as digital tenotomy, whereby they might be enabled to overcome, with comparative ease, what, perhaps, may fairly be considered to constitute one of the greatest difficulties in pianoforte-playing.

With regard to the possible dangers of the operation, there ought, in these days of antiseptic and subcutaneous surgery, to be practically no risk of any subsequent inflammatory condition which might produce a matting together of the tendons on the dorsum of the hand, with consequent stiffness of the fingers; and the only other fear that suggests itself would be a possible weakening of the hand, and, perhaps, occasionally during the operation, division of a digital nerve, whereby some defect in the sensibility of the finger or fingers would be produced; although even then the resulting anaesthesia would be probably only temporary, and confined to the back of the fingers, which would be of less consequence than if it affected the palmar

surface, or part of the finger that would come into contact with the keys of the instrument.

In fully reporting any future cases that may come under his care, I would venture to suggest to Mr. Noble Smith that he would add greatly to the value of his work, if he could obtain the assistance of one or more competent professional musicians, who should test the manual powers of the patient in playing upon a musical instrument, such as the piano, both before and after the operation, when, of course, the wound had thoroughly healed. Should the results prove satisfactory, such independent opinion would do more to establish confidence in the operation than any number of cases recorded merely from the surgeon's point of view.

The division of the little connecting slip between the third and fourth common extensor tendons was, I believe, suggested many years ago, and is somewhat fully referred to in Dr. Stainer's *Dictionary of Music*; but it does not seem to have met with much favour up to the present time. I am hopeful, however, that orthopaedic surgeons will very soon be able to tell us positively whether digital tenotomy in pianists is likely to prove a really valuable operation or otherwise.

ERNEST BOWER,

Ophthalmic Surgeon to the Gloucester General Infirmary.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORTH-WEST LONDON HOSPITAL.

SEVERE PERFORATING WOUND OF CHEST AND LUNG: REMARKS.

(Under the care of Mr. FREDERICK DURHAM and Mr. MAYO COLLIER.)

A BOY, aged 16, was admitted, suffering from a deep spike-wound of the left chest. The spike had entered at the tip of the eleventh rib, and, passing obliquely upwards and inwards, fractured the rib above, about its middle. The patient had previously removed the spike himself.

On admission, he was much collapsed, greatly distressed, and bleeding freely from the wound. It being suspected that the diaphragm was perforated, a finger was introduced into the wound, but no opening through the diaphragm could be made out; a large perforating wound of the lung was apparent. The usual treatment was adopted, with the usual result, no less than 80 per cent. of such cases proving fatal (see Fraser on *Injuries to Chest*).

At the necropsy, the left lung was found perforated from its base to the posterior border; the tip of the spike having struck the body of the sixth dorsal vertebra, on the left side. Purulent lymph covered both surfaces of the pleura, and thirty-nine ounces of semi-purulent coffee-coloured fluid were removed. The lung was partially collapsed and consolidated. There were firm adhesions to the diaphragm and the posterior thoracic wall. All the other organs of the body were healthy.

REMARKS BY MR. MAYO COLLIER.—The cause of death in such cases is not the wound of the lung and pleura itself, or the damage done to a vital organ (unless a large vessel at the root of the lung be opened), nor shock; but almost invariably subsequent septic inflammation of the pleura or lung, or both, and its consequences. The treatment I would suggest has for its direct object (1) the immediate arrest of hæmorrhage and emphysema; (2) the prevention of any inflammation of the lung or pleura, and the consequent absence of adhesions. The simplest procedure is all that is required to ensure such a result. A wound of the lung being diagnosed, the chest-wound should be sufficiently enlarged to admit two or three fingers at least. By this procedure, the lung can be made to collapse within a short space of time. The cavity of the pleura should then be cleared of any clots or foreign body, and washed out with a warm solution of carbolic acid in water, one in 100 parts. A counter-opening being made in the most dependent spot for drainage, antiseptics should be strictly maintained, and the whole side of the chest thickly enveloped in iodoform gauze and wool. The lung having collapsed, the hæmorrhage and emphysema are consequently arrested, the wounded edges are in apposition, and the whole disabled organ is completely at rest.

As a further sequel to collapse, the bronchi and air-vesicles are shut off from the pleural cavity, and pneumonia is prevented. All septic matter and clot being removed from the pleura, and free

drainage provided, the chances of septic pleuritis are minimised. Under this treatment, the wound in the lung usually heals within 48 hours; the pleura remain perfectly free from inflammation; and the openings in the chest-wall being closed, the lung returns to its normal position and functions.

The course of treatment I have laid down is supported in part by our best authorities on the subject. John Bell makes the remark that "the collapsed state of the lung, which is a cause of distress, is at the same time a chief means of safety, preventing the escape of air and blood, and predisposing to more rapid union of the surfaces of the wound which are thus brought in contact." Mr. Poland says:—"Clinically, collapse of the lung, although producing serious symptoms of dyspnoea and shock, is nevertheless favourable to the recovery of the wound in the lung." As my treatment rests on the ability of the surgeon to cause the lung to collapse quickly, a few more remarks on this subject will not be out of place.

John Bell maintained, and it is generally believed, that when the pleura is opened the lung collapses. This is not the case; the lung may even protrude, and continue to do so. Dr. Hennen, at page 352 of his *Military Surgery*, says:—"The sinking of the lung is not a uniform consequence of a penetrating wound of the thorax." Dr. Fraser, in his work on penetrating wounds of the chest, cites many cases where the pleura was opened, and the lung did not collapse, and gives the result of many experiments performed by himself, Dr. Houston, Van Swieten, and others to the same effect. Experience and experiments teach that the lung will sooner or later collapse, and that the rate of collapse is directly proportional to the size of the opening in the thorax.

If the physical adhesion between the opposed pleural surfaces be abolished by the introduction of the hand into the pleural cavity, and the lung gently separated (by this or other means) from the parietal pleura, it will quickly collapse. When prolapse takes place it is due to the tension of the air in the lung from sudden closure of the glottis, accompanied by an expiratory effort, the protrusion always increasing during expiration. M. Duret relates a case where, all other means of arresting hæmorrhage having failed, he opened the chest freely; the lungs quickly collapsed, and the flow ceased.

That traumatic pneumonia is a rare sequence of wound of the lung is supported by the great experience of Dr. Fraser. On page 69 of his work, speaking of traumatic pneumonia, he says:—"I am satisfied that it is of rare occurrence." Further on he says that, when inflammation does take place, it is always due to the presence of a foreign body or septic matter in the wound. The inflammation necessary for repair is always limited to the wounded parts, and seldom exceeds two or three millimetres in thickness, and lasts for a marvellously short space of time. That the presence of aseptic air in the pleural cavity is not a cause of pleuritis is well known, and hardly requires support by quotations from high authorities. And, lastly, that the lung will re-expand after collapse, and return to the full exercise of its functions, is equally well known.

I think I may claim to have shown on the best authority—1, that the patient does not die usually from the wound of lung or pleura; that neither of these parts are prone to inflammation due directly to injury, and that when it occurs it is invariably due to the introduction of septic matter; 2, that the lung may be made to collapse at the will of the surgeon, and by this means the hæmorrhage and emphysema may be arrested; 3, that air in the pleura, provided it be aseptic, is not a cause of inflammation; 4, that the desired result of the return of the lung to its normal position, without adhesion, and in working order, may reasonably be expected, and can be obtained.

NEVUS OF THE FACE CURED BY ELECTROLYSIS.—Dr. Leplat has recently shown, at a meeting of the Medico-Chirurgical Society of Liège, a girl, eight years of age, who had been admitted into the hospital for a large nevus, occupying the left temple, the whole lower eyelid of the same side, and the external third of the upper lid. The tumour was bluish, and increased in size when the jugular veins were compressed; its thickness varied from four to ten millimetres, and pulsation could be detected at several points. Dr. Leplat introduced, under the skin covering the tumour, two steel needles, which were put in communication with a battery of from twenty to thirty cells, and left in place for a few minutes. The operation was repeated forty-nine times; and at the end of six months, the upper lid was nearly normal in appearance. The lower lid and the skin of the temple had become much thinner, but they were covered with small depressed scars; those produced by the negative pole were white, the others reddish-brown. The discoloration of the skin might be prevented by the use of a platinum needle.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 1ST, 1885.

J. B. POTTER, M.D., F.R.C.P., President, in the Chair.

Specimens.—The following were shown: 1. Rupture of the Fundus Uteri during Pregnancy, by Dr. Harvey (Calcutta); 2. Malignant Dermoid Ovarian Cyst, by Mr. Knowsley Thornton; 3. Atrophy of the Chorion, by Dr. Herman.

Notes of a Visit to some of the Lying-in Hospitals in the North of Europe, and particularly on the Advantages of the Antiseptic System in Obstetric Practice.—These notes were read by Dr. PRIESTLEY. The hospitals visited were those at Copenhagen, Helsingfors, and St. Petersburg. At Copenhagen, the new system began in 1870. In the Maternity Hospital, in the fifteen years from 1850 to 1864, the mortality was one in 24; between 1822 and 1843, it had been one in 19—that is, only slightly lower than the mortality in the Nightingale Charity of King's College Hospital, which compelled the author to close the ward. From 1865 to 1874, the mortality from puerperal fever was one in 51; from 1870 to 1874, it was one in 87, the improvement coinciding with increasing strictness in antiseptic precautions. The hospital was constructed in the most elaborate and expensive way to secure hygienic perfection, including ventilation, isolation of each part of the building (if desirable), and even a separate room for each patient. Moreover, the rooms were only used alternately, which was equivalent to halving the number of beds. The attendants were under strict rules of periodical purification, and were not allowed to pass directly from the convalescent to the lying-in wards. If a patient had been ill, the nurse was fumigated with sulphurous acid gas by an elaborate process. The same was used for disinfection of the rooms. The personal precautions included careful antiseptic hand-washing, soaking of catheters, etc. No sponges were used. The vagina was injected twice a day with carbolic acid lotion. The beds were of canvas, filled with chopped straw, which was destroyed after use. Each bed had its own basin, syringes, catheters, etc. The placentae and dressings were burnt. On suspicion of infection, the patient was carefully isolated. The medical officers were not allowed to attend necropsies. The director lived in the hospital, of which he was absolute master. As in other hospitals, there was an undue proportion of difficult cases and of primipare, and the primipare had a large share in the mortality. The midwives of Denmark were compelled to use antiseptic precautions, and this had sensibly reduced the mortality. At Helsingfors, the hospital was arranged on the pavilion system, one block being devoted to diseases of women, including wards for operations and rooms for out-patients. The wards for lying-in cases contained about 42 beds; the beds were in the middle of the rooms. The mattresses were sacks of fresh rye-straw for the non-paying patients, and with horsehair or bark of the lime-tree for paying patients, all being cleaned, baked, and remade for each new patient. Some patients lay on the bare boards of the bottom of the bed, as was usual in Finland. Antiseptics were not as minutely carried out here. Midwives and nurses were made to wash their hands and arms with soap, and afterwards to rub them with hypochlorite of lime, before examinations. Abnormal cases were isolated. The medical officers were forbidden to attend necropsies, or to touch infectious wounds, without taking antiseptic precautions afterwards. Catheters were carbolicised, and the wards periodically closed and cleaned. After labour, a single injection of carbolic acid was given, and often when specially indicated. The linen was simply washed; the blankets were fumigated by burning sulphur. Professor Pippingsköld trusted largely to the excellent hygiene of the hospital (built on a rock high above the town), and to the clean habits of the people; but the external genitals were always washed before delivery, otherwise the object was to guard against external morbid influences, more minute care being thought unnecessary under the circumstances. Before the new maternity was opened in 1879, the total mortality averaged 1.83 per cent. From 1872 to 1884, the total mortality was one per cent. In the Grand Duchess Catharine Maternity Hospital in St. Petersburg there were arrangements for isolating the various parts. Scrupulous cleanliness, the disinfection of rooms, concrete floors draining into a central gully, and the careful use of antiseptics, were included in the system. In the last three years there had only been one death from puerperal fever, though six had occurred from other causes.—Dr. MATTHEWS DUNCAN said that the subject of antiseptics in midwifery was the greatest in the whole obstetric department, but it got very little attention. The subject was greater than the prevention of

epidemics, which came occasionally, while puerperal deaths were constantly occurring amongst the most valuable members of the community. The value of antiseptics in midwifery had only lately been estimated, because it was only lately that the profession had agreed as to the mortality of childbed. Some men had their thousands of cases without a death, and while he did not doubt their veracity he did not accept their statements. No man could claim immunity from deformed pelves, placenta previa, puerperal convulsions, phlegmasia dolens, puerperal inflammation, puerperal scarlatina, puerperal septicaemia, or puerperal insanity. Farr began by ridiculing the demonstrated puerperal mortality, but he eventually nearly accepted the received view—that about one in 120 died in childbed, or within a few weeks after delivery. In the history of the subject, all measures had failed to reduce mortality till antiseptics were introduced. Abroad, the great mass of women were attended by midwives, who were compelled by law to use antiseptics. In Great Britain most were attended by medical men, very few of whom used antiseptics. He hoped they would be universally adopted.—Dr. JOHN WILLIAMS said that while it was not possible to abolish by antiseptics the effects of pregnancy and labour, the abolition of deaths from puerperal fever might be hoped for. The mortality of the St. Petersburg Hospital (one death from puerperal fever in three years) was a near approach to this. The results at Copenhagen and Helsingfors were little better than those in the Rotunda of Dublin before antiseptics were used. In seven years of office, Dr. Collins admitted about 16,000 women, and had two epidemics of puerperal fever, in which about 80 died, and the total mortality was one per cent. Dr. Macan, the present master, admitted, during his first year of office, 1,090, and of these six died, two at least from other causes than septicaemia. This excellent result had been obtained by careful antiseptic precautions. Dr. McClintock calculated that a quarter of the deaths in childbed were not due to childbed. Taking the deaths in childbed at one per cent., the lowest mortality in childbed after the destruction of puerperal fever would be a quarter per cent., or 2.2 per 1,000; and the object should be to reduce the mortality to this level; this, he believed, might be attained by antiseptics. This was the object of Dr. Champneys and himself at the General Lying-in Hospital, but the object had not been attained. During the first four years there were seven deaths in 1,174, or a little more than 0.5 per cent. During the first 12 or 18 months carbolic acid was used; during a second similar period, permanganate of potash; and, since May, 1884, corrosive sublimate. During the first two periods, there was a good deal of illness, though the mortality was low; since the use of corrosive sublimate was begun, there had been no deaths from puerperal fever, and almost an entire absence of morbidity. The mortality mentioned was the total mortality for all cases which were not well at the time of their discharge from the hospital, and were admitted into St. George's Hospital, under Dr. Champneys, or into University College Hospital, under Dr. Williams; and the result was incorporated with the statistics of the General Lying-in Hospital.—Dr. CHAMPNEYS said that the total mortality from all causes in the General Lying-in Hospital in the last four years and a half, since Dr. Williams and he had had charge of it, was nine in 1,360, one in 151, or 0.66 per cent. The last two deaths were from phthisis, with which the patients were practically moribund on admission. These results were decidedly good at the present time, though it was hoped to improve them in the future. The greatest care was taken to follow up the cases; on discharge, each patient was furnished with a post-card directed to the hospital, on which she was requested to write her state and that of the infant about a month after her discharge, or six weeks from her confinement. No statistics of lying-in hospitals were trustworthy which did not give the total mortality from all causes, and which did not state that no patient was transferred to another hospital, or that, if transferred, her progress was ascertained. The statement that no deaths occurred from puerperal fever was worthless in the absence of the whole mortality; and, indeed, all cases dying after childbirth were presumably, or in the absence of distinct proof to the contrary, cases of puerperal fever, and such cases often gave unmistakable, though unexpected, evidence of septic processes after death. Thus the statement that, in the St. Petersburg Hospital, there had only been one death from puerperal fever in three years, while there had been six deaths from other causes, did not carry conviction. That was certainly a most unusual proportion. What were the causes of the other six deaths? The triumphs of antiseptics had been greatest in the most filthy localities; where cleanliness and general hygiene had been attended to, the benefit, though undoubted, was less striking. Antiseptic teaching should be as clear and as definite as possible; if details were unnecessarily multiplied, nurses, and even practitioners, were liable to confuse the essentials with non-essentials, and even to throw the whole thing overboard. He found no difficulty in carrying

out the same details in private as in hospital. The all-important thing was scrupulous antiseptic cleanliness of the hands. On this he insisted, on the part of nurses, as well as on his own; and inspection of the nails and skin of the hands of nurses was important on this account.—Dr. WEST thought that the teachers of midwifery, or, better still, the Obstetrical Society, should pronounce definitely as to what was essential in antiseptic treatment. In Vienna, frequent vaginal washing and the introduction of iodoform into the uterine cavity formed part of the system. Women would, he thought, be apt to dislike this interference, and it would also suggest to them the great danger which there must be to necessitate it.—Dr. PLAYFAIR was sure that, in private, not one man in a hundred used antiseptics in any thorough way. There were not the difficulties which Dr. WEST had imagined, and, in his own practice, antiseptics were as rigidly enforced as it was possible. Absolute surgical asepticism was, of course, impossible. He now supplied his nurses with antiseptic rules printed on a card, the chief rules being that the nurse should never touch the neighbourhood of the genitals without careful antiseptic washing of the hands. The same precaution was taken with regard to all sponges, catheters, etc. Corrosive sublimate was preferred to carbolic acid. These rules were even more important for nurses and midwives, who often touched the genitals, than for medical men, who, as a rule only did so during labour. Nurses were apt to be careless of details and of cleanliness, and the result was visited on the medical man. He hoped that antiseptics would soon be the routine practice, and he was sure the result would be most satisfactory.—Dr. GIBBONS remarked on the common practice of pouring a few drops of antiseptic solution into an unmeasured quantity of water, which was useless. He asked Sir Joseph Lister what strength of carbolic vaseline should be used.—Dr. MURPHY (Sunderland) regretted that the discussion had not included the details of the antiseptic treatment recommended. He asked the opinion of the Society as to the justifiability of attending a case of labour shortly after having examined a case of puerperal fever in consultation. The text-books said that practice must be given up for several months. Dr. Murphy thought that change of clothes and a warm carbolic bath, one in 100, for half an hour, gave sufficient security.—Dr. BRAXTON HICKS agreed with Dr. Matthews Duncan as to the value of antiseptics in midwifery, but not as to his estimate of puerperal mortality. He had, in 10 years of early practice, 800 to 1,000 cases, and only one death, which was from puerperal fever. Morbidity was as important as mortality. He referred to the injurious effects of human lochia inoculated into rabbits, as showing their poisonous character. The antiseptic vaseline or oil was of little importance compared with antiseptic cleanliness of the hands.—Dr. HARVEY said that, in Calcutta, for many years, carbolic oil had been used for vaginal examinations, and that vaginal injections of carbolic acid or corrosive sublimate were used if any fetor was noticed in the discharges. When there was pyrexia besides, the uterus was washed out. Good had resulted, but the mortality in Calcutta would always be high, as patients were often admitted after many hours of labour, and after the establishment of septicaemia.—Dr. PRIESTLEY, in reply, congratulated Dr. Williams and Dr. Champneys on the results obtained by them, and said that he was informed by Dr. Grigg that, of 1,100 deliveries in Queen Charlotte's Hospital, between February 14th, 1884, and July 1st, 1885, there had only been one death, and that was from puerperal convulsions. He agreed with Dr. WEST as to the desirability of defining what amount of antiseptics were necessary, and he doubted if autogenetic infection existed. Antiseptic cleanliness of all things touching the genitals was all-important, but vaginal injections had better be retained meanwhile.

ACADEMY OF MEDICINE IN IRELAND: SURGICAL SECTION.

FRIDAY, MAY 22ND, 1885.

E. H. BENNETT, M.D., President, in the Chair.

Treatment of Stricture by Internal Urethrotomy.—Mr. THORNLEY STOKER read a paper on the treatment of stricture by internal urethrotomy. He advocated the more frequent use of that operation in cases of well established organic stricture, where recurrence took place after gradual dilatation, where that treatment could not be borne owing to the irritation it set up, or where the circumstances of the patient demanded speedy relief. In 1871, when he became a hospital-surgeon, the practice in Dublin leaned to the use of the so-called immediate dilatation in those cases where rapid treatment was determined on; but, since then, the use of urethrotomy had become more general, and he believed bursting to have been practically abandoned

by Dublin surgeons. He had burst 18 strictures in his earlier practice, and had been so impressed, both by his own cases and by those of other surgeons, with the liability to rapid recurrence after this operation, that he had relinquished it in favour of urethrotomy. He had cut 25 cases with Maisonneuve's instrument, and had in no instance had a bad result or cause for grave anxiety, except in one case, where somewhat severe hæmorrhage took place, and required the retention of a large catheter in the urethra. He gave his reasons for preferring urethrotomy done from before backwards, after the fashion of Maisonneuve, and recommended the incision to be made in the roof of the urethra. He argued that a catheter should not be retained in the passage after the operation unless hæmorrhage took place. On this latter point, he placed much stress, and attributed to its observance the freedom he had found, in all his later cases, from rigors and inflammatory trouble; while in some earlier ones which he referred to, the retention of a catheter had, in his opinion, been the cause of such mischief.—The PRESIDENT believed most surgeons would concur in Mr. Stoker's opinion that internal urethrotomy should replace forcible laceration of the urethra.—Dr. BARTON combated Mr. Stoker's view that gradual dilatation was a temporary measure, and in the ultimate result unsatisfactory. His own experience was that it was the best treatment, if it could be adopted; and year by year, as he treated more difficult cases, he found its scope and range greater than he at first supposed. Despite Mr. Stoker's remark that internal urethrotomy was not a dangerous procedure, he had seen fatal results follow. He agreed, however, that that method gave more rapid results, but not more permanent. There were cases in which gradual dilatation could not be adopted, and in which the surgeon had to choose between bursting and internal urethrotomy. His choice in such cases would be in favour of internal urethrotomy. Both were open to risk, and could not be compared with dilatation. Again, there were other cases requiring external urethrotomy. In every case, before selecting any other method of treatment, the surgeon should sedulously, carefully, and tenderly try gradual dilatation.—Mr. STOKES, speaking from an experience of 67 cases during the past 21 years, although his opinion of Maisonneuve's operation was still very high, did not think it should be looked upon as a royal road to the cure of urethral stricture. It was the best mode of internal division of the stricture. But he agreed with Mr. Barton that the chances of recurrence of the disease were not greater after the old and the safer treatment of gradual dilatation. Mr. Stokes also thought it better to retain a catheter in the urethra for some time after the operation, otherwise the recurrence of the stricture was, as a rule, rapid. That was also the opinion of Maisonneuve. He agreed with Mr. Stoker in thinking the upper wall of the urethra was the best to be divided, not only for the reasons he put forward, but also those of Maisonneuve, that there was much less danger of any lodgment in the urethra, or any infiltration taking place after the operation, than when the lower wall was divided.—Dr. BALL pointed out that, in the use of Maisonneuve's instrument, there was danger of injuring other portions of the urethra by the sharp edge of the knife. He knew of a fatal case in which the entire length of the urethra, from the meatus to the bladder, was slit with the instrument, the wound being deepest in the healthy parts. That danger, however, was obviated by a modification invented by Teevan, of London—a triangular sheath over the cutting edge.—Mr. CORLEY, with his experience of the three methods, had come to the conclusion that the cutting operation, as done by Maisonneuve, was the best and safest, and obviated a number of inconveniences that certainly belonged to gradual dilatation.—Mr. THOMSON said the real question to decide was whether stricture was curable, or, rather, what method of dealing with it would give the best approximate result short of absolute cure. The question was this: When the surgeon came to deal with a case of stricture, what method was the best for the patient; what gave the least risk; and what gave the best chance of staying off the evil day? In the great majority of cases, dilatation was that method. It was essentially the least irritating, if properly carried out. Among methods of cutting, he was entirely in favour of Maisonneuve's.—Mr. WHEELER considered that recent cases were suitable for gradual dilatation, but old callous strictures were not. He could not concur in the statement that the return of contraction was more rapid after division than after internal division. When there was rapid contraction, it was because there had not been sufficient dilatation by which the stricture would be fairly ruptured.—Mr. HAMILTON said Mr. Stoker had not removed from his mind two convictions; one, that a stricture once formed could never be removed; and the other, that the vast majority of strictures were amenable to, and ought to be treated by gradual dilatation. He was in the habit of teaching that, no matter what plan was adopted, the stricture would return. His experience was, that he was able to succeed with gradual

dilatation in ten days or a fortnight. The object was to get in an instrument first, no matter how small; and he maintained, with Syme, that there was no stricture through which a surgeon could not pass an instrument, if he only had patience, and, above all things, gentleness. He always held and taught that blood on a catheter or bougie, indicated that too much violence had been used.—Mr. ORMSBY and Mr. FALCONER also took part in the discussion, and Mr. THORNEY STOKER, in reply to the president's question, advocated the incision of the roof of the urethra in preference to the floor, because he considered he was cutting into healthier tissue. It was matter of observation to those who dissected diseased urethra, that the floor was much more frequently the seat of disease than the roof. That gradual dilatation was the safest method of treatment no man of common sense could for a moment deny, or that it was the method applicable to the greater number of organic strictures. But he contended that urethrotomy might be more generally practised than at present. Dr. BALL had referred to a wellknown case where the whole of the urethra was split up; but there was no operation that was not subject to accident, and the fact that there was only one record of the kind showed that urethrotomy was a comparatively safe operation.

MEDICAL SECTION.

FRIDAY, MAY 29TH, 1885.

G. F. DUFFEY, M.D., and subsequently F. R. CRUISE, M.D.,
President, in the Chair.

Notes of Visits to Contrexéville and Royat.—Dr. CRUISE read a paper giving an account of his visits to Contrexéville and Royat-les-Bains, with some details respecting those mineral waters, and pointing out the various cases in which they were found useful. He said that Contrexéville, situated in the Vosges mountains, belonged to the class of calcareo-sulphated waters. Its water was alkaline, with a preponderance of salts of lime, apertient from sulphates of soda and magnesia, and restorative from iron and arsenic. The principal spring there was the Pavillon, the analysis of which, as given by M. Debray, was as follows: free carbonic acid, 0.080; bicarbonate of lime, 0.402; bicarbonate of magnesia, 0.035; bicarbonate of iron, 0.007; bicarbonate of lithium, 0.004; sulphate of lime, 1.165; sulphate of soda, 0.236; sulphate of magnesia, 0.030; silica, 0.015; chloride of potassium, 0.006; chloride of sodium, 0.004; fluoride of calcium, traces; arsenic, traces; total, 2.384. The effects of the Contrexéville waters were—1, diuretic; 2, laxative; 3, tonic. The diseases in which they were found useful were principally as follows: chronic affections of the urinary organs; gout, especially the atonic forms; diseases of the liver; nocturnal enuresis in children; diabetes, especially when associated with gout. Royat-les-Bains, situated in the Auvergne mountains, belonged to the class of alkaline chlorinated waters, with the addition of salts of lithium, iron, and arsenic. M. Lefort's analysis of the principal spring—the Eugénie—at a temperature of 95° Fahr., was as follows: bicarbonate of soda, 1.349; bicarbonate of potash, 0.435; bicarbonate of lime, 1.000; bicarbonate of magnesia, 0.677; bicarbonate of iron, 0.040; bicarbonate of manganese, traces; sulphate of soda, 0.185; phosphate of soda, 0.018; arseniate of soda, 0.004; chloride of sodium, 1.728; iodide and bromide of sodium, traces; silica, 0.156; alumina and organic matters, traces; chloride of lithium, 0.037; total solids, 5.623; free carbonic acid, 0.377. The effects of the Royat waters were—1, stimulating to the circulation; 2, diuretic; 3, laxative; 4, tonic. The diseases in which they were found most useful were principally as follows: all forms of gout and rheumatism, especially the atonic phases; anæmic and lymphatic affections; affections of the throat, lungs, and uterus.—Dr. TROBORN, having examined Contrexéville water, as imported, said the analysis was almost identical with that exhibited in the President's diagram, and therefore what found its way to this country was genuine. It appeared from the analysis that chlorine was associated with iodide of potassium. He was struck with the analysis of Royat water as regarded the extraordinary amount of lithium—0.037, being about 24 grs. per gallon. He asked if cesium and rubidium had been found, there being an idea that they possessed qualities similar to lithia in their action.—Dr. JAMES LITTLE said that, in this country, the Contrexéville waters appeared to be useful in the kind of dyspepsia occurring in people of a sallow complexion and sedentary habit, connected with the diseased condition of the liver. In gallstones, the waters also appeared to be useful. An old London physician had told him that he gained more benefit from gout by the Contrexéville waters than any other mode of treatment. The chief virtue of the Contrexéville waters lay in their effect on the urinary organs, especially catarrh of the bladder and stone. In catarrh of the bladder, he first had had an opportunity of seeing the value of the waters. It was the case of an old man in whom

catarrh had arisen in connection with imperfect emptying of the bladder through enlarged prostate. From a physician whom he met at Contrexéville, he ascertained that, in giving the water for stone, the best plan was to give a large quantity early in the morning before breakfast; whereas, for catarrh or gout, the better plan was to give it in divided portions during the day. To clear away gravel, he had recommended patients to drink a bottle before breakfast. But, in catarrh of the bladder, he had recommended a certain portion before breakfast, luncheon, and dinner.—Dr. H. KENNEDY said that a large number of persons were unable to visit those baths, and it was well to remember that Dr. W. Roberts, of Manchester, had said that, by medical treatment alone, not only could calculus in the bladder be modified, but even brought away.—Dr. FINNY had employed Contrexéville water in some cases of bladder-affections where cystitis was a common symptom; but he was disappointed in the results.—Mr. T. E. CAHILL also joined in the discussion.—Dr. CRUISE, in reply, said they had not sufficient knowledge of the therapeutical value of silica to attach much importance to it. There were no traces of caesium, rubidium, or strontium in the waters, according to Debray. With regard to the chloride of lithium in the Royat water, he was correct in the quantity given. Dr. Kennedy's reference to Dr. Roberts's observations recalled the celebrated cures published in old times; but these were effected with soft or phosphatic calculi. Dr. Finny said that the waters sometimes did not give the relief required. That was his own experience in some cases, but that was also the fate of all drugs and mineral waters.

Primary Sarcoma of the Right Kidney.—Dr. WALTER SMITH exhibited a specimen of primary sarcoma of the right kidney. The tumour weighed nearly 4 lbs., and its microscopic structure was that of a spindle-celled sarcoma. It was removed from the body of a man, aged 53, admitted into Sir Patrick Dun's Hospital, October 25th, 1884. His family history was good, and he was in perfect health until about two years ago, when he felt a slight pain in the right side, and soon after noticed a swelling. The tumour slowly increased, but he was able to work as a brass-finisher up to a month before admission to hospital. The tumour extended from the ribs to within two inches of the ileum, and laterally about two inches to the left of the umbilicus. There was no ascites at any time, and the cutaneous veins, anteriorly and laterally, were permanently enlarged. The fingers could be depressed readily into the groove, between the tumour and the ribs; and, notwithstanding that no evidence of intestine in front of the tumour could ever be detected, the diagnosis of malignant renal disease was easily made. The urine constantly contained a considerable amount of albumen, with some tube-casts, and, although usually bright and clear, always became turbid (mucin) with acetic acid. From time to time he passed, by the urethra, curious tassel-like and vermiform fragments of fibrinous clots, mostly decolorised, and sometimes three inches in length. The man's strength very gradually gave way, and he died on April 14th. At the necropsy, twelve hours after death, there was very little fluid in the abdomen, and no evidence of peritonitis, except a few old adhesions. No part of the intestine lay in front of the renal tumour; the colon was adherent to its lower edge. The vena cava beneath the liver was occupied by a large laminated thrombus, terminating above in a blunt cone. The right renal vein was likewise filled with a soft thrombus; the left renal vein was free from clot. The liver and left kidney were amyloid. There was a double ureter on the left side. The bladder was healthy. The thoracic viscera were healthy, except for a mass of caseous glands behind the bifurcation of the trachea. No vestige of healthy renal tissue could be made out in the tumour, which was enveloped in a loose capsule of connective tissue. The right ureter was pervious, not dilated. The pelvis of the kidney was filled with a firm, fibrinous plug. The right adrenal was loosely attached to the tumour. The tumour, upon section, exhibited a mottled patchy appearance, and was intersected by numerous fibrous bands. Under the microscope, it proved to be a spindle-celled sarcoma.—After some remarks from the PRESIDENT and from Dr. HENRY KENNEDY, Dr. JAMES LITTLE said he never saw a case of cancer of the kidney; but he emphasised the fact, mentioned by Dr. Smith, of the great importance of noticing the condition of the colon in the diagnosis of renal tumours.—Dr. FINNY, having seen Dr. Smith's case, confirmed what he had stated about the position of the ascending or transverse colon; but the peculiarity here was that it did not pass in front, but below, the tumour. That was the difficulty. The illustration of the presence of mucin, and the peculiar objects passing down from the urethra, gave the case additional interest.—Dr. WALTER G. SMITH, in reply, said it was a singular circumstance, but by no means peculiar to his case, that there was a comparative absence or slight degree of pain, the disease being a slow, infiltrating affection.

On the motion of Dr. DUFFEY, seconded by Dr. McSWINEY, the re-

maining papers were referred to the Council for publication, and the Section adjourned.

REVIEWS AND NOTICES.

THE NON-BACILLAR NATURE OF ABRUS POISON. By C. J. H. WARDEN and L. A. WADDELL, M.B. Calcutta. 1884.

THE introductory part gives an interesting account of the way in which the seeds of the abrus precatorius (the Indian liquorice-plant, the jequirity of the Brazilians) have been since long time widely used in India for poisoning cattle, and less frequently for destroying human life. When taken by the mouth, these seeds are almost innocuous, and they even form an article of diet in Egypt among the poorer classes; but when the powdered seed, in a dose of about two grains, is introduced under the skin of cattle, death occurs in about 48 hours. It was fully accepted, one and a half years ago, that these fatal consequences were due to a generalised bacterial condition, and that the conjunctivitis excited by the introduction of the powder, or its infusion, between the lids, was due to the growth of a bacillus which was always present in the air, but took on pathogenic qualities when grown in an infusion of abrus-seeds; but it is now fully established that their poisonous nature is, in reality, quite independent of the development of bacteria, being due to the presence of a chemical principle.

The authors deal experimentally with the various questions that have suggested themselves during the discussion. Their microscopic examinations and their culture-experiments have failed to detect any specific bacilli within the seeds themselves. Hypodermic injections were used, mainly on cats and fowls, in order to determine whether a general bacterial condition was necessarily associated with the toxic action of the seeds. Since boiling destroys their toxic powers, it was almost, or quite, impossible to sterilise their infusion. Bacilli were found at the seat of injection in every case; few where death resulted early, and more where it was longer postponed. In most cases, there were evidences of bacilli in the blood generally. From the general results of their experiments, the authors conclude that the presence of bacilli at the seat of injection is purely accidental, and that these gain entrance to the wound from the air during the process of injection, or soon afterwards; and also that the number of bacilli in the blood is directly proportionate to the time the animal has survived, though it is, in no case, sufficiently large to account for death. The bacilli are by no means of one kind only, but present a variety of forms, of which one or more may be entirely absent in any given case. The authors, therefore, do not believe in the existence of a specific jequirity-bacillus, as was maintained by Sattler.

Instead of subcutaneous injection of small doses of abrus-poison conferring immunity from subsequent inoculations, as has been maintained by Cornil, the authors find that preliminary small doses rather predispose to a fatal issue.

Granting, then, that the toxic effects are not due to bacilli, the difficulty remains to isolate the chemical principle upon which its deleterious action depends. This essential principle, "abrin," was at length extracted, and is an amorphous tasteless solid of a pale grey colour. In thin layers, it is not unlike dried white of egg; it dissolves readily in cold water, and is thus extracted from the powdered seeds after previous percolation with chloroform and alcohol. Precipitation is then effected from the aqueous solution by the addition of alcohol. The authors prefer simply to designate abrus-poison as a chemical poison of a proteid nature, and they see some analogy between it and snake-poison.

Abrin produces great changes in the blood, causing undue fluidity and the presence of enormous numbers of blood-plates. Hence occur numerous and widespread capillary hemorrhages by diapedesis. The lymphatic glands are congested, and the body-temperature falls.

The authors suggest iron as a remedy, both locally, by subcutaneous injection, and by the mouth. The action of this drug must, however, be regarded as not settled, notwithstanding the apparently favourable results of their experiments.

The treatise deals, in an original, clear, and exhaustive manner with one of the most interesting and suggestive subjects of recent times.

PRESENTATION.—Dr. J. A. Magrath has been presented with a purse of £200 and an illuminated address, on his being about to leave Teignmouth, after upwards of twenty-six years' practice there. The presentation was made by General Lucas, C.B., on behalf of the subscribers.

DEACONESS HOUSE, CARLSRUHE; HINTS ON VILLAGE NURSING. By E. A. E. London: Francis Hodgson. Harrogate: R. Ackrill. 1885.

THIS pamphlet contains a graphic and interesting account of one of those most useful institutions, the Deaconess Homes, which abound in Germany. E. A. E. speaks from personal experience. Having met with an accident while travelling, she became an inmate of the Deaconesses' Home at Carlsruhe. The pamphlet is another attempt to interest people in the establishment of similar institutions in our large villages and towns, especially in the north of England. There seems, however, as past experience has shown, very little possibility of any scheme of the kind ever being carried out in this country. In the first instance, how could a nursing-staff be supplied? E. A. E. says "the nurses are the daughters of the peasant proprietors, tradesmen, etc., though some few are of higher rank." The daughters of small farmers in this country, who would answer to the peasant proprietors, seek well paid employment, and would by no means see their advantage in providing their own clothes and linen until becoming probationers (food and lodging being free); or afterwards, on becoming deaconesses, giving their services in return for food and clothing. Further, those of "higher rank" in this country, many of whom are willing and ready to give their time up to nursing, would most of them be altogether useless in assisting "largely in the culture of their flowers and vegetables," and in the art of cooking, a most essential one in nursing the sick, would be lamentably deficient. The sufferings of the invalids would thus surpass even those which the Carmelite sisters used to undergo under the willing, but ignorant and inexperienced hands of Madame Louise de France. Then again, E. A. E. justly observes that the expenses of such an institution in England would be greater than in Germany. How, indeed, could any institution of this kind, trying to be self-supporting, supply, for four shillings and sixpence a day, a comfortably furnished room, a breakfast, beef-tea (if desired afterwards), a dinner of sweetbreads or calves' brains, an excellent vegetable, piece of roast chicken or meat, with stewed fruit; at 3 p.m. coffee, and at 6 p.m. soup, or tea, with cold meat and light pudding, or *soufflée*? The room at this price was the largest, the other patients paying three shillings. Medical fees, medicine, baths, and laundress were not included in this payment. The first rule of the institution is as follows. "The object of the Deaconesses' Institution is to train sick-nurses and deaconesses for service in hospitals and private houses." Ladies in this country who wish to learn nursing generally prefer to go to one of the hospitals, where they live in a nursing home, and pay a fixed sum weekly, by which the hospital benefits. While thus well cared for, and relieved from the drudgery of household management, commonly detested by English ladies, they spend their days in the wards, under the immediate supervision of the sister of the ward, and are enabled to gain much knowledge and experience; as they are changed from medical to surgical wards, they have every opportunity afforded them of becoming acquainted with all kinds of disease, acute as well as chronic. It is not easy to believe that anyone desirous of learning nursing would be willing to exchange these advantages for the experience they would be able to gain in a limited home such as E. A. E. describes. The system of deaconesses' homes is of purely German growth, and is intimately connected with the social and religious characteristics of the people. Transplanted to this country, it would be an exotic doomed to die unless fostered with peculiar care. The question of nursing-stations in villages and country towns is one of great importance, and it is a good omen to find many earnest women taking an interest in its solutions. The question, however, is too large to enter upon here, but the final solution will probably be arrived at through the extension of cottage-hospitals, and the utilisation of workhouse-infirmaries as training centres for nurses.

NOTES ON BOOKS.

Hard Battles for Life and Usefulness. By the Rev. J. INCHES HILLOCKS. Pp. 350. (London: W. Swan Sonnenschein and Co.)—This interesting book is readable for its own sake, as an autobiographical record of much good work done under difficulties that would have daunted and overcome many men not endowed with the splendid moral courage of Mr. Hillocks. Its value, however, is enhanced by the suggestions and recommendations which long and laborious work amongst the poor and degraded enables the author to make with regard to the terrible problem of the condition and surroundings of the lowest class of artisans. As was naturally to be expected of a minister of

religion, Mr. Hillocks's observations are largely tinged with condemnations of sin and vice. In his strictures upon these and their consequences, he may be assured of universal sympathy and respect; but obviously we cannot discuss here the duty of the churches with respect to them, on which our reverend friend is particularly insistent and dogmatic. His views on remedial legislation are general rather than specific. He desires to abolish "slumdom," and, in so doing, is not concerned with the alleged rights of property that shackle repressive action. He denies that the lower classes like dirt, or are incurably filthy in their habits, and is sincerely anxious to secure the interest and co-operation of the poor in their own improvement. Work such as that to which Mr. Hillocks has devoted himself with so much self-sacrifice, does far more to lift the humbler of our fellow-creatures to the dignity and comfort of life than any number of Acts of Parliament which amateur sanitarians desire to see passed, in the fond belief that they will prove a complete and instant specific for evils which have taken generations for their growth and development.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

MARSHALL'S SEMOLINA.

MR. JAMES MARSHALL, of the Ibrox Flour Mills, Glasgow, sends us a 14 lb. sample of his "semolina," and claims for his manufacture that, being made from the best hard wheats, which contain a large percentage of albuminoids, it is better, because more nutritious, than the starch-foods known as "corn-flour." On examination of this sample, the following results were obtained: water, 12.60; fat, 0.84; nitrogenous matter, 8.10; soluble matter (sugar, gum, dextrine, etc.), 1.02; starch, 77.44; ash, 0.34. The microscopical examination showed that the starch consisted of wheat-starch only. It will thus be seen that the sample is evidently prepared from the genuine wheat-flour, and contains a good percentage of the most important constituent of wheat, namely, albuminoids.

DE VRIJ'S EXTRACTUM CINCHONÆ LIQUIDUM.

THE liquid extract of cinchona, manufactured by De Vrij's process, and under the immediate supervision of the distinguished quinologist, is, we believe, far superior to anything of that kind yet produced. As is well known, it holds an established place in Continental medical practice, and is very largely prescribed. It is manufactured by a new process, and each pound of the extract is guaranteed to contain all the constituents of a pound of the very best cinchona bark. It yields five and a half per cent. of total basic alkaloids, in addition to collateral principles. It is found practically to give rise to little headache, or any of the untoward symptoms which sometimes attend the use of quinia in large doses. When diluted with water, it forms a perfectly clear solution, undistinguishable in appearance from a fresh infusion of bark. We have no doubt that it will be extensively prescribed in medical practice, and consider that its introduction is a decided advantage both to doctors and patients. The ordinary tonic dose is from five to ten minims.

INSTRUMENT FOR DILATATION OF THE CERVIX UTERI.

SIR,—There are two letters in the BRITISH MEDICAL JOURNAL of July 11th referring to my dilator. In answer to both, allow me to at once admit, or rather insist, that the idea is as old as humanity, being no other than that of natural dilatation, as seen in the commencement of parturition. But the way in which this process is imitated by the expansion of a delicate finger-stall of fine rubber is, so far as I can learn, an original one.

I believe the dilator can be used in any case where an ordinary sound will pass, and it evidently has but little in common with Dr. Barnes' bags, or their modification by Dr. Mansell-Moullin, with which he has become dissatisfied.

The delicacy of the stall when expanded to three or four times its original size, may cause some fear as to rupture, but either water or air may be used as the expansive power at the discretion of the surgeon; and, if he have sufficient trust in the natural process to accept so close an imitation of it, I do not think that he will find the trust misplaced.

A fine rubber-stall is free from nearly all the objections which may fairly be raised against the thick rubber-bags. It does not harden with cold, it tends to improve rather than otherwise with moderate age; having no folds which can adhere together, it does not become useless by being laid aside. It, however, forms a delicate instrument, to which a "foot-bellows" would, I think, be a mistaken and unnecessary adjunct.—I am, sir, yours truly, JOHN W. TAYLOR.

3, The Crescent, Birmingham.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 18th, 1885.

ELECTORAL DISQUALIFICATION BY MEDICAL RELIEF.

THE debate in the House of Commons on the second reading of this Bill is fixed for Thursday night, as has been the unfortunate fixture for many subjects of interest to the medical profession. This will deprive us of the opportunity of commenting upon it this week. There is reason to believe, however, that the subject is one of much more limited scope than has been supposed, and that the proportion of persons is not very considerable who will be affected by the Bill, as having received at the public expense medical relief only, and not other forms of relief, and then from the poor-law guardians as such, and not from the sanitary authority, or from the guardians acting as a sanitary authority. Both the parties in the State are now officially agreed upon the principle of the Bill. The origin and inception of this Bill are, however, somewhat curious, not to say dramatic. Looking to the prominence which disqualification by medical relief has now achieved in the minds of the public through adventitious circumstances, there may be advantage in our giving a brief sketch of its recent parliamentary history.

The subject received some attention in the autumn of 1878, through the disallowance by revising barristers of the votes of certain Londoners whose children had been treated in the infectious hospitals of the Metropolitan Asylums Board. Sir Charles Dilke, Mr. Rathbone, and other members, thereupon introduced a Bill in the winter session of 1878-9 to "remove disqualification through the acceptance of medical relief for infectious disease." This Bill did not pass; but its objects were fulfilled as regards the metropolis by the Diseases Prevention Act of 1883, and partially, as we have already pointed out, as regards the provinces, by the Poor-Law Act of 1879, and the Municipal Corporations Act of 1882. The disqualification contemplated in the Bill of 1878 was that consequent on the acceptance of medical relief in cases of infectious disease only. The larger question of medical relief generally in its disqualifying aspects appears to have been first raised by Mr. Commins, in Committee of the Franchise Bill, in June of last year. The point was then regarded as of no particular importance, and Mr. Commins' remarks were very briefly reported, though a reference to *Hansard* shows that he had chiefly in his mind the infectious diseases view of the matter. Sir Charles Dilke, the President of the Local Government Board, dealt summarily with the question by saying that the proposal to remove the disqualification

was too wide in its scope, and would take away inducements to people to join friendly societies; and thereupon the matter finally dropped.

But the formal acceptance of the principle by the introduction of a clause similar in intention into the Irish Registration Bill of this session, awoke public attention, in view of the number of new voters to whom disqualification by medical relief would have a real meaning, and of the particular cases of hardship which were adduced. As the then Government supported the Irish clause, and succeeded in getting it passed, their assistance was invoked by Mr. Davey in the insertion of an identical clause in the English Registration Bill. But this clause was opposed, on technical grounds, by the Attorney-General during the discussion in committee on May 7th, and was then rejected by 170 votes to 102. Mr. Davey, however, brought up the matter again on report of the Bill on May 12th, and succeeded in getting his clause added by 87 votes to 50, though the House of Lords threw it out by 72 votes to 47. As it was absolutely necessary that the Registration Bill should be passed before Whitsuntide, if the new lists of electors were to be made out in time for the elections in November, the House of Commons had no choice but to accept this decision, and let the Bill receive the Royal assent, without any clause dealing with disqualification by medical relief.

Up to this point, the question had not achieved any particular prominence. It became, however, a subject of active correspondence in the daily papers, in which, among others, Dr. Balthazar Foster, Dr. A. Carpenter, and Mr. Wickham Barnes (Honorary Secretary of the Poor-law Medical Officers' Association), took part, and it was much discussed by representative men during the Whitsuntide recess. The notice of motion of Mr. Jesse Collings to introduce a separate Bill dealing with the matter, provoked a number of mass meetings and resolutions, which showed a very extended and earnest feeling in the country against disqualification. The defeat of the Liberal Government, and the subsequent parliamentary deadlock, diverted attention for the moment from Mr. Collings' Bill; but, as soon as the new Ministry was appointed, the member for Ipswich lost no opportunity of bringing his Bill before their attention, and of asking for facilities for it.

Mr. Gladstone described the measure as one which his colleagues considered of public urgency, and the present Government concurred in this view, and announced their intention of bringing in a Bill of their own to carry out the object in view. This Bill has now been printed. Mr. Collings proposed to abolish for a year (in order that every qualified elector might register his vote in November) the disqualification to vote at elections for members of Parliament which would otherwise be involved through the acceptance of poor-law medical relief. The Government measure goes infinitely further than this. It provides that "Where a person has, in any part of the United Kingdom, received for himself, or for any member of his family, any medical or surgical assistance, or any medicine, at the expense of any poor-rate, such person shall not by reason thereof be deprived of any right to be registered or to vote either (a) as a parliamentary voter, or (b) as a voter at any municipal election, or (c) as a burgess, or (d) as a voter at any election to an office under the provisions of any statute." This is, however, not to apply to the election (a) of any guardian of the poor, or (b) of any member of any parochial board in Scotland, or (c) of any other body acting in the distribution of relief to the poor from the poor-rate.

In other words, a man who has accepted for himself or his family parochial medical relief, is not thereby to be disqualified from voting at any local or Parliamentary election, with the exception of that of poor-law guardians. The new President of the Local Government Board, whose lot was to introduce his Bill at two o'clock in the morning of Tuesday last, explained this exception from his otherwise sweeping rule by the remark that "it was not thought right to allow a man who received money from the poor-rate to assist in defining how it was to be distributed." At the first blush, this seems reasonable; but if pressed home to its logical conclusion, it becomes untenable, for exactly the same thing might, for instance, be said of a man who receives aid out of the rates for the education of his children. And, moreover, it destroys the chance of instituting that single register which the advocates of uniformity desire to see established for each and all the elections that now periodically flutter the citizen-breast. If the Government go so far, it is a pity that they do not go further, and, postulating that the acceptance of poor-law medical relief is not to deprive a man of his civil rights, sweep away once and for all the disqualifications that it at present involves, without petty or embarrassing reservations. This, at least, is the natural corollary of the position they have assumed.

It will be seen that the new President of the Local Government Board, Mr. Arthur Balfour, goes further than was at first asked, by proposing that, if this disqualification be removed, it be removed altogether and for ever. At present, the dimensions of the disqualification which it is sought to remove, that is, the number of persons who are affected by it, are not known. Mr. Salt, a former Secretary of the Local Government Board, asked a question on this point on Tuesday, and an answer is promised him on the second reading of the Bill.

The enlargement of the scope of the Bill, and the permanent character of its provisions, have aroused individual opposition from Mr. Courtney and Mr. Pell, on the grounds of political economy. It cannot be doubted that anything which tends to lessen the inducements to providence and self-support, or to facilitate the avenues to any form of pauperisation, is open to *prima facie* objection. On the other hand, both parties are agreed that providence is to be cultivated by other means than the imposition of political disabilities; and the hard cases quoted have sufficed to convert the leaders on each side and the great bulk of their followers. Both parties appear to believe that disfranchisement is not the best means of dealing with laxity in this respect; and it may be hoped that they will show their sincerity by earnestly encouraging the provident medical institutions in their respective counties, districts, and towns.

THE SPREAD OF INFECTIOUS DISEASES.

To any one knowing the wide diffusion of infectious maladies, their subtle means of spreading their desolating influences, their pernicious effects upon human health, and, alas! their too frequent destruction of human life, the task of compressing into a single lecture even the outlines of what is known of these various zymotic maladies, must be difficult. Yet the lecture read, by Dr. Simpson, to the members of the Aberdeen Branch of the Educational Institute of Scotland, and published in the *Sanitary Journal* of Glasgow on January 7th, may be instanced as a most successful effort to communicate to those who are the instructors of youth in the north-east of Scotland, the main facts relating to the spread of infectious diseases.

"These maladies," Dr. Simpson writes, "retard, perhaps more than any other cause, the progress of the education of the child, and they are at the same time a source of great pecuniary loss to the teacher. Measles and the first and second standards seems to go together as a matter of course, and the other diseases of the febrile class are distributed with a liberal hand over the various stages of school-life." Would that we could imprint these significant words deep, very deep, in the minds of school-managers! From the health-officer's point of view, considering the effects of these diseases upon human health and human life, it must ever be the most prominent end and aim of his efforts to prevent the spread of their contagious seeds. His earnest efforts to attain those desired ends would doubtless be aided by every enlightened practitioner of medicine, and should be supported by every parent. But the view presented by Dr. Simpson: the loss of time sequent upon sickness due to fevers, the loss of money sequent upon absence from school, the loss of the weekly pence, the annual grant, the bonus for good work—these suggest certain potent well recognised influences upon the community generally, which should be duly considered by those to whom the oversight of the young in schools is assigned.

The question will rise to the lips of such persons, Can the spread of infectious diseases be prevented? The answer is clear, "Yes, and by your own efforts. All things have a beginning. Fevers spring from single cases. Note the occurrence of such first cases; dismiss for a definite time all children who may have been in immediate contact with the infected child, and you will quickly control the spread of disease." We would press upon those who are interested in this matter, to peruse carefully and observe attentively the small pamphlet, entitled *Rules for the Prevention of Infectious and Contagious Diseases in Schools*, adopted by the Medical Officers of Schools Association, reviewed some time ago in this JOURNAL; feeling assured that, if those rules be implicitly followed, schoolmasters, whether of boarding schools or of board schools, will be able to control the spread of contagious disease, and limit the pernicious consequences to health.

MALARIA AND PREGNANCY.

DR. G. C. NIJHOFF, of Amsterdam, discusses, in the *Weekblad*, the question of the relation of malaria to pregnancy, adducing some observations of his own. Some years ago, it seemed to be the general opinion that pregnant women were very rarely affected by malarial fevers. Thus, Griesinger (*Virchow's Handb. der spec. Path. und Ther. Infectious-Krankh.*, 1856) found that, during the prevalence of a quartan fever in Prague, only 2 out of 8,639 pregnant and parturient women were affected. Again, Credé states (*Monatsch. für Geburtsh.*, Band xv, S. 1, 1860) that, in Leipsic, during the three years 1856-1859, there was scarcely a case of tertian ague in a pregnant woman. Mendel and Ritter have also recorded the comparative immunity of pregnancy from malarial attacks, for which the latter accounts by the smaller degree of exposure to malarial influences during pregnancy. When, however, it does occur, it does not, according to both Mendel and Ritter's observations, exercise any remarkable effect on the course of the pregnancy. On the other hand, Göth, of Klausenburg, found (*Zeitsch. für Geb. und Gyn.*, Band vi, S. 17, 1881) that, during a severe epidemic of a malarial nature, 46 out of 881 pregnant women were attacked; and of these 46, in 19 the labour was premature, and in some the children were still-born, and, even when they were alive, the size and weight were abnormally low.

Bompani also (*Centralbl. für Gyn.*, 1884, S. 821) is of opinion that malaria causes more premature labours than syphilis.

The discordant views of authorities, of which the above may be taken as examples, extend also to the treatment which should be adopted in the malaria of pregnancy, some, as Cazeaux, advising that quinine should be given as the surest preventive against abortion; while Petitjean (*Charpentier, Traité des Acc.*, Tome i, p. 562, 1883) and Monteverdi consider that quinine is a powerful ecboic; the latter thinks it even more active than ergot.

The writer mentions particulars of four cases, in which malaria attacked pregnant women, quinine being given. In one of these, the labour came on five weeks before the calculated time; but the child was of full length, and it was uncertain whether it was really premature. In another case, the labour occurred at about the right time, but immediately after a severe attack of fever; the weight of the child being 2.8 kilogrammes (about 6 lbs. 2½ ozs.). The other two pregnancies terminated normally, with healthy children.

With respect to the mutual effect of malaria and the process of labour, Ritter was of opinion that labour tends to arrest a malarial attack, suggesting, as an explanation of this, that the hæmorrhage may perhaps account for it. Göth considered that labour is prolonged by malaria to double its normal length, and stated that artificial assistance by forceps or extraction of the placenta was requisite more often than in cases uncomplicated in this way. The writer's own observations induce him to agree with Ritter rather than with Göth. In one of his four cases, the malarial attack did not return for twelve days after the labour; and in two more cases the patients were free for fourteen days after labour. In all these cases, the labours were normal, with very little hæmorrhage.

It is, of course, often difficult to diagnose malaria in the puerperal state. Ritter believed that puerperal women are peculiarly susceptible to malaria, but that they are less exposed to its influence than other people. He, however, mentioned fourteen cases, of which only three had had attacks during the pregnancy. He also thought quinine less satisfactory in its results than usual, owing to the enfeebled digestive power. The author's experience of puerperal malaria is very limited.

DR. FEHLING, of Stuttgart, the inventor of the well known test for sugar in urine, died on July 1st, in his 73rd year.

DR. GORDON HOGG, of Gunnersbury, has been selected as the Liberal candidate for the Ealing division of the county of Middlesex, in opposition to Lord George Hamilton.

THE number of students in the Free University of Amsterdam is now 50, of whom 39 belong to the Faculty of Theology. No mention is made in the list of a medical faculty.

THE surgeoncy of the City Police is vacant by the resignation of Mr. George Borlase Childs. Dr. Robert Fowler, of Bishopgate Street, is mentioned as a candidate for the post.

A PRIZE of £200 has been offered by the Empress Augusta of Germany for the best portable hospital or sick-room tent for use in war and during epidemics, and will be awarded in connection with the Antwerp Exhibition.

HEER P. LANGERHUIZEN, formerly Burgomaster of Huizen, has subscribed 200 francs to the furnace-fund of the Dutch Cremation Union. This fund now amounts to more than 11,800 francs.

IT is stated that the professorship at South Kensington, vacant by Professor Huxley's retirement, will not be filled up, and that, instead of it, two lectureships of £300 a year each will be created.

THE French poisoner, Pel, has escaped the sentence of death recently passed upon him, by the discovery that the jury who tried the case was not properly constituted. In the interest of justice, it is to be noted that Pel is charged with having committed many murders besides the one for which he was condemned, and this ensures his again being put on trial.

THE Charing Cross Hospital, at the last meeting of their Board, unanimously agreed to accept as a life-governor a delegate from the Board of the Hospital Saturday Fund. Twenty-one hospitals, the Surgical Aid Society, and the Provident Surgical Appliance Society, together with several dispensaries, have up to the present time accepted a nominee from the Hospital Saturday Fund.

THE sum of 800,000 marks (£40,000) has been bequeathed to the medical faculty of the University of Marburg by the late Countess Louise Bose, daughter of the Elector William II of Hesse, for the purpose of founding scholarships for present students as well as for graduates.

THE PROPOSED AUTUMN SESSION OF THE GENERAL MEDICAL COUNCIL.

IT was at one time thought that an autumn session of the General Medical Council might be held, in order to discuss the legislative measures which there was reason to believe would probably have been introduced by the late Government. As these measures have now been dropped, and as, moreover, the cases of complaint against the conduct of registered practitioners are not considered to require investigation, we understand that the idea of holding an autumn session has now been quite given up.

AN EXTRAORDINARY CLAIM.

AN application was made to Mr. Justice Pearson, on Tuesday, by the administrators of the estate of the late Jane Sackford Voyce, to compel Dr. O. Villiers, of Marseilles, to unseal his account-books in addition to the cut out sheets already forwarded in support of a claim for medical attendance upon the deceased lady. Dr. Villiers had sent in a claim for 28,000 fr., which included medical attendance for 16 years, and a sum of 3,000 fr. for embalming her body, and the books were required to testify to the details of the claim. It was also stated that Mrs. Voyce had lived for years in Marseilles as the wife of a M. Gautier, but it was discovered, after his death, that she was not his wife. The judge said that the doctor had sworn that the books did not relate to the claim, and he declined to order him to unseal and produce them.

PATENT MEDICINES.

FROM the reply given by Sir H. Holland to a question put by Mr. Warton in the House of Commons, it would appear that the present Government intend to put into immediate operation the reforms in the administration of the Stamp Act in regard to proprietary medicines promised by Mr. Childers. Henceforth the Government stamp is to bear the words, "This stamp implies no Government-guarantee." In this way, one of the most mischievous results of the Act will be obviated. The alteration will come into effect within the next two months, and we cannot but feel grateful that the legislature has

acceded to the arguments used, though regretting that the remedy has not been more drastic. The present, perhaps, is hardly a moment to expect a Chancellor of the Exchequer to forego any source of income, and in reality very much now depends on the way in which the Act is administered under the new regulation: if the term "proprietary" is in future understood in a liberal sense, so as not to include legitimate pharmaceutical preparations, some of the chief objects aimed at by the Association will have been attained.

EXCISION OF THE LARYNX.

ON Saturday, July 11th, Mr. Henry Morris excised the larynx of a man for what turned out to be epithelioma. The patient had been suffering from severe laryngeal symptoms for four years; tracheotomy became urgent four months ago, and, more recently, constant spasm and dyspnoea, due to the pressure of the growth on the upper part of the tracheotomy-tube, had rendered his existence unbearable. The growth was confined within the air-passage; it filled the upper part of the larynx completely, and the cricoid cartilage partially. The larynx was removed by cutting through the thyro-hyoid membrane, and the tissue between the cricoid cartilage and the first ring of the trachea. The gullet and pharynx were not opened. The patient has not had a bad symptom, the wound on Wednesday night looked very healthy, and the patient could sleep for seven or eight hours continuously.

THE KETTLEWELL CONVALESCENT HOME.

THE Convalescent Home, which has been erected at Swanley for St. Bartholomew's Hospital, was opened by His Royal Highness the Prince of Wales on the 13th instant. The site, which comprises fifteen acres of land, was presented by an anonymous donor; the cost of the building itself, which accommodates forty-five male and fifteen female patients, has been defrayed by Mr. C. T. Kettlewell, as a memorial to his brother. A chapel has been erected by Mr. Ebenezer Herman, and an organ and the lodge at the gates by Sir James Tyler, past almoner of the hospital. Sir Sidney Waterlow, treasurer of the hospital, who has until recently provided a house at Highgate for use as a convalescent home for men, read an address to the Prince, who, in his reply, referred to the great advantages of having a convalescent home in direct connection with a large hospital. He then declared the buildings, which were already in use, formally open. St. Bartholomew's Hospital has also erected extensive laundries on this site.

MEDICAL RELIEF DISQUALIFICATION REMOVAL BILL.

THE following is the text of the Government Bill to prevent medical relief from disqualifying a person from voting. "Be it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows (that is to say):—1. This Act may be cited as the Medical Relief Disqualification Removal Act, 1885. 2. (1) Where a person has, in any part of the United Kingdom, received for himself, or for any member of his family, any medical or surgical assistance, or any medicine, at the expense of any poor-rate, such person shall not by reason thereof be deprived of any right to be registered or to vote either (a) as a Parliamentary voter; or (b) as a voter at any municipal election; or (c) as a burgess; or (d) as a voter at any election to an office under the provisions of any statute; but nothing in this section shall apply to the election (a) of any guardian of the poor; or (b) of any member of any parochial board in Scotland; or (c) of any other body acting in the distribution of relief to the poor from the poor-rate. (2) Every person shall be qualified to be registered as a voter and to vote as aforesaid, who would be so qualified if the provisions of this Act had come into operation on the fifteenth day of July, one thousand eight hundred and eighty-four."

INSANITY IN THE UNITED STATES.

THE number of insane persons in the United States, in 1865, is shown by recent statistics to have been only 24,042. Five years later, it had reached 37,432; and, by 1880, treatment was required for 91,959 lunatics. The increase in insanity during the ten years from 1870 to 1880 was nearly 150 per cent., while that of the total population was only about 26 per cent. But these figures do not represent the actual increase, as during the above period a large number of insane persons previously concealed were brought into public notice by more thorough investigation. Apart from several large county asylums in the United States, there are eighty State and forty private institutions for the care of the insane, with a proper capacity for about 40,000, but containing 53,192, thus leaving about 45,000 lunatics to be cared for elsewhere. The proportion of insane is greatest in New England; but the increase has been most rapid in the Western States. In the State of New York, there are thirty-five institutions for the care of these unfortunate people, accommodating 11,343 patients, while it is said that there are 4,000 provided for at home.

LECTURES AT THE HOSPITAL FOR SICK CHILDREN.

DURING the past session, the staff of the Hospital for Sick Children have been endeavouring to make use of the material for instruction which comes before them by delivering a series of clinical lectures. On the part of the surgeons, Mr. John H. Morgan has given three instructive lectures on the Surgery of the Urinary Tract in the Young. All that was to be found in the text-books or in special works on the subject was left aside as far as possible. In the first lecture, various anomalies and malformations of the penis and bladder were described, and the methods for their amelioration were discussed. This lecture was rendered particularly interesting by the exhibition of a number of cases, which had been collected from among the out-patients under the lecturer's care. The second lecture was upon Stone, and the various operations for its Removal, in the Male and Female. Many valuable specimens from the Hospital Museum were used to illustrate the subject. The final lecture consisted of observations on Tuberculosis, Morbid Growths, and various Functional Diseases of the Bladder. It is to be hoped that this course of lectures may be continued for the advantage both of students and practitioners, who thus have an opportunity of acquiring the latest views as to pathology and treatment, from gentlemen of long and wide experience in the subject of children's maladies.

THE UNIVERSITY OF LONDON.

AT the recent summer matriculation of the University of London 615 candidates passed, making a total of 1,156 candidates matriculated this year. The honours list is headed by a lady. The number of candidates at the Preliminary Scientific (M.B.) Summer Examination is 255, which shows a slight increase over the number examined last year. As the examination in future is to be held twice a year the increase is probably relatively greater.

THE PREVENTION OF CHOLERA.

MR. BALFOUR received, on Friday week, at the Local Government Board, a deputation from the Corporation of Cardiff with reference to the prevention of cholera. Sir E. J. Reed, M.P., introduced the deputation, who stated that the place for the landing from foreign steamers was within the docks, and they were helpless in preventing cholera being brought within their boundaries. The boarding station should be at the island of Flat Holm, two or three miles out from Cardiff, and they asked the Government to give them power to examine vessels there in a tugboat. Mr. Balfour promised that, the matter being important, he would give it his immediate attention. The Mayor of Cardiff, Mr. A. Fulton, has since received official intimation from the Board of Trade that a quarantine vessel has been ordered to cruise in the Bristol Channel, east of Lundy Island, and intercept all vessels coming up the

Channel from any place, examine bills of health, and direct vessels from Spain or other places suspected of being infected with cholera into quarantine for medical inspection. Flat Holm Island has been retained by the Corporation as a depôt for the hospital for patients suffering from cholera. Cardiff has a direct trade with Carthage and other southern ports in Spain.

CAMBRIDGE MEDICAL GRADUATES' CLUB.

THE annual meeting and dinner of the above club was held at the Holborn Restaurant on Wednesday evening last, the 15th instant. Forty-six graduates were present, including Dr. Dickinson (the chairman), Professor Humphry, Professor Latham, Dr. Henry Thompson, Dr. Robert Martin, Dr. C. J. Hare, Mr. Timothy Holmes, and many others connected with the chief medical schools in London. It was decided to hold the next annual dinner in Cambridge. One or two of the speakers, in the course of the evening, made remarks adverse to the scheme, now before the profession, for the union of the Royal Colleges of Physicians and Surgeons for the purpose of obtaining the power to grant degrees; and it was proposed as a subject that might well be taken into consideration by the members of the club.

TYPHOID FEVER IN SWANSEA.

THE urban sanitary district of Swansea has for more than a fortnight past been suffering from a sharp outbreak of typhoid fever in its midst. Up to the end of June, it appears, the health of the borough had been most satisfactory, the death-rate for June not having exceeded 12.5 per 1,000. The suddenness of the outbreak and the large area affected, suggest a widely operating cause. It was considered advisable to cut off the water-supply from one of the reservoirs supplying the town, and this was done before the medical officer received any information of the prevalence of fever in the urban sanitary district. The outbreak is not limited to the borough area, and careful inquiry will be necessary to ascertain whether the conditions of water-supply in the other districts attacked had been those of residents within the borough. Active measures are being taken to limit the spread of the epidemic, but an application to the board of guardians to utilise a block of new buildings at the Swansea Workhouse, now approaching completion, for the reception of patients has been refused. Already several deaths have occurred.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY court of the directors was held on Wednesday, July 8th, at 8 P.M.; the President, Sir James Paget, in the chair. A sum of £1,437 was voted for distribution among 66 widows, 10 orphans, and 3 orphans on the Copeland Fund. The expenses of the quarter were £39 4s. The treasurer informed the meeting that the grants already made this year exceeded by £308 those for 1884. Fresh applications for relief were received from two widows, and grants were made to them. No new members were elected: the deaths of three were reported, the resignation of another accepted, and four ceased to be members. The directors fear that, owing to the increased demands on the funds, it may not be possible this year to give the usual present at Christmas, unless, by gifts and accession of new members, the sum necessary (between £300 and £400) be made up.

QUARANTINE AT RUSSIAN PORTS.

IN consequence of the cholera prevailing in ports of Spain, the Ministry of the Interior at St. Petersburg decided, on June 1st, on the adoption of the following sanitary quarantine measures. 1. Vessels arriving at Black Sea ports from Spanish ports are subject to observation and purification during 14 days, according to the instruction confirmed, on September 12th, 1884, by the Minister of the Interior. 2. If, after the sanitary examination of the crew and passengers and inspection of the vessel and her cargo be made by the Quarantine Department, the captain of the vessel with a clean bill of health

declare his consent to begin the systematic purification on his own account, then the observation will continue only seven days. 3. Subject to the systematic purification are rags of every description, clothing, underclothing, bedclothing, especially such as has been used and is dirty, old cloth, portions of animals of every kind, different kinds of rubbish, skins, hides, hair, bristles, feathers, wool, felt, etc., and the forecables, cabins, and holds of vessels, also the crews and passengers. 4. Vessels arriving at Baltic ports from Spanish ports with clean bills of health are subject to strict sanitary inspection. Vessels without clean bills of health are altogether forbidden to enter the Baltic ports.

THE SANITARY INSTITUTE OF GREAT BRITAIN, AND THE PARKES MUSEUM.

THE anniversary meeting of the Sanitary Institute was held at the Royal Institution on Thursday, July 9th. Sir John Lubbock, Bart., M.P., was in the chair, and presented the medals and certificates to the successful exhibitors at the exhibition held in Dublin. Professor W. H. Corfield gave an address on "The water-supply of Ancient Roman Cities." A vote of thanks to Dr. Corfield for his address was proposed by Mr. G. J. Symons, and seconded by Professor de Chaumont. An unanimous vote of thanks was passed to Sir John Lubbock for kindly presiding. The anniversary dinner was held on the same day at the Holborn Restaurant, under the presidency of Captain Douglas Galton. After dinner, the usual loyal and patriotic toasts having been drunk, the toast of "Success to the Société Française d'Hygiène" was proposed by Mr. T. Salt, M.P., and with it was coupled the name of the President, Dr. Prosper de Pietra Santa, who responded in French. Mr. Slater-Booth next proposed the toast of the evening, "Success to the Sanitary Institute," and in doing so alluded to the influence for good which had resulted from the Public Health Act of 1875. He also alluded to the great advances which had been made of recent years in sanitary science. The Chairman responded to the toast on behalf of the Sanitary Institute. In the course of his speech, he commented at length upon the public advantages and private economy of money and labour which would ensue from a concentration of the efforts of the various societies now at work. The objects of the Sanitary Institute, he said, were first to test the knowledge of persons charged with superintending the sanitary arrangements of towns and districts in order to ascertain that they were properly qualified, and in the second place to hold annual exhibitions in various parts of the country, where new appliances could be tested and rewarded on a sound principle. The objects of the Parkes Museum of Hygiene were to provide a collection of typical apparatus, by means of which students of hygiene could be instructed, and a library of works of reference. The museum also served as a place to which the general public could be referred, in order to see sanitary apparatus which had borne the test of experience. He urged that everything was to be gained by an amalgamation of these two bodies, whose spheres of work were complementary the one of the other. The proposal was received with much applause, and, as Captain Galton is the chairman of the council of both institutions, there seems good hope that this very reasonable and desirable step may shortly be taken. Among other speakers on this occasion were Dr. de Pietra Santa, President of the Société Française d'Hygiène, Sir Frederick Abel, who referred to the admirable sanitary arrangements made for the troops in Egypt, Mr. Salt, M.P., and the Right Honourable G. Slater-Booth, who accused architects, as a body, of having exhibited, in not very distant times, gross ignorance of sanitary requirements, and insisted that the medical profession had been the pioneers in the work of sanitary reform. Mr. Ewan Christian, the President of the Institute of British Architects, defended the architects with much warmth, quoting Mr. George Godwin as one of the earliest sanitarians. He accused the Metropolitan Board of Works of allowing whole estates round London to be covered with houses, which he described as "mere rubbish," quickly deteriorating into slums, and as a disgrace

to the metropolis. He called upon the Board of Works to acquire new Parliamentary powers to check this building of unsanitary streets and towns in the suburbs of London, and to provide a proper proportion of open spaces, following the example of Chicago, which had taken care to reserve seven parks and thirty miles of boulevards.

SCIENCE-TEACHING IN SYDNEY.

THE Hon. William Macleay, one of the members of the Senate of the University of Sydney, has undertaken to give four fellowships, of £400 a year each, for natural science, and to bequeath a sum sufficient to endow them permanently. He stipulates that the Fellows must all have taken the degree of B.A. in the University, must be actively engaged in original study and research, and must not hold any other lucrative appointment; and the appointments are to be renewed every year, so as to give an opportunity for correcting any abuse.

A NEW MODE OF PREPARATION OF ARTIFICIAL ALKALOIDS.

THERE is, in the *French Pharmacopœia*, an old preparation called "Alcoolat bromatique ammoniacal de Sylvius," which is an alcoholic solution of carbonate of ammonia and of various aromatic substances. This liquid is at first colourless, but becomes brown after some time; and M. Tanret has discovered that the change is due to the formation of an oxidisable alkaloid. He has since then succeeded in obtaining artificial alkaloids by the action of spirits of ammonia on various essences and on glucose; in the latter case, several alkaloids are formed. These experiments are expected to throw some light on the formation of the ptomaines, and of many vegetable alkaloids.

THE LEAVESDEN ASYLUM.

THE managers of the Metropolitan Asylums District made, on Saturday, their annual visit of inspection to the Leavesden Imbecile Asylum, in Hertfordshire. The building, which is situated in the parishes of Watford and Abbott's Langley, is built upon the block principle, and stands in an estate of about 85 acres, of which 38 acres are under cultivation. The building was opened in 1870, and it contains accommodation for about 2,000 patients, females being in the preponderance. The cost per bed, including purchase of land, was £88 16s. 2d., and the present cost per head for the maintenance and clothing of patients is 8½d. per day. The managers arrived at the asylum early in the afternoon, and at once proceeded to inspect, under the guidance of Mr. J. Bell Sedgwick, the chairman of the managing committee, and Mr. Case the superintendent. The administrative offices—the stores, bakery, kitchens, workshops, engine and boiler-houses, and baths, were first visited, and then the wards of the female side were inspected. The day-rooms, dormitories, bath-houses, airing-courts, and infirmaries, with accommodation for 1,100 female patients, were all visited, and Mr. Sedgwick next accompanied the visitors to the male side of the institution. The fact that the asylum is practically self-contained was next demonstrated to the visitors by a visit to the farm, where corn and vegetables were growing, and cattle are reared. In the course of speeches made to the company, Mr. Robins, chairman of the sister asylum at Caterham, expressed the opinion that the work carried on under the charge of the Board was one of the most anxious and arduous labours possible, and he reminded his hearers that the Board, in addition to other heavy work, had under its charge between 5,000 and 6,000 imbecile patients.

OPHTHALMIA AND BLINDNESS IN CYPRUS.

THE recent deputation of the Ophthalmological Society to the Local Government Board (see vol. i, page 1069), invests with a certain interest the relative prevalence of blindness in other countries than our own. Some remarkable statistics on this point are given by Dr. F. W. Barry in a report to the Colonial Office on the census of Cyprus. This census was taken under great difficulties, not only of language and of enumerators, but even of printing and posting. There was

not enough type in the island for the Turkish characters, the schedules had to be circulated on mule-back, and the current belief that the information obtained would be used to increase taxation had to be combatted, and every one of the two million items in the 44,000 schedules had to be translated. However, all difficulties were conquered by the energy of Dr. Barry; and, though many of the figures must necessarily be taken with reserve, they are instructive as in indicative of the bodily infirmities of the inhabitants of the island. Of the 186,173 persons enumerated, 231 were returned as "deaf and dumb," 564 as of unsound mind, 78 as lepers, and 2,238 as blind. The proportion of blindness in the island was 1 blind person in every 83 of the population. Of the total 2,238 blind, 1,105 were males and 1,133 were females, being in the population of 116 males and 124 females per 10,000 living of each sex. These proportions are extremely large. But there can be no doubt that blindness does exist to a very large extent amongst the people of Cyprus. This may be partly due to the unwholesome surroundings and condition of their dwellings and the want of personal cleanliness; but Dr. Barry thinks that it is owing chiefly to the great prevalence of ophthalmia, and, until recently, of small-pox.

SCOTLAND.

THE HEALTH OF GLASGOW.

THE returns of the medical officer of health for the past fortnight show that Glasgow is sharing in the lower rate of mortality that has prevailed very generally throughout the country recently. The death-rate of the city has been 21 per 1,000, compared with 23 in the corresponding week of last year. In his return, Dr. Russell draws attention to the extremely small mortality from diarrhoea and enteric fever. This state of matters he attributes to the low temperatures prevalent at the present time of the year; but, in view of exposure to the importation of cholera, he regards it as of some importance, for he considers that the degree of prevalence of enteric fever in a community is a fair index of its susceptibility to the choleraic poison. Two cases of small-pox were again registered, one being a child, aged 3, one of a family of Polish emigrants passing through Glasgow en route to America. The case was detected by the Board of Trade medical inspector on board the tug at the Tail of the Bank, and sent back to Glasgow. The other case was the wife of an undertaker who assisted at the interment of a sailor who was buried on June 15th, having died in hospital from confluent small-pox. The wife sickened on June 29th, fourteen days after the burial.

THE GLASGOW SOUTHERN HOSPITAL.

IT has been decided by the committee who have charge of the erection of this hospital to commence building operations at once. As matters stand at present, about £7,000 has been subscribed, and there is the prospect of some further funds from the estate of the late Mr. Couper of Cathcart; but as it is probable that the amount to be derived from this source will not be as large as was anticipated, and that further subscriptions are not likely to flow in while matters seem at a complete standstill, it has been thought advisable to stimulate public interest in the project by commencing active building operations. Accordingly, the intention is to construct a portion of the proposed infirmary capable of accommodating 60 patients, and the working plans are at present being prepared. The sum needed for this, and for purchasing the site, amounts to £20,000.

REMOVAL OF THE GATEWAY OF OLD GLASGOW COLLEGE.

To former students of Glasgow University, it will be of interest to hear that all the preliminary arrangements are now completed for the removal of the existing gateway of the old Glasgow College in High Street, and its erection on the new site at Gilmorehill. In a recent

number of the JOURNAL, we briefly intimated that it was in contemplation to place it at the east end of University Avenue; and that, in connection with it, there would probably be built some rooms that would serve as class-rooms for the new chair of naval architecture. The plans for the new structure, which have been made public, and have been approved, show that the intention is to erect a very handsome structure, the appearance of which will materially add to the architectural features of the existing University. The building will be a three-storey one, and at its west end will be a tower, 60 feet high, over the upper window of which will be placed a carved stone with the inscription, "Anno Domini, 1632." At its east end, the students will enter the University by a door-way and piazza, and over it will be placed the tablet which stands above the gateway of the old College, and on which are sculptured the Royal coat of arms and the monogram of Charles the Second. A carriage gateway will be placed to the eastern side of the piazza; and, to about 160 feet on each side of the new building, will be a parapet-wall and a handsome iron railing, with ornamental pillars at intervals. The style of architecture adopted will be the Elizabethan, with a blending of the Scottish Baronial, so that the new structure will not only in itself recall the old associations connected with its previous location in the once classic, but now much altered High Street, but it will also indicate by its outward characteristics the period when the University charter was received. It has not been definitely fixed when the removal of the gateway will take place, but the alterations at the old College are proceeding so rapidly that no long period is likely to elapse.

THE PROPOSED OPENING OF THE MIDDLE MEADOW WALK.

IN a recent number of the JOURNAL, notice was taken of a proposal which had found some favour in the Edinburgh Town Council for opening up to carriage traffic the Middle Meadow Walk. The subject came up for decision on Tuesday, in a report by the Lord Provost's Committee, recommending the opening of the walk, and submitting plans for the same. The special interest that this subject possesses for the profession is that the new university buildings, in which delicate instruments and observations are going on, and the Royal Infirmary (with several medical and surgical wards in line with the walk), are bounded, on each side, by a considerable portion of the proposed drive; and it has been urged, with much reason, that both institutions would suffer greatly by the increased noise incidental to carriage traffic. By a majority of 23 votes to 11, the Town Council decided not to proceed with the plan for opening the walk to carriage traffic.

THE BEN NEVIS OBSERVATORY.

It is intended to publish very shortly a first report of the scientific results that have so far accrued from the establishment of this important observatory. It is to be hoped that the facts brought out will serve to still further interest the public in the work on hand, for the most pressing want at present is that of funds. The construction of the road to the top of the mountain, and the rental of the telegraph-wire, have proved heavy items of expenditure, amounting to nearly £1,400. As an instance of private enterprise, it may be mentioned that the last few days have seen the erection, not far from the observatory, of a small hostelry for the convenience of visitors to the summit of the Ben who may wish to spend the night on the hill.

THE SEWAGE POLLUTION QUESTION AT DUMFRIES.

THE inquiry, which was held by Dr. Littlejohn, of Edinburgh, and Mr. Malcolm McNeil, as to the pollution of the river Nith at Dumfries, has ended in their presenting a report, which confirms the petition of the memorialists to the Board of Supervision, and finds that the existing state of things is an almost certain cause of ill-health and disease. The report embodies a very thorough and complete scheme for dealing with the nuisance complained of, so that it only remains for the Board of Supervision to compel the Local Authority to at once act on the suggestions put forward by Dr. Littlejohn. The disadvantage

that arises from divided sanitary districts is well brought out in the present instance. It appears that, even if the remedial scheme proposed be carried out, the Nith would still be polluted by sewage from a small adjoining burgh, which is not merged in Dumfries, unless the Local Authorities see good to amalgamate in carrying out the needed alterations, and making a junction between the sewage systems of the two towns.

ARRIVAL OF A STEAMER FROM A CHOLERA-INFECTED PORT.

A CASE occurred at Leith this week which shows how recklessness (we would almost say criminal recklessness) may be displayed by those in charge of vessels from foreign ports where cholera is raging. A steamship arrived at Leith from Carthagea two days ago, and, instead of waiting to be examined, sailed right into dock. Of course, it is well known that Carthagea is a cholera infected port, and it ought to be well known also that the regulations for such a vessel from such a port are that no vessel from an infected port, or any port suspected of being infected, shall enter into the harbour without having been inspected by the proper officers, "whether there has or has not been any sickness on board during the voyage." Failure to conform to these regulations involves a money penalty, and the risk of the vessel being ordered out of the harbour at the discretion of the medical officer. Now here was a vessel from a cholera-port entering without let or hindrance one of the most important seaports in the kingdom as regards continental traffic, and we are anxious to know what are the means at Leith for seeing that the afore-mentioned regulations exist other than on paper, or if the introduction of disease, or our immunity from it, is to be left to the chapter of accidents. We trust a satisfactory answer to the question will be forthcoming, and that the case that has been stated as to the steamer this week will bear a less ugly complexion than it does as it has already appeared in the public press.

IRELAND.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE unusually large number of fifty-seven candidates presented themselves at this month's examination for the licence in medicine of the College. Twenty-four gentlemen failed to pass. Eleven candidates, six of whom were ladies, were examined at the same time in the subjects of the first professional examination. Five of these candidates were successful. Dr. C. E. Fitzgerald and Dr. W. C. Neville, having passed the necessary examination, have been admitted to the Membership of the College.

RIVER POLLUTION.

THE Cork Corporation have informed the Macroon Guardians that it is their intention to take legal proceedings against them, under the provisions of the Act relating to the pollution of rivers, if they do not abate the nuisance complained of—namely, permitting the sewage of their district to drain into the river, notwithstanding frequent protests. The Macroon Guardians, at a late meeting, decided to submit plans prepared for drainage works to the Local Government Board, and obtaining a grant to carry out the necessary improvements.

CHOLERA HOSPITALS.

THE draft of a Bill, to enable sanitary authorities in Ireland to obtain possession of land for the erection of temporary cholera hospitals, was published this week. By it the authorities of any sanitary district will be empowered, on receiving a certificate from the medical officer of health that an outbreak of cholera has occurred, to take possession, for a temporary hospital, of any site, after giving five days' notice to the owner. No site is to be within three hundred yards of a dwelling-house, pleasure, or other enclosed lands. The amount to be awarded to the owner for rent and compensation for damage will be decided by

the Local Government Board. Not more than two statute acres shall be taken for any site, and, where there is no longer an occasion for such temporary hospital, the sanitary authority shall remove the same, and restore the surface of the ground to the same state in which it was found by them on taking possession.

CHOLERA.

THE CHOLERA IN SPAIN.

Our correspondent writes from Valencia, under date July 10th:—

My letter of this week is of necessity a melancholy and foreboding one in a two-fold sense; 1st, as regards the state of cholera in this country, and, 2nd, as regards the so-called "preventive cholera inoculation." I am pained to inform you that the fears expressed in my last communication are being fulfilled, as the cholera has daily increased in virulence, and in extension. To-day's papers give the number of 196 deaths yesterday, and large numbers of the attacked and deaths are concealed by all classes, assisted by their medical men, to avoid worrying the houses and families by the official interference of policemen, sanitary inspectors, the "forensic medical," and others who have to give the last certificate of death. Until this is given, they cannot be buried. Hence a large number of the bodies remain in their houses for two or more days, and others are taken to the cemetery and left exposed, without burial, for want of death-certificates. So great an evil has come from concealment that the alcalde was compelled to issue a decree that any one concealing a case of attack or death from cholera, especially medical men, would be visited with extreme legal measures. On the 7th inst., in the town of Beneganim, lying between Jativa and Alcira, the alcalde, with help, was obliged to cremate fifty unburied corpses himself, as no grave-diggers could be hired for the work. He had lost his son by the disease, and his wife and four others in his house were ill with it. The two apothecaries in the place were laid up with the same, and the whole town was crying out for succour of every kind. This was written by a medical man who went from Jativa to render help to this devoted town.

By decree, notice must be given at the "death-register office," of which there is one in each district (open day and night), by 8 a.m., of all deaths and attacks, and the cholera carts go their sickening rounds at 8 p.m. till 6 a.m., followed by a large wagon, to remove all the bedding and clothes of the infected houses, to be burnt outside the city. Independently of private and voluntary house-disinfections, the municipal authorities send out brigades of men to disinfect the houses attacked, and for the last two or three nights huge bonfires of green wood have been fired, and large quantities of sulphur thrown on them, in the streets most infected.

The disease has been and is so terrible in the chief sea-bathing suburb of Cabañal, and the Grao of Valencia, that the owners and tenants of the houses have formed an amphibious encampment by vacating their houses, and living in the large and small fishing boats close in front of the town, with awnings over them. The cholera has followed them, and is now life in the new camping ground. There is now building outside of this city a large encampment of canvas, where 300 to 400 families are to resort to live. Also there is being established an asylum for infants whose mothers have died, called "Asilo de Lactancia de Santa Eugenia"; but they cannot procure wet nurses in sufficient numbers, although high wages are offered. The panic here is great as ever, but the people are more subdued and quiet. Numbers of shops are closed. Whenever a death occurs, among rich or poor, all hands take to flight at once, leaving all behind; and many of the better classes, as well as poor, have fallen victims in the places to which they fled. The disease has left Jativa, but returned in force to Alcira, and as to Aranjuez, it is increasing fearfully in virulence. If the reports are true of the deaths, few will be left alive in another week. In Murcia and Alicante, Toledo and Madrid, it is also on the increase.

There is not one ship in our harbour. All the foreign colonists—English, German, and French—have long left us, as well as their consuls, whose offices are supplied by deputies, who have no duty to perform.

The weather has been all that can be desired for a long time; barometer 30, steady; thermometer, maximum in my study, at noon, 76° Fahr., minimum 68° Fahr.; hygrometer 7°; with clear crisp air and sky till 10 A.M.; and always cool with sea-breeze.

In my last, I expressed my fears that we soon would be able to put to a clear and positive proof the value of Dr. Ferran's prophylactic

cholera inoculation; and, alas, they have been more than realised, as the following proves, and the facts are confirmed by the superioress and priest, and independent medical men who were present at the inoculations, besides the daily reports of deaths by name, etc., of others who have died after inoculation and re-inoculation.

About the middle of last month, the asylum of the "Little Sisters of the Poor" was visited by the cholera, and, in a few days, 63 of the indigent inmates were attacked, and in less than a week 62 of these died. The asylum is situated on the other side of the river Turia, which divides this city proper from the suburbs, just at the end of one of the bridges that spans it. The Government, hearing of the above, ordered at once the removal of the whole establishment to a similar large house near Bargasot, which has long been free from the disease. Dr. Ferran now offered to inoculate gratuitously the sisters and inmates; they refused, as did also the priests, to accept his offer. There are 80 of these "Little Sisters" in this establishment; the removal began to Bargasot, and an advanced guard of eight or ten of the "Little Sisters," without inoculation, were dispatched with the inmates from the mother asylum, leaving 70 "Sisters" to follow. In the meantime, great pressure was put on the 70 by the medical man and others belonging to the asylum, and they unfortunately consented to be inoculated on the 1st instant. They were all in the best health, except two or three who had slight bowel looseness. By the 5th, 10 of these inoculated were dead and buried; three or four have died since, and several are in a grave state; and of the rest, 40 out of the 70 are ill with cholera, while not one of the uninoculated took it. This has alarmed the Government, who telegraphed at once to suspend all inoculation in the towns, and to seize all flasks with the poisonous broths and syringes, and to take measures at once for a judicial process against Dr. Ferran and his assistants.

There have suddenly come into our city four "apostles" of "faith-healing," who have gathered crowds about them. It is said that numbers have been healed of cholera. They are all poor men, receive neither money or gifts for their reward, only they accept a little food wherever they are at meal-time. They sleep in the fields at night, and beg to be allowed two hours out of the 24 for sleep and prayer. They belong to Andalusia and Jaen. They gently rub the abdomen, then place a jar of cold water on the mouth of the sick, exhorting them earnestly to put faith in God with all their mental or soul power, at the same time reading out from scripture several passages; then they pray and breathe over them. It seems there are several of them scattered about. They never interfere with the medical man's duties.

INVESTIGATION OF CHOLERA.

At the present moment Dr. Charles S. Roy, Professor of Pathology in the University of Cambridge, accompanied by Mr. S. C. Sherrington, of Caius College, Cambridge (George Henry Lewes, student), and Dr. Graham Brown, of Edinburgh, are in Spain, having gone thither with the special object of investigating the subject of the pathology of cholera. Grants of money have been made by the University of Cambridge, the Royal Society, and the Association for the Advancement of Medicine by Research. The inquiry has been warmly supported by the latter Association, and Dr. Roy's reports will be sent to them.

AMERICAN MEDICAL ASSOCIATION.

THE thirty-sixth annual meeting of the American Medical Association was held at New Orleans on April 28, 29, 30, and May 1, under the presidency of Dr. W. F. CAMPBELL, who delivered an address on "The Relations of the Medical Profession to Tribunals of Laws." In it he recommended the formation of a section of medical jurisprudence in the Association; and this proposal, after consideration by a committee, was approved.

Dr. J. S. BILLINGS reported that the effort made to obtain a grant from Congress for fire-proof buildings for the Army Medical Museum and Library had been successful, and that building operations would shortly be commenced.

Dr. BILLINGS presented a report from the executive Committee of the Ninth International Medical Congress. Some dissatisfaction was expressed with regard to the nominations which had been made by the committee, who, it was alleged, had exceeded their functions. Ultimately it was decided that the committee should be enlarged by the addition of thirty-eight members, one from each state and territory, the army, navy, and marine hospital service; and that the committee thus enlarged should have power to alter and amend the proceedings of the former committee.

Dr. N. S. DAVIS presented a report on Collective Investigation

of Disease. The committee was authorised to continue the correspondence with the committees of the British Medical Association and the International Medical Congress; and it was decided that the detailed work should be carried on by committees appointed by State societies co-operating with the general committee.

Certain clauses of the code of medical ethics of the Association, which were held by some to exclude persons from professional recognition on account of difference of opinions or doctrines, having been referred to a committee for interpretation, the committee presented the following resolutions, which were approved:—

"That Clause I, Article IV, in the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of difference in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession, neither is there any other article or clause in said code of ethics that interferes with the exercise of the most perfect liberality of individual opinion and practice.

"That it constitutes a voluntary disconnection or withdrawal from the medical profession proper to assume a name indicating to the public a sectarian and exclusive system of practice, or to belong to an association or party antagonistic to the general medical profession.

"That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is pressing or immediate need of them; on the contrary, to promptly meet the emergencies occasioned by disease or accident, and to give the helping hand of assistance without unnecessary delay is a duty fully enjoined on every member of the profession, both by the letter and spirit of the entire code; but no such emergencies or circumstances can make it necessary or proper to enter into professional consultation with those who have voluntarily disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution."

A report on the progress of the weekly *Journal of the American Medical Association* was presented. It showed that the number of subscribers receiving the *Journal* had increased from 3,271 on March 31st, 1884, to 4,020 on March 31st, 1885. The financial condition was also satisfactory; and Dr. N. S. Davis, the editor, who had in 1884 consented to postpone his resignation for a year, had, in compliance with the unanimous request of the Committee, agreed to continue in office. He was accordingly unanimously reappointed, receiving, at the same time, the thanks of the Association.

It was decided that the next annual meeting be held at St. Louis, commencing on the first Tuesday in May, 1886; and Dr. William Brodie, of Detroit, was appointed President.

A resolution of the Section of State Medicine, advocating the establishment in every State and Territory of State Boards of Medical Examiners and Licensers, whose certificate should be the only licence to practise in the States, was adopted by the Association in general meeting.

Dr. M. H. Henry, of New York, was appointed a delegate to the British Medical Association; and the President and Permanent Secretary were authorised to make further appointments to foreign medical societies.

A vote of thanks to the medical profession and citizens of New Orleans for their cordial reception of the Association, and the formal installation of the new President, Dr. Brodie, concluded the proceedings of the general meeting of the Association.

THE DIAGNOSIS BETWEEN INDURATED CHANCRE AND HERPES.—It sometimes happens that herpes of the penis presents itself under the form of a single patch of superficial ulceration, accompanied by some induration of the underlying tissues: there may be also a swelling of the inguinal glands, so that the diagnosis between this so-called chancriform herpes and some forms of indurated chancre is very difficult in the early stages. M. Leloir, however, calls attention (*Journ. de Connaiss. Méd.*, April 2nd, 1885) to the fact that when a herpetic ulcer is pressed between the fingers, a drop of serous fluid is squeezed out. This manipulation can be repeated several times with the same effect: in the case of chancre, on the contrary, a little fluid is seen on the surface, but the quantity is not increased by pressure. When the base of the herpetic ulcer is indurated, the hardened tissues can be flattened between the fingers, while, in chancre, no amount of pressure can change the shape of the nodule. This difference is explained by the fact that in herpes there is a localised oedema of the tissues, while in chancre the chief lesion is a hard infiltration, sometimes accompanied by sclerosis of the connective tissue and of the vessels.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHThERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the *JOURNAL* of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the *JOURNAL* of May 9th. Replies are requested on the schedule issued with the *JOURNAL* of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting will be held at Braintree, Friday, August 7th, at 2.30 P.M. Dr. Elliston, of Ipswich, President of the East Anglian Branch, will preside. *Agenda.*—1. To decide time and place of next meeting. 2. President's address. 3. The Radical Cure of Hernia, by C. B. Keetley, Esq., London. 4. Notes on a Case of Myxœdema, by C. E. Abbott, Esq., Braintree. 5. Twin Abortion, by J. Sinclair Holden, M.D., Sudbury. 6. A short Account of the New Association of Members of the Royal College of Surgeons, by C. E. Abbott, Esq., Honorary Secretary of the Association for Essex. 7. Coxeter's Obstetric Vade Mecum will be shown by Mr. Abbott. After the meeting there will be high tea at the Horn Hotel. Any member wishing to be present, or to read a paper, or to exhibit a case, is requested to notify his intention to the honorary secretary on or before Tuesday, August 4th.—WILLIAM THOMAS JACKMAN, Coggeshall, Essex, Honorary Secretary.

SOUTHERN BRANCH: SOUTH WILTS DISTRICT.—The annual meeting of this district will be held at the Angel Hotel, Salisbury, on Wednesday, July 22nd, at two o'clock. Luncheon will be provided at one o'clock. Members intending to be present, or wishing to read papers, are requested to communicate as soon as possible with the Honorary Secretary, H. J. MANNING, Laverstock House, near Salisbury.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual meeting will be held in 198, Union Street, Aberdeen, on Saturday, July 25th, 1885, at 12.30 P.M.—ROBERT JOHN GARDEN and J. M. MACKENZIE BOOTH, Honorary Secretaries.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE forty-second annual meeting of this Branch was held at the Infirmary, Bridgwater, on Thursday, July 2nd. The chair was taken by the President, G. R. NORRIS, Esq., who, after a few introductory remarks, resigned it to the President-elect, J. BAIN SINCOCK, Esq.

Minutes, etc.—The minutes of the last meeting, and letters of regret from members who were unable to attend, were read by the Secretary.

The Report of Council was read as follows. Your Council, although they have no special or great event to chronicle and lay before you to-day, have pleasure in stating that the Branch has passed through the last twelve months with undiminished strength and vigour, following the even tenour of its way, holding its periodic meetings, discussing topics of professional interest, and enjoying social intercourse in a way which, without such opportunities as this Association affords, the medical men in West Somerset would have failed to experience. The number of members on the list remains the same as last year, namely, 57. As regards the meetings of the Branch, that which was held at Wiveliscombe, at the last anniversary, with the excursion to Abbotstfield, and evening return drive to Taunton, will be fresh in the recollection of many, as one of the pleasantest in its annals; while the autumnal and spring meetings, held at Taunton, will also be remembered by those who attended, as marked by very instructive and interesting discussions on the subjects of syphilis and vaccination. At the autumnal meeting, condolences on the untimely death of Mr. Samuel Rabbeth, were voted to his family; this expression of sympathy on the part of members of this Branch was gratefully acknowledged by the late Mr. Rabbeth's father. Subsequently to the spring meeting, a Bill for the repeal of the Patent Medicine Stamp Act having been introduced into Parliament, and the Parliamentary Bills Committee of the Association having solicited that petitions in favour of such repeal should be sent up from the Branches, your president and secretary signed and forwarded a petition, which was duly presented in the House of Commons by Mr. Allsopp; they trust to receive the approval of the Branch for their having taken upon themselves this action on its behalf. The treasurer's accounts, which he presents to the meeting, show a credit balance of £7 12s. 4d. in favour of the Branch. Your Council, in conclusion, venture to express the gratification they feel in having to present their Report in such an appropriate place of meeting as within the walls of the Bridgwater Infirmary, and also on the present meeting being held in this important part of their district, the long interval of seven years having elapsed since the Branch last held a meeting in Bridgwater. They trust the occasion will be marked by the accession of many new members, and the strength of the Branch be thereby increased, to the mutual benefit of the old members, as well as of the recruits.

Treasurer's Accounts.—Dr. KELLY read a summary of the year's accounts, which had been audited by Mr. Rigden.—Mr. OLIVEY proposed, and Mr. MARSDEN seconded, and it was carried unanimously, "That the Report of Council, and the Treasurer's accounts, be re-

ceived and adopted, and that the best thanks of this meeting be given to the Council, for their report, and for their services during the past year, and to the treasurer, for his statement of accounts."

President-elect, and next Annual Meeting.—Mr. PARSONS proposed, and Mr. SINCOCK seconded, and it was carried unanimously: "That T. J. Ollerhead, Esq., be the President-elect, and that the next annual meeting be held at Minehead."

Intermediate Meetings.—Mr. SINCOCK proposed, Mr. WINTERBOTHAM seconded, and it was carried unanimously: "That the Council be requested to arrange for the holding of an autumnal and spring meeting as usual."

Council of the Branch.—Mr. WINTERBOTHAM proposed, and Mr. G. R. NORRIS seconded: "That Mr. Alford, Dr. Meredith, and Mr. Prankerd be elected in the place of Mr. Hensman, Mr. Prideaux, and Mr. Todd, who retire in rotation."

Secretary and Treasurer.—Dr. Kelly was re-elected as Secretary and Treasurer.

President's Address.—The PRESIDENT, after giving an outline of the principal objects of interest in the town and neighbourhood of Bridgwater, proceeded to speak of the new franchise and medical relief, strongly supporting Dr. Carpenter's action in keeping the law as it stands at present, and urging that no further inducements should be offered towards pauperising the labouring classes. Passing on to speak of the Poor-law Medical Officers' Association, he asked all district and union medical officers to join, thereby assisting the Association and Dr. Joseph Rogers in the good work he was so ably doing, and providing for themselves powerful help should they ever require it. The President then gave particulars of the present position of the Medical Sickness, Annuity, and Life Assurance Association, remarking that the result so far obtained had given him a good deal of pleasure and satisfaction, as he himself took some little part in promoting the Society. The greater portion of his paper was devoted to some remarks on hysteria. He stated as his opinion that the symptoms of hysteria were, in the great majority of cases, caused primarily by some abnormal condition of the ovaries. Two or three cases were quoted that had occurred in his own practice. In conclusion, an outline of Dr. Weir Mitchell's method of treating cases of hysteria and nerve-prostration was given; the President also quoted Dr. Playfair's diet-table on the fourteenth day of treatment of one of his cases.

Vote of Thanks.—A cordial vote of thanks to the President for his address was voted by acclamation.

Discussion.—A discussion on Hysteria followed the reading of the President's address, and several interesting cases were related.

Exhibition of Instruments, etc.—Messrs. Krohne and Sesemann exhibited a good selection of the most recent inventions and improvements in surgical instruments, galvanic apparatus, etc.

Inspection of the Infirmary, and Visit to St. Mary's Church.—After the conclusion of the above business, the Infirmary was inspected, and much admiration was expressed at all its arrangements; the comfort and cheerfulness of the wards were especially remarked upon. A visit to the beautiful church of St. Mary Magdalene was also much enjoyed, the pleasure being enhanced by an organ-recital obligingly given by the organist, in which the introduction of the vox humana stop was a remarkable feature.

Dinner.—A party of 16, including the Mayor of Bridgwater as a guest of the President's, dined at the Clarence Hotel. Having done justice to a good dinner, and honoured the usual special toasts, an adjournment to Mr. Winterbotham's garden took place, and a very pleasant meeting was only brought to a close by the inevitable call of the railway-whistle.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Museum and Library, Bristol, on Wednesday, June 24th. Forty-five members were present.

President for Ensuing Year.—The retiring President, Mr. R. S. FOWLER, made a few remarks, and resigned the chair to Mr. E. C. BOARD, who delivered the presidential address.

Vote of Thanks.—A hearty vote of thanks to Mr. Board for his able and interesting address was moved by Dr. SPENDER, seconded by Mr. MICHELL CLARKE, and carried by acclamation.

Report of Council.—Dr. MARKHAM SKERRIT read the following report.

"Your Council have much pleasure in reporting a steady increase in the number of members in the Branch, which now includes 250, or six more than last year. Fifteen new members have been elected, five have retired, and the deaths of the following four members have to be regretted: Surgeon-General T. C. O'Leary, of Bath; Mr. I. T. Bridge-

man, of Berkeley; Mr. F. G. Stevens, of Bristol; and Mr. J. Ware, of Clifton. Many subjects of much interest and importance have been brought before the Branch during the past session. The third ordinary meeting was devoted to a discussion on the Treatment of Intestinal Obstruction, which was opened by Mr. Greig Smith. The Branch was under great obligation to Mr. Treves, who came from London to take part in the consideration of this subject. The discussion excited much interest, and was well sustained. At the remaining meetings, the following communications have been made." [The lists have already been published in the JOURNAL.]

"The accounts for the past year show a balance in hand of £14 0s. 3d., and your Council have much pleasure in recommending a donation of five guineas to the British Medical Benevolent Fund.

"Your scrutineers report the election of members on the Branch Council as follows:—For Bath, Messrs. J. S. Bartrum, A. Waugh, C. Gaine, C. Harper; for Bristol, Dr. E. L. Fox, Dr. Burder, Dr. Spencer, Mr. W. Michell Clarke, and Dr. Beddoe."

On the motion of Dr. FYFFE, seconded by Dr. SHINGLETON SMITH, the report of the Council was adopted unanimously.

President-elect.—On the nomination of Dr. BURDER, seconded by Mr. BARTRUM, Mr. C. Gaine was unanimously elected President-elect.

Representatives on the General Council.—On the motion of Dr. MARSHALL, seconded by Mr. BARTRUM, Mr. F. Mason, of Bath, and Dr. E. Markham Skerritt, of Clifton, were unanimously re-elected to represent the Branch upon the General Council.

Representative upon the Parliamentary Bills Committee.—Dr. A. J. Harrison, of Clifton, was unanimously elected, on the motion of Dr. DAVEY, seconded by Mr. CROSSMAN.

Votes of Thanks.—Dr. SWAYNE proposed, and Mr. Goss seconded, a very cordial vote of thanks to Mr. Fowler for his able conduct in the chair during the past year. This was carried by acclamation, as was also a vote of thanks to the Council and the Secretaries, with a request to the latter to continue in office, which was proposed by Mr. SWAYNE, and seconded by Mr. DOBSON.

Mode of Election to Branch Council.—A discussion on this subject ensued, which was ultimately adjourned.

Annual Dinner.—The members afterwards dined together at the Clifton Down Hotel.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council, held in the Council Room, Exeter Hall, Strand, London, on Wednesday, July 8th, 1885; present,

Dr. BALTHAZAR FOSTER, Birmingham, President of the Council, in the Chair,

Mr. Macnamara, London, Treasurer
Dr. Bushell Anningson, Cambridge
Mr. Alfred Baker, Birmingham
Dr. A. H. Bampton, Plymouth
Dr. M. Martin De Bartolomé, Sheffield
Dr. T. Bridgwater, Harrow-on-the-Hill
Dr. J. Bryan, Northampton
Dr. A. Carpenter, Croydon
Dr. A. H. Carter, Birmingham
Dr. C. Chadwick, Tunbridge Wells
Surgeon-General W. R. Cornish, Madras
Dr. J. Ward Cousins, Southsea
Mr. T. W. Crosse, Norwich
Dr. G. W. Crowe, Worcester
Dr. A. Davidson, Liverpool
Mr. J. Dix, Hull
Dr. J. L. H. Down, London
Dr. D. Drummond, Newcastle-on-Tyne
Dr. C. E. Glascott, Manchester

Dr. W. C. Grigg, London
Dr. C. Holman, Reigate
Professor G. M. Humphry, F.R.S., Cambridge
Mr. W. D. Husband, Bournemouth
Mr. A. Jackson, Sheffield
Mr. T. V. Jackson, Wolverhampton
Mr. T. R. Jessop, Leeds
Dr. D. J. Leech, Manchester
Dr. W. G. V. Lush, Weymouth
Mr. F. Mason, Bath
Dr. W. W. Moore, Brighton
Dr. G. H. Philipson, Newcastle-on-Tyne
Dr. A. Sheen, Cardiff
Mr. S. W. Sibley, London
Dr. E. M. Skerritt, Bristol
Dr. A. Strange, Shrewsbury
Dr. W. Strange, Worcester
Mr. T. Sympton, Lincoln
Mr. J. Taylor, Chester
Dr. T. W. Trend, Southampton
Dr. E. Waters, Chester
Mr. C. G. Wheelhouse, Leeds

The President of Council having asked if there was any objection to the minutes, as printed and circulated amongst the members of the Council, and no legal objection having been made, the minutes were signed as correct.

Read letter from Dr. Rogers, Chairman of the Poor-Law Medical Officers' Association, asking that arrangements be made for a meeting

during the annual meeting of the British Medical Association at Cardiff.

Resolved: That the letter be entered upon the minutes, and the Secretary be requested to use every effort to meet the views of Dr. Rogers at Cardiff.

Read letter from Town Clerk of Brighton, of which the following is a copy.

Town Clerk's Office, Town Hall, Brighton, May 20th, 1885.

Sir,—By direction and on behalf of the Town Council of this borough, I beg cordially to invite the British Medical Association to hold their annual meeting for 1886 in Brighton.

I am also authorised by the Town Council to state that, in the event of the Association honouring the town by accepting the invitation, the Council will have pleasure in placing the rooms in the Royal Pavilion, and other public buildings belonging to the Corporation, at the disposal of the Association for the purposes of their meetings.

The Council will also be glad to afford facilities to the members of the Association to inspect the Brighton Waterworks, the sewerage, and other sanitary arrangements of the borough.—I am, sir, your obedient servant,

(Signed) F. J. TILLSTONE, Town Clerk.

The Secretary, British Medical Association.

Resolved: That the Secretary be requested to acknowledge the receipt of the letter; to thank the Corporation for their very cordial invitation; and that it be referred to the Council of 1885-86.

The election of 104 candidates was then considered. One was referred to the Council of the Branch in which he resided.

Resolved: That the remaining 103 gentlemen whose names appear on the circular convening the meeting be elected members of the Association.

Resolved: That the minutes of the Journal and Finance Subcommittee of to-day's date be received, approved, and the recommendations carried into effect.

Resolved: That the minutes of the Premises Subcommittee of the 7th instant be received and approved.

Resolved: That the minutes of the Scientific Grants Committee of the 7th instant be received, approved, and the recommendations carried into effect.

Resolved: That the first two paragraphs of the minutes of the Subcommittee appointed to consider the organisation of Branches, a copy of which is as follows, be adopted.

That the Secretaries of the various Branches be requested to furnish the boundaries of their Branches in time for the October meeting.

That the General Secretary be requested to furnish an outline-map to each Branch Secretary on which he be requested to mark out the boundaries of his Branch.

Resolved: That the report upon Homœopathy and Homœopaths be received and adopted, and circulated amongst the Secretaries of Branches, and that the discussion on the question of Homœopathy be considered to be closed.

Thereupon an amendment was moved and seconded: That the report upon Homœopathy and Homœopaths be adopted by the Council, and sent to the Secretaries of all the Branches.

Dr. Waters read report of the Medical Reform Committee. (This report will be published next week.)

Resolved: That the report of the Medical Reform Committee be received and adopted.

Dr. Carpenter read report of the Habitual Drunkards Committee.

Resolved: That the report of the Habitual Drunkards Committee be received and adopted. (This report will be published next week.)

Resolved: That the report of the Collective Investigation Committee be received and entered upon the minutes. (This report will be published next week.)

Resolved: That a Subcommittee be appointed to consider the relations which the Collective Investigation Committee bears to the Council of the Association, and what authority it has to represent the British Medical Association in negotiations with foreign committees for a similar purpose, and to report on that question at the next meeting of Council, the Subcommittee to consist of Dr. Bridgwater, Dr. Grigg, and Mr. Sibley.

It having been inquired if ladies might be admitted to the dinner of the Association, and the question of admitting ladies to the dinner having been put, the motion was declared to be lost.

It was moved, that evening lectures in connection with the meeting at Cardiff be recognised by the Council.

The motion having been put from the chair, the same was declared to be lost.

The draft annual report of Council was then considered. (This report will be published next week.)

Resolved: That the draft annual report, as revised by the Council, be received and adopted, and presented to the annual meeting.

The return of attendances of members of the Council for the past year was then considered.

Resolved: That the return of attendances be made up to and include the meeting of July 28th, at Cardiff. (This will be published in the Daily Journal of annual meeting, and BRITISH MEDICAL JOURNAL, of August 1st.)

Resolved: That the President be directed to inquire of the Chairman of the Parliamentary Bills Committee the reason for the omission of any report from that Committee, and to call his attention to the resolution passed by the Council on the subject.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.R.C.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerrett, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar; Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Telford Jones, M.B., Brecon; W. Muriell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., 16, York Place, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.

3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.

8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.

11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.

8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.

11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.

11 A.M.—Sectional Meetings.

2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.

3.30 P.M.—Music and Refreshments at the Windsor Gardens, Penarth, by invitation of Lord Windsor.

8 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

The following discussions and papers are promised up to the present time. Members desirous of reading papers or joining in the discussions are earnestly requested to communicate, without delay, with the Secretaries of the respective Sections, as the date of the annual meeting is a week earlier than usual.

SECTION A.—MEDICINE.

The following subjects have been chosen for special discussion.

1. The Clinical Aspect of Glycosuria. Introduced by F. W. Paty, M.D. Dr. J. Milner Fothergill, Professor P. W. Latham, Dr. C. H. Ralfe, Dr. R. Saundby, Dr. W. R. Thomas, and Dr. G. H. Savage, will take part in the debate on this subject; and Dr. E. Markham Skerrett will contribute a paper on Acute Febrile Glycosuria.

2. The Treatment of Acute Rheumatism. Introduced by J. S. Bristowe, M.D. Dr. Sidney Coupland, Professor P. W. Latham, Dr. C. B. Barron, Dr. C. H. Ralfe, Dr. Prosser James, Dr. W. R. Thomas, and Dr. E. Markham Skerrett, will speak in the discussion.

The following papers have been promised.

BRAMWELL, BYROM, M.D. 1. On Right-Sided Endocarditis. 2. (A) Demonstrations of Ulcerative Endocarditis; (b) Microscopical Sections and Drawings of (a) Cardiac Vegetations; (b) Kidneys; (c) Spleen; (d) Skin; (e) Choroid Coat of the Eye; (f) Membranes of the Brain; (g) Brain showing Micrococci.

BULKLEY, L.D., M.D. (New York). Asthma as related to Diseases of the Skin.

COUPLAND, SIDNEY, M.D. On Gangrene of the Lung.

DRUMMOND, E., M.D. 1. Malarious Melanemia. 2. The Influence of Geographical Position upon the Phenomena of Fever.

DRYSDALE, C. R., M.D. 1. The Treatment of Syphilis, and the alleged Prevention of Tertiaries. 2. On the Hygienic Treatment of Phthisis.

DUTTON, THOMAS, M.D. Treatment of Gastric Ulcer by Nutrient Enemata; some further Cases.

FOTHERGILL, J. Milner, M.D. When a Patient Dies of Exhaustion, of what does he die?

GRIFFITHS, T. D., M.D. The Causes of the Localisation of Tubercle in the Apex of the Left Lung.

HADDON, JOHN, M.D. The Tropical Sea, as best Health Resort for those suffering from Pulmonary and Renal Affections.

HARPER, H., M.D. 1. Extraordinary Coma in a Child. 2. Abnormally Shaped Skull.

HARRISON, A. J., M.B. A New Method of Treating Tinea Capitis.

JAMES, PROSSER, M.D. Pancreatic Digestion.

MYRTLE, A. S., M.D. Syphilitic Eruptions; their Successful Treatment by Mercury and the Sulphur Springs of Harrogate, after the Method practised at Aix-la-Chapelle.

MYRTLE, J. A., M.B. Cutaneous Eruptions traceable to Central and Local Nerve-Influences.

PADLEY, G., Esq. A Case of Empyema Successfully Treated by Operation.

PATY, F. W., M.D. Cyclic Albuminuria (Albuminuria in the apparently Healthy).

RABAGLIATI, A. C. F., M.D. A Criticism of the New Nomenclature of Disease.

SHEEN, A., M.D. Some Points in the Treatment of Enteric Fever.

SKERRETT, E. Markham, M.D. Cases illustrative of Rupture of the Pulmonary Air-Vesicles.

SMITH, R. Shingleton, M.D. On Intrapulmonary Injections.

STEPHENS, LOOKHART, Esq. 1. A Case of Simple Stenosis of the Oesophagus, with specimen. 2. A Rare Form of Congenital Heart-Disease.

STRACHAN, J. M.D. Fuzzling Conditions of Heart and other Organs dependent upon Neurasthenia.

STRATON, C. R., Esq. Chorea: its Pre-choreic Stages.

TATHAM, J., M.D. The Registration of Cases as carried out at the Hospital for Chest Diseases and Consumption, Brompton, and the Investigations proposed to be specially worked out.

THOMAS, W. R., M.D. A Few Remarks on the Influence of Malaria on the Progress of other Diseases.

Short abstracts of papers to be forwarded to the Secretaries not later than July 23rd.

SECTION B.—SURGERY.

The following discussions will take place.

1. A discussion on Bladder-Tumours, their Diagnosis and Treatment, will be introduced by Mr. Reginald Harrison. The following gentlemen have expressed their intention to take part in the debate: Professor Guyon (Paris), Dr. Stein (New York), Sir Henry Thompson (London),

Messrs. Knowsley Thornton, Swinford Edwards, Walter Whitehead, F. T. Paul, and Hugh R. Ker.

2. Mr. F. Treves will introduce the subject of Operative Interference in Intestinal Obstruction. The following gentlemen will join in the discussion: Messrs. Lawson Tait, Greig Smith, A. F. McGill, Alfred Eddowes, A. W. Mayo Robson.

The following papers are promised.

- ADAMS, W., Esq. Observations on the so-called Congenital Dislocation of the Hip-Joint.
 BALL, C. B., M.D. Melanotic Sarcoma of the Rectum.
 BISHOP, E. Stanmore, Esq. Enterorraphy, with a Description of a New Form of Suture.
 CAHILL, T. E., Esq. The Latest Surgical Dressings.
 COUSINS, J. Ward, M.D. 1. The Treatment of Infantile Hernia, and a New Washable Splint. 2. The Treatment of Retention of Urine with a Capillary Catheter.
 FRANKS, Kendal, M.D. The Application of Permanent Dressings in Antiseptic Surgery, and Dry Dressing in Antiseptic Surgery.
 FRY, J. Farrant, Esq. Cure of Varices by Excision.
 HUNT, De Vere, Esq. Rupture of the Kidney; Football Accident; Recovery.
 JAMES, J. Brindley, Esq. On the Treatment of Lumbago and Rheumatic Pains by his Percutor.
 KEETLEY, C. B., Esq. The Radical Cure of Hernia by Injection.
 MILLER, Hugh, M.D. Two Cases of recurrent Placenta Prævia.
 OWEN, Edmund, Esq. Caries of the Cervical Vertebrae.
 ROBSON, A. W. Mayo, Esq. Case of Enterectomy for Acute Intussusception; also a series of Surgical Cases illustrating the Use of the Eucalyptus-Air, and Dry Dressings.
 ROTH, Bernard, Esq. Two Hundred Consecutive Cases of Lateral Curvature of Spine treated without Mechanical Supports.
 SHEEN, A., M.D. Strangulated Hernia, with Cases.
 SNOW, H. L., M.D. The Non-Heridity of Cancer.
 STEPHENS, Lockhart, Esq. Suicidal Injury to the Stomach; Death from Internal Hemorrhage.
 THOMAS, J. Davies, Esq. (South Australian Branch). Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac, and subsequent Free Drainage, based upon Thirty-two Cases.

A recent dissection and other specimens will be exhibited by Dr. Bennett.

SECTION C.—OBSTETRIC MEDICINE.

An Introductory Address is promised by the President.

The subjects chosen for discussion are the following.

1. The Mechanism and Management of the Third Stage of Labour, introduced by Dr. Berry Hart, M.D. Dr. Hart will use the Oxy-hydrogen light in illustration of his paper. Dr. A. E. Aust Lawrence and Dr. J. B. Hicks, have promised to take part in the discussion. Dr. A. H. Freeland Barbour contributes a paper on the Anatomy of the Placental Site, with reference to the Third Stage of Labour and the First Days of the Puerperium.

2. The proper sphere of Constitutional and Topical Treatment in certain forms of Uterine Disease. Introduced by Dr. W. S. Playfair. Dr. Priestley, Dr. Clifford Allbutt, Dr. Imlach, Dr. A. E. Aust Lawrence, Dr. J. B. Hicks, and Dr. D. Lloyd Roberts, are expected to take part in the discussion; and a paper is contributed by Dr. More Madden, on the Correlation of Topical and Constitutional Treatment in Gynæcological Practice.

The following papers are promised.

- DAVIES, D. A., M.B. Short Notes of a Case of Chronic Inversion of the Uterus.
 GRIFFITH, G. de G., Esq. The Arrest of *Post Partum* Hemorrhage.
 HICKS, J. Braxton, M.D. On a Condition of Inner Surface of the Uterus after delivery of a child, of practical importance.
 IMLACH, Francis, M.D. On Pregnancy in Double Uterus, with a Successful Case of Porro's Operation.
 KERR, Norman, M.D. Hot-water Injections in *Post Partum* Hemorrhage.
 LAWRENCE, A. E. Aust, M.D. On the Septic Origin of Pelvic Inflammations.
 LESSHAFT, Professor (St. Petersburg). 1. On the Structure of the Pelvis. 2. On the Influence of Mechanical Violence on the Form of the Skull in Young Animals. (Specimens will be shown illustrating the above papers.) 3. Skeletons of Young Animals, showing the modifications caused by exclusive Animal and exclusive Vegetable Diets.
 MADDEN, T. More, M.D. On Ovarian Displacements.
 PADLEY, G., Esq. 1. A Case of Acute Abscess of the Unimpregnated Ovary, with recovery by absorption. 2. The Accidental Rupture of an Ovarian Cyst, with recovery without reaccumulation.
 PRIESTLEY, W. O., M.D. On the Occasional Latency and Insidiousness of Grave Symptoms in connection with the Puerperal State.
 REID, W. L., M.D. The Duty of Consultant and Practitioner in Relation to Puerperal Fever.
 TAIT, Lawson, Esq. Modern Treatment of Uterine Myoma.
 WALTER, William, M.D. A Case of Hysterectomy.
 Dr. Simon Fitch (Halifax, Nova Scotia) has signified his intention of bringing before the Section his Gynæcological Inventions and Discoveries.

SECTION D.—PUBLIC MEDICINE.

The President, Mr. T. J. Dyke, will deliver an address.

The following papers are promised.

- AITKEN, L., M.D. (Rome). A communication on the result likely to be obtained from the recent meeting of the International Sanitary Conference on Cholera at Rome.

- DAVIDSON, J. H., M.B. Summer Diarrhoea of Children.
 DAVIES, J. W., Esq. The Natural Elements the most Reliable Disinfectants.
 DRYSDALE, C. R., M.D. The Influence of Comfort in Lowering the Death-Rate.
 GRIFFITH, G. de G., Esq. On Unity and Differentiation in Disease, and Unity of Poison in Diseases usually considered Separate and entirely Distinct; Evolution from one Unity or Common Origin, and of one Disease from another apparently quite Different.
 JAMES, J. Brindley, Esq. Are Coroners' Juries Necessary?
 LLOYD-ROBERTS, J., M.B. Epidemic Pneumonia.
 MARTIN, J., Esq. Over-pressure in Schools and Home-Lessons.
 MAUNSELL, J., M.D. The Various Schemes of Medical Aid, with a view of their Adaptation to the Requirements of the Present Day.
 PAINE, H. J., M.D. Cholera and other Zymotic Diseases in their Relationship to Sanitation; Practically Illustrated.
 PRINGLE, R., M.D. Cholera.
 SWETE, H., M.D. A Real Danger, where there is a Constant Service-Supply of Water, of Disseminating Enteric Fever. Illustrated by an Exhibit.
 VACHER, F., Esq. Is Summer Diarrhoea of Children One Disease or Many?
 WELCH, H., M.B. (Title not communicated.)
 WRIGHT, S. H., M.D. Some Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement.

SECTION E.—PSYCHOLOGY.

The following papers are promised.

- CAMPBELL, J. A., M.D. Treatment of Maniacal Excitement.
 MICKLE, W. J., M.D. Brain-Disease of Traumatic Origin; Cases.
 TUKE, D. Hack, M.D. Lunacy Legislation.

SECTION F.—OPHTHALMOLOGY AND OTOTOLOGY.

OPHTHALMOLOGY.

Dr. Arthur Benson will open a discussion on Atrophy of the Optic Nerve other than Glaucomatous. The following gentlemen will take part in the discussions: Messrs. Edgar Browne, Richardson Cross, Frederick Mason, W. Charnley, M. M. McHardy, Frank Hodges, and Simeon Snell.

The following papers are announced.

- ANDREW, Edwyn, M.D. Extirpation of the Eyeball.
 BRAILEY, W. A., M.D. On Stretching of the Supra-trochlear Nerve.
 HARTRIDGE, G., Esq. A short note on the Examination of the Cornea and Lens, with the direct Ophthalmoscope, having behind it a Strong Convex Lens.
 HEWETSON, H. B., Esq. 1. Antiseptic Precautions during Cataract and other Operations on the Eye, by means of Mr. Mayo Robson's Dry Eucalyptus Spray followed by Antiseptic Dressings. 2. The Treatment of Interstitial Keratitis by Syndectomy in the Acute and Semi-acute Stages, without the Assistance of Specific Medicines or Counter-irritants.
 JACOBSON, D. Julius, Esq. 1. Herpes Zoster Catarrhalis. 2. Glaucomatous Cupping of the Optic Disc, with perfect acuteness of sight. 3. The Spring Catarrh of the Conjunctiva.
 MULES, P. H., M.D. Evisceration of the Eyeball.
 SNELL, Simeon, Esq. On the Causes of Blindness in the Inmates of and Workers at Blind Institutions; 111 cases.
 TAYLOR, C. Bell, M.D. 1. Precis of One Thousand Cases of Cataract-Extraction. 2. On the Treatment of Symblepharon by Epidermic Grafts.

OTOLOGY.

Dr. F. M. Pierce will open a discussion on the Pathology and Treatment of Affections of the Ear termed Menière's Disease. Mr. E. Cresswell Baber will take part in the discussion.

Dr. Woakes will open a discussion on Syphilis a Factor in Ear-Disease.

The following papers have been promised.

- BABER, E. Cresswell, M.B. Case of Rhinolith.
 COUSINS, J. Ward, M.D. A New Inflator, Evacuator, and Injector; with Remarks on Chronic Middle Ear-Disease.
 HEWETSON, H. B., Esq. On the Immediate Improvement of Hearing following Division of Cicatrices in the Membrana Tympani.

SECTION G.—PHARMACOLOGY AND THERAPEUTICS.

The following arrangements have already been made in this Section.

1. The President, Professor Fraser, F.R.S., will deliver his introductory address.
 2. Professor Leech will open a discussion on the Duration of the Action of Medicines.
 3. Dr. Talfourd Jones, Vice-President, will open a discussion on Hypodermatic Medication.
 4. Dr. E. Long Fox will open a discussion on the Action of Diuretics.
 5. The President will open a discussion on the Action and Uses of the Digitalis Group, with special reference to Strophanthus Hispidus.
- Dr. Stockman will demonstrate the Action of some members of the Digitalis Group. Professor Hay will contribute a paper on this subject. Dr. Talpade will take part in this discussion.
- Professor Hay will open a discussion on the Nitrites.

A debate on Anæsthesia, General and Local, will be opened by Dr. Dudley Buxton, followed by Professor John Chiene and Dr. Milne Murray, Mr. Woodhouse Braine, Mr. Bailey, Mr. Marcus Gunn, and Dr. Redwood and Dr. Prosser James. In connection with the debate on Anæsthesia, demonstrations of various anæsthetics and apparatus will be given.

Dr. Carl Köller, of Vienna, and Dr. Dujardin-Beaumetz, of Paris, will attend and take part in the proceedings of this Section.

Gentlemen are invited to take part in the proceedings of this Section by joining in the discussions arranged, or contributing papers. Early intimation is requested to be made to one of the Secretaries of the Section. Short abstracts of papers to be forwarded to the Secretaries not later than July 23rd.

The following papers have been promised.

AITKEN, Lauchlan, M.D. Subcutaneous Injection of Salts of Quinine and Ergotine.
CURRIE, A. S., M.D. The Antagonism between Ether and Chloroform and Ether and Amyl-Nitrite.

KERR, Norman, M.D. Ought Alcohol to be prescribed? and how?

MAKUNA, M.D., Esq. Short Notes on Extract of Quebracho.

RAWLINGS, J. A., Esq. Dietary of Infants.

The Section will be asked to consider a proposal of Dr. Balthazar Foster, made through the Collective Investigation Committee, that this Section should discuss New Remedies, and make a selection for further investigation, in conjunction with the Collective Investigation Committee.

*** Members intending to visit Cardiff during the Meeting, are requested to send in their names, and stating if accompanied by ladies, as soon as possible, to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

In order to facilitate the arrangements for the excursions, members in sending in their names, should state if intending to go to any of the following excursions.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.25. Here carriages will be in readiness to drive to Chepstow Castle, and then to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 P.M., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.35. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7.20 P.M., and reach Cardiff at 8.30 P.M. If preferred, those returning home eastwards may stop at Newport, and catch the mail at 9.26. Arrangements will be made about luggage for the mail train. Numbers limited to 150.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taft Vale Railway Station at 8.20 A.M., and proceed by steamship *Sherbro* from the Pier Head at 8.40 A.M., reaching Burnham at 10.30 A.M. At 10.40, the party will leave by train for Glastonbury, which will be reached at 11.15 A.M. The ruins of the Abbey will be visited. In the cemetery, tradition says, are buried King Arthur and his Queen, Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 1 P.M., the party will leave by train for Wells, reaching that station at 1.16 P.M. Luncheon will be served at 1.30 P.M., at the Swan Hotel, Wells, after which the Cathedral will be visited. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The members are invited by the Bishop of Bath and Wells to visit his palace and gardens. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Afternoon tea will be provided at 5 P.M., at the Swan Hotel, and at 6 P.M. the return train will leave Wells; and the steamer

will leave Burnham for Cardiff at 7.30 P.M., reaching there about 9.20 P.M.

3. *Caerphilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, the members may visit Caerphilly Castle and Penryn, a mountain 1,200 feet high, in the centre of the South Wales coal basin, commanding a fine view of the surrounding country, including the Brecon Beacons, Bristol Channel, and parts of Monmouthshire, Gloucestershire, and Carmarthenshire. A special train will leave Taft Vale Railway Station, Crockherbtown, at 10 A.M., proceeding to Quaker's Yard, whence a walk of a mile and a half will bring them to the top of Penryn. They will rejoin the train, and proceed by Rhymney Railway, to Caerphilly Castle, where refreshments will be provided at 2.30. Return train at 4.45, reaching Cardiff at 5. Number limited to 200. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion.

4. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is a perpendicular cliff, standing 600 feet above the sea-level, and renowned for the view it commands of the numerous and very beautiful windings of the river Wye. The walk from this point along the cliff at the margin of the Coldwell Woods to Lydbrook, is unsurpassed for beauty on the Wye. The Speech House is situated in the midst of the Forest of Dean, and is surrounded with grand forest scenery. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30 A.M., changing at Newport into the ordinary train for Symonds Yat, which leaves at 11.5, and is due at 12.46. Luncheon will be served at the Refreshment House at 1 P.M. At 2.0 P.M. the party will ascend the Yat and walk a distance of about three miles to Lydbrook Junction, whence they will leave by special train at 4 P.M. for Speech House Road, due at 4.40 P.M. Afternoon tea at the Speech House at 5 o'clock. The return train will leave at 6.24, and reach Cardiff, *via* Lydney, at 8.10 P.M. Those returning home eastwards can stop at Chepstow for the mail at 9.51.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

To EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDY-MAN, Esq., 42, Crockherbtown, Cardiff.

NOTICE OF SPECIAL BUSINESS.

Notice is hereby given that, at the Annual General Meeting to be held at the Town Hall, Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

Mr. DIX gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

Mr. GEORGE BROWN hereby gives notice that he will move an alteration in By-law 17, paragraph (D), so as to read:

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 18th, 1885.

SPECIAL CORRESPONDENCE.

CAIRO.

[FROM OUR OWN CORRESPONDENT.]

Changes in the Sanitary Council.—Dr. Durri Bey.—Out-patients at the Kasr-el-Ein Hospital.—Appointment of a District Medical Officer.—Small-pox.—Notification of Infectious Diseases.

In my last letter, I referred to some proposed changes in the constitution of the "Conseil Sanitaire," about which there had been difficulty between Surgeon-Major Greene and the higher powers. The matter has been settled by the appointment of the Chief Pharmacien, Dr. Durri Bey, Lecturer on Surgery at the Medical School, and Mr. Crookshank, Director of Prisons. The latter is the only one of the three new members proposed by Mr. Greene, but the Council will gain in him as well as in Dr. Durri Bey a distinct accession of strength.

Dr. Durri Bey is a surgeon of considerable ability and energy. He recently removed from a man's bladder, by the suprapubic method, a calculus weighing 358 grammes (about 12 ounces). The patient now—three weeks after the operation—is convalescent, and the wound nearly closed.

A year ago, there was no such thing as an out-patient known at the Kasr-el-Ein Hospital. There is now a daily attendance of out-patients averaging about 50; and further, they are utilised by Mr. Milton for clinical teaching to a class of about a dozen advanced students. This is an immense gain to the medical school.

Dr. Cafrawy, who is an M.D. of Paris, has been appointed medical officer of the Ezbekieh quarter of Cairo. This post was previously held by Dr. Sidney Davies. Another Paris M.D., a Frenchman, was a candidate for the post. He had the highest recommendations, but, as there was a well qualified native in the field, which is not generally the case for these appointments, it was considered that he must have preference to a European. The only objection to Dr. Cafrawy was that he had been a supporter of Arabi, but this was rightly considered to be no longer any objection. Notwithstanding, it is a pity that the

European candidate was not elected. Before the post was vacated by its English tenant, there was a daily attendance of about 40 poor natives treated as out-patients, chiefly surgical cases, frequently requiring operations. The French doctor would undoubtedly have continued this work, but it is very unlikely that the native medical man, however well qualified, will do any more work than he is obliged to do.

There has been an outbreak of small-pox among the black women and children who accompanied the Soudanese regiments lately returned from the Soudan. It seems that there has been no provision for vaccinating either the soldiers or their families. These people were scattered in different parts of Cairo, and were consequently a source of danger to the public health. It was wisely decided to establish a tent-hospital for them. This has been done, and is situated at Abbasieh, in the desert, about 200 yards east of the barracks. There are five tents, open on all sides, containing 44 patients, about three-fourths of whom are under 12 years of age. They are provided with a limited quantity of bedding, and large warm blankets, but no bedsteads. Only two adult men have been received. About 50 patients have been received in all during three weeks, two only of whom have died. There are now only two or three serious cases, the majority being convalescent. Several cases, however, were confluent. The small number of men affected is probably explained by the fact, that small-pox is so common in the Soudan that few reach manhood without having caught it. The small mortality at the encampment is undoubtedly due chiefly to the unlimited supply of air. A native medical man remains at the encampment during the day, and acts under the direction of Mr. Milton. There are one or two European hospitals in Cairo, the patients of which would be much benefited if they could change places with the Soudanese in the encampment.

A circular has been sent to the European medical men by their consuls, requesting them to notify infectious diseases. This is a step in the right direction, but the European doctors, other than English, will probably object to it; and, as long as the capitulations exist, there will be no efficient notification.

WITHDRAWAL OF THE NILE EXPEDITION.

[FROM A SPECIAL CORRESPONDENT.]

THE withdrawal of the troops from the Soudan is being carried out with great rapidity. During the past three weeks, all the summer camps have been evacuated, and nearly all corps and battalions forming the Nile Expeditionary Force have passed through Abu Fatmeah on their return march.

All regiments, on the return journey, whether by river or route march, proceed in columns of half-battalions, each accompanied by a medical officer provided with a sufficiency of medicines, medical comforts, and equipment.

The Royal Highlanders, Essex Regiment, and Light Camel Regiment proceeded downwards from Abu Fatmeah in whalers; the Guards Camel Regiment and Heavy Camel Regiment performed the journey by march route; whilst the Gordon Highlanders, the Duke of Cornwall's Light Infantry, the Royal Irish and the Royal Sussex Regiments, proceeded half by whalers and half by route march.

All columns moving to the north are directed to proceed by night-marches on successive days. The hour of starting is left to the officers commanding columns, but must be such as to secure the troops from marching in the heat of the sun, and not earlier than 5 P.M. Each column going by route march has orders to detail five boats' crews for the five whalers detailed for the carriage of the kits, regimental luggage, and as much of the spare ammunition as can be carried. The troops only carry their rifles, with 10 rounds of ammunition for each man.

As the desert-journey from Abu Fatmeah to Kaibar cannot be accomplished in one march, the officer commanding is instructed to decide on the distance to be marched before halting to bivouac, but should arrange that at least half the distance to Kaibar should be covered before night. The men get tea and biscuit as soon as possible after halting to bivouac; this is additional to the regular evening meal, which is taken before starting. Water-bottles are filled just before starting. The scale of transport for each column on the march is: for carrying water, nine camels; wood, cooking-pots, etc., four camels; blankets (one for each man), four or five camels, as required; officers, two camels; medical officers, two camels; cacolets and litters, three camels. In addition to the camels with cacolets and litters, six donkeys are sent with each column, to carry men falling out, who may be able to ride. The camels for carrying wood and water return from the bivouac, unless the officer commanding, or medical officer in

charge, should consider that insufficient transport has been provided for the sick, in which case authority is given to take on as many camels as may be required. It is ordered that the hour for starting from the bivouac is to be sufficiently early to ensure arrival at Kaibar without unnecessary exposure of the men to the sun.

An extra half ration of tea and biscuit is issued for the desert march, and arrangements are made for giving tea and biscuit in the morning before starting. Arrangements are also made for shelter and water at Faregh, where the columns first strike the river in the morning. All precautions are directed to be taken to prevent the men from unnecessarily uncovering their heads in the sun, and they are cautioned against exhausting their water-bottles early in the march. All necessary measures are taken to prevent sore feet.

From Kaibar the column proceed on successive days to the following halting-places: Dulgo, Absarat, Sayed Effendi, Koyeh Matto, Ucha Matto. One day's halt is here made, and the daily march continued to Koyeh, Abri, Mograkah and Sarkamatto. From Sarkamatto the troops will, as far as possible, be taken in boats to Kasheh, whence they will march direct to Rail Head, and thence proceed by rail to Wady Halfa.

In order that the five whalers, detailed for each column, may be able to meet the troops on their arrival early in the morning at each station, they are directed to be ready at 3 A.M., and to start each morning not later than 4 o'clock, so as to reach the next station before 8 o'clock.

Rations will be issued at each station, and filtered water will be prepared as far as possible, and in readiness for the columns. A regulated scale of transport has been arranged to accompany each column. In addition to the hospitals established along the lines of communication, and the increase of the hospital at Kaibar to fifty beds, two new hospitals have been formed for twenty-five beds each, at Koyeh Matto and Abri, under Surgeons Allin and Chester respectively. Any men falling sick are carried to the nearest station, and removed by whalers to the nearest hospital down stream.

Columns proceeding north, by river route, are told off into company sections of four or five whalers, and for each section two Egyptian soldiers are detailed who thoroughly know the river; and the strictest precautions are ordered regarding the safety of the whalers in passing through the rapids. These sections are to keep together, and are on no account to be broken up, but each section is allowed to proceed north as fast as possible.

Since the order for the withdrawal of the troops from the Soudan, all sick of the force at the front that could bear removal have been transferred in specially fitted out hospital nuggars to Abu Fatmeh Hospital, whence they proceed in convoys of from 25 to 50 to Kaibar, and then onwards to Wady Halfa. The hospital nuggars that bring the sick from the hospitals up river to Abu Fatmeh are provided with good awnings to protect from the sun, and nothing is omitted in the equipment, arrangement, attendance, and dietary, that can in any way conduce to the welfare and comfort of the patients. For some time past convoys of sick, varying from 25 to 50 officers, non-commissioned officers and men, have been leaving Abu Fatmeh for the north once or twice a week. Each convoy is under the charge of a medical officer, who is provided with a sufficiency of medicines, medical comforts, and equipment for the journey. The convoy leaves Abu Fatmeh at 5 P.M. for Kabodeh, which is at the other end of the cataract, three miles distant. Hospital-marques are provided for their reception, and beef-tea, milk, arrowroot, and all necessary articles of diet are prepared and given. Next morning those in charge of the convoy have to be up before dawn, and have breakfast and all necessary diets for the sick ready by 6, so as to start as soon after 6.30 A.M. as possible. From Kabodeh downwards, the convoys proceed in whalers with crews of Dongolese or Egyptian soldiers, six or eight sick on an average are placed in each boat, but never more than two stretcher cases. It is usual to halt for an hour just before noon, when beef-tea, sago, cocoa, and milk, with biscuit, etc., are given. A halt for the night is made an hour before sunset, so as to allow time for the preparation of the necessary diet and extras required by the sick.

On arrival at Kaibar, the convoy is either taken up to hospital to await the formation and despatch of a fresh convoy, or, if transport arrangements permit it, proceeds onwards over the portage, which is about one quarter of a mile in length, the sick being carried on stretchers, cacolets, and camels. At Kaibar, provisions for four days are drawn together with any extras required.

On the fourth day, the convoy usually arrives at, or passes, Koheh Matto, and, on the following day, reaches Abri, the two stations where the new hospitals have been formed. On the evening of the sixth day the convoy usually arrives at Sarkamatto. The sick are received into hospital-huts, and remain under the charge of their own

medical officer until transport arrangements can be made for them. The portage from Sarkamatto to Dal is five miles in length; the sick are taken over it in stretchers, cacolets, and camels, as on the other portages. At the north end of the cataract they are put into whalers with Dongolese crews, and taken to Akasheh, a journey easily effected in one day. From Akasheh the sick are carried on stretchers, cacolets, camels, and mules to Sanjour Road, a rest-camp 16 miles from Akasheh; they there rest for the night in huts provided for them, or go on to the next station, Ambigole Wells, halting there for the night, and arriving at Rail Head—the terminus at the Wady Halfa railway—next morning, whence they are taken by rail direct to Wady Halfa in ambulance-carriages specially constructed for them.

At all the stations there are abundant supplies of all articles of food and extras necessary for the sick.

During the past three months, there has been a great increase in the temperature, the thermometer in the shade registering as high as 121°; the mean monthly range during the past month was over 40°. One redeeming feature of the climate is that the nights are always very cool, and allow refreshing sleep.

The general health of the troops is good; fevers and bowel-affections are less prevalent.

The Nile was unusually low this year; there were several fitful rises at the end of May and early part of June. The first permanent rise took place on June 11th; since that date the river has risen 17½ inches.

A few weeks ago we had to deplore the loss of Surgeon Lesby, who died at Abu Fatmeh of enteric fever. Yesterday (June 17th) Surgeon A. F. Stace, who only arrived in Egypt a few months ago, died at Abu Fatmeh of the same disease. He obtained a fifth place at the competitive examinations, and was commissioned in January last. He was buried with military honours in the cemetery attached to the station, the South Staffordshire Regiment furnishing the funeral party. He is the sixth officer of the Medical Staff who has died of disease contracted during the expedition.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Functional Relation existing between the Two Retinae.—Intestinal Obstruction caused by Biliary Calculi.—Schwartz on Perineorrhaphy.—Dry Gangrene from Immersion in Phénol Bobarf.—Attempted Suicide by Drinking Petroleum.—A New Microscopic Photographing Instrument.

At a recent meeting of the Paris Biological Society, M. D'Arsonval read a communication from Dr. Charpentier, Professor in the Medical Faculty at Nancy. The subject treated was the functional relation existing between the right and the left retina. Dr. Charpentier sought to ascertain if the influence which light exercised on one retina was communicated to the other. His first experiment consisted in withdrawing both eyes from the influence of light: when 20 minutes had elapsed, the relative sensibility was determined. It was the same for both eyes. One eye was then bandaged, and the other was opened, and looked at a clear sky during two or three minutes. This experiment was very fatiguing; a grey cloud seemed to pass over the object looked at. In another experiment, one eye was kept in darkness during an hour; the other was exposed to the light, and its sensibility was six hundred times less than before. The eye which had been closed perceived the test-object with the same quantity of light as previously. Dr. Charpentier, therefore, arrives at the conclusion that the fatigue inflicted on one retina does not influence the other.

M. Cruveilhier read a note at a recent meeting of the Société de Chirurgie, on a case of intestinal obstruction caused by biliary calculi. The patient was a woman, aged 50. In the left groin there was an elongated swelling, which had been diagnosed as strangulated hernia. An incision was made, but as the inguinal canal was normal, the wound was sutured. M. Cruveilhier believed the case to be one of intestinal obstruction, proceeding from an organic lesion; but, as the patient was excessively weak, with a scarcely perceptible pulse, and temperature of 35° Cent. (95° Fahr.), he decided not to interfere. Another surgeon, a few hours subsequently, examined the patient, and diagnosed a cancer in the iliac fossa, but disapproved of operating. The patient lived five days longer, always presenting the same symptoms; the temperature was never higher than 34° Cent. She remained 16 days without taking any food. The necropsy showed that there was neither peritonitis nor peritoneal effusion; in the right hypochondrium there was a conglomerate mass, consisting of the gall-bladder and the right curvature of the colon. There were 40

calculi in the gall-bladder, also, about three mètres above the cæcum ; a biliary calculus obstructed the intestine, and was evidently the cause of food not passing. M. Cruveilhier considers that in such cases laparotomy should be performed, and the gall-bladder scraped.

M. Schwartz publishes the history of two cases of suture of the perineum after delivery. One of the patients was a young woman aged 22. The rupture extended six centimètres along the recto-vaginal septum. M. Schwartz was called in three days after delivery, and he observed that the wound presented some granulations, and that there was suppuration. On the fifth day, he placed sutures. According to the method of MM. Jude Hue and Gaillard Thomas, he scraped the granulations with a spatula, but abstained from cutting, in order to obtain a raw surface. Portions of the flesh, which were covered with eschars, he removed with curved scissors. The surfaces were then moistened with carbolic acid, and the vagina was washed out with antiseptic injections. Silver sutures were used ; four were placed in the vaginal mucous membrane. Three quilled sutures were placed in the deep parts of the perineum ; a row of sutures joined the surfaces of the superficial tissues. After the operation, the vagina was again washed out with a weak solution of carbolic acid, which was repeated three or four times a day. The superficial sutures were removed on the sixth day, the deep on the eighth, and those of the vagina on the eleventh. The patient had painless motions, and made a complete recovery. The second patient was 25 years old. The rupture extended four centimètres along the recto-vaginal septum. The surface of the ruptured tissues was covered with eschars. M. Schwartz operated five days after delivery, adopting the same method he practised in the previous case, and the patient quickly recovered.

At a recent meeting of the Société Anatomique de Paris, M. Secheyron showed a specimen of dry gangrene, consequent on prolonged immersion of the middle finger in pure phenol. A little girl cut her finger, and applied to a druggist for advice. He placed her finger in phenol, and dressed it with the same preparation, which was not removed until 24 hours later. Dry gangrene had then set in, and the finger had to be amputated.

A patient was admitted into M. Duguet's wards at the Lariboisière Hospital who had attempted to commit suicide by drinking petroleum. She suffered from an intense burning sensation in the mouth, œsophagus, and stomach. She was very excited from the effect of pain and disappointment at having failed in her suicidal attempt ; she exhaled a strong odour of petroleum. Two grammes of ipecacuanha, supplemented by several glasses of milk, provoked vomiting. The vomited matter was covered by a layer of petroleum, which presented the aspect of continuous grease-spots. After an enema was administered, she had a motion which presented the same peculiarity as the matter vomited, and also smelt strongly of petroleum. She continued to take large quantities of milk. She gradually recovered, and ate the ordinary fare. Small doses of quinine-sulphate cured the pains in her head, which had caused her much suffering, and in 10 days she was convalescent. During four days, she exhaled an odour of petroleum.

M. Viallanes has invented an instrument for microscopic photography ; it has been constructed by M. Dumaige, and consists of two independent parts, the photographic microscope and the dark chamber. The tube is much larger than that of an ordinary microscope, which allows the image reproduced on the unpolished glass to extend over a larger area than the human vision can realise when looking through an ordinary microscope. This is an indispensable condition when not only the details of a preparation must be photographed, but the *ensemble*. The long tube is closed at the top by a piece of metal, on which an ordinary eye-piece can be placed. Thus this instrument can be used as an ordinary microscope. It is easily placed in a horizontal position. The dark chamber, similar to that used by photographers, moves along horizontally on a slide ; underneath the slab that supports the preparation, an Abbé's condenser is placed, the glass of which is replaced by an electric incandescent lamp silvered on both sides. By means of a very simple arrangement, the lamp can be used as required.

THE TREATMENT OF SCARIES.—The following treatment is recommended by Dr. Comessati (*Pharmak. Zeit. and Journ. de Méd. de Paris*, 1885, No. 14) as being easy and certain in its action. A solution is prepared containing four ounces of hyposulphite of soda in one pint of water, and the whole body is washed with it in the evening. The next morning the skin is sponged with dilute hydrochloric acid (one ounce to the pint) ; sulphur, sulphurous acid, and chloride of sodium are formed, and the disease is, in most cases, cured by a single application.

CORRESPONDENCE.

SHORTENING THE ROUND LIGAMENTS.

SIR,—In the report of the last meeting of the British Gynæcological Society, which appears in the *JOURNAL* of July 4th, is an abstract of a paper by Dr. Alexander on the above subject, in which he is reported to have said, "the mortality of the operation might be set down as none. Three deaths had occurred, but were due to preventable causes. As mortality did not seriously enter into any consideration of the results of this operation, the real question at issue was whether it fulfilled the intentions of the operator, and satisfied the expectation of the patient."

Now, I must emphatically protest against this operation being spoken of as one to which a patient may submit without any danger to her life. I have heard of several cases where death has resulted from acute peritonitis, one quite lately in the hands of a careful London operator, and others during a recent visit to America ; and seeing that these were performed with antiseptic precautions, the fatal terminations cannot be termed preventable, any more than death after herniotomy, from the same cause and under similar conditions, can be so designated.

Considering, then, the fact that shortening the round ligaments has not been performed a great number of times, and that the deaths resulting therefrom have been several, it seems to me the percentage of mortality is so high (although I am unable, at present, to give exact statistics), that the operation should not be lightly undertaken, and that we ought to be careful to warn our patients of the risks incurred.

With regard to the utility of the operation, I am sorry to say my experience does not accord with that of Dr. Alexander. Having read his small work on the subject, and observing how universally successful his cases appeared to prove, I took up the operation somewhat enthusiastically, and with the following result. Altogether, I operated four times, in each case with strict antiseptic precautions, and without experiencing any difficulty whatever. In one case, there was a very little suppuration of the wound ; all the others united perfectly and rapidly, the first dressing not being required for four or five days after the operation. The patients (all of whom were the subjects of acute retroflexion with a prolapsed tender ovary in Douglas's pouch) felt relieved whilst lying in bed with a pessary ; but, soon after going home, all the old symptoms returned in greater or less degree (except in one case) ; and I found, to my great disappointment, on removing the pessaries, that the uteri were again returning to their previous abnormal positions.

It is to be hoped that all who have performed this operation will publish their cases, and give an unbiassed opinion as to its value. I think, however, I have shown that the operation is one of decided risk, and that it does not in all cases either fulfil the intentions of the operator, or satisfy the expectations of the patient.—I am, sir, yours faithfully,

WILLIAM A. DUNCAN, M.D., F.R.C.S.

Harley Street, W.

PAYMENT OF TRAVELLING EXPENSES OF THE REPRESENTATIVES OF THE BRANCHES TO THE MEETINGS OF THE COUNCIL.

SIR,—I desire to draw the attention of the members of the Association to the proposal which I intend to make at the ensuing general meeting, to add to By-Law 22 these words : "The railway-fares—first class return—of the representatives of the Branches, who attend the meetings of the Council, shall be paid from the funds of the Association."

I wish to state—1, the arguments in favour of the proposal ; and 2, the arguments against it ; and I pledge myself to give a reasonable answer to every adverse reason which has been adduced in all former discussions on the subject, so that my opponents may be in full possession of my case, and also may be prepared with fresh and more forcible arguments—if such there be—on their side of the question.

1. The Council is "the Executive" of the Association. Their business is to supervise and administer its funds, and "to manage the general affairs of the Association ;" their legal title and status being that of "Directors." This is a serious and important responsibility, which every representative incurs and accepts on his election, and which can only be discharged by regular and punctual attendance at the meetings of the Council. It entails a heavy expenditure, in travelling to-and-fro, on the majority of the members ; and, in accordance with justice and ordinary business custom, this expense should fall, not on the individual, who neither seeks nor derives any personal advantage from his office, but on the Society, for whose business

and benefit the outlay is incurred. If precedents be asked for, I point to the General Medical Council, who are lavishly paid; to the Colleges of Surgeons and Physicians, the Incorporated Law Society, the Pharmaceutical Society, the Chemists and Druggists' Defence Association, and, lastly, to all railway companies. In fact, I know of no public body, except charities, in which the principle of payment towards expenses is not recognised and adopted. Why, I ask, is the British Medical Association a solitary exception to this sensible principle and practice? Poverty, at least, cannot be pleaded, for the Association is saving upwards of £2,000 a year. To this our expenditure (I speak as a representative) is *de facto* a contribution, needless, uncalled for, and unjust on mere commercial principles.

But there is a special reason, unanswerable, so far as I know, why this payment should be made. Without it, "the representation of the Branches in the Council," which is the fundamental principle of the new order of things, is, and ever must be, a delusion and a farce. Men will not come from great distances at their own expense. They do not come—for why should they spend so much for an ungrateful and penurious parent, who can well afford to pay, but declines to do so? With regard to this point, I may mention a curious circumstance, known probably to but a few, and carefully ignored and kept out of sight by those who do know of it. This very payment, etc., was a part and parcel (may I not say a most important part) of the original scheme by which direct and equal representation of the Branches was to be assured. At a meeting held at Birmingham May 17, 1883, for the express purpose of drafting a scheme of reorganisation—which was based on the opinion of the Branches previously ascertained—this resolution was carried (JOURNAL, May 26, 1883): "That return first-class railway fares of members to meetings of the executive body be paid by the Association." In the report of the Council to the next annual meeting, held at Liverpool, when the whole subject was discussed and settled on its present footing, this recommendation was repeated and endorsed (JOURNAL, August 4, 1883, p. 242). But with admirable inconsistency it was opposed in debate by prominent members of the Committee of Council, and so defeated. The same thing happened at the Belfast meeting last year. I venture to foretell that, except as to the result, the process will be repeated at Cardiff.

I do not profess to understand this action on the part of my opponents. Extreme politicians would probably speak of it as "the height of self-stultification." But this is not a question of the more distant members exclusively; it also concerns those who, being within reasonable distance, attend the meetings more or less regularly. Why should they be taxed and put to personal expense for doing their duty to their Association? Why, for instance, am I mulcted in a sum of £10 a year railway fares, for fulfilling an important trust which is of no advantage to me? This, Sir, completes, the first branch of my subject. I must trouble you with another letter next week on "the adverse arguments" and the answers thereto.—I am, etc.,

J. DIX.

Hull, July 14, 1885.

STAINING BACTERIA IN SECTIONS.

SIR,—Having worked for some time at various methods of staining bacteria in sections of the animal tissues, I came upon a method which gives, with very little trouble, very beautiful results. The method consists in first staining the nuclei with picro-lithium carmine, after Orth's directions, and afterwards staining the bacteria after the method of Gram, then mounting in balsam or dammar dissolved in xylol or turpentine, not in chloroform, as the latter is apt to remove the aniline colour.

I will give the two methods of staining, as I do not know if they are commonly known in England.

1. *Orth's Method.*—The following solutions are required. A. Carmine, $2\frac{1}{2}$ grammes; saturated solution of carbonate of lithium, in distilled water, 100 grammes. B. Solution A, one part; saturated solution of picric acid in distilled water, three parts. A few drops of a solution of carboic acid should be added to these solutions to preserve them.

To stain with either of these solutions, the latter I generally find the best, as it is not apt to overstain. It is only necessary to leave the sections in the solution for a few minutes, and then transfer them directly to acid alcohol—a one per cent. solution of hydrochloric acid in 70 per cent. alcohol. From this the sections should be placed in absolute alcohol; then, if it be not wanted to stain bacteria, the alcohol should be removed in the ordinary way with oil of cloves, and the sections mounted in balsam or dammar.

2. *Gram's Method.*—A solution is prepared by filling one-fifth or one-sixth of a glass-bottle with powdered gentian-violet, and shaking

this up with aniline water, prepared by shaking thoroughly four parts of aniline-oil in 100 parts of distilled water, and then straining through a wet filter. Thus is obtained a saturated solution of gentian-violet in aniline water, which should only be filtered a few drops at a time into a watch-glass. The solution will keep good for months.

In order to stain, I find the best plan is to spread the section, which must be taken directly from absolute alcohol, upon a spatula; add a drop or two of the colour with a glass rod, slightly warmed over a spirit-lamp or Bunsen-burner; remove the excess of colour with blotting-paper; and plunge the section into a solution of one gramme of iodine and two grammes of iodide of potassium, in three hundred grammes of distilled water. From this solution the sections are placed in absolute alcohol, which should be changed once or twice till they have regained almost the colour they had before the gentian-violet was put on them.

When the sections are plunged in the iodine and iodide solution, they cause an immediate dirty-brown deposit, and become quite black. On placing them then in the alcohol, they give off a great cloud of purple colour, and rapidly regain the appearance they had before being stained with the violet. When they have regained their colour, they should be floated on cedar-oil or oil of cloves to remove the alcohol, and then mounted in the usual way. Cedar-oil is less apt to remove the aniline colour.

After being treated by these two methods, one after the other in the order I have given, which does not take up more than ten minutes generally, the sections, on examination with the microscope, show the nuclei stained a beautiful red; other parts of the tissue yellow, from the picric acid; the bacteria and protoplasm-cells (mastzellen) dark blue.

Certain species of bacteria lose the blue colour in the alcohol by this treatment. Among these are the typhoid bacilli; and, in some cases of pneumonia, the micrococcus loses its colour; also, the comma-bacillus of cholera seems to me to lose its colour by this method.

As carmine seems often to contain bacteria in pretty large numbers, it is well to strain its solutions through absorbent cotton-wadding, or through porous clay. I have some very good sections, showing micrococcus tetragenus and bacillus anthracis, coloured in this manner; and I shall send you one or two specimens by post for you to examine them, if you are interested in the matter.—I remain, etc.,

CHARLES WORKMAN, M.D.

Findlingstrasse, 22, Munich, July 4th, 1885.

MEDICAL EDUCATION AND APPRENTICESHIP.

SIR,—The question of apprenticeship, discussed in your leading article of June 27th, is one that merits more than a passing notice, and is one on which I should feel inclined to write at some length, as there is much to be said in its favour, and perhaps something against it.

I remember some years ago applying for the office of assistant with a provincial surgeon in very large practice; and, before he would engage me, he asked if I had served an apprenticeship before qualifying. When I told him I had resided some years in that capacity, he remarked: "I have had assistants come to me straight from hospital, and they are simply a nuisance; they have no idea of either private or pauper practice, and are ignorant of the management of a surgery." Now, does this simple accusation embody a truth, or does it not? If it do, then there must still be a necessity for a term in a surgery. If it do not, then as well may apprenticeship in every profession and trade be done away with at once. Why should a lawyer serve his four years of apprenticeship, if there be nothing to be learnt in a lawyer's office, and a residence near the sacred precincts of Chancery Lane or Lincoln's Inn Fields be all that is necessary to qualify for that lucrative profession? My own idea is that there is a great deal to be learnt in our profession that cannot be learnt in a medical school—its general routine, the management of a surgery, and, for country practice (for every embryo practitioner cannot hope to rise to distinction in a large town), the art of riding and driving; and these little but important things can best be learnt between the ages of 17 and 20, a time of life when a youth is too old for school and too young for hospital curriculum. Where can a youth learn the above better than with a medical man in good general practice? They are often important to his success in after-life, and often important to his pocket: for I take it that few who seek medicine as a means of living are born with a silver spoon in their mouths.

In your article, you seem to allow that pupilage is a good addition to medical education, and that a twelvemonth so spent would not be thrown away; but I fear that, if this were to take place after the

hospital-curriculum, the pupil would want to teach the master, instead of the master teaching the pupil. The pupil would begin his pupillage with such an overweening confidence in his own abilities, that he would be above learning how to compound medicines, make pills, fill up poor-law books, and otherwise do duties which, sooner or later, must fall to the share of nine out of ten of those who, from choice or necessity, choose a country practitioner's life, in preference to hanging about a hospital until something turns up to land them or to throw them on the smiling shores of lucrative London practice.

No one can suppose for an instant that a pupil can learn disease with a private practitioner, as he can in a medical school. My contention is, that he does not become a pupil as much to learn disease as he does to learn how to dispense, and how usefully to pass eighteen months at an age when he is too old for school and too young for hospital life; and further, to gain some little experience of the world, before he is thrown—his own master—into all the temptations of London student life. If he learn any obsolete modes of treatment, these are soon knocked out of him in the wards; if he learn tact, the art of pleasing, and how to be useful, and how to see that medicine is not put in a dirty bottle, or carelessly wrapped up, he learns what will often make the difference whether he succeeds or fails in his future career.

Success in this world, in my opinion, does not always depend upon ability; if it did, some practitioners, I fear, would be starving; but it depends upon a combination of qualities in the practitioner, many of which should be instilled into the would-be medical man when he is young and impressionable; they would stand him in good stead in his battle through life.

Your article, as you say, opens up a question of vital importance; I only hope it may be calmly and dispassionately discussed. For my own part, I have never regretted the years I passed with a country practitioner, before I entered St. Bartholomew's Hospital, and I certainly learnt with him much that has been useful to me since.—I am, sir, yours,
N. E. DAVIES, L.R.C.P. Lond., M.R.C.S.E., etc.
Sherborne, June 28th, 1885.

THE PREVENTION OF BLINDNESS.

SIR,—The proposals to employ alum and other astringent lotions to prevent or cure infantile purulent ophthalmia would probably be more acceptable if it were more generally known to practitioners, nurses, and mothers, that infants are born blind, and even up to the end of the first month the function of sight is so imperfectly developed that manipulations about the eyes cause little distress to the patient. The sense of touch is also very imperfect during the same period, and washing the eyes of infants probably causes little more discomfort to them than washing any other part of the surface of the body. The conjunctiva is, of course, more susceptible to irritation and inflammation than the skin, but any distress of this kind would depend more on the nature and strength of the lotion than on the manner of its application. Purulent ophthalmia, moreover, further diminishes the sensitiveness of the conjunctiva and eyelids, as is obvious from the masses of flies which are allowed to infest undisturbed the eyes of children in Egypt, where this disease is a fruitful source of blindness. The first appearance of tears, which, according to Darwin, never occurs before the twentieth, and sometimes as late as the hundredth day, probably marks (and is probably dependent on) the beginning of the sensitive condition of the eyes, which becomes highly developed in adults, and the consciousness of which makes mothers timid in the application of remedies to the eyes of their infants.—Yours, etc.,
C. ROBERTS.

Bolton Row, Mayfair.

MILITARY AND NAVAL MEDICAL SERVICES.

PARTIAL RESTORATION OF REGIMENTAL MEDICAL SYSTEM.

SIR,—Nearly two months ago the *Army and Navy Gazette* said: "We understand that a modification of the existing medical system in the Army, so far as to attach permanently to each regiment an officer of the medical staff and a non-commissioned officer of the corps, has been under consideration for some time past." I have seen no notice of this contemplated change in the *JOURNAL* of the Association. Is it too good to be true; or are important notices of this nature only sent to the *Service Journal*?—Your obedient servant,
J. O.

* We are not aware of the grounds on which the *Army and Navy Gazette* published the statement above quoted. The latest inquiry on the organisation of the Medical Staff was that by the committee, of which the Earl of Morley was chairman, and the report of that committee showed that, while two of the members expressed themselves in favour of a change to a modified regimental

system, the chairman and other members recommended there should be no alteration in this respect. No official announcement has appeared to indicate that the views of the minority are likely to be practically adopted.

DECORATIONS FOR THE NILE EXPEDITION.

SIR,—We have been informed that only those medical officers who served at or south of Korosko on or before March 7th, 1885, will be entitled to the decoration for the Nile expedition.

The first batch of wounded from the different engagements of the Nile expeditionary force did not reach Halfa till about March 7th, and it was subsequent to this date that the hardest work in connection with them and the sick commenced in the second section line of communications, which extended at that time from Halfa to Dal and Sarkamatto.

Medical officers who arrived at Halfa during the month of March have been employed in the field-hospitals along the line of communications, and in charge of sick convoys, in some instances as far south as Dongola; but by the rule mentioned, they will be debarred from all decorations, although they have performed the most onerous duties in connection with the convoys of sick and wounded south of Halfa, and at a time when the climate was most trying.

Surely, if men who have spent their time at Korosko with every comfort, and indeed luxury, when compared with those further south, are to receive decorations, it seems hardly fair to withhold them from others who helped to bring the sick and wounded from the front, because they did not happen to be serving south of that favoured station on or before March 7th.—I remain, sir, yours faithfully,
FIAT JUSTITIA

* We have not been able to obtain the rules under which the decoration referred to by our correspondent is to be distributed, and presume that they have been arranged locally by the authorities in Egypt. But we are informed that claims urged on special grounds in such matters will always be taken into consideration, on being represented through the regular official channels of communication.

RELATIVE RANK AND TITLE.

SIR,—Honorary rank has long since been conceded to non-combatants. I trust the suggestion, so reasonable, of "F.S.A.," in your issue of July 4th, will meet with support, and there can, I think, be little doubt that the authorities would finally concede the point.—I am, sir, your obedient servant,
RETIRED.

LISTS OF ARMY MEDICAL CANDIDATES.

SIR,—It would be a good thing if, when the lists of successful candidates for the Army Entrance Examination are published, the medical qualifications of each person should be shown, as M.D., F.R.C.S., etc. Many outside people imagine that it is a competition of students, and not of qualified medical men. Indeed, a candidate has a right to have his degree shown.

Further, there is no reason why the names of the probationers at Netley should not be shown under a short heading in the *Army List*.—Yours,
ARMY LIST.

ARMY MEDICAL SERVICE.

SURGEON J. B. CARMODY, serving in Madras, has been granted leave on medical certificate for six months.

Surgeon-Major R. H. ROBINSON, who is serving in Bombay, has been appointed to perform the medical duties of the Lawrence School and Civil Establishment at Mount Abo.

Mr. J. W. HARRISON has been appointed Acting-Surgeon to the 1st Cinque Ports Artillery Volunteers, and Mr. J. D. GRANT, M.D., in the same capacity to the 24th Middlesex Rifle Volunteers.

Surgeons A. M. SANDERSON and JAMES CARMICHAEL, M.D., of the 1st Midlothian (Midlothian Coast) Volunteers, have been granted the honorary rank of Surgeon-Major.

Mr. G. J. EADY, M.D., who was appointed Acting-Surgeon to the 1st Volunteer Battalion of the Queen's Royal West Surrey Regiment (late 2nd Surrey Volunteers) on April 18th last, is now gazetted Lieutenant in the same corps.

Mr. T. H. WILKIN, late Surgeon-Major, 2nd Durham Militia, died at Leinster Road, Co. Dublin, on July 2nd, in his 84th year.

Surgeon-Major Sir SAMUEL ROWE, M.B., K.C.M.G., Governor and Commander-in-Chief of the West Africa Settlements, has been appointed to be Her Majesty's Consul for Siberia. Sir Samuel served throughout the Ashanti war of 1873-74. He was sent as Special Commissioner to the kings and chiefs of Fanti on the invasion of the Protectorate by the Ashantis in January, 1873. He was present at the defeat of the Ashantis in the two engagements at Elmina on June 18th, and was mentioned in the despatches as having "acted in more capacities than those of his own profession," and as having "rendered valuable assistance on all occasions." He served as Chief of the Staff with Glover's expedition, and was several times mentioned in despatches, made a C.M.G., and granted the medal with clasp.

Telegrams received at the War Office, dated Cairo, July 9th, inform us that Surgeon R. PORTER, M.B., had arrived there on July 8th from up Nile, and that Surgeons M. O'D. BRADDELL, J. A. SMITH, R. HASELDEN, C. W. JOHNSON, L. W. SWABEY, W. H. P. LEWIS, and F. J. JENCKEN, had left for England invalided.

INDIAN MEDICAL SERVICE.

The services of Surgeon D. M. JACK, Bengal Establishment, are permanently placed at the disposal of the Government of the North-West Provinces and Oude.

The services of Surgeon C. HENDERSON, Madras Establishment, are permanently placed at the disposal of the Chief Commissioner of the Central Provinces.

Surgeon E. W. YORNG, Bombay Establishment, has been appointed to the medical charge of the Roman Catholic Orphanage School at Poona.

Surgeon-Major H. DE TATHAM, M.D., M.R.C.P., M.R.C.S., Bombay Establishment, has been appointed to act as Civil Surgeon and Superintendent of the Medical School, Hyderabad, during the absence, on sick leave, of Surgeon-Major B. C. KEELAN, L.K. and Q.C.P., M.R.C.S., L.M.K. and Q.C.P. Ireland, or until further orders.

Surgeon A. W. F. STREET, Bombay Establishment, is directed to act as Deputy Sanitary Commissioner of the Western Registration District, during the absence of Surgeon J. W. CLARKSON, or until further orders.

Surgeon A. F. FERGUSON, M.B., Bombay Establishment, is appointed to officiate in medical charge of the 1st Sind Horse at Jacobabad, during the time Surgeon Street is employed in the Civil Department, or till further orders.

The following gentlemen have been granted leave of absence for the periods specified:—Surgeon-Major P. CULLEN, M.D., Bengal Establishment, for one year on medical certificate; Surgeon J. L. CORBETT, M.D., Bengal Establishment, in medical charge of the 11th Native Infantry, for one year on medical certificate.

THE NAVY.

The following appointments have been made at the Admiralty during the past week:—Mr. H. F. D. STEPHENS, Surgeon, to the *Wrangler*, his appointment to the *Grappler* being cancelled; H. W. A. BURKE, Surgeon, to the *Grappler*; H. E. MARSH, Surgeon, to the *Excellent*.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Deputy Surgeon-General O. Barnett, C.I.E.	Suakin	Woolwich.
Brigade-Surgeon J. Warren	Suakin	—
" A. Allan, M.D.	Suakin	Portsmouth.
Surgeon-Major J. B. Hamilton, M.D.	Suakin	Dublin.
" W. J. Wilson, M.D.	Suakin	Netley.
" J. Fleming, M.D.	Suakin	—
" R. Tobin	Suakin	—
" G. J. H. Evatt, M.D.	Suakin	Woolwich.
" A. W. Bate, M.D.	Suakin	Dublin.
" T. W. Patterson	Suakin	—
" W. F. Burnett	Egypt	Dover.
" E. F. Boulton	Suakin	—
" T. J. P. Holmes, M.B.	—	Devonport.
" J. J. Crean	Suakin	—
" A. H. Anthonisz, M.B.	Suakin	—
" R. W. O'Donnell	Egypt	—
" W. B. Slaughter	Bombay	—
Surgeon W. S. Pratt, M.B.	Egypt	—
" J. Hoysted	Suakin	Colchester.
" P. A. Hayes	Suakin	—
" U. J. Bourke	Suakin	—
" J. L. Peyton, M.B.	Suakin	—
" W. W. Kenny, M.B.	Suakin	Dublin.
" W. Keays	Suakin	Dublin.
" J. I. Routh	Edinburgh	—
" H. L. Donovan, M.D.	Suakin	Netley.
" M. D. O'Connell	Cork	Templemore.
" R. H. S. Sawyer	—	Enniskillen.
" W. Rowney, M.D.	Suakin	Egypt.
" W. G. Birrell, M.B.	Suakin	—
" R. H. Clement	Egypt	—
" W. C. Beevor	Suakin	Egypt.
" G. B. Russell, M.B.	Suakin	Egypt.
" N. Manders	Suakin	—
" L. R. Colledge	Suakin	Chatham.
" S. F. Freyer, M.D.	Suakin	Egypt.
" C. Birt	Suakin	York.
" C. J. Holmes, M.D.	Suakin	—
" S. Hickson, M.B.	—	Aldershot.
" H. J. Fletcher, M.B.	—	Aldershot.
" S. H. Lindenau	—	Aldershot.
" E. Davis	—	Aldershot.
" S. Powell, M.B.	—	Aldershot.
" F. W. C. Jones, M.B.	—	Aldershot.
" J. Meek, M.D.	—	Aldershot.
" A. E. Morris, M.D.	—	Aldershot.
" E. Cornack, M.B.	—	Aldershot.
" C. O'Donel, M.D.	—	Aldershot.
" W. A. Carte, M.B.	—	Aldershot.
" A. O. Fitzgerald	—	Aldershot.
" F. D. Elderton	—	Aldershot.
" E. N. Sheldrake	—	Aldershot.
" R. E. Molesworth	—	Aldershot.
" J. W. F. Long	—	Aldershot.
" C. L. Josling	—	Aldershot.
" J. F. Bateson, M.B.	—	Aldershot.
" W. T. Swan, M.B.	—	Aldershot.
" J. Bulfin, M.B.	—	Aldershot.
" R. L. R. Macleod, M.B.	—	Aldershot.
" J. H. Curtis	—	Aldershot.
" G. G. Adams	—	Aldershot.
" J. M. F. Shine, M.D.	—	Aldershot.
" W. B. Day, M.B.	—	Aldershot.
" D. R. Hamilton, M.B.	—	Aldershot.
" R. G. Thompson, M.D.	—	Aldershot.
" C. T. Blackwell	—	Aldershot.
" R. I. Power	—	Aldershot.
" C. R. Kilkelly, M.B.	—	Aldershot.
" W. H. Bean	—	Aldershot.
" N. C. Ferguson, M.B.	—	Aldershot.
" S. R. Willis	—	Aldershot.
" M. L. Hearn	—	Aldershot.
" S. L. Deeble	—	Aldershot.
" R. H. Hall, M.D.	—	Aldershot.
" W. H. Bennett, M.B.	—	Aldershot.
" J. H. Greenaway	—	Aldershot.
" R. G. Hanley, M.B.	—	Aldershot.
" W. H. Bell	—	Aldershot.
" G. Cree	—	Aldershot.
" S. C. Philson	—	Aldershot.
" J. M. Nicolls, M.B.	—	Aldershot.
" F. W. H. D. Harris	—	Aldershot.
Quarter-Master W. M. Kay	Suakin	Curragh.
" F. Tighe	Suakin	Southern Dist.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE OFFICE OF CORONER.

SIR,—Is a medical man, holding parochial appointments and engaged in clubs and general practice, eligible to the office of city coroner to a town of 200,000 inhabitants? The appointment rests with the town council.—Yours truly,
A MEMBER.

. There is no special qualification for the office of coroner, and, as far as the law goes, any British subject over 21 years of age is eligible for the appointment, either as borough, city, or county coroner, but the choice usually falls on either a medical man or a solicitor. To a medical practitioner engaged in general and club-practice in the district over which he presides as coroner, some inconvenience might arise, should it become necessary to hold an inquest on one of his patients. He would then have to seek the aid of his deputy, and even this might be open to comment. Under such circumstances, he would do well to enter into partnership, or engage a duly qualified assistant, who would relieve him of a certain portion of the practice, and who would also be prepared to give evidence in cases calling for inquiry; on the other hand, it is open to a coroner to resign any appointment which he might find inconsistent with the duties of the office. As a rule, in provincial cities and districts, the salary paid to the coroner is so small that he can only be expected to undertake the duties of the appointment as an addition to those of his ordinary avocation.

HOSPITAL-SURGEONS AND THE TITLE OF DOCTOR.

SIR,—I have been for some time, and still remain, one of the visiting-surgeons to a county-hospital. Recently I have taken an M.D. degree. Should the notice-boards or tickets bear the title of Dr. or Mr.? What is orthodox? A brief notice in reply will oblige.—Yours faithfully,
INQUIRER.

. So far as our personal knowledge extends, there is no written ethical law bearing on the question submitted by "Inquirer." In venturing, therefore, to offer an opinion on the point, it must be understood simply as the expression of our own view, unsupported by any definite rule other than that of immemorial custom, namely, that the prefix of "Dr." is generally, and, according to our experience, solely, attached to the names of the physicians on the medical staffs of the various hospitals, and that of "Mr." to the surgeons. If, however, our correspondent deem it material that the fact of his having graduated in medicine at a recognised university should be known to the patients and supporters of the hospital in question, he will do well to be content with the "M.D." as an affix to his name on the "notice-boards and tickets," and not seek for the prefix of "Dr."

WHAT BONE-SETTERS WILL DO.

SIR,—A man recently came under my care with fracture of the fibula, and general contusion about the ankle-joint. In addition to these injuries, there was a partial dislocation of the bones of the leg forward, which was easily reduced by gentle extension. I put the limb in good position, applied an internal splint, and enveloped the whole, as I thought, most satisfactorily in a well applied starch-bandage. Fancy my surprise when, on visiting four days later, I found my bandage and splints summarily removed by an ignorant charlatan, who, as all bone-setters do, declared I had overlooked a well marked dislocation of the ankle-joint. I need hardly say I gave the limb to his care and keeping, and left with the intention of vindicating my professional character in a court of law.

Can you guide me in my procedure? and do you not think that a small fraction of the huge accumulated fund of the Medical Council might be well spent in protecting the humble members of the profession (in such cases as mine) from ignorant and impudent pretenders?—I am,
A. F., M.D., F.R.C.S.E.

. Much as it is to be regretted, in the true interests of the public, that such incidents, as that related by our correspondent, should occur, undeterred by any dread of action on the part of the General Medical Council, we fear that, as at present constituted, not even "a small fraction of the large accumulated funds of the Medical Council will be spent" in the prosecution of "ignorant and impudent pretenders," such as the "bone-setter" alluded to. We would that it were otherwise. In regard to our correspondent's expressed "intention of vindicating his professional character in a court of law," such a step in such a case would, in our opinion, be more than injudicious, and would tend, moreover, to transform the ignorant quack into a victim of professional jealousy. Can it be that the "bone-setter" was consulted in consequence of "A. F.'s" omission to visit the patient for four days after swathing the limb in a "well applied starch-bandage"?

MEDICAL ETIQUETTE.

WITH reference to the case of medical etiquette, on which comment was made in the JOURNAL of June 20th (page 1273, bottom of column 1), B. gives the following account.

On June 6th, at 7 A.M., he attended on a steam-tender to make a medical inspection of emigrants. He was informed by some of the seamen that one of the hands had fallen out of the closet on to the deck in a faint, and had just been taken to his home on a car. B. hurried over his business that he might go to his aid, and was finishing his inspection when a message came to say the man was dead. Notwithstanding this, B. thought it right to go to his house, and was urged to do so by the man's associates on the steamer. B. found that he was dead, and, having asked a few questions, learned that he had been in bad health for some months, that he had visited B. (B. cannot say that he remembers anything of his case), and that he had been under the care of A., but had not seen him for

two months. B. thought no more of the matter till a police-sergeant came to his house to summon him to an inquest at one o'clock the same day. He sent the policeman to the coroner to arrange an hour more convenient, and six o'clock that evening was eventually fixed.

At the inquest, it was sworn by the widow that A. had not seen her husband for more than two months. B.'s evidence was simply an opinion that he was dead when he fell out of the closet, that he had probably a fatty heart that gave up when he strained at stool, and that many deaths had occurred under similar circumstances. B. calls attention to the following points.

1. He went to the man's house as an act of charity, not sent by the employer, but at the request of his comrades. He was acquainted with him for many years, and knew he was in abject poverty. 2. B. gave no information whatever to the coroner or police. He was summoned to the inquest and was obliged to obey. 3. He was not aware that A. had given a certificate. 4. He was not aware that A. was "attending the man up to his death;" on the contrary, it was sworn by the widow that A. had not seen him for two months.

B. has also sent a copy of a letter from the coroner, stating distinctly that he did not receive the information of the man's death from our correspondent (B.). The explanation now given by B. puts a very different aspect on the case from that which was first presented to us; and to his conduct, if correctly described by him, there can be no objection. There has probably been some misunderstanding on the part of A.; and we would recommend both A. and B. to have a mutual explanation, or, if they cannot do that, to refer the whole matter for arbitration to the Council of the Branch of the British Medical Association within whose district they are.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, July 9th.

Oleomargarine.—Mr. DUCKHAM asked the President of the Local Government Board whether he was aware that the refuse fat of animals, formerly sent to the tallow-chandler, was now used in the manufacture of oleomargarine; that much of the fat so used was often in a very putrid state; that chemicals of a very deleterious nature were used to deodorise it; and whether he would cause such a supervision of the manufactories in the United Kingdom as should guard against so revolting a practice.—Mr. A. J. BALFOUR said the Board had no information as to any such manufacture as that described in England. But if the hon. gentleman could inform him where any such manufacture was carried on in England with putrid materials and chemicals of a deleterious nature, they would be prepared to bring the matter under the attention of the local authority. Of course, if butterine were sold as butter, it was an offence under the Sale of Food and Drugs Act, and, in many instances, convictions had been obtained in respect of that offence.

Sanitary Conference at Rome.—Mr. SUTHERLAND asked the Under-Secretary of State for Foreign Affairs whether it was the intention of Her Majesty's Government to lay upon the table of the House papers relating to the proceedings of the International Sanitary Conference at Rome, including reports by the British representatives.—Mr. BOURKE said that papers on the subject were in preparation, and would be laid before Parliament as soon as possible. They had not yet received all the Protocols of the Conference. The translations had not been commenced, and he did not see much hope of their being ready before the recess.

Pauper Lunatics.—In reply to Mr. BRINTON, Mr. A. BALFOUR said: We have communicated with the guardians of several unions respecting cases of pauper lunatics in county lunatic asylums, who, we were informed by the Commissioners in Lunacy, might, in the opinion of the medical superintendent of the asylum, be adequately and more economically provided for in the workhouse. The result of these communications is that, as regards 84 unions, the answers have been that the guardians were willing to receive the patients if they were returned to the workhouse. From 258 unions, we have received replies to the effect that the guardians for various reasons were not prepared to receive the patients. In some cases, the reason assigned was that the patients had been returned as dangerous since the report was made by the medical superintendent; in others, that the workhouse accommodation would not admit of their reception without much inconvenience; and in others, that, if the patients were returned, the guardians would have to incur the expense of an additional officer. There were also 37 unions in which the guardians were favourable to receiving some of the numbers, but not others.

Monday, July 13th.

Poisonous Patent Medicines.—Mr. WARTON asked the Financial Secretary to the Treasury whether the Government contemplated taking any steps with respect to poisonous patent medicines; and whether it would be possible to issue such a stamp to be affixed to patent medi-

cines as would avoid the appearance of giving a Government guarantee of the goodness or harmlessness of such medicines.—Sir H. HOLLAND, in reply to the first part of the question, stated that the Government did not intend to proceed with the Bill introduced by their predecessors. As regarded the second part, the stamp would be altered so as to make it plain that there was no Government guarantee of the medicine. The stamps would in future contain the words "This stamp implies no Government guarantee." It was expected that the new plates would be completed, and the present stock of old stamps exhausted, within two months.

Tuesday, July 14th.

Public Health (Members and Officers) Bill.—This Bill passed through committee.

Cholera Hospitals (Ireland) Bill.—This Bill passed through committee, and was read a third time.

The Medical Relief Bill.—Mr. HENEAGE asked the President of the Local Government Board whether he would give instructions to the overseers to place all persons whose names appear on the roll of ratepayers on the register of voters, marking the names of those who had received medical relief.—Mr. BALFOUR said he had it under his consideration to introduce a clause into the Bill, by which those who were disqualified by the existing law at the time of the making out of the lists should have that disqualification as far as possible removed.

The Pall Mall Gazette.—Mr. A. GREY gave notice that he will ask the Home Secretary whether he could assure the House that orders had been given to the police to use the utmost exertions permissible by law to suppress the abominations disclosed by the *Pall Mall Gazette*, and whether the Government will introduce into the Criminal Law Amendment Bill such provisions as should secure that the perpetrators of such outrages should be brought to justice.

Medical Relief.—Mr. SALT asked the President of the Local Government Board if he could state the number of persons in England and Wales who were in receipt of medical relief charged upon the rates, without being recipients of relief under the Poor-laws in any other form.—Mr. A. BALFOUR said he was not at present in a position to give the information asked for; but, on the second reading of the Medical Relief Bill, he hoped to be able to state to the House some facts which might meet the views of his hon. friend.—Mr. J. G. TALBOT asked whether the information to be communicated to the House would be based on that received from the inspectors of the Local Government Board.—Mr. BALFOUR replied in the affirmative.

HOSPITAL AND DISPENSARY MANAGEMENT.

CITY OF LONDON LUNATIC ASYLUM.

THE nineteenth annual Report of the City of London Lunatic Asylum at Stone, shows that the mortality at this well conducted asylum is remarkably low, namely, 3.8 per cent., calculated on the average number resident. The recoveries were remarkably high during last year, being at the rate of 65.63 per cent.; could this ratio be maintained, and, should relapses not be frequent, the result would be gratifying to the ratepayers. Unfortunately, we find no Table which gives us a continuous history of the cases discharged. Table IV, it is true, tells us that of 1,428 admissions, 75 were relapsed cases; but it is impossible to bring this fact to bear accurately upon the 25.77 per centage of cases recovered during the same period. Some of these relapses were no doubt followed by recovery; how many we are not told; nor are we informed how many of the recovered cases were recoveries of the same person. We were under the impression that the revised Tables of the Medico-Psychological Association supplied this information, which is just the thing we want, but which is just the knowledge withheld from us in this Report. Surely a little trouble, on the part of those whom Dr. Jepson employs to make up these Tables, would be well expended on making the set complete. So, again, with the mortality. We desire to ascertain the figure giving the percentage of deaths on the average numbers resident since the asylum was opened. It is provokingly absent. True, the figures are given for each year, and the reader of the report can make a calculation for himself, and find that the result is creditable to the institution, but, for some inscrutable reason, the spaces where these figures should appear in Table III are left blank. It comes to this, therefore, that in the two most important items, recoveries and deaths, though the number of figures given in the Tables is almost bewildering, the materials for a just conclusion of the net number of persons cured are wanting, while those for the deaths are contained, indeed, in the

statistical returns, but the clerk who has prepared the tables has not taken the trouble to give the total results.

THE DEVONSHIRE HOSPITAL, BUXTON.

THE annual report for 1884 of this institution is more remarkable for its omissions than for the statistics which it gives of the number of cases treated during the year. Not a word appears in the report, or in the address of the chairman, or, as far as can be seen, in the accounts, as to the serious expenditure which has recently taken place in the endeavour to put the institution into a wholesome sanitary condition. In March, 1883, the JOURNAL published some remarks by a correspondent upon the management of the expenditure of £33,000 for "extensions," and upon the unsanitary condition of the building itself. The accuracy of these contentions was immediately and categorically denied on behalf of the Committee of Management. They have since been proved by the independent investigations of a Manchester architect and the borough surveyor, and, more recently, by the implied admissions of the Committee itself, to be true. It will be impossible, so long as the present building endures, to provide satisfactorily for the ventilation of the wards; but an endeavour has lately been made, at an expense rumoured to approach £1,500, to rectify the radical defects of drainage to which our correspondent called attention more than two years ago. Desiring to avoid adding to the present difficulties of the Committee, it may be well not to refer more at length to the scandalously bad work which the repairs and alterations have brought to light. But it is due to the JOURNAL to set on record the fact that statements which were deliberately and emphatically traversed at the time of their making have since been more than justified by the reports made to the Committee by experts of their own choosing, and by their own determination on such reports that, notwithstanding their now slender resources, the amount necessary to put the drainage right must, at all hazards, be expended.

The institution itself, regarded as an organisation, and not as a questionable architectural combination of iron and stone, is worthy of all support. The healing effects of the Buxton thermal water in all cases of rheumatism and allied affections are very remarkable. We could wish that the bathing arrangements in the "natural bath" were better and more commodious, but the Committee is not wholly to blame for this.

From May 1st, 1884, to April 30th, 1885, as many as 2,465 in-patients were admitted to the hospital, or 147 more than in the preceding twelve months; and, of these, 1,895 were discharged as improved, 392 as no better, 6 on account of drunkenness or misconduct, 12 at own request, 2 as having been unfit cases, 6 left without report, 2 were not fit objects of charity, and 6 died. Thus relief was afforded to nearly five-sixths of patients received promiscuously, on certificates of suffering from rheumatism and its allied complaints. A series of tabulated analyses of cases treated at the hospital contains an aggregate of 6,251 patients. Of these, 4,186 were cases of rheumatism proper, 550 were cases of rheumatoid arthritis, 490 were cases of sciatica, 133 were cases of gout, and the remainder were classed either as diseases of the nervous system, or under the general head of "other diseases." The average number of patients daily resident in the hospital is about 157, but the number varies very considerably according to the season of the year. Thus, from June to September of last year, there were from 250 to 260 patients always under treatment. The average number of days in hospital is 23 per patient, and the average cost per day is about 2s. 4½d. The diet is generous, and mostly unrestricted in amount.

THE GENERAL INFIRMARY AT LEEDS.

THE one hundred and seventeenth annual report of this institution states that the number of patients admitted during the year 1884 was 23,075, being the highest in any one year since the opening of the Infirmary. The number of in-patients admitted was 3,807, being an increase of 256 over the preceding year; these, with 233 remaining on December 31st, 1883, made a total of 4,040. The daily number of beds occupied was 230, and the average duration of treatment was twenty-one days. The death-rate was 5.34 per cent., or, deducting

" J. G. G. who died within forty-eight hours after admission, 4,18
 " R. G. The total number treated as out-patients was 23,806, being
 " W. H. of 2,335. Among the applicants, about 50 were re-
 " G. Cree in a position to pay for treatment. Of the patients,
 " S. C. Phillips, an invalescent homes during the year; of these, 146
 " J. M. Nicolls, an invalescent homes during the year; of these, 146
 " F. W. H. D. Hui
 Quarter-Master W. M. Kay, sent hospital at Cookridge. At this institution,
 " F. Tighe between the boards of the hospital and of the in-

firmary, twenty-three patients were admitted in November, who, though sufficiently well to be removed from continual medical supervision, were not yet sufficiently recovered to attend entirely to their own wants. They remained there until the hospital was closed, just before Christmas, under the charge of an infirmary-nurse, assisted by a ward-maid, and were visited almost daily by the resident infirmary physicians and surgeons. The result of the experiment has been such as to convince the managers of both institutions that the plan suggested is feasible; and it is hoped that, during the current year, provision may be made at Cookridge for its continuance.

The financial account of the Infirmary is satisfactory. The receipts for 1884 amounted to £16,102 11s. 11d., against £15,326 17s. 7d. in 1883, and the ordinary expenditure to £14,316 9s. 5d., against £15,693 19s. 4d. in 1883. Under the head of expenditure, we observe with satisfaction a reduction in the cost of stimulants from £201 15s. 4d. to £124 12s. 6d. The average cost of each in-patient for treatment, nursing, and maintenance was £2 15s. 4d., and of each out-patient 1s. 3½d. The Hospital Sunday collections show a total of £2,007 1s. 3½d., against £1,702 10s. 7d. in 1883; and the sums collected from workpeople in Leeds and the neighbourhood amounted to £2,391 17s. 8d., being an increase of about £250 on the previous year.

In addition, the report acknowledges with thanks a donation of £150 from the Yorkshire County Football Club, and also the sum of £468 8s. 2d., raised by the committees of several friendly societies in Yorkshire. Mention is made of the changes which took place last year in the medical staff, and which were noticed at the time in this JOURNAL.

In conclusion, it is stated that the satisfactory increase of income will enable the Board to endeavour to enlarge and improve the work of the Infirmary in its education and charitable aspects, and that even a much greater accession of revenue could be most usefully applied in this direction.

THE YORK LUNATIC ASYLUM.

THE Lunacy Commissioners, in their last inspection of this asylum, found it to be well conducted, and expressed their "satisfaction with the condition and management of the hospital." There is every reason to conclude it is in good hands, and that the patients are properly and kindly treated in every way. We regret, however, that this result is obtained by placing too heavy a burden upon the shoulders of the superintendent, Dr. Hitchcock. An institution of this size ought to have an assistant medical officer, and it appears to us that the governors are much to blame for not providing one. The ill effects of a cheese-paring policy of this kind will tell, sooner or later; or, if the tale be never told, the fact will remain. Is it to be supposed that a medical superintendent can properly attend to the individual wants of the patients, record their cases fully, and prepare the statistical tables which are required? It is absurd to expect it. We are surprised that, under the circumstances, the latter are as satisfactory as they are; but, in a future report, we hope that the totals of the last three columns of Table 3 will be filled up, or rather the average and percentages. It is of comparatively little consequence to know the results for each year, without information being afforded as to the results for the entire period to which this table refers. We regret to observe, also, that the most important table of the series, prepared by the Medico-Psychological Association, is conspicuous by its absence. We can, however, hardly expect these details to be given by an insufficiently officered asylum. We are glad to observe that the small salary given by the governors to their hard working medical superintendent has been raised; but it is still low, compared with that of similar institutions.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE SECOND QUARTER OF 1885.

THE vital and mortal statistics of the 28 towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the second quarter of this year, 72,980 births were registered in the 28 large English towns, equal to an annual rate of 32.9 per 1,000 of their aggregate population, estimated at nearly nine millions of persons. In the corresponding quarters of the three preceding years, 1882-3-4, the birth-rates in these towns were 35.1,

35.2, and 35.0 per 1,000 respectively. The birth-rate last quarter in London did not exceed 31.4 per 1,000, while it averaged 34.2 in the 27 provincial towns, among which it ranged from 25.6 in Brighton, 27.9 in Huddersfield, and 29.2 in Halifax, to 39.0 in Newcastle-upon-Tyne, 39.8 in Preston, 40.1 in Sunderland, and 41.2 in Cardiff.

The deaths in the 28 towns during the second quarter of this year were 45,818, corresponding to an annual rate of 20.6 per 1,000, which showed a further decline from the rates recorded in the corresponding quarter of the two preceding years, which were 21.5 and 20.8 per 1,000 respectively. In London the rate of mortality did not exceed 19.3 per 1,000, while in the 27 provincial towns it averaged 21.8. The lowest rates in these towns were 15.7 in Derby, 15.8 in Brighton, 18.1 in Portsmouth, and 18.2 in Hull; while they ranged upwards to 25.5 in Cardiff, 27.0 in Preston, 29.5 in Manchester, and 31.8 in Newcastle-upon-Tyne. From the principal zymotic diseases, 6,208 deaths resulted during the quarter under notice, equal to an annual rate of 2.8 per 1,000. Among the 28 towns, the lowest zymotic death-rates were 0.6 in Brighton, 0.7 in Derby, 0.8 in Bolton, and 1.0 in Halifax; in the other towns the zymotic rate ranged upwards to 4.3 in Manchester and in Blackburn, 4.6 in Cardiff and in Sunderland, and 7.1 in Newcastle-upon-Tyne. The 6,208 deaths from the principal zymotic diseases included 2,319 which resulted from measles, 1,586 from whooping-cough, 599 from diarrhoea, 473 from small-pox, 458 from fever (principally enteric), 423 from scarlet fever, and 350 from diphtheria. The 2,319 fatal cases of measles registered in these 28 towns were equal to an annual rate of 1.05 per 1,000, which showed a considerable increase upon the rate recorded in the first quarter of the year; in London the measles death-rate was 1.17 per 1,000, while among the provincial towns the highest rates of mortality from this disease were returned in Liverpool, Manchester, Sunderland, and Newcastle-upon-Tyne. In the last-mentioned town no fewer than 198 deaths resulted from measles during the quarter, equal to an annual rate of 5.19 per 1,000. The rate of mortality from whooping-cough, which had been 0.38 and 0.68 per 1,000 in the two preceding quarters, further rose to 0.71 during the three months ending June last; this disease was somewhat less prevalent in London than in the aggregate of the provincial towns, among which whooping-cough was proportionally most fatal in Oldham, Cardiff, Plymouth,

and Blackburn. The death-rate from diarrhoeal diseases last quarter was equal to 0.27 per 1,000, and corresponded with that recorded in the same quarter of 1884. The rate of mortality from "fever" corresponded with the low rate in the first quarter of this year, which was the lowest on record; this disease caused the highest rates in Portsmouth, Salford, and Norwich. The death-rate from scarlet fever, which had been 0.41, 0.40, and 0.26 per 1,000 in the three previous quarters, further declined during the quarter under notice to 0.19, a rate considerably lower than has been recorded in these towns in any preceding quarter; this disease was proportionally most prevalent in Leicester, Wolverhampton and Sunderland. The rate of mortality from diphtheria was equal to 0.16 per 1,000, and also showed a further decline from the rates in recent quarters; this disease was considerably more fatally prevalent in London than in the provincial towns, among which, however, the diphtheria death-rate was somewhat excessive in Portsmouth and Cardiff. Of the 473 deaths from small-pox recorded in the 28 towns last quarter, 420 were registered in London, 20 in Manchester, 19 in Liverpool, 8 in Sunderland, 7 in Hull, and 5 in Sheffield. The number of small-pox patients in the Metropolitan Asylum Hospitals, which was 879 at the beginning of April, increased to 1,389 at the end of May, and then steadily declined to 859 at the end of the quarter. The number of new cases admitted weekly to these hospitals averaged 273 in April, 270 in May, and 160 in June.

The rate of infant mortality in the 28 towns last quarter, measured by the proportion of deaths of children under 1 year of age to births registered, was equal to 147 per 1,000, against 136 and 137 in the corresponding periods of 1883 and 1884. The rate in London did not exceed 139 per 1,000, while in the 27 provincial towns it averaged 154, and ranged from 94 in Derby, 101 in Brighton, and 115 in Portsmouth, to 198 in Newcastle-upon-Tyne, 203 in Blackburn, and 215 in Preston.

The causes of 1,040, or 2.3 per cent. of the 45,818 deaths registered in the 28 towns last quarter were not certified, either by registered medical practitioners or by coroners. In London the proportion of uncertified deaths was only 1.2 per cent., whereas in the provincial towns it averaged 3.1, ranging from 0.7 in Plymouth, and 1.1 in Brighton and in Derby, to 5.8 in Oldham, 6.3 in Hull, and 6.4 in Halifax.

Public Health Statistics relating to Twenty-eight Large English Towns, for the Second Quarter of 1885.

Towns.	Estimated Population middle of 1885.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Zymotic Diseases.										
28 Towns	8,906,446	72,980	45,818	32.9	20.6	2.8	6,208	473	2,319	423	350	1,586	458	599	147	2.3
27 Provincial Towns	4,822,518	41,067	26,143	34.2	21.8	2.6	3,153	53	1,133	285	137	924	203	328	154	3.1
London	4,083,928	31,913	19,675	31.4	19.3	3.0	3,055	420	1,186	138	213	662	165	271	139	1.2
Brighton	114,672	732	452	25.6	15.8	0.6	16	—	—	—	6	2	7	1	101	1.1
Portsmouth	134,659	1,112	608	33.1	18.1	1.6	53	—	—	—	20	8	18	7	114	1.2
Norwich	91,215	731	438	32.2	19.3	1.5	34	—	—	1	1	4	24	4	140	2.3
Plymouth	76,045	596	417	31.5	22.0	2.9	55	—	1	1	2	46	5	—	164	0.7
Bristol	218,169	1,746	1,043	32.1	19.2	2.4	133	12	60	4	5	45	6	11	143	2.6
Wolverhampton	79,185	667	379	33.8	19.2	1.3	25	—	—	13	—	5	2	5	157	2.6
Birmingham	427,769	3,531	2,120	33.1	19.9	1.3	143	—	24	5	7	67	7	33	158	2.3
Leicester	136,147	1,191	613	35.1	18.1	2.1	72	—	—	22	5	12	12	14	160	2.4
Nottingham	211,424	2,003	997	38.0	18.9	1.5	78	—	9	7	1	30	15	16	142	1.8
Derby	89,691	778	351	34.8	15.7	0.7	16	—	—	7	1	5	—	3	94	1.1
Birkenhead	93,093	838	496	36.1	21.4	3.5	82	—	43	3	3	29	1	3	137	3.6
Liverpool	579,724	4,876	3,410	33.8	23.6	3.7	530	9	275	38	28	102	38	40	159	4.6
Bolton	110,085	881	516	32.1	18.8	0.8	22	—	3	3	1	2	4	9	133	2.7
Manchester	337,342	3,105	2,482	36.9	29.5	4.3	362	20	182	10	5	101	17	27	182	2.0
Salford	204,075	1,682	1,054	33.1	20.7	3.1	156	—	48	20	2	39	28	19	149	4.2
Oldham	126,390	1,130	729	35.9	23.1	2.1	66	—	1	5	4	42	4	10	167	5.8
Blackburn	112,574	979	706	34.9	25.2	4.3	121	—	—	6	—	94	8	13	203	3.0
Preston	100,406	996	675	39.8	27.0	2.8	69	—	1	12	7	29	6	14	215	1.8
Huddersfield	87,327	607	474	27.9	21.8	1.6	35	—	18	2	2	9	1	3	155	3.0
Halifax	77,738	563	391	29.2	20.3	1.0	19	1	5	5	1	6	4	2	132	6.4
Bradford	214,431	1,571	1,017	29.4	19.0	1.4	76	—	5	5	2	50	8	6	147	1.6
Leeds	333,139	2,799	1,682	33.7	20.3	1.5	127	1	3	42	4	41	18	18	134	2.0
Sheffield	305,716	2,600	1,711	34.1	22.5	3.7	285	5	138	14	2	88	18	20	159	6.1
Hull	186,292	1,616	843	34.8	18.2	1.1	50	7	2	4	4	11	5	17	123	6.3
Sunderland	125,327	1,252	708	40.1	22.7	4.6	145	8	68	37	4	7	10	11	143	3.4
Newcastle-on-Tyne	163,209	1,489	1,214	39.0	31.8	7.1	271	—	198	20	5	18	15	15	198	2.4
Cardiff	97,034	996	617	41.2	25.5	4.6	112	—	40	5	16	32	12	7	172	1.5

HEALTH OF ENGLISH TOWNS.

In the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,331 births and 3,011 deaths were registered during the week ending the 27th ult. The annual rate of mortality, which had declined in the five preceding weeks from 21.1 to 18.3 per 1,000, further fell in the week to 17.6. The rates in the several towns, ranged in order from the lowest, were as follow:—Derby, 11.1; Bristol, 12.0; Nottingham, 12.6; Hull, 12.9; Wolverhampton, 13.2; Brighton, 13.6; Preston, 15.1; Leicester, 15.7; Bolton, 16.1; Huddersfield, 16.1; Blackburn, 16.2; London, 16.3; Birmingham, 16.5; Portsmouth, 16.7; Norwich, 17.2; Oldham, 17.3; Salford, 17.9; Sunderland, 18.3; Bradford, 18.7; Leeds, 20.0; Sheffield, 20.5; Liverpool, 21.3; Birkenhead, 21.3; Plymouth, 21.3; Cardiff, 21.5; Halifax, 22.8; Newcastle-upon-Tyne, 28.6; and Manchester, 30.6. In the 27 provincial towns, the death-rate averaged 18.7 per 1,000, and exceeded by 2.4 the rate recorded in London. The 3,011 deaths registered during the week in the 28 towns included 157 which resulted from measles, 106 from whooping-cough, 70 from diarrheal diseases, 36 from scarlet fever, 32 from "fever" (principally enteric), 28 from diphtheria, and 19 from small-pox; in all, 448 deaths were referred to the principal zymotic diseases, against 430 and 455 in the two preceding weeks. The zymotic death-rate was equal to 2.6 per 1,000. In London, the zymotic death-rate was 3.0; while it averaged only 2.3 per 1,000 in the 27 provincial towns, among which the zymotic rates ranged from 0.0 in Brighton and in Derby, to 3.9 in Birkenhead, 4.1 in Newcastle-upon-Tyne, and 4.6 in Manchester. The deaths referred to measles, which had been 178 and 187 in the two previous weeks, declined to 157, and caused the largest proportional fatality in Sheffield, Newcastle-upon-Tyne, and Manchester. The 106 fatal cases of whooping-cough showed a slight further increase upon recent weekly numbers; this disease caused the highest rates in Birkenhead, Plymouth, and Blackburn. The 70 deaths referred to diarrheal diseases also showed a further increase upon the numbers recorded in the three preceding weeks. The fatal cases of scarlet fever, which had declined in the three previous weeks from 31 to 25, rose again in the week to 36; this disease was proportionately most fatal in Sunderland. The 32 deaths referred to "fever" were within two of the number returned in the preceding week, and caused the highest rate in Norwich. The 28 fatal cases of diphtheria exceeded by three the number recorded in the previous week, and included 14 in London, four in Portsmouth, two in Liverpool, and two in Leeds. Of the 19 deaths from small-pox in the 28 towns, 13 occurred in London (exclusive, however, of 15 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside registration London), three in Liverpool, one in Manchester, one in Sheffield, and one in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,222 and 1,219 at the end of the two preceding weeks, declined to 1,000 on June 27th; 134 new cases were admitted to these hospitals during the week, against 197 and 190 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was considerably below the average. The causes of 59, or 2.0 per cent., of the 3,011 deaths registered during the week in the 28 towns were not certified, either by registered medical practitioners or by coroners.

During the week ending July 4th, 5,521 births and 3,070 deaths were registered in the 28 English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons, living in these towns, which had declined in the six preceding weeks from 21.1 to 17.6, rose again to 18.0. The rates in the several towns, ranged in order from the lowest, were as follows:—Birmingham, 12.8; Bradford, 13.4; Bristol, 13.6; Nottingham, 14.1; Brighton, 14.1; Leicester, 14.6; Hull, 15.4; Portsmouth, 15.5; Bolton, 15.6; Derby, 16.3; Plymouth, 16.5; Birkenhead, 16.8; London, 17.5; Norwich, 17.7; Sunderland, 18.7; Wolverhampton, 19.1; Leeds, 19.7; Huddersfield, 19.7; Cardiff, 19.9; Oldham, 20.6; Liverpool, 21.1; Preston, 21.3; Sheffield, 21.5; Salford, 21.5; Blackburn, 21.8; Newcastle-upon-Tyne, 23.5; Manchester, 24.4; and Halifax, 27.6. The death-rate for the week in the 27 provincial towns, averaged 18.4 per 1,000, and exceeded by 0.9 per 1,000 the rate recorded in London. The 3,070 deaths registered during the week in the 28 towns, included 474 which were referred to the principal zymotic diseases, against 455 and 448 in the two preceding weeks; of these, 145 resulted from measles, 128 from whooping-cough, 97 from diarrheal diseases, 29 from scarlet fever, 27 from small-pox, 24 from diphtheria, and 24 from "fever" (principally enteric or typhoid). These 474 deaths were equal to an annual rate of 2.8 per 1,000. The zymotic death-rate in London was equal to 3.3 per 1,000; while in the 27 provincial towns it averaged only 2.4, and ranged from 0.5 in Brighton, and 0.6 in Norwich and Hull, to 4.6 in Salford and in Blackburn, and 5.0 in Birkenhead. The deaths referred to measles, which had been 187 and 157 in the two preceding weeks, further declined to 145, and showed the largest proportional fatality in Birkenhead, Manchester, and Newcastle-upon-Tyne. The fatal cases of whooping-cough, which had risen in the three previous weeks from 102 to 106, further increased during the week to 128; this disease caused the highest death-rates in Salford, Birkenhead, and Blackburn. The 97 deaths referred to diarrheal diseases showed a considerable further increase upon recent weekly numbers. The 29 fatal cases of scarlet fever showed a decline of seven from the number returned in the preceding week, and caused the highest proportional fatality in Leicester and Sunderland. The deaths from "fever," which had been 34 and 32 in the two previous weeks, declined to 24, and were fewer than those returned in any recent week; this disease was somewhat fatally prevalent in Cardiff. The 24 fatal cases of diphtheria in the 28 towns were within four of the number in the preceding week, and included 18 in London and two in Portsmouth. Of the 27 deaths from small-pox, 26 occurred in London (exclusive, however, of 13 deaths of London residents, from this disease, which were registered in the Metropolitan Asylum Hospitals, situated outside registration London), and one in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the two preceding weeks from 1,222 to 1,000, had further fallen to 859 on July 4th, the admissions during the week, which had been 193 and 134 in the two previous weeks, further declined to 94. The death-rate from diseases of the respiratory organs in London was equal to 2.4 per 1,000, and was below the average. The causes of 65, or 2.1 per cent., of the 3,070 deaths registered during the week, in the 28 towns, were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending the 27th ultimo, 857 births and 497 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 20.6 and 20.8 per

1,000 in the two preceding weeks, declined again to 20.4, but exceeded by as much as 2.8 per 1,000 the average rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 15.0 in Perth, 15.4 in Edinburgh, 16.1 in Aberdeen, 16.7 in Leith, 17.7 in Dundee, 21.2 in Greenock, 24.3 in Glasgow, and 28.1 in Paisley. The 497 deaths registered in the week, in these Scotch towns included 48 which were referred to the principal zymotic diseases, against 63 and 64 in the two preceding weeks; of these, 14 resulted from whooping-cough, 13 from measles, eight from scarlet fever, six from diarrhoea, four from diphtheria, three from "fever" (principally enteric), and not one from small-pox. These 48 zymotic deaths were equal to an annual rate of 2.0 per 1,000, which was 0.6 below the average zymotic death-rate in the 28 large English towns. The highest zymotic rates during the week in these Scotch towns were recorded in Dundee, Paisley, and Glasgow. The 14 fatal cases of whooping-cough showed a further decline from the numbers returned in the four preceding weeks, and included 10 in Glasgow, and two in Dundee. The deaths from measles, which had been 13 and 17 in the two previous weeks, declined again to 13 of which 10 occurred in Glasgow, and two in Paisley. The eight fatal cases of scarlet fever showed a further increase upon recent weekly numbers, and included seven in Glasgow. Of the four deaths from diphtheria, two occurred in Glasgow, one in Dundee, and one in Leith. The mortality from "fever" was lower than that recorded in any recent week. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 3.0 per 1,000, against 2.3 in London. As many as 71, or 14.3 per cent., of the 497 deaths registered during the week in these Scotch towns were uncertified.

In the principal Scotch towns, having an estimated population of 1,274,607 persons, 874 births and 468 deaths were registered during the week ending the 4th instant. The annual rate of mortality, which had been 20.8 and 20.4 per 1,000 in the two preceding weeks, further declined to 19.2, but exceeded by 1.2 per 1,000 the average rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 9.1 in Leith, 14.2 in Aberdeen, 14.9 in Perth, 15.6 in Edinburgh, 21.1 in Glasgow, 23.1 in Dundee, 24.0 in Greenock, and 24.6 in Paisley. The 468 deaths registered during the week in these towns included 21 which were referred to whooping-cough, 16 to diarrhoea, nine to measles, eight to scarlet fever, two to diphtheria, one to "fever," and not one to small-pox; in all, 57 deaths resulted from these principal zymotic diseases, against 64 and 48 in the two preceding weeks. These 57 deaths were equal to an annual rate of 2.4 per 1,000, which was slightly below the average zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates in the Scotch towns were recorded in Glasgow, Leith, and Paisley. The deaths from whooping-cough, which had steadily declined in the five preceding weeks from 27 to 14, rose again to 21, and included 12 in Glasgow and three in Paisley. The fatal cases of diarrhoea exceeded those returned in the corresponding week of last year. The deaths from measles, which had been 17 and 13 in the two preceding weeks, further declined to nine, of which eight were recorded in Glasgow. The eight fatal cases of scarlet fever corresponded with the number in the previous week, and included five in Glasgow. Of the two deaths from diphtheria, one occurred in Greenock, and one in Leith; and the fatal case of fever was returned in Paisley. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.8 per 1,000, against 2.4 in London. As many as 67, or 14.3 per cent., of the 468 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending June 27th, the number of deaths registered in the 16 principal town-districts of Ireland was 443. The average annual death-rate represented by the deaths registered was 26.8 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 31.0; Belfast, 29.7; Cork, 32.4; Drogheda, 12.7; Dublin, 26.4; Dundalk, 21.8; Galway, 16.8; Kilkenny, 12.7; Limerick, 16.2; Lisburn, 20.0; Londonderry, 19.6; Lurgan, 25.7; Newry, 35.1; Sligo, 28.9; Waterford, 30.1; Wexford, 17.1. The deaths from the principal zymotic diseases were equal to an annual rate of 4.0 per 1,000, the rates varying from 0.0 in 10 of the districts to 7.8 in Belfast; the 125 deaths from all causes registered in the last named district comprising 26 from measles, 2 from scarlatina, 1 from whooping-cough, and 4 from diarrhoea. In the Dublin registration-district the deaths registered during the week amounted to 186. Thirty-five deaths from zymotic diseases were registered; they comprised one from small-pox, seven from measles, four from scarlet fever, four from typhus, five from whooping-cough, six from enteric fever, etc. Twenty-six deaths from diseases of the respiratory system were registered in Dublin during the week; they comprised 16 from bronchitis, and 7 from pneumonia. Seventeen deaths (including those of 14 infants under one year old) were ascribed to convulsions. Four deaths were caused by apoplexy, two by epilepsy, seven by other diseases of the brain and nervous system (exclusive of convulsions), and 14 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 19 deaths, and mesenteric disease five. Three accidental deaths, and one case of infanticide were registered. In two instances the cause of death was "uncertified," and in 28 other cases there was "no medical attendant."

In the week ending July 4th, the number of deaths registered in the 16 principal town-districts of Ireland was 470. The average annual death-rate represented by the deaths registered was 28.4 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 20.7; Belfast, 31.6; Cork, 35.0; Drogheda, 25.4; Dublin, 28.8; Dundalk, 13.1; Galway, 16.8; Kilkenny, 26.1; Limerick, 36.7; Lisburn, 19.3; Londonderry, 8.9; Lurgan, 20.5; Newry, 35.1; Sligo, 24.1; Waterford, 18.9; Wexford, 12.8. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 4.5 per 1,000, the rates varying from 0.0 in 12 of the districts to 10.5 in Belfast; the 133 deaths from all causes registered in that district comprising 33 from measles, 8 from whooping-cough, and 3 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 200. Thirty-two deaths from zymotic diseases were registered in Dublin; they comprised three from measles, eight from scarlet fever, six from whooping-cough, two from diphtheria, four from cerebro-spinal fever, four from enteric fever, etc. Twenty-nine deaths from diseases of the respiratory system were registered; they comprised 15 from bronchitis and eight from pneumonia. The deaths of nine children (including eight infants under one year old) were ascribed to convulsions. Seven deaths were caused by apoplexy, three by epilepsy, 13 by other diseases of the brain and nervous system (exclusive of convulsions), and seven by diseases of the circulatory system. Phthisis caused 31 deaths, mesenteric disease eight, tubercular meningitis seven, and cancer five. Six accidental deaths were registered, three of which were

caused by fractures and contusions, and three by drowning. In two instances, the cause of death was "uncertified," and in 20 other cases there was "no medical attendant."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Physiology at a meeting of the Board of Examiners on the 9th instant.

J. H. Gordon, and W. Rennie, of the Birmingham School; A. M. Barford, T. H. Valentine, A. W. Hogg, and H. Nichol, of St. Bartholomew's Hospital; G. H. Trenfield, and A. D. Owen, of the Bristol Medical School; G. W. Pettinger, and H. Birkenhead, of the Manchester School; H. L. Hudson, of the Sheffield School; J. A. Eytton-Jones, of the Liverpool School; W. H. Hillier, and L. Franklin, of St. George's Hospital; W. H. F. Goodwin, of Westminster Hospital; W. Mortimer, and F. J. Oxley, of the London Hospital; A. S. Taylor, of the Newcastle-on-Tyne School.

Eleven candidates were referred for three months, and six for six months.

The following gentlemen passed in Anatomy and Physiology on the 10th instant.

E. Evans, of St. Bartholomew's Hospital; W. Vost, and D. T. MacLeod, of the Glasgow School; E. A. Clarke, C. Pearce, and G. B. Howe, of the Manchester School; G. I. Lough, E. S. Leiver, H. P. Sloggett, and J. Murray, of the Dublin School; T. S. Dennison, and C. W. Smetton, of the Leeds School; P. J. Fletcher, of the Birmingham School; J. Mitchell, of the Liverpool School; E. Ward, of the Bristol School.

The following gentlemen passed in Anatomy only.

A. E. Vaughan, of the Manchester School; C. H. Stevens, of University College; M. H. Haunigan, of the Dublin School; R. S. M. Groves, of the Birmingham School; G. B. Procter, of the Liverpool School.

The following gentlemen passed in Physiology only.

A. G. N. Goldney, Charing Cross Hospital; I. C. McLearn, and H. Woods, of the Dublin School.

Ten candidates were referred for three months, and eight for six months.

The following gentlemen passed their primary examinations in Anatomy and Physiology on the 13th instant.

A. R. P. Sanderson, of the Newcastle-on-Tyne School; T. Wilson-Smith, W. S. Cameron, and H. P. Ainsworth, of Guy's Hospital; A. P. Lange, of King's College; W. E. Stevens, and H. J. Thomas, of the Bristol School; E. P. Daniell, of University College; R. S. Charley, of Westminster Hospital; T. G. Carr, of the Manchester School; N. C. Slater, of the Liverpool School; D. McD. L. Campbell, H. de Vere Stapcoole, of St. Mary's Hospital; A. B. Blaikie, of the Cambridge School; T. W. Bevan, of St. Bartholomew's Hospital; W. B. Nelson, of Middlesex Hospital; P. W. Style, of the London Hospital; G. B. French, of the Edinburgh School.

The following gentlemen passed in Anatomy only.

N. Nelson, of the Dublin School; G. Alexandre, Basle; W. D. Wells, of King's College Hospital; F. B. H. Caudwell, of Charing Cross Hospital; A. C. A. Lovegrove, of Westminster Hospital; C. R. Adams, of St. Thomas's Hospital; W. G. Thorpe, of Guy's Hospital; G. H. Thompson, of St. Bartholomew's Hospital.

The following gentlemen passed in Physiology only.

D. J. P. McNabb, of the Newcastle-on-Tyne School; T. J. Bokenham, of St. Bartholomew's Hospital; T. A. F. Quirk, of the Melbourne School.

Eleven candidates were referred for three months, and ten for six months.

The following gentlemen passed on the 14th instant.

R. F. Bate, of Charing Cross Hospital; E. S. Robinson, and H. H. A. Jones, of the London Hospital; H. B. Marriott, and R. G. P. Lansdowne, of Guy's Hospital; H. Symonds, of St. Bartholomew's Hospital; A. W. Boning, C. A. Locke, and P. R. Ponsford, of University College; H. Laying, of Westminster Hospital; J. Griffiths, of King's College; S. B. C. De Butts, of St. Mary's Hospital.

The following gentlemen passed in Anatomy only.

G. E. Price, and E. Carter, of the London Hospital; J. More, of St. Bartholomew's Hospital; M. H. Vinrace, of the Birmingham School; J. Harrison, of St. Mary's Hospital.

The following gentlemen passed in Physiology only.

11. B. Shillingford, and A. R. Jessop, of Guy's Hospital; F. Brightman, of University College; H. L. Edden, and G. E. G. Metcalfe, of St. Bartholomew's Hospital; R. Roberts, of Middlesex Hospital; S. C. Skipton, and R. W. Logan, of St. Thomas's Hospital; F. A. Nicholas, of Westminster Hospital; C. W. Hopwell, of King's College.

Fourteen candidates were referred for three months, and ten for six months.

The following gentlemen passed on the 15th instant.

J. C. Gilmour, W. F. A. Clowes, and R. T. Temple, of Guy's Hospital; E. W. Williams, of the London Hospital; C. D. Keer, of St. Thomas's Hospital; H. W. Newton, of St. Bartholomew's Hospital; J. Rees, and R. Hill, of Middlesex Hospital; H. W. G. Green, of Westminster Hospital; H. W. Elpwick, C. Wade, S. S. Swift, of University College; C. H. Duncan, of Charing Cross Hospital.

The following gentlemen passed in Anatomy only.

P. K. O'Brien, of University College; R. F. Gordon, of St. George's Hospital; G. Barton, and J. Ash, of Charing Cross Hospital; F. T. Troughton, of Guy's Hospital; C. S. Fisher, of St. Bartholomew's Hospital; O. W. Andrews, of St. George's Hospital; W. J. Middleton, and F. S. Jermaine-Latham, of St. Bartholomew's Hospital.

The following gentlemen passed in Physiology only.

A. C. Elliman, of Guy's Hospital; G. H. T. Harden, of University College; E. J. Gross, of St. Thomas's Hospital.

Ten candidates were referred for three months, and seven for six months.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentleman passed the Second Examination in Anatomy and Physiology of the Conjoint Examining Board on the 15th instant.

T. N. Wright, of Guy's Hospital.

The following gentleman passed in Physiology only.

W. P. Smart, of Guy's Hospital; W. L. Abbott, Pennsylvania.

One candidate was referred for three months, and two for six months.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the quarterly examinations for the Membership of the College, held on Tuesday and Friday, July 7th and 10th, 1885, the undermentioned candidates were successful.

C. E. FitzGerald, M.D. Univ. Dub., Lic. Med. 1884, Dublin; W. C. Neville, M.D. Univ. Dub., Lic. Med. 1884, Dublin.

At the quarterly First Professional Examination, held on Monday, July 6th, and following days, the undermentioned candidates passed.

M. Crawley, J. Crossfield, A. E. Dyas, L. E. Goodman, A. J. Harwood, J. L. J. Haskew, A. M. MacPhail.

At a special examination for the Licence in Medicine, held on Monday and Tuesday, June 22nd and 23rd, the following candidate was successful.

J. Chambers, Dublin.

At the ordinary monthly examination for the Licences in Medicine and Midwifery, held on Monday, July 6th, and following days, the undermentioned candidates were successful.

Licences to practise Medicine and Midwifery.—R. H. Arthur, M.D. McGill University, Montreal; A. G. Beale; B. Blakemore; E. Carnall; W. G. Connor; F. E. H. Daunt; J. B. Delany; H. J. Flanagan; M. St. L. Harford; T. W. Heywood; D. Humphreys; J. G. Laing; J. M. Maclean, M.D. Univ. New York; T. A. Mulcahy; W. J. Neale; W. J. Russell; A. Stewart; J. Whyte; J. H. Woods.

Licence to practise Medicine only.—L. P. Banks; L. A. F. Bate; J. Empson; J. E. R. Grant; C. G. Jackson; J. P. James; C. T. Jones; R. C. Nicholls; R. Richards; F. H. Sinclair; S. H. Steele; D. D. Tate; R. H. Vereker.

Licence to practise Midwifery only.—J. T. Daly, M.B.R.U.I.; C. C. Dickson; N. Smyth, M.D.R.U.I.

MEDICAL VACANCIES.

The following vacancies are announced.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, Warwick Square, S.W.—House-Surgeon. Applications by July 20th.

BIRMINGHAM BOROUGH ASYLUM—Resident Clinical. Applications to E. B. Whitcombe, Superintendent.

BRISTOL DISPENSARY—Two Medical Practitioners. Applications to Mr. E. Stock, 57, Queen Square, Bristol, by August 6th.

BRISTOL MEDICAL SCHOOL—Medical Tutor. Salary, £100 per annum. Applications by July 22nd.

CHELSEA PARISH—Assistant Medical Officer. Salary, £100 per annum. Applications by July 28th.

CITY AND COUNTY LUNATIC ASYLUM, Stapleton, Bristol.—Clinical Clerk. Applications to Dr. G. Thompson, Medical Superintendent.

COTON HILL LUNATIC HOSPITAL, Stafford.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 8th.

DEACONESSES' INSTITUTION AND HOSPITAL, The Green, Tottenham.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Laserson, Tottenham, by August 1st.

DONEGAL UNION—Medical Officer, Laghey Dispensary. Salary, £120 per annum, and fees. Applications to Mr. Wm. Hammond, Honorary Secretary. Election on July 20th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Assistant-Physician. Applications by July 30th.

EDMONTON UNION—Medical Officer for the parish of Cheshunt. Applications by July 29th.

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £100 per annum. Applications to F. Brown, 46, Atholl Street, Douglas, by August 10th.

MANCHESTER ROYAL INFIRMARY DISPENSARY AND LUNATIC ASYLUM—Honorary Obstetric Physician. Applications to the Chairman of the Board by July 18th.

MANCHESTER ROYAL INFIRMARY, MONSALL FEVER HOSPITAL—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiology. Applications by August 26th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to R. Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 1st.

OWENS COLLEGE, Manchester.—Demonstrator in Anatomy. Salary, £125 per annum. Applications by July 23rd.

PARISH OF BIRMINGHAM—Three Temporary District Medical Officers. Salary, £400 per annum each. Applications by July 23th.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Resident Medical Officer. Salary, £120 per annum. Applications by August 1st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Dental Surgery. Applications by July 30th.

ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £150 per annum. Applications by July 18th.

ROYAL INFIRMARY, Ryde, Isle of Wight.—House-Surgeon and Secretary. Salary, £60 per annum. Applications by July 28th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Mines, Blumer.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Physician. Applications by July 28th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by July 25th.

WHITTINGHAM COUNTY ASYLUM, Preston.—Assistant Medical Officer. Applications by July 20th.

YORK COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum. Applications to R. Holthby, 5, New Street, York, by July 25th.

MEDICAL APPOINTMENTS.

CULLINGWORTH, C. J., M.D., M.R.C.P., appointed Professor of Obstetrics and the Diseases of Women at the Owens College, Manchester, *vice* John Thorburn, M.D., F.R.C.P., deceased.

DENBY, T. Curtis, M.D. Bux., M.R.C.S., appointed Honorary Surgeon to the Bradford Infirmary.

DUTTON, Thomas, M.D., M.R.C.P. Edin., appointed London Consulting Physician to Mont Dore Company (Limited), Newton Dale, for five years.

GARDNER, T. Fred, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., appointed Honorary Surgeon to the Bourne-mouth Cottage Hospital, *vice* G. M. Hiron, L.R.C.S., L.R.C.P. Edin., L.S.A., resigned.

HEWITT, Frederic W., B.A., M.B. Cantab., appointed Anaesthetist to the Royal Hospital for Children and Women, Waterloo Bridge Road.

HEWLEY, Frank, M.R.C.S., L.S.A., appointed Clinical Assistant to the Royal South London Ophthalmic Hospital.

PATERSON, W. B., M.R.C.S., L.D.S. (final F.R.C.S. examination), appointed Dental Surgeon to St. Bartholomew's Hospital.

POGSON, W., F.R.C.S., L.R.C.P. Edin., reappointed Medical Officer of Health for the Leeds Rural Sanitary District.

POLLARD, Reginald, M.B., M.R.C.S., appointed House-Surgeon to the Burton-on-Trent Infirmary, *vice* A. C. Keep, resigned.

WILLIAMSON, John, M.B., C.M., appointed House-Surgeon to the Richmond Hospital, Surrey, *vice* Mr. Shaw, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

VOKES.—On July 6th, at 250, Brearley Street, Birmingham, the wife of Charles Vokes, surgeon, of a son.

MARRIAGES.

SANDERS—BARTLETT.—On July 13th, at Holy Trinity, Clouesley Square, by the Rev. C. W. R. Higham, B.A., assisted by the Rev. E. E. Harding, M.A., Charles Sanders, M.B. Lond., M.R.C.S.E., second son of F. F. Sanders of Cheshunt, to Mary (Polly), eldest daughter of W. Bartlett of Guildford.

WEBSTER—DAVIS.—On July 14th, at St. Andrew's, Dowles, Salop, by the Rev. J. R. Burton, B.A., Trevor Webster, M.R.C.S. Eng., etc., of Bowdley, Worcestershire, eldest son of the late Cecil Webster, M.R.C.S., to Constance Alathen, sixth daughter of the late Peter Davis of Bicknarch Hall, Warwickshire.

DEATH.

ALLEN.—On July 14th, at his residence, Mooroot, Didsbury, Richard Allen, surgeon, in his 76th year. To be interred at the Manchester Southern Cemetery on Saturday at 12 o'clock.

A MEETING of the Governors of the Hastings and St. Leonards and East Sussex Infirmary, at which were present an influential representation of the gentry of the town and district, was held on Tuesday afternoon, for the purpose of considering the question of rescinding the resolution which they had passed, two years ago, accepting certain premises at St. Michaels as a home for convalescent patients in connection with the new hospital. Eventually, by an unanimous vote, it was decided that the governors were not in a position to maintain the home; and that, consequently, the munificent gift should be returned with thanks to the Misses Briscoe, the generous donors.

HOSPITAL SATURDAY IN BIRMINGHAM.—The recent Hospital Saturday collection has reached £6,554. The following sums have been paid to the various charities: General Hospital, £2,124; Queen's Hospital, £1,135; General Dispensary, £693; Children's Hospital, £570; Eye Hospital, £434; Sanatorium, £251; Women's Hospital, £214; Lying-in Charity, £75; Orthopaedic Hospital, £190; Ear and Throat Infirmary, £61; Dental Hospital, £12; Skin and Lock Hospital, £79; Nursing Society, £35. The collection is the largest ever made in the town.

The Library and Museum of the Royal College of Surgeons of England will be closed on Tuesday, July 21st, for the purposes of the Final Examination for the Membership.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 p.m.—Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopaedic, 2 p.m.—Hospital for Women, 2 p.m.

TUESDAYSt. Bartholomew's, 1.30 p.m.—Guy's, 1.30 p.m.—Westminster, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 3 p.m.—St. Mark's, 9 a.m.—St. Thomas's (Ophthalmic Department), 4 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

WEDNESDAY ..St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Great Northern Central, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2 p.m.—National Orthopaedic, 10 a.m.—King's College, 3 to 4 p.m.

THURSDAY ...St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.—North-west London, 2.30 p.m.—Chelsea Hospital for Women, 2 p.m.

FRIDAYKing's College, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—East London Hospital for Children, 2 p.m.

SATURDAYSt. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skir., M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eyr., M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.80; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CHRONIC ATONY OF THE BLADDER.

SIR,—Will some correspondent inform me what treatment, if any, is useful in a case of chronic atony of the bladder, the patient suffering from no other symptoms whatever. The condition has existed for many years. The patient's age is about 40. He is able voluntarily to partly empty the bladder, but always leaves a residue of about six ounces which he evacuates by means of a No. 13 catheter, which he passes three or four times a day. I have given ergot and nuxvomica, dilute acid, and other tonics, but without any effect. I should be glad of any suggestion which would be of use in relieving this troublesome case.—I am, Yours faithfully,

AN OLD MEMBER.

THE DETERMINATION OF PERSONAL IDENTITY.

SIR,—In all books dealing methodically with the topic of medical jurisprudence, attention is directed to that division of the subject which treats of legal identification and its related particulars. The rules and usages by which the procedure is governed are primitive, but of long antiquity.

Whether before the accredited officer of the Crown, the county coroner, or before the courts of criminal law, the corporal presence of the individual touching whom the inquiry is on foot is an indispensable preliminary. "If the body be not found, the coroner cannot sit," says Blackstone. "An inspection of the body is the essence of the inquiry," observes Dr. Taylor, in *Principles of Medical Jurisprudence*.

Upon occasion, in the courts of civil procedure also, the question of identity becomes the essential feature of the investigation. It is the real issue submitted to the adjudicators. In such instances, says Dr. Beck, "the whole evidence turns on the question of identity." Stature, temperament, marks upon the person, colour of the hair, colour of the eyes, general resemblance, these have heretofore been the ordinary elements, of the physiological sort, upon which a conclusion has been based.

When and where photographic portraiture was first introduced to the notice of the courts, does not already appear. Certainly, it has not been received with undeviating reliance; for the photographic presentment sometimes differs very materially to the eye from the personal reality. Witnesses, upon their oath, have sometimes been requested to pronounce upon resemblances from which, under ordinary circumstances, they would have shrunk in bewildered uncertainty.

Yet, when considered from the standpoints (1) of their perfect accuracy of delineation; (2) of their minutely true reproduction of the proportionate areas occupied by the several features; and (3) of the apparent permanence, in adult life, of those proportionate areas, there would, certainly, appear to be no insurmountable reason why photographs might not be subjected to tests of a severe scientific nature.

There are three or four indispensable conditions to be accepted by scientists, preliminary to such a consummation: 1, a due recognition of the permanence of the essential particulars of a given face; 2, of the greater or less divergence of all other faces whatsoever from the permanent particulars of the face in question; 3, the requisite reliability of a unit of admeasurement that shall similarly be (a) permanent in a given face; (b) discrepant, more or less, in all other faces; 4, the accredited presence of a sufficiently undeviating horizontal plane, to afford an available *zero* or *datum* line.

Now in order to maintain the proposition that a given adult face is permanent in its chief particulars, needs but the obvious reflection (1) that when a man ceases growing, the bones of his face cease growing at the same time as all the rest; (2) that when the bones of the face cease growing, the several features, thence forward, retain in permanence their original *locus in quo*.

It should be admitted at once that the requisite unit of the admeasurement must, necessarily, be sought in the face itself; for, by this expedient, the varying magnitudes of photographic portraits are effectually provided for. Hence the adaptability of the coloured circle of the eye for the desired purpose. 1, It is well defined at its exterior circumference; 2, it is a permanent quantity in a given individual; 3, its dimensions so materially differ in different persons that, of itself, it is an important factor of diversity between portraits that are inherently discrepant.

Granted, then, the requisite permanence of the facial perpendicular, and the requisite permanence of the unit of the admeasurement (the diameter of the iris at its exterior rim), it remains but to consider the limitless amplification of the facial diversity. It has long been an accepted hypothesis that the dimensions of an ideally perfect face should consist of certain duplicate and triplicate repetitions of its own elements; yet, nevertheless, that all actual faces are, to a greater or less extent, departures from the given ideal. In strict conformity with this hypothesis, it may be pointed out that the endlessly numerous permutations, which are everywhere consequent upon the presence of even a few factors of diversity, are quite amenable to arithmetic proof. This principle of permutation finds its always familiar illustrations in the "ringing of changes" upon an octave of bells, in the casting of dice, and in the myriads of differing verbal forms that a few vocal articulations have afforded to all the nations of the earth.

In conclusion, the general and special data which have been here set forth, appeal, in the first instance, to the common apprehension of mankind; and, secondly, to the tests and investigations of experts. As the result of such tests and investigation, it is now confidently maintained that the data and conditions enumerated are trustworthy and open to proof. The photographic portraits of various public personages, taken after intervals of 20 or more years, and suitably enlarged, have been found to correspond very minutely in admeasurements, whilst, in the meanwhile, great external change has been going forward in their countenance. On the other hand, a comparison of the portraits of any two distinct individuals, tested under the same rigid conditions, fully justifies the statement that, in such cases, varied and palpable discrepancies will inevitably become manifest.

The physiological facts having been accepted, the formularies of procedure may suitably engage attention. To those to whom the topic is new, an explicit statement of details might prove the more convenient; but, summarily and technically, those particulars may be dealt with as follows.

1. Upon a photograph of enlarged magnitude, let a right line be drawn from centre to centre of each pupil. 2. From the given centres, describe arcs intersecting each other, above and below the right line, of a radius as the distance between the centres. 3. From the points where the arcs cut each other produce the perpendicular. This will necessarily be the true facial perpendicular, whatever may be the pose of the sitter. 4. Lay off a parallel on each side of the perpendicular, at the distance of the given centres. 5. Lay off a series of parallels, above and below the line of the pupils, and let their measured distance apart be that of precisely the diameter of the iris. 6. Let each paral-

extend over the right hand margin of the portrait, and be numbered consecutively. The given line of the pupils being a nought or zero, let the other numbers proceed from it, upward and downward. 7. Reproduce these details upon the second portrait, and thereupon proceed to make the necessary comparison of particulars.

With the aid of the appliance known as the "identiscope," the required comparison can be effected under conditions the most favourable for careful inspection. Reproduced upon lantern-slides, conjoined at the zero-lines, the compared portraits may be projected in combination, upon a scale of magnitude that would cause the minutest discrepancies to stand revealed, in all reputed instances of spurious or assumed identity.—I am, etc.,

Bristol.

W. M.

*** This proposal to make comparison of photographic portraits to aid in identification, is a special application of a known and accredited mode of procedure, which was successfully applied in the Tichborne trial. The use of the breadth or diameter of the iris as an unit of measurement for the details of the face is, we believe, novel; and if it should be established, as the result of observation, that the ratios of the dimensions of the iris and of the bony structures of the face are not the same in any two individuals, an additional test of identity of the highest value will be afforded to the medical jurist. The test will, however, in any case, be only applicable to photographs taken after a full adult age has been attained. The author assumes too readily that the bony framework of the features is, in adult life, an unchangeable one as to its dimensions. Nevertheless, this is not a safe hypothesis to assume—witness, for instance, the alterations in the lower jaw, and even in the upper jaw, brought about by the extraction of teeth. It is not certain, also, though highly probable, that the iris does not change its dimensions, to an appreciable degree, as life advances. We hope that the proposed plan may be thoroughly tested by medical men.

CHEAP MEDICAL LITERATURE.

SIR,—Mr. Watson Cheyne, the able exponent of antiseptic surgery, has done good service to the profession by following the example of Sir Henry Thompson in bringing out a manual on the *Antiseptic Treatment of Wounds* in a cheap form (3s. 6d.); his former treatise on antiseptic surgery was not within the reach of all. Since the principle upon which Listerism is based—embracing extreme cleanliness, disinfection, and irrigation—must survive for all time, if aseptic surgery do not receive universal acceptance, this work should be in every surgeon's library. The modified applications of Listerism to practical surgery in the country and in war receive special note, and the nature, varieties, prevention, and treatment of micro-organisms are freely discussed; the work, extending over 140 pages, is well illustrated.

In this scientific and competitive age, it behoves the medical man to avail himself of all the advances of so progressive a science as medicine and its allies, and to practise "up to date," to acquaint himself of all the improvements the time offers. Remote from medical societies, and with too scant time to study the volumes of a circulating library, he is at present left for works of reference to his weekly JOURNAL, his stores of experience, and his much-out-of-date class-books; and, with these, the majority will rest satisfied, so long as medical books remain at their present price.

Inquiring only the other day of a veteran Scotch practitioner as to what work he consulted on medicine when in difficulties, he replied: "I find little Charteris answer my purpose." Of course, comment is superfluous. Taking the average price of each work (large and small) in 18 advertised in the JOURNAL on one page, I find it to be 15s.; and, in 11 works on another page, 27s. 6d. (mostly large works). As things stand at present, men must "pinch their stomachs and bare their backs" to fairly avail themselves of the advances of modern medicine. To the struggling student, these remarks especially apply, and not a few will hail with satisfaction the "pathbreaking" novelty of cheap medical literature. By issuing a periodical reprint of standard works at a reasonable rate after first editions had "gone through the mill," publishers would find that private purchasers would far exceed library subscribers. We should then buy, rather than glance over, works of repute advertised, become better informed, and fill greater spheres of usefulness. I am aware that in law and art the same murmuring spirit exists; and, speaking of books, Ruskin (*Sesame and Lilies*) says: "We talk of food for the mind as of food for the body; now, a good book contains such food inexhaustible; it is provision for life, and for the best part of us, yet how long most people would look at the best book before they would give the price of a large turbot for it. . . . Whereas the very cheapness of literature is making even wiser people forget that if a book is worth reading, it is worth buying;" and yet few men have offered their much sought for works at a higher figure than has the well known art-critic and man of letters.—I am, faithfully yours,

H. A. SMITH.

Ealing.

EPIDEMIC SORE-THROAT.

SIR.—It has happened to me, in the course of the last eight or nine days, to meet with an extraordinary number of cases of sore-throat, all of one type, characterised by a sharp but short febrile illness, deep redness of the fauces, and a white exudation confined to one or both tonsils. They have been scattered over so considerable an area, that I feel sure, if the experience of a number of practitioners could be compared, these cases would be found to constitute part of an epidemic of some moment, whose existence and magnitude—in the absence of any registration of disease—could in no other way be brought to light, or its cause investigated.

Such cases have a very close relation to true diphtheria, and the minor epidemic might possibly put us on our guard against the major, if for instance, as there seems some ground for suspecting, milk-supply should be the vehicle of infection.

I should be glad to compare notes with any one willing to communicate similar cases; but my principal object is to suggest the question whether the machinery of the Collective Investigation Committee might not be utilised to supply in some degree the want, which must some day be supplied, of an official registration of disease. Suppose that committee be open to such communications as this, and in the course of some particular week to receive half a dozen such, a paragraph, or, still better, a fly-sheet, in the JOURNAL, might then warn practitioners of the existence of an epidemic, and indicate the points upon which information would be valuable in tracing it to its source.—Believe me, yours faithfully,

T. MORTON, M.D.

THE ETYMOLOGY OF DOCTOR.

SIR,—Your learned correspondent "Philologist" might have given another instance, from the reign of Henry VIII., proving that "Doctor" and "Physician" are, and for hundreds of years have been, synonymous terms.

The College of Physicians wished to prevent the surgeons from practising physic, but claimed the right to practise surgery themselves. They therefore, in the 32 of Henry VIII., inserted a clause stating that "forasmuch as the science of physic doth comprehend, include, and containe the knowledge of surgery, as a special member and part of the same...therefore Doctors might practise surgery." (Wadd., p. 73.)

In 1785 and 1791, the College of Physicians in Ireland were empowered to elect the professors who should confer the degrees; in other words, the physicians made the men who made the M.D.s. Now, these grandchildren of the physicians tell their progenitors, "You are not Doctors; we are the salt, etc."—Your obedient servant,
W. E. D.

FLORIDA AND MOGADOR AS FIELDS FOR PRACTICE.

SIR,—In answer to the letter of "Florida," in the JOURNAL of June 27th, asking for some information as to the climate and prospects of professional success in that State, I am strongly of opinion, both from experience and reading, that neither is of such a character as to render any rash adventures advisable. The heat in summer is intense, with diurnal variations as great as 30° Fahr. The 30th parallel intersects it; hence the vegetation is tropical. As most of the country is low-lying, and much of it an immense swamp, agues, remittents, and abdominal disorders prevail, while yellow fever is of periodical occurrence. It is not well suited to the weak chested; nor is there any compensating advantage of a pecuniary nature. The place is well supplied with American practitioners, all of whom are far more intelligent and able than the ease with which degrees can be obtained would lead one *a priori* to expect. The people seem to possess a natural tact and aptitude for the skilful practice of surgery.

Your correspondent would, I think, if specially needing a warm climate, without much competition, find Mogador, on the west coast of Morocco, likely to suit his requirements. I have just been informed by a leading merchant of this port that its English-speaking community are anxious to guarantee £200 to an English medical man of some experience, stipulating only that he does not leave the station longer than 24 hours. By practice among ships and outsiders, he could raise his income to £500 a year, while he can live luxuriantly on half of it. As the trade is principally in the hands of English and French, a slight colloquial knowledge of the latter would be useful. The climate of this town is remarkably good, fevers and abdominal disorders being exceedingly rare, particularly amongst those foreigners who confine their potations to green tea, after the custom of the country.

During the hot season, the heat is tempered not only by the land and sea-breezes, but also by a prevailing fresh sea-wind, which dissipates noxious odours, and renders this season of the year not only endurable, but pleasant to many. The highest temperature is 95°. During the rainy season, from December to May, rain, which, owing to sandy soil, soon dries, falls on an average three days a week. There can be no doubt that this town, with its climate admirably suited for consumptive patients, would, in other hands (a consummation which may not be long delayed), soon become a health-resort of some importance. There is good sport—bear-hunting and shooting—close by.

I may add that there is at present only a Spanish medical man, and that I shall be glad to put any suitable gentleman in the way of obtaining any further information.—Yours faithfully,
D. H. CULLMORE, M.D., M.R.C.P. Lond.
27, Welbeck Street, W.

GOUTY AFFECTION OF THE STOMACH. A CASE OF NERVOUS IRRITABILITY.

SIR,—I should be thankful for any help as to the pathology and treatment of the following case.

A woman aged 70, previously of good health, applied for treatment, suffering from great nervous irritability and distress in her stomach, with nausea. Under treatment, she was relieved after passing a considerable length of tapeworm, and continued well for several months afterwards. Last October, similar symptoms occurred rather suddenly, though no further evidence of tapeworm had been seen. I then treated her with repeated doses of turpentine and castor-oil, but without the slightest effect in bringing away any part of a worm.

Great nervous irritability and sleeplessness continued, with a sensation of distress at the stomach, which has only been relieved by draughts containing morphia, bromide of potassium, chloral, Indian hemp, and chlorodyne, given separately and in combination. Besides such draughts, she has taken regularly various tonics, as phosphorus, valerianate of zinc and assafoetida, tincture of cinchona, nitrate of silver, etc.

At first, I suspected an alcoholic habit, especially as I found she could take 12 minims of tincture of capsicum for a dose uncomplainingly. I can find no further reason, however, to maintain my suspicion.

I have now discontinued all special treatment for more than two months, having found that nothing so far has at all benefited her, and simply treat her nervous symptoms with a night-draught of a grain of morphia, with 25 grains of chloral-hydrate, without which she is miserably irritable, and quite unable to sleep.

Lastly, there has been no complaint of distress at the stomach, but frequent headache. I can detect no disease of any organ or local tenderness. There is not the slightest reason to suspect that she was addicted to the use of narcotics before coming to me.—I am, sir, yours faithfully,
W. R. C.

"BEAUTY AND THE BEASTS."

UNDER the above heading an amusing account of the very enjoyable *conversations* recently given at the Royal College of Surgeons by the President of the College and Mrs. Cooper Forster, appears in the *Lady* newspaper for June 18th. It remarks that "all the men of light and leading in the medical and surgical professions were present, and had brought their wives, daughters, or sisters to grace the grim array of bones and pickles." The letter-press is accompanied by several engravings of phases of the evening's doings.

A HEALTH-RESORT NEAR LONDON.

SIR,—In reply to Mr. Graham's letter, I would recommend Ascot Heath and its neighbourhood. The soil is of a sandy nature, with fir-plantations, and well adapted for people of delicate organisation. It is about 30 miles from London, on the S.W. lines.—Yours faithfully,
E. MAY, M.D.

CHLORIDE OF LIME.—A 10 per cent. solution of peroxide of hydrogen.

W. SUTTON.—We should say yes.

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION asks where he can get some work to practically qualify himself for the post of public analyst, and also for the Sanitary Science Examination at Cambridge.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. John H. Morgan, London; Mr. R. Knowles, Plaistow; Dr. J. K. Spender, Bath; Mr. A. H. Gordon, Liverpool; Dr. Willoughby, London; Dr. Alex. Hill, Cambridge; Mr. J. Grierson, London; Dr. J. Rogers, London; Mr. T. Curtis Denby, Bradford; Mr. H. Page, Redditch; Mr. J. Dix, Hull; Dr. Scott, Camberley; Dr. Mackay, Elgin; Mr. S. Hardwick, Bournemouth; Mr. Johnson Martin, Bolton; Mr. Robert Holtby, York; Our Dublin Correspondent; Mr. A. Hastings Stewart, London; Mr. H. Ernest Trestrail, Aldershot; Dr. McLeod, Hawick; Mr. E. East, London; Our Birmingham Correspondent; Mrs. F. Dodgson, Cokermouth; Dr. R. Fowler, London; Dr. J. E. Neild, Victoria, Melbourne; Mr. R. Leigh, Liverpool; Mr. E. White Wallis, London; Dr. Longstaff, London; Dr. Cresswell Baber, Brighton; Mr. W. Roger Williams, London; Mr. Simeon Snell, Sheffield; Dr. R. Bryden Hill, Oldham; Mr. Arthur Green, Newcastle; Dr. W. H. Taylor, Anerley; Dr. Huggard, Geneva; Mr. G. Eastes, London; Dr. G. B. Mead, Newmarket; Dr. Hughes Bennett, London; Mr. Vesey Fitzgerald, London; Mr. James Startin, London; Dr. Maciver, Edinburgh; Dr. Charles M. Chadwick, Leeds; Dr. Yellowlees, Glasgow; Dr. Champneys, London; Dr. Drysdale, London; Mr. H. Percy Dunn, London; Mr. James Rose, Liverpool; Dr. Cullingworth, Manchester; Dr. C. M. Campbell, London; Mr. T. F. Tannahill, Rochester; Dr. W. A. Duncan, London; Mr. Michael S. Roche, Castleisland, Kerry; Dr. T. M. Madden, Dublin; Mrs. Vacy, Devonport; Dr. Robert Thorn, London; Mr. J. McKenzie Davidson, Aberdeen; Mr. F. Browne, Douglas, Isle of Man; Dr. Beaven Rake, Trinidad; Dr. Maxwell, Woolwich; Veritas; The Secretary of the Royal London Ophthalmic Hospital; Mr. C. F. Forshaw, Bradford; Messrs. Brand and Co., London; Mr. Haysman, London; Mr. Thomas Wilson, WallSEND-on-Tyne; Dr. Danford Thomas, London; The Secretary of the Great Eastern Railway; Dr. Wile, Sandy Hook; Mr. R. H. Forman, Ratho, Middlethian; Mr. J. Gordon Stuart, Edinburgh; Dr. J. W. Moore, Dublin; Our Edinburgh Correspondent; Mr. T. F. Gardner, Bournemouth; Dr. Stevenson, London; Dr. D. Newman, Glasgow; Mr. T. M. Stone, London; Mr. Henry Morris, London; Mr. G. Stanmore Bishop, Manchester; Dr. B. Foster, Birmingham; Mr. B. Marshall, Manchester; Mr. F. W. Sutton, Reading; Mr. H. A. Lownds, Newcastle-on-Tyne; Mr. W. Sutton, Smethwick; Mr. G. P. Atkinson, Pontefract; Mr. R. H. Mathews, Sheffield; Mr. Allan Perry, Gibraltar; Dr. James Stewart, Clifton; Dr. Percy Boulton, London; Mr. P. Howard Day, Poulton-le-Fylde; Dr. B. H. Mumby, Canonbury; Dr. Illingworth, Clayton-le-Moors; Dr. F. M. Rice, Galway; Dr. R. J. W. Orton, Newcastle-under-Lyme; Mr. James Robertson, Birmingham; Dr. E. May, Hanwell; Dr. W. Roberts, Manchester, etc.

BOOKS, ETC., RECEIVED.

Graves's Clinical Medicine, to which is Prefixed a Criticism by Professor Trouseau. London: New Sydenham Society. 1884.

Overpressure in High Schools in Denmark. By Dr. Hertel. Translated from the Danish by C. Godfrey Sørensen, with Introduction by J. Crichton Browne, M.D., LL.D., F.R.S. London: Macmillan and Co. 1885.

Tracheotomy in Laryngeal Diphtheria. By R. W. Parker. Second Edition. London: H. K. Lewis. 1885.

A Guide to the Examination of the Urine. By J. Wickham Legg. London: H. K. Lewis. 1885.

Ambulance Lectures. By S. Osborn, F.R.C.S. London: H. K. Lewis. 1885.

The Causes and Prevention of Blindness. By Dr. E. Fuchs. London: Baillière, Tindall, and Cox. 1885.

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REPORTS TO THE SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

REPORT ON EXPERIMENTS AND OBSERVATIONS RELATING TO THE PROCESS OF FATIGUE AND RECOVERY.

By AUGUSTUS WALLER, M.D.,

Lecturer on Physiology at St. Mary's Hospital; Research-Scholar of the British Medical Association.

INTRODUCTION.

AN experimental inquiry may be conducted in one of two ways. Either a given organ or tissue may be selected, and its properties examined with all the several means at our disposal—ana-tomical, chemical, physical, etc.; or a given process may be studied in its various expressions. In other words, we may set ourselves a series of different questions relating to one single province, or one general question, answers to which are to be found variously disguised in several provinces.

It is from the latter point of view that I have planned this inquiry, selecting for study a process, namely, fatigue (and its converse "recovery"), which may be conceived to affect every organ and tissue of the body.

I do not pretend, however, to extend my examination to all organs and tissues, but propose to direct it to such as possess expressions that are capable of isolation, and, therefore, of measurement; that is to say, I propose to study more especially the "excitable" tissues. Still, in doing so, I consider that, in some departments of the inquiry, the results of the interrogation of one particular tissue, such as nerve or muscle, will also have bearings upon other tissues, such as glands. This remark will, I think, be more especially applicable to the course or "curve" of the process, grounds for which belief will be given in the papers of which the present one is the forerunner.

In another respect, it may be anticipated that particular results will have a general bearing, and it will be one of my objects to bring out into relief analogies in the course of processes bearing a family resemblance with each other. I refer to certain points of resemblance between experimental fatigue, and the natural decline of excitability at death, and the course of excitability in disease and in poisoning.

It is possible that one kind of curve should be representative of the course of all these several processes; and if this is, perhaps, a premature expectation, yet it will, I think, be shown to be highly probable from the points of resemblance that I shall be able to bring forward. Beyond these few remarks, I do not care at this early stage to forecast what may be the ultimate scope of the present investigation.

INSTRUMENTS.

The following special apparatus was used in this investigation: *a.* Instruments for the exploration and recording of muscular contractions on man: *b.* Instruments for the measurement and recording of electric currents.

a. For exploring and recording the muscular contraction on man, I employed apparatus similar to that which I had used in a previous series of experiments. A small thick walled elastic bag strapped to the limb served as "explorer," and proved to be, in this respect, more convenient than the more complicated explorer of Marey, which I tried, and abandoned in its favour. The bag was connected by an India-rubber tube with a Marey's tympanum; every swelling of the limb (leg, forearm, thigh, arm) compressed the bag, and caused an upward movement of the pen of the tympanum; the extent of this movement gives the measure, or rather the index of extent, of contraction. As recording surface, I employed for the observation of "lost time" or duration of contraction, the ordinary physiological clock quick axis. For the observation of extent of contraction, I used a specially constructed slow clock, consisting of a cylinder fixed to the hour-axis of

an American clock (Fig. 1); with this slow movement, successive contractions are recorded as vertical arcs.¹

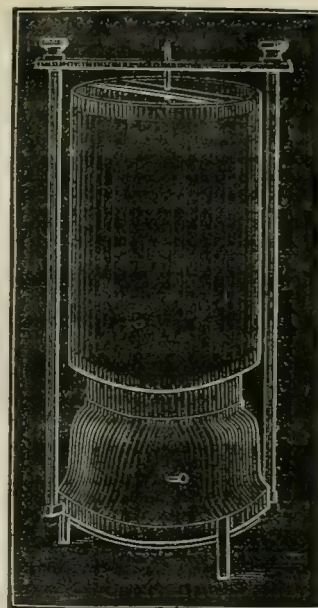


Fig. 1.

b. To measure electric currents, a Thompson's reflecting galvanometer was used, converted into a galvanograph by the addition of a recording apparatus, which consists essentially in a sensitive moving surface, upon which are recorded the excursions of a spot of light reflected from the galvanometer mirror. The sensitive surface is a bromo-gelatine paper fixed to a cylinder, 30 centimètres in circumference, enclosed in a metal box, which, when shut, is quite light-tight. At the front of the box is a horizontal slit, which can be covered or uncovered by a shutter, on which an ordinary scale is fixed, as seen in the figure; behind this slit and shutter is fixed within the box a second shutter with horizontal slit (not seen in the figure) which can be adjusted by means of a screw quite close to the sensitised paper. The back of the box can be opened for the removal and replacement of the cylinder, which, when in its place, is made to revolve by a coned wheel connected with a second coned wheel fixed to the axis of an American clock; various rates of revolution are thus possible. For example, with the hour-axis of the clock the range is from 10 to 80 centimètres per hour; with the 12-hour axis, 10 to 80 centimètres per 12 hours. An arrangement is added (not seen in the figure), by which a base line from a fixed mirror can be recorded and interrupted by blocking the light, so as to furnish a time-record. The source of light is an ordinary paraffin-lamp, and is directed upon the galvanometer mirror passing through a tube, at the end of which is a vertical slit. The instrument is so angled, that the image of this vertical slit will fall exactly across the horizontal slit in front of the sensitive surface. The whole apparatus, with the exception of the lamp, is enclosed in a large box, impervious to light, serving as a dark chamber; and during the passage of currents through the galvanometer, the vertical spot of light, deviated from its position of rest, records on the travelling surface a curve, the ordinates of which are proportional to current strengths; all manipulations can, therefore, be performed by ordinary daylight, with the exception of the placing of fresh paper on the cylinder and development of tracings, which must be done in a ruby light. Many precautions are, of course, necessary as regards the use of the galvanometer; but the record itself gives hardly any additional trouble, and fulfils the part of an all-important witness in the testing of excitability. Two imperfections exist in the instrument in its present form; one is trivial, and will be easily overcome; the mirror does not give a single reflection but a treble reflection, so giving three lines to the tracing. The second im-

¹ By means of this simple instrument complicated apparatus is dispensed with, and I have made use of it for various other purposes; for example, slow records of blood-pressure, respiration and heart; also, by means of an arrangement for fitting the cylinder on the twelve-hour axis, it serves for recording *post mortem* contraction. It has been improved by Dr. de Watteville by the addition of toothed wheels, giving one, two, or four revolutions per hour to the cylinder.

perfection is more important (not, however, for my present purposes); namely, the periodicity of the magnet, so that, at the beginning and end of the current through the galvanometer, the spot oscillated above and below its normal position. This imperfection also I expect to avoid in the future with a different instrument. I used the same galvanometer for currents of very different strengths: it was possible to employ it either for nerve-currents, or for currents from 60 cells through the body, with galvanometer shunts of very low resistance.

Other instruments employed were such as are in general use in the



Fig. 2.

laboratory, namely, the Wheatstone's bridge for accessory testing of resistance, the Du Bois coil for induced currents, a Leclanché's battery of 40 cells, and a Stöhrer's battery of 20 cells for constant currents; in the case of frog's muscle, a double myograph, unipolarisable electrodes of the usual form, and the moist chamber.

Tracings 3, 4, and 5 illustrate the accuracy of galvanographic readings of current strength, from which electro-motive force or resistance may be calculated when either one of these magnitudes has been determined.

The straight line of ascent in tracings 3 and 4 shows that the readings of electro-motive force are accurate for all practical purposes; and that for strong currents this holds good when the galvanometer-current is divided by shunts of low resistance.

FATIGUE OF MUSCLE.

The signs of fatigue of muscle are well known. The record of a series of contractions, caused by single induction-shocks, shows that the contraction becomes, 1, prolonged in duration, 2, decreased in extent. To this I have to add a characteristic which

has been overlooked in the case of voluntary muscle, but which is well known in the case of the cardiac contraction. I refer to the staircase-beats of the heart, in which a series of maximal contractions caused by single induction-shocks is at first a gradually increasing series; that is, the second contraction is greater than the first, the third greater than the second, etc. (Bowditch, *Ludwig's Arbeiten*, 1871). This has been received as a difference between cardiac and voluntary muscle; I have found, however, that voluntary muscle has the same property of giving at the outset a staircase-series, as exemplified in the accompanying tracing.

This progressive increase in the extent of "maximal" contractions obtains in mammalian muscles with intact circulation (for example, man) (see tracing 7) as well as in the isolated muscle (both fresh and stale) of cold-blooded animals (for example, frog), and appears, therefore, to be generally characteristic of striped muscle, not specially characteristic of cardiac muscle. I have not yet examined unstriated muscle in this relation. Tetanisation of human muscle is usually characterised by a gradual rise at its outset, which is evidently of the same nature as the progressive increase in the extent of single maximal contractions. This rise is well seen in tracing 15. A similar feature is sometimes present in, sometimes absent from, the tetanus of frog's muscle, and in correspondence with this it may be observed that the staircase does or does not appear.

This progressive increase at the outset of contraction is almost the only point of similarity as regards the process of fatigue between the two extreme cases; namely, human muscle in the body, frog's muscle removed from the body. The important difference that obtains between them in this respect is, that whereas the latter gradually fails, and can be completely exhausted under a sufficient number of stimuli, 250 to 2,500, the former is not appreciably affected by any number of such stimuli (break induction-shocks).

Mammalian muscle in its normal relations, as regards circulation and nutrition, may be almost indefinitely subjected to single break induction-shocks at intervals of one second; and the record will show that the extent and duration of contraction is not less at the end than at the outset of the experiment, nor is there any sensation of fatigue.

The endurance of normal muscle is such as to constitute a strong testimony in favour of the view, that the sensation consequent upon prolonged muscular action, to which we give the name of "fatigue," is normally central and not peripheral as to its seat; or, at least, that fatigue commencing first in the central nervous system is protective from peripheral fatigue. The explanation of this great resistance of normal muscle to fatigue is quite obvious; it depends upon the great rapidity with which the muscle is restored during repose; and normally this restoration is such, that single induction-shocks remain without appreciable effect, however prolonged. To obtain any distinct evidence of fatigue in normal muscles, they must be subjected to the continued action of tetanising currents; under these circumstances, if an interruption frequency be chosen, such as to give a tetanus not quite complete, but still showing the serrated top indicative of the contractions which compose it, it will be seen that the serration gradually becomes lost, and the tetanus completed if the excitation be sufficiently prolonged. This fact (which I have had occasion to verify) has already been observed by Marey, and need therefore only be alluded to here as being a phenomenon of the same nature as the well-known gradual fusion observed on frog's muscles, and which may, therefore, be regarded as a sign of fatigue.

This view, that fatigue consequent upon prolonged muscular exercise is normally central rather than peripheral, receives further support from experiments with the dynamometer, which I arranged as a dynamograph, in order to obtain the record of a succession of greatest possible voluntary efforts of muscles of the forearm; the duration of contraction and that of rest being regulated by means of a metronome. Such series are characterised by a comparatively rapid and surprisingly regular diminution, contrasting markedly with series of tetani provoked by peripheral stimulation; and the single contraction, provoked by a break induction-shock, at a time when the muscles have become incapable of further voluntary action, nowise differs from a contraction taken at the outset of experiment.

The examination of the fusion of contractions under the influence of fatigue led me to make an extensive series of observations upon the various muscles of the body, with regard to the minimum number of stimuli necessary to produce their complete tetanus, and the relation borne by that number to the length of contraction. The fact of most

² The beneficial effect of "massage" upon fatigued muscles is not in harmony with the view expressed above, and I do not commit myself to a denial of all peripheral share in "fatigue," but only to the assertion that fatigue is normally of central origin, and protective from peripheral fatigue. Tracing 26 furnishes an example of peripheral fatigue, caused by abnormally exaggerated central action (strychnia poisoning).

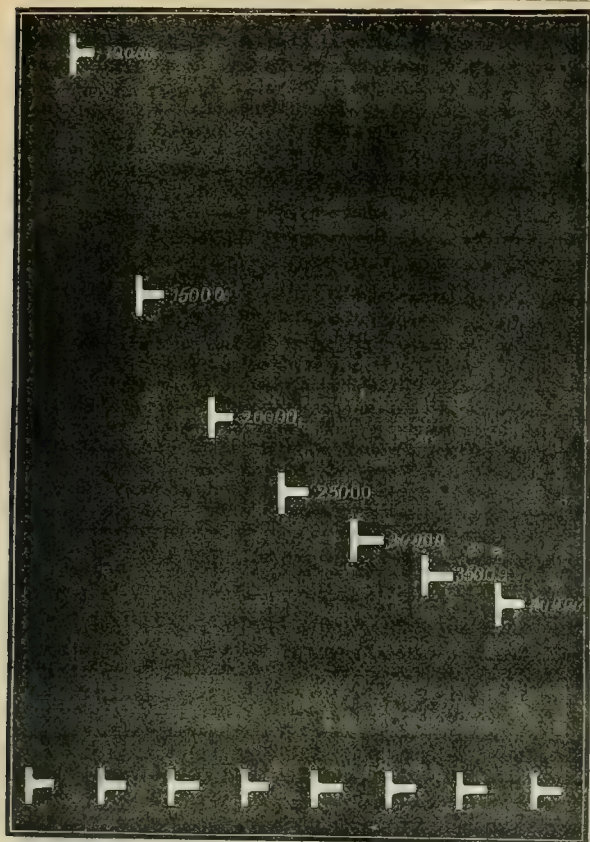
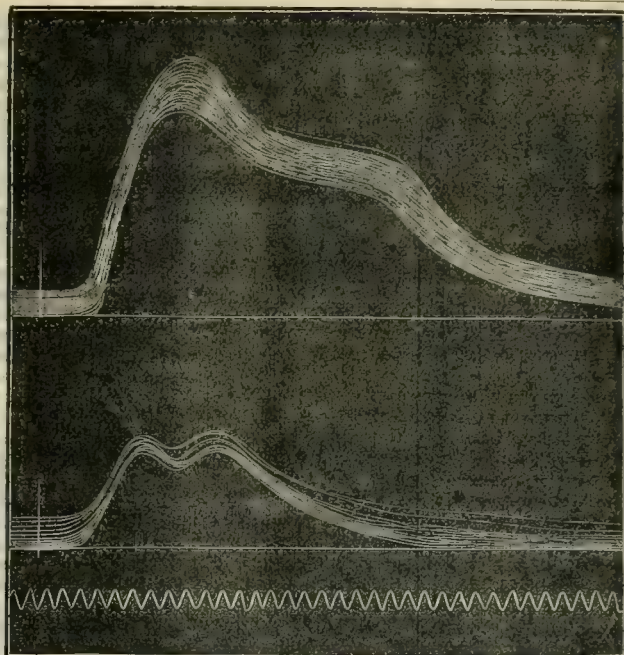
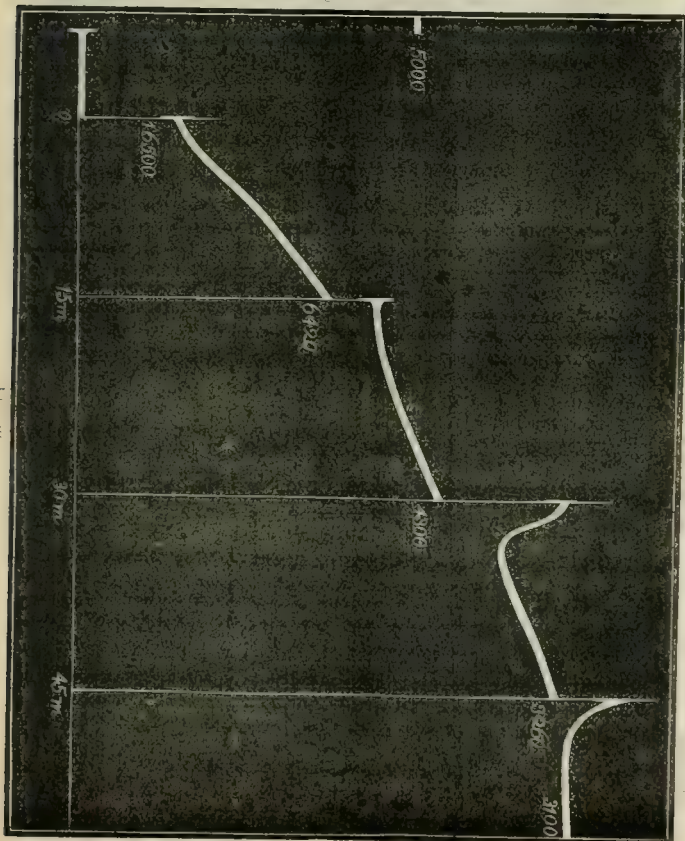


Fig. 5.



Figs. 12 and 13.

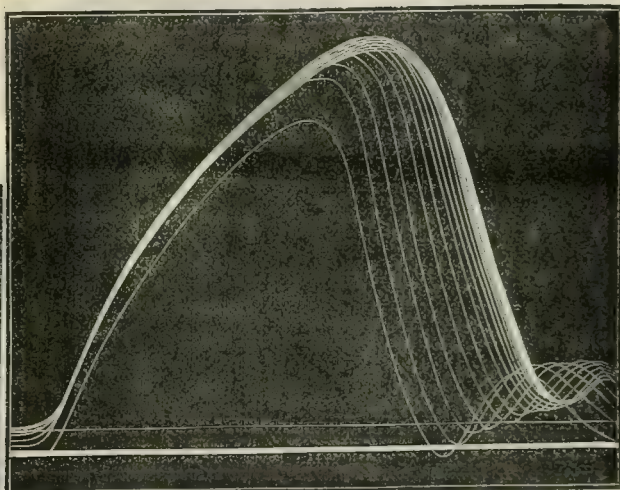


Fig. 6.

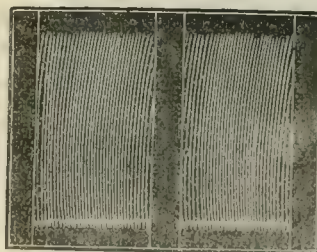


Fig. 8.

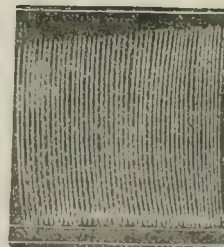


Fig. 7.



Fig. 9.

interest in this connection is that the minimum number of stimuli (break induction-shocks) giving a complete tetanus, is above the number of natural stimuli which give rise to voluntary movements; according to Helmholtz, every voluntary movement is a tetanus or compound spasm produced by 18 to 20 nervous impulses per second from the spinal cord; some authorities assert that this number is even less, namely, 9 to 10 (Lovén and Schäfer). It might, therefore, be expected that artificial stimuli of such frequencies should give complete tetanus, and that at most 20 break induction-shocks per second should still give an incomplete tetanus. And, indeed, this is the number usually given as the limit or minimum frequency for completely tetanising stimuli on man. It is, however, incorrect; human muscles may still show an incomplete tetanus, with stimuli as frequent as 30, 40, and 50 per second; the limit is between 50 and 60, that is to say, far above any frequency assigned to the natural or voluntary motor impulses. (See Figs. 11 and 15.)

As regards duration of contraction, and the relation of this to minimum tetanising frequency, I have experimented on various muscles (arm, leg, forearm, thigh, tongue, lips), but have obtained comparatively few satisfactory results, owing to the difficulty, or rather impossibility, of singling out different muscles and obtaining records of their contraction free from those of neighbouring or antagonistic muscles. All that can be done, therefore, is to record the swelling of a limb, or the movements of the fingers, tongue, or lips.

I will here mention only the muscles of the forearm and those of the thigh, in order to contrast the duration of contraction and minimum tetanising frequency for the muscles of those parts respectively. Their myographic records contrasted furnish the best example (1) of the fact that various human muscles have various lengths of contraction analogous with the various lengths of contraction which have been demonstrated in the various muscles of the lower animals (Ranvier, Kronecker and Stirling, Richet, Cash); (2) of the relation between tetanising frequency and duration of contraction (Richet, Kronecker, and Stirling).

The contrast between the thigh and forearm teaches, further, that the difference in duration of artificial contraction in the two cases holds good also for the shortest possible voluntary contraction, and that the length of the latter bears a relation (inverse) to the maximum number of voluntary contractions that can be performed by the part within a given time.

There is yet another peculiarity deserving of mention, constituting, as it does, one more point of difference between different muscles (or perhaps, more correctly speaking, the same difference as the preceding, but under another aspect). When a muscle is excited by a tetanising current, the duration of which is measured, and the duration of contraction is compared with the duration of excitation, it is noticeable that the former outlasts the latter by an appreciable period; that, in other words, the tetanus outlasts excitation, and the commencement of relaxation is delayed for a certain time.³

This time may conveniently be spoken of as relaxation-delay, and varies for different muscles of man between .06 and .12 second, being longer or shorter for muscles of longer or shorter duration of a single contraction.

Thus, it is longer in the muscles of the thigh than in the muscles of the forearm. These differences are evidently related with difference in the kind of work to be done by the different muscles, those of the forearm being destined to quicker and less massive movements than those of the thigh; it was on this account, indeed, that I chose them for contrast. (See Figs. 12, 13, 16, and 17.)

Briefly stated, the nature of the contrast between the contractions of the thigh and forearm is as follows. The contraction of the muscles of the forearm is of shorter duration than the contraction of the muscles of the thigh; its latent period is also shorter. The relaxation-delay of the muscles of the forearm is shorter than that of the muscles of the thigh. The muscles of the forearm require for their complete tetanisation greater frequency of stimuli than do those of the thigh. The shortest possible voluntary contraction of the muscles of the forearm is shorter than the shortest possible voluntary contraction of the muscles of the thigh. The maximum number of contractions possible within a given time is greater with the muscles of the forearm than with the muscles of the thigh.⁴

³ It is, I think, a fact of some interest and worthy of recognition, that owing to this period of maintained contraction or relaxation delay, it takes a longer time to begin to execute a negative than a positive action, that is, supposing that two decisions are formed at the same moment, the one to commence a voluntary action, the other to end an existing action, the former begins to take effect before the latter.

⁴ I paid no special attention to the "latent time" in these experiments, and merely recorded it as a matter of custom. My records are, however, sufficient to justify the statement that the latent period is shorter in the muscles of the forearm than in those of the thigh. I take this opportunity of again calling attention to the extraordinary length of the anodic break-contraction on man, which

Site of commencement of Fatigue.—To determine whether a motor nerve, submitted to prolonged excitation, remains capable of activity after its muscle has been exhausted, Bernstein (Pflüger's *Archiv*, 1877, p. 289) instituted the following experiment.

Two nerve-muscle preparations, A and B, were fixed side by side, and the central ends of both nerves were laid over the electrodes of an induction-coil; the electrodes of a continuous current were applied to one of the two nerves A close to the muscle. The current was made ascending or descending in this nerve, and both nerves were strongly faradised.

With a constant current of suitable strength, the muscle A remained quiet, because the passage of the excitation was blocked by the electrotonic modification; the other muscle B entered into strong tetanus. When complete exhaustion of the preparation B was reached, the constant current passing through the nerve of A was broken; the muscle A forthwith entered into strong tetanus. Hence, at a time when a muscle is exhausted, its nerve is not yet much fatigued, since the opposite nerve similarly treated remains capable of bringing about tetanus in the muscle.

The conclusion from this experiment is that muscle is fatigued far more rapidly than nerve, and that fatigue commences in muscle, not in nerve.

The result is the same with either direction of the constant current; but, to avoid the objection that with a descending current the irritability may be greater at its cessation on account of previous depression in the neighbourhood of the anode, Bernstein preferred the ascending current, and placed the two pairs of electrodes as far as possible from each other. He was also careful that he had not a break-tetanus under observation.

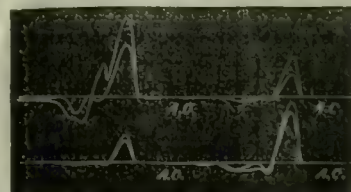
This experiment, which is a fundamental one, is made to bear a weighty interpretation, one which concerns the neurologist as well as the student of general physiology. Clearly, it is required by either that he should possess an answer to the question of the relative endurance or stability of nerve and of muscle when both are acting conjointly; and yet as clearly has this requirement not yet been fulfilled. The experiment shows that the nerve is not appreciably fatigued by the time the muscle has ceased to act; it does not show that the muscle is exhausted.

This last assertion can at once be proved by the direct application of the electrodes to the muscle while it ceases to respond to nerve-excitation; it forthwith enters into a tetanus, which is proof positive that it is not exhausted.

What interpretation can we put upon these two experiments, taken together? By the first, it is shown that the nerve is not exhausted; by the second, that the muscle is not exhausted; and in both the nerve ceases to act upon the muscle. The conclusion is obvious; the premises are quite similar to those from which it has been concluded that curare paralyses the motor end plate. In the former, as in the latter case, it is the organ of intermediation between nerve and muscle that fails first when there has been excessive action; in other words, fatigue commences at the motor end plate.

The experiments of Tschiriew, to the effect that muscle is fatigued with equal rapidity by direct or by indirect excitation, appear not to harmonise with this conclusion. I find, however, that if the nerve of one nerve-muscle preparation and the muscle of a second preparation be simultaneously tetanised, and a record be taken of both muscles at the same time, the tetanus falls more rapidly in the case of the muscle indirectly excited than in that of the directly excited muscle. This result is in agreement with the theory that the junction between nerve and muscle is the weakest link in the chain. Indirect tetanus falls more rapidly than direct tetanus. The contraction-remainder of the latter is also greater than that of the former. (See Fig. 18.)

came repeatedly under my notice during these experiments. I have already elsewhere recorded the fact and its interpretation, and will only remark that it appears incompatible with the theory recently advanced by Grützner and by Tigerstedt, to the effect that the break-excitation is in reality an excitation by make of an opposed polarisation-current.



A.C. = Anodic closure, A.O. = Anodic opening. The longer latent period of A.O. is independent of strength in comparison with A.C.

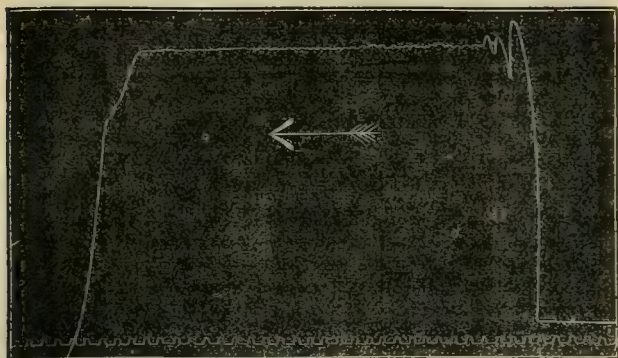


Fig. 11.

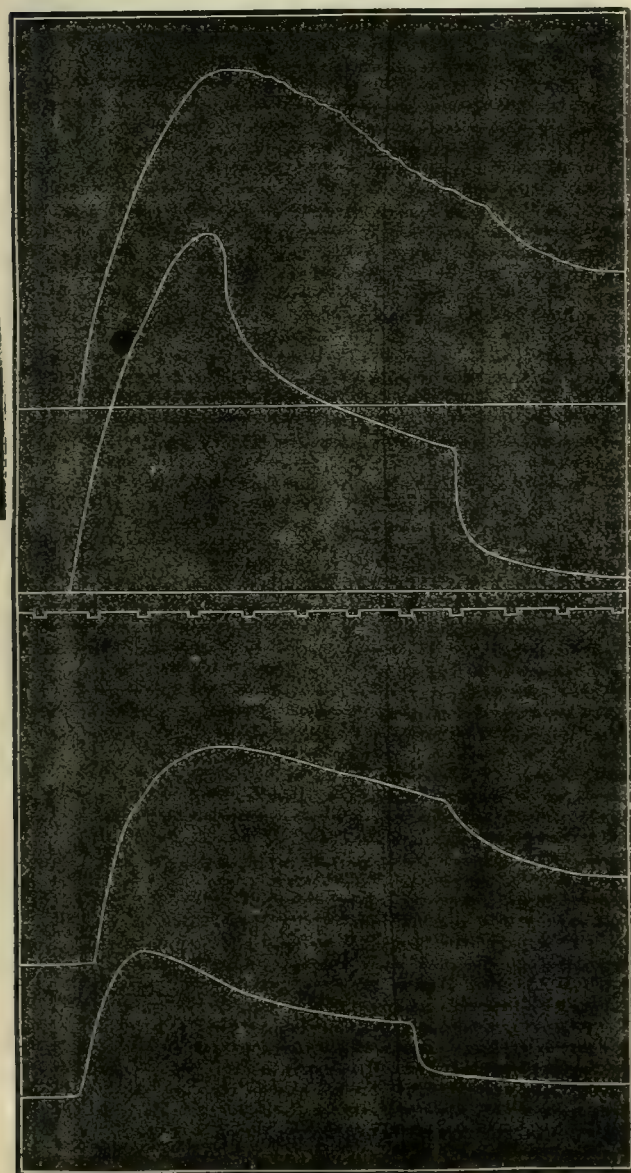
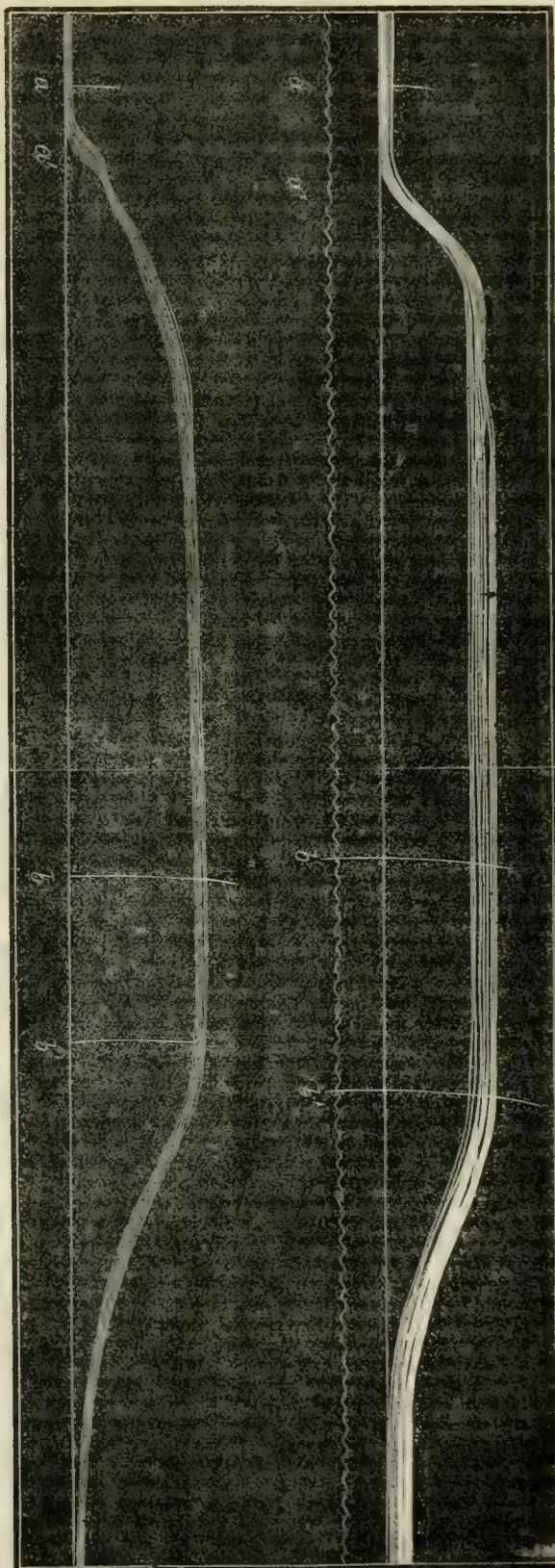


Fig. 18.

Figs. 16 and 17.



Now, it may be that the muscle that has been indirectly tetanised until all action has ceased is responsive to direct stimulation; and it is certain that the fall is not due to exhaustion of the nerve.⁵ Hence we must conclude that the fall is due to the establishment of a functional interruption between nerve and muscle.

Fig. 18.—Tracings of simultaneous maximal stimulation of sciatic on one side, and of gastrocnemius on the opposite side. The indirect tetanus by excitation of nerve (lower line) falls more rapidly than the direct tetanus by excitation of muscle (upper line). The contraction-remainder is more marked in the case of direct than in that of indirect excitation.

I may add that the point of union between nerve and muscle appears to be the link most quickly restored as well as most quickly broken; for, after complete exhaustion by direct and by indirect excitation, recovery is more rapid and greater in the latter case than in the former.

The following observation is also worthy of note, as it indicates that the phenomenon (namely, establishment of a block at the motor end-plate) is protective from fatigue of muscle by excessive action of its nerve. If, in the course of an exhaustion-experiment by indirect stimulation, single contractions, produced by maximal direct excitation, be recorded, these direct contractions will show evidence of muscular fatigue, increasing to a maximum as the experiment proceeds; the fatigued character of this direct contraction grows less towards and at the end of the experiment, as the action of the nerve upon the muscle becomes exhausted, showing that the muscle is practically allowed to rest in consequence of the "block" established at the junction of nerve with muscle.

(I made two experiments in order to see whether excessive action brings about any visible change in the appearance of the motor end-plates, choosing for this purpose the snake. A portion of the animal was subjected to rhythmical tetanisation for a period of two hours, and then compared with a second portion which had remained undisturbed during this time; namely, muscles from each portion were taken, subjected to identical treatment (Ranvier's gold and lemon-juice method of preparation), and subsequently examined under the microscope. The results were, in each case, negative; the motor end-plate showed no visible difference in the fatigued and in the normal states.)

In order to obtain confirmatory evidence from other sources, I made two other series of experiments; the one in order to see whether the "negative variation" of the nerve-current, caused by tetanisation of the nerve, persists or not after its action upon the muscle has come to an end; the other, in order to determine whether, after exciting the nerve far from the muscle, until its action had ceased, it is, or is not, possible to cause contraction by exciting the nerve below the first point, that is, nearer to the muscle.

In answer to the first question, I found that tetanisation of the nerve produces a negative variation after all action upon the muscle has come to an end, and that the curve of the negative variation, in the case of the nerve, falls far less rapidly than in the case of the muscle, indicating, therefore, that the course of exhaustion is more rapid in muscle than in nerve.

I must, however, mention that, in this first series of experiments, in which the "negative variation" was under observation, I was hardly alive to the danger of mistaking the electrotonic variation for the negative variation, a danger which became apparent in subsequent experiments upon mammalian nerves. Hence I make a reservation with regard to this point, and intend to submit it to renewed experiment.

In answer to the second question, whether tetanisation of a part of the nerve nearer to the muscle can produce any effect after tetanisation of the nerve further from the muscle has ceased to act, experiments did at first give uniform results. In some cases, an effect was produced under the above mentioned circumstances; usually, however, there was no effect. This latter result was as had been expected, and I came to the conclusion that the former exceptional results had been due to current-diffusion, and that, after a muscle has ceased to act by tetanisation of any point of its nerve, it is also inexcitable by tetanisation of all other points.

While I was in doubt upon this matter, a fresh question suggested itself, and led to significant results. When a nerve acts in consequence of a stimulus applied to it, the process may be conceived of as composed of two steps; 1, that in which the physical excitant comes into relation with nerve-substance and excites it; 2, that in which

the nerve-substance directly excited comes into relation with other nerve-substances; or, in other words, 1, excitation proper; 2, transmission of excitation, the latter depending upon the former. Which of these processes is it which suffers first and most in the course of experimental fatigue? The answer is furnished by the following experiment.

Lay the nerve of a nerve-muscle preparation across two pairs of electrodes. Tetanise it alternately through each of the two pairs of electrodes. Some such result as the following will be obtained: the nerve remains directly excitable at and near *b b*, at a time when it ceases to transmit excitation from above at the points *a a*; that is, in a fatigued nerve the conductivity is sooner and more rapidly diminished than its direct excitability.

Several variations of the above experiment may be made. That in which excitations are alternately applied to nerve and to muscle shows that the effects of the former fall more rapidly than those of the latter. A block is established at the junction of nerve and muscle.

The apparent contradiction between this statement and the fact that a nerve can transmit excitation from a central point through a locally inexcitable point depends, I think, upon a difference of method used. The latter statement is based upon experiments in which the method of minimal stimuli is used, and can, in most cases, be explained as being due to the excitability being greater at the central end of the nerve. The former statement is based upon experiments in which overmaximal stimulation was employed, and in which the diminished effects of "high" excitations were consequent upon, and unmistakably caused by excitation of the nerve below.

Excitations may also be applied by one pair of electrodes to a nerve, so as to be alternately ascending and descending; the effects of the former diminish more rapidly than those of the latter. This is the case in tracing 9.

The alternate excitation of two points of nerve, one above the other, gave several interesting results. The general result was very constant; namely, the effect of excitation of the higher point diminished more rapidly than the effect of excitation of the lower point. But this result varied in degree between these extremes; namely, abolition of the effect of excitation of the higher point, after only one or two series of excitations of the lower point; or a diminution in the effect from the higher point, hardly more marked than the diminution in the effect from the lower point.

This was partly a function of excitation strength, partly also due to differences of the preparations experimented on.

Two other peculiarities are also deserving of mention. I noticed, occasionally, that the after-effect of excitation of a lower point consisted in a partial and imperfect transmission of excitations from above; instead of a regular series of diminished effects, I observed an irregular series of effects, some much greater, some much less than an average effect.

The second peculiarity I desire to mention, was observed as follows. Alternate series of five contractions were taken, with excitations applied high and low. The series due to the "high" excitations diminished rapidly, and progressively disappeared, while those due to the "low" excitations continued large. The progressive disappearance was as follows; namely, the effect of the first of the five "high" excitations was the first to vanish, then that of the second, then that of the third, and so on until all five members of the series became ineffectual.

Phenomena of the same class may be observed with longer series of excitations, such series being alternately "high" and "low." In successive "high" series, alternating with "low" series, it is observable, 1, that more and more of the first few groups of excitations become ineffectual; 2, that in such "high" series the first apparent effects are very small, and that subsequent effects are progressively greater.

These several facts go to show, that excitation of a given point of nerve gives rise to an obstacle to the transmission of impulses from above, which is to some extent in proportion with the amount of previous excitation, and which progressively vanishes.

I must at present leave it undecided whether this obstacle depends upon temporary injury, or upon electrotonic modifications of the nerve. Towards the answer of this question, renewed experiments are required on the effects of heat, cold, and mechanical pressure.

FURTHER EXPERIMENTS.

The object of this series of experiments was to determine the part played by the motor end-plate; first, in the process of death; secondly, in the process of degeneration; the

⁵ Bernstein's experiment is sufficient proof of this. Still more weighty evidence in the same sense has been brought forward by Wodenski (on cold-blooded animals), and by Bowditch (on mammalia), whose experiments show that nerves may be tetanised for hours without becoming fatigued.



Fig. 20.



Fig. 19.

question to be answered being whether or not there is evidence of persisting excitability in nerves at a time when they have ceased to act upon muscles. Under these circumstances, the only possible evidence of persisting excitability, or its absence, would be furnished by the presence or absence of an electromotive change in the nerve consequent upon excitation.

Death.—The manner of observation as regards the first question was as follows. The nerve (sciatic) of a recently killed rabbit was exposed and tested by the induction-coil within half an hour after death, in order to see that its excitation had ceased to have any effect on the muscle; and when it was found that the action of the nerve upon the muscle had ceased (while the direct excitability of the muscle was still present), the nerve was cut, and its central end placed in connection with the galvanometer by means of unpolarisable electrodes applied to a transverse and a longitudinal surface respectively.

The nerve-current was thus passed through the galvanometer, causing a considerable deflection, which was diminished during the tetanic excitation of the nerve by the induction-coil. A ligature was then tightly applied to the nerve between the unpolarisable electrodes and the point of excitation, so as to interrupt the physiological, and not the physical, continuity of the nerve. Tetanic excitation of the nerve then remained entirely without effect on the nerve-current. Hence followed the conclusion that, after the death of an animal, the excitability of the nerve persists when its action upon muscle has ceased, such muscle being still excitable by direct stimulation.

Nerve-degeneration.—Nerves were tested by the galvanometer two, three, four, seven, and 15 days respectively after section, and the degree of degeneration examined by the microscope (omelic acid preparation). In two cases, excitation of the nerve had not ceased to be effective upon the muscles. In three cases, excitation of the nerve remained without effect upon the muscle. Tetanisation of the nerve gave a variation of the nerve-current, which was entirely abolished by ligature of the nerve between the exciting and the "leading off" electrodes.

This was apparently a satisfactory proof of the persistence in the nerve of the electromotive signs of excitation, at a time when it is incapable of affording its muscular signs.

In the earlier experiments, the galvanometric deviation was negative, and I accepted it as a true "negative variation," the token of an excitatory change. The variation was, however, disproportionately great in comparison with the "current of rest," which was, as a rule, much weaker in degenerated than in normal nerves immediately after death. In later experiments, I observed, instead of the regular negative deflection, a positive deflection, which must have been due to electrotonic currents caused by the passage of the interrupted current through the portion of nerve between the exciting electrodes. I therefore tested the degenerated nerve 10 days after section, in order to learn whether or not electrotonic currents could be demonstrated in it, and found that such currents existed.

I am at present occupied with these points, and cannot state more with regard to them than that the electrotonic currents in dying and in degenerated nerve are far more persistent than has been hitherto assumed. My experiments in relation to the proof of a persistent excitatory change will, therefore, have to be repeated to the satisfactory exclusion of electrotonic currents.

Veratria.—If a frog be poisoned with a small quantity of veratria, one to two drops of a 1 in 120 solution, stimulation by a single induction shock of any nerve or muscle gives rise to a characteristic prolonged contraction of the latter. If the excitation be repeated at brief intervals, this characteristic modification of the contraction becomes less and less, and the first recorded contraction will be greatly prolonged, succeeding contractions are less and less prolonged, and finally lose entirely their veratrinised character. If now a period of rest be allowed, the previous veratria characteristics return—entirely if the period of rest be of sufficient length, less completely if that period be shorter. If the muscle be now subjected to a fresh series of excitations at brief intervals, a similar dissipation of the veratria-effect is produced, from which again recovery can be effected during a subsequent period of rest. This alternate process of dissipation by action and recovery during rest may be repeated until complete exhaustion of the compound. The phenomena can further be produced, 1, when the animal into relation⁶ bloodless and washed by a stream of saline solution injected by the aorta; 2, when the muscle and nerve in the same sense has been soon as the toxic symptoms have appeared, and (mils), and by Bowditch (Gamber; 3, when the muscle is removed and be tetanised for hours without of the poison, instead of being poisoned last case, however, the veratria-

effects are, as may be expected, less pronounced than when the poison passes to the muscle through the capillaries.⁶

Tracings 23 and 24 show the exhaustion and recovery of toxic effect on the muscle of the frog, with veratria.

The point of importance in these various experiments is that the effect (prolonged contraction) brought about by the poison (veratria) can be effaced by repeated action (exhaustion), and can return during an interval of rest (recovery). These are the facts; their interpretation must, however, at present be hypothetical, and I give them merely because of the further experiments which were suggested thereby.

We know that an isolated muscle, that is, cut off from further nutritive supply, when subjected to repeated excitation, becomes fatigued, and finally ceases to respond; we know further that, still isolated, it can recover more or less from an apparently complete exhaustion during a subsequent period of repose. From these two facts we may infer that muscle possesses within itself, 1, a "ready" fund of elaborated material which is spent in contraction; 2, a "reserve" fund of raw material, which gradually becomes converted into elaborated or "ready" material, especially during rest, and after this has been reduced by muscular action. These considerations, taken in conjunction with the above described facts concerning the dissipation and reaccumulation of the veratria-effect, invite the supposition that the poison combines with the ready material of muscle, and that it is a loose and superficial combination quickly consumed in muscular activity. This supposition is to some extent corroborated by the following fact, which I have frequently observed; namely, a veratrinised muscle is more quickly exhausted than an unpoisoned muscle, and enters sooner into rigor mortis.

Strychnia.—Guided by these considerations, and in the expectation that phenomena resembling the dissipation and reaccumulation of the veratria-effect in muscle should obtain with other tissues and drugs, I sought for an analogous process in the case of strychnia in its action on the spinal cord. The effects in this respect proved to be entirely similar to those that I had observed on veratrinised muscle. The nature of the experiments was as follows. A small quantity of strychnia having been injected beneath the skin of a frog, the heart is removed as soon as peripheral stimulation is seen to excite the characteristic tetanic reflexes, and the system is cleared of blood by the injection of saline solution by the aorta. Under these circumstances, the spinal cord is presumably isolated from further nutritive supply. A stimulus of constant intensity (induction-shocks) is then applied at regular intervals, and the contraction of any convenient muscle recorded on the revolving cylinder. The record shows that the reflex tetanus decreases with each successive stimulus (in many cases, indeed, there was tetanus in response only to the first stimulus, the response to the second stimulus already being of the nature of a simple spasm).

In any case, however, after a suitable interval of repose, the original tetanic response greatest to the first stimulus was obtained. The possibility (improbable though it was) of the diminished effect being due to exhaustion or recovery at the sensory or motor periphery was not lost sight of. The exhaustion is, however, far too rapid to be attributable to nerve or muscle-exhaustion; thus, in some cases, it was complete at the second stimulus, and in others the nature of the exhaustion, namely, an abbreviation of the series of impulses rather than a weakening of individual contractions, sufficiently excluded muscle and nerve. This is not to say, however, that muscle and nerve do not at all participate in the exhaustion when the action of the centre has been strong and prolonged; on the contrary, they do so participate, as may be seen by cutting a motor nerve before intoxication has been produced, and thereafter comparing the excitability of the nerve or muscle on the side which has been thus protected from the tetanising action of the cord with those of the opposite side. Of this peripheral fatigue produced by central action, the following tracing furnishes an example.

Its interest lies in the fact that it is an instance of peripheral fatigue due to a central cause. I was naturally led thereby to see whether evidence could be obtained on man of an analogous phenomenon, but with negative result; and I think that the difference is due to the fact that, in normal relations of circulation and nutrition, the muscle is restored more quickly than it can be exhausted. The sensation popularly known as fatigue is, under these conditions, central, not peripheral; or, otherwise stated, a centre is the less resistant, and cannot normally exhaust its peripheral instruments (nerve or muscle).

During the course of my experiments with regard to strychnia, I was led to examine its action in two other respects, namely, 1, with regard to its effect upon the rapidity of the transmission of ner-

⁶ Similar experiments have been made by Mendelssohn. (Société de Biologie, 1883.) I was not acquainted with them when my experiments were made.

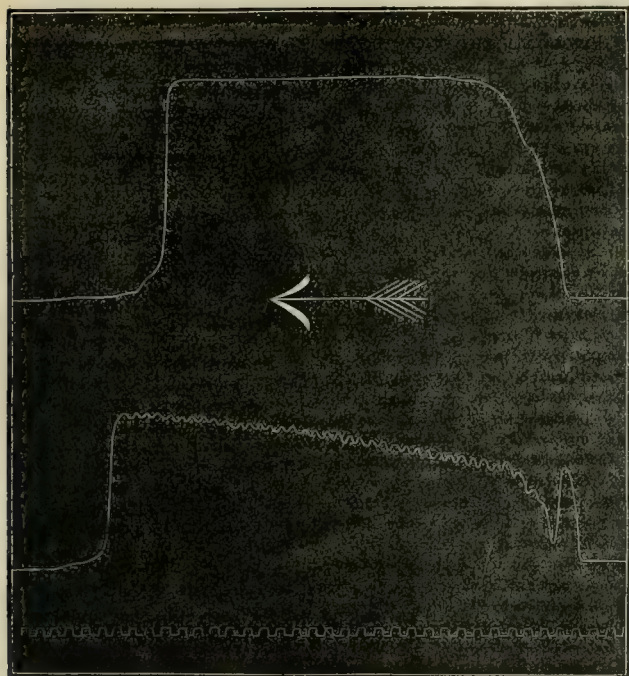


Fig. 14 and 15.

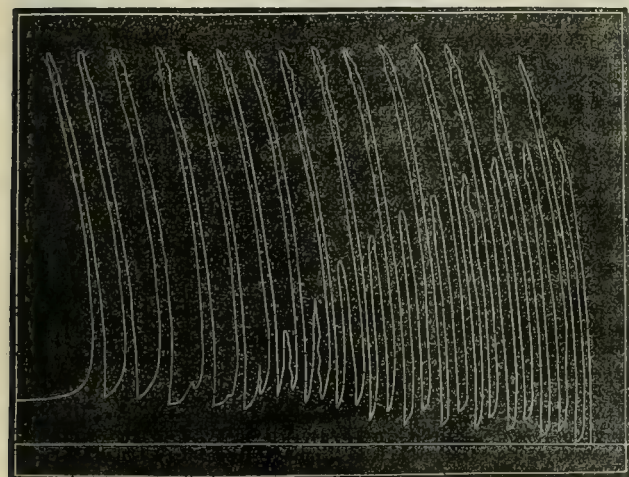


Fig. 21.

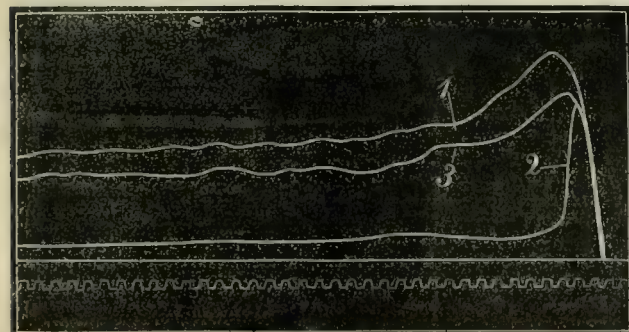
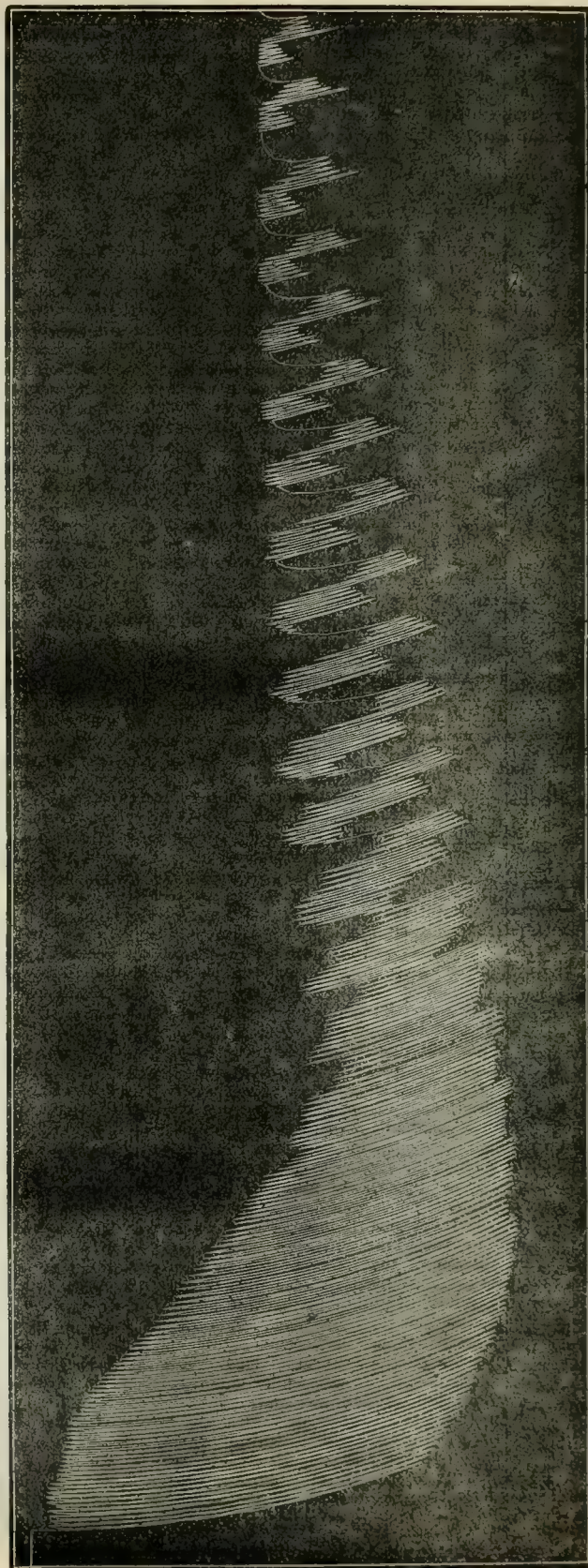


Fig. 24.

Fig. 22.



vous impulses in the spinal cord; 2, with regard to the comparison of direct with indirect excitability.

As regards its effect upon the rate of transmission, it is well known that, during and notwithstanding the exaggerated excitability of the cord, the "reflex time," that is, from the instant of cutaneous stimulation to the commencement of contraction, is greatly prolonged to as many as six or seven times the normal duration (von Bezold and Wundt).

I found that, coincidently with this prolongation in the total reflex period, there is also a prolongation in the time occupied by the transmission of nervous impulses within the cord, transversely as well as longitudinally.

If the two gastrocnemii of a strychninised frog be connected with the levers of a double myograph, and if a reflex spasm be provoked by a single induction-shock to the skin of the foot, the interval between stimulation and contraction constitutes the total reflex time "simple" for the limb excited, "crossed" for the opposite limb; and the difference between these two intervals denotes the time occupied by the nervous impulse in crossing the cord, that is, time of transverse transmission. Similarly, if the gastrocnemius and brachial muscles of the same side be attached to the two levers of a myograph, the time occupied by a nervous impulse passing from the origin of the sciatic to that of the brachial plexus, that is, the time of longitudinal transmission, can be measured. Of such measurements, the tracings 27 to 32 furnish typical instances.

DESCRIPTION OF TRACINGS.

Fig. 3.—Deflections (current-strengths) given through 30,000 ohms by 1, 2, 3,.....20 Leclanché cells; galvanometer-shunt=10 ohms.

Fig. 4.—Deflections given through 10,000 ohms by one Daniell cell with galvanometer-shunts of 10, 20, 30,.....100 ohms.

Fig. 5.—Deflections given through 10,000, 15,000, 20,000.....40,000 ohms by one Daniell with 100 ohms shunt. The above tracing shows that the deflections can be used for the measurement of resistance when the electro-motive force is known, or for the measurement of alterations of resistance when the electro-motive force is constant.

Fig. 6.—Gastrocnemius of frog. Series of maximal contractions (by break induction-shocks) at the outset of fatigue. Each contraction is of greater height and duration than the preceding contraction ("staircase" increase); $1\frac{1}{2}$ " interval between each contraction.

Fig. 7.—Rectus femoris of man. Series of maximal contractions (by break induction-shocks) at the outset of experiment. Each contraction is of greater height than its predecessor ("staircase"-increase); 1" interval between each contraction.

Fig. 8.—Rectus femoris of man. Two series of maximal contractions taken at the beginning and end of a sitting, during which the muscle was uninterruptedly excited for an hour and a half by break induction-shocks at intervals of 1', thus performing over 5,000 contractions. There is no diminution in the extent of contraction; its height at the end is as great as that at the beginning of experiment.

Fig. 9.—Gastrocnemius of frog.—Series of maximal contractions by make and break induction-shocks applied to the sciatic nerve (make ascending, break descending). The extent of contraction rapidly diminishes, more rapidly in the case of the make than in that of the break-contraction.

Fig. 10.—Gastrocnemius of frog; direct excitation; 125 successive maximal contractions at intervals of $1\frac{1}{2}$ seconds, showing gradual increase in length of successive contractions. To be contrasted with tracing 12.

Fig. 12.—Rectus femoris of man; 100 maximal contractions superposed. There is no sign of fatigue, the duration of contraction is not altered, it is between .3" and .4". Contrast with Tracing 10 as regards fatigue, with Tracing 13 as regards normal duration.

Fig. 13.—Muscles of the forearm of man; 25 maximal contractions superposed. The duration of contraction is about .2". The time-tracing is that of a tuning fork marking 1-100th of a second.

Fig. 14.—Rectus femoris of a man. Tetanus (almost complete) by 30 break induction-shocks per second.

Fig. 15.—Muscles of the forearm of man. Tetanus (incomplete) by 30 break induction-shocks per second. The time-tracing is that of a chronograph marking 1-20th of a second.

Fig. 16.—Rectus femoris of man. Tetanus by 100 induction-shocks per second. $a-b$ =period during which current passes. $a'-b'$ =duration of tetanus $b-b'$ =relaxation=delay (.12").

Fig. 17.—Muscles of the forearm of man. Tetanus by 100 induction-shocks per second. $a-b$ =period of passage of current. $a'-b'$ =duration of tetanus. $b-b'$ =relaxation=delay (.08").

Fig. 19.—The first part of the tracing shows exhaustion of effect by

excitation of nerve. The second part shows persistent muscular contractility, and its subsequent exhaustion by direct excitation.

Fig. 20.—Alternate tetanisation of nerve and of muscle. The effect of excitation of the former diminishes more rapidly than that of the latter; that is, the impulse from the nerve becomes blocked between the nerve and the muscle.

Fig. 21.—Alternate tetanisation of two points of frog's sciatic, one centimetre distant from each other. The effect of excitation of the higher point diminishes more rapidly than that of excitation of the lower point; that is, the impulse from above is gradually blocked.

Fig. 22.—Gastrocnemius and sciatic of frog. Tetanus of $\frac{1}{2}$ second duration repeated at intervals of 2 seconds. Coil at 0 c.m.; Helmholtz arrangement. Nerve laid across two pairs of electrodes, 1 centimetre distant from each other, and a third pair of electrodes attached to muscle. Series of 5 tetani, by excitation of (1) nerve high, (2) nerve low, (3) muscle. The effect of (1) is the first to fail, then that of (2), and finally that of (3). The "contraction remainder" is greatest in the case of (3) (direct muscular excitation). Each series (1) (nerve high) about the middle of the tracing, shows a gradual increase from the first to the fifth excitation; that is, the block consequent upon the antecedent direct muscular excitation gradually diminishes.

Fig. 23.—Two drops of a 1-120 solution injected beneath skin. Record of contractions of gastrocnemius directly excited; (a) (b) (c) of successive contractions at intervals of one minute, show progressive diminution of the veratria character; (a') (b'), after an interval of five minutes, show renewal of veratria character and its renewed diminution.

Fig. 24.—Direct application to excised gastrocnemius of 1-120 solution of veratria; three successive contractions by single induction-shocks directly to muscle; (1) shows veratria character; (2) 10 seconds later, shows its loss; (3) five minutes later, shows its restoration.

Fig. 25.—Strychnia. Exhaustion, and recovery of toxic effects upon spinal cord. 1, 2, 3 are successive reflex spasms provoked by single induction-shocks applied to the skin, and show diminution of effect on repetition. 4, 5, 6, after an interval of two minutes, show recovery and renewed diminution of effect. (The interval between each two teeth of the time-tracing denotes 1".)

Fig. 26.—Strychnia. Direct muscular contractions (maximal) of gastrocnemii of frog, two hours after injection of strychnia, the sciatic nerve of one limb having been previously cut. The higher curve is that of the gastrocnemius on the side of section; the lower is that of the opposite limb, and shows evidence of fatigue.

Figs. 27 to 32.—Effects of Strychnia on Spinal Cord of Frog.

Fig. 27 shows normal difference in "lost time" between (a) direct contraction (electrodes applied to muscle), (b) contraction in response to cutaneous stimulation, and (c) contraction in response to a stimulus applied to the spinal cord; the last two contractions are seen to coincide. The intervals between excitation and contraction are: For $a = .008"$; $b = .016"$; $c = .016"$. The difference between (a) and (b) gives the time of longitudinal transmission in the cord = .008". The difference between (a) and (c) gives the "corrected" reflex time = .008".

Fig. 28 shows similar contractions to the above shortly after injection beneath the skin of two drops of a 1-120 solution of sulphate of strychnia. In this case the intervals between excitation and contraction are: for a (direct = .010"; b (spinal stimulus) = .020"; c (skin stimulus = .056". The difference between (a) and (b) gives the time of longitudinal transmission = .010". The difference between (b) and (c) gives the delay suffered by the centripetal stimulus between afferent nerve and spinal cord.

Fig. 29 shows a later stage of strychnia intoxication. The intervals are now: For $a = .010"$; $b = .048"$; $c = 120"$. The time of longitudinal transmission is increased, that is, nearly four times the normal; the reflex time is also increased, that is, about fifteen times the normal; hence it may be concluded that the point at which there is the greatest delay is the junction between afferent fibre and cell of spinal cord. (See also Tracings 28 and 30.)

Fig. 30, at a still later stage, shows the enormous prolongation of reflex time that may be reached in strychnia poisoning, also the time occupied by transverse transmission (difference in time between reflex of side stimulated and of opposite side). The lower line is the tracing of the simple reflex, the upper line is that of the crossed reflex. The intervals are here: Of the simple reflex = .200"; crossed reflex = .228"; difference (time of transverse transmission) = .028". In this case the reflex time is twenty-five times the normal; the time of transverse transmission is about four times the normal. Hence the process is more delayed between nerve and cord than in the cord itself.

Figs. 31 and 32 show the time of transverse and of longitudinal

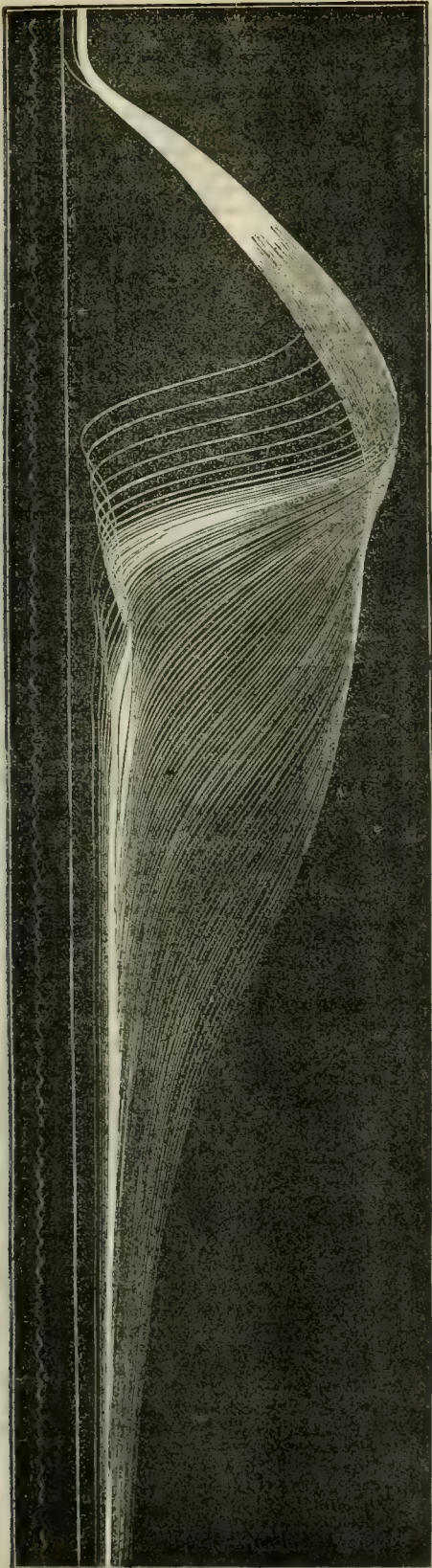


Fig. 10.

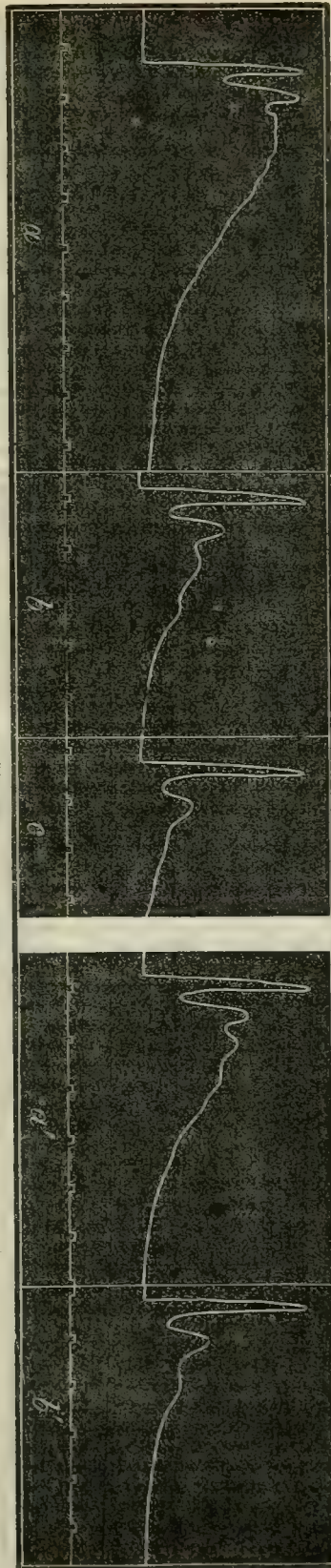


Fig. 23.

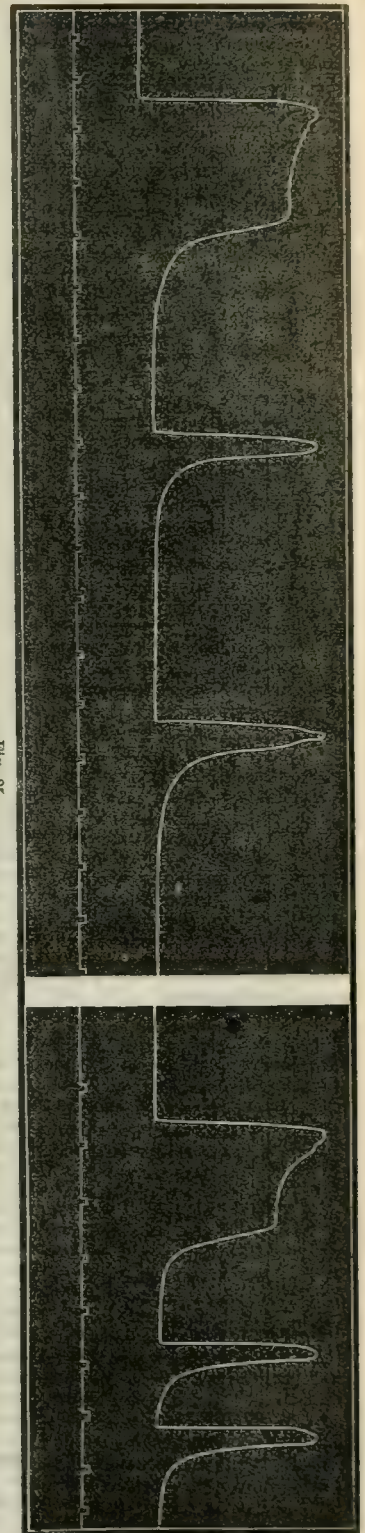


Fig. 26.

transmission in the spinal cord in strychnia-poisoning, and further illustrate the fact that the junction of afferent nerve with spinal cord is the chief seat of delay. In Fig. 31, the intervals are: simple reflex (upper line).038"; crossed reflex (lower line).046"; Difference (that is, time of transverse transmission).008". In Fig. 32, the intervals are: reflex of leg (upper line).060"; reflex of arm (lower line).068"; difference (that is, time of longitudinal transmission).008". The series of Tracings 27 to 32 exemplifies that, in strychnia-poisoning, (1) the time of transmission within the spinal cord participates in the prolongation of the total reflex time; and (2) the chief delay of the reflex is effected at the junction of the afferent nerve with the spinal cord. A comparison of the Tracing 27 (normal) with Tracings 28 and 32 (strychnia) shows that the time of longitudinal transmission is less affected than the total reflex time; for the time of longitudinal transmission is in these last two cases about normal (.008" to .010"), while the reflex time is nearly six times the normal (.056" to .060"). Tracing 29 shows, however, that the time of longitudinal transmission does become prolonged as the toxic effect becomes more pronounced. Tracings 30 and 31 illustrate similar facts with regard to transverse transmission in the cord. Tracing 31 shows that the time of transverse transmission is less affected than the total reflex time; it is in this case hardly above the normal (.008"), while the total reflex time is more than three times the normal (.038"). Tracing 30 shows that the time of transverse transmission does become prolonged in a more advanced stage of intoxication, though not in proportion with the prolongation of the total reflex time; in this case, the latter is above 20 times the normal (.200"), the former only about three and a half times the normal (.028").

As regards the comparison of direct with reflex excitability, it is known that normally the former is greater than the latter to stimuli applied on the course of a mixed nerve; if, for instance, the electrodes be applied to the exposed but uncut sciatic nerve of a frog, the direct contraction is always produced with a weaker stimulus than the indirect. It appeared desirable to learn whether the same fact holds good when the excitability of the spinal cord is increased as by strychnia. The result was to the effect that, however great the excitability of the cord might be, the indirect or reflex contraction always requires a stronger stimulus to its production than the direct conduction; this was ascertained by laying the sciatic nerve of strychninised frogs upon electrodes, gradually bringing the secondary coil nearer to the primary, and noting whether the first elicited contraction was of direct or reflex character. It always occurred under these conditions that the first contraction to appear was a direct contraction; indirect contractions required stronger stimuli. If, however, the electrodes be applied to the skin or to the spinal cord, the reflex contraction may be produced with a weaker stimulus than the direct contraction (provided the excitability of the cord be at its height).

This is in conformity with the known fact that sensory nerves are less excitable in the nerve-trunks than at their peripheral terminations, and indicates that this statement is applicable, also, to their central terminations.

Alterations of Resistance Produced by the Passage of the Galvanic Current.—In our experiments upon the influence of the galvanic current on the excitability of the motor nerves of man, Dr. De Watteville and I very early encountered the great fallacy that besets all such experiments, namely, changes of current-strength during the course of experiment. We then stated, "that when the electrodes are first applied to the body, the current grows gradually to a maximum, owing to the permeation of the skin with moisture, and, perhaps, to the accompanying vascular turgidity;" and remarked further that, "without committing ourselves to any positive statement, our observations lead us to suppose that, during the passage of the galvanic current, an opposite electromotive force is developed within the body, which rapidly subsides" (*Phil. Trans. Roy. Soc.*, 1882, part III, p. 981). We were not then able to determine the conditions upon which these changes of current-strength depend, owing to want of sufficiently delicate galvanometric readings. The galvanograph above described has supplied this want, and furnishes records of current-strength that can be read and interpreted at leisure, and which are entirely trustworthy. Such records of current-strengths are of great importance in nearly all experiments in which differences of excitability have to be estimated; they are particularly necessary in all experiments on the human body; and, in the study of fatigue and recovery, in so far as these are evidenced by altered excitability, control by a galvanographic record is almost indispensable.

These changes of current-strength constitute, however, a far more extensive subject than I at first expected; they have already formed the object of prolonged investigation by Du Bois-Reymond, who re-

marks, in reference to them, that the subject is one which may well occupy the entire life-time of some one observer. I shall, therefore, briefly report those observations only which appear to me to have the most immediate reference to the practical applications of the galvanic current; reserving, for a future occasion, such observations as require repetition and additions. I may remark, with reference to this class of experiments, that they demand a comprehensive study, and require the repetition of older experiments by the light of the information they give. Thus, it would be most desirable to undertake the repetition both upon the isolated nerves of the frog, and upon the normal nerves of man, the whole series of experiments relating to electrotonic alterations of excitability, accompanied and controlled by galvanographic records. I hope to fill this gap during the ensuing year, at least with regard to the normal nerves of man.

With regard to the gradual increase of strength of the current that takes place during its passage, I have ascertained (1) that soaking of the skin and alterations of its vascularity are not the most important factors of the increase; (2) that the increase continues with diminishing rapidity, during periods which are far in excess of the time during which currents are allowed to pass through the body in medical or experimental applications; (3) that the increased current-strength is due to an alteration of resistance (diminution), produced by the current. I have ascertained, further, that this alteration of resistance is produced at the instant of application, and thereafter increases gradually during the application, giving a curve which is asymptotic towards a maximum; and, that it is not directly proportionate with electromotive force, but that it increases more and more in proportion to the electro-motive force employed. Finally, I have ascertained that the phenomena are equally evident on the living and on the dead body, and that they are entirely absent from homogeneous conductors. The Tracings 33 to 37 serve to illustrate all the above statements, and furnish, at the same time, a good example of the use of the galvanographic method.

Fig. 33. Galvanogram of current from four Leclanché cells through electrodes applied to skin of legs for one hour and a half. Size of electrodes 12 x 6 cm. Galvanometer shunt = 10 ohms. The resistance is seen to be progressively diminishing (the numbers indicate its value in ohms during the course of the experiments; the deflection at the end of the experiments is through a known resistance, 2,000 ohms). This diminution is in part due to soaking of the skin which had not been soaked before experiment.

Galvanograms showing alterations of resistance caused by the passage of galvanic currents.

Fig. 34. Normal Living Body; Heterogeneous Conductor.—Electrodes applied to skin of legs which had been well soaked by the previous application of wet bandages. *a.* Series of five periods of passage of galvanic current from seven Leclanché cells, each lasting 30", and separated by intervals of 30". *b.* Series of five periods of passage of galvanic current from seven Leclanché cells added to a persistent current from five Leclanché cells. *c.* Repetition of series *a.*

Series *a* shows a regular deflection. Series *b* shows that the deflection by seven cells is greater when their current is superposed upon a pre-existing current of five cells; it also shows that the current-strength is increasing during the passage of the current. Series *c* shows that the deflection by seven cells is greater after the passage of a current in the same direction (in this case seven and 12 cells alternately for periods of 30"), and that this greater deflection is gradually subsiding. The wires having been arranged so that, when the current is broken, the body and electrodes remain in the galvanometer-circuit, the return to zero shows the absence of any sensible polarisation-current in body and electrodes. The increased current-strength must, therefore, be due to diminished resistance.

Fig. 35. Homogeneous Conductor; Wire Rheostat.—Repetition of preceding experiment under similar conditions, with the exception that a wire rheostat is substituted for the human body. The current of seven cells gives, under these conditions, an unvarying deflection, when made alone (series *a*), or superposed upon a current of five cells (series *b*), and, subsequently, series *c*.

Fig. 36. Heterogeneous Conductor; Dead Human Body.—Electrodes applied to skin of legs soaked by the application of wet bandages during six hours. Repetition of preceding experiments, with the exception that a dead body (seven days after death) was substituted for the living body or rheostat; also, Bunsen's cells were used, instead of Leclanché's; and, by an oversight, a different number of cells was used. *a.* Series of five periods of passage of galvanic current from six cells, each period of passage and each intermission lasting 30". *b.* Series of five periods of passage of galvanic current from six cells, added to a persistent current of three cells. *c.* Repetition of Series *a.* Series *a* shows that the resistance diminishes during each passage of

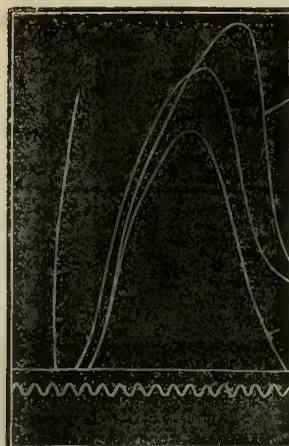


Fig. 27.

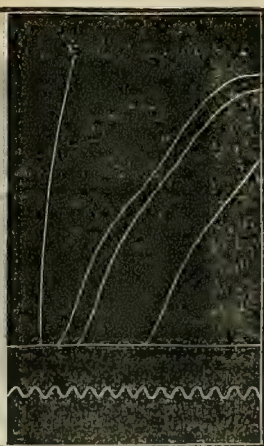


Fig. 28.

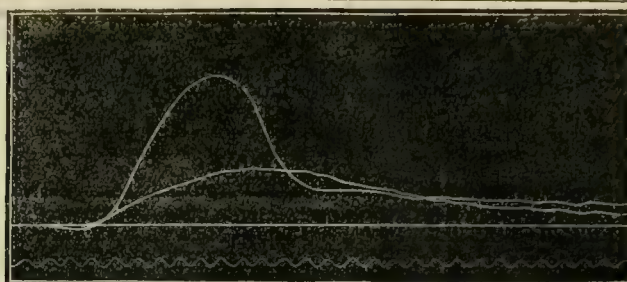


Fig. 29.

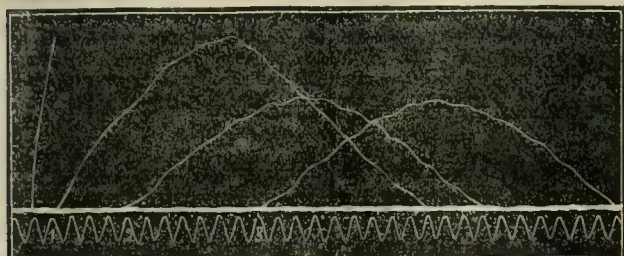


Fig. 30.

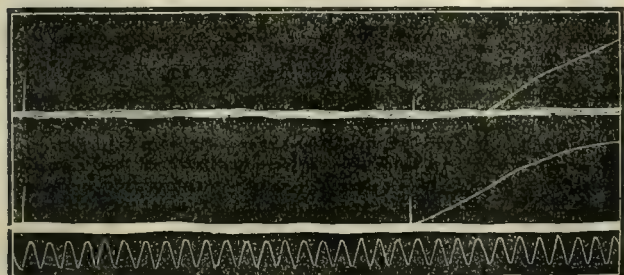


Fig. 31.

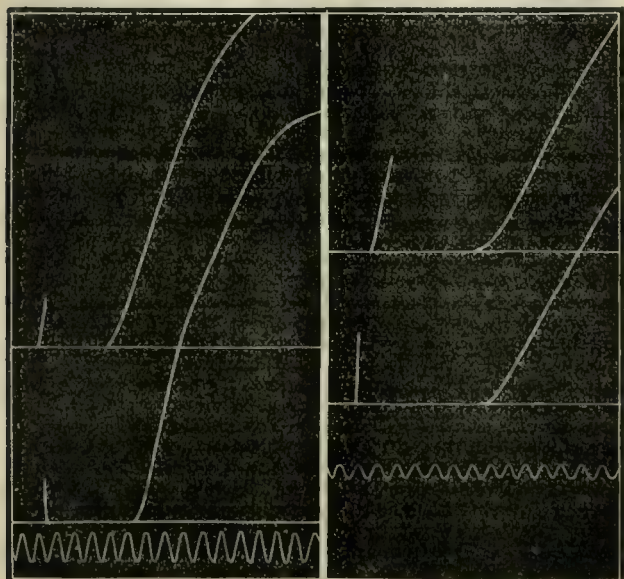


Fig. 32.

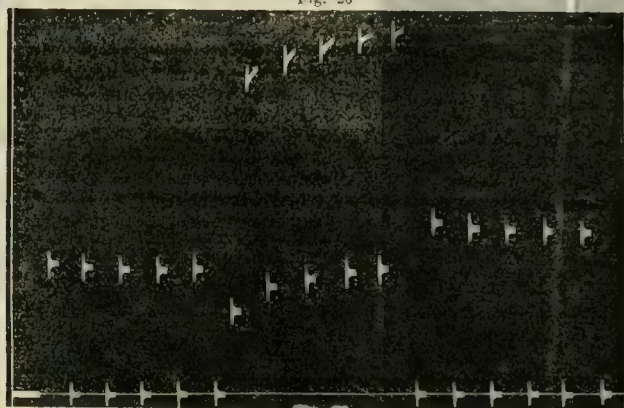


Fig. 33.

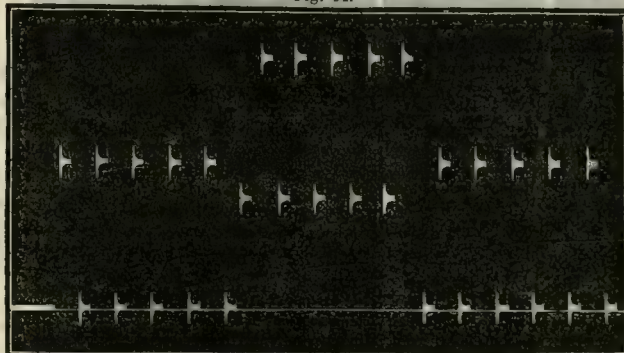


Fig. 34.

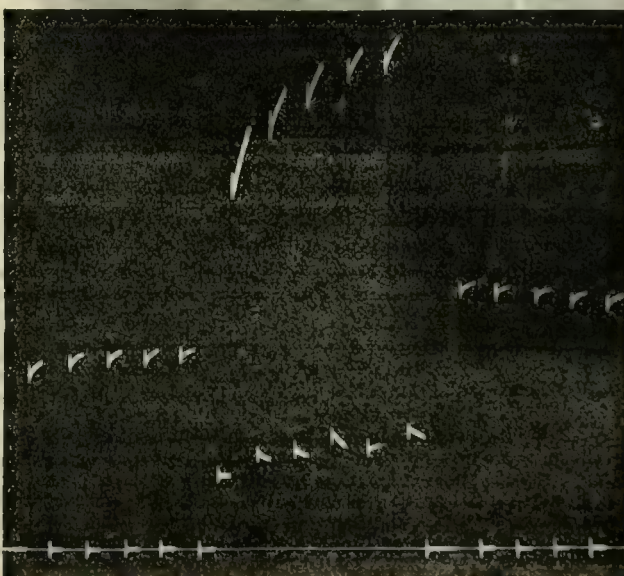


Fig. 35.

current, and increases during each interval. Series *b* shows still more markedly increasing current-strength (diminishing resistance) during passage of current, diminishing current-strength (increasing resistance) during each intermission. The increased deflection produced by the current of six cells, when added to the pre-existing current of three

currents are seen to be practically absent in the case of the dead, as in that of the living body.

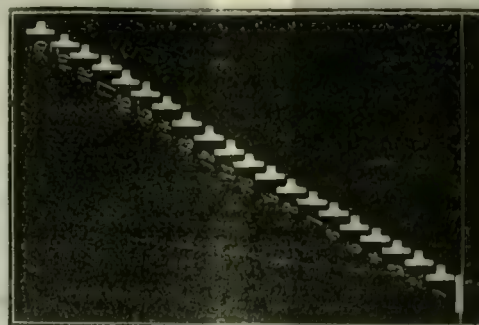


Fig. 37.—Galvanogram of current from four Leclanché's cells through electrodes applied to skin of legs during one hour, the direction of the current being reversed every 15 minutes. Size of electrodes, 12×6 cm. Galvanometer shunt=25 ohms. The current-strength is seen to be progressively increasing, and each reversal of current-direction is seen to be followed by an increase of current-strength. This increased current-strength was due to diminished resistance, not to polarisation-current. The numbers indicate its value in ohms during the course of experiment. The deflection at the beginning of the experiment is through a known resistance, 5,000 ohms.

REPORT ON THE PROTEIDS OF THE BLOOD.

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(From the Physiological Laboratory, University College, London.)

I HAVE continued during the past year the research on the blood proteids, the first instalment of the report on which was published in this JOURNAL on July 26th, 1884.¹

The methods employed during the past year were the same as those described in my former paper. I have this year extended my researches to the blood and serum of the lower vertebrate animals, and also to certain of the invertebrate classes; with regard to the latter, the only one on which the investigation can be considered in any sense complete is the class of the Crustacea.

My report will, therefore, come under three heads:

1. Amplification of certain points left uncertain or incomplete in my last report.
2. The blood-proteids of the lower vertebrata.
3. The blood or hæmolymph of crustacea.

I.—AMPLIFICATION OF CERTAIN POINTS LEFT UNCERTAIN OR INCOMPLETE IN MY LAST REPORT.

a. Differentiation of Serum-Albumin into Three Proteids.—By the process of fractional heat-coagulation, the proteids hitherto included under the name serum-albumin, can, in most mammalian animals, including man, be separated into three: serum-albumin α , coagulating at 73° C.; serum-albumin β , coagulating at 77° C.; and serum-albumin γ , coagulating at 84° C. Not only is this the case in the blood-serum, but the serum-albumin in the so-called serous effusions is similarly differentiable. The clinical interest of this lies in the fact of the possibility of these being altered in the blood in disease.

The opportunities of obtaining human blood, in sufficient quantity for such investigations, are necessarily rare in the present day. I have, however, been able to examine the blood in one instance, from a case of Bright's disease, during the past year. In this I found that the globulin in the serum had the usual characters, but the heat-coagulation points of the serum-albumins were abnormal; there being apparently only two present—namely, β and γ , the heat-coagulation temperatures being 76° C. and 84° C. respectively.

In two cases in which I examined the abdominal fluid, in cases of cirrhosis of the liver, the results confirmed those already published—namely, that three albumins are present.

I have also examined three specimens of cerebro-spinal fluid, in which I found that no albumin was present at all; but that the only

¹ As before, the expenses have been defrayed from the Scientific Grants Committee of the British Medical Association.

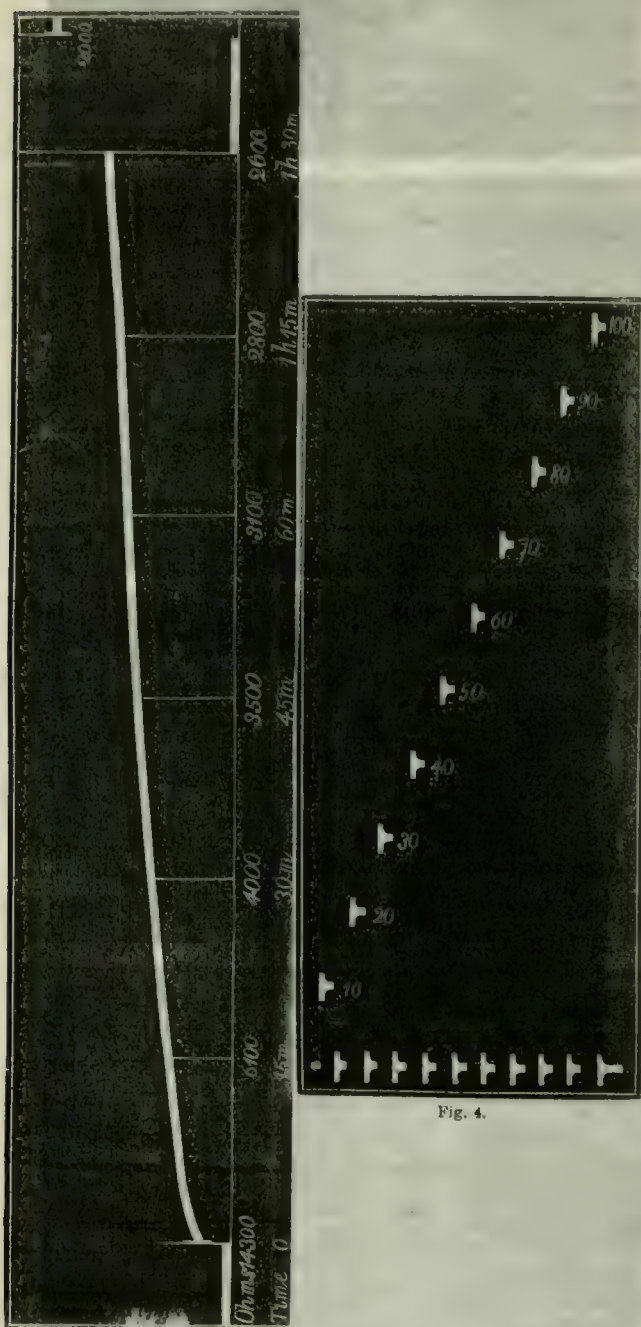


Fig. 38.

cells, is seen to be even more marked in this case than the similar increase in the case of the living body (in which seven cells were added to five cells). Series *c* shows that the current-strength is, as a whole, increased (diminished resistance); that this increase is gradually subsiding (increasing resistance); and that during each passage of current this fall is arrested, and replaced by a slight rise. Polarisation-

proteid present possessed all the characters of serum-globulin. This confirms an observation previously made by Hoppe-Seyler (*Physiologische Chemie*.)

In animals, I have, thanks to the kindness of Professor Horsley, the opportunity of examining the blood of several monkeys from which the thyroid body had been removed. The results I obtained have been already published by Professor Horsley in his Brown lectures (*BRITISH MEDICAL JOURNAL*, January 1885); they were as follows. Coagulation set in with extreme slowness, and, in consequence, the clot showed a well marked buffy coat; the blood contained a small quantity of a substance which possessed the characters of mucin; the serum-globulin was normal, or slightly increased in amount; the serum-albumin was not separable into three by heat-coagulation, such as are present in normal monkey's blood, but all the serum-albumin present was of the α variety, coagulating at 72° to 73° Cent.

b. Precipitation of Serum-Albumin by means of Salts.—Last year, I showed that it was possible to precipitate serum-albumin from its solutions in an uncoagulated condition, by means of saturating them with two salts; the pairs of salts that act in this way I found to be magnesium-sulphate and sodium-sulphate, magnesium-sulphate and sodium-nitrate, magnesium-sulphate and ammonia-alum, magnesium-sulphate and potassium-iodide, and, lastly, sodium-sulphate and sodium-chloride. In this particular, all three varieties of serum-albumin are alike. I, however, offered no explanation of these phenomena. I am now prepared to explain the fact, at any rate with regard to the first pair of these salts, namely, magnesium-sulphate and sodium-sulphate. Either salt alone will not precipitate serum-albumin, both together will. Two explanations of this fact are possible; one is that the mere presence of magnesium-sulphate enables sodium-sulphate to precipitate the albumin without the formation of any new compound; the other and more reasonable explanation is, that, when magnesium-sulphate and sodium-sulphate come together, a new compound is formed, and this it is which has the power of precipitating serum-albumin; I will now endeavour to show this is the correct explanation. The formula for magnesium-sulphate is $MgSO_4 \cdot 7(H_2O)$; that is, it is united with seven molecules of water of crystallisation. It is a well known fact that magnesium-sulphate forms with the alkaline sulphates double salts, in which a molecule of the alkaline sulphate takes the place of one of these molecules of water of crystallisation; thus, $MgSO_4 \cdot K_2SO_4 + 6(H_2O)$ is the formula for the potash double salt.

Here, then, is a ready explanation for the results obtained; when sodium-sulphate is added to magnesium-sulphate, the double sulphate of soda and magnesia is formed, and this it is which precipitates the serum-albumin.

Here, also, we have a ready means of accounting for the long time that the precipitation of serum-albumin takes by this method; the substitution of one molecule of water by one of sodium-sulphate is a slow process at the temperature of the air; hence the precipitation of serum-albumin by it must be similarly slow. I obtained some of this double sulphate of sodium and magnesia ($MgNa_2(SO_4)_6 \cdot 6(H_2O)$), in order to put this theoretical explanation to the test of experiment; it is a commercial by-product in the preparation of Epsom salts, and so can be easily obtained; by saturating blood-serum or plasma with it, or by saturating a solution of serum-albumin with it, all the proteids can be rapidly and completely precipitated from these solutions; this fully confirms what one would theoretically anticipate. It seems probable, by analogy, that a similar explanation holds for the other pairs of salts mentioned above, but I have not worked out the other cases thus fully.

This method of precipitating proteids has but little clinical interest, seeing that the physician has at his command many ready ways of detecting albumin; but for those working at physiological or pathological chemistry, it forms a valuable method of completely precipitating proteids in an uncoagulated form. The method has been largely used in the physiological laboratory at University College. Not only will it precipitate the proteids of serum, but also the proteids in other liquids, for instance, in white of egg. My friends, Dr. Martin and Dr. Wolfenden, tell me that it will not precipitate peptones. We have here, then, a means of separating peptones from other proteids, even from the hemialbumoses, which resemble peptones in many of their properties.

II.—THE BLOOD-PROTEIDS OF THE LOWER VERTEBRATA.

My researches in this direction are at present incomplete. I have examined the blood of various amphibia, reptiles, and birds, and find that the proteids of the character of globulins, namely, fibrinogen and serum-globulin, seem to have the same properties, though varying in amount, throughout the vertebrate kingdom, while the serum-albu-

min differs. The rule seems to be that, in cold-blooded animals, the serum-albumin is all of the α variety, that is, it all coagulates at 73° Cent.; whereas, in warm-blooded animals, birds, and mammals, it can be differentiated into three separate proteids (except among the Ungulata, where only two of these are present, namely, serum-albumin β coagulating at 77° Cent., and serum-albumin γ coagulating at 84° Cent.).

The blood of fishes I have, up till now, not had the opportunity of examining.

The rule as to the difference in the serum albumin in cold and warm-blooded animals I put forward, at present, with all reserve; until a sufficient number of instances have been examined, it is not safe to make any such general statements, but all the cases hitherto examined fully bear it out, and I hope to continue my researches in this direction next year. I have to thank my friend, Mr. W. P. May, for much help in these experiments. He has himself carefully worked out the case of the frog, both qualitatively and quantitatively, in the case both of *Rana temporaria* and of *Rana esculenta*, and he will himself shortly publish his results fully. With regard to the serum, he finds that the average percentage amount of proteids present is 2.54, a number much lower than in the case of mammalian serum, where the percentage of proteids varies between six and eight, being, in the case of man, 7.16. Of this, in the frog, serum-globulin or paraglobulin comprises the greater amount, 2.18 per cent. being globulin, and only 0.36 per cent. serum-albumin, the latter all of the α variety. It cannot, however, be at present stated that this large excess of globulin over albumin (which is the reverse to the rule among mammals), is what obtains universally among the lower vertebrates, or even among amphibia; for I have found that in one of the amphibia, at least, namely, the Salamander, the albumin is present in greater amount than the globulin.

III.—THE BLOOD OR HEMOLYMPH OF CRUSTACEA.

I have used in my experiments the blood of the commoner decapod crustacea; namely, the common lobster, the edible crab, the freshwater crayfish, and the sea-water crayfish (*Nephrops Norvegicus*). My thanks are due to Professor Cossar Ewart for a large supply of the last named animal.

The blood was obtained by making cuts in the ventral region in the soft tissues between the abdominal segments. The blood gushes out very readily and in good quantity. When first drawn, it is of a reddish colour or colourless, according as a red pigment presently to be described is present in large or in small quantity. It is also milky, from the presence in it of a large number of amoeboid cells. In contact with oxygen, it changes to a blue colour. It begins to clot very quickly, the clot which first forms entangling the cells; the surrounding liquid then sets into a firm jelly; and, finally, this contracts, squeezing out serum. The process of jelling seems to be a continuation of the process by which the first clot with entangled cells is formed, and not, as Frédéricq supposes, an altogether distinct phenomenon. My opinion is based on microscopic appearances, which are similar in the two cases; and on the chemical properties of the two clots, which are identical. Both in chemical properties and in microscopic appearance, the substance of coagulation is almost identical with the fibrin of vertebrate blood; it differs from it in not being so soluble as vertebrate fibrin in dilute solutions of neutral salts, and in not swelling so markedly in weak hydrochloric acid. The clot of crustacean blood, as also of other kinds of invertebrate blood, was supposed to be a mere coalescence of cells, or a plasmodium, by Mr. Geddes (*Proceedings of the Royal Society*, vol. xxx, p. 252); but it is not so. There is, in addition, a fibrinous material. Not only does this resemble the fibrin of vertebrate blood in its physical and chemical properties, but also in its mode of formation, as is seen by the consideration of the following points.

1. It does not occur in the living vessels.

2. It takes place after the blood is shed.

3. It can be prevented by the admixture with the blood of certain large proportions of neutral salts. This is in contradiction to what previous investigators, Frédéricq (*Extrait des Bulletins de l'Acad. Royale de Belgique*, 2me série, tome xlvii, No. 4, 1879) and Krukenberg (*Vergl. Phys. Studien*, 2te Reihe, 1te Abtheilung, s. 49, Heidelberg, 1882), have stated. They, however, apparently did not use a sufficiently large amount of such salts. It is necessary to have at least four times as much saturated solution of magnesium-sulphate, or ten times as much saturated solution of sodium-chloride, by volume, as of blood. Sodium-sulphate does not prevent the coagulation; this is different from what obtains among vertebrata. Subsequent dilution of this salted blood with water brings about coagulation.

¹ This was shown also to be the case in Echinoderms by Professor Schafer.

4. The formation of the fibrin is due to [the solidification of a proteid body, or fibrinogen, which exists in solution in the blood-plasma. This can be precipitated by saturating with magnesium-sulphate, washed, and redissolved by water. The addition of fibrin-ferment, prepared either from crustacean or from mammalian blood, to this solution, brings about the formation of fibrin.

5. This conversion of fibrinogen into fibrin is brought about, as indicated in the last paragraph, by a ferment-action.

6. The source of this ferment is the amœboid corpuscles of the blood. This can be prepared from the blood by Schmidt's method; that is, precipitation by alcohol, and subsequent extraction of the dried alcoholic precipitate by water. This ferment is identical with the ferment of mammalian blood, and brings about coagulation in hydrocele and pericardial and similar fluids, just as the ferment prepared from mammalian blood does.

The proteids of the blood-plasma are two in number. One is the fibrinogen just indicated; it may be called for the present crustacean fibrinogen; and the other is the very important proteid to which Frédéricq gave the name hæmocyanin (*Comptes Rendus*, tome lxxxvii, 1878, page 996), and which is widely distributed in the invertebrate subkingdoms (Mollusca, Crustacea, Arachnida). It was first fully described in the octopus by Frédéricq. This is the only proteid hitherto described in the blood of decapod Crustacea, and it is the only one that exists in the blood-serum of these animals. The quantity of solids in crustacean blood varies from six to eight per cent.; about half of which consists of proteids, chiefly of hæmocyanin; the rest consists chiefly of salts, which are the same as those occurring in the water in which these animals live, being more abundant in those whose habitat is the sea, than in those which live in fresh water. There is, in addition, a small quantity of fatty matter and extractives, including a small amount of urea.

These proteids give the ordinary proteid reactions. They both coagulate, but slowly, at the temperature of 65° Cent., and hence it is impossible to separate them by the process of fractional heat-coagulation. They also both belong to the globulin class, and are precipitated incompletely and slowly by saturation with sodium-chloride, and completely, but also slowly, by saturation with magnesium-sulphate: they can be precipitated quickly and completely by means of the very valuable salt before alluded to, namely, the double sulphate of soda and magnesia: lastly, they can be precipitated by dialysis. The first precipitate, obtained by shaking the plasma with magnesium-sulphate, or better, sodium-chloride, for about three hours, consists mostly of crustacean fibrinogen; but I have not succeeded in obtaining it completely free from hæmocyanin, as is shown by its faint blue tinge; still, addition of fibrin-ferment to it causes the formation of fibrin, a thing which does not occur with the hæmocyanin, which is readily obtained pure by using the serum instead of the plasma. That these proteids can be precipitated by these salts is a fact, in contradiction to the assertions of Frédéricq and Krukenberg; these observers do not seem, however, to have kept the blood in contact with the salt for a sufficient length of time.

Hæmocyanin is an interesting proteid; it is the respiratory proteid of these animals, but does not exist, as hæmoglobin does, in vertebrate blood in special corpuscles, but in solution in the blood-plasma or serum. In it, copper takes the place of the iron of hæmoglobin; in a reduced state it is colourless; in the state of oxyhæmocyanin, analogous to oxyhæmoglobin, it has an indigo-blue tinge. On spectroscopic examination it shows no absorption-bands, but only a slight cutting off of both ends of the spectrum.

In addition to this blue colour, there is a red pigment in the blood; this is also in solution in the blood-plasma.² In some specimens, especially in the Nephrops, it occurs only in small quantities, but in most specimens of lobsters, crayfishes and crabs, it is present in large quantities. The fact of its occurrence is mentioned by Frédéricq (*loc. cit.*), in the lobster, and by Jolyet and Regnard (*Arch. de Physiologie*, 2nd série, tome iv, 1877, p. 600), in the crab; but nothing further has hitherto been made out about it. In its identification, I have received much help and many valuable suggestions from Dr. McMunn, of Wolverhampton. It is not a proteid, being readily extracted from the blood by means of alcohol. It belongs to the class of pigments known as luteins, or lipochromes, giving all tests that Capranica and Schwalbe describe as characteristic of those bodies. It is, in fact, the same red pigment which occurs in the shell of the crustacea, and which has received the name of tetronerythrin. It is a pigment which occurs pretty widely distributed in the animal kingdom. Dr. McMunn (*Proc. Royal Society*, No. 226, 1883) has shown that it is probably formed in the liver of the crustacea; and,

² Reddish granules, which are occasionally seen in the cells of some animals, seem to be of the same nature as this pigment.

on comparing spectroscopically the pigment taken from these three situations, the exoskeleton, the blood, and the hypoderm, they are seen to be identical. There is a small cutting off of the red end of the spectrum, a cutting off of a large part of the blue end of the spectrum, and an absorption-band in the neighbourhood of the F line, which in dilute solutions appears only as an indistinct shading in this region. Mierzejewski (*Nature*, January 19th, 1882) supposes it to have an important action in cutaneous respiration, on account of the large quantity in which it occurs in the gills. Oxidation and reduction produce, however, no effect on it when separated out from the parts in which it occurs. The discovery of its presence in the blood shows how it passes from the liver, where it is probably formed, to the surface, where it is apparently used for respiratory or other purposes; namely, it is conveyed thither in solution in the blood, or, if it be in abundance, some of the granules of the blood-corpuscles become tinged by it; this latter fact is quite explicable when we remember that many of the granules are of a fatty nature, and that tetronerythrin is readily soluble in fats.

REPORT ON THE ACTION OF PAPAIN.

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(From the Physiological Laboratory, University College.)

In a previous paper (*Journal of Physiology*, vol. v, No. 4) I have detailed the characters and action on coagulated albumen of the proteolytic ferment obtained from the papaw-juice (*Carica papaya*), extending the researches of Wurtz and Bouchut and others.

Wurtz had described the ferment as a proteid, soluble in distilled water, yet precipitated by nitric acid, but differing from a native albumen (as white of egg) in not being precipitated by boiling. In the material I used in my former experiments (commercial papain), I found two proteids, a globulin, and a "peptone;" and I could not come to any conclusion as to which of these bodies was the ferment, or, to speak more correctly, which was associated with it.

In the present investigation, I attempted to settle this point. In the first place, the body called a "peptone" in my previous paper is not a true peptone—that is, a proteid capable of fairly rapid diffusion. Not precipitated by nitric nor by acetic acid and ferrocyanide of potassium; but it is one of the bodies intermediate between globulins and peptone, first described by Meissner as a peptone, and called by Kühne *hemialbumose*. This body agrees with peptone in the following reactions: it is soluble in distilled water, and is not precipitated from this solution by boiling; it also gives a pink or red colour with copper-sulphate and excess of potash. It differs from peptones in being precipitated by strong mineral acids, and by acetic acid and ferrocyanide of potassium. These reactions agree with those given by Wurtz as characteristic of solutions of pure papain; this agreement, indeed, led me to think that the ferment was associated with the hemialbumose. I found this to be the case. A glycerine-extract was made of commercial papain, the glycerine being filtered clear under pressure. This extract contained a proteid (hemialbumose) in quantity, and a mere trace of globulin. It was as active as the powder itself. Part of this extract was diluted with water, and saturated with magnesium-sulphate to precipitate the small amount of globulin, which was filtered off; the filtrate was then saturated with sodium-sulphate, which precipitated the hemialbumose. This was collected on a filter, washed with a saturated solution of sodio-magnesium-sulphate, and then dissolved in water. This solution of the precipitated hemialbumose was found to be very active; it was tested with coagulated egg-albumen, peptones being formed in quantity. The filtrate, after saturation with sodium-sulphate, contained a little hemialbumose. After dialysing for some hours, its action was tested on egg-albumen; very little, if any, digested. This experiment distinctly shows that the ferment-action is associated with the hemialbumose.

The result was confirmed in another experiment, in which a similar process of saturation was performed in a watery solution of papain. The result may be tabulated as follows.

Precipitate by Magnesium Sulphate = Globulin.	Precipitate by Sodium Sulphate = Hemialbumose.	Filtrate containing no Proteid.
No action on coagulated egg-albumen at 35° to 40° Cent.	Forms peptones from coagulated egg-albumen at 35° to 40° Cent.	No action on albumen at 35° to 40° Cent.

Whether the ferment may be separated from the hemialbumose I am, at present, unable to state. Ptyalin (Cohnheim) and pepsin (Brücke) have been separated free from proteid. Trypsin, however, has not, though Schützenberger states that probably all diastatic and proteolytic ferments may be separated from the accompanying proteids.

I have repeated the experiments on animal albumen detailed in my first paper, and can only confirm what I have there stated; namely, that papain acts like trypsin (though not so rapidly) in forming from coagulated albumen and fibrin a true peptone, an intermediate body related to globulin, and leucin and tyrosin.

I have extended my experiments to the investigation of the action of the ferment on milk, and on the proteids found in papaw-juice.

Action on Milk.—Papain acts like pancreatic juice on milk, and the experiments I shall describe are almost similar to those performed by Dr. W. Roberts, of Manchester, with pancreatic extract. Papain, like pancreatic extract, first curdles the milk, and, within certain limits of temperature, the curds are more quickly formed and are larger the higher the temperature up to 62° Cent. (about 145° Fahr.), at which point the curdling is practically instantaneous; for example, with five grains of papain, and 450 cubic centimètres of milk, and 125 cubic centimètres of water at 62° Cent.

The curdling is hindered by making the milk alkaline with bicarbonate of soda, by diluting it, and also, to some extent, by boiling the milk previously to the addition of an equal quantity of cold water; when, if papain be added, the curdling is not so great, nor the curds so large, as when the water is boiled and added to the milk. The curds in "papainised" milk gradually dissolve, the casein being changed into peptones, leucin and tyrosin being produced, and the liquid becoming bitter to the taste. Moreover, between the stage of casein and peptone there is a body formed, which is precipitated by boiling and by nitric acid, an intermediate body similar to the one developed during the digestion of coagulated egg-albumen. Its properties were tested as follows. Seeing that it must be formed from the curds first precipitated by the ferment, these were separated in one experiment, and extracted with a 10 per cent. sodium-chloride solution, and the mixture filtered. The clear filtrate gave a fine precipitate on boiling, and on adding nitric acid; and, moreover, a fairly copious one on saturation with sodium-chloride. This last precipitate was collected and dissolved in water (by aid of the salt present), and gave the following reactions, in addition to those previously obtained from the unsaturated filtrate, namely, a marked biuret reaction with copper-sulphate and potash, and a cloudiness with corrosive sublimate, insoluble in excess; boiled with fresh ferric acetate and filtered, no proteid was found in the filtrate, showing the absence of peptones. Hence this body, which is soluble in saline solutions, and precipitated from these by saturation with sodium-chloride, and giving a biuret reaction, is a hemialbumose.

This point being settled, experiments were done to see the degree of action of the ferment in the milk. In the following experiment, the digestion of the curds (casein and fat), obtained by precipitating 200 cubic centimètres of milk diluted with glacial acetic acid, was compared with that of the same quantity of milk. The curd was well washed, to free from acid, and squeezed as dry as possible before weighing.

A.

Milk	...	200 cubic centimètres.
Sodic carbonate	...	.5 gramme (7½ grains).
Water	...	200 cubic centimètres.
Papain	...	.3 gramme (5 grains).

The water and sodic carbonate were boiled and added to the milk (which was at 10° Cent.); resulting temperature 50° Cent. The papain was then stirred in the beaker, wrapped up, and kept in a warm place. In 10 minutes, the mixture began to curdle, the curds gradually dissolving; in 45 minutes, a slight bitter taste was developed; in 50 minutes, the temperature of the liquid was 35° Cent. It was then boiled, causing a slight precipitate. The filtered liquid gave the tests for peptones.

B.

Curd prepared as above from 200 cubic centimètres of milk; weight	...	21.5 grammes.
Water	...	200 cubic centimètres.
Sodic carbonate	...	.5 gramme (7½ grains).
Papain	...	.5 gramme (7½ grains).

Half the water was boiled and added to the other half, containing the curd and sodic carbonate; resulting temperature, 48° Cent. It was placed in a warm place under cover for 65 minutes, when the residue of curd weighed only 2.7 grammes; therefore (21.5-2.7)=18.8 grammes digested. The residue was chiefly fat; it dissolved almost completely

in ether. The filtrate after digestion gave a slight precipitate with acetic acid in the cold, soluble in excess; none on boiling; a marked biuret reaction with copper-sulphate and potash.

It will be noticed that A was partly digested, giving a precipitate on boiling; B almost completely so, since there was no precipitate on boiling. The precipitate by acetic acid, soluble in excess, was hemialbumose. Both A and B were slightly bitter after digestion.

The point naturally suggested by these experiments was, that papain might be utilised in preparing an artificial peptonised milk, its slower action being in some respects an advantage over pancreatic extract, in that the digestion can be arrested at any intermediate stage more readily. In some conditions of disease, it seems to me a distinct advantage to employ a partly digested food, because some work is left for the stomach to accomplish; in others, perhaps, a fully peptonised food would be more useful.

By a partly digested milk is meant one in which much of the casein is in an intermediate stage, namely, as "metacasein" and hemialbumose; by a fully digested milk, one where all of the casein has been changed into peptone. A and B, in the experiment quoted above, are types of the two stages.

Milk which has undergone only partial digestion is not very bitter, but has the disadvantage that it causes a precipitate on boiling afterwards. This latter result may be obviated by making it sufficiently alkaline, that is, adding 30 or 40 grains of bicarbonate of soda to the pint of milk. It is only slightly different in appearance from ordinary milk. The wholly digested milk is more bitter.

The following practical suggestions may be made regarding the preparation of papainised milk.

A pint of milk is taken, and a quarter of a pint of water; add an equal volume of milk to the water, and 30 grains of bicarbonate of soda, and boil; add the remaining milk to the hot liquid. The resulting temperature varies from 45° to 55° Cent.; it is usually about 48° Cent. (118° Fahr.); the variation depends, of course, on the temperature of the cold milk. The papain must now be quickly stirred in, and the mixture covered with a covey, and placed in a warm place. After digestion, it is boiled, to stop the action. This method does as well for pancreatic as for papain digestion; it obviates the use of a thermometer, and so can readily be done in the ward or sick-room.

For preparing a partly digested milk, seven grains of papain, with an hour and a half's digestion, is quite sufficient, using a pint of milk in the manner above described; for the more complete digestion, 10 grains for two hours must be used.

The food is greedily taken by kittens, but I have not yet tried it on patients.

Action of Papain on the Proteids in Papaw-Juice.—(Only a brief summary of the results obtained can now be given; full details of the experiments will soon be published.) Of late years, the former ideas of the nature and constitution of vegetable proteids have been entirely revolutionised, chiefly by the researches of Denis (*Mémoire sur le Sang*), Weyl, Hoppe-Seyler, Vines, and others; so that now we may state that the two chief proteids found in plants are globulins and "peptones." Vines considers that there is no true peptone in the seeds of plants; he thinks it is a hemialbumose, and explains away Ritthausen's "legumin" and "conglutin," obtained from the seeds of Leguminosæ, referring the former to the class of hemialbumoses, and the latter to a changed form of proteid produced by the action of alkalies on globulin. (*Proc. Roy. Soc.*, vol. xxviii, 1878.) By pursuing the method first instituted by Denis—namely, extracting the material with 10 to 15 per cent. solution of sodium-chloride, and precipitating the proteids by saturation with salts, I have obtained from papaw-juice proteid bodies, whose reactions agree with those of globulins and hemialbumoses, or rather albumoses, leaving the question as to whether they are anti- or hemi-forms for further consideration. The salts used in saturating were *magnesium sulphate*, which precipitated the globulins of the myosin type and two forms of albumose; followed by *sodium-sulphate*, which, by forming the double salt sodio-magnesium sulphate, precipitated the remaining proteids, which consisted of a trace of vegetable vitellin and an albumose (Kühne, Ueber Albumosen, *Zeitschr. für Biologie*, Band xx, 1884).

The albumose precipitated by sodio-magnesium sulphate corresponds to Vines' hemialbumose; its exact position I must leave for the present undetermined. This albumose gives the same reactions previously detailed, as those of the body with which the ferment is so closely associated; it is the proteid in the juice most like a peptone. I found no true peptone.

The action of papain on these different constituents is peculiar, because in the many experiments I have hitherto done, I have been able to discover no true peptone as a result of digestion; the bod

which is formed from the globulins is the albumose found in small quantities in the salt-extract, the body which corresponds to Vines' hemialbumose.

At the same time, leucin and tyrosin are formed from these proteids; they are found in the juice as well.

I must thank Messrs. Christy and Co. for their kindness in supplying me with specimens of papain, and of dried papaw-juice.

PRELIMINARY REPORT ON THE INFLUENCE OF HEPATIC STIMULANTS ON THE COMPOSITION OF THE URINE AND ON THE BLOOD-CORPUSCLES.

By D. NOEL PATON, M.B., Edinburgh.

My original intention was to confine my attention to the influence of hepatic stimulants upon the composition of the urine, as suggested to me by Professor Rutherford; but the influence of these drugs upon the blood, and the relationship of this action to their chologogue effects, seemed to me well worthy of investigation. I have accordingly devoted some time to the study of this subject, which promises to yield most interesting and important results.

ACTION OF CHOLAGOGUES ON THE URINE.—The influence on the excretion of urea and uric acid of the following chologogues has been studied: euonymin, iridin, colchicum, salicylate of soda, benzoate of soda, and perchloride of mercury. Five experiments have been made with euonymin, three with iridin, three with colchicum, six with salicylate of soda, two with benzoate of soda, and five with perchloride of mercury. The above list does not appear very large; but it must be remembered that each experiment extended over ten or fourteen days.

Method of Analysis.—The various methods for the quantitative estimation of urea and uric acid were fully studied. In my investigations, I have adopted the following method.

1. *For Urea*, the hypobromite method, as improved by Huefner, but with the apparatus of Dupré, was used. This method was found to give results most closely corresponding to the actual excretion of urea, and it is less liable to be vitiated by the presence in the urine of the drugs during their excretion by the kidney than the more commonly employed, though not more accurate, method of Liebig.

2. *For Uric Acid*, Haycraft's method was employed, because it yields much more accurate results than the older methods of Heintz, of Cook, or of Pavy; while Salkowski's very complicated method was found too tedious for every-day use.

Mode of Experiment.—My first experiments were made on the human subject, but the results obtained were highly unsatisfactory, and all my observations were repeated on dogs kept on a fixed diet. In these, the urea excreted became very constant, and the effects of moderate doses of the drugs could be readily demonstrated.

Results.—The following results have been obtained. — 1. Euonymin, iridin, colchicum, and perchloride of mercury, all increase the secretion of urea and uric acid; and, with the exception of colchicum, they also increase the excretion of water. When purgation is induced, the full action of these drugs upon the urea is not manifest. 2. Salicylate of soda and benzoate of soda both greatly increase the excretion of urea, and very markedly diminish the secretion of uric acid. With salicylate of soda the water is much diminished, while with the benzoate of soda this remains unchanged. 3. An experiment with ippecacuanha was attempted, but the sickness induced was so great that no results of any value were obtained.

ACTION OF CHOLAGOGUES ON THE BLOOD-CORPUSCLES.—My reasons for undertaking an investigation into the action of these drugs on the blood-corpuscles were the following.

1. Fuhrer and Ludwig, Meissner, and others have adduced cogent arguments to show that a large part of the urea in the organism is derived from the breaking down of blood-corpuscles. No direct experiments have, however, been made upon this subject.

2. The introduction of hæmoglobin into the system has been found to increase the secretion of bile.

3. The connection of the chologogue with the blood-destroying action of toluylendiamin has been hinted at by Afanasiev in his interesting paper on that drug.

The action of the following drugs upon the hæmocytes, both outside the body and in some cases also in the living subject, has been studied; salicylate of soda, benzoate of soda, perchloride of mercury, colchicin, sulphate of soda, phosphate of soda, and some of the other salts of the alkalies.

Salicylate of Soda has been shown, both outside the body and in the living subject, to have a very powerful destructive action upon the red blood-corpuscles. Its action has been studied on amphibian and mammalian blood, both outside the body and in the living animal.

Benzoate of Soda has a similar action.

Mercury.—The mercuric potassic iodide, which does not coagulate albumen, was the salt used. Outside the body, both in amphibia and in mammals, it has a powerful destroying action upon the hæmocytes. That this action is due to the mercury, is shown by the fact that neither the iodide nor the chloride of potassium has any such effect.

Colchicin has a similar action both outside and in the living body.

Many interesting results in regard to the different manner in which these substances act on the corpuscles while effecting their destruction have been obtained.

The action of the salts of the alkalies is still under investigation, and interesting results are being obtained.

The insoluble nature of most of the chologogue salts has prevented my investigating their action on the blood-corpuscles. This difficulty I trust soon to be able to overcome.

I intend to postpone publishing my results until I have been able to connect more definitely destruction of blood-corpuscles with formation of urea. This subject I intend to investigate by the "durchströmung" method of Ludwig. I have already had an apparatus constructed, and as soon as it is ready I shall proceed with these experiments.

When the results of my work are ready for publication, I shall transmit a full report.

NOTE ON A REMARKABLE CASE OF ARREST OF GROWTH OF ONE HUMERUS.

By JONATHAN HUTCHINSON, F.R.S.,
Consulting Surgeon to the London Hospital.

In the case which I am about to relate, the humerus of the left arm measures 8½ inches, against 12½ of its fellow. This very remarkable difference has resulted from an injury, followed by inflammation and ankylosis at the age of a year and a half. The injury is believed to have been slight, but it was followed by inflammation, and the arm was said to have been kept at rest for six months. Thus, there is no proof forthcoming that the epiphysis was detached. It is certain that the result has been bony ankylosis between humerus and scapula, and the remarkable dwarfing of the bone which I have mentioned. The arrest of growth has affected the scapula and clavicle as well as the humerus, but in them it has resulted in slenderness only, not in diminution of length. The whole clavicle is thin, certainly not more than two-thirds of the thickness of the other, and the long and slender acromion projects sharply over the shoulder. The humerus is slender as well as short, especially in its upper part, and the rotundity of its head is quite lost. There is no very obvious wasting in the lower part of its shaft, and the two elbows seem to be much alike. No difference that can be measured exists in the forearms or hands. The subject can do anything below the elbow, and his power of moving the scapula is also remarkably great. The deltoid is, of course, quite atrophied. He can barely get the hand to touch his mouth, but can manage his fork well. He can put his hand behind his back, and fasten buttons, etc., though with some difficulty.

As the subject of the case is a young lad of only 16, who has not attained his full growth, it may be expected that a yet greater disparity in the lengths of the bones will be produced in the future.

The great slenderness of the clavicle and scapula must be attributed to the absence of motion at the joint and the atrophy of these muscles, and it well illustrates important physiological laws.

I have seen many examples of arrested growth in long bones owing to injury or disease of the epiphyses. No bone shows this arrest more definitely or more frequently than the humerus. To the growth of this bone, the upper epiphysis is of main importance, and its complete detachment is not very unfrequent. I remember two portraits showing arrest after injury in childhood, which were published some years ago in the *Guy's Hospital Reports*; one, I think, by Mr. Birkett, and the other by Mr. Bryant, and in both it was the humerus which was the bone affected. In neither of these, nor in any other case with which I am acquainted, was the difference so great as in the case just described. As regards the degree of arrest, everything, of course, depends upon the age at which the damage occurs. The younger the child, and the more severe the damage, the

greater the arrest. Detachment of the upper epiphysis of the humerus occurs, in my experience, most often in boys of from 10 to 15. At such ages the resulting arrest is usually but trifling. I can scarcely think it possible that any form of disease, apart from a complete reparation of the epiphysis, could have produced such shortening as here exists. It is to be observed that there is a clear tradition of an accident, though the details are not forthcoming, and it was at the early age of 18 months. I have only the youth's own account, and he, of course, remembers nothing. He has been told that his arm was seen both by Sir James Paget and myself, but I have no recollection of the case, and have failed to find any note.

OPHTHALMOLOGICAL MEMORANDA.

THE EFFECT OF GENERAL ANÆSTHESIA ON CUCAINE MYDRIASIS.

I AM not aware that any observations have as yet been recorded as to effects of the general anæsthetics on cocaine mydriasis. So much has, however, been written respecting this remarkable and most valuable drug, that it is hardly safe to state now that any observation is original. At all events, I desire to draw attention to the following.

A short time since, cocaine was inserted into the eye of a case of strabismus, on which it was intended to operate, but for which it was afterwards deemed desirable to administer ether to overcome the nervousness of the patient. The phenomena about to be mentioned were then noticed. The cocaine had caused wide dilation of the pupil; but, during the administration of the ether, and whilst under the anæsthetic, the mydriasis was observed to pass off, and the pupil to become just as small as the other. This observation has been repeated in other instances. A few days since, in a case of nœvus of the orbit in a baby, about to be treated with electrolysis, the pupil of one eye was purposely dilated with cocaine (five per cent. solution of hydrochlorate). Chloroform was then administered, and, whilst the child was getting under its influence, the pupil became less large, and, when fully narcosed, it was as small as the pupil of the other eye. On the day this is written, the observation was repeated in a case for which ether was administered; and, after recovery from the effects of the anæsthetic (ether), the pupil was observed to have become dilated again. Mr. Coombe, assistant house-surgeon, has very kindly made observations, with similar results, in cases about to be operated upon by my surgical colleagues.

It clearly follows, from these observations, that we have in cocaine a mydriatic that acts in a different manner from atropine and other agents of the same class. It is well known that atropine mydriasis remains unaffected when ether or chloroform is administered, a result in accordance with the opinion that the drug acts by paralysing the sphincter iridis, and affecting the muscles, or rather the peripheral endings of the nerves which supply them. The observations I have recorded would appear to support the theory advanced by Mr. Walter H. Jessop, in his paper read before the Royal Society, and alluded to in the JOURNAL of June 27th. He maintains that cocaine acts as an irritant to the endings of the cervical sympathetic or mydriatic nerve of the eye. At all events, it is seen that, when, on the administration of a general anæsthetic (ether or chloroform), the muscular system has become relaxed, and narcosis has occurred, the cocaine eye recovers itself.

These observations appear to be of interest, both apart from, and in connection with, Mr. Jessop's interesting investigations. I am inclined to think that chloroform more fully overcomes the mydriasis than ether.

SIMEON SNELL,

Ophthalmic Surgeon to the Sheffield General Infirmary.

THERAPEUTIC MEMORANDA.

HYDROCHLORATE OF CUCAINE.

I FIND, in cases of "urethral caruncle" (those exquisitely sensitive growths of the female urethra), that the effect of cocaine is marvellous. Few small troubles are more sensitive to touch, and formerly it was necessary to give chloroform for their removal. I now apply a four per cent. solution of cocaine, and in five minutes snip them off with sharp scissors, and apply the cautery to the stump to stop bleeding, without chloroform, and without pain to the patient. The same solution, if applied in the nostrils with a camel's hair brush, undoubtedly produces great relief in cases of hay-fever.

PERCY BOULTON, M.D., 6, Seymour Street, W.

SURGICAL MEMORANDA.

EARLY SYPHILITIC EPIDIDYMITIS.

IN the BRITISH MEDICAL JOURNAL of May 30th, is a very interesting article on the above subject by Mr. Arthur Cooper.

Syphilitic epididymitis, in the early stage of syphilis, being of a somewhat rare occurrence, I have ventured to record the following case.

Private X, aged 20, was admitted into the Station Hospital, Gibraltar, on May 4th, with a venereal sore on the ventral surface of the body of his penis; it was large, single, non-suppurating, and slightly indurated. The patient first noticed the sore a fortnight after connection, and it commenced as a pimple. Shortly after his admission into hospital, the glands of both groins and in other parts of the body became very hard; none suppurated. On June 20th, 1885, exactly two months since the initial lesion was noticed, the patient complained of slight pain in his left testicle, which, on examination, was found to be in the following condition. The testicle itself was perfectly healthy, but the globus major of the epididymis was enlarged, slightly painful, and quite hard; it felt as if, what is known as a "monkey-nut," had been inserted over the left testicle; the left spermatic cord, the right testicle and epididymis, were perfectly healthy. There was no urethral discharge, nor had the patient met with any accident. Coincidentally with the affection of the epididymis, the patient's throat became sore, and presented a well marked horseshoe-shaped ulcer on each tonsil.

On the appearance of the above symptoms, mercury was at once administered, in the form of pills of two grains of hydrargyrum cum creta, night and morning, and the patient was kept at rest in bed. After the first week of the mercurial treatment, the swelling of the left globus major was decidedly less; it was also less defined and hard; there was absolutely no pain. At the present time (a fortnight after the mercurial treatment), the epididymis which was affected is in its normal condition; the swelling, tenseness, and well defined lump, having entirely disappeared, thus fully bearing out Mr. Cooper's statement, that the "swelling rapidly subsides under general antisyphilitic treatment."

I think it remarkable that this condition of the epididymis should not invariably occur in both organs simultaneously; for "symmetry" is known to be one of the great diagnostic features in secondary syphilis. Of the 16 cases collected by M. Dron, nine had both organs affected; of the eight cases collected by M. Fournier mention is not made as to whether one or both organs were affected; in Mr. Cooper's case it will be remembered both organs were affected, but in my case one organ only was attacked.

Gibraltar.

ALLAN PERRY,
Surgeon, Army Medical Staff.

OBSTETRIC MEMORANDA.

TRACTION ON THE UMBILICAL CORD.

AFTER an extensive experience in midwifery, I can truly affirm that gentle traction on the cord is a safe and judicious expedient, and does not induce spasm, and should be practised in every instance. At the same time, the uterus should be grasped by the right hand, which few only can perfectly accomplish. The advantages of this plan are that the third stage, the most anxious time for patient and doctor, is much abridged, there is less likelihood of hæmorrhage, and whether anything be wrong or not can be quickly ascertained. Spasmodic contraction is an exceedingly rare occurrence, and is almost invariably associated with something amiss with the placenta itself, or it is more or less adherent. I have not seen spasm produced by snapping of the funis, when the fetus has been dropped on to the floor, nor by any other untoward circumstance, under which the child is occasionally born.

GEORGE SMITH, Westbury-on-Trym, Bristol.

TREATMENT OF ULCERS OF THE LEG.—Dr. Roberts has (*Poly-clinic*) recently had excellent results in chronic ulcers of the legs, after sprinkling powdered chloride of sodium thickly over the surface of the ulcer, once every three or four days, and dressing the sores twice daily with corrosive sublimate ointment. The ointment contains half a grain of the mercuric chloride to the ounce of cerate. Chronic ulcers with callous edges are often most expeditiously treated by the surgeon excising them by means of an elliptical incision, and closing the wound with sutures.

REPORTS OF SOCIETIES.

BORDER COUNTIES BRANCH.

JUNE 28TH, 1885.

The Value of the Thermometer in Practice.—Dr. HADDON read a short paper on this subject. Having mentioned the importance attached to the thermometer in medical practice at the present day, he proceeded to estimate its value, in his own experience, having used it for 20 years, under the following propositions. 1. It is of value because its record is reliable. 2. It is of value because it assists us where there are no objective symptoms, either in detecting disease or a malingering. 3. It assists in diagnosis (1) early in many diseases, and (2) late in others, where a diagnosis would otherwise be impossible. 4. It is of value in giving us early information as to any departure from the normal course of a disease, and so points out the onset of complications. 5. It is of value in showing when disease is declining. 6. It is of value in prognosis. 7. It is of value as an indication for treatment. 8. Its record cannot be relied upon unless it is read in the closest connection with every sign and symptom the patient may present.

REVIEWS AND NOTICES.

THE ESSENTIALS OF HISTOLOGY, DESCRIPTIVE AND PRACTICAL, FOR THE USE OF STUDENTS. By E. A. SCHÄFER, F.R.S., Jodrell Professor of Physiology in University College, London. London: Longmans, Green, and Co. 1885.

PROFESSOR SCHÄFER has brought together into one volume of about 250 pages the chief part of the histology from Quain's *Anatomy*, vol. ii, of which he is the joint editor, and the most essential of the methods for practical histological work from his own well known and useful *Course of Practical Histology*. Made up of these two important elements, we may predict with certainty to the present work an exceedingly useful career amongst medical students, for whom it has been compiled. It presents, in a handy readable form, the leading facts of the histology, which is, in Quain's classical handbook, somewhat too much mixed up with naked-eye anatomy. In addition to the histology proper, before the structure of each tissue or organ is described, brief, but practical, and for the most part easy, directions are given as to the best methods of preparing such structures for the microscope.

The book is divided into 42 lessons; each of which, the author states, may be supposed to occupy a class of medical students from one to three hours, according to the extent to which the preparations are made beforehand by the teacher or are prepared during the lesson by the student. The arrangement of the lessons is very much the same as that adopted in similar books, except that perhaps more time is given up to each of the elementary subjects; thus four lessons are devoted to the subject of the blood, three to epithelium (including ciliated), six to connective tissues, and so on.

Of course, certain of the latter lessons may be, as far as the practical work is concerned, omitted by the average student; and those have been inserted, we are told in the preface, "not to injure the completeness of the work by omitting mention of them." On one or two points in the histology we would remark, as not being quite as satisfactory as the remainder, and they are The Development of Bone, forming Lesson XIV, and The Formation of Teeth, forming part of Lesson XXVI. We know that these subjects are not by any means easy of comprehension, and cannot help thinking they have somewhat lost in clearness by condensation. Professor Schäfer gives only one theory of the structure of striped muscle, and that, we think, a sufficient one; Krause's theory is, however, mentioned in smaller print. There is scarcely anything more unsatisfactory in histology to teach to students than the structure of striped muscle, in consequence of the variety and diversity of the views of it which are from time to time advanced; and we are strongly of opinion, in which it appears our author coincides, that it is mere waste of time for students to learn more than one such theory. Altogether, the histology is just such as is wanted by the medical student. The illustrations, of which there are 281, are really excellent, comparing most favourably with those in similar works. In an appendix will be found some very condensed information as to the general methods of preserving and hardening tissues, which cannot fail to be useful.

VILLE DE BRUXELLES. ANNUAIRE DÉMOGRAPHIQUE ET TABLEAU STATISTIQUES DES CAUSES DES DÉCÈS POUR L'ANNÉE 1884. [ANNUAL OF VITAL STATISTICS, WITH TABLES OF CAUSES OF DEATH FOR THE YEAR 1884.] Brussels. 1885.

In this interesting and elaborate report there are figures enough and to spare, but scarce any attempts are made to reduce them to percentages, and to exhibit them in forms suited to purposes of comparison.

One table shows an improvement in the mortality from all zymotic diseases in 1884 as compared with the mean of the previous 20 years, except in the case of croup and diphtheria, which are rightly, for statistical purposes, thrown together. The rate per 10,000 living for these is no less than 4.9, whereas diphtheria in London figures only at 1.1 at present. Enteric and typhus fever stand as 4.5, or twice as high as here, whereas scarlatina and measles present the opposite proportion. This points to the fact that the arrangements for notifications and isolation of contagious diseases are, in Brussels, ahead of those in force in London, but the general conditions of sewerage and water-supply are more faulty.

As in Germany, still-births from the sixth month are registered, a practice well deserving adoption; but the attempt to record abortions from the earliest period of uterine life is a palpable failure, since it is incredible that only one miscarriage occurred among the wealthy, 41 among the middle classes, and 84 among the poor in a population of nearly 400,000. By the way, this attempt at dividing the inhabitants of a great town into these three classes is arbitrary and unsatisfactory, as is the classification of streets in ten ranks or grades.

The periodical character of small-pox is well seen in these tables, the deaths in 1879, 1880, and 1881 having been 9, 5 and 9, but those in 1882, 1883, and 1884, 82, 136, and 93; this should always be borne in mind when an apparent improvement follows an epidemic. The total death-rate for the city and suburbs varied in the six divisions from 16.8 to 29.3, the birth-rate from 15.1 to 33.7; of the births, 20 per cent. in the city, and 28 in the suburbs, were illegitimate.

SIXTY-NINTH ANNUAL REPORT OF THE MANCHESTER ROYAL EYE HOSPITAL FOR THE YEAR 1884.

DURING the year as many as 15,427 new cases came under treatment, of which about 8,500 were from Manchester and Salford, representing about 1.6 per cent. yearly of the entire population of these towns. The in-patients, 1,155 in number, stayed in the hospital for an average period of 19½ days, at a cost of only 4s. 8d. per week for maintenance and 5s. 10d. for service.

Glancing at the surgical part of the Report, we observe that, out of 186 cataract-extractions, the eye was lost in 13 cases, of which six were due to suppurative of the cornea and five to purulent iritis and subsequent atrophy. Preliminary iridectomy seems extremely little favoured, having been done in two cases only. The operation has almost invariably been done without an anæsthetic. Vitreous humour has been lost 22 times in all; and sympathetic iritis as a consequence of the operation has been recorded three times.

Though the last two items are larger than could be wished, the surgical results must be regarded as distinctly good, especially when taken in relation to the candour with which the Report is distinctly stamped. The statistics of ophthalmia neonatorum are of especial value in the present juncture. Out of 310 such cases, there are 57 in which there has been serious permanent damage, which in 20 of them has involved both eyes. It is not stated how often the patient has been incapacitated from gaining a livelihood, but we should judge that absolute blindness has resulted at least seven times.

As will be judged from the above, the Report contains much instructive matter, and is highly creditable to the officers of the institution.

NOTES ON BOOKS.

Suicide. By W. WYNN WESTCOTT, M.B. (London: H. K. Lewis. 1885.) This is an amplification of an essay delivered by the author before a metropolitan medical society, and deals with the subject of suicide in a copious, albeit not very lucid and connected, fashion. The literature of the subject is laid under contribution from the time of the earliest historical and biblical records to that of the most recent daily journals. Statistics abound; nor does Dr. Westcott neglect to point out the abundant fallacies connected with these. So long, indeed as coroners' juries persist in returning the old verdict of

"temporary insanity," whenever a person gets into a scrape and makes away with him or herself, the statistics of suicide, in its relations to insanity, will be valueless. The recent alteration of the law to meet the difficulties attendant upon a verdict of *felo de se* has done little to correct the anomaly. It would be impossible, in a short space, to summarise or even to attempt to give a connected view of Dr. Westcott's laborious compilations, and the task would be the more difficult in consequence of the haphazard and inconsequential manner in which the author puts together his facts and views. But spite of its patchwork character, the volume before us is a valuable contribution to medical and juridical literature, well worthy of perusal, and likely to prove a standard work of reference on the obscure and fascinating subject of suicide.

Hay-Fever; its Etiology and Treatment, with an Appendix on Rose-Cold. By MORELL MACKENZIE, M.D. Lond. Third edition. London: J. and A. Churchill. 1885.—It would appear that the idea that some peculiarly sensitive individual might

"Die of a rose in aromatic pain,"

is not altogether so absurd as Pope supposed. Dr. Morell Mackenzie has added to the third edition of his lecture on hay-fever, originally published in these columns, an historical account of that very curious and uncommon disease "rose-cold." In the sufferers from this disease the symptoms of hay-fever are produced by the odour, or perhaps it would be more correct to say by the proximity, of roses. Some of the cases quoted by Dr. Mackenzie from American observers appear to show that these flowers alone excite severe symptoms in certain persons, who are unaffected by other flowers or by grasses.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

COMPRESSED TABLETS.

HAVING made great improvements in their machinery for manufacturing compressed tablets, Messrs. Burroughs and Wellcome, Snow Hill, have sent us specimens of some of their most recent productions. These tablets are made by simple pressure, and without the addition of any excipient. They are beautiful preparations, and form by far the best and most convenient mode of administering many drugs in common use. The bisulphate of quinine tablets, each containing two grains, are remarkably soluble in water, and are taken by patients without difficulty, even when the ordinary sulphate is not tolerated. The chloride of ammonium tablets will be found useful in the treatment of chronic bronchitis and "winter-cough." The tablets of chlorate of potash, and chlorate of potash and borax, are of value in many affections of the mouth, throat, and pharynx; they are "hard pressed," so that they dissolve slowly, presenting all the advantages of a continuous gargle. The compressed cathartic tablets are ingenious, and, from their small size and ready portability, will be found useful in country practice. We have been especially interested in the tablets of permanganate of potash, which are so attractive in appearance that they might almost be mistaken for sweets. Permanganate of potash is undoubtedly the best remedy for amenorrhoea, and the best mode of administering the drug is in the form of compressed tablets. It is essential that they should be taken soon after meals, and they should be "washed down" with plenty of water or other fluid. If these directions are followed, there need be no fear of their producing irritation of the mucous membranes. All these tablets are put up in little tubes fitted with corks, so that they are available for use at a moment's notice. In a pocket-case not much larger than the ordinary visiting-list, ten different varieties of tablets may be carried, the supply of each being sufficient for several patients. The whole arrangement is excellent, and is deserving of the highest praise.

ROSE'S ELECTRIC TABLE-LAMP.

AMONGST the exhibits worthy of note at the Inventions Exhibition, is a very cleverly constructed self-contained electric table-lamp, invented and patented by Messrs. A. V. and G. F. Rose of Ellerslie, Cavenish Road, Brondesbury. The inventors allege that they can, by the use of a primary battery of a particular construction, give a light from an incandescent lamp equal to the ordinary Duplex lamp now in use, for six hours (without recharging), at a cost of less than a

penny per hour. The simplicity in construction, the absence of heat, smoke, and smell, together with the many other advantages it has over the oil lamps of the present day, should not only bring about a revolution in the lighting of houses, but, for the reasons already named, must be much less injurious to health than lamps of any other kind. We learn that it will be made a prominent feature in the new galleries of Messrs. W. P. and G. Phillips, of 175, 177, and 179, Oxford Street, as well as at the leading houses throughout the country.

MR. J. BRINDLEY JAMES'S PERCUSSO-PUNCTATOR.

The subjoined engraving gives an accurate idea of the construction and mechanism of a newly contrived instrument for the treatment of rheumatic and other affections, as practically useful in its effects as simple in its construction. The inventor, Mr. Brindley James, penetrated by the result of considerable experience of the high efficacy of acupuncture in the treatment of rheumatism, lumbago, and obstinately persisting neuralgic affections, has succeeded in facilitating its application by this ingenious contrivance.



The puncturing needles A, can be protruded or withdrawn at will, by means of a screw E at the further end of the ivory handle D (which constitutes the body of the instrument), and by a connecting-rod C running through the centre of the latter. An electro-plated cap B contains the needles, and is connected with D by another electro-plated cap C, being attached thereto by a bayonet-lock. A further screw F allows of the connection of the needles (through the rod C) with an electric battery, should the case require it. Mr. James is indebted to the practical co-operation of Messrs. Down Brothers, the eminent surgical instrument-makers of St. Thomas's Street, and the sole makers of the percusso-punctator, for giving practical application to the instrument of his invention, the therapeutic utility of which will soon be universally acknowledged. It is the intention of the inventor to read a paper in the Surgical Section at the forthcoming annual meeting of the Association, illustrating the successful use of this instrument in a large number of cases.

INHALATION.

SIR,—In the JOURNAL of May 10th, Dr. Ward Cousins treats of inhalation and of inhalers in general, and speaks highly of a very light instrument invented by himself. Now, although I can heartily endorse every word of his communication in reference to treatment, I must say that I consider his inhaler of very little use. The best I have yet seen is one invented by Mr. Alabone, of High-bury. The fault of Dr. Cousins' inhaler, I think, lies chiefly in its minute construction. About a dozen small pinholes are all the space allowed for the entrance of air before meeting with the inhalant, and this alone, considering the vastness of the thoracic cavity, demonstrates the inefficiency of the instrument. As for the wire which should compress the nose, it is too limp and flexible to allow of such an action in the slightest degree. Alabone's allows the entrance of an abundant stream of air, and I find that patients prefer it to Dr. Coghill's and others. I have had a modification made for me by Messrs. Maw, Son and Thompson, which admits a still further entrance of air and a more thorough impregnation of it with the inhalant, because of the provision of three inlets in place of one.

I use Dr. Sinclair Coghill's inhalant, with the addition of eucalyptus oil. I find that cases of chronic bronchitis and asthma, and of pneumonia in the third stage, can be very rapidly cured by the use of it.

The patient inspires through a tube which is placed in the mouth. Air enters by three tubes, and is charged with the inhalant on a pad at the bottom of the inhaler, ten drops being put upon it three times a day. A spare cork is provided to prevent evaporation when not in use. Expiration should take place through the nose.—I am, sir, yours truly,

C. R. ILLINOWORTH, M.D. Ed.

NEUROPATHIC SNEEZING.—In one of his last clinical lectures, M. Charcot has shown a girl, aged 16, suffering from this singular complaint. There is in her case a well marked neurotic tendency, with hemianesthesia on the left side, and hysterogenic zones on the right breast and in the left ovarian region. The fits, which are preceded by a feeling of globus hystericus, consist in nervous cough, laughter, and spasmodic sneezing, sometimes also yawning. The order of these phenomena may vary, but they generally appear in succession, and are frequently accompanied by opisthotonos. The patient sneezes very rapidly, from 30 to 40 times per minute, during the paroxysm. There is no hypersecretion of the mucous membrane of the nose. The case is clearly one of hysteria, and may be compared with those reported by Romberg, Peter Young, and Brodie. In Brodie's case, the fits alternated with nervous cough and hysterical dyspnoea. Spasmodic sneezing, due to hysteria, has been known to assume an epileptic character.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 25th, 1885.

THE PROCESS OF FATIGUE AND RECOVERY.

DR. WALLER'S research on the "Process of Fatigue and Recovery," published in this week's JOURNAL, constitutes the report of his work during the past year in the investigation undertaken by him as holding a research-scholarship of the Scientific Grants Committee of the British Medical Association. The paper is, in substance, a summary and preliminary account of facts and data relating to some of the many questions in this department that require experimental answer, and contains results that are a distinct addition to our definite, as distinguished from our conjectural, knowledge.

The conclusions reached by Dr. Waller concerning the part played by the motor end-plates in the process of fatigue, and in the allied process of degeneration, are of special interest and importance, and justify our acceptance of the generalisation that the junction of nerve and muscle is a weak link in the chain, and is the first to suffer in its transmitting-function by poison, by excessive action, and by disorderly nutrition. We have, in short, under these last two conditions, an effect precisely similar to that which is brought about by the action of curare; and we see that an identical result—namely, the establishment of a block between nerve and muscle—can be produced by curare, by fatigue, and by degeneration; that is to say, by agents in the toxicological, in the physiological, and in the pathological domains: a generalisation which is still further extended to include the changes which naturally occur at death. Dr. Waller's experiments on this last point are not advanced as being entirely conclusive. The problem here is to examine whether, in the dying organism, the excitability of nerve outlasts the excitability of muscle by stimuli applied to its nerve; and the only method by which this could be accomplished was by the observation of the "negative variation" as the index of excitation occurring in the nerve when it had ceased to have action on muscle. This method was followed, and instruments were devised for the purpose of recording the results. A complication, however, arises, owing to the development of electrotonic currents which might mask or be mistaken for the negative variation; and Dr. Waller promises to repeat these experiments with additional precautions. These experiments, relating to the motor end-plate, also go far to prove that it is an organ that can be fatigued; and, therefore, when called into action, a force-producing organ, and not merely a passive conductor, like nerve, as was held by Tschiriew. The last-named

observer stated that fatigue by excitation of nerve runs a parallel course with fatigue by direct excitation. The present report contains, however, curves (Fig. 19), in which the fatigue-decline is more rapid for indirect than for direct excitation.

Another question of practical importance, which is broached in these experiments, is that of the principal site of fatigue, when normal voluntary action is sustained or repeated for long periods. It clearly results, from the experiments made by Dr. Waller on this point, that, when central nerve-cell, nerve-fibre, and muscle are together called into play in the accomplishment of repeated voluntary efforts, it is the central cell that is the weakest link in the chain; and that voluntary action grows weaker as fatigue increases—not because either muscle or nerve are becoming exhausted, but because the central motor is expending its power. Dynamometric observations show diminished voluntary power at a time when the excitation of nerve or muscle gives none of the ordinary signs of fatigue at the periphery; evidence of peripheral fatigue appears, indeed, to be obtainable with a difficulty which contrasts strongly with the ease and rapidity of the occurrence of voluntary fatigue. The bearing of these observations upon some of our guiding notions in medical practice is obvious, and appears at first sight to be out of harmony with the recent experiments of Zabłudowski and others, and the undoubtedly good effects of "massage," which can only be understood on the supposition that fatigue is, in part, peripheral. This is, however, not excluded by the above observations; an instance of peripheral fatigue by excessive central action is given in the case of strychnia acting on the spinal cord; and the conclusion appears to be that the process of fatigue expresses itself at both ends of the nerve—more, however, at its central than at its peripheral end. Data are still wanting, however, before we may assign to each constituent of the nervous arc its share in the depression of function that results from expended activity. We know already, from the older experiments of Du Bois Reymond, and the more recent experiments of Wedenskii and of Bowditch, that the nerve proper has little or no share in the depression; that it does not expend force, but is merely a passive conductor; that it is, therefore, practically unsusceptible of fatigue. Bernstein's older experiments, on the course of fatigue and recovery in nerve, have been entirely supplanted by these modern experiments; and we now require a comparison of the process in the nerve-centre with that at the periphery, and not the comparison of muscle with nerve in this respect, seeing that the last-named organ is practically independent of functional fatigue and recovery.

Dr. Waller's report contains further an account of experiments showing that the effect of a poison, when it has added itself to the normal effect of which an organ is capable in response to excitation, can itself be dissipated in consequence of a series of excitations, and reaccumulated during an interval of repose, even if the organ be completely isolated from any fresh supply of the poison. Such phenomena are shown to occur in the case of the action of veratria upon muscle, and in that of strychnia upon the spinal cord; the veratria character disappears from muscle in consequence of repeated action, and returns during subsequent repose; the strychnia character disappears from the spinal cord in consequence of repeated action, and returns during repose. The analogy of these phenomena with each other and with the normal process of fatigue and recovery is complete; they differ only in the rapidity with which they are developed. The process in the cord is evidently of the same causation as the changes in excitability recently observed by Walton upon ani-

mals poisoned by strychnia, to the effect that the cord, after repeated excitation, regains its property of summing stimuli, and loses this property during subsequent repose.

The course of an intoxication has many points of resemblance with the course of fatigue; both are usually characterised by an initial increase, and subsequent decline of excitability; but the case of the action of strychnia upon the cord appears to be exceptional; the excitability is increased, even in advanced intoxication, in the presence of signs of muscular exhaustion. Under such conditions, however, a sign of fatigue is present in the form of the well known delay of reflex action, which increases as the toxic effects deepen, and is an index of a gradually increasing block of transmission in the cord. Dr. Waller reports experiments made in order to test the point of the nervous arc at which this block of transmission occurs, and has found that it does so at first exclusively, and later chiefly, at the junction of the afferent nerve with the spinal cord, for at first the time of reaction is prolonged in the absence of any retardation in the transmission of nervous impulses within the cord; and later, when such retardation does take place, it is small in comparison with the prolongation of the time of reaction.

The report concludes with some important observations upon the alteration of resistance which is caused in the human body during the passage of the galvanic current. But it is not our intention, nor have we attempted, to summarise the entire report, which is itself a concise summary of observations, and a preface to further study of an important borderland province between physiology and pathology.

THE ALLEGED OVERPRESSURE IN BOARD-SCHOOLS.

THE special Committee which was appointed by the London School-Board last November, to ascertain whether the children in the schools suffered from "overpressure," has presented a report, which will be discussed by the Board at a future meeting. Though the report is a somewhat illogical document, it will be generally accepted as marking a distinct advance upon opinions formerly very strongly held by educational legislatures. It is a little surprising to read that the Committee have not had the assistance of medical experts, because—so it is said—they could not obtain the co-operation of those who would have spoken with "sufficient authority;" upon a question of this kind, medical experience and skill would have been of great value, and we cannot doubt that such assistance might have been obtained if the Committee had gone the right way about it. The value of the report is very much diminished by this circumstance, for the data upon which its conclusions are based are not made clear, and the conviction will remain that they must have been insufficient. The Committee, indeed, appears to have been content to take the evidence of a considerable number of head teachers from various districts of London, and to examine all the teachers of the schools visited by Dr. Crichton Browne. No medical evidence appears to have been taken, though we read that children drawn from certain classes were "as a rule.....healthy, physically and mentally." These were children well clothed and fed, and such children, we are told, are not unduly pressed upon by the regulations of the Board and the Education Department. This is highly probable, and very interesting and important, if true; but medical men will feel that on this point, one of the most interesting which the Committee had to study, the evidence at its disposal was not of a kind to enable it to arrive at a trustworthy decision.

The report, however, is, as it could hardly fail to be, a document of considerable value, for it will probably mark the final extinction of one line of argument feebly used when the subject was first started last autumn. It is admitted that overpressure does exist, and that it did exist in a more acute form before the School-Board for London and the Education Department, "in various important ways, modified their rules and practice so as to avoid any overpressure. It is difficult to gather any definite notion of the extent to which the Committee suppose overpressure to exist. In one part of the report, it is stated that "overpressure is confined to a comparatively small number;" while in another paragraph it is left to be inferred that this number includes children whose homes are squalid and unwholesome, children belonging to families so poverty-stricken as to be unable to provide sufficient food, and children who are oppressed by their parents with a view to getting them released from attendance as soon as possible. Children belonging to these classes must form a very large proportion of those with whom the Board has to deal; the report, indeed, admits as much, and insists that the two social extremes for which provision has to be made—the children of clerks and well-to-do artisans at the one extreme, and the children of the squalid inhabitants of the lowest slums at the other—are so far apart, that it is impossible to subject all to the same rules. This admission is, in itself, an important gain, and it is very much to be hoped that the Board will accept the recommendation of the Committee: "That the School Management Committee be instructed, in assessing the work of the schools, to take into consideration all the circumstances of the schools and of the children."

Though we have ventured to hint that the report is not strictly logical, this is a fault that can be easily forgiven, for the remedies suggested appear to be practical. The Committee recommends that facilities should be given "for the provision, on the school-premises, of penny dinners, on self-supporting principles, for elementary school-children" (*sic*); that further encouragement should be given to physical exercises and games, both in and out of school-hours; and that the kindergarten system should be "adopted in spirit in every school" for infants; that home-lessons should not be set, under any circumstances, in infants' schools, and should be given to older children only when "the circumstances of their homes are entirely favourable, and the parents give encouragement to them;" and that certain modifications should be introduced in the system by which children are passed up into the second standard. The Education Department is to be asked to make certain changes, the most important apparently being the proposals that, in estimating the merit of a school, greater attention should be paid to the promotion of clever children, and that authority should be given to teachers, under supervision, to classify their children in different subjects according to their abilities. To a person of ordinary common sense, ignorant of the ways of boards and departments, it may seem a little astonishing that such recommendations should require to be solemnly made; but the classification of children otherwise than by age, and the organisation of schools on any other system, presents great difficulties. Thus the clever children have been repressed, and the dull ones overpressed; every foot has been forced into a shoe of the same size. What wonder that it has pinched in some cases?

Though the Committee has felt itself competent to decide the question whether the health of the children suffers under the present system of classification by age and payment by results, it has pru-

dently avoided any definition of the symptoms indicative of over-pressure; on the contrary, it advises that a "short statement of the admonitory symptoms of diseases likely to affect children, whether arising from overwork or otherwise, be drawn up by medical authority for the use of the teachers and local managers." Literally understood, the suggestion would probably be unworkable, and would certainly never have been made under medical advice. It is, however, easy to understand the object aimed at, and it would not be difficult to draw up a series of rules framed upon the same lines as some of the excellent leaflets issued by the National Health Society. Such a summary might be of some use in arousing a suspicion in the mind of the teacher or school-manager, who ought to be instructed to ascertain, without delay, the opinion of a duly qualified medical practitioner in the neighbourhood.

THE HOUSING OF THE WORKING CLASSES BILL ANALYSED AND REVIEWED.

THE present Parliamentary session has been one of many surprises and of startling innovations. Not the least remarkable of these is the Bill for the better housing of the poor, introduced by Lord Salisbury in the House of Lords last week, and passed through Committee on Tuesday, after practically no discussion at all. This Bill is under the charge in one House of a Conservative Prime Minister, and in the other of one of the leading Radicals in the late Liberal Cabinet. It contains provisions which are of the most centralising and bureaucratic kind, at the same time that its sponsors and their respective colleagues are vying with each other in proclaiming the virtues of local self-government, and the paramount necessity of decentralisation, if the country's work is to be properly and efficiently performed. More singular still, the professed aim and object of at least one clause is the diversion from the public purse of a profit that has hitherto been held to legitimately belong to it, in order that the poorer classes of the community may possess the means of existence at a figure that it could not otherwise compass: in other words, State socialism in a quite undisguised form. The housing of the poor appears to be just one of those questions, of which several have of late come into prominence, that involve social problems of a very large and far-reaching kind. The land-question and socialism are the most elementary of these. Even to touch upon such topics would obviously be out of place in these columns.

Judged from a medico-sanitary view-point, the Bill of Lord Salisbury will be universally acceptable. It strengthens the existing law as to artisans' dwellings where it needs strengthening, and it helps to redress certain anomalies in the Public Health Act, which have been more or less under discussion at any time these last ten years. The Bill as it stands is a model of legal stiffness and formality. It needs explanation and interpretation in almost every line, and it positively bristles with references to other statutes, without full knowledge of which its provisions cannot be rightly understood. No sign of its socialistic tendencies is apparent in the involved and stilted language of its several clauses; but Lord Salisbury, in his speech of introduction, manifested no disposition to obscure or to minimise the gravity of the questions which it involves, and gave an admirably clear and reasoned account of its scope and objects. These are briefly as follows, taking them in the order of the Bill, and not of Lord Salisbury's speech.

The Labourers' Dwellings Act of 1851, which Lord Shaftesbury had

the phenomenal satisfaction of personally conducting through both Houses, is admitted, even by its author, to have been absolutely a dead letter from the day it was passed even until now. It contained the germ of the doctrine, which in this Bill more fully asserts itself—that the community must do something to make life possible for its poorest members. Accordingly, the Act has been utilised by the reformers of 1885, and is presented with amended and simplified machinery. Lord Shaftesbury's Act of 1851 provided the means whereby any parish, or two or more parishes in combination, with a population of 10,000, might constitute commissioners for the purpose of providing lodging-houses for the labouring classes. The Commissioners might purchase or rent land, and on such land erect buildings suitable for lodging-houses for the labouring classes, and might alter, enlarge, repair, and improve existing buildings, and fit up, furnish, and supply the houses with the requisite furniture, fittings, and conveniences. By the new Bill, the Act of 1851 may be adopted without further sanction by the Metropolitan Board of Works, with the approval of the Secretary of State, and by all urban authorities, under the powers already vested in them by Section 10 of the Public Health Act. As regards rural authorities, the process is a little more complicated, and is always subject to the certificate of the Local Government Board. The necessary legal powers of action and of expenditure are conferred upon these several sets of authorities by the Bill. To find Lord Salisbury meeting with Sir Charles Dilke in enforcing such a measure on Parliament, is a sign of the progress of State socialism which is not a little unexpected.

A point which appears likely to lead to some discussion is the power of sale proposed to be given to the Treasury as regards the site of Millbank Prison, and to the Middlesex justices as regards the site of Pentonville Prison, at such price as will enable the Metropolitan Board of Works, "without incurring serious loss, to appropriate the sites so conveyed" for the purposes of providing lodging-houses for artisans. Lord Bramwell urged, by way of criticism, that if the State has decided to make a sacrifice of the profit derivable from the sale of these sites, it would be less objectionable to sell the sites to the highest bidder, and make over the profit to the Metropolitan Board of Works, to assist them in their operations already begun in different parts of the town. Lord Salisbury adduced, however, some economic objections to this course, and probably the original idea will be carried into effect.

As regards Sir Richard Cross's Artisans' Dwellings Acts of 1875 to 1882, they are to extend to all urban sanitary districts in England. At present they can only be put in force in towns having populations of 25,000 and upwards. There never was any particular reason for this, and the proposed extension is, beyond question, a good one. Should a local authority neglect to act upon an official representation made to it as to an unhealthy area, the confirming authority (that is, the Home Secretary or the Local Government Board) may, after local inquiry, compel it to take action. As to Mr. Torrens' Acts, it is no longer to be necessary for an authority which requires an owner to execute any works on, or to demolish, any premises, to purchase such premises on the demand of the owner. If an officer of health report to any local authority that any premises are unfit for habitation, or that the pulling down of any obstructive buildings would be expedient, and the local authority neglect to take the necessary steps, the Local Government Board may, upon complaint and after local inquiry, compel it to do so.

Here, again, the rooted objection which the House of Lords formerly entertained to such interference with the interests of property-holders has been over-ruled. The minimum of interest at which loans for artisans' dwellings may be advanced is reduced to $3\frac{1}{2}$ per cent., which is held to be the very lowest rate admissible with safety.

Some alterations of importance are also made in the general statute-law. The power of making by-laws as to houses let in lodgings was formerly only exercisable after it had been conferred by order of the Local Government Board. All sanitary authorities are now specifically invested with such power by the Bill. If a sanitary authority neglect to make by-laws as to the lodging and accommodation of hop-pickers and fruit-pickers, the Local Government Board may frame by-laws for the district, and these must be enforced by the local authority. Tents, vans, and similar structures are brought within the purview of the Public Health Act. The Settled Land Act is amended, so as to give power to owners to let land for artisans' dwellings at a price lower than the best price that can be obtained, to which they are restricted at present.

We have left until the last a clause which, simple in itself, is likely to work a revolution in house-building and house-letting if properly used. At present, when a man leases or rents a house, he can, as a rule, get no warranty as to its sanitary condition that is maintainable in a court of law. *Caveat emptor* is now everybody's motto as regards house-letting. This is to be altered for the future. "In any contract for letting for human habitation an unfurnished house, or part of an unfurnished house, there shall be implied a condition that the house is, in all respects, reasonably fit for such habitation; and, in the event of a breach of any such condition as above mentioned, any inmate of such house who suffers any loss by injury to health, or otherwise, in consequence of such breach, shall be entitled to recover damages from the person responsible for such breach."

Something of this kind is already in force as regards furnished houses and apartments; and it is highly satisfactory to find the Legislature taking so kindly to a provision that has long been indicated as essential for the production of householders. It may be hoped that, under this clause, the jerry-builder will find his occupation so unprofitable and troublesome, that he will cease to practice the curious arts which make nineteenth-century buildings a scandal and a by-word at present.

So far as can be seen, this Bill, so exceptionally favoured in its parentage, is likely to become law this session without any serious opposition. Yet, as Lord Salisbury was careful to observe, "it must not be considered to be the whole outcome of the deliberations of the Royal Commission. There are some very much more difficult questions behind which the circumstances of the session do not permit of being dealt with, but which it is hoped to deal with at some future time."

We trust that neither the responsible Government which fosters the present Bill, nor the great body of members who pass it, will be deluded into the belief that this gentle tinkering with a great social problem will cure all the evils that of late years have made themselves so unpleasantly conspicuous, or that, having added another measure as to artisans' dwellings to the statute-book, they may straightway relegate so unsavoury and troublesome a subject to the limbo of forgetfulness. The Bill does excellently as a temporary stopgap; but it is nothing more than that.

THE TITLE OF DOCTOR.

WE believe that the Joint Committee of Delegates, appointed by the Royal Colleges of Physicians and Surgeons to consider the advisability and practicability of granting the title of Doctor to persons who have obtained the diplomas of the two Colleges, will result in favour of taking steps to attain that end; and that they consider that, in case of the Colleges accepting that view, the means could be found for carrying it into practical effect. The meeting of the College of Physicians will be held next week, when the subject will probably come under consideration. This will be an important meeting for the interests of the English schools and of the two Colleges. The existing difficulties of obtaining the title of Doctor, after a complete all round education, and double diploma, have for some time been severely felt in London, and the South of England generally; and we have for some years, and with much persistence, pointed out this desirability, and the importance of affording a suitable measure of relief. It is well known that the curriculum passed through by the English students who are examined for this two-fold diploma, is at least equal to that of more than one British university; and the extreme injustice of the present state of things is such that it urgently calls for equitable redress.

A NEW building in Tokio, recently purchased by the Sei-i-Kwai (Society for the Advancement of Medical Science in Japan), for the purposes of a medical library and museum, was opened on March 18th by the President of the Society, Dr. K. Takaki.

DR. PROTHEROE SMITH, the founder of the Hospital for Women, Soho Square, has, after 43 years of active work at that institution, resigned the appointment of senior physician, and has been appointed consulting physician to the hospital.

THE meeting of the International Congress of Hydrology and Climatology, which was to have been held at Biarritz on October 1st, has been postponed until the same date in 1886, in consequence of the general elections in France having been fixed for the sixteen days preceding October 14th of this year. It is not intended to make any other change in the programme.

WHILE Dr. Cameron, M.P., was riding from the House of Commons on Monday night, his horse tripped, and he fell somewhat heavily. The fall caused some contusions and flesh-wounds, from which the honourable member is, we are glad to hear, now recovering; but the injuries are such as to prevent his attendance to his Parliamentary duties.

It is probable that the Government will agree to relieve Scotland from the operation of the Medical Relief Bill. In Committee on the measure, the President of the Local Government Board promised to consult the members for Scotch constituencies on the subject, and the result has, we believe, been to establish the fact that a large majority are in favour of the exemption. This point is little more than a technical one, as under the system of Poor-law administration in Scotland, the Act could only have applied to very rare and exceptional cases.

OVERCROWDING IN THE BIRMINGHAM WORKHOUSE INFIRMARY. THE report, which has just been published, of a committee of inquiry appointed by the local guardians, shows that serious overcrowding exists in the infirmary of the Birmingham workhouse. It appears that, in some wards, the cubic space per bed is not more than 400 feet. There should be no delay in providing an efficient remedy for such a flagrant breach of established sanitary principles. The guardians propose to spend £60,000 in extending their infirmary

buildings, so as to give room for 1,665 beds, or 450 more than at present, and to give a minimum cubic space of 1,000 feet per bed. We hope that, with this extension of beds, the Birmingham guardians will also provide for an adequate increase in the number of their medical officers. This latter point must not be overlooked. We notice it is not referred to in the report of the committee.

LUMBAR NEPHRECTOMY.

MR. CLEMENT LUCAS removed (in Guy's Hospital, on the 14th instant) a distended floating kidney, filled with large calculi, which could be felt through the abdominal parietes. The operation was performed without difficulty through the loin, leaving the peritoneum uninjured. The patient is progressing uninterruptedly towards recovery, her temperature continuing normal as before the operation.

NEW CLINICAL INSTITUTE AT ST. PETERSBURG.

THE Clinical Institute of Princess Helena Pawlowna, which has just been opened at St. Petersburg, is intended by the foundress to serve for instruction of a practical character to students of the University and of the Military Medical Academy in their last year, and to enable qualified men to work out specialities. Dr. E. Eichwaldt has been appointed Director, with charge of the Therapeutical Department. Dr. N. Monastyrski is to have charge of the Surgical Department, and Dr. A. J. Afanasieff has the Professorship of Pathological Anatomy. The Physiologico-Chemical Laboratory is placed under Dr. Pöhl.

BRITISH MEDICAL ASSOCIATION: MEETING IN CARDIFF.

SPECIAL facilities of train-service in connection with the annual meeting of the British Medical Association at Cardiff have been afforded by the Great Western Railway Company. Arrangements have been made by which tickets will be issued at reduced rates (upon production of cards of membership or letters of invitation) between the places where the members reside and Cardiff, provided the distance be not more than 50 miles. Excursion-tickets are issued daily from Cardiff to Tintern, Chepstow, Monmouth, Symond's Yat, Ross, Raglan, Porthcawl, and Speech House. Particulars are given in handbills, which can be obtained at the Cardiff station, or from the divisional superintendent. A special table of fares to and from Cardiff, with a list of authorised cab-fares, has been issued by the Great Western Railway Company for the guidance of members.

SCIENTIFIC INVESTIGATIONS.

At the last annual meeting of the Association, it was announced in the Report of the Scientific Grants Committee, that Mr. Watson Cheyne and Dr. Augustus Waller had been appointed Research Scholars. Mr. Watson Cheyne has made a special investigation of the Cholera-bacillus; and his report, which is a contribution to science of very high value, was published in this JOURNAL for April 25th, May 2nd, 9th, 16th, and 23rd. This week's JOURNAL contains an elaborate report on the Fatigue and Recovery of Muscle and Nerve, by Dr. Augustus Waller, the other special research-scholar of the Association. Dr. Waller was appointed some time ago, in place of Mr. Priestley, who found that his duties as a practitioner did not allow him time to carry out the investigation which he proposed, and therefore very honourably resigned the scholarship to which he had been nominated. Dr. Waller's report will no doubt prove to be a valuable contribution to physiological, and ultimately to medical, knowledge. The present number of the JOURNAL also contains several reports by authors, the expenses of whose researches have been, in whole or in part, borne by the British Medical Association. Dr. W. D. Halliburton furnishes a report on the Proteids of the Blood and Serum, in continuation of that which was published in the JOURNAL of July 26th, 1884. His discovery of the threefold nature of serum-albumen is very interesting. Dr. Sidney Martin's report on the Action of Papain has an important bearing on therapeutics, especially in the

dietetic department. The researches both of Dr. Halliburton and of Dr. Martin were carried out in the Physiological Laboratory of University College. Of therapeutic importance also is the report of Dr. Noel Paton, of Edinburgh, on the Action of Chologogues on the Urine and Blood, carried out in the University of Edinburgh.

USE AND ABUSE OF TOBACCO.

A MEXICAN medical paper publishes a monograph on the use and abuse of tobacco, by Dr. F. Valencia y Castilla, of Guadalajara. Smoking quickens the pulse, but causes it to become irregular. An observer, whose normal pulse was 80, smoked a cigar, and found his pulse 92. After eight minutes, however, it was again 80. Another observer, whose ordinary pulse is 84, finds it to be 96 after a cigar. Smoker's dyspepsia is believed by the author to be partly direct and partly reflex, the particles of tobacco swallowed with the saliva acting directly on the gastric mucous membrane; the indirect or reflex action being shown by the increase in the salivary and gastric secretions. The author thinks death from phthisis is rare amongst smokers.

THE RATING OF HOSPITALS.

THE Plaistow Small-pox Asylum, originally the property of the Poplar District Board of Works, and let to the Metropolitan Board of Works for the benefit of extreme East-End cases of small-pox, has been raised in assessment to the local rates of the extra-metropolitan parish of West Ham, in which district it stands, from £640 to £2,000. The extra-metropolitan district of West Ham, like many others situated on the confines of the metropolis, made insufficient provision for the small-pox cases arising among its inhabitants, and some of the cases found their way into the wards of the asylum provided at the cost of the London ratepayers, and the responsible authorities refused to pay the costs. Now that the hospital is empty, they have added injury to the other wrong by this heavy assessment, and demand immediate payment of the difference in rate between the two amounts. The matter has been referred by the Asylums Board to their legal advisers.

FEVER AND SMALL-POX IN LONDON.

THE returns from the fever and small-pox asylums under the Metropolitan Asylums Board, up to last Saturday, were laid before the meeting of managers, and showed neither increase nor decrease in the cases of fever, but a marked decrease in the cases of small-pox. In the fortnight, 77 cases of fever had been received, against 73 in the previous period; 12 had died, and 66 had been discharged cured, leaving 244 cases under treatment, the exact number left a fortnight before. Of these, 212 were cases of scarlet fever, 12 were cases of typhus, and 17 were cases of enteric fever, and three, admitted as fever cases, were classed as "other diseases." In regard to small-pox, 221 cases had been received in the fortnight, against 232 in the previous period; 32 had died, against 52 in the previous fortnight; 272 had been discharged, against 472 in the previous period; and there remained 769, against 852 a fortnight ago. Of the whole number, 516 were in the Darenth Camp; 191 in the hospital-ships; the Plaistow Hospital was empty; four were in the North-Western Hospital; 13 in the Western Hospital; 19 in the South-Western Hospital; 18 in the South-Eastern Hospital; and eight only in the Eastern Hospital. The Board resolved to close the wards of the urban fever asylums against small-pox, the arrangements for carrying such cases to the ships being very complete.

SMALL-POX IN NORTHAMPTONSHIRE.

MR. JOHN LOTAN, Rural Sanitary Inspector of Oundle, Northamptonshire, has just died of small-pox, contracted in pursuit of the duties of his office. It seems that a woman died in one of the parishes of Mr. Lotan's union, and it was rumoured that she had died of small-pox. In consequence, neither undertakers nor bearers could be obtained to bury the body, and the duty, therefore, devolved

upon Mr. Lotan, Mr. Tomlinson, the medical officer of the union, and four assistants. A coffin was obtained, but, as the undertakers would not approach the body to measure it, the coffin was made from guess measurement. This was after the body had been lying three days in the house. It was then found that the coffin was too small, and difficulty was experienced in making it serve its purpose. A few days afterwards, symptoms of the disease were developed by all who assisted in the burial, except Mr. Tomlinson. Mr. Lotan, who was highly esteemed, died, and was buried within a few hours, the interment taking place at midnight. The four assistants are still far from being out of danger. Special meetings of the sanitary authority have been held, and precautions have been taken to prevent the spread of the disease. The inhabitants of the infected places have been advised by the authorities to be revaccinated, and it is satisfactory to hear that the advice has been followed by a large number.

THE AMERICAN MEDICAL PROFESSION AND THE INTERNATIONAL MEDICAL CONGRESS.

THE most recent advices from the United States have brought the startling intelligence that there exists in the American medical profession a very serious discord concerning the next International Medical Congress. We do not propose to discuss the etiology of this rupture, for it is quite enough to be called upon to face the fact that it exists. The fact is very grave. Its existence jeopardises, if it have not already destroyed, the probable success of the forthcoming Congress. Certainly our brethren in the States cannot expect those who have already promised to attend and those who may expect to visit America at that time, to work with enthusiasm in the preparation of any scientific contribution while those whom they propose to visit are divided, and while wholesale secessions of the official executive and of well known persons nominated to high offices are announced. Nor do we consider it to be either our duty or privilege to suggest a remedy for this exceedingly unpleasant dilemma. It seems to be conclusive that the profession in America at this moment is hopelessly divided on the subject. Already a large proportion of the influential and active scientific men of Philadelphia, such as Bartholow, Weir Mitchell, Da Costa, H. C. Wood, Pepper, Leidy, Stillé, Parvin, and Goodell, and David Yandell of St. Louis, have publicly withdrawn from the organisation of the Congress. A like number of distinguished men in New York, such as Loomis, Roosa, Jacobi, Mundé, Agnew, and Emmet, have also either resigned or been dropped, and therefore will not co-operate with the present organisation. The outlook, as the matter now stands, is not at all encouraging. One committee has reorganised the work of another up to the point near that of destruction. Moreover, the work of the present committee must be submitted to the American Medical Association in May, 1886; and no one can say to what extent it may also be either overturned or modified in such a way as to seriously impede the labour necessary to be performed before the meeting of the Congress in 1887. Altogether, the position is lamentable, and there is much fear that the acceptance of the invitation to meet in the States may be withdrawn, and the next meeting of the International Medical Congress be held in Berlin or some other great medical centre, pending the settlement of the serious dissensions among our brethren of the United States.

HYSTERIC SUPPRESSION OF URINE.

A PECULIAR case has been communicated by Dr. T. J. Gribbling, of Waalwijk, to the Netherlands Medical Society, where there was profuse perspiration, accompanied with partial, and, for a time, with complete suppression of urine. The patient was a girl of nervous constitution, who was, however, in good health till she was about 12, when she somewhat suddenly complained of extreme fatigue and want of power in the legs. She then began to suffer from violent headache of the left frontal region, which, though persistent, always became especially violent at noon. In the evening, when it abated, profuse general perspiration came on. When the writer first saw the child,

this had been going on for some months. There were converging strabismus, and quick respiration and pulse; the temperature was normal, and no organic disease could be detected. The legs were quite powerless, but gave normal electric and reflex reactions. She had not at that time menstruated. The bowels acted very rarely, and the quantity of urine was very scanty. The food taken was very small in quantity; nevertheless, the girl's weight did not materially decrease. This state of things continued for a year, uninfluenced by arsenic, atropine, and numbers of other remedies which were tried. The suppression of urine then became absolute, and the perspiration still more profuse. The author was careful to remark in the patient's hearing that, when the urine returned, the perspiration would be diminished. In about five weeks' time, menstruation occurred, and a quantity of urine was passed. On this, the girl said to her mother: "Now the sweating will cease;" and, in fact, it did so, and did not return. The urine continues to be passed in satisfactory quantity, but there is still headache and want of power in the legs.

THE WATER-SUPPLY OF ANCIENT ROMAN CITIES.

PROFESSOR CORFIELD chose, as the subject of his address at the anniversary meeting of the Sanitary Institute of Great Britain, the Water-supply of Ancient Roman Cities. He gave a most interesting account of aqueducts erected by Roman engineers, not only at Rome but for certain provincial towns. Rome itself was served by nine aqueducts, and it is a very striking fact, as showing the value which the wise rulers of ancient Rome attached to uncontaminated water, that the third aqueduct, erected over 2,000 years ago by the Prætor Marcius, and hence called the Marcian aqueduct, was no less than 54 miles long. The water-supply of the city was about ten times as great as London receives in proportion to the population, and all the water used for drinking purposes was brought from pure mountain-streams. Small settling-tanks, in four compartments (*piscinæ*), were interposed, and were so constructed as to be easily cleaned. The channel (*specus*) of the aqueduct was generally constructed of blocks of stone cemented together and lined with cement; it was roofed over, and, in the earlier aqueducts, was carried entirely underground. But these mighty aqueducts were by no means peculiar to the capital, for wherever the Romans built a city, there they provided for a copious supply of clear water; and Professor Corfield gives a most interesting description of the three aqueducts of Lyons, especially of the great aqueduct built by direction of the Emperor Claudius to supply the imperial palace. The sources of a river were tapped at a point 50 miles from the city, and the water brought through a most irregular country, across valleys, one of which is 300 feet deep and about 1,000 yards wide; the water was taken down the sides of the valleys, and across the streams at the bottom, in eight or ten lead pipes, arranged as inverted siphons. Professor Corfield says of this that it was the most remarkable aqueduct of ancient times, reflecting the greatest possible credit on the Roman engineers, and showing that they well understood the principles of hydraulics. Yet this was only one of three aqueducts erected for the supply of Lyons. We cannot do better than quote the moral of such facts as these in Professor Corfield's own words.

"It is thus seen that the ancient Romans spared no pains to obtain a supply of pure water for their cities, and I think it is high time that we followed their example, and went to the trouble and expense of obtaining drinking-water from unimpracticable sources, instead of, as is too often the case, taking water which we know perfectly well has been polluted, and then attempting to purify it for domestic purposes."

SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

A DEPUTATION of members of the committee of this society waited by appointment upon Sir Richard Cross, the Home Secretary, at the House of Commons on Wednesday, to lay before him memorials from the ladies of the Children's Safety Committee, and from the committee of the above named Society. Sir Richard Cross said he had great

sympathy with the general objects of the deputation, and was anxious to press forward with all possible despatch the remaining stages of the Criminal Law Amendment Bill. As to the power of summary search of houses where it was supposed a child was concealed, he intended to submit a clause calculated to effect the desired object more completely than it could be effected by the clause in the Bill as it stood. The deputation presented the memorials and withdrew.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.

OF the desirability of further and more accurate knowledge of the effects of intemperance in the production of diseases there can be no doubt. In the numerous speeches and essays which are now devoted to this subject, nothing is more remarkable than the entire absence of detailed information which pervades them, while their number is, in itself, a sufficient indication of the great interest which is felt in the subject. Here, as in many other matters, not only the medical profession, but the State, and the public at large, are anxious and concerned for fresh knowledge. It is, however, from the profession alone that information can be obtained; and this is just one of those questions which cannot be dealt with by statistics compiled in hospitals, but must depend for its solution upon facts furnished by the great body of the profession engaged in general practice throughout the country. The circular and schedule which was issued by the Collective Investigation Committee, through the medium of the JOURNAL, on May 9th, was a well considered and praiseworthy attempt to grapple with the difficulties of the subject; and, if due care be used, as doubtless it will, in interpreting any information that may be received, few fallacies need be feared from such a mode of dealing with the question. The circular proceeded on a sound and simple basis. It included a request to each practitioner into whose hands it was committed to transcribe the counterfoils of his death-certificate book for a given period, and to enter against each case a letter *a*, *b*, *c*, *d*, or *e*, indicating the grade of alcoholic propensity which had been observed in the patients, a blank being left should the reporter feel he had not sufficient information in his possession to make any statement on the question of temperance. We recall the attention of our readers to this schedule, as we consider that evidence obtained by means of it may claim to represent impartial and dispassionate observations upon surer grounds than any method yet adopted. The Collective Investigation Committee are still open to receive replies, and hope to get a great many more before closing the inquiry. It would be eminently desirable that such an inquiry should represent the observations of as wide a body of the profession as possible. The schedule states that all information received will be regarded as strictly confidential.

THE VOLUNTEER STAFF CORPS.

ON Saturday, July 18th, the Volunteer Medical Staff Corps underwent its first annual inspection at Wellington Barracks: Sir James Hanbury, K.C.B., Principal Medical Officer of the Home District, inspected. Surgeon Cross, of the Grenadier Guards, acted as aide-de-camp. Surgeon-Commandant Cantlie commanded the battalion. After inspecting the battalion drawn up in line with swords drawn, Sir James witnessed the march-past of the four companies. Afterwards, No. 1 Company, under Surgeon Squire, went through various company-maneuvres and stretcher-bearer drill. No. 2 Company, under Surgeon-Major Norton, dressed, lifted, and carried wounded. No. 3 Company, under Surgeon Platt, loaded and unloaded ambulance-wagons. No. 4 Company, under Mr. Casson, the lay company, executed various manœuvres and formed seats. Sir James addressed the corps, drawn up in three sides of a square, with the officers in the centre, and congratulated the officers and men upon their smart and soldier-like appearance. He assured the members of the corps that many anxious eyes in all parts were watching the development of this corps, and many persons high in authority were eager in their inquiries as to how the corps was succeeding. He further stated

that there were many points in the drill he had just seen which were to be commended, and a few in which he should like to see an improvement. A large number of ladies and gentlemen were present to witness the parade. Amongst those we noticed Lord Ruthven, Sir Guyer Hunter, Mr. Maclure, Mr. Malcolm Morris, Surgeon-Major Evatt, Surgeon Cumming, etc. On August 8th, 114 of the corps will proceed to Aldershot for a week's drill in a military camp.

MEDICAL MUNIFICENCE.

DR. JAMES WAKLEY writes to the papers, announcing himself as the originator of the Hospital Sunday movement in London, and expressing disappointment that the annual collections do not much exceed £30,000—a sum which he considers to be disproportionately small, compared with the wealth and resources of the population, especially of the merchants and traders, who make their money in London, and live out of it. As a contribution from himself towards the object which he has in view, of raising the annual sum collected to £50,000, he contributes the munificent sum of £1,000. Dr. Wakley has issued an interesting history of the fund, written, it is stated, by Mr. Burdett, asking the wealthy and benevolent, who make their fortunes in the City of London, but who reside in the country, to combine to raise an additional £7,500 on or before the 31st instant, to be added to the amount collected on Hospital Sunday this year, so as to increase the total to £40,000.

THE CASE OF DR. BRADLEY.

IT will be seen, on reference to our Parliamentary columns, that, in the case of Dr. Bradley, who was sentenced to two years' hard labour for an alleged outrage on a woman who was subject to epilepsy, after taking the advice of the law-officers of the Crown, and also of the Lord Chancellor, on a memorial presented to him by the medical practitioners of Sheffield, Sir R. Cross stated that he had arrived at the conclusion that Dr. Bradley ought not to be further detained on the present evidence. This announcement, tardy and unsatisfactory as it is, amounts to an admission that the evidence on which Dr. Bradley was convicted was inadequate. Sir Richard Cross declines to commit himself to the statement that his innocence has been proved; and, on that ground, would not say whether compensation would be granted. Evidently, however, the question cannot remain here. A fearful injury has been inflicted; one not at all to be measured by the actual punishment, but to be considered together with all its concomitants and the surrounding circumstances. A bare release cannot be held to satisfy even the equity of the case; and the claim to compensation under such circumstances requires to be pressed with great vigour. The approaching meeting of the Council of the British Medical Association at Cardiff will no doubt afford an occasion for a full consideration of the circumstances, and of the steps which the Council may think it right to take in connection with this distressing case. A contemporary reports that, in accordance with the announcement of the Home Secretary, Dr. Bradley was on Wednesday released from Leicester gaol, and returned to Chesterfield in the afternoon, together with his wife, who had proceeded as far as Nottingham to meet him. On his passing through Brimington, he was recognised and cheered, and was obliged to stop the hansom to receive the hearty congratulations of his friends, who came out in large numbers to meet him. It had been intended by his well-wishers that they should meet him with an omnibus, but his release came before it was expected.

LOCK HOSPITAL STATISTICS.

MR. J. HASTINGS STEWART, resident medical officer of the Lock Hospital, furnishes us with the following statistical statement and inferences, which favour the conclusion that the age of protection for young girls under the Criminal Law Amendment Bill should be raised even beyond the proposed limits. It will be remembered that Sir W. T. Charley's Act, which raised the age of protection, and which was drawn with the advice and assistance of Mr. Ernest Hart and Mr. J.

B. Curgenven, proposed to fix the age higher than the limit of 13, which the Government and Parliament ultimately insisted on as the maximum. The opinion as to limit of age formed by the medical profession is, of course, based upon mainly physiological grounds; and the figures disclosed by the following statement indicate that legislation is effectual in affording a large amount of protection up to whatever be the age fixed within those limits, and that there is good ground and social reasons for now extending it. Mr. Hastings Stewart writes:

"To fix the lowest age at which it is advisable that our legislators should allow girls to exercise their own discretion, with a view to the repression of vice, a consideration of the following tables will be of service. Let us take, first, this analytical table of the 3,002 unmarried female out-patients attending between the years 1874-85.

Age.	Number of Patients.	Age.	Number of Patients.
8	1	17	176
12	1	18	380
13	2	19	377
14	3	20	335
15	14	21	268
16	44	Over 22	1,445
		Not registered	6

"We can safely assume that the number of prostitutes diseased at any particular age under 20 corresponds approximately to the relative numbers of prostitutes seduced at that age, since the majority of the younger patients come with a vaginitis or other disease contracted through inexperience in their profession; and, since such an assumption agrees with the result of interrogation of 33 unmarried prostitutes, the result of which is tabulated below:

Age of Seduction.	Number Seduced.	Age of Seduction.	Number Seduced.
12	0	18	5
13	0	19	3
14	1	20	4
15	1	21	3
16	2	Over 22	5
17	9		

"These two tables both indicate that, up to the age of 16, there is no marked increase in the numbers of prostitutes created; that, after that age has been passed, there is a sudden rise in the numbers, and that by far the largest increase at any period is after the age of 17. It follows, then, that it is between the ages of 17 and 18 especially that girls are apt to succumb to the false attractions of a 'gay life.' Therefore, to be effective as 'An Act to make further provision for the Protection of Women and Girls, the Suppression of Brothels, and other purposes,' as the Criminal Law Amendment Bill is intitled, Parliament should undoubtedly amend the clause which makes the defilement of a girl criminal only if she be under the age of 15. It was found necessary to raise the age from 12, as in the Act of 1861, to 13 in Sir W. T. Charley's Act of 1875, and now it is found necessary to raise it still higher, and 15 is fixed upon as the maximum. Why not recognise at once the physiological immaturity of the girl up to the age of 18, and, if possible, beyond it, namely, that of 21?"

MR. ERICHSEN'S POLITICAL CANDIDATURE.

MR. ERICHSEN, who is the Liberal candidate for the representation in Parliament of the Universities of Edinburgh and St. Andrew's, addressed this week a meeting of the electors. After referring to his political position, which he describes as one of balanced Liberalism, he said he held that the representative of great academic institutions had duties far higher, far nobler to perform, than that of entering into the arena of the party politician. He was the guardian of that learning and that science which were associated with those great academic institutions, and, above all, of those professions which are dependent upon that learning and that science. He urged that there existed the greatest necessity for a much larger representation in Parliament of the medical profession than now existed. In that point of view it may be hoped that the great majority of the medical electors will concur, irrespective of party politics. There is, we apprehend, a very general feeling throughout the profession such as Mr. Erichsen here well expresses. The presence in Parliament of a certain number of members of the medical profession, accustomed to consider social questions such as those which urgently call for treatment in the next House of Commons, is very generally felt. There seems a probability that

in the next Parliament such representation may be obtained; but it is especially desirable that it should be obtained through the universities and academic seats of learning, which may be assumed to be less eager on questions of party politics, and more alive to the importance of questions such as those to which Mr. Erichsen referred, than other constituencies of a more mixed character. Mr. Erichsen's return will largely depend upon the efforts of his medical friends and the support of the medical voters generally, and it is for that reason that we give special prominence to his candidature on this occasion.

SCOTLAND.

DENTAL SCHOOL AND HOSPITAL.

THE Dental School in Edinburgh continues to prosper and to fill successfully a long-felt want. At a meeting of the Directors of the Edinburgh Dental Hospital and School, held on Tuesday, the report submitted showed that the average attendance of students had been satisfactory, and the work done by them had been exceptionally good. Various of the students were mentioned by name as having distinguished themselves specially in the classes and in the hospital practice. As to the cases treated at the hospital, the total number of which had been, during the last six months, 1,702 (an increase of 100 on the previous half-year), there had been extractions, males, 706, and females, 483; there were 24 major operations under anæsthetics, and 499 stopping cases, of which 176 were done with gold, 174 with alloy, and 149 with cement. The large number of stoppings practised at the hospital speaks well for the conservative dental surgery of the hospital, which, since its opening, has applied this means of treatment to 1,055 cases.

THE GLASGOW WATER BILL.

THE Bill that has been promoted by the Glasgow Corporation, for increasing the water-supply of the city, has been passed, and will shortly receive the Royal assent. Under its provisions, the already excellent service will be assured for many years to come, and with such extensions and additions as the growth of the population may demand; so that it is a matter of congratulation that the authorities have been successful in a matter so closely affecting the public health. When the Loch Katrine scheme was first mooted, fears were entertained in several quarters as to whether it would prove satisfactory. Events have fully justified the wisdom of the course followed, and no city in the kingdom has such reason to be satisfied with its water-supply as Glasgow.

MURCHISON MEMORIAL SCHOLARSHIP.

As a result of the examination held this year in Edinburgh, the scholarship founded in memory of Dr. Murchison has been awarded to Mr. Joseph Griffiths, University of Edinburgh, and the honourable position of *proxime accessit* to Mr. S. Plowman, St. Thomas's Hospital, London.

THE COPYRIGHT IN UNIVERSITY LECTURES.

It will be remembered that last year the question arose in Scotland, as to whether a professor in an university had a right to prevent the publication by any of his students of the substance of lectures delivered to them by him, in discharge of his public duty of teaching the science or department of learning of which he is professor. Up to that time, no judicial decisions had been given on the point in dispute; but the sheriff before whom the case was brought decided that students had not the right of publishing any lectures delivered to them by a professor whose class they had attended. Against this judgment an appeal was entered; and we observe that the matter has been fully debated before the higher court, and that considerable diversity of opinion exists among the judges whose opinions have been sought. Five of them supported the decision of the lower court, while four were in favour of the view that, as there is no con-

tract between a student and a professor, no conditions can be imposed on the right of the student to carry away from the class-room all he can acquire there. So far, the sheriff's decision has been confirmed; but such want of unanimity amongst the highest judicial authorities shows that the matter in dispute has not been satisfactorily settled from a legal point of view.

ARBROATH INFIRMARY.

THE annual meeting of the directors of Arbroath Infirmary was held on Monday. The report showed that there had been 164 patients received into the infirmary during the year, which is 24 less than the year before. There were 125 cured, 16 relieved, and 15 died; and at the date of the report eight remained in the house. The death-rate, it was noticed, appeared high, owing to the great facilities afforded to all classes in the most advanced states of disease for entering the infirmary. The financial report showed a balance of over £127 in the bank. Through the liberality of Mr. Duncan, of Parkhill, a convalescent fund has been opened. The report was approved, and the present office-bearers re-elected.

UNIVERSITY OF ABERDEEN.

THE medical classes closed on Friday last, and the professional examinations for the degrees in medicine and surgery began on the following day. The graduation ceremonial will take place on or about August 1st.

THE POLLUTION OF THE WATER OF LEITH.

FOLLOWING on the successful verdict in the matter of the pollution of the water of Leith case, the Public Health Committee of Edinburgh Town Council has agreed to recommend the Town Council to go on with the case against the party against whom the action was raised, to compel him to take steps in the matter, according to the verdict of the sheriff; to intimate the verdict to the proprietors affected by the condition of the locality in question in order that they may take part in the cleansing operations; and to inform the proprietors and the local authorities of Currie and Corstorphine (villages a few miles distant) that, unless they take steps to purify the stream, actions at common law will be taken against them.

IRELAND.

MR. R. O'CALLAGHAN has been appointed surgeon to the Carlow County Infirmary.

DISPENSARY HOUSES (IRELAND) ACT.

THE applications under this Act have been 52, amounting to a sum of £38,604. Of these, 11 were during the year ended March 31st, 1885, for £8,706. The total amount issued has been £26,928, of which £5,716 was during the year referred to.

ADDRESSES TO HIS EXCELLENCY THE LORD LIEUTENANT.

THE President and Fellows of the King and Queen's College of Physicians, and the President, Vice-President, and Council of the Royal College of Surgeons in Ireland, have both presented loyal addresses to the Lord Lieutenant of Ireland. The second address concludes: "We avail ourselves of this opportunity to express the hope that your Excellency will honour this College at the earliest convenient opportunity by visiting it, and satisfying yourself by inquiry and by inspection of our museums, libraries, and other departments of the College, that the institution which we represent is deserving of the confidence of your Excellency and of the public."

CHOLERA.

THE CHOLERA IN SPAIN.

OUR correspondent writes from Valencia:—

Since my last letter, the prevailing scourge in this province, as well as in Murcia, has shown a marked abatement, beginning on July 12th, while, on the other hand, it is making new conquests in the provinces of Cordova and Jaen, both bordering on Andalusia, and has, in the north, invaded Segovia, about an hour's drive from the charming and favourite royal summer residence of "La Granja." To this place the court were about to start, but, in consequence of the cholera-invasion being so near, there will probably be a postponement. Should the cholera get a footing in Cordova or Jaen, then, unless Sevilla, Cadiz, and Malaga be far more vigilant in hygienic measures than they ever have been, I fear they will all suffer more disastrously than we have; for the hygienic condition of these cities would favour the sowing and growing of any kind of zymotic germs, and, above all, those of cholera, while neither the government, municipalities, nor the people, take any preventive or precautionary measures to exclude the entrance of the enemy into their cities, with the only exceptions of severe and harsh quarantine by sea, and the useless and arbitrary, and often cruel, cordons by land.

Several towns near this city have suffered fearfully. Catarroja, a small and, of course, dirty place, had, on July 12th, 80 cases and 50 deaths. I mentioned that the alcade of Beneganim was forced to cremate 50 bodies. On the following day, I am told that 60 others were attacked, and all died. Another spot, called Penzati, which is a suburb and continuation of this city without a shadow of drainage, and inhabited chiefly by labourers and common artisans, still continues to send a large proportion of patients to the cemetery.

The chief local sources of contagion appear to be all those public places or buildings where people from every quarter congregate, for either devotion, business, or pleasure. I truly believe that the chief foci in this city have been the churches and their basins of holy water, into which every man, woman, and child, dip their hands or fingers when they enter the crowded house of worship. The churches are open from 5 A.M. till 9 P.M., and later often, and crowds are pouring in and out between these hours. The Courts of Justice, where people crowd every day from all parts of the province, to attend the "Salas de Audiencia," or courts legal and criminal, are also sources of infection. The risks, in this case, have been sadly proved by the deaths of several of the chiefs and officials of the courts. Then there is the same danger present in the various religious houses and asylums and colleges, which contain large numbers of people of both sexes and all ages. Those that have suffered most are the lunatic asylums, the houses of "beneficencia" and "misericordia," and the asylum of the Little Sisters of the Poor. Added to this, we have hordes of beggars invading the city from all parts. These are most attentive to their religious duties in the churches, and thus ignorantly assist in the propagation of the disease.

The bull-ring, the theatres, and *cafés*, so numerous here, are probably less dangerous, yet all have played their share in spreading contagion over this city.

The whole population have become very particular about diet, not allowing vegetables or fruit to be brought into their houses. However, they are not more careful about cleanliness; in fact, they abhor water applied to the skin. Fruit and vegetables have greatly fallen in price, whilst, to counterbalance this, fowls and eggs are at war or famine prices. A lean pullet sells at from 12s. to 14s., and eggs at 2s. a dozen, and not fresh. All the beef and mutton here now is wretched. From the decrease in deaths (yesterday there were 86 from cholera), the streets are more active and people more cheerful, but business is at a standstill.

Ferran, with his supporter, Gimeno, left about July 12th for Madrid, to advocate the great "*inventor de vacunacion preventiva de colera morbo Asiatico*," before the Athenaeum Club. He spoke eloquently, but has failed to convince the Government of the necessity and harmlessness of inoculation with the unknown something, so that Ferran and his lieutenants are deprived of their flasks of broths and syringes until the utility of the inoculation is made clear by experts. The disturbance that this has caused has sent the minister Poblado from his seat in the Cabinet.

Of course, you must have seen the reports of the French and Belgian Commissions on the subject, so that I need not remark on them; but I see by to-day's telegram that Ferran has claimed the Bréhat prize offered by the Academy of Sciences of Paris, of the value of 100,000 francs, for an "effectual remedy against cholera."

Another correspondent, who has recently returned from Valencia, writes:

The experiments of Dr. Ferran and his colleagues have, for the third time, been suspended by orders from the supreme government. The prohibition was first issued in the beginning of June, when Ferran was summoned to Madrid, and so satisfied the Madrid Academy of Medicine that, in deference to the popular clamour, he was allowed again to practise on the population, this time making the city of Valencia his headquarters. The Spanish Royal Commission, at the same time, made its appearance in Valencia under the presidency of Senor Alonso Rubio, and formally investigated both his method and the epidemic at the same time; their conclusions may be briefly formulated. The disease was pronounced to be true Asiatic cholera, and it was considered advisable to allow the inoculation to continue, being harmless, and it being considered expedient to test its efficacy by government statistics.

On June 12th, whilst the Royal Commission was sitting, he was again, for the second time, prohibited. On June 25th, in consequence of and immediately following the report of the Commission, permission was again given to inoculate, and vast numbers of all classes came forward. The third and last prohibition came last week, in consequence, it is stated, of the alarming mortality amongst a certain section of those who had been inoculated; and here the matter rests at present.

As I have personally witnessed the process at Dr. Ferran's establishment, it may briefly be described as follows. His cultivated micro-organisms are suspended in some such medium as beef-tea or chicken-broth, and about half a cubic centimetre of the fluid containing the organisms is injected into each arm of the individual with a hypodermic syringe. Within a few hours, constitutional symptoms, such as fever, diarrhoea, and vomiting, begin to exhibit themselves, which gradually pass off, and the individual is considered proof against cholera, though a second operation is recommended.

Dr. Ferran's statistics read extremely well, but figures in Spain are proverbially worthless. His opponents, whilst granting that his discovery may allay panic and produce confidence in his disciples, allege that erysipelas, septicæmia, and worse may be expected, and are found, in those operated on.

Meanwhile, the disease is playing havoc in the beautiful city and province of Valencia, and there is but too sad an opportunity of putting to test for good and all, the value, if any, of the loudly trumpeted discovery of a means of averting cholera; and we may, before long, expect to have more valuable information, as Dr. Van Ermengen of Brussels, and Drs. Gibier and Brouardel of Paris, have visited and investigated the disease in the plague-stricken city.

PRECAUTIONS AGAINST CHOLERA.

DR. H. COOPER ROSE, of Hampstead, writes:—The ideas which thrust themselves upon my mind may have occurred to many, and may even have been anticipated by action; but I cannot help thinking that, with cholera devastating Spain, and with the chances of its approach to our shores, we as a body are very much unprepared to cope with the disease. The College of Physicians, during the last epidemic, elected a committee, I believe, to report upon the subject, and to suggest the best means of meeting this dreadful scourge. Since that time, new light has been thrown upon the etiology of the disease, and I am of opinion that, if a committee were formed by the College of Physicians, or by some other responsible body, which might invite the co-operation of all those who have had special opportunities of observing and treating cholera, especially medical officers from India and elsewhere, much valuable information might be concentrated for the guidance of those who have had no such experience, and for the advantage of those who may be attacked by the disease.

DR. VAN ERMENGEN ON DR. FERRAN'S INOCULATIONS.

OUR Berlin correspondent writes: In a letter to the editor of the *Deutsche Medicinische Wochenschrift*, on the results of his inquiry into Dr. Ferran's mode of inoculation for cholera, Dr. Van Ermengen states that the fruits of his mission have not come up to his expectations. "Many a cloud," he says, "that hovered over these much talked of inoculations could not be cleared away." He had no doubt that the disease was cholera of the most virulent kind. "We have questioned and examined about 300 persons who were inoculated and reinoculated. The phenomena that were observed, after inoculation with Ferran's liquid, can be summed up as follows. About five hours after injection on the external surface of the upper part of the arm,

an oedematous, rather painful ulcer, that did not spread much, was seen; this disappeared in from twelve to twenty-four hours, without leaving any traces behind it. At the same time, symptoms of fever, discomfort, shivering, and a kind of heaviness, were perceived, which soon disappeared, and were always proportional to the local inflammatory action. In rare cases (about two or three) two or three liquid stools, without any specific character, were observed. There were no painful, lasting cramps, but sometimes transitory contractions. Not one of the individuals observed showed symptoms in the least suggestive of algidity.

"Six specimens of the blood, taken twelve hours after inoculation, from the top of the first finger, were normal, and contained neither micrococci nor bacteria. Even up to the seat of the oedema, a centimetre from the periphery, it had the same appearance as normal blood. In plate-cultivations in nutritive gelatine, there was no development of micro-organisms. We could not examine the liquid stools offered by one of the inoculated. The individuals subjected to reinoculation presented the same local symptoms.

"I must add, that we did not observe that the slightest precautions were taken to prevent the access of particles from the air to the fluid used for inoculation. The fluid was collected in an unsterilised cup, protected against particles from the air only by an ordinary piece of paper. Even the syringes were only sterilised, as it was called, by having a little boiling-water drawn through them. Dr. Ferran neglects all the precautions that are observed in the laboratory in inoculations 'in corpore vili.' We should not, therefore, have been surprised if we had seen symptoms of septicæmia as consequences of the inoculations, confirmatory of the facts lately communicated to the *BRITISH MEDICAL JOURNAL* (June 6th, p. 1170, as reported by the Madrid correspondent). I must, however, state that we did not see a single case of abscess as a consequence of the inoculation.

"Alcira was the place first attacked by the epidemic. The influence of the water here on the spread of the epidemic seems incontestable. As soon as the inhabitants drank water from a source at some distance from the town, the epidemic decreased considerably in severity. The statistics of the mortality of Alcira show with sufficient clearness that they were made to prove the efficacy of Ferran's inoculation. We have been unable to receive one single detailed account of the social position of those inoculated and those not inoculated, their age and sex, and of the time when the inoculations took place. It seems certain that the inhabitants belonging to the well-to-do classes have been inoculated in large numbers, and for about a month. In Algemesi, Alberique, etc., the statistics are still less demonstrative.

"The more difficult part of my task of investigation was as follows. We were obliged first to convince ourselves of the presence of comma-bacilli in Ferran's fluid-cultivations. The bacilli were rather scanty, and there were none of the forms of development that Ferran pretends to have discovered. We saw that the cultivation-liquid of Ferran was not very favourable to the development of the cholera-microbes, and that it speedily perished in it.

"Dr. Ferran afterwards took great trouble to let us see those foreign forms of the development-cycle in older cultivations, which he has discovered. He showed us, in *bouillon* that was fourteen days' old, and much changed in appearance, voluminous bodies of mulberry-leaf shape—five, even ten times the size of a blood-corpuscle—which he supposed to originate directly from endogenous spores of the comma-bacillus!..... Other rounded-off, but less voluminous, corpuscles, which were found in the same liquid, corresponded, according to Ferran's view, with free spores that had not developed so much. It is superfluous to say that these things are to be ascribed to impurities of quite a different origin.

"I was very much surprised to see that Dr. Ferran is far from utilising the perfected methods of bacterioscopic technics for the very delicate morphological investigations with which he is occupied; and everybody will be astonished, as I was, to hear that he has no object-glass with homogeneous immersion and Abbe's condenser, and that he omits to colour the bacteria that he studies. His methods of cultivation, as far as I am acquainted with them, are also not above criticism.

"We placed a series of written questions before Dr. Ferran, the solution of which seemed to us to be indispensable before proceeding experimentally with the procedure adopted by Ferran in producing his liquid.

"To our great regret, Dr. Ferran declined to answer these questions. He sent us word that the moment did not seem to him to have arrived for publishing what he calls his 'secret.'

"We proposed, then, that Dr. Ferran should provide us with a sufficient quantity of fluid for inoculation, with which we could make

comparative experiments on ourselves and on animals. We promised to undertake, in writing, not to publish any account of our experiments, if we should discover anything new, until he should empower us to do so. All to no purpose!

"The experiments that we were prevented from making in Valencia are now being made in the laboratory of the Museum for Comparative Pathology at Paris, and I shall perhaps give an account of them later on."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of this Association will be held at the Lecture Room, Public Hall, Queen Street, Cardiff, on Wednesday, July 29th, at one o'clock in the afternoon; Dr. Joseph Rogers, of London, in the chair.

As matters of great importance to the Poor-law Medical Service will be brought forward and discussed on this occasion, it is earnestly hoped that all poor-law medical officers attending the meeting of the British Medical Association at Cardiff will make an effort to be present.

Among the subjects that will be referred to will be: Lunacy Law Reform; the Enfranchisement Clauses of the Government Medical Relief Bill; Permanence of Appointments, etc.

By order,

JAMES MILWARD, M.D., Local Honorary Secretary.

Cardiff, July 21st, 1885.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

NOTICE OF COUNCIL MEETINGS.

A MEETING of the Council 1884-1885 will be held in the Council Room of the Town Hall, Cardiff, on Tuesday next, the 28th instant, at half-past two o'clock in the afternoon. Meetings of the Council 1885-86 will be held in the Council Room of the Town Hall, Cardiff, on Wednesday, the 29th instant, and Thursday, the 30th instant, at half-past nine o'clock in the forenoon.

London, July 23rd, 1885. FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTemperance.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHthisis.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting will be held at Braintree, Friday, August 7th, at 2.30 P.M. Dr. Elliston, of Ipswich, President of the East Anglian Branch, will preside. Agenda.—1. To decide time and place of next meeting. 2. President's address. 3. The Radical Cure of Hernia, by C. B. Keetley, Esq., London. 4. Notes on a Case of Myxoedema, by C. E. Abbott, Esq., Braintree. 5. Twin Abortion, by J. Sinclair Holden, M.D., Sudbury. 6. A short Account of the New Association of Members of the Royal College of Surgeons, by C. E. Abbott, Esq., Honorary Secretary of the Association for Essex. 7. Coxeter's Obstetric Vade Mecum will be shown by Mr. Abbott. After the meeting there will be high tea at the Horn Hotel. Any member wishing to be present, or to read a paper, or to exhibit a case, is requested to notify his intention to the honorary secretary on or before Tuesday, August 4th.—WILLIAM THOMAS JACKMAN, Coggeshall, Essex, Honorary Secretary.

MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Infirmary, Leicester, on Thursday, July 9th, under the Presidency of Dr. G. Pearce.

Business.—The Secretary intimated that the names of Mr. Sympton and Mr. Wright Baker had been again sent in to the General Secretary as those members selected to act on the Council. An explanation for this course having been taken was given, and his action was confirmed by the meeting. Dr. Morris, of Spalding, took exception to the method of selection of members for this office, and a protest was entered by him against the system observed by this Branch. Dr. Webb supported Dr. Morris, but the remainder of the meeting voted in favour of the course adopted on this and other occasions.

Branch Council.—Mr. Hatherly for Nottinghamshire, Mr. Pilcher and Dr. C. Hamson for Lincolnshire, and Mr. Willan for Leicestershire, were elected to take the places of those members retiring from lapse of time.

President-elect.—Dr. Newman (Stamford) was proposed by Mr. SYMPSON, of Lincoln, seconded by Dr. MORRIS. This proposition was received most cordially.

Honorary Secretaries and Treasurer.—Dr. Carline (Lincoln) was elected General Secretary and Treasurer for the Branch in place of Dr.

Marshall, who expressed his willingness to officiate as Local Secretary for Nottinghamshire. The remaining appointments were reconfirmed.

New Members.—Mr. Montagu Williams, Mr. Boobyer, Mr. Anderson, and Dr. Whitlege were elected members of the Branch.

President's Address.—Dr. PEARCE gave a practical address on cases in his practice, illustrating the value of wood-wool dressing.

Papers, etc.—The following communications were made.

1. Mr. Victor Horsley gave an admirable address on the New Pathology of the Brain, as demonstrated by experimental research. The address was illustrated by diagrams and photographs.

2. A case of successful extraction of a Dental Plate from the Oesophagus.

3. Note upon the use of Cucaïne in cases of Chronic Enlargement of the Prostate, by Mr. T. Symptom.

4. Dr. Handford (Nottingham) showed a new Clinical Chart to record temperature, pulse, and respiration.

5. Dr. Webb (Wirksworth) gave Further Observations on Derbyshire Neck.

6. Cases were shown by Mr. Hodges.

Luncheon and Dinner.—The President entertained the members at lunch in the board-room at the infirmary, and, after the meeting, about 20 members dined at the Royal Hotel.

OXFORD BRANCH: GENERAL MEETING.

A GENERAL meeting of the new Branch for Oxford and the neighbouring district was held at the Radcliffe Infirmary on June 23rd, and was largely attended. Sir HENRY ACLAND, the President of the Branch, was unable to be present.

By-laws.—The Council of the Branch proposed a series of by-laws for the acceptance of the members.

President-elect.—Dr. Gray, of Oxford, was elected president for next year.

Dinner.—Several of the members dined together in the hall of Balliol College after the meeting.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.R.C.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerrett, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar; Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 5, Newport Road, Cardiff; D. Berry Hart, M.D., 4, Wemyss Place, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees,

M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., 16, York Place, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.

3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.

5 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.

11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.

8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.

11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.

11 A.M.—Sectional Meetings.

2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.

3.30 P.M.—Music and Refreshments at the Windsor Gardens, Penarth, by invitation of Lord Windsor.

5 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

EXCURSIONS.

The following discussions and papers are promised up to the present time. Members desirous of reading papers or joining in the discussions are earnestly requested to communicate, without delay, with the Secretaries of the respective Sections, as the date of the annual meeting is a week earlier than usual.

SECTION A.—MEDICINE.

The following subjects have been chosen for special discussion.

1. The Clinical Aspect of Glycosuria. Introduced by F. W. Pavy, M.D. Dr. J. Milner Fothergill, Professor P. W. Latham, Dr. C. H. Ralfe, Dr. R. Saundby, Dr. W. R. Thomas, and Dr. G. H. Savage, will take part in the debate on this subject; and Dr. E. Markham Skerrett will contribute a paper on Acute Febrile Glycosuria.

2. The Treatment of Acute Rheumatism. Introduced by J. S. Bristowe, M.D. Dr. Sidney Coupland, Professor P. W. Latham, Dr. G. B. Barron, Dr. C. H. Ralfe, Dr. Prosser James, Dr. W. R. Thomas, and Dr. E. Markham Skerrett, will speak in the discussion.

The following papers have been promised.

BIDEN, W. P., Esq. The Climate of Hyeres. BRAMWELL, BYTOM, M.D. 1. On Right-Sided Endocarditis. 2. (a) Demonstrations of Ulcerative Endocarditis (naked-eye specimens); (b) Microscopical Sections and Drawings of (d) Cardiac Vegetations; (b) Kidneys; (c) Spleen; (d) Skin; (e) Choroid Coat of the Eye; (f) Membranes of the Brain; (g) Brain showing Micrococci.

BULKLEY, L. D., M.D. (New York). Asthma as related to Diseases of the Skin. CAMPBELL, J. A., M.D. A Note on the Frequency of Biliary Calculi in Patients at the Carlisle Asylum.

COUPLAND, Sidney, M.D. On Gangrene of the Lung. DRUMMOND, E., M.D. 1. Malarious Melanemia. 2. The Influence of Geographical Position upon the Phenomena of Fever.

DRYSDALE, C. R., M.D. 1. The Treatment of Syphilis, and the alleged Prevention of Tertiaries. 2. On the Hygienic Treatment of Phthisis.

DUTTON, Thomas, M.D. Treatment of Gastric Ulcer by Nutrient Enemata; some further Cases.

FOTHERGILL, J. Milner, M.D. When a Patient Dies of Exhaustion, of what does he Die?

GRIFFITHS, T. D., M.D. The Causes of the Localisation of Tubercle in the Apex of the Left Lung.

HADDON, John, M.D. The Tropical Sea, as best Health-Resort for those suffering from Pulmonary and Renal Affections.

HARPER, H., M.D. 1. Extraordinary Coma in a Child. 2. Abnormally Shaped Skull.

- HARRISON, A. J., M.B. A New Method of Treating Tinea Tonsurans.
 JAMES, Prosser, M.D. Pancreatic Digestion.
 LORIMER, G., M.D. Acupuncture, and its Use in some forms of Chronic Rheumatism.
 MACIVER, F. A., M.D. Trades-Phthisis.
 MYRTLE, A. S., M.D. Syphilitic Eruptions; their Successful Treatment by Mercury and the Sulphur Springs of Harrogate, after the Method practised at Aix-la-Chapelle.
 MYRTLE, J. A., M.B. Cutaneous Eruptions traceable to Central and Local Nerve-Influences.
 PADLEY, G., Esq. A Case of Empyema Successfully Treated by Operation.
 PAVY, F. W., M.D. Cyclic Albuminuria (Albuminuria in the apparently Healthy).
 RABAGLIATI, A. C. F., M.D. A Criticism of the New Nomenclature of Disease.
 SHEEN, A., M.D. Some Points in the Treatment of Enteric Fever.
 SKEHRITT, E. Markham, M.D. Cases illustrative of Rupture of the Pulmonary Air-Vesicles.
 SMART, A., M.D. A Note on Anthracosis.
 SMITH, R. Shingleton, M.D. On Intrapulmonary Injections.
 STEPHENS, Lockhart, Esq. 1. A Case of Simple Stenosis of the Œsophagus, with specimen. 2. A Rare Form of Congenital Heart-Disease.
 STRAHAN, J., M.D. Puzzling Conditions of Heart and other Organs dependent upon Neurasthenia.
 STURATON, C. R., Esq. Chorea; its Pre-choreic Stages.
 TATHAM, J., M.D. The Registration of Cases as carried out at the Hospital for Chest Diseases and Consumption, Brompton, and the Investigations proposed to be specially worked out.
 THOMAS, W. R., M.D. A Few Remarks on the Influence of Malaria on the Progress of other Diseases.
 Short abstracts of papers to be forwarded to the Secretaries.

SECTION B.—SURGERY.

The following discussions will take place.

1. A discussion on Bladder-Tumours, their Diagnosis and Treatment, will be introduced by Mr. Reginald Harrison on Wednesday, at two o'clock. The following gentlemen have expressed their intention to take part in the debate: Professor Guyon (Paris), Dr. Stein (New York), Sir Henry Thompson (London), Messrs. Knowsley Thornton, Swinford Edwards, Walter Whitehead, F. T. Paul, and Hugh R. Ker.
2. Mr. F. Treves will introduce the subject of Operative Interference in Intestinal Obstruction on Thursday, at two o'clock. The following gentlemen will join in the discussion: Messrs. Lawson Tait, Greig Smith, A. F. McGill, Alfred Eddowes, A. W. Mayo Robson, Dr. J. Ward Cousins.

The following papers are promised.

- ADAMS, W., Esq. Observations on the so-called Congenital Dislocation of the Hip-Joint.
 BALL, C. B., M.D. Melanotic Sarcoma of the Rectum.
 BISHOP, E. Stanmore, Esq. Enterorraphy, with a Description of a New Form of Suture.
 BROWNE, J. Walton, M.D. 1. Surgical Scarlatina. 2. On Treatment of Club-foot.
 CAMILL, T. E., Esq. The Latest Surgical Dressings.
 COUSINS, J. Ward, M.D. 1. The Treatment of Infantile Hernia, and a New Washable Truss. 2. The Treatment of Retention of Urine with a Capillary Catheter.
 FRANKS, Kendal, M.D. The Application of Permanent Dressings in Antiseptic Surgery, and Dry Dressing in Antiseptic Surgery.
 FRY, J. Farrant, Esq. Cure of Varices by Excision.
 HUNT, De Vere, Esq. Rupture of the Kidney; Football Accident; Recovery.
 JAMES, J. Brindley, Esq. On the Treatment of Lumbago and Rheumatic Pains by his Percusso-punctator.
 KEETLEY, C. B., Esq. The Radical Cure of Hernia by Injection.
 LAWRENCE, A. G., M.D. Case of Recovery from a Severe Injury to the Skull and Brain (patient to be shown).
 NICHOLSON, R. H. B., Esq. Case of Renal Lithotomy.
 OWEN, Edmund, Esq. Caries of the Cervical Vertebra.
 PUGH, R. N., Esq. Notes of a Successful Case of Abdominal Section for Internal Strangulation.
 ROBSON, A. W. Mayo, Esq. Case of Enterectomy for Acute Intussusception; also a series of Surgical Cases illustrating the Use of the Eucalyptus-Air, and Dry Dressings.
 ROTHE, Bernard, Esq. Two Hundred Consecutive Cases of Lateral Curvature of Spine treated without Mechanical Supports.
 SHEEN, A., M.D. Strangulated Hernia, with Cases.
 SNOW, H. L., M.D. The Non-Heridity of Cancer.
 STEPHENS, Lockhart, Esq. Suicidal Injury to the Stomach; Death from Internal Hemorrhage.
 THOMAS, J. Davies, M.D. (South Australian Branch). Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac, and subsequent Free Drainage, based upon Thirty-two Cases.
 A recent dissection and other specimens will be exhibited by Dr. Bennett.

SECTION C.—OBSTETRIC MEDICINE.

An Introductory Address is promised by the President.

The subjects chosen for discussion are the following.

1. The Mechanism and Management of the Third Stage of Labour, introduced by Dr. Berry Hart. Dr. Hart will use the Oxy-hydrogen light in illustration of his paper. Dr. A. E. Aust Lawrence and Dr. J. B. Hicks have promised to take part in the discussion. Dr. A. H. Freeland Barbour contributes a paper on the Anatomy

of the Placental Site, with reference to the Third Stage of Labour and the First Days of the Puerperium.

2. The proper sphere of Constitutional and Topical Treatment in certain forms of Uterine Disease. Introduced by Dr. W. S. Playfair. Dr. Priestley, Dr. Clifford Allbutt, Dr. Imlach, Dr. A. E. Aust Lawrence, Dr. J. B. Hicks, Mr. Edis, and Dr. D. Lloyd Roberts, are expected to take part in the discussion; and a paper is contributed by Dr. More Madden, on the Correlation of Topical and Constitutional Treatment in Gynæcological Practice.

The following papers are promised.

- DAVIES, D. A., M.B. Short Notes of a Case of Chronic Inversion of the Uterus.
 GRIGO, W. C., M.D. On Antiseptic Midwifery as conducted in a Lying-In Hospital.
 GRIFFITH, G. de G., Esq. The Arrest of Post Partum Hemorrhage.
 HICKS, J. Braxton, M.D. On a Condition of the Inner Surface of the Uterus after Expulsion of the Fœtus, of practical importance.
 IMLACH, Francis, M.D. On Pregnancy in Double Uterus, with a Successful Case of Porto's Operation.
 KERR, Norman, M.D. Hot-water Injections in Post Partum Hemorrhage.
 LAWRENCE, A. E. Aust, M.D. On the Septic Origin of Pelvic Inflammations.
 LESHAPPE, Professor (St. Petersburg). 1. On the Structure of the Pelvis. 2. On the Influence of Mechanical Violence on the Form of the Skull in Young Animals. (Specimens will be shown illustrating the above papers.) 3. Skeletons of Young Animals, showing the modifications caused by exclusive Animal and exclusive Vegetable Diets.
 MADDEN, T. More, M.D. On Ovarian Displacements.
 MILLER, Hugh, M.D. Two Cases of recurrent Placenta Prævia.
 PADLEY, G., Esq. 1. A Case of Acute Abscess of the Unimpregnated Ovary, with recovery by absorption. 2. The Accidental Rupture of an Ovarian Cyst, with recovery without reaccumulation.
 PRIESTLEY, W. O., M.D. On the Occasional Latency and Insidiousness of Grave Symptoms in connection with the Puerperal State.
 REID, W. L., M.D. The Duty of Consultant and Practitioner in Relation to Puerperal Fever.
 TAIT, Lawson, Esq. Modern Treatment of Uterine Myoma.
 WALTER, William, M.D. A Case of Hysterectomy.

Dr. Simon Fitch (Halifax, Nova Scotia) has signified his intention of bringing before the Section his Gynæcological Inventions and Discoveries.

SECTION D.—PUBLIC MEDICINE.

The President, Mr. T. J. Dyke, will deliver an address.

The following papers are promised.

- AITKEN, L., M.D. (Rome). A communication on the result likely to be obtained from the recent meeting of the International Sanitary Conference on Cholera at Rome.
 DAVIDSON, J. H., M.B. Summer Diarrhoea of Children.
 DAVIES, J. W., Esq. The Natural Elements the most Reliable Disinfectants.
 DRYSDALE, C. R., M.D. The Influence of Comfort in Lowering the Death-Rate.
 GRIFFITH, G. de G., Esq. On Unity and Differentiation in Disease, and Unity of Poison in Diseases usually considered Separate and entirely Distinct: Evolution from one Unity or Common Origin, and of one Disease from another apparently quite Different.
 JAMES, J. Brindley, Esq. Are Coroners' Juries Necessary?
 LLOYD-ROBERTS, J., M.B. Epidemic Pneumonia.
 MANTLE, Alfred, M.D. Cases of Infectious Sore-throat in which Rheumatism played a Prominent Part. (Microscopic preparations of organisms found in the throat-exudation of some of such cases, and their mode of growth in meat-infusion, will be shown.)
 MARTIN, J., Esq. Over-pressure in Schools and Home-Lessons.
 MAUNSELL, J., M.D. The Various Schemes of Medical Aid, with a view of their Adaptation to the Requirements of the Present Day.
 NICHOLLS, R., M.D. The Sewage-question Scientifically and Practically Considered.
 PAINE, H. J., M.D. Cholera and other Zymotic Diseases in their Relationship to Sanitation; Practically Illustrated.
 PRINGLE, R., M.D. Cholera.
 SWEET, H., M.D. A Real Danger, where there is a Constant Service-Supply of Water, of Disseminating Enteric Fever. Illustrated by an Exhibit.
 VACHHER, F., Esq. Is Summer Diarrhoea of Children One Disease or Many?
 WELCH, H., M.B. (Title not communicated.)
 WRIGHT, S. H., M.D. Some Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement.

SECTION E.—PSYCHOLOGY.

The following papers are promised.

- CAMPBELL, J. A., M.D. Treatment of Maniacal Excitement.
 MICKLE, W. J., M.D. Brain-Disease of Traumatic Origin; Cases.
 TUKE, D. Hack, M.D. Lunacy Legislation.

SECTION F.—OPHTHALMOLOGY AND OTOLGY.

OPHTHALMOLOGY.

Dr. Arthur Benson will open a discussion on Causes of Atrophy of the Optic Nerve other than Glaucomatous. The following gentlemen will take part in the discussions: Messrs. Edgar Browne, Richardson Cross, Frederick Mason, W. Charnley, M. M. McHardy, Frank Hodges, and Simeon Snell.

The following papers are announced.

- ANDREW, Edwin, M.D. Extirpation of the Eyeball.
 BARRETT, J. W., M.B.; MORTON, A. Stanford, M.B. A Clinical Investigation of the Merits of Various Methods of Practising Retinoscopy.

- BERSON, A. H., M.D. Notes on a Case of Micropsia with Slight Ophthalmoplegia Interna.
- BRAILEY, W. A., M.D. On Stretching of the Supratrochlear Nerve.
- HARRIDGE, G., Esq. A short note on the Examination of the Cornea and Lens with the direct Ophthalmoscope, having behind it a Strong Convex Lens.
- HEWETSON, H. B., Esq. 1. Antiseptic Precautions during Cataract and other Operations on the Eye, by means of Mr. Mayo Robson's Dry Eucalyptus Spray, followed by Antiseptic Dressings. 2. The Treatment of Interstitial Keratitis by Syndectomy in the Acute and Semi-acute Stages, without the Assistance of Specific Medicines or Counter-irritants.
- JACOBSON, D. Julius, Esq. 1. Herpes Zoster Catarrhalis. 2. Glaucomatous Cupping of the Optic Disc, with perfect acuteness of sight. 3. The Spring Catarrh of the Conjunctiva.
- MILES, P. H., M.D. Evisceration of the Eyeball.
- SNELL, Simon, Esq. On the Causes of Blindness in the Inmates of and Workers at a Blind Institution; 111 cases.
- TAYLOR, C. Bell, M.D. 1. Precis of One Thousand Cases of Cataract-Extraction. 2. On the Treatment of Symblepharon by Epidermic Grafts.

OTOLOGY.

Dr. F. M. Pierce will open a discussion on the Pathology and Treatment of Affections of the Ear termed Menière's Disease. Mr. E. Cresswell Baber will take part in the discussion.

Dr. Woakes will open a discussion on Syphilis a Factor in Ear-Disease. Dr. C. J. Lewis (Birmingham) will take part in the discussion.

The following papers have been promised.

- BABER, E. Cresswell, M.B. Case of Rhinolith.
- COUSINS, J. Ward, M.D. A New Inflator, Evacuator, and Injector; with Remarks on Chronic Middle Ear-Disease.
- HEWETSON, H. B., Esq. On the Immediate Improvement of Hearing following Division of Cicatrices in the Membrana Tympani.

SECTION G.—PHARMACOLOGY AND THERAPEUTICS.

The following arrangements have already been made in this Section.

1. The President, Professor Fraser, F.R.S., will deliver his introductory address.
2. Professor Leech will open a discussion on the Duration of the Action of Medicines.
3. Dr. Telford Jones, Vice-President, will open a discussion on Hypodermatic Medication. Dr. J. K. Spender will take part in the discussion.
4. Dr. E. Long Fox will open a discussion on the Action of Diuretics.
5. The President will open a discussion on the Action and Uses of the Digitalis Group, with special reference to Strophanthus Hispidus.

Dr. Stockman will demonstrate the Action of some members of the Digitalis Group. Professor Hay will contribute a paper on this subject. Dr. Talpade will take part in this discussion.

Professor Hay will open a discussion on the Nitrites.

A debate on Anæsthesia, General and Local, will be opened by Dr. Dudley Buxton, followed by Professor John Chiene and Dr. Milne Murray, Mr. Woodhouse Braine, Mr. Bailey, Mr. Marcus Gunn, and Dr. Redwood and Dr. Prosser James. In connection with the debate on Anæsthesia, demonstrations of various anæsthetics and apparatus will be given.

Dr. Carl Köller, of Vienna, and Dr. Dujardin-Beaumetz, of Paris, will attend and take part in the proceedings of this Section.

Gentlemen are invited to take part in the proceedings of this Section by joining in the discussions arranged, or contributing papers. Early intimation is requested to be made to one of the Secretaries of the Section.

The following papers have been promised.

- AITKEN, Lauchlan, M.D. Subcutaneous Injection of Salts of Quinine and Ergotina.
- CURRIE, A. S., M.D. The Antagonism between Ether and Chloroform and Ether and Amyl-Nitrite.
- KERR, Norman, M.D. Ought Alcohol to be prescribed? and how?
- MAKUNA, M.D., Esq. Short Notes on Extract of Quebracho.
- RAWLINGS, J. A., Esq. Dietary of Infants.

The Section will be asked to consider a proposal of Dr. Balthazar Foster, made through the Collective Investigation Committee, that this Section should discuss New Remedies, and make a selection for further investigation, in conjunction with the Collective Investigation Committee.

. It is particularly requested that members, on their arrival, will at once proceed to the Reception-Room at the Town Hall, where each member should enter his name and address, obtain his tickets and programme, inquire for letters and telegrams, consult the list of lodgings and hotels, etc.

The Reception Room will be opened on Monday next, the 27th instant, at 12 o'clock at noon, and on the remaining days at 9 o'clock in the forenoon, closing at 6 o'clock in the afternoon.

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read.

EXCURSIONS.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.25. Here carriages will be in readiness to drive to Chepstow Castle, and then to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 p.m., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.35. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7.20 p.m., and reach Cardiff at 8.30 p.m. If preferred, those returning home eastwards may stop at Newport, and catch the mail at 9.26. Arrangements will be made about luggage for the mail train. Numbers limited to 150.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taft Vale Railway Station at 8.20 a.m., and proceed by steamship *Sherbro* from the Pier Head at 8.40 a.m., reaching Burnham at 10.30 a.m. At 10.40, the party will leave by train for Glastonbury, which will be reached at 11.15 a.m. The ruins of the Abbey will be visited. In the cemetery, tradition says, are buried King Arthur and his Queen, Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 1 p.m., the party will leave by train for Wells, reaching that station at 1.16 p.m. Luncheon will be served at 1.30 p.m., at the Swan Hotel, Wells, after which the Cathedral will be visited. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The members are invited by the Bishop of Bath and Wells to visit his palace and gardens. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Afternoon tea will be provided at 5 p.m., at the Swan Hotel, and at 6 p.m. the return train will leave Wells; and the steamer will leave Burnham for Cardiff at 7.30 p.m., reaching there about 9.20 p.m. Numbers limited to 150.

3. *Caerphilly Castle, etc.*—By invitation of the Marquess of Bute, the members may visit Caerphilly Castle and Penylan, a mountain 1,200 feet high, in the centre of the South Wales coal-basin, commanding a fine view of the surrounding country, including the Brecon Beacons, Bristol Channel, and parts of Monmouthshire, Gloucestershire, and Carmarthenshire. A special train will leave Taft Vale Railway Station, Crockherbtown, at 10 a.m., proceeding to Quaker's Yard, whence a walk of a mile and a half will bring them to the top of Penylan. They will rejoin the train, and proceed by Rhymney Railway to Caerphilly Castle, where refreshments will be provided at 2.30. Return train at 4.45, reaching Cardiff at 5. Number limited to 200.

4. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is a perpendicular cliff, standing 600 feet above the sea-level, and renowned for the very beautiful view it commands of the numerous and singular windings of the river Wye. The walk from this point along the cliff at the margin of the Coldwell Woods to Lydbrook, is unsurpassed for beauty, in the Wye scenery. The Speech House is situated in the midst of the Forest of Dean, and is surrounded with grand forest scenery. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30 a.m., changing at Newport into the ordinary train for Symonds Yat, which leaves at 11.5, and is due at 12.46. Luncheon will be served at the Refreshment House at 1 p.m. At 2.0 p.m. the party will ascend the Yat and walk a distance of about three miles to Lydbrook Junction, whence they will leave by special train at 4 p.m. for Speech House Road, due at

4.40 P.M. Afternoon tea at the Speech House at 5 o'clock. The return train will leave at 6.24, and reach Cardiff, *via* Lydney, at 8.10 P.M. Those returning home eastwards can stop at Chepstow for the mail at 9.51.

5. *Merthyr Sewage Farm.*—Mr. Dyke, of Merthyr Tydfil, invites 30 members to visit the Merthyr Sewage Farm and witness Mr. Bailey Denton's application of Frankland's idea of downward intermittent filtration for the cleansing of sewage. Mr. and Mrs. Dyke will afterwards entertain the visitors at luncheon at their house. Leave Cardiff by Taff Vale Railway Station at 10.30.

The medical profession in Weston invite a party of 50 to visit Weston-super-Mare and Cheddar.

(For further particulars of these latter excursions, *vide* "Daily Journal," on arrival at the Reception-room.)

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined. The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

NOTICE OF SPECIAL BUSINESS.

Notice is hereby given that, at the general meeting, to be held in the Assembly Room, Town Hall, Cardiff, on Thursday, the 30th instant, after the Address in Surgery, the meeting will be special to consider a motion that will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered to "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

NOTICE OF MOTION.

On behalf of the Council a motion will be made that the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

Mr. DIX gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

Mr. GEORGE BROWN hereby gives notice that he will move an alteration in By-law 17, paragraph (D), so as to read:

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

Dr. JACOB (Dublin) hereby gives notice that, upon the consideration of Report of the Parliamentary Bills Committee, he will move:

"That it be an instruction to the Parliamentary Bills Committee, in view of the approaching general election, to take immediate and active steps to organise the political power of the Association; to ascertain definitely the views of parliamentary candidates upon those questions in which the Association and the medical profession are specially interested; and, so far as may be possible, to influence the members of the Association to give their votes for those candidates whose views, so ascertained, are consistent with the policy of the Association and the good of the profession."

FRANCIS FOWKE, General Secretary.

161A, Strand, London, June 18th, 1885.

[The following Reports of the Council, and of Committees, will be presented at the Annual Meeting at Cardiff on July 28th, 29th, 30th, and 31st, and are published in accordance with the regulations for the conduct of Annual Meetings, which require that all Reports of Committees of the Association shall be printed in the Journal before the Annual Meeting.]

REPORT OF COUNCIL.

Fifty-third Annual Meeting of the British Medical Association, Cardiff, July 31, 1885.

YOUR Council have the pleasure to meet you, for the first time in the history of the ASSOCIATION, in the important seaport town of Cardiff, and for the second time in South Wales. Since the meeting at Swansea in 1853, the ASSOCIATION has made great progress; in that year, the JOURNAL was first published in London instead of Worcester, and was issued weekly instead of fortnightly. The number of members was then 1,853, and so corresponded with the numerals of the year. Cardiff offers one of the most interesting examples in recent years in the United Kingdom, of a town increasing rapidly in size and prosperity. Everywhere is to be seen the rebuilding of the old town, mostly in stone, while the enormous dock now being constructed, and the crowded condition of the others in use, point to remarkable prosperity. The presence of the Mayor, and the fine rooms of the handsome Town Hall, which have been placed at your service by the Corporation for the meetings of the ASSOCIATION, show the desire of the inhabitants to welcome you officially. In the intervals of work, and at the close of the meeting, the beauty of the surrounding scenery will afford pleasure and change to many members of the ASSOCIATION after the arduous and anxious work of the past year.

In issuing their first report under the new constitution your Council venture to express a hope that the ASSOCIATION may be as successfully governed in the future as in the past. The new constitution, by placing the whole policy and management of the ASSOCIATION under the direct control of the members is, they venture to think, more adapted than the old to its increased wealth and numerical importance.

Numerical Association. On July 1st, 1884, the members of the Association strength of the numbered 10,826; of these, 123 have since died, and 162 Association. have resigned; 708 new members have been elected during the year, leaving a total of 11,249 members on the roll of the Association on June 16th, 1885. Your Council, in their annual report of 1884, referred to the increasing success of the colonial branches, in work, number of members, and organisation; and they now beg to direct your attention to the home branches, which are constituted as follows up to December 31st, 1884:—

Branch.	Number of Members.	Branch.	Number of Members.
Metropolitan Counties ..	915	Shropshire and Mid Wales ..	104
Lancashire and Cheshire ..	904	South Midland ..	103
South-Eastern ..	488	North Wales ..	101
Birmingham and Midland ..	337	Aberdeen, Banff, and Kincardine ..	95
Yorkshire ..	317	East York and North Lincoln ..	88
Midland ..	260	Dorset and West Hants ..	79
Bath and Bristol ..	257	Cambridge and Huntingdon ..	77
North of Ireland ..	250	Worcester and Hereford ..	77
North of England ..	249	Gloucester ..	73
Southern ..	233	Edinburgh ..	59
South-Western ..	205	Thames Valley ..	59
East Anglian ..	198	West Somerset ..	57
Dublin ..	177	South of Ireland ..	50
South Wales and Monmouth ..	172	Northern Counties of Scotland ..	47
Glasgow and West of Scotland ..	139	Reading ..	42
Staffordshire ..	120	West of Ireland ..	22
Border Counties ..	117		

Some of the Branches perform regularly all the functions of Scientific Societies, while others hold only occasional meetings, and an annual dinner. Your Council would commend to the consideration of the less active Branches the example, among others, of the South-Eastern, which, with its districts or sub-branches, holds about twenty meetings during the year, at which papers are read and discussions take place; and that of the Birmingham and Midland Counties Branch, which has, in addition to its ordinary monthly meetings at which papers are read, a Pathological and Clinical Section, meeting also monthly during the active medical session.

The Aberdeen Branch holds eight ordinary meetings in addition to the annual meeting. The Bath and Bristol Branch holds six ordinary meetings and one annual; while the Southern has many district meetings and a combined annual meeting.

As the transactions of all active Branches are regularly and fully published in the JOURNAL, your Council desire to point out that the Branches of the Association offer a means ready to hand for the development of local scientific societies, with an unrivalled medium for the publication of their transactions. By increasing the activity of Branches in this direction, all the other objects of the Association, social, ethical, and medico-political, would be simultaneously promoted.

The success of the Association depends very much upon the efficiency of the organisation and the amount of work done by the various Branches, and the Association is consequently under a sense of deep obligation to those gentlemen who have so kindly undertaken to fill and important duties of presidents and of honorary the Branches during the past year.

The revenue of the Association for the year ending the 31st December, 1884, was £22,256. The expenditure, inclusive of losses from deaths, bad debts, amounts written off for depreciation of plant, and charge on cost of alteration of premises in 1878, amounted to £19,937, leaving a surplus of £2,319. A sum of £2,000 has been invested in Lancashire and Yorkshire Railway four per cent. debenture stock, at a cost of £2,300. The total invested funds of the Association, exclusive of trust funds, amount to £19,541, at cost.

The chief items of increase in the expenditure are £567, which is accounted for by the increase in the quantity of paper used, for the larger number of Journals issued, and an increase in the amount of postage of the JOURNAL. The scholarships appear for the four quarters at an increase of £213, there being only one quarter's payment in last year's financial statement. The salary of the Assistant Secretary appears also for the four quarters, against one quarter for last year, an increase of £186; there are also some items that had to be supplied after the fire which amount to £82.

The JOURNAL maintains its high reputation at home and abroad. In accordance with a long standing custom, an extensive issue of the JOURNAL is made twice yearly to the whole of the profession, and on every occasion this is followed by a large accession to the numerical strength of the Association.

On the other side your Council have the pleasure to report to you an increase in the subscriptions, £583, after deducting difference in losses from death; an increase for advertisements, £480, and of interest on investments, £101. These are the principal items of increase on the receipt side, and your Council look forward with hope to report to you next year a still further favourable progress in these items.

In their annual statement for the year 1884, your Council reported to you the results achieved by taking the printing of the JOURNAL into their own hands. Satisfactory as these results appear to be, it was considered desirable to ascertain whether better could not be obtained. A

subcommittee was therefore appointed to inquire whether it was possible to devise any cheaper or better method of printing and publishing the JOURNAL. After a careful inquiry by your auditors, under the instruction of the Subcommittee, and the Journal and Finance Committee, aided by the testimony of one of the largest firms of printers in London, your Council have to report that a resolution, of which the following is a copy, was passed by the subcommittee appointed to inquire into the matter, and was adopted by the Council of the Association:—

"After a most careful consideration of the various estimates and elaborate calculation of the auditors, the Council are unanimously of opinion that, from a commercial point of view, the Association has been largely the gainer by undertaking its own printing and publishing."

Your Council alluded, in their last report, to the Acquisition of site and erection of Association premises in which the business of the Association and tion Buildings. JOURNAL can be carried on. Increased accommodation is absolutely necessary for the efficient publication of the JOURNAL and the conduct of the general business. It is also very desirable that the Association should have premises accommodating the meetings of the Council, and in which the work of the several committees of the Association can be transacted. This building should be worthy of the Association, and should contain rooms in which members could meet for business or other purposes.

The Council, at the meeting in April, passed the following resolution:—"That the Council authorise the Subcommittee to continue its labours, and to offer a sum not under any circumstances to exceed £15,000 for a freehold site, or £600 a year for a leasehold site of not less than 80 years, and that before concluding any bargain the Subcommittee report to a meeting of the Council." Your Council suggest that you should request them to appoint a Committee with power to purchase or rent a site, and erect suitable premises.

Retention of Homeopaths subject of admission and retention of Homeopaths as in Association. Members of the Association during the past year. An inquiry has been made throughout the 33 Branches, and the result has been that there is evidence to the effect that a large majority of the members are adverse to the admission of Homeopaths as members, but an equally large proportion are opposed to the idea of the expulsion of those members who have already gained admission into the ranks of the Association.

Your Council, therefore, feel that this decided expression of opinion by the Branches should guide the future action of the Association.

Alteration of Law requiring 100 in place of 50 Signatures to convene a General Meeting. Having regard to the increased number of members constituting your Association, your Council have considered it advisable to give notice of a change in the Articles of Association 13 and 15. These articles now require a special general meeting to be called upon the requisition of 50 members. This number has remained the same for many years; it was so in the by-laws issued for 1856, when the number of the members was only 2,000. Your Council have, therefore, given notice that, instead of 50 members, 100 be henceforward required to sign a requisition for a special general meeting of members. The Council have also given notice for an alteration in by-law 27, so as to permit casual vacancies in the representatives on the Council to be filled up by the Branches.

Association has no legal power to appoint Committee outside the Council. In the opinion of your solicitor, the Association in general meeting has not the power, by ordinary resolution or otherwise, to appoint any Committees to act independently of the Council; he further states that no power to delegate their duties having been given to the Council by the Articles of Association, the Council cannot appoint any Committees to act independently, except Committees appointed to investigate and report to the Council. To meet the object referred to, and in order to place all Committees on a sound basis, your Council propose to appoint those Committees which have heretofore been annually elected at the general meetings, and to request these Committees to report to the Council from time to time. It is manifestly undesirable that there should be several Committees acting independently of the Council, which is a representative body, elected by the Branches. On the other hand, it is certain that several of these Committees should continue to carry on the work for which they were appointed. The arrangement proposed will, in the opinion of the Council, enable the Association to derive all the benefit heretofore received from these standing Committees, and at the same time prevent friction from divided authority on points which may be of the greatest importance to the welfare of the Association.

All such Committees to be appointed by the Council.

Advantage derived from Association printing the JOURNAL.

As the work of the several Committees for the past year is recorded in separate reports, your Council do not think it necessary to do more than call attention to them, and to express a regret that another year should have passed without any attempt at important medical legislation.

In the death-roll of the past year your Council deeply regret to find many names of distinguished associates, and among them they would specially mention Dr. C. Barham, of Truro, who gave the address in medicine when the Association met at Torquay in 1860; Dr. C. C. Baylis, of Southport; Dr. T. B. Washbourne, of Gloucester; Dr. Lancaster, of Croydon (a former President of the South-Eastern Branch, and member of the Committee of Council); Dr. Buchanan Baxter, of London; Dr. James Whitehead, Dr. Noble, Dr. Thorburn, all of Manchester; Mr. J. Netten Radcliffe, of the Local Government Board; Dr. Samuel Budd, of Exeter; Dr. F. A. Mahomed, first secretary to the Collective Investigation Committee; Dr. Browne, Commissioner in Lunacy, Dumfries; Dr. F. T. von Frerichs, Professor of Medicine, University of Berlin, honorary member; Dr. E. Wells, Senior Physician to the Royal Berkshire Hospital, and Mr. W. W. Moxhay, of Reading; Mr. Martin Coates, who presided over the section of Surgery at the annual meeting of 1881; Mr. P. B. Connolly, Surgeon A.M.D., and Surgeon G. D. Bradshaw, while on duty in the Soudan; Dr. Tibbits, Bradford; Mr. W. P. Goodall, and Dr. T. P. Heslop, Birmingham, formerly a member of Committee of Council; Mr. J. Mash, of Northampton; and Dr. Dalby, R.N.

In conclusion, your Council are pleased to announce that a very cordial invitation to hold the annual meeting of 1886 at Brighton has been received from the Medical Profession of that town and district. The Corporation of Brighton have warmly seconded the invitation, and offered to place the Royal Pavilion and other public buildings at the disposal of the Association. Your Council recommends the invitation to the favourable consideration of their successors.

REPORT OF THE MEDICAL REFORM COMMITTEE.

THE Committee closed their report last year with a reference to the difficulties that the powerful Government of that day had encountered in the way of medical legislation, which compelled the withdrawal of the Medical Act Amendment Bill, notwithstanding the support given by the leaders of the Opposition, and the earnest efforts of the Government to carry it.

The difficulties that beset medical legislation were never more painfully exemplified. As with the efforts of the Marquis of Ripon, and subsequently with the Duke of Richmond, so also with Lord Carlingford and Mr. Mundella, the attempt proved abortive. A strong Government, strengthened by the evidence taken before the Select Committee during two sessions under Lord Beaconsfield, and by the investigations and Report of the Royal Commission, presided over by Lord Camperdown, failed to settle the vexed question.

The Committee, at their first meeting after the last annual meeting of the Association at Belfast, instructed their Chairman to request the Government to reintroduce the Medical Bill, and he lost no time in doing so; but, owing to the adverse position of legislative business, the late Government found it impossible to introduce any measure of medical reform, although it is known that they were anxious to do so.

The change of Government, and the resolution of both parties not to submit to the legislature any measure of a contentious character, has prevented any further attempt at legislation this year. Next session, it may be hoped that more time will be available for domestic legislation, and that a Medical Bill may be brought forward which will embrace the essentials of medical reform.

EDWARD WATERS,
Chairman and Convener of the Medical Reform Committee.

THE REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

THE Committee have given their attention during the year to a considerable number of matters of interest and importance to the profession. The chief of these have been: the Lunacy Acts Amendment Bill of Lord Chancellor Selborne; the Poisons Bill of the Lord President of the Council; the Burgh Police and Health (Scotland) Bill; the Local Sanitary Bills dealing with notification of infectious diseases; the Medical Relief Disqualification Removal Bill; the Housing of the Working Classes Bill; and the Medical Act (1858) Amendment Bill. Further matters, not directly arising out of Bills actually introduced, but dealing with questions that were the subject of other Parliamentary action during the year, were the position of militia surgeons; the

charge-pay of Indian medical officers; and the registration of midwives.

Detailed Reports of the meetings of the Committee, of the proceedings thereat and consequent thereon, and all the memoranda prepared, have been published in the JOURNAL from time to time, and have thus promptly been brought to the notice of the Association and of the Council.

The Lunacy Acts Amendment Bill.—Your Committee gave considerable attention to the subject-matter of this Bill immediately on its introduction. An exhaustive analysis of the Bill was published in the JOURNAL for April 11th (page 750), and its proposals need not, therefore, now be analysed in detail. At their meeting of April 30th, your Committee discussed the medical details of the measure, especially the question whether or not, and if so, how far, medical men certifying, or receiving, a "private" lunatic, should be protected by the provision of the Bill that, except in cases of urgency, no person not being a pauper, and not being a lunatic so found by inquisition, should be received or detained as a lunatic in any asylum, hospital, or licensed house, or as a single patient, except with an order under the hand of a judge of county courts, stipendiary magistrate, or justice of the peace, having jurisdiction in the place where the lunatic is. It was decided to take the opinion of counsel on this part of the subject.

An amendment of the provisions of the Bill was also suggested with reference to the reception of boarders into lunatic hospitals and licensed houses, by omitting the words "not being a person of unsound mind," the retention of which words would have shut out persons of unsound mind; and would have, therefore, reduced to very narrow limits the beneficial working of the clause. A Subcommittee, consisting of Dr. Orange, Dr. Mickle, Mr. Sibley, Dr. Langdon Down, Mr. Wickham Barnes, Dr. Grigg, and Mr. Ernest Hart, was also appointed to deal with the whole subject, and to present a report.

This Subcommittee went with much care and patience through the Bill, and made a number of very useful suggestions, amendments, and remarks, which were printed in full in the JOURNAL for general information (volume i for 1885, pages 1073-5). Their report was communicated to the Lord Chancellor on behalf of the Committee by the Chairman, together with a prefatory memorandum explaining, in greater detail than it was convenient to insert in the report itself, some of the reasons on account of which the particular suggestions were made. It was felt, for instance, to be important to legalise consultation between the "usual medical attendant" and other medical practitioners who might be called in for a second or further opinion; since, in the interests of the patient, it is unnecessary and harmful to place any impediments in the way of full, free, and deliberate consultation between the medical men concerned in the case.

The proposals of the original Bill would have rendered the already existing provisions against such consultation more stringent than before. It was recommended that pauper patients should have the same protection, as regards the number of medical certificates, as private patients now have; so that in every case, private or pauper, there should be two medical certificates; one only being now requisite in the case of "paupers," or, rather, of those who, as regards the forms of lunacy-law, are so classed. Very many of these persons have never been a burden on the rates, and many of them never become so, even after being sent to asylums as "pauper" lunatics.

Suggestions were made for preserving, particularly for the poor, the means of enabling sudden violent and dangerous cases of insanity, or cases with sudden exacerbations, or with recurrences of former symptoms—often occurring at night—to be promptly dealt with, by giving power to a constable or overseer or relieving officer to apprehend such persons and send them to the workhouse. Patients of this kind may in a few hours accomplish a large amount of destruction, do much injury to themselves or to others, and create much public disturbance. A protective subsection was suggested for preventing frivolous and vexatious or speculative actions at law from being brought against the various medical men and others concerned in certifying, receiving, and detaining a person of unsound mind in a hospital, asylum, or licensed house, or as a single patient. It was felt that the absence of fair and reasonable protection in the performance of duties in connection with persons of unsound mind would greatly aggravate the already increasing difficulty of getting medical men to certify in cases of insanity.

The reasons for these recommendations were set out in detail in the Subcommittee's report, and it was pointed out that it was especially in cases admitted under urgency-order that some provisions were necessary for the fair and reasonable protection of those concerned.

Amongst other suggestions were the following. The clause determining the legal force of medical certificates and of "orders for re-

ception by effluxion of time, and requiring from the medical superintendents of asylums periodical special reports of the mental and physical condition of all lunatics, should either be omitted, or be so modified as not to absorb too much of the time of medical superintendents of large asylums, and thus injuriously affect the performance of their other and usual numerous and important duties.

The provisions of the Bill with respect to the sending of all letters of insane patients in asylums should be so amended with regard to letters not addressed to the authorities and persons named in the sections, that letters of the objectionable or other kinds specified in the report might, in certain cases, be retained and placed before the Commissioners or Committees of Visitors, to be dealt with as they might direct.

The several provisions of the primitive clauses of the Bill with regard to medical men should be mitigated. Many of the penalties provided would certainly only be incurred by inadvertence; and no distinction was made in the Bill between Acts done inadvertently or designedly.

The Bill, introduced on March 26th, was read a second time on April 27th. Between this date and May 19th, when it was down for Committee, the Lord Chancellor prepared no less than 13 pages of amendments.

These chiefly concerned the appointment of special justices to sign the orders in lunacy-cases; the permission of consultation between the medical men certifying; the insertion of a new clause legalising the immediate removal to workhouses, and without certificate, in certain sudden and dangerous cases of insanity; the insertion of a subsection affording some protection to medical men who sign certificates of insanity in good faith; and of one to the effect that no prosecution for misdemeanour, under s. 16 of the amended Bill, should take place except by the direction of the Attorney-General, or of the Public Prosecutor; and the omission of the proviso that boarders must not be of unsound mind. Several of these amendments were in the sense suggested in the Subcommittee's report. With the object of giving time for their consideration, the Bill was accordingly ordered to be reprinted, in order that it might be discussed in detail after the Whitsuntide recess. But the defeat of the Government upset all calculations, and the Bill shared the fate of many others in becoming a dropped order so far as the present Parliament is concerned, a resolution for its discharge being passed on the 9th instant. As one consequence of this, Lord Shaftesbury, who had resigned the position which he had held for half a century as Chairman of the Lunacy Commission, in view of his "invincible repugnance" to the introduction of a magistrate into the process of placing a patient under care and treatment in a hospital or licensed house, has now resumed that office, reserving to himself complete liberty of action as to future legislation. The general result, however, is that considerable progress has been made in shaping and amending the proposed new legislation, and in bringing to bear upon it the matured results of medical experiences.

The Sale of Poisons and Patent Medicines.—At the concluding general meeting of the Association, held on August 1st of last year, a resolution with reference to the repeal of the Patent Medicines Stamp Act, sent up by the Section of Pharmacology and Therapeutics, was adopted and referred to this Committee in order that steps might be taken to bring the matter under the notice of the Government. This resolution set forth that (1) "It is unjust to impose a tax on medicines; (2) the Act, as recently interpreted, promises greatly to impede the importation and use, especially in hospital practice, of medicines of foreign origin; (3) the Government label issued under the Stamp Act is taken advantage of by patent medicine manufacturers to give the appearance of Government endorsement to their productions, and lead the public to suppose that the properties of the medicines are sanctioned by authority."

At their meeting of February 18th last, your Committee took this reference into their consideration, together with a memorandum on the subject prepared for them by Dr. Murrell. Shortly afterwards, a Bill to regulate the sale of poisons was introduced into the House of Peers by the Lord President of the Council, which Bill contained clauses dealing with the question of patent medicines. In the Government Poisons Bill, read a second time on March 19th, precautions of great stringency were proposed with regard to the sale of poisons, the keeping, dispensing, and sale of which were to be subject to the regulations of the Privy Council, instead of the Pharmaceutical Society. Compounds not poisonous in the ordinary acceptation of the term, or under ordinary conditions if taken in moderate quantities, were to bear a precautionary label indicating their dangerous character. As to patent medicines, the Bill proposed to put them "absolutely upon the same footing as all other medicines." "It made," in the words of

Lord Carlingford, "no distinction between cases where a certain person has compounded a certain medicine, and cases where that is not the case, nor between cases where the Government stamp is used, and where it is not used." The effect of the Bill would therefore have been that a person selling any compound containing poison, whether it bore the Government stamp or not, would do so at his own risk. If he believed it to be innocuous, and not to come within the meaning of the word "poison" or "preparation of poison," as used in the Bill, he might sell it freely without the restrictions of the Bill or of the present law, but he would do so at his own risk. If, in the case of any particular medicine, whether a so-called "patent medicine" or not, it should be proved, upon judicial investigation, that it came within the meaning of the Bill as containing dangerous quantities of poison, the person having so sold the article would be subject to the restrictions and conditions of the Bill, and, if convicted, would be liable to a penalty; and that article having been proved to be a poison would not in future be indiscriminately saleable, but would be saleable only under the restrictions of the Bill.

This measure did not meet with a very favourable reception, and, having been subsequently (April 20th), on the motion of the Lord President, referred to a Select Committee, disappeared for a time from the public view. Your Committee requested Dr. Murrell to attend on their behalf before the Select Committee, and to put in the memorandum on the subject which had been previously submitted to, and approved by, the Committee. On the change of Government, the Bill was definitely abandoned for this year.

As to the tax at present levied upon patent medicines, your Committee feel it to be unnecessary to further argue against its retention. The President of Council of our Association well summed up its evils in a letter addressed to the *Times* last year, as follows. "Passed originally as a means of raising revenue for the war against Napoleon, it has survived to the present day, in direct contravention of our policy of free trade, till now, under its most recent interpretation, it threatens to cripple commercial enterprise and to obstruct scientific inquiry. Its baleful effects in giving a quasi-government sanction to many worthless preparations, and thus bolstering up a nefarious traffic, cannot be too strongly condemned, more especially as the poor and the ignorant are the chief sufferers." Lord Carlingford himself had no word to say in favour of the tax, which he described as an unfortunate one, his only justification for it being that it brought into the Treasury £120,000 a year. Looking to the present financial exigencies of the nation, it is apparently hopeless to expect that the Government will be likely to look favourably upon any proposal to do away with this tax; and your Committee have felt it necessary therefore, to accept, as an instalment of reform, the decision of the Treasury to alter the stamp so as to make it plain that there is no Government guarantee of the medicine. The new stamps, which will be used as soon as the old ones are exhausted—namely, in about two months' time—will bear the words, "This stamp implies no Government guarantee." It is not clear whether the new Government intend to carry out the further change adumbrated in Mr. Childers's Budget speech, of taxing such medicines only as are held not to be "proprietary;" but it is to be hoped that this is so. In these ways, some of the most mischievous results of the present Act will certainly be obviated, though the matter cannot be said to be left in a satisfactory position.

Burgh Police and Health (Scotland) Bill.—At the date of the presentation of the last annual report of your Committee, they were actively engaged in opposing the further progress of this Bill, which the Government were using all efforts to push through Parliament in the last days of the Session of 1884. The Bill had been introduced by the Lord Advocate with the stated object of, amongst other things, regulating upon uniform principles the sanitary law of towns. It consisted of 558 clauses, and was referred to a Select Committee, which did not include in its ranks a single medical member. Although the Bill affected very importantly the interests of the general medical practitioners of Scotland, especially making it obligatory upon them to report all cases of infectious disease in their practice to the local medical officer of health (in practically every case a rival practitioner), the Select Committee declined to receive any evidence with regard to the Bill, and held their deliberations in private. The Bill, as it appeared after amendment by the Committee, was even more objectionable to the profession than before, for it gave the medical officer of health the power of revising and contesting the diagnosis which the medical attendant on a case of infectious disease might have formed. In these circumstances, and also because of the numerous other clauses in the Bill which appeared to be ill-considered and improper, your Committee circulated amongst all the members of the legislature an exhaustive memorandum as to the medical points in the Bill, prepared by the

Chairman, in order to secure their co-operation in procuring the expunging of those parts of the Bill which dealt with medico-sanitary matters, so that the whole question of the consolidation of the public health laws of Scotland might be carefully inquired into before further piecemeal legislation was attempted. The Government, in view of the opposition raised, withdrew the Bill for the session of 1884; but they reintroduced it this year with practically all the crudities noticed by the Chairman in his memorandum,¹ unremedied and unaltered. The Bill was this time brought forward in the House of Lords; and correspondence with reference to it was at once entered into with Lord Dalhousie, who had it in charge. It was at a later period referred to a Select Committee, to whom the Chairman applied for leave to give evidence as to the medical points involved in the measure. Lord Dalhousie wrote to say that the application would be duly brought before his colleagues. The consideration of the Bill is being somewhat languidly proceeded with by the Select Committee, and evidence antagonistic to it is being adduced by the sanitary authorities of several of the large towns of Scotland; but it is impossible that it should become law this session. Your Committee have, however, circulated the Chairman's memorandum of last year amongst the members of the Select Committee, and others interested in the measure.

Local Sanitary Bills: the Notification of Infectious Disease.—As customary, the private bills of all corporations introduced into Parliament were carefully examined for proposals that might affect the interests of the medical profession. Eight bills, as originally drafted, contained clauses with regard to the notification of infectious diseases; namely, for Eastbourne, Hastings, Mossley, Ramsgate, Southport, Sunderland, Wakefield, and Wigan. A summary of the medico-sanitary proposals in these Bills was published in the JOURNAL immediately on their appearance, and correspondence on the subject was invited from members or committees of the local profession. The information which the Chairman of your Committee was able to furnish to the local practitioners had an important share, in at least two cases, in securing the expunging of the notification clauses. Communications were subsequently established with the profession in all the towns affected by these provisions; and, in the end, the clauses have either been expunged or the whole Bill withdrawn in every case but one, Sunderland, where the Select Committee to whom the Bill was referred, have passed the notification proposals, subject to their being assimilated to the form settled by Mr. Selater-Booth's Committee of 1882. As was the case last year, your Committee found it impossible to get a hearing before the Committee on Police and Sanitary Regulations, to whom all Bills of this class have been referred. In reply to an application by the Chairman, Mr. J. G. Talbot, under whose guidance the special committee held its deliberations, wrote to say that it regarded itself as bound by the decisions of the Committee of 1882, and did not intend to take evidence on the general question of the desirableness or the proper method of the notification of infectious disease. Your Committee, therefore, once more urge upon the local profession the necessity for taking an initiative in each case, in which they alone have a *locus standi*; and they repeat the opinion, which they have more than once expressed, that it is inadvisable and unwise to continue to deal with this question of the notification of infectious disease by local legislation, and that it is highly important that the whole question should be thoroughly and exhaustively considered by a Select Committee or Royal Commission, and be settled on general principles at an early date.

Housing of the Working Classes (England) Bill.—The Bill drafted upon the recommendations of the Royal Commission on the Housing of the Poor, and read a second time in the House of Lords on the 16th instant, on the motion of the Prime Minister, was introduced too late to enable your Committee to consider its provisions, or to deliberate upon it in detail. Any measure designed to improve the sanitary condition and surroundings of the artisan classes in our large towns has, however, their warm sympathy, and they will be ready to give the weight of their influence towards securing the greater perfection and better administration of the law on this important subject.

Medical Relief Disqualification Removal Bill.—In the progress of the great measures before Parliament for reform of the electoral franchise, a clause was introduced into the Irish Act providing that those persons who had received poor-law medical relief should not on that account be disqualified from being registered as a voter. The passing of this clause for Ireland raised a like question in England. The political history of this question has been stated in detail in the JOURNAL, and has been so much discussed in the public papers, that it is unnecessary to repeat it. Carried in the House of Commons on

the amendment of Mr. Davey, in opposition to the Government of the day, it was subsequently rejected in the House of Lords. A considerable agitation arose in consequence throughout the country, and a measure was introduced by a private member. The new Government subsequently framed a new and more permanent measure, the second reading of which was carried by a majority of 279 to 20, with the practical concurrence of the leading members of both Governments. The attention of the Committee was drawn to the subject by the Chairman, and the attention of the Honorary Secretary of the Poor-law Medical Officers' Association (a member of this Association) has been especially given to it in the interests of the poor-law medical officers. Mr. Wickham Barnes has taken active steps in the matter, of which he will communicate the result at a special meeting of the poor-law medical officers.

Medical Acts Amendment.—This matter falls more within the province of the Medical Reform Committee than of this Committee; but, for the purpose of completing the medical history of the Parliamentary session, it may be permitted to note that the Medical Acts Amendment Bill, which was amongst the more promising of the measures that had to be sacrificed to Parliamentary exigencies in 1884, and which was to have been reintroduced this year in an abbreviated form, has, for various reasons, been once more allowed to be shelved. A short Bill, entitled the Medical Act (1858) Amendment Bill, was introduced by Dr. Lyons, but, having been blocked by the Irish members, it has now been dropped. The object of this Bill was to obtain registration, under the Medical Act, for the grade of membership recently instituted by the King and Queen's College of Physicians in Ireland. The University of Dublin and the Royal University of Ireland, who both grant degrees in obstetrics, which, being also of recent institution, are not scheduled as registrable qualifications in the Act of 1858, gave their support and assistance to Dr. Lyons' Bill; and, in order to embrace these and any future degrees in obstetrics that may be conferred by the universities, a clause providing for their registration had been added to the Bill.

Militia-Surgeons.—The grievances of militia-surgeons under the Order of January 1881, enacting that no medical officer should be allowed to remain in the militia service after he had attained the age of 65, have been repeatedly under the consideration of your Committee during the last four sessions. A petition from your Committee explanatory of the case, supported by others influentially signed, was presented to the Secretary for War in 1882; and, in June 1883, Sir Eardley Wilmot, Dr. Farquharson, and other members, brought the matter directly under the attention of the House of Commons. The motion for the appointment of a Committee to inquire into the matter was then only lost by 13 votes, and the course of the debate gave some confidence to the hope that such a Committee would eventually be granted. At the Liverpool meeting in 1883, a resolution expressive of regret at the long delay in redressing militia-surgeons' grievances, was passed by our Association. This Session, all preparations had been made, with the co-operation and assistance of your Committee, for an effective debate on the subject on May 19th, when Sir Eardley Wilmot was proposing to move "that the case of the militia-surgeons in respect to their just claims to compensation for being deprived compulsorily of their appointments from the exigencies of the services, and not from any fault of their own, be referred to a Committee of this House." Unfortunately, this motion ranked in the order-paper after one by Mr. Warton, on the subject of Wednesday sittings; and the temptation to the House to retaliate upon the member for Bridport for his peculiar obstructive tactics proved too strong. The House was counted out before the motion as to militia-surgeons could be reached; and thus was lost practically the only real opportunity of drawing attention this session to the grievances of a deserving and hardly used class of public servants. It is obviously essential, however, that the matter should be brought to a definite issue, and should not be allowed to remain in its present anomalous and unsatisfactory position.

Charge-Pay to Medical Officers of Indian Station-Hospitals.—On behalf of the Committee, the Chairman has for some time been much in communication with Members of Parliament and those concerned, on the subject of a particular hardship under which Indian medical officers at present suffer. The Local Government in India have desired to give the officers in medical charge of station-hospitals an allowance known as "charge-pay," being impressed with the great importance and weighty responsibility of such positions. This pay has been disallowed by the Home Government; and, in view of the great discouragement to a valuable class of officials thus involved, your Committee directed a letter to be addressed to the Secretary of State for India, asking for a reconsideration of his Council's decision. The answer received was, unfortunately, not favourable, the Military Secretary being instructed

¹ Published in the JOURNAL for August 9th, 1884, p. 293.

to say that "Lord Kimberley was not prepared to reopen the question of the grant of charge-allowances to officers of the British Medical Service in charge of station-hospitals in India, which had received, together with other questions relating to the pay and emoluments of medical officers in India, the careful consideration of the Secretary of State." As this reply arrived at a time when there were serious national anxieties in connection with Russia and the Afghan frontier, the time was not considered propitious for further pressing the question. But the subject will not be lost sight of when an opportunity arrives for bringing it forward again, with a better chance of favourable consideration.

Registration of Midwives.—A Bill for the registration of midwives was drafted by a joint Committee of the Parliamentary Bills Committee and the Obstetrical Society some years ago, and was accepted by the Privy Council. It was afterwards referred to the General Medical Council, approved by them, and subsequently adopted by the Government. As it had not been introduced into Parliament, your Committee thought it necessary that the attention of the Government should be recalled to the subject, and accordingly a further joint deputation was arranged to wait upon the Lord President, with a view to the prosecution of the Bill without delay. Lord Carlisle's reply was not of a very promising character, his opinion apparently being that the Bill was too complicated. Subsequent Parliamentary events made it useless to attempt to prosecute the matter further this session.

In addition to these subjects, the attention of your Committee has been directed during the year to a reference from the Council on the subject of Public Health Legislation, to the report of the Council of the Dublin Branch on the present condition of the Army Medical Department, to the proposed legislation of the subject of Rivers Pollution, and other matters on which it is not necessary to report in detail.

ERNEST HART, Chairman.

REPORT OF HABITUAL DRUNKARDS COMMITTEE.

THE Committee desire to report to the Council that, during the past year, there has been no opportunity for bringing forward any measure in Parliament in furtherance of the objects aimed at in the resolution agreed to at the annual meeting in Belfast. It is hoped, however, that, after the coming general election, the way will be clear for an attempt at improved legislation on behalf of the habitual drunkard.

The Government Inspector of Retreats, in his latest (the fourth) annual report, has at length been able to announce the successful opening of a retreat for inebriates under such conditions as ensure a fair trial of the provisions of the Habitual Drunkards Act. The Dalrymple Home, at Rickmansworth, is carried on by the Homes for Inebriates Association (a philanthropic organisation, no member of which can derive any pecuniary return from the undertaking). This institution is characterised by Dr. Hoffman as "a model for similar establishments which may be opened in future." He also reports to the Home Secretary that the "success of this retreat is very marked."

With the results of two years' work at this home, which is so highly commended by the Government Inspector, your Committee feel that they will be in a better position than before to ask for further and more effectual legislation.

Your Committee are encouraged, by the first year's operations of the Society for the Study and Cure of Inebriety, to look forward to a more general recognition of the disease-aspect of habitual inebriety, and to a more widespread demand for a stronger and a permanent Act.

Resolutions approving of better legislation have been passed by the Health Section of the Social Science Association, by the British Medical Temperance Association, and by the Society for the Study and Cure of Inebriety.

Your Committee respectfully suggest the adoption of a strong resolution by the Association, affirming (1) The need for a relaxation of the stringency of admission into a retreat, by appearance before any one justice instead of before two justices, or even without any such appearance in the first instance; (2) the permanent enactment of an amended Bill in lieu of the present Act, which will expire in between four and five years; (3) the investing of some authority with power to commit habitual drunkards, in certain cases, to a retreat; (4) the empowering of guardians to detain paupers who are habitual drunkards, and who may have voluntarily entered into a workhouse for recovery from the effects of excessive indulgence, for a period sufficient to effect their reformation and cure.

In view of the urgent call for public enlightenment and State legislation, your Committee recommend their re-election.

NORMAN KERR, Chairman.

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee have to report to you that the sum granted in aid of Scientific research was £307, of which the following are the particulars:—

	£	s.	d.
Dr. P. M. Chapman, 26, Gordon Square, W.C., for a Research on Physiological and Clinical Applications of Thermo-electric Measurement ..	20	0	0
Dr. V. D. Harris, 30, Wimpole Street, Cavendish Square, W., for an Investigation into the Derivatives of Hemoglobin ..	10	0	0
Dr. Noel Paton, Physiological Laboratory, University of Edinburgh, a Research upon the Influence of Hepatic Stimulants on the Composition of the Urine ..	30	0	0
Professor Schäfer, F.R.S., University College, Gower Street, W.C., a Research into the Constitutional Properties of the Proteid Matters of the Blood ..	25	0	0
Mr. D. Astley Gresswell, 30, Great Russell Street, W.C., Investigations on Temperature ..	5	0	0
Mr. Victor Horsley, 80, Park Street, W., in Aid of Researches on Repair of Animal Tissues ..	25	0	0
Dr. Thia, 22, Queen Anne Street, Cavendish Square, W., Investigation into the Nature and Effects of Pathogenic Bacteria, and more particularly into those of the Bacillus Lepre ..	12	10	0
Dr. Angel Money, 50, Torrington Square, W.C., for an Experimental Study on Cerebral Capillary Embolism ..	20	0	0
Dr. Warner, 24, Harley Street, W., to Improve his Experimental Apparatus ..	12	10	0
Dr. Dawson Williams, 4, Oxford and Cambridge Mansions, W., in Aid of an Investigation into Infectious Wound Diseases and Tuberculosis (continued) ..	45	0	0
Mr. Alfred Lingard, 49, Lambeth Palace Road, S.W., an Inquiry into the Pathology of a Peculiar Contagious Ulcerative Disease in Calves, resembling Noma (Gangrenous Stomatitis) in the human being (continued) ..	50	0	0
Mr. Sidney H. Martin, University College, Gower Street, in Aid of a Research into the Action of Papain, and permission to retain the Apparatus of Mr. Stanley Boyd (continued) ..	5	0	0
Dr. J. Barr, 1, St. Domingo Grove, Liverpool, Coast of Illustrations to Report on the Causes and Mechanism of the Cardiac Impulse ..	25	0	0
Dr. Sydney Ringer, 13, Cavendish Place, W., for Illustrations to Report on the Influence of Rhombic Sodium-Phosphate and Sodium-Bicarbonate on Muscular Contraction ..	10	0	0
Dr. Theodore Cash, St. Bartholomew's Hospital, E.C., in Aid of an Investigation of the Action of Non-Pathogenic upon Pathogenic Organisms ..	12	0	0
	£307	0	0

There was also a special grant of £100 made by your Council, on the recommendation of the Scientific Grants Committee, after examination into the merits of the proposed investigation by Professors Burdon Sanderson, F.R.S., and Schäfer, F.R.S., to Mr. Dowdeswell, in aid of experimentally determining the methods most suitable for conferring immunity from infection in some septic diseases.

The following sums have been returned as unused balances, namely:

	£	s.	d.
Dr. V. D. Harris	10	0	0
Professor Schäfer, F.R.S.	25	0	0
Mr. D. A. Gresswell	5	0	0
Professor Horsley	7	13	0
Dr. Angel Money	5	14	4
Dr. F. Warner	12	10	0
Dr. Dawson Williams	29	6	8
Mr. Alfred Lingard	25	13	6
	£120	17	6

Dr. Chapman has purchased, in part with the grant of £20 made to him, a low resistance galvanometer and thermopile, of a particular design, with which he purposes to investigate small variations in temperature under different conditions. At present, he has found results somewhat disappointing, owing to the extreme difficulty of the subject, and to the various alterations in the apparatus which have been necessary. The preliminary experiments to determine the accurate working of the instruments are not yet complete.

The grant of £10 made to Dr. V. D. Harris was in aid of the continuation of investigations into the compounds of hematin on the one hand (for an account of which see *Journal of Physiology*, April, 1885), and into the nature of the proteid residue of the complex molecules of hemoglobin on the other. At present, Dr. Harris has wholly directed his investigations to the former portion of the proposed object. Dr. Harris has been able to confirm the statements of one or more French observers as to the possibility of obtaining compounds of hematin with the acids closely allied to hydrochloric; namely, with hydrobromic and hydriodic acids; these compounds are made without great difficulty. The corresponding

compounds with hydrocyanic acid, Dr. Harris has not been able to obtain, nor could he procure any compound with the other mineral acids, nor with certain of the organic acids. The results obtained by Dr. Harris, therefore, agree with the before mentioned observers, and he hopes to proceed with these experiments.

Dr. Noel Paton has prosecuted a research upon the influence of hepatic stimulants on the composition of the urine (*vide* BRITISH MEDICAL JOURNAL, July 25th).

Respecting the grant of £25 to Professor Schäfer, the research has been conducted by Dr. W. D. Halliburton, and by Mr. W. P. May, under Dr. Halliburton's direction. Their investigations of the blood and serous fluids in man and various animals, have added largely to our knowledge of the constitution of those fluids, especially of the proteid substances which occur in them. A report of the investigations has been sent to the JOURNAL for publication (*vide* BRITISH MEDICAL JOURNAL, July 25th), and they have in part also been published *in extenso* in the *Journal of Physiology*.

Respecting a grant of £25, awarded to Professor Victor Horsley, and Mr. Samuel Shattock, for the expenses of an investigation into the healing of wounds by the first intention, owing to the method they have adopted (namely, the infliction under strict antiseptic precautions of slight wounds, and subsequently excising the same and hardening in suitable reagents for microscopical examination) their investigation has to be spread over at least a year before they can publish the results. They have prepared a quantity of material, which is now in a fit condition for examination, and they desire that the balance of the grant returned by them to the treasurer may be remitted to them for the completion of their research. They expect to publish their report at the beginning of the winter.

The investigation of Dr. Thin has been specially directed to the examination of the organs and tissues in animals that had been inoculated with leprous skin, which was proved to contain bacilli lepræ. The inoculations, which were done under anaesthesia, and with all necessary precautions to ensure that the bacilli should not perish, have been entirely negative. In animals inoculated twice at considerable intervals, the portion of skin inserted became in some instances absorbed; in others, it remained permanently fixed, undergoing little alteration. No extension of the disease took place from the inoculated tissue, and the bacilli lepræ which it contained must have undergone degeneration, as their presence could not be detected by the ordinary methods. All the organs in the animals were carefully examined for bacilli lepræ, but none were detected.

These results harmonise with those obtained by other investigators on the Continent; and it may be now considered established that, in the results of inoculation, a radical difference is shown to exist between the bacilli of tubercle and of lepra, although, as regards size and staining peculiarities, it is difficult to make a distinction between them.

During the past year, Dr. Francis Warner has devoted much time to the analysis of the tracings of movements previously obtained. The results are embodied in his work, entitled *Physical Expression*, published in the International Scientific Series. These analyses show the importance of considering the special combinations and series of movements in the body, and the coincident physical forces exciting such movements, by their action on the nerve-centres. The apparatus to be used in this experimental inquiry is still incomplete; the counters used for enumerating the combinations of movements are being remodelled with pneumatic power in place of electricity. It is hoped that this will make them more serviceable. A full account of the apparatus and the results obtained will be published as early as possible.

With regard to the research for papain, by Mr. Sidney Martin, in a paper published in the *Journal of Physiology* (vol. v, No. 4), it was shown that papain acted like trypsin on animal proteid, forming peptones, a globulin-like body, leucin, and tyrosin.

In the present research, the nature of the ferment was investigated; also its action on milk, and on the proteids occurring in the juice of the plant.

Nature of the Ferment.—It is closely associated with a proteid, a hemialbumose, which is soluble in glycerine. This glycerine-extract is very active, hence it may be of some use as a preparation.

Action on Milk.—It peptonises milk after curdling. Some practical suggestions are made in the report as to the readiest method of preparing peptonised milk, either by pancreatic extract or papain. Two stages of the digestion are suggested as useful for food; one, partially, the other, wholly digested, the former being much less bitter than the latter.

Action on Proteids of the Juice.—These proteids are globulins and

albumose, and the proteolytic change is from globulin into hemialbumose, peptones being found in only small quantity, if at all.

Dr. J. T. Cash has been engaged in investigating the action of non-pathogenic upon pathogenic micro-organisms when grown together in a medium which is capable of sustaining the life of either in separate cultivation. For the pathogenic, he has chosen the microbe of anthrax; for the non-pathogenic, amongst others, the bacillus subtilis, bacterium termo, B. lineola micrococci (chromogenic and otherwise.) After the growth of a pure cultivation of anthrax-bacilli had proceeded for one or more days at a suitable temperature, contamination by the addition of the fraction of a drop from a cultivation of the microbe whose action upon the growth of anthrax it was desired to ascertain was practised. After the noted time had elapsed, examinations were made of the cultivating medium; and, if doubts existed as to the destruction of anthrax, inoculation of an animal was resorted to, care being taken that the inoculated droplet should be representative of all parts of the cultivation. A counterpart experiment, which consisted in introducing a certain amount of fresh anthrax, containing blood, into an established growth of some non-pathogenic micro-organisms, was also resorted to. The results afford evidence of the rapid destruction of the anthrax-bacillus under the circumstances indicated, and the enormous resistance of the spore. Thus, the bacilli contained in a droplet of anthrax-blood introduced into a growth of bacillus subtilis may be totally destroyed in no longer time than three hours, whilst a droplet of bacillus subtilis cultivation may destroy a healthy growth of anthrax in 24 hours. Some micrococci were slower in their action, but nevertheless in the end they exterminated the anthrax-growth. In one or two cases only, and those of chromogenic micrococci transplanted into the depth of a fluid medium, has the pre-existent growth of anthrax continued to thrive. A successful joint-cultivation of a pink torula and of the anthrax-bacillus has, however, been made. It is intended to publish the results of these investigations in full in the course of the present year, and therefore the questions dealing with the probable manner of destruction of anthrax by contamination, relationship of time of growth to resistance, and other questions, must be for the present postponed.

Mr. Dowdeswell's investigation is still in progress. He reports in respect to it as follows.

"In respect to the research upon the methods of conferring immunity from infection in certain septic diseases, and the conditions upon which such immunity depends, for which a grant of £100 was made to me towards the end of last year, I have to report that I first examined the so-called cholera comma-bacillus, which has been alleged to constitute the virus of Asiatic cholera; but, as I found that, in artificial cultivations, it was clearly without any specific action on the lower animals, it proved to be useless for the purposes of this research. In the comparatively large quantities in which I used these cultivations, they were found to be devoid of any appreciable effect; and it appears evident that, whatever toxic action may have been induced by other observers by the employment of still larger quantities, must have been due to a soluble chemical poison contained in the cultivations, and not to any specific action of the organism itself. The details of some of these experiments that appeared the most conclusive have already been published in the BRITISH MEDICAL JOURNAL.

"I also obtained the virus of chicken-cholera from Mr. Watson Cheyne, but I found that the microbe, which here constitutes the contagium, in artificial cultivations develops very slowly and uncertainly, so as to constitute a great difficulty in examining the action of different agents upon its virulence; and, further, that inoculations of the unmodified fertile virus, both into cultivating fluids and also into fowls or pigeons, were uncertain in their effects, in several instances failing to germinate in the former—nutrient media—and sometimes, in the latter, producing only a slight affection, perceptible though not fatal, but which, in opposition to what has been previously stated, conferred no immunity from subsequent infection upon the subjects. This microbe thus also proved to be unsuitable for the particular investigation in question.

"In this case, however, I found incidentally that the microbe which constitutes the virus is identical with that of Davaine's septicæmia in rodents. Its morphological characters are precisely the same in both cases, and when inoculated into the rabbit from the blood of a fowl, the symptoms induced are likewise the same as those which I had previously observed in numerous experiments on the latter affection in rabbits, induced in the typical manner by the injection of septic (putrid) matter. This result appears important as showing that the disease in rabbits known as Davaine's septicæmia, which has been termed merely an experimental disease produced artificially in the laboratory, is identical with one that occurs spontaneously amongst poultry, and is at times very destructive; it points to the probable

origin of the latter, and invalidates the distinction that has been drawn between septicæmic and epizootic or epidemic diseases. I have not as yet confirmed this result of the identity of the two diseases by the converse method of experiment, namely, by inducing fowl-cholera by inoculation with the virus of Davaine's septicæmia originated in the typical manner, inasmuch as, up to the beginning of June, though having made constant attempts to originate the latter disease in the usual manner (namely, by injection of putrid matter), I have failed to obtain infection, although in previous years I had invariably succeeded in March, or at the latest in April; affording a further proof of what I before referred to, namely, the dependence of the specific infectivity of putrid matter upon the season, the temperature of which, during the past spring months, has been considerably below the average; and this is only explicable by the presence in the atmosphere of the specific germs at certain times. A detailed account of these experiments and results I hope shortly to furnish.

"I have also examined the action of heat upon the virus of anthrax in artificial cultivations, but I have not found that, when modified by this means, it is capable of conferring immunity upon rodents; I am, therefore, about to try experiments in another direction, and hope, before the winter, to have definite conclusions upon the main point to communicate.

"I must express my thanks to the Association, through the Scientific Grants Committee, for the very liberal grant so handsomely made to me; and I beg to solicit its continuance till the end of the present year, to enable me to conclude the research."

Dr. Angel Money has already reported at length the result of his investigation to the Royal Medical and Chirurgical Society (*vide* BRITISH MEDICAL JOURNAL, May 30th).

He found that the emboli found most suitable were arrowroot-particles, granules of potato-starch, and carmine. The particulate liquid (the above mentioned material suspended in .75 per cent. salt-solution) was generally injected into the common carotid artery. Sometimes the injection was made towards the brain; but, as a rule, the liquid was injected towards the heart. It was found to be exceedingly easy to produce embolism of the capillaries of the brain, but it was found to be difficult to get emboli into the capillaries of the upper part of the spinal cord without causing death by paralysis of respiration. The most important clinical observation which came out of the experiments was the production of involuntary movements undistinguishable from those of chorea, allowance being made for the difference between the animals used and man. This observation has not yet been verified in monkeys. The "chorea" of the other animals was apparently the result of embolism of the capillaries of the spinal cord. In nearly every animal in which the brain was affected with capillary embolism, some form of "uncontrollable" movement was present, like the "forced" movements so well known to physiologists as the result of section of various parts of the brain. When choreoid movements were developed in the animals experimented on, the reflex actions were increased. Rhythmical repetitions of one movement, such as Anacker has described as "chorea," have also been observed as the result of the experiments. Spinal paralysis, hemiplegia of cerebral type, complete facial palsy, various disturbances of pulse and respiration, nystagmus, have all been produced as the result of artificial capillary embolism.

Dr. Dawson Williams and Dr. Norris Wolfenden, who have been conducting a research for which a grant was made to the former, report that the object with which the research was undertaken has been to study the mode of action of the micro-organisms which are present in certain diseases, and to investigate the products of their vital activity under certain conditions. They write:

"The ferment-action of the organisms commonly classed as pathogenic has been heretofore rather assumed than proved to exist. Upon this point we have made a number of experiments, chiefly with the bacillus anthracis. Various authors have affirmed the existence of a 'diastatic ferment' associated with the organisms of ordinary decomposition, and M. Pasteur has made the same statement with regard to the bacillus anthracis; but of such a ferment in connection with that organism we have been able to obtain no evidence at all. We are disposed to agree with the statement of Wortmann, that bacteria of decomposition have a ferment-action on starch.

"On the other hand, we have met with clear evidence that the bacillus anthracis, or some product of its activity, acts as a proteolytic ferment. A pure cultivation growing in a neutral or faintly alkaline infusion of beef or veal quickly renders the liquid acid. Considerable quantities of the lower fatty acid, especially acetic acid, are found in the liquid. Phenyl also appears, though in much smaller quantity, and is probably associated with acetic acid as phenyl-acetic acid. In a few instances only we have met with oxyacids, and it might be

anticipated that phenyl and oxyacids would occur in inverse ratio, phenyl being the terminal product, and the oxyacids the mid terms of the series; they are products of the destruction of albumen.

"The bacillus anthracis grown in broth or in beef-jelly is capable of forming peptone from the albumen. We are not yet in a position to speak with precision as to the possibility of isolating an unorganised proteolytic ferment from the bacillus anthracis; to this and allied questions we prepare to devote further attention.

"With regard to the products of bacterial activity, we believe that they must be studied from two points of view; (1) their action on the micro-organism; (2) their action on the host. It is a well-known fact that a micro-organism introduced into a suitable sterilised cultivating fluid will, at a favourable temperature, develop with great rapidity for a certain time, after which growth ceases. The bacillus anthracis, under these circumstances, forms spores, which retain their reproductive power for an indefinite period; other micro-organisms, also assumed to be pathogenic, but which do not form spores, die. This cessation of growth, and, in certain cases, ultimate death, has been variously explained.

"M. Pasteur has held—and, we believe, still holds—that the micro-organism ceases to grow because it has exhausted a peculiar (hypothetical) pabulum necessary for its development. Others attribute the arrest of growth to the inhibitive action of phenyl, acetic acid, or some other of the products of the activity of the micro-organism itself.

"With regard to M. Pasteur's theory, we have at present no direct evidence to offer; but it may be easily shown that this arrest of growth occurs, while the culture-fluid still contains a considerable quantity of proteid material.

"With regard to the second theory, which has been fully set forth by Dr. Burdon Sanderson (Report of the Medical Officer to the Local Government Board), it is supported by our observations, so far as the production of phenyl and acetic acid in considerable quantities goes. On the other hand, it may be noted that the micro-organisms of ordinary decomposition can flourish in nutritive fluid in which the growth of bacillus anthracis has spontaneously ceased. In ordinary decomposition, the liquid becomes alkaline. This alkalinity is in part, at least, due to the production of ammonia, and this fact, among others, appears to suggest that the arrest of growth of bacillus anthracis may be due to the gradually deteriorating influence of ever increasing quantities of acid. We propose to make further investigations on this point.

"We have failed, after most careful search, to meet with any trace of an alkaloidal body among the products of the action of bacillus anthracis. We have met with indications of the presence of such a body in cultivations of Koch's comma-bacillus of cholera five days old, and alkaloidal bodies have been isolated from the products of ordinary decomposition. So far as we are aware, however, such bodies have only been discovered among the products of bacteria which tend to render the liquids in which they grow more alkaline, part of the alkalinity being due to a volatile alkali.

"This research is being conducted in the Physiological Laboratory at University College, London."

With regard to the Science Scholarships, the present holders, Mr. Watson Cheyne and Dr. Waller, have each made elaborate reports upon their respective researches. Mr. Watson Cheyne's highly important report on a research on the cholera-bacillus has been published in the BRITISH MEDICAL JOURNALS of April 25th, May 2nd, 9th, 16th, and 23rd. Dr. Waller's report on a research relating to the process of fatigue and recovery, is published in the BRITISH MEDICAL JOURNAL of July 25th. Both reports are exceedingly able and interesting.

JOSEPH LISTER, Chairman.

REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

THE Collective Investigation Committee present the following report to the Council, to be laid before the annual meeting of the Association at Cardiff.

The Committee have much pleasure in announcing that the last 12 months have been productive of a fair amount of steady work in the prosecution of collective investigations. Although, as might be expected, the first burst of enthusiasm which greeted the project at its commencement has now in some degree passed off, it is abundantly evident to the Committee that in many quarters the movement has taken sure root; that a body of persevering workers who may be relied upon has been permanently attracted to it; and that this body tends

still to increase. The last quarter has shown a marked increase in the number of returns.

It has been represented to the Committee during the past year, from many different quarters, that the earlier forms of inquiry issued erred in being too long and complicated for men engaged in busy practice to fill up. The Committee, recognising the validity of this objection, have, during the year, constantly aimed at simplifying and shortening the question-papers issued in new inquiries; and this will be taken as a standing principle for the future.

In October last, Dr. Herringham resigned his office of Secretary, but still continues to lend assistance as Honorary Secretary. On the nomination of this Committee, Dr. Isambard Owen was appointed Secretary by the Council at its meeting on October 15th.

A second volume of the *Collective Investigation Record* was issued at the time of the last annual meeting of the Association at Belfast. It contained an analysis of the returns upon pneumonia and puerperal pyrexia, with a full report upon the former drawn up by Drs. Sturges and Coupland, and a report upon the latter by Dr. Galabin; besides one or two special contributions. This volume has been supplied to members of the Association at the charge of eightpence a copy.

The Committee do not propose to continue the *Collective Investigation Record* in the form in which it was originally started. The Committee are making arrangements for the production of their reports in the *BRITISH MEDICAL JOURNAL*, in order that they may be accessible to all the members of the Association without extra charge. Any tables of cases that it is considered desirable to publish *in extenso* will not accompany the reports in the columns of the *JOURNAL*, but will be printed in a cheap form, together with a reprint of the reports, and supplied at a small cost to those who desire to purchase them. The Committee consider that in this manner they will best meet the wishes of the members of the Association, and at the same time avoid incurring unnecessary expenditure.

The returns upon Chorea, upwards of 400 in number, and those upon Acute Rheumatism, upwards of 600 in number, have been tabulated and revised, and are now being printed. The reports upon these returns will be issued in the course of the autumn.

A preliminary report upon the Habits of Aged Persons was prepared in the spring of this year by Professor Humphry, and was published in the *BRITISH MEDICAL JOURNAL* of May 9th, having previously been read before the annual *conversazione* of the Medical Society of London by its author, in his capacity as Orator for the year.

Upon the publication of the reports on Chorea and Acute Rheumatism, it is intended to close the inquiries into these subjects as carried on by the original question-forms; but the Committee have in contemplation to issue further inquiries of a simpler and more special character, upon such points as the results of the first investigation shall suggest. The Committee hope, in particular, to obtain more information respecting the treatment of these two affections.

Nearly 200 returns upon Acute Pneumonia have been received since the issue of the report upon that subject; which the Committee consider may well be embodied in a supplementary report at a future time. Returns will therefore still be received.

The inquiries at present extant into Diphtheria, Old Age, and Cancer of the Breast will be continued during the ensuing year.

The Committee will continue to receive returns upon the rarer diseases for which forms and memoranda have been published, namely upon Paroxysmal Hæmoglobinuria, upon Albuminuria in the Apparently Healthy, upon Sleep-walking, and also upon Acute Gout. At present it is not possible for the Committee to foresee when they will be in a position to report upon these four subjects.

As regards future work:

An inquiry into the Geographical Distribution, Heredity, and some other points in the Etiology of Cancer of the Breast was issued early in the present year, and has already met with considerable success. The thanks of the Committee are due to Mr. Butlin for his personal exertions in framing and pushing this inquiry.

In the *JOURNAL* of January 31st was published an editorial upon Puerperal Pyrexia, and a fresh series of questions asking for returns on cases illustrating certain special points. Copies of these questions have been placed in the hands of the local secretaries.

In view of the importance with regard to practical medicine of definite and well ascertained facts bearing on the Connection of Disease with Habits of Intemperance, and the scanty supply of such facts at present, the Committee resolved, after long consideration, to issue a Schedule of Inquiry upon this subject, in a form originally proposed by Dr. Edward Casey, of Windsor. The Schedule was published as an insert in the *JOURNAL* of May 9th. Many returns have already been received, and they are still coming in.

The Phthisis Subcommittee is continuing its inquiry into the

Etiology of Phthisis, having lately issued a memorandum upon the subject, and a series of forms for recording the desired particulars of cases.

The Committee have at present under consideration proposals for the issue of inquiries into the Prognosis of Heart-valve Disease, and into the Duration of Infectiousness in cases of certain Infectious Diseases.

The Committee is, further, in communication with the officers of the Therapeutic Section of the annual meeting, with the view of associating themselves with that Section in the prosecution of annual inquiries into the Action and Therapeutic Value of New Remedies.

The cordial thanks of the Committee have been accorded to Sir William Gull for the able and effective address which he delivered at their request before the Medical Congress of 1885, "On the Formation of a Committee for the International Collective Investigation of Disease," the result having been the formation of such a Committee, representing most of the leading countries of Europe and America, which has now nearly completed its organisation, and will shortly commence to prosecute, in conjunction with the work of this Committee, inquiries into the Geographical Distribution and Etiology of some of the most important diathetic diseases.¹

The Committee wish to express their deep sense of the loss which has been sustained, not only by collective investigation, but by the whole science and profession of medicine, in the death of the late Dr. Mahomed, who was one of the first and most active promoters of the movement, who, as Secretary, carried on the details of its early work with extraordinary energy and devotion, and who, in his subsequent capacity of Honorary Secretary, never ceased to extend his attention and supervision to all departments of its operations.

The Committee, in conclusion, beg to apply for the renewal of the grant made last year for carrying on the work.

G. M. HUMPHRY, Chairman of Committee.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Norwegian Leprosy.—General News.

M. PAUL BERT has presented to the Académie des Sciences a memoir from M. Leloir on Norwegian leprosy. M. Leloir made his researches in Norway, where there are from 1,500 to 1,800 lepers. The entire population is estimated at five to six million inhabitants. In 1856, there were 2,867 lepers. Since then, special establishments have been organised for these sufferers, where they live removed from contact with the healthy inhabitants, but they are not obliged to enter these establishments. M. Leloir does not believe in direct contagion; neither clinical facts nor experimental pathology have furnished data that prove it to be contagious. All attempts to provoke leprosy by inoculating the bacilli in the tubercle of leprosy have been fruitless; hereditary leprosy is common. M. Leloir believes that there is only one kind of leprosy, but that it presents two varieties, the tubercular form and the anæsthetic form. The anæsthetic succeeds the tubercular form; the latter very often has periods of amelioration, which suggests the probability of cure, but they are frequently the preliminary phenomena of the appearance of the second form.

M. Lunier has written an interesting memoir on the subject of vintage and public health. He discussed the subject at a recent meeting of the Académie de Médecine. Wines from the South of France can neither be kept nor imported unless alcohol be added to them; if the proportion do not exceed three per cent., there is not any danger to public health. The strength of the alcohol must be limited to 12°. Moreover, it is important that the alcohol should be added when the wine is in the vats, before the second fermentation takes place. If this precaution be not observed, the result will be a simple mixture, instead of an alcoholic wine—an alcohol weakened by the presence of wine, and excessively injurious to health. It is imperative that vinous alcohol be used. Manufactured alcohol, extracted from beet-root or potatoes, especially if added to wine in casks, is excessively injurious.

MM. Béchamp and Dujardin have described their researches, which they believe to demonstrate that organic cells, or, more properly speaking, cellular granules, are resolved into microzymes,

¹ A copy of a report presented to this Committee on March 20th, 1885, by Professor Humphry and the Secretary of the International Committee accompanies this report.

consequent on the decomposition of the tissues; that is to say, by a process of retrogression, they become primitive elements; subsequently they change into vibrios, rods, and bacteria. M. Pasteur maintains that simple granular bodies cannot, by a process of evolution, become microbes. He holds that there must be something faulty in the method followed by MM. Béchamp and Dujardin; either microbes have been introduced from without, or these observers have accidentally proved spontaneous generation.

Dr. Ferran has sent another letter to the Académie des Sciences. He protests against the statement that he wishes to keep his method a secret. Dr. Ferran proposes to go to Paris, and make inoculations in the presence of the Academicians. M. Bouley regrets that Dr. Ferran did not profit by the presence of the French Commission at Valencia to prepare his cultivation-fluid under their inspection, and to make inoculations with it. M. Paul Bert suggests that, as Paris is free from cholera, and therefore cholera-inoculations are unnecessary, Dr. Ferran should be asked to send over some of his inoculation-fluid, in order to submit it to an accurate scientific examination. M. Brouardel, in his report concerning the Cholera Commission sent to Valencia, states that Dr. Ferran refused to indicate his method for attenuating the virus, nor would he give any of the fluid, although he said he could make two cubic metres of it a day. The statistics published are not unfavourable evidence of the good effect of Dr. Ferran's inoculations; but the alcaldes of the different towns, and the provincial magistrates, declare that Spanish statistics are not reliable.

The Municipal Council of Paris has raised the question of night-shelters (*asiles de nuit*) for the poor. M. Peyron, Director of the Assistance Publique, considers that the existing night-shelters supply the present need. There are six of these establishments—three for men, three for women. In 1883, 37,000 men were received; in 1884, 50,000. The total expense was 50,000 francs (£2,000). Bread and clothes were given to them. Fewer women than men seek relief at the night-shelters, but the expense incurred is greater; this is because attached to the night-shelters for women there is a convalescent ward for women leaving the Maternity Hospital. The night-shelters for women are never full; those for men are not full in summer, and rarely are applicants turned away in winter. The existing night-shelters are supported by private charity. M. Peyron affirms that the system of hospitality adopted in night-shelters supported by private charity could not be recognised by the Assistance Publique, which essentially belongs to Paris, and could not apply the municipal funds to applicants from all parts of the globe. Public charity could not abandon its recipients at the end of three days' relief, when they are helpless and penniless. The night-shelters do not provide shelter after the third night. Municipal establishments of this kind, M. Peyron believes, would be used either before entering the hospitals or on leaving, and would involve a very large expenditure. The Assistance Publique might help private charity, if new night-asylums were established; and this, M. Peyron declares, is all it could do. He suggests that the number of convalescent wards of those institutions which receive women after childbirth should be increased.

The French hospital at Yokohama has been in working order since April. About 100 sick and wounded from Formosa have been treated in it by French medical men.

An order has been sent to evacuate the Pas-des-Lanciers camp at Marseilles. The mortality from typhoid fever increases; 20 deaths occurred in one day.

Dr. Roger is named Commander of the Legion of Honour. Dr. Galezowski, the well known ophthalmic surgeon, and M. Mathurin Moreau, Mayor of the Nineteenth Arrondissement, are enrolled as Officers.

It has been reported that cholera has appeared at Carcassonne. A strict inquiry has been made, and this assertion has been officially contradicted.

M. Milne-Edwards, Dean of the Paris Faculty of Science, has, on his request, been put on the retiring list. He now ranks among the honorary professors; and M. Gamin, Professor of Physic at the Faculty of Sciences, is elected Dean for a period of three years.

Dr. Roux has been entrusted with a commission from Government to study the phylloxera.

A ministerial decree of July 2nd prohibits fruit from being imported from Spain, if it grow on the ground, or on a level with the ground.

A decree of the 7th directs all hotel, inn, and lodging-house proprietors to notify the arrival of travellers coming from Spain. Private individuals are also called upon to make the same declaration.

The Minister of Commerce has appointed M. Charrin and another medical man to arrange, in concert with the prefects, a medical service on the French and Spanish border. The students of the Medical Faculties of Montpellier, Toulouse, and Bordeaux will be incorporated into this service.

CORRESPONDENCE.

COLLECTIVE INVESTIGATION OF DISEASE.

SIR,—Will you allow me to make the following brief statement in the JOURNAL of Saturday next?

The work of collective investigation, as indicated in the report I had the honour of presenting to the Council on the 8th ult., to be laid before the meeting at Cardiff, is making steady progress, and the number of returns to the several inquiries is increasing.

The Collective Investigation Committee are fully sensible of the cost which the work entails upon the Association, and of the liberality with which the requisite funds have been granted by the Council; and they are anxious that the work should, if possible, be brought into more close relation with, and even into more subordination to, the general scientific work of the Association.

With this view they propose that, should it meet with the approval of the Journal Committee, the results of their investigations should be more fully communicated to the members of the Association through the pages of the JOURNAL, instead of being, as hitherto, merely printed in a separate *Record*, the details being reserved, as heretofore, for publication in the latter form.

Further, the following resolution was agreed to by the Collective Investigation Committee, on Wednesday, July 8th:

"That the Chairman be authorised to write to the Chairman of the Council, expressing the feeling of this Committee that it would be very desirable for the work of the Committee to be associated with the work of the Sections of the annual meeting; and that this Committee is desirous of receiving suggestions from the said Sections for further inquiries, and of co-operating with the Sections in carrying them out."

The Committee feel that their work should not stand alone and apart from the other scientific work of the Association, but that the initiative of their inquiries might, in some measure at least, be given by the discussions held at its annual meetings. The Committee would be ready to co-operate with a Committee appointed by any of the Sections in carrying out the investigation of such subjects as the Section might, after due consideration, propose.

By thus acting as the executive of the annual meetings, the Committee feel that they would more fully identify themselves with the general scientific work of the Association, and more completely further the aims of its members in advancing the science and practice of medicine.—I remain, yours truly,

G. M. HUMPHREY,
Chairman of the Collective Investigation Committee.

Cambridge.

ON THE USE OF IODOFORM IN SUPRAVAGINAL AMPUTATION OF THE UTERUS.

SIR,—When in Copenhagen last August, I had an interesting conversation with my old friend, Professor Howitz, on supravaginal amputation of the uterus; and I expressed to him my opinion that one source of danger might be avoided by careful preliminary disinfection, not only of the vagina, but of the uterine cavity. I added that, by the use of iodoform, either in powder or as a paste made with water, some slight assistance was obtained during the operation, as the yellow colour of the iodoform at once showed where the uterine cavity was cut across. Professor Howitz has extended the use of iodoform, by applying it after septic symptoms have set in some time after operation. The following interesting letter to me (which I have obtained his permission to publish in the BRITISH MEDICAL JOURNAL) proves that he has done this with strikingly good effect in two cases. I may add that, in reply to some questions from me, Professor Howitz writes that by what he calls *iodoform stick* he means iodoform in powder mixed with mucilage of gum arabic, so that, when dry, it makes a firm little stick, four to five inches long, like a quill. He also writes: "As far as possible, I excise the mucous membrane of the part of the uterine cavity within my reach."

This latter precaution may prove equally valuable, perhaps, when the intraperitoneal treatment of the stump is practised.—I am, etc.,

T. SPENCER WELLS.

Upper Grosvenor Street, July 15th, 1885.

DEAR SIR SPENCER WELLS,—The question of the right way of treating the uterine stump, in the operation *amputatio uteri supra-*

vaginalis, has as yet been far from answered satisfactorily; and, as we have seen in literature, before the last congress here in Copenhagen, as well as during the discussion at the congress itself, and later, the great authorities on this question are far from agreeing. It has been an especial point of controversy whether, as in ovariectomy, the stump might be let down into the peritoneum, or if the extraperitoneal method is to be adopted. There is an evident inclination to follow the way shown us by the ovariectomists; and, thanks to Schroeder, Sanger, and Olshausen, it seems probable that an intraperitoneal method may be discovered that can be justified. I have, as have nearly all other ovariectomists, abandoned the extraperitoneal method with respect to ovariectomy; but have, nevertheless, kept it for *amputatio uteri supravaginalis*; and, having had of late two cases of this operation, that have proved to be decidedly convincing to me, as I believe I have found an almost sure way to escape sepsis, I will, with your permission, give you an account of these cases, together with a few remarks.

H. L., aged 37, came to me on February 26th, 1885, and was operated on on March 10th, at 8 A.M. The tumour was a fibroma, of the size of a man's head, consisting of several knots joined by a broad base, occupying the whole fundus and corpus uteri. The amputation was made near the site of the *orificium internum*. Both ovaries were removed. The ligature consisted of a double elastic loop. The tumour was fixed outside with two Péan's pins. The vagina was plugged with iodoform gauze. At the amputation, the uterine cavity was seen to be opened. The mucous membrane was excised. The whole stump was treated with the thermo-cautery, and powdered with iodoform. On the same evening, the temperature in the rectum was 38.9° per cent.; on March 11th (the next morning), 39.2°; in the evening, 39.5°. The iodoform plugs were taken out of the vagina, which was syringed with sublimate, and repeated syringing of the uterus was tried with a platina tube, and the temperature went somewhat down, was 39.1° to 39.2°, but rose the next morning to 39.7°, and her whole state, torpidity, etc., indicated the beginning of sepsis. The dressing was removed; an iodoform stick was introduced from above through the opening of the uterine cavity; it passed rather easily the place of constriction, and filled pretty well the whole cavity. The vaginal tampons were changed. Syringing with sublimate was done, yet the temperature was raised for the next two hours to 40°, but fell during the following three hours to 39°, and 38.6° in the evening and night. Next morning, it was 39°. As on the 15th, the temperature was still 38.9°, an iodoform stick was once more introduced; after which the temperature, in the course of some hours, went down to 38.5°, and in twelve more hours to 38.1°. Next morning it was 37.6°, and remained normal the whole time. On the discharge of the patient, the communication was still open between the vaginal aperture of the uterus and the aperture of the stump grown to the abdominal wall, but a few weeks later it was closed up.

The two great dangers of *amputatio uteri supravaginalis* are bleeding and sepsis. We all agree that bleeding is completely mastered, with the aid of the elastic ligature, by the extraperitoneal method, and not nearly so well by the intraperitoneal one. I will, therefore, leave this point to the advantage of the extraperitoneal method out of consideration. I am sure, dear Sir Spencer Wells, that you agree with me in this, that if cleanliness and antisepsis have been carried out conscientiously, sepsis, after *amputatio uteri supravaginalis*, is due to infection from the vagina through the uterine cavity; and I remember well the good advice you gave me last summer. You advised me to introduce iodoform into the uterus before the operation; it was to work antiseptically, and besides show us when we opened the cavity. Nevertheless, this advice cannot be followed in all cases, and it was an impossibility in this one, where I had to do with an elderly *virgo*, with a narrow vagina and *orificium uteri externum* hardly accessible. And, after the operation, it will always be a great difficulty to introduce the stick through the vagina, as too much moving the patient is forbidden, and the *orificium externum* is very much elevated by the extraperitoneal method. I resolved, then, to try to introduce the iodoform stick through the stump; but it was with a certain doubt of the possibility thereof, on account of the strong contraction of the elastic loop, that I began to do it. The introduction was, nevertheless, performed with great facility, and it had the most splendid effect. As you will have observed, it did not work until two hours after the introduction, as the already absorbed septic matter had raised the temperature to 40° C. in this space of time, but that it went down afterwards to 39° and 38.6°. As the temperature again mounted to 39° and 38.9°, the introduction of the iodoform stick was repeated, and the temperature went quickly down to normal. It was evidently right to attack sepsis in the genital canal, which was shown by the falling of the temperature after syringing the

vagina. But it is quite as evident that the quickest and surest way to do it is to work first on the rest of the uterine cavity. That the first introduction did not have a more lasting effect, was, in my opinion, owing to the circumstance that the first introduced iodoform stick was too thin, so that it did not get into sufficient contact with the whole uterine cavity. The effect in this case was quite like what I have seen when, in puerperal septic cases, I have introduced iodoform sticks into the uterus; and it made me resolve that, in the next case of *amputatio uteri supravaginalis*, I would introduce an iodoform stick directly after the amputation, and repeat this after every more considerable raising of the temperature. The next case was as follows:

B., aged 50, single, was operated on June 2nd, 1885, at 8 A.M. The tumour was a myoma, of the size of a man's head. I performed the *amputatio uteri supravaginalis*. Both ovaries were extirpated. The cavity of the uterus was very large. The constriction of the stump was accomplished by a double elastic cord. The stump was retained outside the abdominal wall by means of two Péan's pins. The stumps of the uterus and of the ovaries were treated with the thermo-cautery, and powdered with iodoform; and an iodoform stick was put in through the opening of the cavity of the uterus, downwards, so that I could feel it in the *orificium externum uteri*. The vagina, beforehand cleaned with carbolic solution, was plugged with iodoform gauze. Twelve hours afterwards, the temperature in the rectum was 38.4°; the next morning, 38.9°; two days after the operation, 39.3°. I opened the dressing of the wound, and cleaned with carbolic solution. The iodoform stick introduced at the operation had disappeared, and I introduced a new one. The plug in the vagina was removed, and the vagina every day syringed with a solution of acidum boricum (four per cent.). Three days after the operation, twenty-four hours after the introduction of the last iodoform stick, the temperature was 38.4°, and the next day 37.5°, and continued now to be normal. My trust in the iodoform stick was thus fully confirmed by this second case, and I believe in this treatment to have found a sure way to avoid sepsis in the *amputatio uteri supravaginalis*. I should be very glad if you, dear Sir Spencer Wells, of whom I have learned so much, would be of the same opinion, and if this my treatment in your hands and by your authority, would help many patients. — With the highest respect, I am, dear Sir Spencer, yours very truly, F. HOWITZ, Copenhagen, June 22nd, 1885.

PAYMENT OF TRAVELLING EXPENSES OF THE REPRESENTATIVES OF THE BRANCHES TO THE MEETINGS OF THE COUNCIL.

SIR,—In continuation of my last week's letter, I now proceed to deal with each and all of the objections which have heretofore been urged against my proposal; and it is really surprising how few and how feeble they are, when sifted from the verbiage and reiteration which always obscure public discussion. It is needless to give the names of speakers; but I quote their words, so far as I can, from the JOURNALS of August 4th, 1883, and August 2nd, 1884.

"It is one of the greatest glories of the Association that its work has been mainly done by volunteers."

Answer. Well and good, when the Association was poor and in pecuniary straits. Now, it is neither needful nor equitable to saddle those who do the work of a wealthy Society with heavy personal costs.

"In every Branch, some volunteers would be found who, for the honour and glory of the profession, would undertake the work without fee or hope of reward."

Answer. Probably that is so. But possibly the "volunteer" is not the man the Branch would choose as their representative; and why should their choice be limited to this one individual, who, in fact, would be buying his office by offering to pay his own costs. Who would select a man for an office of trust and responsibility, because he held out the bribe that he would do the work for nothing?

"Without fee or hope of reward."

Answer. So far as I know, no one asks a "fee" or "hopes for reward." All we ask is our travelling expenses, which are neither "fee" nor "reward."

"The railway-fare is a very minor consideration, in comparison with the time expended."

Answer. This is indeed a clinching argument; only it tells on the other side. Because four times in the year I leave my business for two days at a time, and incur hotel-expenses, etc., I am also to be inhibited in a sum of £10 railway-fares for the "honour and glory" of looking after the business of the British Medical Association. Note.

over, for the representatives of the distant Branches, the railway-fares—£20 a year—can scarcely be called “a minor consideration.”

“If the principle of the payment were also extended to the committees, the expenditure would be very great—£2,000 a year!”

Answer. No such proposal is before the Association; time enough to deal with it when it is seriously made. Again, the only legally constituted committee is “the Journal and Finance Committee,” which consists entirely of members of the Council; and they hold their meetings immediately before the Council meetings, so that a journey to one is a journey to the other, and no additional expense is incurred.

“The money is wanted for freehold premises.”

Answer. This will undoubtedly be the most important question before the general meeting; and I am glad of this opportunity to direct special attention to the subject, even though the digression puts my pet project in the shade. The Association, in general meeting assembled, will be asked to sanction a scheme which has been for a long time exercising the minds of the Council, and which seems to be a veritable craze on the part of some of the seniors. Their proposal is to purchase a site in or near the Strand—one of the most expensive positions in London—at a price not exceeding £15,000, on which, for another £10,000 estimated cost, a building is to be erected—for what purpose? “A Home for the JOURNAL and the Association;” in plain language, a printing-office, and nothing more.

So our Association would arrive at the honourable position of a land-speculating and building society—the whole of its reserve-fund would be dissipated, and a heavy debt incurred—all for the printing and publication of the JOURNAL, which would be as well done by a respectable publisher on ordinary business terms.

If this scheme be carried out, henceforth let us be called “The BRITISH MEDICAL JOURNAL Association.”

To return to the original discussion.

“The money would be better spent in the promotion of science.”

Answer. It is well to be just before you are generous, and I contend we have a first claim against all other applicants; besides, unless the funds are squandered in the preposterous scheme mentioned just now, the surplus income (£1;500 a year) amply suffices for all reasonable purposes of science and research.

“This payment would mean commercial suicide from its expense.”

Answer. The total cost could not exceed £500 a year, which I have already deducted from the foregoing calculation.

“The attendance at the Council meeting is sufficiently large.”

Answer. Here speaks the voice of the London men, and those who can attend at little cost or loss to themselves, and who are quite ready to take the affairs of the Association into their own hands, without the aid of their distant colleagues. But, then, what becomes of the great principle of “representation?” As a matter of fact, many of the representatives never come to the London meeting; many come but seldom, and irregularly; and, every time they fail to come, they neglect a duty. Besides, those who do come from long distances may justly grudge the cost.

“The Branches should pay their own representatives.”

Answer. How equitable, how logical, this arrangement would be! The Dublin, Edinburgh, and Glasgow Branches would have to contribute their £20 or more a year, whilst the Metropolitan Counties Branch would send its four or five representatives for absolutely nothing.

Sir, my task is ended; and I submit that, if this question is to be settled by reason, argument, and common-sense, my proposal will be affirmed by the General Meeting at Cardiff.—I am, etc.,

Hull, July 21st, 1885.

J. DIX.

SIR,—Mr. Dix has thought proper to moot this question in the JOURNAL of July 18th (p. 123). Under other circumstances, it would be only courteous to await the promised completion of his argument; but as that would delay any reply until after the meeting at Cardiff, at which this subject is set down for discussion, I must crave a small space in your next issue for some remarks upon Mr. Dix's arguments.

And, first, I would remark that I think it is a pity that your readers should now be troubled with arguments on this matter, which are sure to be repeated at Cardiff; for it is a question for the decision of a general meeting, and of a general meeting only. I happen to know, however, that Mr. Dix feels strongly on this question, and it is not for me to censure, but to refute him.

First, I object to the analogy Mr. Dix has drawn between our “representatives” and the directors of a company. The directors of a company are leading shareholders in a commercial body merely, act-

ing for the pecuniary interests of themselves and their constituents, giving up their time for pecuniary objects. They are working to make money, and are very properly paid for their work in money. Our “representatives,” on the contrary, have very little to do with the funds of the Association, beyond a kind of auditorial supervision of the accounts. The money is spent by order of the Association in general meeting, and the duty of the Council with respect to it is chiefly to see that it (the money) goes into the proper channels. The principal duties of the Council are those into which the question of money does not enter, and for the performance of which quite other qualifications are required than those which constitute a model director of a company. They are, for instance, the admission and exclusion of candidates, and some sort of control (although this is, at present, quite inadequate) over the conduct of the members; secondly, the supervision of the work of several subcommittees; and, thirdly, the disposal of considerable funds destined by the general meetings for the promotion of scientific research. The analogy between our representatives and the directors of a company, as drawn by Mr. Dix, does not hold good.

In the second place, it must be remembered that, under the new rules, the government of the Association is placed entirely in the hands of the Branches, with the sole assistance of the Presidents and Vice-Presidents. The representatives are the delegates of the Branches, and if any payment to them be advisable, by the Branches, it should be made. I grant that it is a tax upon the pockets of the members of Council to go to London four times a year at their own charges. But there are few, if any, Branches whose funds will not allow of paying, at least, the railway-fares of their representatives; and I am surprised that Mr. Dix's Branch has not offered to reimburse him, many other Branches having set the example.

Thirdly, Mr. Dix has referred to the wealth of the Association, and its present savings of something like £2,000 a year. The present accumulated funds are under £20,000, a sum not at all too large for the procuring a proper and respectable home for the Association, together with necessary business-premises. When, in ten year's time, another like sum shall have been accumulated, I trust that it will be carefully hoarded against a rainy day, for rainy days will come. The Association should first be placed beyond the reach of accidents or secession, and then, any remaining funds may well go for the promotion of medical science. Until this is done, let us husband our resources, and not spend them in petty payments to representatives, which, however small individually, would amount to many hundred pounds a year.

I must remind Mr. Dix that, whatever the opinions of individual members of the Council may be, or have been, the weight of opinion is against his contention; and although his opinions obtained a success at a small meeting at Birmingham, they were rejected at Liverpool by a large meeting, and I hope such will be their fate at Cardiff.—Yours, etc.,

WILLIAM STRANGE, M.D., Vice-President.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, July 20th.

Admission to Naval Hospitals.—Mr. A. O'CONNOR asked the First Lord of the Admiralty whether any orders existed regulating the admission to naval hospitals, at home and abroad, of scripture-readers or other persons engaged in religious instruction, other than the authorised chaplains; and, if so, whether such orders had been recently suspended, and by whose authority, and for what reason.—Lord G. HAMILTON: Scripture-readers are under the control of the chaplains of the Naval Medical Establishments. No recent orders have been given by the Admiralty suspending any of the regulations enforced, the most recent of which were issued in 1878.

Public Health (Members and Officers) Bill.—This Bill was read a third time.

Tuesday, July 21st.

The Lunacy Bill.—Mr. BALFOUR informed Lord A. PERCY that the Lunacy Act Amendment Bill would not be proceeded with, but he hoped to introduce a Bill on the subject of persons supposed to be insane being detained in workhouses.

The Case of Dr. Bradley.—Sir R. CROSS, in answer to Mr. MACFARLANE as to the case of Dr. David Bradley, who was sentenced to two years' hard labour for an alleged outrage upon a woman who was subject to epilepsy, said that, since a memorial was presented to him by medical practitioners in Sheffield, he had taken the advice of the

law-officers of the Crown, and also of the Lord Chancellor, and the conclusion at which he had arrived was, that there was so much doubt that he did not think that Dr. Bradley ought to be further detained. In reply to a further question as to whether compensation would be granted, the right hon. gentleman stated that he had not said that innocence had been proved, but he did not think that the prisoner ought to be detained on the present evidence.

Disqualification by Medical Relief.—On the motion to go into Committee on the Medical Relief Disqualification Removal Bill, Mr. COURTNEY moved, as an amendment, that the House cannot approve of a measure which removes an incentive to independence, and fundamentally changes the principles of the Poor Law, under which pauperism has steadily diminished. In support of his amendment, Mr. Courtney, touching first on the Parliamentary history of the Bill, animadverted on the inconsistency of Sir C. Dilke and Sir Henry James, who had originally opposed the proposal on principle; and, dealing with the statistics, while he agreed with the estimate that the number of persons affected by the Bill would be between 60,000 and 70,000, he argued that its principle was capable of indefinite extension, and he feared that these numbers would be greatly increased. He objected to the Bill because it would injuriously affect the position of the working classes, would diminish the incentives to prudence and thrift, and would retard the efforts to extinguish pauperism.—Mr. C. S. Read seconded the resolution, characterising the Bill as a first step towards the extension of pauperism, and a fatal blow to benefit and sick clubs.—Mr. RATHBONE, while supporting the Bill, thought it better that the House should not be irretrievably committed to its principle, and suggested that it should be passed for a couple of years, when a searching inquiry could be made.—Dr. FARQUHARSON also spoke in the same sense.—Mr. BRYCE strongly opposed the Bill as an anti-Radical measure, which would lead to a lax administration of the Poor Law, and would in time be extended to the enfranchisement of persons receiving outdoor and indoor relief. He pointed out, also, that it gave representation without taxation, and for the first time conferred political power on the pensioner of the State.—Sir F. MILNER regretted that Mr. Chamberlain's unscrupulous speeches had prevented the question from being discussed in an impartial manner, and Sir G. GOLDNEY supported the Bill.—Mr. HALSEY cordially supported the Bill, and argued that the receipt of medical relief was not pauperism; and Mr. HENEAGE also spoke for the Bill on the same grounds.—Mr. J. G. TALBOT opposed the Bill; and Mr. DAVEY, Mr. D. GRANT, and Lord EMLYN supported it.—Sir H. JAMES maintained that, though the point was a small one when the Redistribution Bill was before the House, it had now become a burning question, and it had taken such a hold of the constituencies that it was expedient to get rid of it as soon as possible.—Mr. PELL protested against the question being decided by considerations of expediency, and repeated his objections to the Bill as tending to a lax administration of the Poor Law, and the injury of benefit clubs.—Mr. C. LEWIS also animadverted on the expediency-doctrines by which the Bill was supported on both sides.—Mr. A. J. BALFOUR agreed with the late Attorney-General that the sooner the question was got out of the way the better; and, replying to various objections, he pointed out that, to give relief in order to disqualify a man, would be a corrupt practice, and that the State already provided education and other primary necessities for the poor man. When the House had granted the case of Ireland, it was impossible, he argued, logically to resist the extension of the principle to England, and the result of retaining this disqualification would not be to foster thrift. The harm had been done already, and it was of no value to continue machinery which had become useless.—Mr. CHAMBERLAIN, Mr. J. LOWTHER, Mr. COLLINGS, and the CHANCELLOR of the EXCHEQUER also spoke; and Mr. COURTNEY'S amendment was negatived by 226 to 22.—The House then went into Committee on the Bill.

MILITARY AND NAVAL MEDICAL SERVICES.

RELATIVE RANK AND TITLE.

SIR,—Notwithstanding the complaints of the want of initiative made in certain quarters against the officers of the Army Medical Department, after the Egyptian campaign of 1882, it is remarkable, and significant of the genius that inspired their authors, that the remedies they suggested were such that, in future campaigns, all initiative would have been destroyed, and the inefficiency of the department made a matter of absolute certainty.

Fortunately, in the interest of the public, as well as of the sick and wounded soldier, common sense prevailed, and, on the recommendation of Lord Morley's Committee, the consolidation of the medical corps was effected, and the department's system further developed and improved. That these changes and improvements have been effective, and attended with the happiest results, has been shown in the accounts given, by various special correspondents, of the

work done in the campaigns just brought to a close on the Upper Nile and in the Eastern Soudan, where, as the *Broad Arrow* observes, "both in the administrative and executive branches, success has been signal and complete." It now only remains that the principle involved should be carried to its legitimate conclusion, and army rank and appropriate titles granted to our soldier-surgeons instead of their, at present, "unwieldy and meaningless appellations"—appellations which are not understood by outsiders, which are meaningless even to the initiated, and are consequently useless in conveying orders in the field, in commanding the corps, in drill, or for any practical purpose whatever.

What is wanted is, that the military title which marks the rank should be attached to the professional designation, as in the military medical staff of the United States, Russian, Italian, and other armies. As you, sir, remark in the *BRITISH MEDICAL JOURNAL* of May 30th, "there can be no valid objection to such an arrangement, while it seems to carry with it many practical advantages." I think so, too, and I hold that a properly defined and understood rank is desirable for the sake of discipline, and the due maintenance of authority in the corps and hospitals, as well as for the cultivation of mutual respect and esteem between the officers and men of the medical service and other branches of the army, wherein it is essential that all should work together harmoniously for the common good. I feel certain, after a long experience of army-matters, that it is this want of definite rank and standing that has done more than anything else to perpetuate that unworthy and petty jealousy that has all along stood in the way of military medical initiative and advancement, and which, whenever an opportunity offers, exposes our medical officers to unfair disparagement in the columns of certain so-called "service journals." The sole object of these periodicals appears to be to disparage our reformed military system, to decry the service for which they profess to write, and (if they have any weight whatever, outside the less thoughtful of their readers, which I much doubt), to impress the foreigner with the idea that we have no army, and may, consequently, be despised as a military power.—Your obedient servant, M.D.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CONWAY BOARD OF GUARDIANS AND MR. DAVIES.

MR. THOROLD ROGERS, M.P., has given notice "that he will ask the President of the Local Government Board whether it is the case that Mr. Thomas Davies, appointed district medical officer to the Conway Union in 1873, and confirmed by the Local Government Board, was allowed, in addition to his salary of £75 a year, the extra fees allowed by the Local Government Board, and the cost of supplying expensive drugs, the district containing an area of 18,550 acres, with a rapidly increasing population. Whether the Board is aware that the Conway guardians have striven to compel Mr. Davies to commute his extra fees and the cost of drugs for £10 a year, and that, on Mr. Davies refusing to accept this commutation, the board has cancelled his contract and withheld payment of his fees and last quarter's salary."

A copy of this question was forwarded to the clerk of the Conway Union, who has replied "that Mr. Thomas Davies has not applied for his salary, nor rendered an account of his claim for extra medical fees for the midsummer quarter." It is very unlikely that Mr. Davies would do so, seeing that the board had passed a resolution, by a majority of six to two, three members declining to vote, that they would not pay him if he did. The clerk then proceeds to state "that there have for years been disputes between the board and Mr. Davies as to claims for cod-liver oil, guinine, extra medical fees, and the manner in which he performs his duties." This last allegation is obviously an afterthought of the clerk, for we neither heard nor read anything of this when the chairman made the arraignment of Mr. Davies in his onslaught on him reported in the *JOURNAL* of June 20th. He then proceeds to call attention to the charge preferred against Mr. Davies of being extravagant in his orders for such expensive medicines, and further directly charges him with having prescribed pills, plasters, grey powder, bismuth, etc., which had been fraudulently entered in the account against the board. The clerk then proceeds to point out "that under Article 206 of the General Consolidated Orders of 1847, Mr. Davies is bound to supply all medicines; but with a view of compensating him for medicine previously supplied by the board, it was resolved that he should supply the medicine, and be allowed the sum of £10 per annum for the same, and which sum Mr. Davies declined to accept." It will be noted that the inclusion of the extra fees in this offer of £10 has been wholly ignored. The clerk goes on to state "that on the receipt of the resolution of the Poor-law Medical Officers' Association, which was based on statements supplied by Mr. Davies" (a wholly gratuitous and apparently incorrect statement), "it was resolved that his quarter's salary cheque be not signed, so that proceedings might be taken in accordance with the advice given him by the Association." Here again an inaccuracy and improper statement is made, as will be seen by reference to the *JOURNAL* of June 6th. It will be there noticed that before the Poor-law Medical Officers' Association took any action in the matter, the chairman moved, at the meeting of the board on May 29th, that the next quarter's salary be refused, the clerk having expressed the opinion "that the medical officer could not claim a cheque from the board," his contract having been annulled.

A copy of the clerk's letters was then sent to Mr. Davies, with the request that he would offer such explanations of his alleged fraudulent conduct as he thought fit. Whereupon he replied that on one occasion he had given a prescription for a plaster, some grey powder and bismuth, but, on giving it, he distinctly told the patient that it could not be supplied at the expense of the board; that, notwithstanding that injunction, it had been taken to the druggist and dispensed by him, but wholly without his cognisance. From this trifling transaction, the chairman has attempted to make out deliberate wrong-doing on the part of Mr. Davies.

Mr. Davies then reiterated his story of the continuous effort on his part of this board to coerce him into an acceptance of their terms, and to their having, by resolution on the 20th of April last, given him notice that they would not be responsible for such—that is, expensive—medicines if ordered by him, whereby

he had been compelled to discontinue prescribing them, a resolution the clerk does not refer to in his letter of explanation to the Local Government Board. We shall, in our next issue, give the answer of the department to Mr. Thorold Rogers's question.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following vacancies are announced.

- BRISTOL DISPENSARY.**—Two Medical Practitioners. Applications to Mr. E. Stock, 57, Queen Square, Bristol, by August 6th.
- CHELSEA PARISH.**—Assistant Medical Officer. Salary, £100 per annum. Applications by July 28th.
- CITY AND COUNTY LUNATIC ASYLUM,** Stapleton, Bristol.—Clinical Clerk. Applications to Dr. G. Thompson, Medical Superintendent.
- CLONMEL LUNATIC ASYLUM.**—Assistant Medical Officer. Salary £100 per annum, and £50 in lieu of rations. Candidates to be unmarried, and not over 32 years. Election on August 10th.
- COTON HILL LUNATIC HOSPITAL,** Stafford.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 8th.
- CROYDON GENERAL HOSPITAL.**—House-Surgeon. Salary £100 per annum. Applications by August 7th.
- DEACONESSSES' INSTITUTION AND HOSPITAL,** The Green, Tottenham.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Laserson, Tottenham, by August 1st.
- DENTAL HOSPITAL OF LONDON, AND LONDON SCHOOL OF DENTAL SURGERY,** Leicester Square.—Demonstrator of Non-Cohesive Fillings. Salary, £50 per annum. Applications by August 3rd.
- EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN,** Shadwell, E.—Assistant-Physician. Applications by July 30th.
- EDMONTON UNION.**—Medical Officer for the parish of Cheshunt. Applications by July 29th.
- GREAT NORTHERN CENTRAL HOSPITAL,** Caledonian Road, N.—Junior Resident Medical Officer. Applications by August 3rd.
- ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.**—House-Surgeon. Salary, £100 per annum. Applications to F. Brown, 46, Atholl Street, Douglas, by August 10th.
- LINCOLN COUNTY HOSPITAL.**—House-Surgeon. Salary, £100 per annum. Applications by August 15th.
- MANCHESTER ROYAL INFIRMARY, MONSALL FEVER HOSPITAL.**—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.
- MASON SCIENCE COLLEGE,** Birmingham.—Demonstrator in Physiology. Applications by August 20th.
- NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES,** Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to R. Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 1st.
- PARISH OF BIRMINGHAM.**—Three Temporary District Medical Officers. Salary, £400 per annum each. Applications by July 28th.
- RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.**—Resident Medical Officer. Salary, £120 per annum. Applications by August 1st.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—Examiner in Dental Surgery. Applications by July 30th.
- ROYAL INFIRMARY,** Ryde, Isle of Wight.—House-Surgeon and Secretary. Salary, £50 per annum. Applications by July 28th.
- STAFFORDSHIRE GENERAL INFIRMARY,** Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Milnes, Blumer.
- ST. GEORGE'S AND ST. JAMES'S DISPENSARY.**—Physician. Applications by July 28th.
- WESTERN GENERAL DISPENSARY,** Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by July 25th.
- YORK COUNTY HOSPITAL.**—Resident House-Surgeon. Salary, £100 per annum. Applications to R. Holtby, 5, New Street, York, by July 25th.

MEDICAL APPOINTMENTS.

- BIDEN,** Charles W., M.R.C.S.Eng., L.R.C.P.Lond., appointed House-Surgeon to the Charing Cross Hospital, *vice* J. Marriott.
- GRENFELL,** H. Osborne, L.S.A., appointed House-Physician to the Charing Cross Hospital, *vice* B. W. Thomas.
- WALLINGTON,** W. T., L.S.A., appointed House-Physician to the Charing Cross Hospital, *vice* W. H. Haw.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

ROBERTSON.—At Kimberley, South Africa, July 27th, 1884, the wife of William Robertson, M.D., of a son.

MARRIAGE.

BLACKMAN—GREEN.—On June 30th, at All Saints' Church, Portsmouth, by the Rev. William Poppewell, M.A., Vicar of All Souls, Bolton, Lancashire, assisted by the Rev. E. B. C. Churchill, M.A., vicar of All Saints, Josiah George Blackman, M.R.C.S.Eng., and L.S.A.Lond., of Poplar House, Portsmouth, to Sarah Anne, youngest daughter of Richard Green, Esq., of Bolton.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY**.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
- TUESDAY**.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
- WEDNESDAY**..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
- THURSDAY**...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
- FRIDAY**.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
- SATURDAY**...St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

- CHARING CROSS.**—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 2; Dental, M. W. F., 9.30.
- GUY'S.**—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
- KING'S COLLEGE.**—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 2; Throat, Th. 3; Dental, Tu. F., 10.
- LONDON.**—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
- MIDDLESEX.**—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
- ST. BARTHOLOMEW'S.**—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
- ST. GEORGE'S.**—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
- ST. MARY'S.**—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electroian, Tu. F., 9.30; Dental, W. S., 9.30.
- ST. THOMAS'S.**—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
- UNIVERSITY COLLEGE.**—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
- WESTMINSTER.**—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

UBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CHOLERA AND CONTAMINATED WATER.

SIR,—I should feel much obliged if you would, in your "Answers to Correspondents" column, tell me where I could find information of the relation of contaminated water with cholera? Has any special book or monograph been published on the subject?

I am engaged in putting together for my own information, and for future publication, if necessary, some interesting facts on this subject which have come to my knowledge in Southern India, and I naturally wish to study all previous publications on the matter, hence I trouble you.—Believe me, yours very faithfully,
M. C. FERGUSON, Surgeon-General.

Madras.
The literature of the subject is very extensive; we can only indicate a few of the leading references. *Cholera: Privy Council and Local Government Board. Reprints from Reports of the Medical Department for the Years 1865-66, and 1873, with Preliminary Report by the Medical Officer, 1884.* London: Knight and Co., etc. 1834. Price fourpence. Dr. Snow's History of the Broad Street Pump, in *On the Mode of Communication of Cholera.* London: 1858. Report of the Cholera-Epidemic of 1866 in England; Local Government Board. London: 1868. *A History of Asiatic Cholera, by Mr. Macnamara. Hirsch's Hand-book of Geographical and Historical Pathology, translated by Dr. Creighton for the New Sydenham Society, contains a large number of references on this subject, and ought to be obtained by our correspondent.*

THE DOSE OF CONIUM.

SIR,—With reference to the inquest last week, I beg to submit the following. At 5.30 P.M. I saw the child for the first and last time. It was in convulsions, and in the intervals it stuffed its fist into its mouth. I found the gums tumid, and requested the parents to allow me to lance them, but they refused. After a careful examination, I prescribed the following. R Potassii bromidi 3i; extracti conii 3i; aquæ chloroformi 5i; give one tablespoonful, etc., and I gave them full directions, saying: "Give it one teaspoonful." The druggist also told them to give it one teaspoonful, and one teaspoonful was given. I have experimented with conium for some years. I felt myself justified in ordering a larger dose than that prescribed in the *British Pharmacopœia*. Dr. John Harley says: "The physiological action of hemlock is such, that doses which fall short of producing it are of no use." The coroner took the *British Pharmacopœia* as his guide, and the jury gave their verdict accordingly. If we are not to exceed the prescribed dose in urgent cases, it will certainly be very hard on us and on our patients. I was hurried, and did not answer a remark by the father, that I wished to quash the matter. I never expressed such a wish to anyone.

I have received a letter from a solicitor, threatening me with proceedings, in view of which I have placed the matter in the hands of my solicitor, Mr. W. T. R. Knapp, of 161, Marylebone Road, who will be glad to receive suggestions from my brother professionals, which may be of service to him in defending any proceedings that may be taken. I have been eight months in practice in this house, having served my time since I was qualified as a house-surgeon in different places.—I am, yours faithfully,
RUSSELL O'BRIEN, M.B., M.S.

A MEMBER (Reading).—The question is too large a one to be answered in our columns. It would best be dealt with by reference to the standard books on the subject, or by consultation with a hospital surgeon.

PIERROT asks: Is it legal and correct for an L.R.C.P. Ed., F.R.C.S., etc., to put "Physician and Surgeon" on his door-plate? As all the L.R.C.P.'s do so about here, and as I am one as well, I should like to do so as well, if it be orthodox; but if it be not, I shall not do so. Or would it be correct to put one's qualifications?

* It is perfectly legal to put the words "Physician and Surgeon," but, in other respects, it remains a matter of taste. At the same time, we doubt whether there is any reasonable objection to it.

MEDICAL OFFICER FOR MISSION IN ASIA MINOR.

SIR,—Will you allow me to ask in your columns if there be a young qualified man whose tastes would lead him to join a mission to the Assyrian Christians in Kurdistan. The mission was started by the two archbishops in 1881, and its work has hitherto been confined to the Turkish side. It is now desired to extend it to the Persian side, and to send out two clergymen and a doctor.

If any one of your readers has a desire to take part in this interesting work, he may apply to me, or directly to the Rev. R. Milburn Blackiston, 2, Dean's Yard, Westminster.—I am, sir, your obedient servant,
3, Cavendish Place. GEORGE COWELL.

IMPERFORATE VAGINA.

SIR.—I cannot help feeling that others, in common with myself, would be much interested to learn the sequel to the case M.R.C.S.E. communicated in the JOURNAL of June 27th, headed, "Imperforate Vagina," and trust, in a later number, the writer will kindly tell us the result of treatment.—Yours faithfully,
ENQUETTER.

K.—If no reply have been received, we would recommend our correspondent to write again to M. le Secrétaire de l'Académie de Médecine, Paris.
M.R.C.S.—Dr. A. B. Garrod, on Gout and Rheumatic Gout.

DRY EARTH METHOD.

SIR.—Will some correspondent kindly furnish me with the names of any villages where Moule's dry-earth system has been adopted; for how long a time and with what result?—Yours truly,
A MEMBER.

FAIR PLAY.—What is sauce for the gander is sauce for the goose, and the advertisements forwarded are highly opposed to professional rule. Fair play should communicate with the University or College whence this lady derives her degree.

HAY-FEVER AND HEMOPTYSIS.

SIR.—The case mentioned by Dr. Poulain in the JOURNAL of July 11th, page 89, is of much interest. As true hay-fever rarely continues all the year round, there is probably some other cause for the reflex phenomena of sneezing and watery discharge. Before the affection is attributed to a constitutional cause, a careful examination of the nasal cavities with reflected snail is to be recommended, with the view of discovering any small polypus in the region of the middle turbinate body, or other source of irritation. Benefit to the symptoms will probably be derived from painting the nasal cavities repeatedly with a four per cent. solution of eucaine-hydrochlorate. This application would have the additional advantage of contracting the inferior turbinate bodies if, as is probably the case, they become temporarily erected (see the JOURNAL, March 7th, 1885, p. 479).

The suspicion concerning the "hemoptysis" is that there was hemorrhage from the nose, the blood escaping into the throat; but of this Dr. Poulain is best able to form an opinion.—Yours truly,
87, Western Road, Brighton. E. CRESSWELL BABER.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Fergusson, Peebles; Mr. C. J. Evans, Northampton; Dr. Styrax, Shrewsbury; Dr. J. Stewart, Clifton; Our Liverpool Correspondent; Dr. Maxwell, Woolwich; Dr. P. W. MacDonald, Dorchester; Mr. Russell O'Brien, London; Mr. H. Waite, Armley, Leeds; Mr. W. L. Gubbins, Aldershot; Dr. I. Owen, London; Mr. E. Blacker, Midsomer Norton; Mr. W. T. Clegg, Liverpool; Our Aberdeen Correspondent; Mr. G. H. Parry, Lynn, Norfolk; Mr. M. T. Colman, Brighton; Dr. A. B. Brabazon, Bath; Mr. G. P. Atkinson, Pontefract; Mr. W. Horrocks, Blundell Sands; Mr. M. C. Soutter, London; Mr. C. M. Campbell, London; Dr. B. Foster, Birmingham; Mr. W. C. Fowler, London; Dr. W. Webb, Warkworth; Mr. E. Curtice, London; Dr. H. Cooper Rose, London; Dr. Mackey, Brighton; Mr. Lawson Tait, Birmingham; Mr. James Marshall, Glasgow; Mr. James Startin, London; Mr. J. M. Ackland, Exeter; Dr. B. G. Morison, London; Dr. G. S. Davis, Detroit; Dr. J. H. Morgan, London; Mr. James Brydon, Hawick; Dr. Tripe, London; Mrs. Laurence Corban, Camberley; Dr. Scott, Camberley; Dr. Joseph Rogers, London; Dr. Airdge, Stoke-on-Trent; Dr. Davis, Madras; Dr. Bryan, Northampton; Dr. F. A. Hill, London; Dr. Braxton Hicks, London; Mr. B. Fenwick, London; Dr. Willoughby, London; Our Birmingham Correspondent; Mr. A. Haviland, London; Mr. G. Smith, Bristol; Mr. H. C. Jee, Victoria; Dr. H. Swete, Worcester; Mr. G. Eastes, London; Mrs. F. Dodgson, Cocker-mouth; Dr. W. Strange, Worcester; Mr. R. Harrison, Liverpool; Our Valencia Correspondent; Mr. J. Hutchinson, London; Dr. A. G. Lawrence, Chesham; Dr. Thomas, Woolwich; Mr. W. K. Fayle, Parsonstown; Mr. E. M. Russell, Redruth; Mr. E. S. Lewer, Dublin; Mr. R. H. Milson, Durham; Dr. Huggard, Geneva; Miss Spreng, London; Dr. M. MacLaren, Bootle; Dr. W. Alexander, Liverpool; Dr. W. O. Maher, Sydney, New South Wales; Mr. D. A. O'Sullivan, Burnley; Messrs. Marshall Brothers, Glasgow; Dr. S. Thomson, Torquay; Our Paris Correspondent; Dr. E. Casey, Windsor; Dr. G. C. Kingsbury, Blackpool; Messrs. Martin and Sallnow, London; Mr. E. M. Crookshank, Dresden; Mr. E. D. Mullan, Londonderry; Mr. W. C. Steele, Ealing; Mr. G. Wherry, Cambridge; Our Edinburgh Correspondent; Dr. T. Harris, Manchester; Dr. J. W. Moore, Dublin; Mr. James Rose, Liverpool; Captain A. de Richelieu, Bangkok; Dr. W. Woodward, Worcester; Mr. G. P. Nesle, London; Mr. Wm. Neale, Mountmellick; Dr. Sheen, Cardiff; Dr. Cullimore, London; Dr. T. Stevenson, London; Dr. Brailey, London; Mr. J. Dix, Hull; The Honorary Secretary of the North Wales Branch, B.M.A.; Dr. H. Page, Redditch; Mr. C. H. Phillips, Hanley; Dr. MacLagan, Riding Mill-on-Tyne; Dr. Myers, London; Mr. J. Alfred Masters, London; Mr. E. Corcoran, Portland; Mr. F. C. Evans, Crook; Dr. A. W. Edis, London; Mr. John Adams, London, &c.

BOOKS, etc., RECEIVED.

The Bengal Medical Service. Compiled by G. H. A. Harris, Surgeon Bengal. Medical Service. Calcutta: Thacker, Spinks, and Co.
The Climate of Canada. By W. H. Hingston, M.D. Montreal: Dawson Brothers. 1884.

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PRESIDENT'S ADDRESS,

DELIVERED AT

THE FIFTY-THIRD ANNUAL MEETING OF THE
BRITISH MEDICAL ASSOCIATION,*Held in CARDIFF, July 28th, 29th, 30th, and 31st, 1885.*

BY

WILLIAM THOMAS EDWARDS, M.D.,

Physician to the Glamorganshire and Monmouthshire Infirmary.

CARDIFF; AND THE BRITISH MEDICAL ASSOCIATION.

GENTLEMEN,—My first duty on taking this chair is to render my thanks to the members of this great Association who have done me the honour to appoint me their President, an honour bestowed for no merit to which I can possibly lay claim, but belonging more properly to the South Wales Branch of your society, with which I have been so long connected. I ask you kindly to receive me as their temporary representative, and in their name I beg to offer you a warm and hearty welcome to this town and neighbourhood. I have no learned leisure at my command, and, if I had, have not the ability to present to you such an address as that—so thoughtful, philosophical, eloquent—to which we listened with so much pleasure from the lips of my immediate predecessor, at Belfast. I can only offer you a few plain words, chiefly of local reference, and will promise you that they shall have at least the grace of brevity.

It may not, perhaps, be uninteresting or inappropriate, as this is the first time the British Medical Association has visited Cardiff, if I say a few words to illustrate the place and its surroundings, and call attention to its rapid increase and growth. This has been called "The Age of Great Cities;" vast populations become rapidly massed in and around our chief commercial centres; and their arrangement and development present us with social, sanitary, and medical problems of no slight interest and importance, and by no means always easy of solution. A town increases very rapidly up to a certain point; and thus, in South Wales of late years, a people who were distinguished as dwellers on the mountain-side, in small hamlets, and in the open country, are now changing their habits; the countryman becomes a townsman, the townsman a citizen; and the aggregation becomes, not only more general, but more intense.

You hardly need to be reminded that Cardiff owes its rapid rise and importance to the fact, that it is seated on the edge of the great South Wales coal-field, and is conveniently placed on the Bristol Channel for the ready export of the vast mineral treasures brought down from the hills and valleys which lie behind it.

For the study of the physical geology of the coal-measures, there is no district that can compare with the beautiful hills and vales of Glamorgan, with its immense number of narrow valleys running down seawards from the great encircling belt of mountain limestone, and separated by those ranges of long rounded hills, which give a very wild and grand character to the scenery. There have been scares from time to time as to the probable exhaustion of our coal-supply, and notably when Professor Jevons tried to prove that it was possible the whole of the coal now available in this country might be worked out in a little over one hundred years. Should this be so, this town of Cardiff would collapse and decay more rapidly than it has arisen, and the historical New Zealander (who at that time would probably speak Welsh) might stand alone amidst the ruins of our docks, piers, and railways, and survey a perfect solitude. Cardiff is certainly doing its share at present to promote this exhaustion of coal-supply, for more than 25,000 tons a day are now shipped from our wharves, besides iron, coke, and patent fuel in large quantities. But as the South Wales coal-field alone is estimated to contain more than thirty-eight thousand millions of tons, we may make our minds tolerably easy as to events that can only happen in the very far-off future.

At the beginning of the present century, the population of this town was hardly over 1,800, and coal was brought down from the hills on pack-horses, and shipped in such small craft as were able to come up the river Taff to the town quays. Then the Glamorgan Canal was constructed, and accommodation afforded for the shipment of coals in vessels of about 200 tons; but, with the increased facilities afforded by this canal, it took ten years for the population of Cardiff to double itself. The late Marquis of Bute now came upon the scene, and, at a

cost of £350,000, constructed a new dock, which was opened in 1839. It was a bold and magnificent undertaking for one man to carry out, and it laid the foundations broad and deep for the present prosperity of the town. In 1841, the Taff Vale Railway was opened, the population of the town being then a little over 10,000; in 1881, it was 86,000; and to-day, it may be estimated at, at least, 100,000 souls.

It is somewhat difficult for some of us, who knew the place in old times, to realise that the large area now occupied by docks, crowded with the ships of all nations, surrounded by such a network of railways, and covered by so many fine and noble buildings, was, a little more than 40 years ago, a lonely moor, partly overflowed by tidal waters, and stretching away to seaward a desolate and mud-covered waste. Besides docks at Cardiff, there is a very fine dock at Penarth, and another is in course of construction at Barry, lower down the coast, but to be connected with Cardiff by railway.

This great and rapid increase of material prosperity, and of population, obviously entailed large demands and obligations of a social, educational, and sanitary nature; and these, I am glad to say, have been nobly responded to. Public elementary education has been supplied by a number of elementary board-schools, and one more advanced elementary school, at a cost of nearly £20,000 a year; and there are, besides, numerous denominational schools within the district of the Cardiff School Board. A proprietary school, with an excellent teaching staff, prepares boys for the universities, the naval, military, and civil services. We have a Free Library, where will be found a valuable collection of pictures, and a well stored library and museum; a school of art and science; besides industrial and ragged schools, institutions for the deaf and dumb and the blind, and other charitable institutions of various kinds. Our new Infirmary, erected at a total cost of more than £27,000, has 120 beds, and provides for about 800 in-patients, besides 7,000 or 8,000 out-patients, every year. To this has been recently added a block containing a beautiful children's ward, and there is also a well conducted Convalescent Home on the sea-coast near Porthcawl.

The desire for higher instruction—for knowledge for its own sake—is a growing characteristic of our time, and the establishment and opening of the University College of South Wales and Monmouthshire in October, 1883, marks an epoch, not in the history of Cardiff only, but in the general educational advance of the whole Principality. The College has an excellent staff of professors; its teaching appliances, especially for natural science, are all that can be desired; there are already more than 150 students, besides those attending evening classes in languages, mathematics, and science; and from a most satisfactory beginning we may augur well for the success of the future. We hope at no distant time to see a medical school connected with our College, as there is at present not one in Wales, though it supplies a large number of medical students to the Irish, Scotch, and London universities. This school might well furnish all the scientific teaching for the first M.B. examination of the University of London, and the first professional examination of the Royal College of Surgeons; and the wards of our new Infirmary would supply good practical teaching, both medical and surgical.

From what I have already told you of the rapid growth of Cardiff, the almost sudden massing together of so many thousands of people in one centre, you will be prepared to hear that to carry out proper sanitary work has been a matter of no small difficulty. The soil, for the most part alluvial and estuarine deposits, absorbs and holds tenaciously the surface-water; while the fall towards the sewage-outlet in the Bristol Channel is comparatively slight. This is compensated, however, by a good system of sewer-flushing, by great improvements in the house-drain connections, and by the more perfect ventilation of the sewers. The few shallow wells now remaining in the district, and which cannot possibly long escape contamination from surface-impurities, are closely watched, and closed when possible; and a water-supply equal to 15 gallons per head of the population has been obtained. This water, though rather hard, is pure, but is not sufficient—it should be at least from 25 to 30 gallons *per diem*—and powers have been taken to obtain a further supply from the Brecon Beacons, which will be absolutely pure and inexhaustible.

Fever and small-pox hospitals receive infectious cases; house-to-house visitation has been carried out when needed, and house-purification and disinfection have been rigidly enforced.

Vaccination and revaccination have not been neglected, and by these means many outbreaks of zymotic disease, which at first seemed very formidable, have been arrested and stamped out. As a large trade is carried on between Cardiff and Mediterranean and Spanish ports, a cholera-hospital has been established on the Flat Holm, an island in the Channel about four miles from the mainland; and a

steam vessel is provided, so that the health-officer is able to board every suspected ship, or any ship sailing from a port infected with cholera; and suspicious cases are removed to the hospital, while the ship, being placed in quarantine, is disinfected and purified. Last year, you will remember, cholera was brought into the port; but these precautions served so well that it failed to spread on shore.

Too much praise cannot be given to our able health-officer, my friend and colleague, Dr. Paine, for the admirable manner in which he has superintended and carried out during so many years the sanitary arrangements necessary for our dense and increasing population. How little do our people remember the deep debt of gratitude they owe to those who so carefully and vigilantly watch over the healthfulness and sanitary condition of our great towns and cities, where, from overcrowding and other causes, feeble and degenerate specimens of humanity are multiplying in the lanes and alleys, and disease and death are ever levying a heavy tribute! Too often, indeed, the best efforts of the sanitary officers are thwarted by the ignorance of boards of guardians, or the still more stupid selfishness and officialism of misnamed boards of health; their hands are bound in the fetters of red tape, and they are very frequently insulted by the offer of a miserable remuneration which a skilled artisan would reject with scorn. If some of these public bodies could realise the misery, distress, and pauperism caused by preventable disease, or, to put it on a lower ground, would only fairly estimate the commercial value of a decrease of three or four per 1,000 in the death-rate, we should hear less of their paltry economies in matters of sanitation, defended as they generally are by the plea that it is their first duty to save the ratepayers' pockets, forgetting all the while that, in these cases, prevention is not only much better, but also much cheaper, than cure.

Not seldom, indeed, it happens that a community is rudely awakened from its apathy by some fearful visitation of typhoid, small-pox, or cholera, and then for a brief space, perhaps, will listen to the health-officer as to a preacher of hygienic righteousness, and will begin to see that, like the priest of old in the camp of the Hebrews, he does indeed stand between the dead and the living, and with the like blessed result, that the plague is often stayed.

In Public Medicine, my friend Mr. Dyke, of Merthyr, will deliver the address; and Dr. Paine will read a paper which will more fully and ably illustrate a subject to which I can only make this passing reference.

The town of Cardiff lays claim to great antiquity, and it is even said that King Arthur, the hero of romance, was born within its walls. The *Mabinogion* tells us that King Arthur was at Caerleon on Usk, and certain it is there was a real King Arthur there, who was chosen for his military skill and prowess to command the Welsh of this district about the year 517. The Castle was built probably about the year 53, by the Roman general Aulus Didius, who held the place as a Roman station and camp; and, like most of the castles of the west, was erected on the site of early British earthworks. The Romans would call it *Castra Didii*—the natives *Caer Didii*—pronounced *Caerdydd*. We have this *Caer* in many other places of Roman origin—*Caerphilly*, *Caerwent*, *Caerleon*, and other instances. When the Romans lost their hold on the country, the native princes held the place, stoutly resisting, and with much success, the efforts of Saxons and Danes to wrest it from them. They had at length to yield up their possessions to their Norman conquerors, whose tyranny at last stirred up a Welsh revolution. The Castle of Cardiff will always call to mind the imprisonment within its walls of Robert, Duke of Normandy, who died there in 1134, and was buried in the Cathedral at Gloucester. You will not fail to notice the beautiful perpendicular tower of St. John's Church, built in 1443; and there was also an ancient cruciform church, dedicated to St. Mary, standing on the margin of the river Tafl, but this was washed away by a very remarkable flood in 1607, which greatly altered the shore-line on both sides of the Bristol Channel, and in its results was quite a modern deluge. By the kindness of Lord Bute, you will be able to visit Cardiff Castle, and will see the splendid restorations carried out by the lamented architect, Burgess; also Castell Coch—the Red Castle—and the Castle at Caerphilly. Castle Coch is picturesquely situated on an escarpment of carboniferous limestone, and you will remark the characteristic change in the scenery in and around Caerphilly, which rests on the coal-measures. Llandaff Cathedral, said to have been founded so early as the year 180, is within easy reach, and all geologists should visit the splendid section of the rhyolite and lower lias beds at Penarth. I make these passing references to remind you that we have near us objects of great and varied interest, although they are somewhat outside the range of the subjects usually pursued by the British Medical Association.

I have ventured to trouble you with this sketch of what may be

termed the life-history of the town in which we are assembled, because the rapid increase and concentration of such large populations presents us with problems full of medical interest, and which confront us everywhere in our daily routine of practice.

Having traced the rapid development of this town during the space of little more than 30 years, let us for a moment consider the progress of the British Medical Association during a like period.

It is now 32 years since the British Medical Association visited South Wales, the meeting being held at Swansea in 1853. In 32 years, a whole generation of men pass away, and how few comparatively who attended that meeting remain to be with us at this! I cannot forget, too, how many of my old familiar medical friends and colleagues in Cardiff, who would have delighted to give you a glad welcome here to-night, have since that time gone over to the majority—men who did their life-work bravely and well, some dying at their posts in the service of their fellows. And our Association has also to record to-day the names of many valued members who have died during the past year, though, perhaps, these losses are not more numerous than each year too surely brings. Amongst them, I may mention Barham, of Truro; Lanchester, of Croydon; James Whitehead and Dr. Noble, of Manchester; Professor Thorburn, of the same town—with the ink scarcely dry on the proof-sheets of the work which remains a worthy memorial of its author; Wright, of Cheltenham; Washbourne, of Gloucester; Netten Radcliffe, who had done so much good sanitary work; and Dr. Mahomed, a zealous, able worker, a rising physician, and so well known to us as one of the chief promoters of the "collective investigation of disease," cut off by enteric fever at the early age of 36; and alas! many others of whom it may be said they "served their own generation," not themselves.

In our own private circles of friends, when death enters, there is nothing to be done but to close up our ranks, collect our scattered forces, and continue life's battle as best we may; but with a public body like our Association it is not so, for it has no essential or inevitable mortality, but rather, in legal phrase, a perpetual succession. It lives and grows, happen what changes there may, and as in organic life, nutrition being healthy, some cells fall off and die, others spring up in their places, and the function is carried on, so it has been with this Association during the three decades that have passed over us since the Swansea meeting. Then the number of members was a little over 1,800, now it is over 11,000. Then the income was small, now it is more than £22,000 per year; so that, after contributing from its funds a handsome subsidy towards the advancement of scientific research, and the promotion of the interests of the profession, it is yet able to lay by a large sum for future use. Down till the year of the Swansea meeting, the *JOURNAL* had been printed in Worcester, and was considered rather a feeble affair; now, published in London, it has a world-wide reputation, is well and ably conducted, stored with medical intelligence, and takes a first rank in the periodical literature of our profession. The perseverance, energy, and ability of our Editor, Mr. Ernest Hart, are worthy of all praise.

The Branches of the Association are everywhere multiplying, at home and in the colonies; they unite the scattered elements of our profession, soften down our asperities, promote good fellowship amongst us all, and we may fairly claim for our society that it is a power in the country—socially, politically, and morally. The present South Wales and Monmouthshire Branch had no existence when we met at Swansea; now it numbers over 200 members, and claims to hold in its ranks some of the ablest men in the Principality; and, before this meeting closes, I hope we may congratulate that Branch on the vitality it has shown in organising the present gathering, which, we trust, will yield some pleasant reminiscences to those who have honoured us with their presence.

But if the British Medical Association has thus advanced almost by leaps and bounds since the Swansea meeting in 1853, what may we say of the advance of medicine, surgery, therapeutics—though he would be a bolder man than I, who would undertake to give his brethren a survey or epitome of the progress of our art during that long period; but perhaps I may mention a few prominent points that will be present to the minds of most of us. Chloroform, used by Simpson in 1847, had not yet come into anything like general use, at all events in the provinces; or, if used, it was with a timidity and caution which often prevented its full effect; and those who remember the old days of surgical operations without anaesthetics may well wonder how some of them could have been performed at all. Then we knew not the use of the thermometer in disease; we had no laryngoscope, ophthalmoscope, or sphygmograph; microscopic work was not much attended to, nor had we the perfect instruments we now possess.

In surgical practice, how many limbs were sacrificed that are now saved; and what would have been thought then of proposals to open freely any and every serous cavity, and to insert drainage-tubes fearlessly into the very substance of the lung itself? Some of us here to-day heard Robert Liston's honest, but characteristically energetic, denunciation of an "operation called ovariectomy;" but now, how many lives are saved, how much suffering is prevented, by the splendid operations devised and performed by such men as Keith, Clay, Spencer Wells, Knowsley Thornton, Lawson Tait, and many others! The removal of a glommatous tumour from the human brain has not only shown the possibility of such an operation, but marks a great advance in cerebral physiology, and was a triumph for the precision of medical diagnosis.

Think, again, what we have gained in the more precise methods of diagnosis in diseases of the chest, and what may yet result from the more careful investigation of disease-germs, like tubercle-bacillus; while already Pasteur's discoveries give promise of as much security against a large class of dangerous diseases as Jenner's provides for us against small-pox.

In 1853 hypodermic injection was not thought of; we had no bromides in epilepsy, no chloral, no inhalations in lung-disease, no proper use of aconite. The salicylic treatment of acute rheumatism, nitrite of amyl, the digestive ferments, chrysophanic acid, pilocarpine, atropine, eserine, cocaine, iodoform, and the like, and the uses of electricity in diagnosis and treatment, were unknown. But it is useless to multiply these instances, for an inspection of the drugs and appliances, brought together in our museum, will serve to convince us that no branch of our art has of late years been standing still.

I have said little about preventive medicine; but how much good work has been done in this most important field, especially now, when we begin to recognise that it is a higher and nobler service to prevent disease than to cure it.

I should only waste your time if I attempted more than this hasty glance at these signs of progress and improvement, as these and kindred topics will be taken up and ably discussed in the addresses to be given, and the papers to be read, in the sections presided over by the distinguished physicians and surgeons whose names are included in the published programme of our proceedings.

Now I think we shall admit that in this progress of our science and our art, the British Medical Association has borne a noble and distinguished part. Consider the immense amount of valuable information contained in the papers read in the sections, the original work they represent, and the ability with which facts and theories are sifted and discussed; this work alone is a worthy contribution to the cause of general progress. The grants for scientific investigation have greatly aided original observation, which could hardly have been carried on in many instances without such help, and the Collective Investigation Committee has fairly launched a good and great work, which will yet bear ample fruit. But, to make it thoroughly efficient, it will need funds, and these the Association have hitherto granted liberally; and its work must be brought into a more close relation with—and even into more subordination to—the general scientific work of the Association, while the results of the investigation should be more fully communicated to members, if possible, through the pages of the JOURNAL. The work of this committee might, with advantage, be associated with the work of the sections of the annual meeting, as suggested by Dr. G. M. Humphry, the chairman.

If we have not done all we could have wished in the direction of medical politics, it has been because the fierce party strifes in both our senate-houses have for a time put other, and certainly far higher considerations, on one side, and thus in session after session of Parliament many measures of great social importance have been unfortunately crowded out. In the department of State medicine, chiefly by the efforts of this Association, much has been done; but how much remains to do! The absurd anomalies of coroners' courts, and the very imperfect manner in which they investigate the causes of death, point to the urgent need of some better mode of conducting medico-legal inquiries and of taking scientific evidence. Again, how seldom and how grudgingly is State aid rendered to sanitary work of the greatest national importance! Life-saving is reckoned a comparatively trivial matter, and as much money is spent on an iron-clad ship, or on a fleet of torpedo-boats in a single year, as would suffice to save thousands of lives now wasted and destroyed by bad sanitary surroundings. Such a state of things may perhaps be regarded as one of the necessities of our present stage of civilisation, but it is undoubtedly one of the strangest and saddest, though there are hopeful signs of amendment even here.

We cannot but see, too, that the work of this Association has, in late years, done very much to raise the moral as well as the scientific

status of our profession; there are fewer professional jealousies and bickerings, more fellowship and goodwill, a wider tolerance, a larger charity. At these pleasant gatherings we form new friendships and cement old ones, and by our united action we bring to bear all the weight and influence of a great profession on public opinion generally. I think, too, that our profession is now held more highly in public estimation than perhaps it was in years gone by, and it is less a habit to fasten on our art, of all others, those mistakes and uncertainties which must necessarily attach to every branch of human skill and inquiry. We cannot always cure a disease, or stay the ravages of a deadly epidemic, but we boldly claim for our science and our art a large and increasing measure of certainty and success.

Naval architects have not yet settled the best form of fighting-ship, nor artillerists the proper mode of constructing the most penetrating gun. The greatest works of our best engineers are sometimes faulty; their railway-bridges do not always resist the fierceness of a gale, their tunnels often get inundated, their piers and breakwaters are sometimes swept away; but we do not, because of a few failures, decry their art; we rather regard with admiration their triumphs and their success.

It has now become quite possible for the physician or surgeon to win his way to high public estimation by acquirements other than those that pertain to purely professional work. But this was not always so. At no very remote period, as some of us can well remember, any accomplishment a medical practitioner might happen to possess outside the range of professional routine, was regarded by the public with suspicion and distrust, and held to some extent to disqualify him for the successful practice of his own peculiar art. Now we have in our ranks men eminent in the highest walks of literature—artists, successful cultivators of the arts of painting, sculpture, and music—archeologists, like Rolleston; anthropologists, like Beddoe; geologists and palaeontologists who, like Wright of Cheltenham, and Lycey of Scarborough, have made for themselves an European reputation. Doubtless this higher and more varied culture has done much to elevate our profession in the social scale, but our true work has not been neglected, and after all it is by that we are prepared, and we prefer, to be judged. And if it be asked, what have we done to lessen the sum of human misery and suffering, to relieve pain, to restore health, and bring comfort and succour to those who were ready to perish? then I think we need not fear the comparative sentence to be pronounced on that noble calling which you and I have this day the privilege to follow.

The physician should be something of a metaphysician, acquainted with the laws of the human mind, seeing that mind and body have such a vital connection with each other, and interact on one another so closely. He ought to be something of a moralist, for morals and medicine, a healthy body, and a pure life, are not without their mutual interdependence. He ought to be something of a social philosopher, and much of a philanthropist, for his art brings him into necessary connection with all schemes of social reform, and fits him to be the best adviser in them; while it gives him a high vantage-ground in contributing to the greatest happiness and best welfare of the people. I can hardly conceive of any higher dignity than that which may invest our profession exercised in this spirit, and conducted with these noble aims. Multitudes of our brethren in all parts of the world are carrying on their work in this way. Putting aside all merely sordid and selfish considerations, they are governed by a pure love of science and an earnest desire to benefit their kind. The world, too, is beginning to appreciate our work more—to see the sacredness of all secular knowledge, and the divine glory of the art of healing. It will be our fault if we forfeit the growing esteem of men. We can retain it; we may root ourselves more firmly in public regard. Feeling how closely all parts of man's nature are linked together, we may be benefactors over a widely extended realm. Thus, too, shall we carry on the work of Him who came to be the moral renovator of mankind, but who accomplished His work largely through ministering to the bodies and healing the diseases of men.

DONATIONS AND BEQUESTS.—The Royal Free Hospital has received £401 9s. 9d., a moiety of the amount contributed to the Rabbeth Memorial Fund, on condition that a cot shall be named after the late Mr. Samuel Rabbeth.—The Border Counties Home for Incurables, Stanwix, has received £300 under the will of Mr. F. A. Argles.—Mr. George Sturge has given £100, being the third instalment of £1,000 to the North-Eastern Hospital for Children.—The Grocers' Company have given £100 towards the Charing Cross Hospital Festival Fund of £10,000.—The Cumberland Infirmary, Carlisle, has received £100 under the will of Mr. John Stoddart of Gamblesby.

ADDRESS IN THERAPEUTICS.

BY

W. ROBERTS, M.D., F.R.C.P., F.R.S.,

Consulting-Physician to the Manchester Royal Infirmary, Professor of Medicine in the Victoria University.

ON FEEDING THE SICK.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to express my acknowledgments to the Council of the Association, and to the South Wales and Monmouthshire Branch, for the honour they have done me in inviting me to deliver the Address in Therapeutics. This is, I believe, the first occasion in the history of the Association on which, from the wide domain of medicine, that portion which deals with the treatment of the sick has been specially selected as the theme of an address at the annual meeting. The subject of therapeutics is so large and complex, that to deal with it comprehensively within the compass of an hour's address would be beyond my powers. Such an attempt, even in much abler hands than mine, could scarcely issue otherwise than in the enunciation of a series of barren generalities which would edify no one. I therefore felt, as soon as I came to consider the matter, that the most prudent course for me, and the one most likely to prove interesting to you, was to confine myself to a very limited area in the field of therapeutics, and to endeavour, within that area, to say something which might prove of use in the daily practice of your profession.

Perhaps, of all the many duties which fall to the province of the medical practitioner, there is none so common as the duty of regulating the diet of his patients. Whatever the disease may be from which the patient is suffering, and whatever special means may be indicated for his relief, the regulation of the diet is sure, sooner or later, to crop up as an integral part of the management of the case. Dietetics, therefore, cover more ground than any other branch of the healing art—they are also, perhaps, the most ancient branch. Hippocrates traces back the very origin of medicine to dietetics. "For," he says, "the art of medicine would not have been invented at first, nor would it have been made a subject of investigation, if, when men are indisposed, the same food, and other articles of regimen which they eat and drink when in good health, were proper for them, and if no others were preferable to these." Notwithstanding this universal applicability, and this high antiquity, it must, I think, be allowed that dietetics, except in a few special cases, are somewhat neglected in these days. The often contradictory advice which is tendered to invalids in regard to their diet by the several medical men whom they may consult, betrays the want of a guiding principle, and of a general consensus of opinion in the medical profession on the subject of feeding the sick. This is, perhaps, not to be wondered at when it is considered how little systematic study is devoted to dietetics, and how fragmentary is the instruction on this subject which is given to the student of medicine. So far as I know, there is no systematic teaching of dietetics, even on the most limited scale, afforded to the student at any of our medical schools. He is left to pick up his knowledge of this subject, as best he may, during the earlier years of his practice; and he often ends by taking his own digestive organs as his type, and prescribes for his patients according to the likings and dislikings of his own stomach. This is, I need hardly say, a very unsatisfactory proceeding; for there is, perhaps, no subject in which individual experience is so fallacious a guide as dietetics, and none in regard to which it is more important to draw our inductions from a wide basis of facts.

The first pre-requisite for the acquisition of a sound knowledge of the dietetics of the sick, is to have clear ideas on the origin and meaning of the dietetic customs of the healthy; for it is obvious that the proper diet for the sick must be some purposive modification of the diet of the healthy. We have, perhaps, been too much inclined to seek, or to seek too exclusively, in the physiology of digestion and nutrition for our guiding principles and our point of departure in the study of dietetics. I doubt whether this is always, or even generally, the best starting-point. There are problems in human dietetics which appear to be beyond the reach of physiological research. What conceivable physiological inquiry, for example, could throw light on such problems as the following? What are the remote effects of the use or disuse of meat, or of alcoholic beverages, or of tea and coffee, on the

bodily health and mental attributes of the individual, and on those of his descendants in succeeding generations? And such questions are certainly, as I believe, involved in a comprehensive study of dietetics. On the side of natural history, it seems possible to approach such questions with some hope of success. For if we had the information, and could compare the mental and physical condition of the classes and nations which use these articles systematically with that of the classes and nations which abstain from them, the elements of a solution would seem to offer themselves.

I venture, therefore, to say that the science of dietetics must be mainly based and built up on an observation and a study of the practices and customs of mankind in regard to their eating and drinking, rather than on any *a priori* data supplied by physiology. In the case of the lower animals, we assume that each creature selects, from the nutrient materials within its reach, those articles which are most suited to its well-being, and are best fitted to promote its success in the struggle for existence, and that it is guided in this selection by an almost unerring instinct. This, like other instincts, is now explained by biologists as consisting essentially in an inherited experience, which has been gradually accumulated through a long line of ancestors, and is transmitted by heredity to the descendants. Accordingly, when we see an animal feeding on a particular kind of food, we conclude, without hesitation, that that food is, of all the nutrient materials accessible to it, the best adapted for the special wants of its economy. But we know that man, in regard to his bodily functions, is subject to the same laws as govern the life of the lower animals; and we cannot doubt that, in the formation of his dietetic habits, man is guided by the same kind of instincts as those which guide the rest of the animal creation in the choice of their food.

The generalised food-customs of mankind are therefore not to be viewed as random practices adopted to please the palate, or to gratify an idle or vicious appetite. These customs must be regarded as the outcome of profound instincts, which correspond to important wants of the human economy. They are the fruit of a colossal experience accumulated by countless millions of men in successive generations. They have the same weight and significance as other kindred facts of natural history, and are fitted to yield to observation and study lessons of the highest scientific and practical value.

In taking dietetic customs as objects of study, it is obvious that widely disseminated customs, followed by many races and by vast masses of population, have a deeper and broader significance than customs limited to a few races or to small communities. It is also obvious that the practices of the more successful races, and of the easier classes of a nation, are more likely to yield good dietetic models than the practices of backward races or of the poorer classes; because the former, owing to their ampler means, have greater freedom of choice, and because also their greater success in the struggle for pre-dominance is *prima facie* evidence of the beneficial tendency of their food-habits. I need hardly say that dietetic customs which are not the outcome of the free choice of the population, but are the consequence of legislative enactments or of religious injunctions, are of no utility as guides in the study of dietetics—except, indeed, as warnings of the mischief that may accrue from ignorant meddling.

The British races and the other races of Western Europe, together with their kindred and descendants in different parts of the globe, are, on the grounds just stated, fitted to supply us with a body of dietetic customs which may be regarded as a beneficial model. These races and nations are every way, but especially in intellectual power, and in their productiveness of men of originality and eminence, far in advance of all others. Their food-customs have grown up spontaneously, without material interference from legislator or religious reformer. Their world-wide commerce has brought cheaply to their doors the products of every land and every clime, and has enabled them to exercise a greater freedom of selection than has been possible to any other races.

The salient characteristics of the diet of the Western nations may be expressed in a few words. It consists partly of cereal and leguminous and other farinaceous articles, and of green vegetables and fruit, and partly of the various forms of animal flesh. The systematic use of alcoholic beverages is universal among them; and they consume, in large quantities, tea, coffee, or cocoa, or all three.

It is important to remark that the main dietetic customs of a country grow up, and are established, for the benefit of the robust and healthy, of the sober and temperate, and those of mean or average constitution; in other words, for those who are bearing the burden of the day, and fighting the battle of life. These form the great mass and bulk of the adult population, upon whose bodily and mental efficiency national progress and ascendancy depend. A good many in-

dividuals, and even entire families, may not find these customs, in certain particulars, beneficial to their exceptional tendencies or weaknesses; they may even find in them a source of destruction to their health and life; but here, as elsewhere, and indeed universally in Nature's operations, the individual is sacrificed to the welfare of the community:

So careful of the type she seems,
So careless of the single life.

Alongside the main dietetic habits formed for the operative mass of the community, there are secondary habits formed for the use of infants and children, and for persons advanced in years.

With regard to infants and children, we observe that they are not allowed to partake of the accessory articles of food which form so conspicuous a part of the dietary of their elders. They are allowed neither the use of alcoholic beverages, nor of tea and coffee—except gradually as they draw towards adult age—but are fed on simple nutrients, milk, cooked cereals, and more or less meat.

With advancing years, the diet undergoes a certain modification; the consumption of meat is, I think, somewhat lessened, and the consumption of soups, milk, and cooked cereals proportionally increased. With regard to alcohol, this modification of diet seems to vary with the preceding practice of the individual. Persons who have been in the habit during their prime of taking a full allowance of stimulants, gradually diminish the proportion as age creeps on, and their nutritive processes decline in elasticity and power. Sometimes the indications of this natural tendency are neglected or resisted by the unwary; they imagine that the quantity of stimulants they tolerated with impunity during the vigour of manhood, cannot hurt them in later life. This is a serious mistake, the commission of which tends to accelerate senile decay, and to provoke fatally tending organic changes in the large organs of the body and in the arterial system. On the other hand, persons who, during their youth and prime, have only used alcohol occasionally, or have abstained entirely from it, find advantage in their declining years in a more systematic use of alcoholic beverages.

There is a clear difference, also, to be discerned in the dietetic habits of the two sexes. There are no available statistical data to go upon, but, from common observation, we cannot fail to note that men eat much more meat than women. Probably we should not err in estimating that two-thirds of the meat brought to market is eaten by men, and only one-third by women. In regard to alcohol, the contrast is still more marked. My impression is that, in this country, three-fourths, if not four-fifths, of the alcohol consumed is consumed by men, and only one-fourth or one-fifth by women. This difference is consonant with our experience as medical men that women are more sensitive to the effects of alcohol than men, and are more easily injured by the excessive use of it. On the other hand, the consumption of tea and coffee, but especially of tea, is markedly more abundant among women than men. The comparison is completed when we add that women consume, in proportion to the totality of their food, more milk and more bread than men do.

It would not appear to be a wise proceeding to depart capriciously, and without clear reason, from the general dietetic customs of the country. We may be quite sure that the use of meat, and of alcoholic beverages, and of tea and coffee, subserve some useful purposes to the human economy, though we, in our ignorance, may not be able to specify them with precision. These customs are the spontaneous outcrop of natural instincts, and the fruit of an immense experience, and the sanction they derive therefrom constitutes an incomparably higher authority than the opinion of the wisest amongst us.

Nevertheless, differences of constitution and personal idiosyncrasies have to be reckoned with; and there are frequently solid, indeed paramount, reasons why individuals should, in some particular or other, depart from the general dietetic plan. I have known a few natural-born vegetarians who have had a lifelong distaste for meat. Some persons are intolerant of tea, others are intolerant of coffee. It is, however, with respect to alcohol that the most important deviations from the mean type of constitution occur. Some persons are made uncomfortable by the most sparing use of alcoholic beverages, either through their life or at some epoch of it. A good many, also, are wanting in that self-control which is necessary to the salutary use of this stimulant. These peculiarities or idiosyncrasies must be attended to. It may be regarded as certain, as a very general rule at least, that any food or food-accessory, the use of which is followed by a sense of discomfort, is not beneficial to that individual. Persons who are unable to take alcohol in moderation should, on pain of loss of health and life, refrain from its use—for to them it is easier to abstain than to be abstemious.

These general considerations, as furnishing the natural ground-

work of dietetics, should be kept steadily in mind in dealing with the practical questions which arise in feeding the sick. We may distinguish in a rough sort of way the patients who seek our aid in the matter of diet into two classes—namely, first, those who are able to take and to digest solid food, and to conform in the main with the general dietetic habits of healthy people; and, secondly, those more seriously sick, who can take little or no solid food, and must be fed on a plan deviating widely from the common custom.

FEEDING THE SICK WITH SOLID FOOD.

The great majority of our patients belong to the former class, and are able to use the ordinary diet. They consist of invalids who are suffering from various ailments of the slighter sort, or from some more serious disease which does not interfere radically with the digestive functions. In regard to all these, I take it that (except in special cases, which I do not purpose to consider) it is a sound canon of practice to adhere to the main features of the current dietetic habits, and to avoid teasing our patients with irksome and needless restrictions for which we cannot give a clear reason. Diversity and variability are marked characteristics of the dietary of the leading races of mankind, especially among the easier and more successful classes. The multifariousness of our eating and drinking is something very remarkable, and contrasts strongly with the monotonous fare of the less advanced races, and of the lower animals. Scarcely any two of our meals are exactly alike. Not only do the several daily meals—breakfast, dinner, etc.—differ from each other, but the breakfast or dinner of one day usually differs more or less from the corresponding meal of another day. This variableness or diversity, we cannot doubt, fulfils some useful purpose beyond the mere gratification of the palate. It may therefore be inferred, that to prescribe a monotonous regimen is to contravene a beneficial rule, and to depart from a salutary principle in human dietetics. We know that a healthy man soon rebels against a daily repetition of the same dishes, however wholesome and savoury; much more an invalid, with weak appetite and feeble enjoyment of his meals, who craves for more change and variety than the robust.

Another part of our duty is to study the peculiarities and idiosyncrasies of the invalid's stomach. Our stomachs are nearly as individual as our faces, and are very peremptory in regard to their likings and dislikings. In adapting diet to these idiosyncrasies, it is, however, a good rule, as far as practicable to lessen the quantity of the offending articles rather than to forbid them altogether; or, if they must be forbidden, to provide in their place substitutes of kindred nature. The practice of forbidding fresh vegetables and fruit is especially open to objection. These articles, in addition to their use in promoting the peristaltic action of the intestine, have important antiscorbutic virtues; and although in these days, and among our own people, we almost never meet with fully developed scurvy, we are probably, without knowing it, often in the presence of incipient or larval scurvy. As there is a pre-arthritis stage of gout—a dietetic disease at the opposite pole of the feeding scale—so likewise, we may presume, there is a pre-hæmorrhagic stage of scurvy. I have sometimes observed the existence of a low standard of health, without any very definite symptoms, which I could only attribute to a too protracted abstinence from fresh vegetables and fruit. I think it is possible to go too far in humouring a capricious stomach; and that, in persons of a hysterical or neurotic constitution, a too indulgent consideration for the ease of this organ may entail disadvantages in regard to the general nutrition of the body, and produce effects which, in the long run, tend to lower the level of health, and even to aggravate that gastric sensitiveness which we are seeking to abate.

I need hardly say that due mastication and cooking of the food are essential to easy digestion. Perfect cooking is especially important in regard to farinaceous articles and fresh vegetables. These are often imperfectly cooked, and thereby rendered difficult of digestion by invalids. The bad reputation of potatoes and pastry in regard to digestibility is chiefly due to the fact that they are often imperfectly cooked.

A matter of considerable interest and importance is the regulation of the accessories which we use with our food. The chief of these are the various kinds of alcoholic beverages, and tea, coffee, and cocoa. These articles are usually taken with meals, and they mingle in the mouth and stomach with the food, and thereby directly complicate the task of the digestive organs. In the course of last year, I subjected the effects of these accessories on salivary and peptic digestion to a somewhat extended experimental inquiry. The time at my disposal will not permit me to lay before you the details of these experiments; but, as they will be shortly published, I may ask you to take them for the present on trust, and to allow me to indicate some of the conclusions and lessons which appear to be derivable from the inquiry.

In studying the influence of our food-accessories on digestion, it is necessary to distinguish sharply between their action on the chemical processes, and their action on glandular and muscular activity. These two actions are quite distinct, and generally opposed to each other; for, while all the food-accessories were found to exercise a more or less retarding influence on the speed of the chemical process, some, if not all of them, exercise a stimulating influence on the glands which secrete the digestive juices, and on the muscular contractions of the stomach. It is, also, necessary to distinguish between the effects of the food-accessories on salivary digestion, and their effects on peptic digestion, inasmuch as wide divergencies were found to exist in this respect.

The distilled spirits—brandy, whisky, and gin—were found to have but a trifling retarding effect on the digestive processes, whether salivary or peptic, in the proportions in which they are commonly used dietetically. Their obstructive effects only became apparent when used in quantities which approached intemperance. Taking this in conjunction with the stimulating action which they exercise on the glands which secrete the digestive juices, and on the muscular activity of the stomach, their effect in these moderate dietetic proportions must be regarded as distinctly promotive of digestion.

Wines and malt liquors exhibited an action differing considerably from that of ardent spirits. Wines were found to be highly inimical to salivary digestion. Even very small quantities of sherry, claret, hock, or champagne, inhibited the action of saliva on starch to a very high degree. This is due to the considerable acidity which all wines possess. When this acidity was neutralised by the addition of an alkali, the inhibitory effect of wines on starch-digestion was entirely removed. It is a common practice, as you know, to mix wines—especially sherry, claret, and hock—with soda, seltzer, or some other effervescent table-water. These waters all contain a charge of alkaline carbonate, and it was found that, when wines were thus mixed, they ceased to embarrass salivary action. This practice may, therefore, be looked on as highly commendable in the case of persons of weak digestion.

On peptic digestion, wines exhibited a retarding effect altogether out of proportion to the alcohol contained in them. Both the stronger and the lighter wines, except in very moderate proportions, checked the speed of peptic digestion. In the customary dietetic use of wines with meals there is, probably, a double action; on the one hand, a stimulating action on the secretion of gastric juice, and on the muscular contractions of the stomach; and, on the other hand, a retarding effect on the speed of the chemical process. In the case of persons of weak digestion, wines should be taken sparingly, and the quantity so adjusted as to bring out their stimulating action without provoking the retarding effects which follow their more liberal use. Champagne was found to have a distinctly less retarding power than an equal volume of claret or hock. This I judged to be solely due to the mechanical effects of the effervescence and liberation of gas, whereby a more efficient stirring up of the digesting mass would be effectuated. Effervescent wines, therefore—other things being equal, favour the speed of peptic digestion more than still wines.

The effects of tea, coffee, and cocoa exhibited some interesting diversity. It was found that tea had an intense inhibitory effect on salivary digestion; even in very minute proportion, it completely paralysed the action of saliva. On the other hand, coffee and cocoa had only a slight effect on salivary digestion. The inhibitory action of tea on saliva was found to be due to the large quantity of tannin contained in the tea-leaf. Some persons have supposed that by infusing tea for a very brief period—two or three minutes—the passage of tannin into the beverage could be avoided. This, however, is a delusion. Tannin is one of the most soluble substances known; it melts like sugar in hot water. One gentleman of my acquaintance, in his horror of tannin, was in the habit of preparing his tea by placing the dry leaves on a paper-filter, and simply pouring on the boiling water. In this way, he thought to evade the presence of tannin in his tea. But if you try the experiment, and allow the product, as it runs through the filter, to fall into a solution of perchloride of iron, you will find that an intense inky-black coloration is produced, showing that tannin has come through in abundance. You can no more have tea without tannin than you can have wine without alcohol; and I found, experimentally, that tea infused for two minutes had almost exactly the same inhibitory effect on digestion as tea infused for twenty or thirty minutes. If you wish to mitigate the effects of tea on salivary digestion, you should direct the patient not to sip the beverage with the meal, but to eat first and drink afterwards. In this way, time is given for the saliva to perform its functions unhindered. Another device is to introduce a pinch of carbonate of soda into the tea-pot; this removes the deterrent effect of tea on salivary digestion; it is a practice occasionally

followed in some households, under the idea that soda helps to extract the virtues of the tea-leaves. It was found that the addition of so small a proportion as one per cent. of the weight of the dry tea greatly mitigated its injurious effect on starch-digestion, and that twice this quantity (two per cent.) almost entirely removed it. This latter proportion corresponds roughly to ten grains of bicarbonate of soda to an ounce of tea-leaf.

The effects of tea, coffee, and cocoa on peptic digestion were found to be as nearly as possible alike for infusions of equal strength. All three exercised a retarding effect, when their proportion in the digesting mixture rose above 20 per cent. These beverages should, therefore, be taken very moderately by persons of weak digestion. The good reputation of cocoa in regard to digestion seems to be wholly due to the fact that it is used in weaker infusions than tea and coffee. The directions for the preparation of this beverage, printed on the packets of cocoa sold in the shops, indicate a strength of about two per cent.; whereas a medium tea is usually made of a strength of four to five per cent., and a medium coffee of a strength of five to seven per cent. The strong coffee which it is customary to hand round after dinner must have a powerful retarding effect on gastric digestion; and, although this practice may be salutary to robust eaters, it is not to be recommended to those of feeble peptic power.

FEEDING THE SICK WITH LIQUID FOOD.

In a considerable number of conditions, our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube, or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food; and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea and other meat-decoctions, cold-made meat-infusions, raw eggs, and the various gruels. I propose to make some remarks on each of these articles.

Milk.—By far the most serviceable liquid food we possess is milk. Milk contains, in almost equal proportions, proteid, saccharine, and fatty matter, and is capable alone, as we know, of sustaining life. All plans of feeding the sick on liquid food centre round milk. It can be given alone, or mixed with tea, coffee, or cocoa, or with lime-water, soda-water, ardent spirits, or with farinaceous gruels of various sorts, or as buttermilk, koumiss, or whey. Were it not for the necessity of change and variety, we should, in a large number of cases, want nothing but milk. It should, however, be remembered that milk is by no means a perfect kind of liquid food. In the course of its digestion, both in the stomach and in the intestine, milk, or rather the casein contained in it, is coagulated into solid masses, and these masses have to be redissolved before they can be absorbed. Not unfrequently, if milk be given too freely, these curdy masses fail of being dissolved; and they pass down the intestine more or less unchanged, and are ultimately discharged with the stools. In this way milk may become an objectionable form of liquid food; these curds may block up a narrowed part of the intestine, or they may undergo putrefactive changes, and thereby irritate the tender or ulcerated mucous membrane. This drawback to the use of milk may be obviated by predigesting or peptonising it, which is easily accomplished at a warm temperature by means of pancreatic extracts. The bitter flavour of peptonised milk is, however, nauseous to many invalids, and you cannot fully peptonise milk without developing this unpleasant flavour. One of the best means of covering the taste of peptonised milk is to add coffee to it. Another device, which may sometimes be adopted with advantage, is to add the pancreatic extract to cold or iced milk. In the cold, the action of the ferment is comparatively slow, and it takes some hours to produce an appreciable change of flavour. But as soon as milk, thus charged with the ferment, is swallowed and passes into the warm atmosphere of the stomach, it is rapidly digested. I have seen, in cases of typhoid fever, when undigested curds of milk were observed to be coming away with the stools, this plan followed by the immediate disappearance of these masses from the motions. But the palates of invalids are sometimes abnormally sensitive, and they detect, and resent, the mere presence of the ordinary pancreatic preparations in articles of food,

quite apart from the digestive changes produced by them. Recently, Mr. Benger has placed at my disposal a pancreatic preparation which is absolutely free from taste and smell. This preparation, of which I have here a specimen, consists of the pancreatic enzymes in a highly purified state, under the form of a light, nearly white, powder. It is not hygroscopic, and may be kept unchanged for an indefinite period fully exposed to the air.¹ This beautiful preparation is excessively active, and no palate can detect its presence in milk or other article of food until its effects are revealed in the process of digestion. I am inclined to think that it will prove a valuable addition to our resources when it is considered desirable to subject food to a process of predigestion, and still more when it is desired to add the ferment to the food in the cold state, with a view to promoting its rapid digestion after being swallowed.

Beef-tea and other Meat-Decoctions.—Next to milk, in frequency of use and in high esteem, come beef-tea and other meat-decoctions. Long experience has satisfied us in this country of the usefulness of these preparations in feeding the sick. Beef-tea and its congeners, however, take rank as restoratives and stimulants, rather than as nutrients. They contain no albuminous matter in solution, and the small quantity of gelatin contained in them cannot be of much account. There is a wide-spread misapprehension among the public in regard to the nutritive value of beef-tea. The notion prevails that the nourishing qualities of the meat pass into the decoction, and that the dry hard remnant of meat-fibre which remains undissolved is exhausted of its nutritive properties; and this latter is often given to the cat or dog, or even, as I have known, thrown away as useless rubbish into the midden. A deplorable amount of waste arises from the prevalence of this erroneous notion in the households of many who can ill afford it. The proteid matter of meat is, as you know, quite insoluble in boiling water, or in water heated above 160° Fahr. The ingredients that pass into solution are the sapid extractives and salines of the meat, and nothing more, except some trifling amount of gelatin. The meat-remnant, on the other hand, contains the real nutriment of the meat; and, if this be beaten to a paste with a spoon, or pounded in a mortar, and duly flavoured with salt and other condiments, it constitutes not only a highly nourishing and agreeable, but also an exceedingly digestible, form of food.²

Cold-made Meat-Infusions.—The defect in nutritive value of beef-tea led Liebig to suggest the use of cold-made meat-infusions. He recommended that minced beef should be infused in cold water, acidulated with a few drops of hydrochloric acid. An infusion so prepared differs essentially from beef-tea in the fact that it contains, in solution, a large amount of albuminoid matter. The addition of the acid is, according to my observations, a needless complication of the process. Infusions quite as rich in albumen were obtained when simple water was used, as when the water was acidulated with hydrochloric acid. Infusions made from minced meat with half its weight of water, and allowed to stand for two hours, and then pressed through cloth, were found, on analysis, to contain over four per cent. of dry albumen. This amount of proteid is equivalent to that contained in cow's milk. The nutritive value of such infusions is, therefore, very high. When heated to the boiling point, they coagulate into a solid jelly. Made from beef or mutton, the product has an unpleasant bloody appearance; but, when made from veal, the coloration is much paler. The best preparation, however, is made from the meat off the breast of a chicken. This meat is nearly white, and it yields an infusion which is almost colourless, and which sets, on heating, into a solid white jelly, of very agreeable appearance. Cold-made meat-infusions cannot be heated above 114° Fahr. without becoming turbid from commencing coagulation of albumen. It is, therefore, impossible to cook them without destroying their liquid character. The objection to these infusions is their raw flavour, which to many is highly disagreeable—though some invalids take them without the slightest objection. The best way of covering the raw taste is to add some ordinary beef-tea or a little of Liebig's extract of meat. Some prefer a flavour communicated by a slice of lemon, or by the addition of a little claret.³

Beaten-up Eggs.—Another highly nutritive form of liquid food is supplied by raw eggs. The yolk, or white, or both together, are beaten up in various ways and combinations which are well known. Eggs are more easily digested by the stomach in the cooked than in the uncooked state; but, when the stomach is weak and unable to digest solid food, beaten-up eggs pass through it into the duodenum

without being meddled with, and are slowly digested in their passage down the intestine. They are incapable of forming lumps or masses, and are, therefore, well adapted for cases of narrowing or ulceration of any part of the digestive tract.

Fortified Gruels.—A very important kind of liquid food is furnished by gruels made with the several kinds of cereal or leguminous seeds. Gruels are not by themselves an agreeable kind of food; they lack flavour; but, mixed with milk or beef-tea, they constitute a valuable addition to our resources in feeding the seriously sick. When prepared from the cereal flours in the usual way, they can only be made of feeble nutritive power, if their liquid character is to be preserved. These flours are very rich in starch, and gruels made from them become thick and pasty if the proportion of flour used in their preparation rise to four or five per cent., and a gruel of this strength does not contain more than one-half per cent. of proteid matter. But, if the meal be mixed beforehand with one-eighth of its weight of ground malt, you can prepare from these flours gruels of much higher nutritive value, and still preserve their liquid character. The diastase of the malt acts upon the thickening starch as the heat rises, and converts it into soluble starch and dextrine. These fortified gruels can be made with as much as 20 per cent. of meal, and still maintain the fluid state. Such gruels contain about two per cent. of proteid matter, and about 14 per cent. of carbohydrates, and are admirably adapted, combined with milk or beef-tea, to supply a varied kind of liquid food of highly nutritious character. Mixtures of this class seem especially suited for the nourishment of cases of typhoid fever.

A matter of interest, in designing food for the sick-room and nursery, is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition, the several kinds of cereal grains are closely allied; still, there are differences between them, and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil-flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and, if we had more knowledge and experience in their use, we could, perhaps, utilise with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases.

You must all have observed how there has grown up in these latter years an enormous trade in prepared "foods" for infants and invalids. The very success of this trade is some evidence of the usefulness of these articles. Their composition is generally made more or less of a secret, but whatever secret there be must be hidden within a very narrow compass. The several possible flours out of which these "foods" are mingled can be easily counted—wheat, barley, oat, maize, pea, lentil, and one or two others. These are the ingredients—with malt-flour in some cases—out of which they are all compounded. Now, I cannot help thinking that it would be an advantage both to ourselves and to our patients, if we knew more precisely what we were about in this matter, and if we were in a position to prescribe for infants and invalids the several kinds of farinaceous aliments in proportions known to us, instead of blindly using some mixture of which we know not the exact composition. It is impossible for us to make progress in dietetics on such a path. I can quite believe that these flours have their special excellencies, and that they are severally adapted for different cases and conditions. In the first place, they have distinctive flavours, and thereby may be made to contribute to the important end of providing change and variety for the invalid. Moreover, the faculty of "agreeing" of the different flours, in reference to the individual idiosyncrasy, is a point of not a little significance. Lastly, the difference of chemical composition between the cereal and leguminous flours must have an important bearing on the dietetic uses of these two groups of aliments. It is, I repeat, a serious disadvantage that the control of the preparation of food for the sick-room and nursery should pass from the hands of the medical attendant to those of the purveyor. In the matter of drug-giving, all enlightened practitioners are chary of prescribing secret remedies. Such a practice, it is felt, must be fatal to the intelligent use of drugs. So it is with providing food for the sick. What we want is to have at our disposal a supply of the several articles of food in their simple state, and suitable appliances in connection with the sick-room or nursery for cooking and combining them in various ways according to the exigencies of our patients.

If I were asked to enumerate the ingredients and apparatus which

¹ It slowly acquires a slight peculiar odour when kept in a tightly corked bottle, but this passes off when it is exposed to the air.

² These remarks on beef-tea apply equally to Liebig's Extract of Meat, Brand's Essence of Beef, and Valentine's Meat-Tea, all of which are devoid of albuminous constituents.

³ Cold-made meat-infusions keep badly. They should be preserved in a cold cellar, or, still better, on ice.

are necessary for the cuisine of the sick-room and nursery, I think I could do so very briefly. In addition to the resources of the domestic kitchen and larder, the sick-room kitchen should contain a supply of the following flours: oat, maize, malt, and lentil flours in a finely pulverised condition, and freed from bran. It should be provided with a solution of soda-bicarbonate of known strength. This would be of use to add to milk when necessary, and to assist in the preparation of peptonised articles of food. Next to these would come a reliable pancreatic extract, and a preparation of pepsin or rennet for the production of whey. The associated apparatus should include a thermometer, wherewith the nurse could, when desirable, heat up cold-made meat-infusions to a proper temperature, and regulate the warmth required in the predigestion of food. A double-cased saucepan would form an indispensable item; this makes an admirable hot-water bath for the preparation of beef-tea and fortified gruels. A pair of scales, glass-measures, and a mincing-machine would complete the list. Finally, there should be, for the service of the nurse, a card or sheet containing plain directions for the preparation of the various kinds of liquid food.⁴

Given these simple appliances, I see no difficulty, in these days of skilled nursing, in the medical attendant being able to prescribe almost any kind of liquid food for his patients in any combination, and having it served up for the invalid in the most suitable possible manner. I have ascertained that there is no difficulty on the part of the miller in producing meals from malt, oats, or lentils, freed from bran and coarser particles, and in nearly as fine a state of preparation as wheaten flour. In this state, these meals are susceptible of much more rapid and perfect cooking than when roughly ground. I have little sympathy with much that has been said of the advantages of whole meal and decorticated flour. It has been alleged that the too complete separation of the outer parts of the grain deprives the flour of its mineral matter. If we lived on bread alone, there would be some force in this objection; but as that is not so, and that we find in milk, meat, fish, eggs, soups, and fresh vegetables, a superabundant provision of mineral matter, and have, moreover, always at our elbows a supply of salt, there can never be any lack of saline materials in our food. The branny matter of the flour is both indigestible and irritating to the prime viæ; and although it may not injure, or may even be useful, to the strong and healthy, it is quite an unfit element in food designed for the weak and tender membranes of the invalid and infant.

Gentlemen, in bringing my remarks to a close, I should like again to press for a more systematic and a more comprehensive study of dietetics. The effects of diet are profound and far-reaching, and exceedingly subtle. Some inkling of this is got from the history of gout. You all know how slowly and how insidiously the gouty diathesis is developed under the influence of diet, and how it may affect the descendants unto the third and fourth generations. The immediate effects of diet are often not the most important. Behind these are remote sequences of vital concern to the family and the nation. And it is not solely in regard to feeding the sick that a scientific knowledge of dietetics is useful. There are public questions of great moment, affecting the food-habits of the people, the consideration of which ought not to be dominated exclusively by popular opinion. In legislating on such questions, it is of the last importance to proceed on correct lines; for it is certain that any policy which ignores the instincts of mankind and the laws of nature is foredoomed to failure. I believe that a comprehensive study of these questions from the side of history, and of natural history, would throw unexpected light on the issues involved, and furnish data of great value for the guidance of the legislator and of the social reformer.

⁴ Messrs. Paine and Benger (Mottershead and Co., chemists, Manchester) have put together the ingredients and apparatus above enumerated in a portable box, of which a sample was exhibited at the annual museum.

MESSAGE OF THE PROSTATE FOR RETENTION.—A Dutch surgeon, Dr. Le Rütter, has found means to subject the prostate to a kind of massage, and in this way has completely cured two patients of the ages of "over 50" and 70 respectively. The method employed is to pass the forefinger up the rectum, and then to move the prostate to the right, left, and in a vertical direction three times each way, rubbing it firmly afterwards. This proceeding is, as may be supposed, rather disagreeable to the patient (to say nothing of the operator's sensations), and it cannot be borne for long at a time. In one of the cases, 20 massages, and, in the other, 15, were required to effect complete restoration of the power to pass urine freely. In both, a small amount of bleeding took place from the urethra, caused by the manipulation of the prostate, for which liquor ferri sesquichloridi was given, with a satisfactory result.

ADDRESS IN PUBLIC MEDICINE.

BY

THOMAS JONES DYKE, F.R.C.S.,

Medical Officer of Health for Merthyr-Tydfil.

THE SANITARY HISTORY OF MERTHYR-TYDFIL.

In this address, I propose, very briefly, to state the more prominent facts in the health-history of Merthyr-Tydfil, believing, with Dr. Norman Chevers, that, to pourtray in truthful words the unfavourable influences which have been detrimental to the health of the people who have resided in this upland valley, and to relate the beneficial results which have followed upon the removal of those influences, by the introduction of means promotive of good health, will be of as much value as the charming story told by one of the most eminent of sanitarians, of an ideal city of health.

The parish of Merthyr-Tydfil is situated at the upper part of the valley of the Taff, near the confluence of the greater and lesser Taff rivers, at a distance of 17 to 26 miles north of Cardiff. The area of the parish is nearly 18,000 acres; it is about nine miles in length, wedge-shaped, being four miles wide at the northern part, lessening to a point at its southern end. Along the whole length, the Taff River runs in a deep valley, the ridges of mountains on each side rising to heights from 1,000 to 1,600 feet above the sea. The two rivers have their sources near the summits of the Breconshire Beacons, nearly 3,000 feet above the sea. Necessarily, the climate is cold and wet, the rainfall averaging 57 inches annually.

The old town of Merthyr is placed in the centre of the valley at its widest part, 500 feet above the sea. Along the valley, and following the courses of the streams flowing into the Taff, many villages and towns—especially the town of Dowlais on the north-east, and the district of Cyfarthfa on the north-west—have from time to time been formed, as the works for the manufacture of iron and for the getting of coal have sprung up.

Sir Henry de la Beche says: "The rocks on which the town stands form that stratification of coal-beds, shales, and sandstones known as the coal-measures, with which, in this district and for a long line of country, are intermixed beds of clay ironstone." To these ironstones formerly, but now to the beds of steam-coal, and to the limestone quarried in immediate proximity on the north of the parish, Merthyr-Tydfil owes its importance, as one of the principal seats of the iron and steel manufacture, and of the districts whence annually are exported the far-famed smokeless steam-coal.

In his report to the General Board of Health in 1850, the Inspector, Mr. Rammell, says: "The rise of Merthyr-Tydfil as a seat of industry and wealth may be attributed to the period when the use of pit-coal, instead of charcoal, was found applicable to the working of iron. About 1748, the Dowlais district was leased by an ancestor of the Lewises, of Llanishen, in conjunction with an ancestor of the Guests of Dowlais. In 1755, Mr. Bacon obtained a lease for 99 years of a mineral tract, full of coal and iron ore; the whole of the leasehold interest in this property passed, at the close of the last century, into the hands of the Crawshays, of Cyfarthfa. Other mineral districts, as Pen-y-darwan and Plymouth, were taken at almost nominal rents."

The population of Merthyr Parish, in 1801, was 7,705; in 1881, 41,857; and, in 1885, it was estimated at 52,500, occupying 10,433 houses. The houses of the working classes (that is, of 45,000 out of the 52,000 inhabitants) are three- or four-roomed cottages; two rooms on the ground-floor, and one or two on the first story. They are built of a sandstone which is frequently of a very porous nature, and the ground-floors are mostly paved with stone. Those houses which were first built, when the iron-works were being established (1750 to 1780) were chiefly built against a wall of earth, and hence these have always been damp and unventilated.

Sir Henry de la Beche, reporting in 1843-4, says: "There was no water-supply; there were some privies at the few decent houses, but none to cottages. Slops and refuse were thrown on to unmetalled and unchannelled highways and streets, and on mounds of coal-ashes at every turn. There was a great number of poor, as indicated by the fact that between 6,000 and 7,000 persons, out of a population of 37,000 (one out of six), were relieved from the poor-rates annually."

In 1849, Mr. Rammell states: "The town of Merthyr-Tydfil was entirely destitute of drainage; no provision was made for excrement-removal; there was an utter want of a proper provision for supplying

the town with water; in the few wells which existed, the water was bad in quality, from natural hardness or from impurities which had permeated through the soil into the wells. There were 21 burial-grounds in various parts of the town."

In 1852, Dr. William Kay was temporarily elected officer of health. He concluded his report thus: "The unhealthiness of Merthyr is attributable to local and self-created conditions, the vicious construction of houses, the inadequate supply of water, the absence of drainage, and the necessary consequences—accumulation of filth, atmospheric impurity, and extensive and fatal prevalence of disease."

Mr. Simon, then medical officer to the Privy Council, in his ninth annual report, writing of Merthyr, said: "In our statistics, it showed every possible evidence of sanitary neglect; in fever, in diarrhoea, in cholera, in small-pox, in phthisis, and other lung-diseases, and in mortality of children, it always was conspicuously bad, and the water-supply was cruelly scant and disgustingly foul."

I cannot better sum up the description of an unhealthy town than by quoting the statistics collected by Dr. George Buchanan, and published in the above-cited report.

"During the period of 11 years, 1846-1855, before any sanitary works were in actual operation, except the removal of accumulated mounds of ashes, etc., the death-rate from all causes, at all ages, was 332 per 10,000 inhabitants; the death-rate of children under one year, from all causes, 80½; of persons of all ages from fever, excluding typhus, 21½; from diarrhoea, at all ages, 11½; from phthisis, between ages of 15 and 55, 38½ per 10,000 of the population."

I will leave this disagreeable picture of the results of long-continued neglect, and turn to a brighter one.

SANITARY WORKS AND STATISTICAL RESULTS.

The Board of Health was formed in 1850; an accomplished surveyor was appointed; the inspection of streets, lanes, and houses was established; the daily removal of house-refuse was provided for; paving, channelling, and, in a few instances, drainage-works were carried out. An Act was obtained by a private company to supply the town with water; the powers granted to the company were transferred to the local board, who directed Mr. Hawksley to carry out his scheme, and, in 1860, a partial supply was afforded from standpipes, free to all who desired to fetch water therefrom; and, in 1862, nearly the whole of the houses in Merthyr and Dowlais received a constant supply of water, averaging three degrees of hardness, free from any pollution. The length of mains and branch water-pipes laid was 68½ miles.

During the earlier years of the Board's labours, 1850 to 1855, the progress was very slow; but during the second period of ten years, 1856 to 1865, the sanitary work accomplished bore abundant fruit, for the death-rate from all causes was reduced to 271 per 10,000; that of infants to 67; that from fever, at all ages, to 10½; from phthisis to 37½; and from diarrhoea to 9 per 10,000.

The third period of ten years, from 1866 to 1875, was profitably occupied in the construction of main and branch sewers, and of all the sanitary appliances attached thereto, while the Board were assiduous in requiring the attention of their officers to the diligent search for causes of disease, and the early removal of any discovered cause. The sewers were commenced in 1865, and completed in 1868; 55 miles in length of main and lateral sewers were constructed. The sewage was conveyed in mains to a point three and a half miles from the centre of the town; there a mixture of lime and alum was added to the stream, which then flowed onward to the straining tanks. The dissolved sewage passed through the materials for straining, and was run into the River Taff, half a mile below the village of Troedyrhiw. A new colliery, that of Merthyr Vale, was at this time established on the east bank of the Taff, about a mile below the outlet of the sewage into the river; a nuisance was undoubtedly caused, an injunction was obtained, and the work of connecting residences with the main sewers was arrested until 1872. Happily for Merthyr, the publication of Dr. Edward Frankland's report on the proper means to be used for the filtration of sewage, had attracted the attention of Mr. J. Bailey Denton, who, in a paper read at Maidstone on November 24th, 1870, explained his views as to the practical mode to be adopted to carry out the clarifying of sewage suggested by Dr. Frankland.

By the direction of the late Lord Justice James (a Merthyr man), Mr. Bailey Denton was directed to try practically the method suggested; the filtering areas were formed near the outlet of the sewers, the sewage was passed over the prepared land, and Dr. Frankland reported that, on June 10th, 1871, when the sewage-stream of 800,000 gallons per day was being passed over 10 acres of prepared land, "the water entering the Taff from the Merthyr intermittent filters was considerably purer than the Thames water, which we are often compelled to drink in London." This work having been completed, the con-

nection of closets with the drains was proceeded with, so that in 1875 nearly all the properties in Merthyr and Dowlais were properly drained.

It is very satisfactory to be able to say that the effluent water from the filtration areas was in June, 1885, the same as it was stated to have been in June, 1871, "considerably purer than the Thames water supplied to London." This fact is made apparent by the following epitome of the analyses. The Thames water-supply contained 28 grains of solids per gallon; the effluent water 11½ grains; the organic carbon in the Thames water was one-fifth of a grain, in the effluent one-tenth of a grain; the total combined nitrogen in the Thames water one-fourth of a grain, in the effluent one-sixth of a grain per gallon. The filtration areas were so skilfully designed, and so well formed, the surface of the soil has been so carefully cleansed, that no clogging of the subsoil has occurred. The permeation of the strained sewage through six feet of earth has gone on continuously for fourteen years; and the oxidation of nitrogenous matter is as thoroughly effected now, as it was when Dr. Frankland reported on the system.

The results of the care exhibited, and of the supply of pure water, pure air, and increased cleanliness in and around dwellings, were the diminution of the death-rate at all ages from 332 to 256 per 10,000, of deaths of infants under one year to 65, of deaths from fevers to 6, from phthisis to 21½, and from diarrhoea to 4 per 10,000; while the average age at death, stated by Dr. Kay to be 17½ years in 1851, was increased to 25 years.

During the fourth period of nine years, 1876 to 1884, in addition to the various works I have indicated, the Board arranged for the purchase and laying out of nearly 400 acres of land on a plain about six miles from the site of the filtering areas. These lands were laid out by the Board's surveyor, Mr. Samuel Harpur, for the disposal of sewage by wide irrigation. It became also necessary to provide a reservoir at a point further north, in the valley of the lesser Taff river, to supply water to the town of Dowlais (in lieu of the expensive process of pumping from the Merthyr supply-basins) and to the rising village of Treharris. The whole of the works of inspection, of careful cleansing of filtering basins, and of regular flushing of water-mains, were assiduously carried out.

The results were, that the death-rate at all ages fell to 232 per 10,000, that of infants to 50, that from fevers to 3½, that from phthisis to 18½, and that from diarrhoea to 3 per 10,000.

I should tell you, also, that three outbreaks of cholera occurred in the parish; in 1849, when the death-rate per 10,000 people from this malady was 267; in 1854, when the rate was 83; and in 1866, when it fell to 20 per 10,000. The proportion of deaths from cholera to population in the year 1849, before any sanitary works were begun, was one out of every 30; while the proportion in 1866, when cleansing refuse, channelling and metalling roadways, had been done, and an excellent water-supply had been afforded, the death-rate from cholera and choleraic diarrhoea was only one out of every 400 of the people.

The outcome of these figures is this. The death-rate from all causes has been lessened by 30 years of sanitary work from 332 to 232 per 10,000; the deaths of infants under one year from 80 to 50 per 10,000; that from fevers from 21 to 3½; that from phthisis from 38 to 18½; from diarrhoea from 11 to 3 per 10,000; while the average age at death has been increased from 17½ years to 27 years.

You will ask how it is that, while the death-rates from so many maladies have been so greatly lessened, the general death-rate still remains so high as 232 per 10,000. The answer will be found in the following statement of the rates of mortality from acute lung-diseases, at all ages, during the periods of time I have cited. Thus, in the first period, 1845 to 1855, the rate was 28 per 10,000; in 1856-65, it increased to 35; in 1866-75 it was 43; and in 1876-84, it was raised to 47 per 10,000.

Much of the proclivity to bronchial catarrh and its sequences must undoubtedly be ascribed to the locality in which our population resides, a parish situated high amongst the mountains, having a wet and cold climate, and a soil sparingly permeable to water; much, also, must be due to the characteristics of the labours of the working men. Some, engaged at the iron and steel works, are exposed to all weathers at all hours of the night as well as day; labouring either at the blazing furnace, the boiling steel, or the glowing rail; others are occupied as colliers, toiling half a mile underground in a heated atmosphere, impregnated with coal-gases and coal-dust, and, when labour is done, raised to the earth's surface at the pit's mouth, on the bleak mountain-side, borne homewards in railway-carriages, or painfully trudging across lofty heaths to their cottage homes. The liability to chills, induced by such compulsory modes of life, must be apparent; and this liability, together with the vicissitudes of climate, will account for the extreme prevalence of acute lung-diseases.

Possibly, also, the fact that, as sanitary works proceeded, and the numbers of the people native to the town increased (for many years the numbers were kept up by the immigration of strangers), would cause a larger number living who had tided over the perils of the maladies of childhood, yet, being left delicate, would be the more accessible to catarrhal influences.

It will be well to state here the costs of the structural works made, and of the professional and other labour employed, during the period of 30 years, which have contributed so greatly to the health of the people. The works for water-supply have cost £155,000. The works for sewers, sewage-irrigation, and filtration, including the purchase of lands, £105,000—a total of £260,000. To this sum should be added the charges for scavenging, gas-lighting, paving, channelling, interest on money borrowed, and establishment-charges for the whole period, about £240,000; in all, £500,000. The annual district-rate for the last 10 years has been 8s. 8d. in the pound. The present annual income from water-rents is £5,300; from payments made by the Aberdare Urban Authority, who, together with the Mountain Ash Urban Authority, use the wide irrigation-areas, and from lands and houses, and profits of farming, £3,620; thus giving an annual income of £8,920; while the properties of the local board (that is, the water-works, freehold lands, houses, etc.) are now estimated to be worth £300,000.

A consideration of the facts I have stated will bring out prominently two conclusions.

1. Sanitary works well planned, well executed, and thoroughly worked, conduce to better health and longer life.
2. They become a source of profitable income to communities.

WATER-SUPPLY.

From these statistics I pass on to consider certain of the means which were used for the promotion of the health of our people, and will first say a few words as to the water-supply. In doing so, I am sure I shall be telling you all things which each of you has noted; and it is with the object of asking you to reconsider the observations you have made, and regard them in the light which I do, that I venture to ask your attention to the subject.

The water is obtained for the use of the town of Merthyr direct from the lesser Taff River, at a place where it is only slightly exposed to the possibility of pollution from some farm-buildings. It passes at once into a straining basin, and, through some coarsely broken stone and sandy pebbles, into the main supply-pipe. The pipes have a diameter of 14 inches, and through these the water runs for a distance of six or seven miles. I would ask you to note that the materials used for straining are so coarse as to allow portions of leaves, seeds, eggs of fish, and even the small fry of fish, to pass into the supply-pipe. The rock of the district is the old red sandstone, and, after heavy rain, the water becomes more or less highly coloured by the fine particles of this sandstone carried down by rain. In the autumn, it is frequently tinged of a brown colour from the presence of peaty matter in suspension. Now this peaty matter adheres to the sides of the iron pipes, and forms a glutinous bed, in which particles of sand are gradually deposited. The result has been that, after only 20 years' use, the diameter of the pipes has been lessened from 14 inches to 12 inches.

Now it appears to me that, wherever water for domestic use may be obtained, whether from abundant springs, from a river, or from a reservoir, it should be carefully filtered from all matters in suspension before it passes into the supply-pipe.

The supply-pipes empty into receiving basins placed on a hillside north of the town, and at an elevation of 250 feet above it. In these receiving basins I have observed large trout, minnows, and other fish, and growths of water-plants of considerable length. From these settling basins the water passes over the rim of a funnel, in a very thin film, downwards to the filtering basins. Watching this thin film you would observe much foreign matter, stems of grass, flowers, seeds, etc., floating on the surface, being carried onward to the funnel. In the filtering-basins into which the water is passed, it remains perfectly still, and filters slowly through a deep layer of sand, and you would observe that, while this slow process of filtration is going on, water and other plants grow in the water. The water obtained after filtration gives indications of a certain small amount of nitrogen, of chlorine derived from the sand, and of carbon from the vegetable matter in solution. Microscopic examination displays various forms of minute plants, of bacteria, and of water-insect-life. Again, I ask the question, should water intended for human use contain, after filtration, any evidence of the presence of impurity derived from fish, from vegetable decomposition, or from the presence of microbes?

The discoveries in the history of plant-life which have been made

known by the inquiries of those greatly distinguished men, Pasteur and Davaine, Koch and Hirschfeld, Tommasi-Crudeli and Marchiafava, Steirberg and Tyndall, Lister and Cheyne, and a crowd of others; the universal presence of "the motes in the sunbeam," of the spores of parasitic microphytes in the air, in and around the habitations of men, wafted by every wind over hill and dale, their recognised facility of growth in water—all these point to the absolute necessity of devising some mode of freeing drinking-water from all these possible evil influences upon human health.

The history of many outbreaks of disease consequent upon the use of milk diluted with impure water; the known facts relating to the propagation of enteric fever; the recent researches into the mode whereby Asiatic cholera may be propagated; the frequency of attacks of diarrhoea amongst children (water-drinkers) in the autumn, when that fluid most frequently contains decomposing vegetable matter in suspension—all these should direct your attention to the answer which shall be given to the question I have placed before you.

The inquiry being suggested, you will ask—are you prepared with any thought on the subject? Let me very briefly ask you to recall an experiment which, doubtless, every man here has witnessed when attending his course of chemical lectures. Under the glass bell of the air-pump was placed a cup of boxwood containing some quicksilver. The air was withdrawn, and the fluid mercury was observed on the floor of the apparatus, having passed through the pores of the wood, leaving, let it be noted, the dross on the surface of the wood. This, to my mind, is what a filter should do; nothing but fluid should pass through it. Of course any matter in solution would not, by filtration, be got rid of, but all matters in suspension should remain on the surface of the filter.

Recently, as you are aware, a mode of filtration or separation of all matters in suspension in water has been suggested by the illustrious Pasteur, namely, that of passing water through porous porcelain; and, while writing this paper, I have been fortunate enough to read in the *Journal d'Hygiène* of May 21st, 1885, an article by M. Mallie, civil engineer, of Paris, in which he describes and figures an appliance illustrative of the principle which Pasteur has mentioned. This appliance, a filter made of unglazed porcelain, is attached to the tap of the house-supply, and thus the pressure of the column of water is utilised to procure rapid filtration. In Ransome's and other filters, a compact and yet permeable material is used; and many varieties of filters may be attached to the supply-pipe of the town or city water-works, and thus the principle of rapid filtration through a compact porous material is effected; but, to my mind, filtration through such a material should be done at the source of the water-supply, and that supply should never come into contact with the air until it is drawn from the house-tap.

This is the application of the true principle of water-filtration which I ask you to consider. Hydraulic power is now so familiar in its application, so all-powerful, yet so easily controlled, that I cannot but believe that sanitary engineers would quickly construct water-filters on Pasteur's principle, of sufficient power and capacity to filter rapidly, through porous stone or porcelain, any amount of water needed, and would do so at a far less cost than is now incurred in making the large and expensive open tanks, which are most unwisely, I had almost said most wickedly, placed in the vicinity of abodes of men, where every facility is given for the contamination of water by floating particles of living matter.

SEWERS AND SEWER-VENTILATION.

In the formation of the sewers at Merthyr, care was taken to provide grids or openings for the escape of sewer-gases, which were placed near the summits of the main and lateral sewers. They were to a certain small extent useful, but were far from being sufficient, as wherever a closet-pan or pipe, or a yard-drain trap, was broken or displaced, there an outburst of sewer-gases occurred. Their deleterious nature was continually demonstrated, for, wherever a case of enteric fever, of diphtheria, or of croup occurred, it was found that a broken trap, or pan, or pipe, in the immediate vicinity, allowed sewer-gases to escape.

In such a locality as that of Merthyr, where the hilly nature of the land is such that, at a distance of two miles and a half from the centre of the town to the top of Dowlais, there is a rise of 700 feet—in such a locality the ventilation of any underground construction, such as a sewer, should be easily and perfectly effected. Yet this, as I have just said, was not done; and this was due to the fact that the ventilation of the sewers was not carried out on the same principle as that by which underground workings in collieries is conducted. In this great coal-producing district, the principle adopted is to provide a sufficient intake or down-cast shaft for the introduction of a column of

fresh air into the mine, and a sufficient outlet or up-cast shaft for the output of all foul air, thus establishing a constant current of fresh air throughout all the workings, which carries with it all the inflammable gases given off from the coal-workings, forward, upwards, and outwards, into the up-cast shaft, and thence to the open air. It is thus and thus only that the collier is enabled to pursue his dangerous calling. If for an instant the outward progress of the column of fresh air be prevented, either by an airway being accidentally blocked up, or by a doorway to the heading being negligently left open, then the lives of crowds of working men are endangered.

Believing this to be the true principle which should be adopted for the ventilation of sewers, I have from time to time pressed upon the members of the Local Board the necessity of providing shafts at the summits of main and lateral sewers for the discharge of foul air, at the same time providing means for the inlet of fresh air at the lowest point of the sewer to be ventilated. Recently, three such shafts have been built, chimneys of 30 feet high, at the summits of as many main sewers, inlets for fresh air being also provided. The result has been (as Mr. Pearson Creswell, the chief surgeon of the Dowlais Works informs me) to cleanse the sewers from excess of gases; while the surveyor of the board is so satisfied with the effect produced, that upon his recommendation the board have ordered the building of other stacks, to relieve the sewage-gas pressure in other districts of the town.

Connected with this subject, I must ask your attention to three matters.

1. *The Hopper Closet-Pan.*—You all know how generally pans of this kind are used in closets, and you are well aware how liable they are to become choked, and how difficult it is to cleanse them, especially as in a large number of towns there is no provision of a flushing water-cistern. At present, no legal power is given to any sanitary authority to direct what kind of pan, or cistern, shall be placed in these conveniences. It is to my mind a want which should be supplied by the enactment of a law giving sanitary authorities the power to make by-laws to meet this want.

2. *Closet Water-Cisterns.*—The supply-cistern to a closet is provided generally with a hollow ball-valve; as the cistern fills, the ball floats and closes the tap. As it is emptied the ball sinks, and the mouth of the tap remains uncovered. Whenever the water-supply, usually constant, is turned off, and after the quantity of water in the cistern is used for flushing, the air in closets will rush into the open service-pipe. Such was the case in Merthyr, in June, 1884. For some hours every night the water-supply was turned off, and it was observed that the water drawn off from the house-taps in the morning was "creaming;" it contained a very large quantity of compressed air. Upon examination this air was shown to be impure; the source being foul air from the closet used after the water-supply had been turned off. It is only necessary to mention this imperfection to induce both surveyors of local boards, and manufacturers of these cisterns, to construct some means for preventing the access of foul air into water-mains, in the mode described.

3. *Sewer-Ventilation.*—Sanitary engineers still construct sewers with shafts communicating with openings on the surface of the thoroughfares for ventilation. And it is contended that the gases thence escaping into the air, in our lanes and streets, are not injurious to health. How any man who has recognised the fact that diseases have been caused by inhaling sewer-gases can for a moment admit the truth of this assertion, is to me incomprehensible. It is opposed to every fact which Stewart, Budd, Murchison, and Buchanan have proclaimed; it is distinctly opposed by every demonstration announced by Schwann and Pasteur, Tyndall and Lister; nay, it is opposed to our common sense. Can that be harmless which comes from an accumulation of decomposing faecal matter, which is admittedly poisonous when proceeding from a small local deposit? Assuredly not; therefore, as in your minds you are convinced of the danger attending this system; let your pens pourtray the evils of the construction; let your voices be raised against the continuance of so deadly a method; and let sewers henceforth be channels through which fresh air passes, onwards, upwards, and outwards through properly constructed shafts or chimneys, placed at the summits of sewers, far from the habitations of men.

INSPECTION.

Self-help has been the motto of the people of Merthyr; assiduous devotion to duty the guiding motive of their elected representatives. But there have been gaps in the hedge, which should have been repaired, some lapses have occurred, some delays. These, alas! were the occasions of many fatalities. Yet there were sanitary laws enacted by the legislature which, had they been energetically utilised, might have prevented such lamentable results.

But there was no one to supervise, no one to direct. Zeal in any official is apt to be tired by continual postponements. Year after year, during my nearly twenty years' service as a health-officer, I have been more and more deeply impressed with the absolute necessity of regular supervision over the work of all sanitary authorities. The question constantly recurs "*Quis custodiet custodes?*"

I see the Inland Revenue of the country supervised by well instructed surveyors, having authority over a defined area, and responsible to a central office. I see the work of Poor-law relief carefully watched by gentlemen of great intelligence, who have attained to a thorough knowledge of the laws made for the relief of the poor and of the sick. I see the education in primary and advanced schools overlooked, and the results reported on, by graduates and fellows of our universities. I see the worthy successors of those devoted men who, in times of anticipated trouble, enrolled themselves as volunteers, becoming daily more and more efficient protectors of our sea-girt isle, under the fostering instruction of officers of the first battalion to which they are attached.

Yet, in our branch of the medical profession, what have we? *Dis-juncta membra.* No line of work set out; each has to work alone, unsupported by advice, by instruction, without anyone to back him. What wonder is it that those of us who take up Public Medicine, trusting to our reading, our common sense, our honesty of purpose—what wonder is it that we often "*gang awry*;" that, in adjoining districts, advice diametrically opposite is given to perplexed boards of health?

I can feel that such an accusation as that we have no "*consensus*" of knowledge would not hold against us if we, as the Volunteers, had near us a medical adjutant officially trained, practically knowing the laws, passing from one authority to another, instructing authorities, advising officials, caring for the sick, as the poor-law inspector does; or taking notes, in his visitations, of the work done, the results produced, the benefits accomplished, as is done by the inspector appointed by the Education Department.

I can imagine that health-officers thus instructed, guided, supported, would, by their concurrent action on a well organised plan, produce results in the way of sanitary improvement as valuable as those which followed the labours of Simon in London City, of George Buchanan in St. Giles's, of Wilson in Warwickshire, of Gairdner in Glasgow, and of Davies in Bristol.

England and Wales, for the purposes of registration, and for the poor-law relief, are divided into 11 districts. There are 15 lay members and two medical members on the Poor-law staff of the Local Government Board. These gentlemen supervise the whole working of the Poor Law. They reside in or near the spheres of their labour, are connected with the central directing authority, are in constant communication with the boards of guardians; and thus the great and beneficent duties of administering to the wants of the aged poor, the attendance upon the sick, and the care of each union in a district, are continuously maintained.

Let us turn now to the Medical Department of the same Board. The number of members, including the chief and the assistant medical officers, is 13. Recently, four or five gentlemen have been appointed temporarily for a particular inquiry. The special duty assigned to each of the other members is that of investigating the vaccination-returns. Each member, let it be especially noted, has a separate district, which is more or less coterminous with the Poor-law and Registration District.

Apart from this special duty, the labours of a member are ambulatory, now inquiring into an outbreak of diarrhoea in Wales; then hurrying to a fever-district in Lancashire; again off into Dorsetshire to finish his vaccination-inspection; then hastily summoned to London; always trotting from east to west, from north to south, the most unquiet of officials.

No one can question the exceeding great value of the inquiries made by the very able gentlemen forming this staff; yet surely it will not be denied that, if definite authority, with recognised responsibilities, were assigned to each one of these gentlemen in some one division, or part of a registration-division, great public good would result. He would acquire a familiar knowledge of the causes of disease in various localities; he would be enabled authoritatively to advise as to the best means of removing those causes; he would direct, guide, and support health-officers in their difficult duties. These, and a crowd of other useful influences, would follow if a member of the Medical Staff of the Local Government Board were entrusted with the oversight, the regular inspection, of every matter connected with the life, health, disease, and death of the population of the district assigned to his special care.

I am well aware that this matter has been brought before the public

time after time, but there is a particular reason for now moving in this direction.

The first Report of the Royal Commission for inquiring into the Housing of the Working Classes has been published. The Commissioners say that public opinion must be the moving power. Through this assembly, I appeal to that public opinion to move those who have the power to take this one step forward in the path of progress and of orderly supervision. The step, if taken, would not be costly, as it would need merely a readjustment of duties, and certain changes of residence from town to country.

I feel convinced that, if sanitary superintendents, having authority in well defined districts, were appointed, in a very few years such a clear elucidation of the removable causes of diseases would be obtained; such definite means for their removal would be pointed out; such a thorough organisation of an efficient sanitary service would be produced, that the working of the laws for the promotion of the public health would be thoroughly effective, and the benefit to the people immense.

In making this appeal to you, that this fancy of mine, long held and frequently proclaimed, may be realised, I will "rely upon that, without which all fancy sooner or later dies, upon that which, once received into the heart, is the basis of untiring faith—I will rely upon Hope."

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE,

At the Annual Meeting of the British Medical Association, held in Cardiff, July, 1885.

By SAMUEL WILKS, M.D., LL.D., F.R.S.,
Senior Physician to Guy's Hospital; President of the Section.

ON SOME CAUSES OF DISEASE, AND ON REPARATIVE AND DESTRUCTIVE PROCESSES.

At the annual meetings of our Association, it has been the custom to select one of its most distinguished members to deliver an address on Medicine, and afterwards proceed to the more practical business of the Section. On the present occasion, however, it has been determined to dispense with the usual address, an intention I had fondly interpreted into an eagerness to devote all our time to work. I was informed, however, a short time ago, that some kind of introduction was expected from this chair. This I heard with dismay, for I had no time to prepare a subject sufficiently elaborated to be worthy of this meeting. You will, therefore, pardon me for making a short address, and alluding to one or two subjects of interest to myself, and which, had time allowed, I should have felt justified in more fully unfolding.

There is a story told of Agassiz, that, at the commencement of his professorship, he prepared a lecture which, he believed, would occupy an hour in delivery, but at the expiration of half that time he found, to his dismay, that he had finished his discourse. He had, therefore, no other resource than to fill up the remaining half-hour by repeating the same doctrines in other words which he had already enunciated. In after years, he used to say that the piece he had been enacting that half-hour, he had continued to do during the rest of his life; that is, he had been stating over and over again the same doctrines which had occupied the first eventful 30 minutes of his scientific career. I do not think that this is a solitary experience, for probably all of us are possessed of some leading thought which, in various forms, as occasion suggests, we are always endeavouring to impress upon our public. In our profession, certainly, we are witnesses of men above the middle age, constantly repeating themselves; and I could turn to many instances in which some of the most respected seniors in medicine have made speeches, the exact counterpart of what they had delivered 30 or 40 years before. This is an attribute of human nature; and I only mention it to show how extremely difficult it is for anyone, who is getting on in years, to free himself from the trammels which age necessarily brings with it, and what a hard task you set an oldish man by expecting anything of him which can be called new. If science is advancing, we ought to grow with the times; but, unhappily, there is a period in everyone's life when his stature is reached, and he then stands still; fortunate is he if he can remain quiescent, and not fall back, reaching at last that stage of senility when he is only a "laudator temporis acti,"

and thinks that human nature, with its types of disease, has altered, and medical treatment retrograded, with his own decay.

For my own part, if special reasons had not stood in the way, I should probably have been repeating myself here, and setting free once more the long continued current of my thoughts. And what might these have been in connection with the science and art of medicine? The best method, I believe, to arrive at anyone's sentiments or opinions is to study his actions; and if I do this with myself, and look back to the addresses which I have given at this Association, at my hospital, or at the International Congress, I find the theme is the same. It is one which had its basis formed at a very early period of my career, and became more fixed as years and experience went on. It was this, that the peculiarity of different races of mankind must depend on climate, food, and other surroundings, and that these peculiarities are transmitted; that hereditary tendencies have, therefore, much to do with the physical and mental characters of individuals, and also that these temperaments and idiosyncracies which are so evolved are most important in the production of our ailments; again, that these surroundings are, in themselves, sufficient to produce active disease—for example, a number of conditions tend to the prevalence of the gouty constitution in England, and this may be carried through several generations, but the same conditions, operating on an individual predisposed, may actually induce an attack in him: that the predisposing and exciting causes are the same. Morbus Brightii, and many other diseases, come about through the deleterious operation of our ordinary surroundings, both in the air we breathe and in the food we eat, and not from any well defined specific cause. I have, therefore, considered that nearly all disease is slow in its origin and progress, and I have never been tired of quoting Hippocrates, the father of medicine, who said, "Diseases do not fall upon men instantaneously, but, being collected by slow degrees, they explode with accumulated force." I thought I saw, even in my student days, how erroneous the books and lectures were in giving descriptions of acute disease as occurring in healthy persons, and then how such affections became at last chronic. The truth, as I saw it, was very early forced upon me by making *post mortem* examinations; when, for example, a person was brought to the hospital for obstruction of the bowels, attributed to an intussusception, or the lodgment of some indigestible food, and which proved nearly always to be due to a cause of very long standing, or even congenital; in the same way, acute peritonitis was but the termination of some old disease in the abdomen, and a meningitis the ending of a prior disease in the brain. I had thus come to look upon disease as essentially chronic in its nature, induced by the ordinary agents surrounding us, and to believe that the medical art should be mainly directed against the operation of these causes. I have no doubt, had I given an address, and shut my eyes to all the discoveries going on around me, I should have wandered back to the old theme, and found all my opinions confirmed by age. I cannot, however, be blind to what is now occupying the medical mind, and therefore with all sadness confess the truth, my occupation's gone. It is of no use talking any longer of the conditions of our climate predisposing to phthisis; of the hereditary tendency to this disease, much less of any peculiar conformation of chest and frame in those who fell a prey to it, for the disease is due to a bacillus, which may be taken by a husband from his wife, or *vice versa*, or conveyed by a phthisical nurse to a number of children whom she suckles, or even, indeed, caught in the street; at least, this was suggested in the case of a lad who died of tubercular meningitis, having long had a sore tongue, which was called tubercular. It was surmised that it was primarily a simple ulcer, on which bacilli alighted as he walked through the streets. In order to mollify believers in predisposition, temperaments, and configuration, it is admitted that there must be appropriate soil for the cultivation of the germs; but, after the delivery of these platitudes, they are put on one side for the study of the one potent agent, the bacillus, and are no more considered than predispositions to small-pox, scarlatina, or cholera. I do not for a moment attempt to throw any discredit on modern research, for these bacilli undoubtedly exist, as any one may prove for himself; but I am rather offering myself for pity, that, having preached on one long text, that it is the great aim of the physician to seek the causes of disease in our ordinary surroundings, and in the tendencies transmitted to us, and to try to remove them, I find my occupation gone; but perhaps I am only shunted for a time to let the express pass by.

It might be worthy to remark, in passing, how treatment accompanies and follows pathological discoveries, in opposition to the mistaken idea, which many seem to hold, that there is a science of therapeutics gained by a simple observation of the action of drugs on the body. It is sometimes said that therapeutics stands still or lags behind other departments of medicine. I think this is not true, and

cannot be true; in fact, I am at a loss to know what pure therapeutics is apart from disease and pathological states. It seems to me it is the study of external agents on various diseased conditions; and it is not so much new remedies, but a better indication and knowledge of how and when to use them, which is required. For example, thousands of persons are now cured of nervous diseases, not by a new remedy, but by the old iodide of potassium, and this was done as soon as pathology had discovered the existence of visceral syphilis. So, in the same way, if the doctrine of bacillary phthisis be true, we have our antiseptics at hand, and we have not had to wait for iodoform, eucalyptus, and benzoic acid, and such like remedies which are now in vogue. The improved treatment in the one case came from observations in the *post mortem* room, and in the other from the pathological laboratory. If there be one-tenth of truth in the value of the remedies which we see weekly vaunted in the advertisement pages of the medical journals, therapeutics has shot far ahead of every other branch of medicine.

I might here allude to the fact that the discovery of germs in phthisis and some other complaints will probably oblige us to give up our old theoretical notions as regards the pathology of the exanthemata and other specific diseases. It is in these diseases, which are called zymotic, that no microbes have been found. It will be remembered how Liebig marked the resemblance of the course of a specific disease like small-pox to the process of vinous or acetous fermentation. When, for example, an organism is placed in a saccharine fluid, it begins to develop and grow until all the pabulum on which its multiplication depends has disappeared. The fermentative process, therefore, must cease, and cannot occur again in that fluid. In a similar way, a virus inoculated into the human body continues to develop during a certain term, called the period of incubation, and then rapidly multiplies a millionfold, accompanied by a great commotion in the whole system, when the process ceases, and is never capable of occurring again. The likeness to the fermentative process so struck Liebig, that he introduced the term zymotic for this class of disease, and it has been made use of ever since. The theory may be rational, but it is very remarkable that it is in these very diseases, whose course would have suggested the growth of some organism like a ferment, that this has not been found—I allude to typhus fever, small-pox, scarlatina, etc.; whilst, on the other hand, in diseases where no analogy can be traced between their symptoms and the fermentative process, microbes have been discovered, as in cholera. Here patients are sometimes suddenly stricken down, and die in a few hours, without any of those previous conditions which in any way resemble the stages of a fermentative process. In phthisis, again, there is no analogy between the symptoms and those of a specific disease where germs have been supposed to be present, since the disease may remain for a long time local, and the blood be unaffected. All modern discoveries regarding microscopic organisms do much to overthrow the zymotic theory of disease, were it not, indeed, under any circumstances, too extravagant an one to hold—a theory suggesting that there are several substances in the blood too subtle to be recognised by any known methods, but affording a pabulum for the growth of germs of small-pox, scarlatina, and such like diseases, when they fall upon us, and that this is the only use of those imaginary constituents of the system. It is a great pity that any word like zymotic, implying a theory of disease, should ever have been allowed to enter our nomenclature. Hitherto, no antiseptic or specific remedy has been found to prevail against the regular course of these diseases, and one reason may be that the enemy to be attacked was an imaginary one; but from this it does not follow that antiseptics may not be of service in diseases where organisms have been found. I will not dilate more upon this subject, but felt it quite impossible for any one who was making medicine the subject of his discourse to overlook the fact, that all pathological enterprise is now engaged in the search for specific causes of diseases, and to found a treatment upon it. This has rendered the pathology of many diseases much more difficult to understand, since it is almost impossible to graft the new facts upon the old, or even reconcile them with those which are already established.

Amongst many other subjects in medicine of a general nature to which my thoughts have been directed, there is one with which I will occupy you during the remainder of the short time allotted to me. It is a subject which has two sides to it—a physiological and a pathological one—both highly important with reference to clinical medicine. The one aspect has reference to the mutual relation which exists between the different functions of the body, suggestive of the organs having varying activities and compensating actions; the other aspect is the compensating or actual conservative process which we see going on during the progress of many diseases, a reparative as

well as destructive action, and which can be recognised clinically during the life of the patient.

The readers of the lectures of Sir James Paget will remember how he dilates upon a law (which had already been formulated by the older masters in medicine) that the proper adjustment of the various functions of the body is necessary for its integrity; and in this way every physiological process, however slight, may be looked upon in the light of a natural secretion. This seems like a truism, or mere platitude, and yet it is not seriously or practically considered. To preserve the integrity of the body of a given bulk, so much pure blood is required, and, therefore, suitable organs of a certain size for its production, also a definite amount of depurative organism for its purification. In this way life goes on.

It is so evident that the organs must be proportioned to their use, that Aristotle maintained that Nature makes the organ for the function, and not the function for the organ. One of the most striking examples of this law is seen in the case of the kidneys. If one kidney be destroyed from any cause, the other will enlarge to compensate for the loss. It will grow until it has reached the point necessary for the discharge of its duties, and then cease to enlarge.

The same probably occurs in other organs; where, for instance, a portion of the liver has been destroyed, the other lobe has proportionally enlarged; and, in some chronic affections of one lung, the other one has evidently grown to maintain the balance. These processes are evidently conservative, and indicate a healthy organism. But it may be as well to ask, does a deviation from this line ever occur from some unknown cause, and in this way is an abnormal, or pathological, condition set up? As regards the former, that is, an increased or diminished function, I do not know that this has ever been suggested in the more complex vital organs, and yet, of late years, a hypertrophy of the liver has been spoken of by pathologists. It is true that the term is given simply to express certain anatomical changes, and not necessarily implying that there has been an excess of the original secreting organ.

As regards less important viscera and structures, it would seem that this limitation to healthy size is not kept; and, in the case of the spleen, the organ may grow to an immense bulk. Apparently the structure is healthy, and, putting together its supposed function and the state of the blood, it seems as if the balance was upset by the excessive development of one function, and the patient dies from having too much spleen. The same is thought to occur in the lymphatic glands, when they grow to an immense size by the addition of apparently healthy tissue.

Another structure, which sometimes will start into growth without any relation to the original framework, is the bony skeleton, the skull and all the long bones reaching an enormous size and weight; so also the skin and fat develop until the person is of great bulk. Those are cases which, in a marked degree, show that there are causes in operation which sometimes upset the balance of growth, and the fair relation between all parts of the body.

Now it is worthy of consideration to inquire whether, when the balance is upset by the disease or destruction of organs, any other organs or tissue may take on their extra work. For example, we sometimes find the kidneys so exceedingly atrophied from disease, that we are at a loss to understand how life could have existed with so small a renal structure; if in health, four or six times that amount is necessary. Must it not have happened that other organs have assisted in their work, notably the skin and intestinal canal; and may not the record be true that, under these circumstances, urine has been excreted by the nipples, and other parts of the body?

The liver, too, is sometimes found so small and hard, that it is not difficult to understand why its possessor is dead, but why he should have lived so long. In this case, the purpurine in the water would suggest that fresh chemical actions have been in operation. As regards organs which are not vital, peculiar effects may be observed in the system when they are destroyed, as in wasting of the thyroid body, of the testes, or of the suprarenal capsules. We ask ourselves in what way is compensation made when an organ is diseased, and an answer to this question is what the judicious physician should try to discover, so that, by following nature's laws, he may lengthen the days of his patient. I have observed that the most judicious medical men are those who will take the body as a whole, the good and bad, observe all the different functions, and so, by simple methods, rule and guide the whole bodily organism, so as to bring it to a proper adjustment. I need not remind you that they could not have been specialists.

Now, when one organ is actually diseased, it is very clear that the balance is upset, but it is equally important to ascertain whether a temporary cessation of function may occur from the operation of any external agent, and so a like disturbance occur. The importance of

this question will at once be made clear to you when I ask you to direct your memories to a paper read before one of the medical societies by Sir Andrew Clark, and entitled *Renal Inadequacy*. The author spoke of cases where the renal secretion had become in every way defective, with corresponding symptoms. The subject debated was whether such temporary abeyance of function could occur in a healthy organ, or whether it must not imply disease. The subject was so differently considered by various members of the society, as to show that this had never been thoroughly investigated. It is true there may be an excess of urine passed; but, if this hold the proportionate amount of solid matter, it shows only that more work is put upon the organ, and not that it in any undue way is depriving the system of more solid constituents than is required. If, however, there be a large excess of water alone, it does generally show a temporary excessive action of the kidneys, and this is usually due to a nerve cause.

It is curious that there is a widespread popular belief in the ever varying action of organs; as, for example, we daily hear of a liver being torpid, or secreting an excessive amount of bile. Bernard's theory of diabetes was that it was merely an excess of a normal function, that the liver was overactive in its glycogenic function. There is also a belief that the degrees of action of the liver are influenced by cold and heat.

In some organs, the action is clearly intermittent. In the case of the stomach, the organ when quiescent is small, containing little blood, and secreting no acid juice. As soon as it is stimulated by food, it enlarges, blood is poured into its walls, and an intensely acid juice is exuded from its mucous surface. The generative organs are more marked examples of the intermittent action, especially in women; but in man, everyone must know instances where a testis may be discharging its secretion every few days, and then be in abeyance for months or years. The lacrymal gland may, under emotion, pour out as much fluid in a week as at other times it would do in a year. The brain during sleeping and waking constitutes, of course, a well marked example of the intermittent action of organs. During violent exercise, it is evident that the organs are more fully at work; there is more tissue-change, and more heat is produced; the skin is acting profusely, and the lungs more vigorously. As regards the brain, we may go a step further; there is not only the general inactivity during sleep, but there probably is in all of us more or less inactivity during our waking hours. If a person be taken from a savage or uncivilised country, and his mental powers can be well defined, and he be placed in a school, and be educated, so that after a time he shows himself possessed of considerable amount of intellect, we are bound to conclude that, if he had remained in his own country, he would have been in possession of an unused brain or a non-functioning organ. Must then the popular belief receive the sanction of the profession, that the liver may be torpid, the stomach inactive, the bowels sluggish, and the nerves unstrung?

Apart from the question of their own individual waking or sleeping, as they are in action or not, it might be interesting to know whether the function of organs is influenced during ordinary sleep, or the sleep of the brain. Seeing that they are under the influence of the nervous system, this might be supposed; but since it is clear that the circulation is affected during sleep, it is almost certain that their action must be altered. Not only the brain sleeps, but other portions of the nervous system in part. It is said that the spinal system never sleeps, or the patient would die. Perhaps sometimes it does sleep, with the inevitable result. That it partially sleeps is seen in the paralysis of the whole muscular system when the head and limbs fall, and the mouth drops, counterfeiting death; snoring also being a counterpart of the apoplectic stertor. In heart-disease, the state of sleep evidently involves to a certain extent the spinal cord, for the interference with respiration and the gasping are among the most distressing symptoms of this complaint. But more observations are required to ascertain the state of the vascular system during sleep. At present, we must be content with the facts which are presented to us. These do not accord with our preconceived ideas, which are so strongly impressed upon us, that we act upon them rather than upon experience. The idea of sleep suggests quiet and repose, therefore the blood is circulating placidly through the body, and there would not be the same pressure on the vascular walls as during violent exercise. But is this warranted by facts? For example, are varicose veins found in those who are sedentary, or in those who take much exercise? A more important case is that of hæmoptysis in pulmonary disease, where hæmorrhage occurs much more frequently during the night, after several hours of rest, than during any exertion in the day. It is now many years ago I made this statement, which seemed to be absolutely true, when I was censured by a specialist for having maintained this

before students, since it was obvious, he said, that there must be greater proneness to hæmorrhage during exertion. This opposition naturally made me observe still more narrowly, when I was more than confirmed in my original statement by discovering it was the rule for hæmorrhage to occur in the night. I can only surmise that, during the quiet of sleep, the circulation is more impeded, and the tension on the vessels greater, than when the lungs are expanding, and the circulation free. If this be so, why should purely theoretic or imaginary reasons guide us in practice, and oblige us to frighten our patient suffering from hæmoptysis by telling him he must not make the slightest movements with his arms, must not move out of bed, or speak above a whisper? I have never yet met a medical man who has told me that he is acting on other than theoretic reasons by so doing, and he has no proof that this quieting and frightening method is the best.

Then, again, take the heart; is it not during sleep that the patient suffers most, and is it not during the night that a weak heart may rupture, or an aneurysm give way? I have known a patient with mitral disease and a quick acting irregular heart gain much by a little exercise: a few paces around the room have quieted and slowed the action of the organ. Many persons are kept in a state of perpetual terror, and become hypochondriacal, because the medical man has forbidden all movement, even in their house, and they have been carried up and downstairs in a chair.

If we look to sanguineous apoplexy, I cannot say what the proportion of attacks is during the quiet of night and the active pursuits of the day. I myself am impressed with the great frequency of attacks during the night. Of course, many other causes may be in operation during the sleeping hours, as, for example, the cooling of the body towards the morning. It is then that the medical man is aroused by his night-bell during cholera epidemics, and it is then that other temporary troubles connected with the digestive organs occur. The altered circulation, no doubt, is the cause of epilepsy occurring in some persons during sleep, and the supine position may perhaps be the cause of many backaches being worse at night, as well as increased irritability of the bladder and other troubles.

There are many other interesting questions connected with the sleeping state, which might throw a light upon the cause of some maladies. For example, headache in many persons is intimately associated with sleep at night and somnolency generally. Now, if it be true, as appears from many considerations to be, that the brain is less vascular during sleep, it would show that headache depends upon the state of the circulation. It may be true that the quiet of sleep may remove many headaches, but it is also true that a heavy sleep is often followed by headache. I am aware of this personally, and can quite sympathise with a member of this Association who, in describing his own case a short time ago in the *JOURNAL*, said that, after a hard day's work, when a feeling of sleepiness came over him, he hailed with delight the ring of the night-bell which was to keep him from his bed, and at the same time prevent the headache on the following morning. I know myself this evil side of sleep too well; and this, and others which I have depicted, are a few of the troubles which may arise during this time. It is true that sleep is "Nature's nurse," is "Nature's sweet restorer," and "the comforter when it visits sorrow," and is one of the best symptoms of the well-doing of the patient, so that, as perhaps you may observe in those obscure bulletins which issue from the fashionable medical men, the only information vouchsafed for the information of the public is that the patient has had a good night or restless night; but a sound sleep is not always good, and there is many a patient who can exclaim with Coleridge—

"Sleep, the wide blessing, seemed to me
Dismember's worst calamity."

The subject of which I am here speaking is somewhat vague, and I regret I had not an opportunity of bringing more substantial facts before you. I must be content, therefore, with saying that the varying activity of organs during the day and night, and under different conditions, is one which more thoroughly deserves our attention. The subject is, no doubt, physiological in the first instance, but is, nevertheless, highly important to us as practising medical men.

I will now briefly allude to the purely pathological part of the compensating function to which I have here alluded, that is, the conservative or reparative processes, which are seen going on hand in hand with the destructive ones. In examining a diseased organ, we do not sufficiently distinguish between the two processes; much less do we do so during the life of the patient. There is no doubt some general law in operation which provides for the two kinds of action, the formative and destructive; but the opportunity does not now serve to discuss the question of correlation of forces, and how far we may regard all processes going on in the body as of two kinds, vital and chemical,

mutually opposed. In an ulcer, certainly, the two processes are very apparent; there are the disintegration going on, and also the formation seen in the cells and granulations. A very valuable and scientific paper on this subject is to be found in the *Guy's Hospital Reports*, by Mr. Golding-Bird. It wants but a moment's consideration to see how all organic life on the globe is necessarily associated with death, and that the same law is in operation in pathological processes.

Let me for a moment suggest to you my meaning. Let there be a softening or destruction of the brain; we find it surrounded by a formative cyst or inflammatory products; and in the syringo-mycel of the cord, the same thing is seen, large cavities associated with new products. It should be remarked, however, that, although reparation is going on, it is only by the formation of the simplest material; the highly complex structures are never renewed (except, perhaps, in children under special conditions); no injury to any of the parenchymatous organs is replenished by the same material, the repair is made by simple fibre. Bone may be replaced, and skin in an imperfect manner. In the case of the lung, the two processes, destructive and reparative, are always seen together; indeed, an ordinary phthisical lung could never have been witnessed without the double process. The ulcerated tissue would have produced a fatal hæmorrhage or pneumothorax long before any extensive change could have occurred in the lung; but the vessel becomes closed, and the lung adherent. Now, the more chronic the case, the more are these reparative conditions marked, so that the pleura becomes greatly thickened, much of the pulmonary tissue cicatricial, and the cavity becomes lined with a firm membrane. Under these circumstances, we say that the signs of phthisis are well marked, the dulness on percussion is extreme, there is a falling in under the clavicle, and the pectoriloquy is pronounced. These are not so much signs of disease as of repair or cure. This is the reason why the young practitioner in such a case gives an unfavourable prognosis, forgetting the meaning of the signs, and, to his astonishment, may find his patient in much the same state a year afterwards. It is worthy of note that fatal hæmoptysis rarely occurs from the destructive process; it is due to the giving way of a dilated vessel in a localised and very chronically affected part of the lung. The same probably occurs oftener than is supposed in the stomach; the chronic ulcer is characterised not so much by the destruction of the tissue, as by the new growth around it; and it is in connection with this that the vessel becomes expanded and thinned, and subsequently ruptures. In cases of scirrhus pylorus, it is quite as much the hypertrophied natural tissue which constitutes the tumour as the adventitious substance.

In the case of the liver, it is often difficult to say what changes are reparative or constructive, and which destructive. As the liver wastes, we observe a large concourse of veins on the surface of the abdomen, and we regard these as one of the signs of cirrhosis; but it is rather to be regarded as a consequence of the disease than one of its constituent parts. For, while the liver is being compressed, new blood-vessels and new bile-ducts are being formed, and the blood from the portal vessels, which would otherwise be arrested, makes its way to the surface and systemic veins, through the opening out of the old umbilical vein. The case of cirrhosis is a marked example of what I have been saying of the ulcer, whose description would demand demonstration of both a destructive and a formative process; but, in the case of the liver, where the change is so complex, it would be difficult to draw the line; many of these changes, however, are clearly no part of the primary pathological process. I have seen it stated, but I do not know with what authority, that, if the pulmonary arteries be injected in phthisical lungs before removal from the body, the injection may extend into the chest-walls through newly formed vessels. I may take another example, in the case of the pseudo-hypertrophic paralysis of children. Now, in all the cases which I have seen, there has been a marked atrophy of the muscles, so that parts are wasted whilst others are enlarged, giving a general deformity to the whole body. In those limbs, too, which are hypertrophied, there is often perfect helplessness, showing that the natural muscular tissue must have undergone a decay. In the case of a boy lately under my care in Guy's Hospital, the difference in the size of the legs was most remarkable, one being three or four times the size of the other, but they were both equally helpless. The one showed merely wasted muscles, the other was firm from the production of new false tissue. The arms were wasted, and yet large masses of new tissue were felt in the deltoid and biceps. In these cases, there is atrophy of muscular tissue, but, besides this, there is what is never observed in the adult, a productive process going on at the same time; the latter, however, has not the power to reach to the development of muscle, but remains in its lower state of fibre only. The example, however, is a striking one of the productive process going on with the atrophic one. In the case of the blood-

vessels, degenerative and productive processes are constantly seen progressing together. In the cancers and other tumours of bones, we perceive a destruction of the original tissue, and yet new bone growing up in the tumour.

You must forgive me for these few desultory remarks. I should have liked, had time and opportunity served, to have offered to your notice some well developed theme; but I had, on the present occasion, no other resource than to look around me, and see what subjects had occupied my thoughts; one or two of them, although crudely brought before you, are, I think, worthy of your consideration.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association, held in Cardiff, July, 1885.

By EDWARD H. BENNETT, M.D.,

Professor of Surgery in Trinity College, and Surgeon to Sir Patrick Dunn's Hospital, Dublin; President of the Section.

INJURIES OF THE SKELETON: VALUE OF ACCUMULATION OF SPECIMENS.

My first duty on taking the chair is to welcome to this Section our distinguished foreign *confrères*, who have come from afar to join in the important discussions which we open to-day.

On the part of the officers of the Section, I thank the goodly array of members of the Association who have given us their zealous aid, both by their presence and by their labour. Personally, I desire to express to the Council of the Association my sense of the honour they have conferred on me by asking me to preside in this Section. I trust that, by my conduct in the chair, I may be able to maintain the fair fame of Irish surgery—a duty to which I am doubly bound, by virtue of the allegiance I owe to the Royal College of Surgeons in Ireland, whose president I have lately been, and again to the University of Dublin, whose professorship of surgery has been in my hands now for many years.

I propose, in the few words with which I shall detain the Section, to deal only with the subject with which I am myself most familiar, and to which I have devoted most of my work. I mean the pathological and clinical study of injuries of the skeleton. I think I can show that real progress here is to be made, not by the study of rare and attractive specimens and cases, but by the accumulation of large numbers of examples of ordinary injuries, and, above all, by laying down the rule, never to reject or throw away such things as appear to possess no interest. I have often been asked, what is the use of taking up space with such numbers of duplicate specimens as the museum under my direction in the University of Dublin contains? To such I have always answered that, only by the examination of a large number of individual specimens, can the details of any typical injury be worked out. I hope to show that, by this means, not only can the details of familiar injuries be rendered more complete, but new types can be discovered.

I may briefly refer, as an example, to the facts relating to Colles's fracture of the radius, which I was able to bring before this Association at the meeting in Cork in 1880. I showed then 54 specimens of this injury, and demonstrated that, among these, 23 gave proof of having been impacted fractures, while 31 were injuries in which positive evidences of impaction were absent. Since the time of that communication, our collection has grown to 100, this number being reached only within the last few days. We now find that the figures stand relatively 48 and 52; and so, perhaps, the truth is more nearly reached. We have ample evidence before us, in these facts, to put aside alike the opinions of Voilemier and of Smith; and we must be prepared, in practice, to meet these two conditions of the fracture in almost equal numbers. I speak on this matter with great deference to the illustrious names I have quoted. The merit of the first step in the investigation Smith rightly attributes to Voilemier, he being the first to demonstrate the constancy of the details disclosed by a section of the united fracture. From Smith's statements, the conclusion has

been drawn by many that no such thing as impaction exists in the fracture. Between these contending views, nothing but the appeal to a large number of facts could decide. I found it all the more difficult to enter into the contest, for I was brought up as a pupil of Smith, learned from him for many years as a colleague, and have succeeded him in his professorship. I hold in these matters, however, that we must follow the Horatian maxim, "Nullius addictus jurare in verba magistri."

In another group of injuries—fractures of the ribs—my investigation of a great series of specimens has led me to endorse, in opposition to the commonly accepted theory, the opinion of Malgaigne, which seems never to have taken hold of the profession. Our standard text-books to this day, in this country and in America, hold fast to the theory of Petit, which assumes that, when the chest-wall is broken by indirect violence, when the ribs break as the result of compression of the chest, as a whole their fragments are thrust outwards. Not a clinical observation, or a specimen that I know of, confirms this view, and yet I say it is taught everywhere. Let any one who seeks to verify its value examine some hundreds of rib-fractures, and his views will soon change.

Similarly, some mystery attaches to fractures of the costal cartilages, chiefly because they had attracted but little notice until the beginning of the present century, when Lobstein directed attention to their peculiar mode of union by bone. This mystery is only the result or want of observation—it is said they are very rare. In 1865 the total record of such numbered thirty. Well, they cannot be very rare, seeing that I have myself observed some 25 examples dissecting and preserving in these 15 specimens, all which go to prove that only in the peculiarity of cartilage uniting by a structure different from itself does this fracture differ from that of bone.

But I may not delay the Section over examples of this kind. I must pass on to show how the mere preservation of specimens apparently uninteresting and unimportant can lead the way to useful results, and direct clinical observation. If I place before the meeting a single specimen of broken fibula, such as the diagram represents, such as any single one of the series on the table is, most men conversant with surgical pathology will pass it by as worth very little indeed. So did I; only I put these by safely as they came. After a time I found that their increase in number demanded attention. Every one knows the great importance that attaches to fractures of the lower end of the fibula, their great surgical interest, the writings of Pott and of Dupuytren. In all these and elsewhere no mention is made of fracture of the upper third of the bone, except as it occurs as an element of fracture of both bones of the leg, or with a complete diastasis of the bones at the ankle.

In looking over these specimens, I was struck with the fact that one feature was constant in them all, a fracture of great obliquity, but without material displacement. What was the cause? Certainly not casual direct injury. Going on with my study, I was not long in finding evidences that the injury was in some associated with lesion of the ankle-joint; in some, a very special fracture of the tibia exists, which, when present, is alike in all. In others, evidence of past traumatic inflammation of the bones at the ankle bear testimony to the origin of the force from the ankle. In one, the fracture is associated with fracture at the usual site of Pott's fracture in the lower third. I could produce several fractures of the fibula in its upper third similar to these, where, unfortunately, the tibia has not been preserved, which I doubt not are of the same type, for the extreme obliquity without displacement is quite distinct from the form of lesion which goes with fracture of both bones. Any way the number is remarkable, ten in all, where both bones are preserved. Seeing these facts, I could not doubt that the injury, although unfamiliar to me as a clinical observation, must be sufficiently common. I was not long on this track before I found what I wanted. This case I published in 1880. I will now give an example observed by my colleagues in Sir P. Dun's Hospital, and so free from the objection that might be advanced against myself on the score of prejudice.

A man slipped in carrying a sack of grain down a sloping plank in unloading a vessel. His foot was suddenly checked in its slide by some irregularity of the plank, and he fell, conscious that something had given way in his leg. He did not strike or hurt his leg otherwise in the fall. Admitted to hospital, as he was unable to bear weight on the limb, he presented the ordinary features of a sprained ankle, without the ordinary signs of fracture of the ankle-bones. Treated for sprain, the case attracted but little attention for several days, when the circumstance of ecchymosis, high up in the limb, attracted notice. On this part being examined, the localised pain and crepitus peculiar to fracture left no room for doubt as to the diagnosis.

Somebody will say, Of what value is the observation? the bone unites well, and without deformity. So it does; but I hold that we surgeons, for our own sakes, if not for the sake of our patients, should avoid every error of diagnosis. Certainly, the surgeon who treats a sprained ankle for a week or a fortnight only to find it necessary to confess the existence of a fracture at that date, discovered by himself or another, does not feel pleased or proud of his skill in diagnosis.

I will only note further that this injury seems, as far as I have seen it in the living, to result, as in this case, from a sudden jar or wrench while the foot is fully extended.

I now will detain the Section only a few moments while I give one other example of the benefit which the preserving of every, of even the least interesting specimen, yields. I may so show that, in mentioning these matters, I do not seek to sound my own trumpet, for the results are only the direct result of the method I have followed; with the clinical and pathological opportunities afforded by my position, and this mode of study, it needed little originality to see the family likeness connecting typical groups. Passing in review each series of pathological specimens, I laid aside the few examples of united fractures of the metacarpal bones in our collection, waiting until their larger and more important neighbours could be arranged. The small size of the bones, and the slight value, clinically, which we surgeons have been apt to assign to simple fractures of the metacarpus, delayed my study of them, and so, perhaps, the result has been all the better; for, without some time spent in accumulating, a number sufficient to attract attention could not have been reached.

Taking at last the group into closer study, I was struck by the fact that one particular fracture outnumbered all others.

Malgaigne and Hulke have both asserted that the fracture of the metacarpal bone of the thumb is more common than that of any other of these bones, opposing the views of Boyer, who assigns the premier place to the fifth. The site of the fracture in the individual bones is set down as being "just above the middle," "in the middle or distal third."

Now, if we look to the series before us, a remarkable fact is disclosed. Amongst these fractures, there occur six examples of fracture of the base of the metacarpal of the right thumb, and no others of this bone. In each of these, the injury is the same—an oblique fracture, detaching the palmar half or more of the articular surface which faces the trapezium, with that projection of the base of the bone into the palm which supports the surface. The entire bone, except the little piece so separated, slips backwards, simulating in the living a subluxation of the bone in this direction. The appearance in the living of a subluxation is confirmed by measurement; for, as the fracture does not implicate the dorsal surface of the bone, the length on this aspect is unaltered.

When I published my first note on this injury in 1879, I had but the experience of a single clinical observation, and so I spoke with but little confidence about it. Since then, and as the immediate result of my publication, I have seen a great number of examples both of the recent injury and of the united fracture. Most remarkable is the fact that in every case the accident has been on the right side of the body. Certainly this injury, once we know of its existence, becomes vastly more common than any other of the metacarpus. If left to itself, it unites with such deformity as this cast shows—a trivial deformity, after all. Why, then, deem the matter worthy of the notice of this Surgical Section of the British Medical Association? Simply for this reason, that I have ample proof that a hand so injured remains, under the best of treatment, long disabled, and, without treatment, for a greatly longer time. When we consider the value of the right thumb to anyone who lives by handicraft, or indeed to any, rich or poor, we should not let pass unnoticed and undiagnosed this common injury. One point I have omitted to mention—the cause. In every case but one which I have seen, the cause has been a fall which might well have broken the radius, but some slight deviation has directed its force against the thumb. Once I have seen it as the result of a blow of the fist against the jaw of an adversary in a fight.

I have already mentioned the essential features of the injury. One word as to the reason why probably it has long escaped notice. The pain and swelling of a sprained thumb are familiar to all, and prevent the ready appreciation of crepitus in the recent injury; but this may be found readily if pressure be made on the base of the bone from palm to dorsum, while a slight traction is made, sufficient to reduce the large fragment into place. I am confident that, before long, many of my hearers will test this matter for themselves, and perhaps then excuse my weary discourse to-day. I have said enough to establish the merit of patient and diligent pathological study, combined with clinical observation.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OBSTETRIC MEDICINE,

At the Annual Meeting of the British Medical Association, held in Cardiff, July, 1885.

By HENRY GERVIS, M.D., F.R.C.P.

Obstetric-Physician to, and Lecturer on Midwifery and Diseases of Women at, St. Thomas's Hospital; President of the Section.

THE DEATH-RATES FROM CHILDBIRTH AND CANCER:
VALUE OF ANTISEPSIS IN MIDWIFERY.

My first duty to-day, gentlemen, is to express my grateful sense of the honour done me by the Council of our Association in inviting me to occupy this chair, and my next is to express the hope that our meeting, on this occasion, may not be less pleasant to ourselves than useful for the promotion of that department of science in which we are specially interested. Fortunately for me, my present duty is simply to offer a few remarks by way of introduction to our work, and not to give one of those more formal and important addresses, such as this year are devoted to Therapeutics, Surgery, and Public Medicine. It is in some quarters rather the fashion to decry these annual meetings from the point of view of science, and to insist that the festive element much preponderates over the scientific; but, while not disavowing the holiday character which in part these gatherings have—and, indeed, as I know has been the case in more than one instance, these annual meetings have been, for some of one's medical friends, the only relaxation in their year's work—yet I am satisfied that, meeting men from other towns, and hearing their views and experience, is a very considerable advantage, and one not lightly to be put on one side. In meetings of societies in any one locality, one naturally gets to know pretty much what every one will say before he speaks; but in these meetings, drawn from the three kingdoms—and I am not sure that, speaking in Cardiff, I ought not to say the four kingdoms—new thoughts and observations are brought forward, and fresh views of possibly familiar truths enunciated; and thus some may learn much, and all may learn something. Such, at least, has been my experience; and reading in the JOURNAL afterwards the brief account of the discussions which, with the pressure on its pages, is all of course which the JOURNAL can admit, very inadequately supplies the place of personal attendance on these occasions. In discussing, therefore, the subjects arranged for our consideration, may I venture to invite all present to favour us with their experience and opinions on such points as may appeal to their personal observation and thought? and in this way we shall, I am certain, leave this meeting all the better equipped for that contest with disease it is our high privilege to be perpetually waging. And in this contest, gentlemen, I am happy to think, we are gradually, but surely, gaining ground.

In my holiday last autumn, and little thinking it would afford me matter for comment on such an occasion as this, I was reading a paper by my friend, Dr. Longstaffe, on the recent decline in the English death-rate, considered in connection with the causes of death—a paper of much importance and interest, read before the Statistical Society in March, 1884. In this paper, Dr. Longstaffe states that, from 1838 to 1875, inclusive, the death-rate averaged 22.3 per 1,000; but that, during the eight years from 1876 to 1883, it has averaged only 20.3. He then proceeds to discuss, from the tables of the Registrar-General, the variations which have occurred in the causes of death; and, among others, he gives certain statistics as to the deaths from childbirth and cancer, on which I shall venture to make two or three remarks on this occasion. The deaths from childbirth and childbed-fever, in the ten years from 1861 to 1870, averaged 60 in every 100,000 women living between the ages of 20 and 55; during the five years, 1876 to 1880, they fell to 53. A drop to this extent, though not perhaps in itself very considerable, is yet, I venture to think, distinctly encouraging; and, if the statistics of the next quinquennial period, which ends with this year, be equally favourable, a sensible inroad will have been made upon that large mortality which, up to so recent a period, has occurred in connection with childbirth—a mortality, I may remind you, estimated some years ago, by Dr. Matthews Duncan, as reaching in this country one in every 120 women confined at or near full time, and by Dr. Lush for America as approaching one in every 85 confinements. And I would venture to say, gentlemen, without hesitation, that, before

many more years have passed, this mortality will be still further distinctly reduced. There are, doubtless, more factors than one in the production of these favourable results, such as the more early use of the forceps in lingering labour; the more frequent induction of premature labour in cases of contracted pelvis; the better treatment of eclampsia; and the better treatment, prophylactic and actual, of *post partum* hemorrhage. But the greatest gain has, I think, without question, been in the practical development of the principles of antiseptics. Just in proportion to the recognition of the part played by germs in the convection of disease, and to the success of the efforts made to exclude and neutralise them, will be gained, I am confident, the increasing improvement for which we yet strive in the death-rate from childbirth.

I do not for a moment propose to enter, at any length, upon the subject of puerperal fever; that was done last year, and far better than I could do it, by Dr. G. Kidd of Dublin, in his address at the Belfast meeting; but I should like to take this opportunity of saying that, while too much stress cannot be laid on the importance of antiseptics after confinement, too little notice has, I think, been taken by most writers, and, by many, none at all, of the not less important subject of antiseptics before and during labour. The consideration of antiseptics before labour has to do with questions of drainage, ventilation, and general health; in a word, with the hygiene of the house and of the individual. The better the patient's surroundings, and the better her health, the fewer will be the sources from which germs may spring, the better able will she be to resist their entrance, and the less likelihood will there be of their development from within. Speaking generally, that is to say, surroundings have chiefly to do with heterogenetic sources of infection, and the patient's health with the autogenetic. The more sanitary the surroundings the fewer the germs; the better the health, the less likelihood will there be, on the one hand, of the tissues of the genital passage succumbing to pressure if labour should chance to be unduly protracted; or, on the other hand, of a relaxed uterus permitting retention of coagula which may become the starting points of a septic toxæmia. Antiseptics during labour has been sought in Germany by the conduct of labour under the spray. This, we venture to think, is not easily practicable, and not free from risk by the condensation of carbolic vapour on linen and person; and even if practicable, not absolutely satisfactory as a safeguard; but, during the course of labour, although not in this way, the principle of antiseptics should never be lost sight of. In every case, the hands of the attendant should be washed in carbolic water before he proceeds to examination, and both before and after the labour the vulva should be sponged with warm antiseptic solution; and if the case tend to be tedious, though not sufficiently so to necessitate forceps, it is advantageous to sponge out the genital canal from time to time with a similar solution. In all operative cases, I need hardly say it is now customary to dip the instruments in hot carbolic water; but I am satisfied it is also most useful to sponge out with the same solution the genital canal prior to their application. In a labour in which the forceps, and *à fortiori* where craniotomy is demanded, there has, at least very often, been sufficient delay to lead to a septic condition of the discharges; and the removal of these by sponging much diminishes the chance of subsequent infection, should any breach of mucous surface occur as a result of the delivery. So also, in the induction of premature labour, the vagina should be antiseptically cleansed before the use of the bags; and between the removal of one and the introduction of the next, the same precaution should again be taken. In cases of placenta prævia, again, it has been my custom for some years, in addition to such antiseptic measures as I have already indicated as appropriate in every case, to mop the uterine surface from which the placenta has been detached with a solution of the perchloride of iron. In the first instance, I did this to check the *post partum* hæmorrhage which often occurs from the placental site in prævia cases; but I believe that not only has it this virtue, but that it acts antiseptically as well, both by its influence on the bruised surface-tissue, and by its astringent effect on the avenues of entrance for germs, avenues which, on account of the cervical position of the placenta, are also more accessible to germs than where its implantation is fundal. In all cases of version, I need hardly say that, where the hand has to be introduced into the uterus, not merely the hand, but the arm also, should be sponged with carbolic water before its introduction; and, lastly, in cases of miscarriage, where it may be necessary to resort to manipulative proceedings, whether for the removal of the entire ovum, or of a fragment merely of retained placenta, careful attention to antiseptic details immensely lessens the subsequent risk of pelvic inflammation and systemic infection.

Another and scarcely less important department of the antiseptic

treatment of labour is undoubtedly the management of its third stage, although in but few text-books is it looked at from this point of view. But securing adequate contraction of the uterus by the plan of Cr  d  , and so ensuring at one and the same time the complete expulsion of the placenta with its membranes, checking any tendency to the formation and retention of coagula, and promoting the closure of avenues of entry for germs, is, from the point of view of antiseptics, no less than from the point of view of the prevention of hæmorrhage, a proceeding of the first importance; and of this we shall doubtless hear further in the discussion to be opened on this subject.

Of antiseptics after labour I need hardly say anything, so well established is the conviction of its importance, and so well known the details by which it should be accomplished; but I should like to avail myself of this opportunity to lay much stress upon the utility of an uniform and careful inspection of the genital outlet after every labour, and to urge the importance of its being regarded as much a matter of routine as placing the hand on the hypogastrium or feeling the pulse. I believe that, if this were systematically done, and any tear, however slight, treated antiseptically, either by carbolic oil or by iodoform, cases of septic infection would be very considerably diminished in number. Of antiseptic solutions for irrigation-purposes, I should like to say a word in favour of the mercuric chloride solution. In a strength of one in 2,000 for injection, and one in 1,000 for washing purposes, it is certainly of the highest value. That it must be used with caution, is doubtless true; but this is also true of carbolic acid, and, with but few exceptions, when symptoms of poisoning have occurred, they have been but slight and transient. The solution of boracic acid, in a strength of 10 grains to the ounce, is also of much value. It is not, perhaps, so powerful an antiseptic as the sublimate solution; but for the vaginitis which accompanies the lacerations it is particularly soothing.

Before passing from this brief reference to the ever engrossing subject of puerperal fever, I should like to call attention to the admirable series of questions relating to it drawn up by the Collective Investigation Committee of our Association. Such a mass of evidence ought to be forthcoming, on every one of the seven questions proposed, from the wide-spread members of this great Association, that the task of future writers on the subject should be greatly simplified, and much less of the uncertain remain. Were it not, indeed, for the disappointing influence of the twin fallacies of non-observation and mal-observation—fallacies which, even in such an Association as ours, we can hardly expect wholly to escape—we might fairly hope that the subject of puerperal pyrexia might be finally placed before another meeting on absolutely undebatable ground.

The other cause of death to which Dr. Longstaff refers, and which, it struck me, it would be interesting to shortly bring before you, is cancer. Cancer, he says, has increased 88 per cent. in males, and 24 per cent. in females, the greater increase in males being probably partly due to the fact that cancer of the stomach and liver, which is commoner in man than woman, is much more difficult of diagnosis than cancer of the female breast or of the uterus, and hence improved medical skill affects the returns for it more. On the other hand, a recent writer in the *BRITISH MEDICAL JOURNAL*, Mr. H. P. Dunn, quoted by Dr. Longstaff, says "he is convinced that the long continued and steady increase of cancer is not apparent only, but is an undoubted fact;" and, in this conclusion, other writers on the subject entirely concur. The success, therefore, which I have just been speaking of as attending our obstetric work, has not followed us in our treatment of cancer. Dr. Longstaff's suggestion that part, at all events, of the increase may be due to better diagnosis, may, perhaps, hold good as regards cancer in the male; but cancer in the female, chiefly affecting, as it does, the breast and uterus, has long been within the limits of a definite diagnosis. My own experience, nevertheless, makes me hopeful that we shall yet be able to diminish this increasing mortality, and, so far as I can judge, it will be by earlier diagnosis and earlier treatment. Believing, as I do, in the local origin of the disease, I believe that, in cases where the local disease can be effectually extirpated, there is good ground for hope that it may not reappear.

In the interesting paper read by Professor Esmarch at the Copenhagen Congress, on the operative treatment of malignant affections of the rectum, he gives a long list of authorities who have published cases of "permanent recovery" after surgical treatment. And my own experience, and not mine only, but that of many other operators, is equally clear as to the permanent gain from the early and adequate local treatment of uterine cancer. In the debate, for instance, which took place at the Obstetrical Society early in this year, on the subject of the extirpation of the entire uterus for cancer, the majority of the speakers, while condemning the operation for advanced cancer of the

body of the uterus, on account mainly of the nearly insuperable difficulty there is in removing all the disease, and equally condemning it for cancer of the cervix, both on account of the tendency of the disease to spread laterally into the surrounding tissues, and on account, also, of the absolutely better results obtained by other treatment, yet agreed all but unanimously that the extirpation of cervical cancer by supravaginal amputation, or one or other of the methods which combine the use of the curette and of chloride of zinc paste, at an early stage before infiltration of neighbouring tissues had occurred, had been, in their experience, in repeated instances, of lasting benefit; and with this my own experience concurs. The diagnosis of early cancer is undoubtedly, in many cases, attended with difficulty; but I would venture to press the more general adoption of microscopic observation as an aid of the first importance. Not very unfrequently, also, early treatment is hindered by the fact that early symptoms are so slight, that the disease may have seriously advanced before even the patient's attention has been attracted to it as a matter that is of any importance; and of this I have seen many remarkable instances. While saying just now that I believed in the local origin of cancer, I wish also to admit to the fullest the influence of heredity in its production. The precise part which heredity plays as a factor in pathological evolution, and its relation to its co-factor of environment, is a problem of the deepest interest. Does heredity act, for instance, by providing such appropriate "cultivation-fluids" in the system, that, on the occurrence of local disease, special facility is offered for the diffusion and development of the malady by germ-multiplication? Or, is the influence of heredity in pathogenesis simply neural, and, instead of offering a *plus* condition as regards the character of tissue-fluids, does it offer simply a *minus* condition as regards the resisting and controlling power of nerve-supply? Whichever view or what other view may be taken of the influence of heredity, is it not unphilosophical to look upon some diseases as under its influence, and others not?

In the evolution of disease, as in the evolution of the organism, the same two factors, heredity and environment, which we have been taught by Darwin to consider the two master-influences of the organic world, are probably the ruling influences also. In some cases heredity may be active, but, the environment being favourable, the individual may escape; in others, in spite of an unfavourable environment, the influences of heredity may be sufficiently favourable to discourage the development of disease; and in others, again, both heredity and environment may combine to favour particular pathogenesises.

I ought, perhaps, to ask pardon for this slight excursion into the region of the speculative; but if the definite laws which Darwin expounded as operative in the sphere of organic life should be found equally influential in pathology, the gain could be scarcely over-estimated. One further quotation from Dr. Longstaff's statistics will be, I think, of interest to those of us who practice specially in this department. "It is quite plain," Dr. Longstaff writes, "that the recent fall in the death-rate favours the accumulation of surplus women;" and should the change of mortality go on in the same direction the rate of accumulation will be increased. In 1851 there were in this country 104.2 females to every 100 males: this proportion has risen gradually, until it now amounts to 105.5, and, should the resources of our specialty continue to develop, as they have done of late years, this ratio may still further increase. Other facts also point in the same direction. Forty years ago, for every 100 female children 104.8 male children were born, but now the number is only 103.9.

Evidently, therefore, gentlemen, there promises to be no lack of material for our special work; and at each succeeding annual meeting I have little doubt we shall have to record in our department some fresh facts discovered in pathology, and some distinct advances made in therapeutics. And both new facts and better treatment must come to us, I think, chiefly through a closer study of anatomy, healthy and morbid. We have the advantage, on this occasion, of the official aid of Dr. Berry Hart, whose atlases of pelvic regional anatomy have had untold influence in improving the scientific status of obstetric and gynecic work. And a similarly close study of pathological changes, at all events in gynecology, is one of our most pressing needs. So many of the maladies for which our advice is sought are not fatal in their character, often little more indeed than sources of local discomfort and general ill-health, that our views are too apt to be based on clinical observation merely, and not rectified by *post mortem* research. If, for example, the precise morbid anatomy of flexions had been worked out, would it be possible for one set of writers to think the condition of flexion the foundation of nearly every other ill to which women are subject, and another that a flexion is scarcely abnormal at all? And as a quite recent illustration of the same need, I may refer

to the discussion at the June meeting of the Obstetrical Society on serous perimetritis, a malady of much graver importance than flexion, in which it was evident that even on the primary question of diagnosis there was much to learn that could only be learned by careful necroscopic research. In the puerperal diseases, on the other hand, very much has been done by way of attention to morbid anatomy; and it is to this, I think, that we are chiefly indebted for the great stride made in our scientific knowledge of their course and results. In discussing puerperal fever, we feel, thanks largely to the researches of morbid anatomy, that we are now treading on far surer ground than was possible but a few years ago, although still, as to the nature of the poison whose pathways we can track, we have much to learn. And we may fairly hope that, with the aid of the many scientific observers now at work in our department of medicine, before long similar and equally appreciable progress may be made in the morbid anatomy of the uterus and its appendages.

But, gentlemen, I must detain you no longer from the real work of of the Section. You will all be anxious to hear the papers promised by the distinguished men who honour us with their presence to-day, and the subjects they have selected are of no less vivid interest than of practical and far-reaching importance.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PUBLIC MEDICINE.

At the Annual Meeting of the British Medical Association, held in Cardiff, July, 1885.

By DAVID DAVIES, M.R.C.S.,

Medical Officer of Health for Bristol; President of the Section.

VARIOUS IMPORTANT TOPICS IN PUBLIC MEDICINE.

As our friend and colleague, Mr. Jones Dyke, will deliver a special address on public health, I have thought it prudent not to attempt any elaborate or comprehensive address. I shall, therefore, refer only to a few points interesting to all of us who are connected with this Section.

During the last two or three years we have been looking, with some apprehension, on the threatening aspect of Asiatic cholera. Men, eminent in science, and celebrated for the originality of their investigations, have endeavoured to discover the real microbe which is supposed to be the immediate cause of the disease; but alas! when some of us, at least, thought that we had discovered our mysterious enemy, the cup was dashed from our lips; doubts of a serious character have overcast our hopes. One eminent investigator has been swallowing the "bacilli" of another equally eminent, to prove their innocence and inertness. Whilst the pioneers of our profession give us no certain sound to advance, we have to make the best use we can of the careful observations of those who have encountered this disease during former epidemics in this country or abroad. But, whilst scientific investigators have given us only unsatisfied aspirations, we may congratulate ourselves that one of the best features of our national character has come to the surface: practicality. Instead of harassing the trade and commerce of this great country, and inflicting untold hardships on weary travellers by the restrictions of useless quarantine-regulations, the Government authorities have substituted a minute and rigid inspection of all suspected ships and passengers approaching our coasts; and, in case the disease should elude our watchfulness, they have endeavoured, through the Local Government Board, to bring all districts, especially those most exposed to danger, to such a high state of sanitation, that the enemy, should it land, may find no foothold in this country.

Another matter which has much engaged my attention, as a health-officer, has been the registration of disease. By the last Registration Amendment Act, officers of health can get a weekly return of the mortality in their districts; but the returns, although correct transcripts of the entries on the official registers, present many difficulties for classification. A not inconsiderable proportion of them have not been certified by any medical attendant, and no coroner's inquest has been held on the deceased. These returns may at once be dismissed as worthless. Then, among the causes of death professionally certified, we have many anomalies and divergencies of pathological views, which show very clearly that we have not as yet attained unity

of creed, and that individual liberty of opinion is much respected in our profession; but, seriously speaking, these anomalies are a great hindrance to progress in sanitary science. For instance, the prevalence or absence of deaths from enteric fever in a district, indicates pretty accurately its sanitary condition, and the purity or otherwise of its water-supply; but when deaths of bed-ridden octogenarians, and of infants on the breast, are attributed to this disease, we accept them with serious misgivings; again, when tropical or subtropical diseases are returned as the causes of death of persons who have never been out of England, our confidence in the value of our statistics is somewhat shaken. The remarks I have made respecting the frequent anomalous nature of the returns for typhoid fever apply to tubercular phthisis, diphtheria, and many other diseases, the knowledge of which is important to a health-officer.

Time will not allow me to treat of the best way of increasing the reliability of our returns of mortality; the subject, I doubt not, does and will receive the consideration of those who preside over our education. I will simply add, that the facts which have suggested these remarks make me think that the abolition of the apprenticeship system was not an unmixed good. Our younger brethren are better anatomists, more learned physiologists, and more expert surgeons than some of us were; but those of us who had served country apprenticeships, could distinguish the different zymotics, and the ordinary diseases of a mixed community, with a considerable amount of accuracy before we entered the medical schools. We want some substitute for the abolished apprenticeship.

I approach the next point with some diffidence, because I have never taken more than a passing interest in political matters. Without any desire on this occasion to show any party bias or political proclivities, I consider the subject we all have so much at heart, which we in this Section specially cultivate—namely, the Public Health—of so much importance that we ought to be represented in the Imperial Parliament by a Minister of Health, and not remain as a mere appendage of a Poor-law Board. That great department which was ably administered by Mr. Simon, and is now ably administered by his successor, Dr. Buchanan, ought to be in direct relation with the nation, by means of a Minister of Health in the great national council. We have, and have had always, some members of our profession in Parliament, whose accomplishments would enable them to hold such a post with success and honour; and we are in hopes, apart from all political partisanship, to find in the next Parliament one or more members of this great Association so qualified.

Time forbids me to allude to more than one other pressing need of our profession, namely, a Government institution for conducting physiological, pathological, and chemical observations, for the advancement of Public Medicine; such institution to be under the control and direction of the best and most scientific observers whom the country can produce. At present, when danger threatens us, or when we hear of the discoveries of our brethren in other countries, we spasmodically rush to search for the source of the danger, or to imitate researches made in other lands. Such spasmodic action and hurried conclusions would be precluded by a permanent Department of State, always engaged in making researches in the direction of the public health. I confess the thought is not originally mine, but I owe it to the late Dr. William Budd. Before that great man's last illness, he often mentioned the matter to me; and at one time we had under our serious consideration the provision of a house for the reception of a large number of our nearest relatives in the animal creation—namely, monkeys—believing that experiments on our cousins of the forest would have much more important bearing on human pathology than experiments on guinea-pigs and dogs. But difficulties, which private individuals could not overcome, presented themselves; my friend's health began to decline, and we dropped the subject, but still in hopes that the next visitation of cholera would be utilised in some such way for the discovery of the hidden strength of that Indian visitor.

I need not more than allude to the number of most important questions in hygiene that wait for solution.

Cholera—what is it? We want definition of its different modes of propagation. To what extent, and under what conditions, is tubercular phthisis infectious? To what extent does tubercle in the cow affect the animal's milk? What relation, as cause and effect, has the milk of a tuberculous cow to mesenteric disease, tubercular meningitis, and other tubercular affections of infants and young children? What is the origin of true diphtheria? What is the line of distinction between the metabolic and non-metabolic infectious diseases? These, with many other important questions, wait for solution, which, I consider, the Imperial Government might forward. Much has been accomplished by the unselfish efforts of members of our profession;

but "there is much land yet to be possessed." I look forward, with fond anticipation, to a period (although I shall not see it) when scarlet fever, small-pox, and other zymotics, will be as much mere matters of history as the great plague and sweating-sickness in England; when the assurance of human life will be confined to a very narrow range, the central point of which will be 100 years.

These are bright anticipations; but, having regard to our progress in the past, they are, as I conceive, not altogether visionary. In anticipating such a happy consummation, which we, especially in this Section, are endeavouring to hasten, the words of the old song, which I used to sing when a youth, recur to my mind—

"There is a good time coming, boys;
We may not live to see the day,
But earth shall glisten in the ray
Of the good time coming."

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PSYCHOLOGY.

At the Annual Meeting of the British Medical Association, held in Cardiff, July, 1885.

By D. YELLOWLEES, M.D.,

Physician-Superintendent of the Glasgow Royal Asylum; and Lecturer on Insanity in the University of Glasgow.

THE CAUSES AND PREVENTION OF INSANITY.

My first duty is to acknowledge the great honour done me by the Council of the Association in inviting me to preside over this Section, an honour which I very highly appreciate, and which is doubly welcome because our meeting is held in the county whose asylum I organised and opened 20 years ago, and in whose service I spent 11 of the best years of my life.

At our last annual meeting, at Belfast, the subject of the presidential address was the relation of our speciality to the other branches of medicine. To-day, I invite your attention to our relation and duty to the public as regards the causation and prevention of insanity. This is a practical rather than a pathological aspect of our subject, but its extreme importance must atone for the want of purely scientific interest.

During the dark period when insanity was at once the reproach of medicine and the horror of the public, the mere suggestion that the nervous system required wise and watchful care was resented as an insult, because it seemed to impute a liability to mental disorder. Now that insanity is no longer deemed either a crime or a disgrace, there is some hope that the counsels and warnings of the physician may receive greater attention.

The causes and prevention of insanity may well be considered together, for prevention can be intelligent and effective only in proportion as the causes are accurately ascertained and wisely avoided.

The causes of mental disorder group themselves at once into two categories; those arising from conditions in the life-history of the individual, and those entailed upon him by ancestral inheritance. It is too true that both kinds of causes often co-exist, and that the immediate or personal cause is potent only because it has awakened and developed inherited weakness. Still, there are causes so directly personal to the individual, that they must be regarded as sole and sufficient, irrespective of inheritance. The chief causes of this class are brain-injury, brain-exhaustion, brain-anæmia, brain-irritation due to disease in other organs, and organic changes in the brain itself. From such causes, any brain may suffer, and they may induce insanity in persons wholly free from hereditary neuroses.

Brain-injury is a cause often assigned by friends, without sufficient grounds, as the history of a blow or fall seems to them to remove all suspicion of hereditaryness.

Undoubtedly, mental peculiarities, or an entire change of character sometimes follow a blow which has left no outward sign; and it is equally certain that the commencement of organic disease, or of the chronic changes of general paralysis, may date from such an injury.

The mischief produced may be out of all proportion to the apparent severity of the blow, and therefore such injury should never be lightly regarded. On the other hand, it is a mere shot in the dark to assign as the cause of insanity a head-injury sustained some years previously, if it have meanwhile given rise to neither local irritation nor general

symptoms. Distance magnifies the gravity of the injury, and friends unconsciously mislead the physician and themselves in their desire to demonstrate the accidental origin of the disorder.

Brain-exhaustion may follow from continued overwork or incessant worry, if the brain have been denied due rest and sleep. The student, the politician, and the merchant, may alike be victims of brain-exhaustion, in their undue pursuit of knowledge, influence, or wealth.

This is too high a price to pay for anything on earth. Besides, such overwork often defeats its end, for the work of a wearied brain is never the best work of which it is capable. Our powers will bear spurring for a time; but there is a limit, beyond which the effort is fatally exhausting, while the result is woefully inadequate.

The amount of overwork habitually done, nowadays, in all departments of life, by the best and ablest workers, is appalling, and, they pitifully declare, inevitable. They do not seek this overwork for selfish or personal ends, but the work seeks them, and being set to them it must be done. It is done, often nobly done, but the cost is terrible. There is no time for healthful exercise or restful leisure; the happiness of the home-circle, the pleasures of friendship, the delights of nature, literature, and art, can be enjoyed only by snatches; life is an incessant rush to overtake the engagement of the passing minute; the day is too short for its duties, and the night must sacrifice largely of its sleeping hours. The very holiday, if a holiday be taken at all, is often accomplished in like fashion, and a hurried rush to the continent is vainly called rest. This feverish haste has been intensified by the greater rapidity of communication in recent years, and it implies a degree of nervous strain unknown to former generations. Reason and life are often sacrificed in the rush of our high pressure civilisation; and the influence of this civilisation, with its terrible extremes of reckless luxury and woeful want, on the national brain and the national character, is a momentous question. Assuredly it is our province and duty to proclaim that such flagrant violation of the laws of brain-health cannot be perpetrated with impunity, but must entail direful results.

Far commoner than exhaustion from overwork, and far more potent as a cause of insanity, is the irritation and exhaustion produced by excesses in the two most frequent forms of alcoholic and sexual dissipation. The ruin of brain wrought by intemperance, whether in its sudden and fiercer forms or in the chronic delusional conditions to which they tend, is too familiar. Too familiar, also, is the drink-crave, to gratify which, even for a moment, love and honour and truth and duty are all forgotten. This malady, which some would vainly persuade us is but vulgar vice, is often an inherited neurosis, and then belongs to the second category of causes; but often, too, it is the outcome of habitual indulgence, and thus ranks as a personal cause.

A man need not be a drunkard before he can develop insanity or transmit it to his offspring. If he indulge in "nips" throughout the day, or saturate himself with beer, or cannot go to bed without his grog, he is steadily creating constitutional tendencies which will some day develop evil results; and if he crown his sinful folly by giving alcohol to his children, he is preparing for them a double curse. There is no form of foolish indulgence which calls for stronger reprobation than the giving of wine to children. The only folly which approaches it in its evil results is the baneful delusion, that most women need alcohol at their monthly periods. Both these habits but manufacture drunkards, and demand our emphatic condemnation.

Brain-exhaustion from sexual excesses, or from self-pollution, is another fruitful cause of insanity, and it is wholly a false delicacy which hesitates to expose this degrading evil. We know too well how one prurient boy can pollute a whole school with the vice of self-abuse, though we can never know or measure the ruin he may have wrought. We are too often sadly certain that like practices exist in the sex where we expect only purity and innocence, and that they produce sorrowful results in all the protean forms of nerve-instability. We know, too, how the marriage-relationship can be degraded into an excuse for unbridled indulgence, and that such folly or ignorance may wreck the strongest brain.

Society needs plain words about these things, and we fail in our duty if we do not speak them. Especially do we need to impress on parents the duty of wisely informing their children, lest ignorance, or, still worse, knowledge wrongly sought for, prove fruitful of evil.

Brain-starvation, whether the anæmia result from malnutrition or from undue waste, may give rise to mental disturbance, which is, happily, curable by the removal of its cause.

Brain-irritation, due to disease in other organs, may produce insanity, either through nervous sympathy or through disturbance of the quality and regularity of the blood-supply. The occurrence of this secondary insanity often reveals the pre-existence of nerve-

instability. Its treatment and prognosis depend largely, of course, on the disease which has occasioned it.

Lastly, among the personal causes, *organic changes in the brain itself*, of whatever nature, and however produced, may develop insanity, whose symptoms, when thus arising, we can, at best, only try to mitigate.

It may seem as if a large group of personal causes had been omitted. Emotional causes, such as terror, anxiety, and disappointment, seem at first to be purely personal, and therefore to belong to this category. Doubtless, this view is sometimes correct; but, in the majority of cases, these extreme emotions are essentially manifestations of an inherited nervous temperament, without which the insanity would never have occurred. The joys and sorrows of humanity are too familiar and inevitable to develop insanity, except in brains predisposed to it.

An *inherited predisposition to insanity* is assuredly the most potent of all the causes which produce it. Every attack of insanity, however produced, certainly creates a liability to its return; and this acquired tendency is at least as grave a fact in the history of the individual as a predisposition inherited from his ancestors. How this predisposition, whether inherited or acquired, can be managed and modified, is the question now before us; and we could scarcely have under consideration a more important or a more practical subject.

First, and chiefly, we can certainly declare that this predisposition is not a mysterious and fateful doom, haunting and dogging its victim, and sure one day to overtake and overwhelm him. It is a purely physical condition, and loses half its horror when this is realised. We cannot, it is true, fully understand the pathology of nerve-instability; but we know that insanity is only one of its many manifestations, and that it may equally reveal itself in paralysis, epilepsy, and neuralgia, in asthma, diabetes, and hysteria, and also, beyond doubt, in certain types of drunkenness, of crime, and of genius.

The subject of this predisposition should not pretend to ignore it, as though it were a nameless horror or a secret disgrace. The fancied disgrace is a wretched relic of the time when an insane man was deemed something lower than a brute, and was treated accordingly. The civil and social consequences of insanity are doubtless grave, but it no more implies disgrace than any other physical illness. We are all handicapped, in some way or other, for the race of life, and much of our success depends on recognising this from the first and running accordingly.

Supposing the heir to such an inheritance frankly recognises the fact, how shall we counsel him to avert the malady, and how should his life be ordered so as to prevent its development and transmission? It need scarcely be premised that no organ can be in vigorous health unless this be the condition of the organism. It is an axiom in all special treatment, that the general health must be maintained at the highest possible standard.

The first condition of brain-health, as it is the first condition of the health of every organ, is due and suitable exercise. If the brain-work be unduly prolonged or unduly severe, injury must follow. Therefore our imagined patient must not pore unremittently over the merchant's ledger, nor burn the midnight oil in exploring the arcana of science, and we must absolutely debar him from the rivalries of politics and the excitement of the Stock Exchange. Unwonted responsibility, or undue worry, tax him injuriously, and he should work within accustomed limits, and along familiar grooves which habit has made smooth. His ambition must be controlled by prudence, he should be a servant rather than a master, and he should choose the calm and even tenor of a country life, rather than mix in the rush and excitement of a great city.

Relaxation, the exercise to which inclination rather than duty prompts, is essential to him even if he be so fortunate as to find his daily work a daily pleasure. The relaxation should be something unlike his regular work. If possible, it should be in the open air, and should occupy both body and mind. He may, with advantage, become so addicted to it that his friends will smilingly call it his hobby, and he will be wise if he choose as the hobby—though, indeed, hobbies are rather adopted by instinct than selected by deliberate choice—something independent of the changing seasons, and which will not fail him in feeble health or declining years. The relaxation should include, in most cases, frequent short absences from the familiar surroundings and duties of home. An entire change, bringing new scenes, new faces, and perhaps a new language, has a wonderfully renovating power. It makes home more welcome, and familiar duties less irksome if we leave them for a time.

Exercise, whether for duty or for pleasure, implies and procures rest; and for the subject of nerve-instability, sufficient and complete rest is indispensable. His rest should not be more languid laziness, but genuine nerve-repose in sleep. If he can dine early, and sleep for an hour there-

after, he will do most wisely; and his head should be on the nightly pillow at least an hour before midnight. In the evening hours, he should avoid subjects likely to engross or agitate, that sleep be not hindered; or he should change the current of his thoughts before retiring, by such distraction as a book or a newspaper affords. I knew an eminent asylum-physician who habitually took the *Times* to bed, and found a soporific in its columns.

Some men are said to have possessed the invaluable faculty of sleeping at will amid any circumstances and surroundings. The man who could discover this secret, and confer the gift on his fellows, would be one of the greatest benefactors of his race. To seek sleep by the use of hypnotic drugs is rarely wise. It is often but combating the symptoms while the cause continues, and is frequently both futile and injurious.

But exercise, relaxation, and rest, while essential to brain-health, are not everything. Our emotions and affections are the mightiest factors in our lives, and they afford a vast field for the manifestations of nerve-instability. It is in the regulation of our moral nature, and in controlling our fancies, impulses, and passions, by reason and duty, that the hardest battle must be fought.

From whom are the ranks of the insane mainly recruited? Certainly from the men and women whose minds and hearts are untrained and ill-balanced, who are swayed by caprice or passion, who are fretful at every difficulty and envious of their neighbours' good, who are incapable of sustained effort or daily self-denial, and whose lives are thus ill-regulated, changeable, and useless. The access of insanity is often but the ultimate and utter wreck of a vessel without a helm, which has already been many a time damaged by storms of passion on the quicksands of indulgence.

Daily self-control, and wise moderation in all things, should characterise everyone; but they are specially required in one predisposed to insanity, and they must be earnestly cultivated by him till they acquire the blessed ease of habit, and are practised without an effort. An education which has failed to educe or impart these qualities has truly failed, and a life which has failed to teach them has been essentially a life of failure. "Greater is he that ruleth his spirit than he that taketh a city." Too often such qualities and lives are inherited, but too often they are created or aggravated by faulty education and foolish training. To correct the evil, and to foster the good, nothing is so potent as wise training in early years; but it is impossible to speak of education in relation to brain-health without indignation and sorrow; the evils are so great, the remedy so difficult.

It seems impossible, in any national system of education, to do otherwise than have certain standards of knowledge for certain ages of pupils; yet it is utterly unphysiological to assume that all brains are alike and can acquire with equal ease; and unless the rigidity of the system be modified by the wise discretion of the teacher, great hardship and injury must be inflicted. It is, however, among the better classes that the evils of faulty upbringing are most noticeable and mischievous. The boys get early into harness of some sort for the work of life, and find their lessons, and their level, in the rough school of experience; but the girls want this corrective, and it is the future wives and mothers who are chiefly injured. All sorts of knowledge are indiscriminately stuffed into the head, irrespectively of selection, assimilation, or enjoyment: the accomplishments which society is supposed to demand are added regardless of aptitude or inclination; what is showy and ornamental is encouraged, what is sensible and useful is forgotten; and when the young lady is "finished," her character is too often allowed to *form itself* amid a round of frivolous occupations and yet more frivolous amusements. Marriage finds her sadly wanting alike as a companion to her husband, as the head of a household, or as the mother of children; and when, happily for the husband, she misses a dignity for which she is unfit, her wretched training makes her a soured, fretful, resourceless, disappointed being. While we rejoice in the multitude of homes where it is otherwise, we all know that in many cases this sad impeachment is too well founded.

Right feeling and conduct towards others are as needful as due control over our own impulses and desires, if life is to be sane and happy. No man liveth to himself; he could not, if he would; he would be a miserable wretch if he tried. It is needful, therefore, that our patient should have interests beyond himself, and should not live for merely personal ends. Such ends must by-and-by seem meagre to us all, and he of all men needs to lighten his daily life by the feeling that it blesses others as well as himself.

The question of marriage is a grave one in these cases. It is a welcome sign of growing intelligence in such matters, that this question is being put to us with increasing frequency. If the predisposition be but slight, and of remote origin, it seems hard to forbid marriage;

but we can urge that the partner selected should be of calm and well balanced mind, and free from all nerve-proclivities. Unfortunately, excitable unstable folk have an attraction for each other as remarkable as it is unwise. If the tendency be marked, the prohibition should be absolute. It is far better to endure isolation, and to miss the comfort and solace of married life, than to bring sorrow on others, and unknown ills upon offspring. To choose a partner beyond the age of child-bearing is one way out of the difficulty; but choice in these things is guided by feeling rather than by judgment, and love is so blind and persistent, that our wisest counsels are often disregarded.

The chiefest safeguard comes last, for I should be guilty of a fatal omission, and false to my deepest convictions, if I did not regard as the chiefest, faith in the unseen God. The relation of religion to insanity is often misunderstood. When the gloom of a melancholic takes a religious type, what is but a symptom is often regarded as the cause; the case is called religious insanity, and religion is supposed to have produced the disorder. It would be as accurate to regard the imaginary ailments of a hypochondriac as the cause of his condition. Cases certainly do occur in which true religious anxiety has produced insanity; and it would be strange indeed if the subject which is greatest of all, and which stirs the mind most deeply, did not sometimes overwhelm it; but too often this sad result has followed from views of religious truth so false and distorted as to be a libel upon its name. There is no security for conduct, no strength for duty, no support in sorrow to be compared to that which true religion affords. Tempests of trouble will not overwhelm the man who endures as seeing Him who is invisible.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OPHTHALMOLOGY AND OTOTOLOGY.

*At the Annual Meeting of the British Medical Association, held in
Cardiff, July 1885.*

By HENRY POWER, M.B., F.R.C.S.,

Senior Ophthalmic Surgeon, and Lecturer on Ophthalmic Surgery, at St. Bartholomew's Hospital; President of the Section.

ON PROGRESS IN OPHTHALMOLOGY.

It is just 300 years since the first English work on the eye was published, I believe, by Richard Banister, Master in Surgery, Oculist and Practitioner in Physic, though without his name, under the title (*of the Preservation of the Eyesight*). The author of this curious little treatise, which I here show you, and for a copy of which I am indebted to my learned friend, Dr. Aquilla Smith, gives in 23 pages the regimen it was then thought advisable to adopt in order to preserve the sight, together with the chief lotions, syrups, and juices that should be applied to the eye in disease. Its perusal by one familiar with the modern practice of ophthalmology affords a measure of the advances that have been made in recent times, whilst it is interesting to read the singular notions that ignorance and prejudice have engendered, and which are handed down by tradition and half believed, even when the light of a better day has begun to dawn.

In one page, for example, the author declares that "no fish is good;" in another, "that milke and all things made thereof are found by experience to induce dimness of sight;" in another, that "all waterfowle are to be dispraised;" and in yet another, that "of rawe herbs few are to be commended, and these are to be avoided as most hurtful, namely, lettis, coleworts, cabbages, beets, spinage, purslane, buds of dill, garlick, chilbots, onions, skallions, etc.," leaving the reader to wonder what vegetables are left to be consumed in the scanty list of potherbs of that not very distant period. Permission, however, is soon discovered to be given for the use of fennel, eyebright, young sage, and tarragon, none of them particularly attractive to modern tastes, or likely to be indulged in to excess. The only remedies mentioned that are now in use are cubeb and sal gemma, though, perhaps, one or two, as colaudine and vervain, might possess some stimulant and astringent power. An inordinate value is placed upon spices, such as cinnamon, ginger, cloves, mace, nutmegs, capers, and the several kinds of peppers, perhaps because they were then of comparatively recent introduction; but the most important of all domestic remedies in our author's opinion is euphrasia, or eyebright, which,

following Arnoldus de Villanova, he holds to possess miraculous virtues, and to be good any way taken, "either with meate, drinke, or as medicine, green or drie, against all impediments of sight whereby the clearness of the same may be obscured." By the use of wine made with eyebright, "old men's sights are made young, it taketh away the impediments of the sight in all men of all ages, specially in fat men and such which do abound in phlegm."

About 36 years later, in 1622, another work was published by Banister, in which the formerly written small treatise on the *Preservation of the Eyesight* was included, and which professes to be "a worthy treatise of the eyes, containing the knowledge and cure of one hundred and thirteen diseases incident unto them." In this quaint work, much sound knowledge, drawn from classical sources, and illustrated by observation and experience, is mingled with popular errors and absurdities." Thus he says: "The mistaking the use of some medicines spoyle many an eye, as thus, some will put a lowse in the eye, which is good for this cause, used as when the eye is dull, obscure, and dry, so wanteth humours and spirits. A lowse then put into the eye tickleth and pricketh, so that it maketh the eye moist and rheumaticke, and quickeneth the spirits; but, being used to an inflamed eye that hath a flux, it increaseth the flux and inflammation, and so doth much hurt." Thus it appears that this remedy approved itself to his mind as a mode of treatment; only the cases should be judiciously selected.

But, whilst smiling over some of Banister's crudities, his treatise is still, for those who are fond of old books, worth reading. Banister's method of couching—the only operation then known for cataract—though intermingled with some absurdities, is nevertheless essentially sound. Spring, he says, is the best time to undertake the operation, since great heat, cold, or rain are objectionable. Some preparatory lowering treatment should be insisted on; the patient must eat little, and drink water or some other thin drink, for the space of two or three days before the couching is attempted; and, "especially on the day before, his eating and drinking must be of marvellous sobriety." The operation is described as it might be practised to-day, except that the surgeon is directed "to rubbe the right eye with the left hand, and the left eye with the right hand, before he begin his work; or rather, let some child having a very clean mouth chew fenel or aniseed, which, when he hath spit forth, let him breathe upon the diseased part, that by this means the cataract may be made more thin and smaller." In dressing the eye, "a candle should be placed behind the patient, lest the eye be troubled." The occurrence of hæmorrhage into the anterior chamber is noted, and its frequent spontaneous disappearance insisted on. Finally, the suction-method is described; "the eye being pricked with an hollow needle, that by the hollowness of it the humour of the cataract may be raised up and drawn forth."

In the three centuries that have elapsed since the time of Banister, what advances have been made along the whole line, and what a contrast to his little treatise is presented by the valuable compilation, the work of many writers, which was completed a few years ago, and edited by Alfred Græfe and Theodore Simisch! The coarse anatomy of the eye has been thoroughly worked out. A few points only in the microscopical anatomy remain to be settled. Its development, and the causes of congenital defects, have been carefully studied. Its physiological peculiarities have been investigated, and have given rise to a special branch of research in which a close connection between physics and the functional activity of this organ, known as physiological optics, has been created. But specialties within our specialty, departments of our department of surgery have been gradually formed, in which, by practice and experience, such skill may be gained as may prove of infinite service to particular patients, and details in regard to which some reference will hereafter have to be made, if the account of a case is to be complete, though their names still sound strange in our ears, and were all unknown to Banister and the surgeons of his day and the following century. I refer to those inquiries which relate to eidiotomy, or the determination of visual acuity; photometry and photoptometry, which deal with the intensity of light and the response of the retina to varying degrees of light; chromatoptometry, or the reaction of the retina to colours; periophtometry, or the determination of the extent of the field of vision; diophtometry, or the determination of the refraction of the eye; entoptoscopy, or the study of the intra-ocular shadow; optasioscopy, or the response of the retina to mechanical and electrical stimuli; ophthalmotonometry, or the determination of the tension of the globe, so important in the diagnosis and treatment of glaucoma; ophthalmostatometry, or the determination of the relative position of the eyes; ophthalmometry, or the measurements of the diameters of the whole globe, and the size of its several parts; ophthalmoscopy, or the examination of the eye by means of the ophthalmoscope; ophthalmotropometry, or the exploration of the

movements of the eye; and pupillometry, or the measurement of the size of the pupil, all of which are duly discussed in the large treatise now in course of publication by Wecker and Landolt. Many of these subjects are recondite in their nature, and require not only carefully constructed apparatus, but the nicest adjustment of their parts, and the utmost precision in their use, to render them serviceable. The only drawback to them is the time that is required for their application, though it can scarcely be doubted that, if each of these modes of investigation were followed out in every case, many points that are now obscure would become apparent, and our treatment of disease proportionately improved.

It is not, of course, to be expected that each and all of them should be equally familiar to the practitioner, but, in looking forward to the ophthalmic surgeon of the future, if he is to maintain the reputation and position of his predecessors in this branch of the profession, it appears to me that two things will be necessary: first, that he should possess a sound general knowledge of medicine and surgery; and, secondly, that he should have a good preliminary training in physics and mathematics.

No doubt refraction-cases can be treated, and for the most part successfully treated, by men possessing a practical acquaintance only with the rules which determine the adaptation of glasses to remedy certain defects in the form and structure of the eye; but the ophthalmic surgeon, even when the best results have been obtained, is then no whit superior to the opticians, who, much to their credit be it said, by the application of a few simple rules, manage to supply the glasses their customer needs. To place himself on a higher level than they, it is absolutely necessary that he should understand thoroughly, not only the anatomy and physiology of the eye, but the general principles of optics, and this requires an education. It is this education that I would strongly recommend all those who intend to practise ophthalmic surgery to pass through.

But if an adequate knowledge of the principles of physics, and especially of optics, be constantly required in ophthalmic practice, how much more important is it that this branch of the profession should not be pursued as a speciality, without the possession of a broad and sound knowledge of medicine and surgery! Whilst the eye has afforded to pathologists some of the most reliable facts with which we are acquainted in regard to the causes, phenomena, and events of disease, it would be absurd to deny that our treatment of any case must be founded on a correct appreciation, not of the local changes only, but of the constitutional states which engender and modify local disease. Many of the best essays that have appeared of late years have been directed to show the immediate relation that exists between local and constitutional disease, and a knowledge of both is essential to successful results in practice. It is for this reason I hold that no man should commence ophthalmic practice without long preliminary work in general or dispensary practice, or in the wards of a hospital; and I venture to dwell strongly upon it, because I think there is a tendency amongst the younger members of the profession to regard ophthalmic practice as an easy means of obtaining a livelihood, which is at once less troublesome, cleaner, and more satisfactory than any other branch of surgery.

In now turning for a few moments to the recent advances that have been made in our special province, I may, in the first place, refer to the praiseworthy efforts that have been made by Dr. McKeown, of Belfast, and others, during the past year, to diminish the number of cases of blindness from the purulent ophthalmia of new-born children, by disseminating amongst the laity rudimentary knowledge in regard to the nature of the disease, and of the very simple but efficacious means by which its progress may be arrested in its earlier stages. There cannot be a doubt that this disease supplies a large contingent of cases to our blind-schools and asylums, and much might be done to prevent its occurrence if it could be impressed on the mind of the public, that the injection beneath the lids of the child of a weak solution of almost any of the antiseptic substances, such as Condy's fluid, alum, the sulphate of copper or zinc, or even of cold water, several times during the day, or as often as any matter shows itself at the angles of the eye, and the pencilling of the edges of the lid with a little olive-oil to prevent their adhesion during sleep, are all that is required to arrest or to prevent the supervention of an attack of purulent ophthalmia. Some of the foreign ophthalmologists have, indeed, gone a step farther, and have proposed and practised, with remarkable success, intravaginal injections shortly before delivery, whilst others adopt the plan of applying a weak solution of nitrate of silver to the eyes of every infant as soon as born, also with excellent results. Whether, as Dr. McKeown suggests, the poor-law and birth-registration organisation can be utilised for that purpose remains to be seen; but it is certain that, if carried into effect, it would materially diminish

the number of the blind now occupying our infirmaries and charities. In speaking of blindness from this or any other cause, I am reminded of a want that is sometimes severely felt in this country, namely, the absence of any institution for those who are partially blind. The totally blind are well provided for, and it is only necessary to look down the pages of that excellent little manual, *Fry's London Charities*, to see how many portals are open to those who are thus afflicted, where they are taught to employ themselves rationally, to earn in many cases an honest livelihood, and to know that life may still be enjoyed though wisdom be at one entrance quite shut out. From all these advantages the partially blind are almost, if not entirely, cut off. To be able to see to guide themselves about is sufficient to exclude them from most, if not all, the London institutions, and there are many who would well repay cultivation, and who certainly require education as much as those who are wholly deprived of sight.

New remedies are constantly being introduced into practice, some of which take their place as permanent additions to our pharmacopœia, whilst others, after trial, fall into disuse. Within the last few years, we have seen eserine, homatropin, duboisin, jequirity, and cocaine introduced.

Jequirity.—The infusion of the active principle of the abrus precatorius has taken no firm hold of the practitioner in this country; either the cases in which it has been found most useful abroad, granular lids with vascular pannus, are not of so severe a nature, or it has been felt that the violence of its action cannot be controlled; inflammation of the lacrymal sac and sloughing of the cornea have been induced, or other remedies have been found equally effective.

Duboisin has proved painful and dangerous without equivalent advantage. It is different with the others. *Eserine* undoubtedly occupies a high rank in the list of remedies in ophthalmic surgery, and perhaps it may be placed in the same line with atropine and with cocaine. With only these three remedies in his case, the ophthalmic surgeon may do much towards the cure of many ophthalmic affections.

Homatropin is a satisfactory remedy when quick and brief dilatation of the pupil is alone required. When complete relaxation of the ciliary muscle is not wanted to determine errors of refraction, it supercedes atropine.

Cocaine or Cucaine.—The last remedy which has been introduced into ophthalmic practice seems to be of at least equal value with those I have just mentioned. In cocaine, a local anæsthetic has been discovered which abolishes the use of chloroform, with its risks and dangers, in cataract-operations, in all operations affecting the cornea, and in those affecting the conjunctiva alone, and which materially reduces, if it does not altogether remove, the pain of operation on the iris and the muscles of the eye, as well as on the lacrymal apparatus. This is indeed a great boon. Immense as are the advantages of chloroform and ether in preventing pain from being felt, and in maintaining the patient at such perfect rest as will enable the surgeon to perform delicate operations with precision and at his leisure, and to change and modify his proceedings with the exigencies of the case; still these have their disadvantages. A fatal issue in the case of chloroform, when skilfully administered, is, indeed, of extremely rare occurrence, though, on these grounds, for many years past, in all cases requiring operations admitted into the ophthalmic wards of St. Bartholomew's Hospital, in which an anæsthetic was given, chloroform has been selected in preference to ether, and no bad results have as yet occurred.

In the discovery of cocaine, however, a new era seems to have dawned. Since its introduction at the beginning of last year, many of the minor operations have been performed under its influence, and it seems to be admirably adapted for cataract-operations without iridectomy, which can be performed after its application for a few minutes without the slightest pain being experienced.

In relation to the action of this drug, I would desire especially to call attention to the valuable results of an experimental enquiry into its properties, which has just been instituted by Mr. Jessop, of St. Bartholomew's Hospital, supplemented by clinical observation and experience. His investigations have led him to conclude that it acts essentially as a stimulant to the sympathetic system of nerves, in consequence of which it effects dilatation of the pupil, constriction of the blood-vessels, diminution of the intra-ocular tension, enlargement of the palpebral fissure, and protrusion of the eyeball. His observations are of interest as affording an additional link in the chain of evidence proving that the sympathetic system innervates the dilator fibres of the pupil. It has appeared to me that the operations I performed with the first specimens of cocaine obtained, were attended with less pain, and also with less dilatation of the pupil, than those of more recent date. Is this owing to the drug having been less carefully prepared to meet the great demand, or is it due to some variation in

the composition and activity of different specimens, or, finally, is it owing to the circumstance that it produces more anaesthesia in some persons than in others?

Quite recently an interesting communication has been made to the Physiological Society of Berlin, on the influence of two of these drugs on intra-ocular pressure. Grünhagen first, as everyone knows, by means of a delicate mercurial manometer, showed that the pressure in the interior of the eye of a living cat was 26 millimètres, varying with condition of blood-pressure, and that after death it fell to 10 millimètres. He showed, too, that by stimulation of the fifth nerve it could be raised to 200 millimètres. These statements have been supported by other observers, but considerable differences of opinion have existed in regard to the action of the alkaloids. Dr. Holtzke has employed a double manometer, and compared the tension of the eye to which an alkaloid had been applied with that of the opposite normal eye, and from his experiments it appears that eserine produces at first a considerable augmentation of the pressure, and then a reduction of it to a point below the normal. Atropine, on the other hand, first decreases and then augments the intra-ocular pressure.

Iodoform.—Another agent that has proved unexpectedly serviceable in conjunctival and corneal affections, is iodoform, which seems to exert a powerful influence in arresting the purulent discharges that accompany various forms of conjunctivitis, and has been strongly recommended in croupal and blepharorrhagic affections, and in inflammation of the lacrymal sac, the most convenient mode of applying it being in the form of an ointment combined with ten times its weight of vaseline.

In the BRITISH MEDICAL JOURNAL for July 25th, a letter appeared from the pen of Dr. Humphry, of Cambridge, in which he drew attention to the resolution of the Collective Investigation Committee, which insists on the advantages that would result from the establishment of a closer union between that committee and the several sections of the present and future meetings. This resolution runs in the following terms.

"That the Chairman be authorised to write to the Chairman of the Council, expressing the feeling of this Committee that it would be very desirable for the work of the Committee to be associated with the work of the sections of the annual meeting, and that this Committee is desirous of receiving suggestions from the said sections for further inquiries, and of co-operating with the sections in carrying them out."

We must, I think, acknowledge the truth of Dr. Humphry's observations, and admit that there are many points which still require elucidation, and which will probably only be thoroughly cleared up by the combined investigation of the anatomist, the histologist, the physiologist, and the clinical observer, all directed to the same end. Amongst those which appear to stand most in need of collective investigation, and in regard to which we are still waiting for exact knowledge, are the intra-cerebral course of the fibres of the optic nerve, enabling a clear and rational explanation to be given of the puzzling cases of hemianopsia that not unfrequently present themselves in practice. Who will classify for us the causes that lead to sympathetic ophthalmia, and explain why it should occur in some instances, and be absent in others?

Although many interesting observations have been made which aid in the solution of the difficult question of the etiology of sympathetic ophthalmia, there is still wide divergence of opinion in regard to the mode in which the disease is propagated amongst those who are best qualified to judge, a want of agreement that is probably due to real differences in different cases, and, perhaps, also due to imperfect observation. Here, as in some other examples, a settlement of the question will be effected by many converging lines of research, which it should be the function of the Collective Investigation Committee to collate and expound. It is only in this way that it will be ascertained whether it is, as some hold, of a reflex nature; or, as others believe it to be, an inflammation travelling down the optic nerve, or along the ciliary nerves; or, as yet others believe it to be, a disease of a secondary septic nature, either due to the entrance into the system of micro-organisms by injury or disease of the opposite eye, or as a kind of blood-poisoning, the poison being germinated in and by the lesion of the opposite eye. The imperfect state of our knowledge on this subject was rendered manifest in the discussion at the last meeting of the Ophthalmological Society, on the president's ingenious hypothesis that it was a case of blood-poisoning and symmetrical affection.

How much again still remains to be done in regard to the causes which lead to suppurative after operation? Excellent and valuable as the researches and experiments of Professors Leber, Landmann, and others are in regard to this point, there seems to be something wanting in experiments which show that a fragment of iron, steel, or lead introduced aseptically into an anterior chamber of the eye, excites no inflammation, while a fragment of copper, if in contact with the iris,

excites suppurative inflammation, but not if it be fixed in the lens, though it may project freely into the aqueous humour, whilst mercury always excites this form of inflammation.

Who has advanced for us a rational theory of the relative value and functions of the rods and cones? Why should the latter be exclusively developed at the yellow spot; what relation have they respecting to colour and form-perceptions; what is the value of the retinal pigment; and to what circumstance, anatomical or physiological, are we to attribute colour-blindness?

A subject of almost equal practical importance is the etiology and treatment of lacrymal obstructions, which are amongst the most few and the most recalcitrant of ophthalmic diseases. How many cases present themselves in which, after the canaliculus has been divided longitudinally, and a probe of large size passed down the nasal duct, the tears still continue to overflow, owing apparently to the impairment of the muscular action by which the exhaustive or compressive action of the sac is effected?

During the last year or two, various ophthalmoscopes have been made, in which the principle of construction always remaining the same, minor modifications, rendering the instrument more handy or more perfectly adapted to the investigation, not only of the aspect of pathological condition of the eye, but of those less easily recognisable defects which are included under the head of errors of refraction. Amongst these new forms of ophthalmoscopes, I may mention Mr. Cooper's, Mr. Frost's, Dr. Johnson's, Mr. Morton's, and Mr. Benson's.

It has now become trite to say that the general practitioner might often obtain useful hints in regard to the nature and treatment of disease from a careful inspection of the fundus of the eye, even were he unable to recognise the finer gradations of colour, or the more delicate lesions which are discernible by a practised eye. Optic neuritis and hemorrhages are sometimes amongst the earliest symptoms of Bright's disease; similar appearances recognised in the later months of pregnancy might open the question whether it were expedient or not to induce premature delivery, and thus save lives that would otherwise be lost by the supervention of puerperal convulsions. Finally, a study of the fundus of the eye in such affections as whooping-cough, in measles and in scarlatina, in diabetes, in cases of disordered catamenia, and in locomotor ataxy, would be replete with interest, and supply information much needed in regard to the failure of vision in the later stages of, or after recovery from, these diseases in the elucidation of them and many other.

The Ophthalmological Society of the United Kingdom has justified its establishment by the numerous and excellent papers and memoirs that have been read at its meetings, the interest that has been shown in its proceedings by its members, many of whom come from remote parts of the country, our Irish brethren being conspicuous in this respect, by the numbers which are always present, by its animated discussions, and, finally, by the distinguished position of its Presidents, Sir William Bowman and Mr. Hutchinson, both of whom are representatives of the British school of ophthalmology, and have contributed to the advance of ophthalmic knowledge. That our meeting here may emulate, and, if possible, surpass those of the Ophthalmological Society in interest and value is, I am sure, the best wish I can give you, and I propose, therefore, without further prelude, to proceed to the business of the day.

PRESENTATION.—Dr. Robert E. Burges, of Kettering, has been presented, on behalf of the members of the two ambulance-classes (ladies and gentlemen), which were conducted by him during the spring of the year, with a copy of Holmes's *System of Surgery*, in three volumes, and an illuminated card, inscribed: "Presented to R. E. Burges, B.A., M.D., in acknowledgment of his kindness in gratuitously instructing two classes in 'first aid to the injured,' in connection with the St. John Ambulance Association."

THE annual meeting of the Northern Sanitary Association was recently held in the Liverpool Town Hall, Mr. T. Holder, the ex-mayor, presiding. The report pointed out that probably not one person in a hundred had the least idea whether his drains were even in working order. Colonel Wilson, in moving the adoption of the report, spoke of the possibility of cholera reaching this country, and of the importance of having all houses put in a proper sanitary condition. Mr. Clarke Aspinall, in seconding the motion, said the Association was a young one, but it was very promising; it was disinterested, and deserved practical support from the public. The very luxuries which English people had, such as hot and cold water, were frequently the means of bringing sewer-gas into houses. Unless the utmost care were taken by tradesmen in laying down the pipes, the greatest mischief would arise. The motion was adopted, and the meeting shortly afterwards terminated.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PHARMACOLOGY
AND THERAPEUTICS,*At the Annual Meeting of the British Medical Association, held in
Cardiff, July, 1885.*

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THE PROGRESS OF PHARMACOLOGY AND THERAPEUTICS.

THE British Medical Association has now been in existence for upwards of half a century. In this period of time, it has accomplished much that may be contemplated with satisfaction. It has rendered valuable service to the medical practitioner by the diffusion of information through its JOURNAL, and by binding into one united body the great proportion of the medical practitioners of this country, thus giving to the profession a valuable organisation for self-protection and advancement. Above all, it has actively fostered the advancements made in knowledge bearing upon the healing art, and in no more effective manner has it done so than by recognising the differentiation of knowledge, by assigning the consideration of special subjects to departments which have from time to time been instituted. For many years this recognition has been accorded to the subjects of medicine, surgery, and obstetrics; more recently to public medicine, medical psychology, and ophthalmology and otology; and, only last year was there, for the first time, instituted the Section of Pharmacology and Therapeutics, whose second meeting we have now met to inaugurate.

I do not, gentlemen, feel disposed to attach any blame anywhere or to anyone for what may by some be regarded as a tardy recognition of the claims of pharmacology and therapeutics. The administrators of this Association have always most fairly recognised and given effect to the just claims of every subject, and they have admirably reflected the best opinion of our profession. Medicine is a progressive subject. Its special departments have been produced and created by the process of evolution that everywhere marks progress in Nature and in the knowledge of Nature.

In the beginnings of medicine, whether contemplated in primeval time or in coeval time, among peoples who have failed to make any substantial advance in the mental state of their earliest ancestors, therapeutics is found to occupy a position of great importance. It is entrusted to functionaries whose position in the social economy is generally one of great dignity, and it is exercised with the concomitants of the superstition on which it is founded and maintained.

Wherever the civilising influence of knowledge had extended itself, inquiry was originated into the structure of the body, and a prosecution of this inquiry led to the founding of the science of anatomy. The function of structures then engaged attention, and physiology became a science. Observation, in the course of time, revealed alterations in structure in connection with disease, and so morbid or pathological anatomy was evolved. Crude observation, as distinguished from experiment, was in medicine the great means of extending information; and as therapeutics—both surgical and medical—could not cease to engage the chief attention, such observation governed and directed the exercise of the function of healing.

But therapeutics requires for its advancement more than mere observation in disease; and, therefore, it has been that, for many years after anatomy, physiology, and pathological anatomy had attained great and important developments, therapeutics continued to be a vague and unsatisfactory art, veering, like a weather-vane, under the influence of theories propounded from insufficient data; at one time dominated by the absurdities of the doctrine of signatories, and, at other times, by the equally erroneous systems of Paracelsus, Stahl, Brown, Rasori, and others.

A new era, however, was entered upon early in this century, when Bichat and Magendie recognised the necessity for ascertaining the actions of remedies by experiments, and thus founded the science of pharmacology. This science—the science of the action of remedial substances—deals with the changes produced in normal physiological conditions by the influence of substances used as remedies. It con-

cerns itself with the elucidation of the changes, with determining what remedies do. The attaining of this knowledge by clinical observation in conditions of disease is, I believe, a task of insurmountable difficulty. The problems must be studied apart from the complications, and apart from the departures, at present generally unknown, from normal conditions, which are met with in disease. In this manner, the science of pharmacology has been prosecuted since its origin. The results already gained have extended the resources of therapeutics by increasing the number of remedies; and, what is of greater importance, by enabling us to apply remedies with a more definite understanding than before of the nature and limits of the changes which they are able to produce.

But, gentlemen, if, by any further prosecution of pharmacology, an exact knowledge, approximately complete in every detail, should be gained of a considerable number of remedies, shall we then be in a position to apply this knowledge adequately to the cure of disease? There is no shadow of a doubt that we shall gain much; precision will be obtained in administration, errors in selection will be avoided, and probably, in a few cases, successful applications will be possible where the pathological changes are of a simple kind. It would be folly, however, to conceal from ourselves that therapeutics does not depend upon pharmacology alone, however perfect this science may become.

The application of pharmacological knowledge to the cure of disease constitutes a problem which is altogether separate from that of determining the action of remedies. The former, indeed, can only be successfully accomplished when we have ascertained, with some approach to definiteness, what perturbations from normal physiological conditions are present in disease. Pathology, therefore, bears a very similar relationship to therapeutics to that which pharmacology bears—I do not restrict the word pathology to the science of morbid anatomy simply. This department of it has received a remarkable development, and the information now acquired is of great interest and importance. Even the most perfect knowledge of the physical conditions of diseased tissues is, however, only of secondary value to therapeutics. It is necessary that the exact changes from normal functions should be ascertained, and that pathology should determine and gauge the kind and degree of the changes which exhibit themselves as symptoms of disease. Morbid anatomy has hitherto occupied a much larger share of attention than this pathological physiology of which I speak. The evolution of the latter may well be compared with that of one of the two fundamental biological sciences on which it is dependent; and as the development of anatomy constituted the necessary antecedent to that of physiology, so there is every reason to believe that the development of pathological anatomy will lead to a great extension in the subject of pathological physiology.

To the therapist, and, therefore, to the medical practitioner, the progress of physiological pathology is of as great interest as that of pharmacology. In the meantime, neither subject has advanced further than the threshold of its possible development, and, naturally, the benefits which have been conferred by them upon therapeutics are not as yet conspicuously apparent. Their development is, for the most part, wanting even in that equality and symmetry which is required for practical application. In only a few instances can we find that each has made sufficient progress to benefit therapeutics; as, for example, in some of the applications of the pharmacological action of nitrites, or of digitalis, or of several diuretics to the treatment of disease. In many instances, neither has attained the development needed before the greatest good can be conferred on therapeutics; as in the case of our defective knowledge alike of the essential processes of fever and of the pharmacological action of quinia, or of the salicyl-compounds, or of other antipyretics; while, in many other instances, the existing knowledge in the one subject is greater than that in the other, as in the case of the pharmacology of atropia, in whose numerous therapeutical applications the essential pathological changes are still unexplained; and as in the great achievements of physiological pathology in the domain of septic influence, where pharmacology is still unable effectually to aid therapeutics.

However gratifying may be the recent progress of both pharmacology and therapeutics, we cannot pretend that they have reached the position of many other departments of medicine. Far, therefore, from experiencing any resentment on account of their recognition, only last year, as independent departments in this Association, I am grateful for the favour that has been bestowed upon them. I am especially grateful for the encouragement which this recognition conveys to what, after all, are subjects which have obtained but a feeble development contrasted with what I am sure their capabilities must lead to. That yet distant result must be awaited by us with patience, and should be furthered by perseverance and untiring exertion. In

pharmacology alone the work before us is immense. Devoted labour, however, will accomplish much, and we are told,

"No fort so forcible, no wall so strong,
But that continual batterie may rive."

Patience must also be exercised to enable us to avoid the great danger to therapeutics, a desire too hastily to gain results which is constantly besetting us. It has manifested itself in all ages, in a search after specifics—so called—a search which tends to distract from solid work in pharmacology, where the results are certain to be more valuable and more conducive to the ultimate benefit of therapeutics.

My remarks have indicated that I regard pharmacology as one of the means by which the great aim of medicine—the healing of disease—is to be gained. It is an essential means, and it therefore becomes of importance to arrive at some clear conception of the methods by which the investigation of pharmacological problems is best to be effected.

Two methods seem to be open to us. The first I would refer to is that of the study of the effects produced by remedies when they are administered in disease. This constitutes the old method of simple observation. Its results are, unfortunately, too apparently unsatisfactory to require any elaborate criticism. Even when the problems are of the simplest description, fallacies that are destructive to the scientific value of the results can scarcely be avoided. Observations of this kind have been industriously collected for centuries, and therapeutics has, nevertheless, advanced with so slow and tardy progress that it is open to doubt if much real progress has been effected so long as this method alone was followed. The collection of masses of such observations constitutes a development and expansion of this method; but, as my predecessor in the position I now find myself very ably emphasised the objections inherent to it, at the opening of the first meeting of this Section, I shall not do more than refer to it as a method very limited in its value, and open to the objection that it is likely, unless carefully directed, to impede rather than advance the progress of therapeutics, by conferring an appearance of scientific accuracy, which statistical compilations and forms tend to do, upon observations that, separately, are of comparatively little value. I believe, at the same time, that some slight advantage, some trivial progress, as contrasted with the possibilities before us, may be gained by it. The experience of a fairly well trained practitioner may, for example, be of use in establishing the fact that a substance is generally able to produce sleep, or to lower abnormal temperature; and the collection of such experiences may assist in determining the relative value of substances acting in this manner, and of establishing the doses that should be administered of them. But even here, gentlemen, the requirements of therapeutics are only superficially met. Sleeplessness and pyrexia are but manifestations of many descriptions of departure from physiological conditions; they are but symptoms producible by many pathological processes. The exact nature of these processes has yet to be defined by physiological pathology; and it is not probable that each of the abnormal processes leading to sleeplessness, or leading to pyrexia, will be restorable to their normal state by every substance that is capable of producing sleep, or by every substance that is capable of reducing temperature. Here it is that the insufficiency of the method of simple observation in disease becomes apparent. On the other hand, when the essential nature of the pathological processes has been defined, the pharmacologist must be prepared to produce the substance which will restore each perverted process to a state of health; and he will then be able to treat sleeplessness or fever with a definiteness and a hope of success which before were unattainable.

It is knowledge of this description which I understand to be the aim of pharmacology. To obtain it, we must continue that method of research which has founded the science. This, no doubt, is a method of observation, but it is one in which the conditions are more simple and controllable than in observation on human beings, and especially on human beings suffering from disease. Magendie, Bichat, and since their time a host of experimenters, have recognised this as the true and only method by which the knowledge of remedies which is necessary for the cure of disease can be obtained, and I cannot too emphatically state that it is only by this method that we can ever hope to utilise thoroughly the means so abundantly placed at our disposal for placing therapeutics in a satisfactory position. Our object is not a selfish one; every advance in therapeutics results in the common good of humanity. If it be a worthy object to aim at the lessening of suffering, the prolonging of human life, the prevention of premature death, then I say the study of pharmacology by experimental investigation not only requires no apology, but the neglect of this study imposes a heavy responsibility upon those who place obstacles in the way of pharmacological research.

Even now, with a pharmacology and a physiological pathology far removed from the development they are capable of attaining, and, I firmly believe, are destined to attain, therapeutics has gained many valuable acquisitions. It can justly be claimed that physical suffering has been greatly reduced, and it can even be claimed that death may be prevented. There are not a few instances in which the justness of the latter claim may be established.

Let us recall for a moment the condition, familiar to all of us, of a patient suffering from the more severe effects of obstruction to the circulation caused by a cardiac lesion. The cellular tissues of the body, every cavity and structure in which liquid can collect, are occupied to distension with serum; the face is livid; the pulse is irregular, flickering, and so feeble as to be uncountable; the breath is laboured, and only possible when the patient is propped up in bed; the urine has ceased to be produced by the engorged kidneys; and, even to the most unskilled observer, it is obvious that the continuance of life will, in all human probability, be only a brief one. A few doses of digitalis are given, and, should the heart be capable of reacting under its influence, the condition of suffering and danger is, by-and-by, removed.

To pharmacology we are indebted for the knowledge which has led to this striking therapeutical application; and, by further cultivation of this science, in association with pathological physiology, many other similar triumphs will, I am satisfied, be obtained. Judging from accomplished facts, it is possible to proceed further, and to anticipate that, in the future, therapeutics will become as scientific an art as that, for example, of the engineer. We are now able to produce by pharmacological agents definite perturbations in the physiological function of many structures, and each of these perturbations is actually a disease, differing, however, from natural diseases, in so far that the exact conditions are known. By means of other substances, whose action has also been accurately determined, we can restore the perverted functions to the normal condition, and thus cure the disease. We may even proceed further, and by producing perturbations of a kind and degree that would, if unarrested, assuredly result in death, we can administer a substance which will restore these perturbations, also, to the normal condition, and thus we succeed in curing a fatal disease, and in indicating the brilliant possibilities of therapeutics, founded upon the scientific bases of pharmacology and pathological physiology.

Having referred, gentlemen, to the methods of study which are most likely to advance pharmacology, I wish now to make a few observations on the means that suggest themselves to me for the encouraging and furthering of this study. Recognising the important influence exercised on any subject by its position in the curriculum of medical training and education, I would first express the opinion that the time has now arrived when the intimate association which has so long existed between pharmacology on the one side, and pharmacy and the physical characters of remedial substances on the other, should be severed. This has already been done in several teaching-institutions. We in Scotland have effected a sufficient separation in several of our universities; and in two or three of the London schools, in Manchester, and elsewhere, it has also been done. One of the many advantages that is thereby secured is that pharmacology may be taught at a period in study when its facts can be properly appreciated. It deals with perversions of functions produced by active substances, and therefore requires some acquaintance with physiology before instruction in it can be intelligently followed. Another advantage produced by this separation is that pharmacology thereby receives an amount of attention corresponding to its importance, in place of being, as is still too often the case, relegated to a position which is sometimes even inferior to that of the comparatively unimportant subjects of the natural history, physical characters, and chemical reactions of drugs. Pharmacology cannot, I am convinced, be adequately taught before the third session of a curriculum of four years, while its teaching would be inconveniently delayed were it advanced to the fourth session. Its association with therapeutics might, however, be attended with some advantages, and one of the greatest would be the emphasising of the distinctions between the two, as well as of the relation of the one to the other.

In order to further the study of pharmacology, I would also suggest that in every important centre of medical education, laboratories for investigation should be established. In Germany and in France, many such laboratories are to be found, and, in some cases, as in the Universities of Berlin and Strasburg, they are of palatial dimensions and elaborately equipped. If I were to except Manchester, where, I believe, an excellent laboratory exists, and the University of Edinburgh, where we have recently made provision which can compare not unfavourably with that existing in Germany, I am not

aware of any centre of medical instruction in this country where the special accommodation and means for pharmacological research are not of the most meagre description. Every argument, however, that can be urged in favour of laboratories for physiological or chemical research can be urged in favour of laboratories for investigating the action of remedies; and it is to be hoped that this want, which constitutes a reproach to medical science in this country, will be speedily removed.

I have not dealt with therapeutics in the same direct and special manner that I have with pharmacology. Only to-day, it has formed the subject of an able address from my friend Dr. Roberts, of Manchester. It is, besides, obvious that the claims of therapeutics to our best attention require no advocacy. The subject is ever present with us in our daily avocations. For centuries, it has engaged attention in every community. Wherever disease exists, there also the means for curing disease is inevitably brought under consideration. Were we not in this Section to offer to it a congenial home, it would remain, as it hitherto has done, an adjunct of the Section of Medicine. Indeed, it yet appears coy in receiving our attentions, and unwilling to depart from that Section; for I find that a discussion has been arranged on the treatment of acute rheumatism, and that several papers of a purely therapeutical character are to engage the attention of the Section. Such subjects may perhaps, in the future, be properly transferred to our Section. But, gentlemen, as I have already said, a danger may be incurred by prematurely elevating therapeutics to a position of independence. Traditions cling to it which impede its progress, and its growth has been forced by inevitable circumstances. The danger of stereotyping its traditional methods by appearing, in any way, to acknowledge them as sufficient, should not be overlooked. Although it has even now attained to a position of great value to mankind, and of just pride to our profession, it is necessary that it should await the further development of pharmacology and of pathological physiology before it can enter upon the certain and brilliant future of success, which at present is only dimly foreshadowed.

I have not thought it necessary to enlarge upon the present state of pharmacology and therapeutics, by describing any of the more striking advancements made in recent times. Had I thought it necessary to do so, I should, in the case of pharmacology, have made some detailed reference to the valuable results that have been gained by the examination of many substances elaborated by the chemist. I have especially in view the carbon compounds of the aromatic and fatty series; among the former of which, there occur such substances as chloral, butyl-chloral, paraldehyde, iodoform, nitrite of amyl, and nitroglycerine; and among the latter, the salicyl-compounds, quinine, kairine, and antipyrine. Chemistry has also succeeded in reproducing in the laboratory, substances with which we are familiar as natural products. Such substances, for example, as conia, caffeine, and theobromine, can now be synthetically produced, and success has nearly been obtained by Ladenburg in producing atropia, in the course of his classic research on the chemistry of the mydriatic substances. The time may arrive when Nature's products will be supplanted in our organic materia medica by the creations of the chemist.

A reference to our programme renders it unnecessary also that I should describe any of the more recent advances in therapeutics. The discussion on Anæsthesia will serve to remind us of one of the greatest boons which modern research has conferred upon humanity. The value to therapeutics of instruments of precision to guide us in applying remedies will be illustrated by the teachings of the sphygmograph during their administration. The great therapeutical acquisition gained by the process of hypodermic injection will be amply acknowledged during the discussion on the paper which we are promised on this subject. The alleviation produced in some of the most painful and distressing of diseases by the nitrites, and the conspicuous therapeutical effects of digitalis and its substitutes in certain cardiac diseases, and in the toxæmia resulting from defective renal excretion, cannot fail to be brought under our attention in the consideration which will be given to these subjects.

The programme which has been arranged for us will, I am confident, amply justify the institution of this Section. I trust that our proceedings may also afford encouragement and incentive for further work, designed to aid in the advancement of the great object which we together aim at—the conquering of disease by increasing the therapeutic resources of practical medicine. We are, indeed, fortunate in being able to advance this object by engaging in pharmacological and therapeutical investigations, which are in themselves of the highest interest, and which derive an additional attraction from the assurance that every acquisition we may succeed in gaining enlarges the opportunities for diminishing suffering, and for conferring benefit upon our fellow-men.

FIFTY-THIRD ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in CARDIFF, July 28th, 29th, 30th, and 31st, 1885.

FIRST GENERAL MEETING: TUESDAY, JULY 28TH, 1885.

THE first general meeting was held in the Town Hall, Cardiff, at 3 P.M., on Tuesday, July 28th.

The chair was taken by Dr. J. CUMING, President for 1884-85.

The minutes of the last annual meeting and of two special meetings were taken as read (having been published in the JOURNAL), and confirmed.

ADDRESS OF RETIRING PRESIDENT.

Dr. CUMING said: Gentlemen, the period has now arrived at which it becomes my duty to lay down the office to which you elected me a year since, and to return you my most sincere thanks for the honour which you then conferred upon me, and for the generous assistance and consideration which I have received in my endeavour to fulfil the duties which that honour entailed. In bidding you farewell as your President, I have nothing but words of encouragement to utter. The success of the Association may be in some degree measured by its numbers, and it is a matter of great satisfaction to find that there are no indications of its onward progress being arrested; on the contrary, the tide of its prosperity seems to rise steadily higher. It is also alike gratifying in the present, and hopeful for the future, that the work of the Association is being carried on with increasing vigour and efficiency in the intervals between the annual meetings. In the vigilant care exercised in the interests of the public as regards legislation; in the prosecution of collective investigation—a work so eminently, I might almost say so exclusively, our province; and in the fostering and encouragement of original research, the year which has passed can show a record of activity which has not been previously excelled. I look with especial pleasure to the increased assistance which is being afforded to scientific inquiry, because, among our aims, the advancement of medical science ought to occupy a place not less prominent than the interchange of thought—the promotion ought to be considered as well as the diffusion of knowledge. It has always seemed to me to be appropriate and fitting that this great professional organisation should be conducted in a spirit akin to that with which the action of the individual professional man should be inspired; that it should risk its success, not in striving after general or striking impressions on the public, but in doing its proper work, steadily, perseveringly, unostentatiously, sure that its objects will be best attained, and its rewards most surely reaped, not by loudly asserting its claims to public consideration and importance, but by giving practical evidence of its title to be regarded as a source of benefit to the community. Gentlemen, the visits of the Association to Ireland are sufficiently rare to make each of them deserve more than a passing mention. If they are unfrequent, I have reason to believe that they are to be reckoned among those which have left the most agreeable recollections in the minds of those who have been present at them. In Dublin and in Cork ample proof was given, if proof had been needed, of the high standard of qualification attained by the members of the profession in Ireland, of the warm interest which they take in everything concerning our art, and of their appreciation of the tie of brotherhood which unites all engaged in the same scientific pursuits. I hope that the more recent meeting in Belfast has in some additional degree tended to draw us all more closely together, to promote a better knowledge of each other; and to bring about what, in my mind, is certain to follow from a better knowledge, a greater mutual respect and regard. It was to me a deep satisfaction to share, even in a small degree, in the pleasant labours which that meeting entailed, and to witness the cordial spirit of co-operation which was evinced by every one. And now it only remains for me to resign the chair to one who is in every respect worthy to occupy it, whose character and abilities have earned for him the confidence and esteem of his brethren and of the important town in which we are assembled; and under whose guidance we are commencing what I have no doubt will be an interesting and successful meeting. Permit me to offer to one and all, President and members of the British Medical Association, my heartiest good wishes.

The chair was then taken by Dr. W. T. EDWARDS, President for 1885-6.

Vote of Thanks to Dr. Cuming.—Mr. MACNAMARA (London) moved: "That the cordial thanks of the Association be given to Dr. J.

Cuming, who, with firmness and geniality, so ably performed the duties of President during the past year, and that he be elected a vice-president of the Association."

No one, he said, could have surpassed Dr. Cuming in the firm yet genial manner with which he had conducted the business of the Association during his tenure of office, and none of those who attended the meeting in Belfast would forget the kind, hearty, and hospitable manner in which the President had received the members. As a vice-president of the Association, Dr. Cuming would continue to render it valuable service by giving it the benefit of his extended experience and advice.

Mr. WHEELHOUSE (Leeds), in seconding the motion, said that, ever since the meeting in Belfast, he had been anxious that some cordial expression of gratitude should be given, on the part of the Association, to Dr. Cuming for the admirable manner in which that meeting had been conducted. The great success of the meeting was largely attributable to Dr. Cuming's excellent leadership, and he was sure that the members generally would desire heartily to acknowledge their sense of the value of his services.

The motion was unanimously agreed to.

Dr. CUMING said he felt deeply touched by the words of eulogy uttered by Mr. Macnamara and Mr. Wheelhouse. He accepted with gratitude the post of vice-president, but he did not need that distinction to make him take a warm and abiding interest in everything that concerned the honour and efficiency of the Association.

Report of Council.—The Report of Council, which was printed at page 170 of last week's JOURNAL, was taken as read.

Dr. B. FOSTER, President of the Council, moved,

"That the report of the Council, together with the financial statement for the year ending December 31st, 1884, be received and adopted."

It was not necessary, he said, to refer to the last annual meeting. A fitting tribute had been paid to the efficiency of their late president, and to the hospitality shown to the members at Belfast. They looked forward to an equally successful meeting in Cardiff, and also next year in Brighton. The first important subject alluded to in the report, was the constitution and organisation of the Branches. The members were strongly recommended to develop the activity of the Branches, and he hoped that the recommendation would be generally followed. There could be no greater mistake than to suppose that power was centralised in the hands of a few. Every Branch sent its representatives to the Council, in proportion to its numbers, and if it were an active Branch, it would instruct its representatives on all questions of medical policy. It was a commendable custom for representatives to give an annual account of their stewardship, so that the members might know what the Council had been doing, and that the Council might, in its turn, get the benefit of the healthy opinion of the members expressed at the meetings of the Branches, colonial as well as English. In regard to finances, it would be seen that the Association had been saving a considerable sum of money every year. As to the wisdom of the step taken by the Association in printing its own JOURNAL, he thought that the accumulated sum of £20,000 was the best answer that could be given to any criticism on that point. The Council, however, had again gone into the matter most carefully, and the result had been embodied in the following resolution:

"After a most careful consideration of the various estimates and elaborate calculation of the auditors, the Council are unanimously of opinion that, from a commercial point of view, the Association has been largely the gainer by undertaking its own printing and publishing."

The gentleman who moved that resolution was one of the most acute critics of the course adopted, and had for some time doubted its expediency, but he had been convinced by the thorough investigation that had recently taken place. With reference to the proposal to extend the premises of the Association, after the paragraph in the last annual report adopted at Belfast, the Council had no option but to give its careful consideration to the question. Any one visiting the present premises would see that the Association really had not room enough for the work it had to carry on, and that the want of space was injurious to the persons employed. The main profits of the Association were derived from the JOURNAL, and, as a matter of business, they ought to provide suitable premises. The cost of the production of the JOURNAL was more than the amount of the subscriptions; but the advertisements brought in money enough to enable the Association to put by over £2,000, and also to spend £150 or £160 a year in the promotion of scientific research. As a matter of policy, they ought to have a building which should be worthy of the Association. At present it had no objective existence, such as was possessed by the College of Surgeons and the College of

Physicians. It was only known as having a shop in the Strand, and that was not a fitting position for a medical association numbering 12,000 members, the largest medical or scientific organisation that the world had ever seen. The Council was obliged to go across the Strand to Exeter Hall to hold its meetings. It would be far more dignified to have a suitable home for the Association, where the meetings of the Council could be held, and where the members would find a reading-room and a place of call. Such a rendezvous would be a great benefit, not only to the Association, but to the entire profession. In supporting the proposal, the members, he believed, would be doing a good work, and they might trust to the honest intentions of their representatives that, in carrying out the resolution, they would do nothing to imperil the prosperity of the Association, whose interests were intrusted to their care. With regard to the question of homœopaths, a vote of the various Branches had been taken, and it had been generally agreed that it was unwise to disturb gentlemen of that persuasion who were already members of the Association, and also that it was undesirable to elect any others. That was the result of the report, and it would no doubt guide the Council and the Branches in their action with reference to the admission of members in future. The proposal to enlarge the number of persons required to convene a general meeting would, he had no doubt, commend itself to the sense and justice of the members, the Association having become so much larger than it was. With regard to the appointment of committees by the general meeting, legal advice had been taken, and it had been unequivocally stated that such appointments could only be made by the Council. It was obvious that if there was a representative council entrusted with the policy of the Association, and, at the same time, a committee chosen by the members which could act independently of the Council, it might so happen that the committee would take one view, and the Council another, and in case of divided action, a definite conclusion could only be arrived at by appealing to the general body of members. He hoped that things would be done in such way that the Association would have one policy, and support that policy with all its might. To that end the executive body should be entrusted with the power of carrying out the policy decided upon. When the Council ascertained that the committees had been illegally appointed by the general meeting, it asked them to allow themselves to be reappointed by the Council, and to report from time to time what they were doing, so as to secure the desired unity of action.

Mr. POWER (London), in seconding the motion, expressed his satisfaction at the increased sum devoted to scholarships, and at the result of the course adopted by the Association in taking the printing of the JOURNAL into its own hands. He also agreed in the desirability of providing a suitable home for the Association, and hoped that the new building would be sufficiently large for its requirements. Everything had a tendency to enlarge, as was illustrated in the fact that, when the Colleges of Physicians and Surgeons a year or two ago had plans laid before them for a new building for their conjoint examinations, arrangements were made for the simultaneous examination of 300 or 400 men; but within the last few days, when the delegates from the Colleges met, it was found necessary to provide for 600 or 700 men.

Mr. GEORGE BROWN (London) complained that the attendances of the members of the Council had not been laid before the general meeting. As to the Council's view that the Association had been a gainer by taking over the printing of the JOURNAL, he hoped that the members would not be expected to endorse that view, no calculations having been laid before them to enable them to form an opinion upon it. His own view was that printing could generally be best done by those who had made it the business of their lives. If the Council continued to carry on the printing business, no doubt the present premises would have to be extended; but he questioned whether the Association was strong enough to be justified in expending such large sums in building as appeared to be contemplated.

Mr. BRINDLEY JAMES (London) supported the proposal to provide suitable premises for the Association, especially for social purposes.

Mr. DIX (Hull) said that certain members of the Council were unwilling that the question of new premises should be brought before the general meeting. He had consulted his own Branch on the subject, and the utmost astonishment was expressed at the amount of money proposed to be expended. Possibly, there was profit to be made by the printing business; but, surely, they were gathered together for far other purposes than printing a journal. All the calculations of the saving to be made had been based on the rental of the present premises—about £300 a year. It was now proposed to spend £15,000 on a site, and another £10,000 would no doubt be wanted for a building—amounting altogether to £5,000 more than all the realised profits of the Association. He quite concurred in the sugges-

tion to have a home for the Association; but a social club and a printing-office were incompatible. If they spent large sums in an expensive building for printing the JOURNAL, all the profits would soon vanish, and the Association would be in debt. He would therefore propose, as an amendment,

"That, in the opinion of this meeting, it is not desirable to determine to expend a very large sum of money on printing-premises, but that the Council be requested to consider the whole question."

Dr. BAMPTON (Plymouth) seconded the amendment. It might, he said, be taken for granted that the printing-premises should be extended; but why go to the Strand or the City? Suburban premises would be much cheaper, and equally suitable. They could be obtained for £3,000 instead of £15,000. Country members would not object to take a hansom to go to the suburbs. Metropolitan members might perhaps find it inconvenient, but their convenience was not worth £12,000. Property in the suburbs, too, would probably increase in value, while the value of City property would remain stationary.

Mr. HUSHAND (Bournemouth) said that similar arguments were used when the Association left its old premises and went into the Strand—a step which had more than realised all the expectations that had been formed of it. One fact alone had very recently surprised the Treasurer when he heard of it—that the sales of the JOURNAL over the counter had increased from £150 to between £800 and £900 a year. The advertisements also had doubled. If the JOURNAL was to be continued, it should be conducted on commercial principles. If it had not been so conducted, the Association would not have had a farthing to spend on scientific purposes. The size of the JOURNAL had been doubled, and for the guinea subscription it was supplied to every member of the Association. There had been no attempt at concealment in the matter of the new premises, except in regard to the particular site, which, if it had been mentioned, would assuredly have gone up in price. He believed that for about £350 a year a most eligible site could be obtained; and for £3,000 or £10,000 offices could be erected that would be a credit to the Association and to the profession. As to the printing of the JOURNAL, the Council had consulted experts on the matter, who had distinctly stated that the work could not be so cheaply done by private printers. It would not be a credit to the Association to have its offices inspected by a sanitary authority. For editors, clerks, printers, and others, the present premises were totally inadequate. The whole matter had been carefully investigated by men who had no private objects to serve, and who, in recommending the change, only desired to promote the interests of the Association.

Dr. GRIFFITHS said that if, as had been stated, there was no profit on the sale of the JOURNAL, there was no reason for congratulation in the fact that the sales over the counter had increased. He agreed that, if the premises were removed, the Association should go to the suburbs, instead of to a gloomy and expensive locality in the city.

Dr. GRIGG (London) said that he had originally regarded the printing of the JOURNAL by the Association as a mistake; but since he had been on the Council he had, after careful inquiry, altered his views on the subject, and he now believed that they were great gainers by the change. The same result, he thought, would follow from the proposed extension. They might get an excellent position, and stand rent free by letting a portion of the premises.

Dr. WATERS (Chester) said he did not think that the success of the financial management of the Association could be paralleled by any similar body. They had money to spend and they ought to spend it, not in promoting the social comfort of the members so much as in promoting the real interests of the Association and profession. Was it reasonable to expect the advantages of a club for a guinea a year? Some members proposed to go to the suburbs, and perhaps the next suggestion would be that lawn-tennis grounds should be provided. He strongly opposed the amendment, believing that the proposed extension would prove to be a judicious stroke of business.

Dr. JACOB (Dublin) said that he had himself spent a large sum in the purchase of machinery and type for printing purposes, and, after an experience of five years, he was very happy to lose £600 by selling his plant, and then printing by contract. He had never ceased to congratulate himself on the change. He did not believe in amateur dabbling in printing. He supported the proposal of a suitable house for the members, but opposed the expenditure of money on a printing speculation.

Mr. G. BROWN (London) supported the amendment, and said he objected to sinking all the funds of the Association in bricks and mortar. He hoped that the proposition would be withdrawn for the present year, so that it might be ascertained whether suitable premises could not be obtained by hiring. He moved that the discussion be adjourned to the evening meeting.

Mr. J. BRINDLEY JAMES seconded the proposal for adjournment, which was opposed by Dr. B. FOSTER, and negatively by the meeting.

Mr. J. CORNWALL (Fairford) suggested that the question be deferred till the next meeting, in order that the Branches might have an opportunity of expressing an opinion upon it.

Dr. B. FOSTER, in reply, said there was no desire on the part of the Council to spend all the money of the Association in building. They wanted to get premises sufficiently large to carry on a profitable business, to promote the convenience of the members, and to furnish accommodation for the meetings of the Council and of committees of the Association. He thought that the Council, who had accumulated £20,000, might be trusted to carry out a suitable scheme. It would be difficult to consult all the members on the subject. If a general meeting were called, probably only 300 or 400 members would attend, and it might be said that such a number was not large enough to settle the question. A complaint had been made that the attendances of the members of the Council had not been given. It had been decided to print them in the Daily Journal on Thursday, in order to include the Council meetings held in Cardiff, without which the list would have been incomplete. With reference to the printing question, he would give a few figures from which the members could draw their own conclusions. In 1878, the Association made a profit of £769. In 1879, when it took the printing into its own hands, the profit was £2,311, and it had ever since gone on accumulating at the same rate. Experts had been consulted on the subject, and a member of one of the most eminent firms in London had said to them, "I am bound to say, in opposition to my own interests as a man of business, that you are doing better than I could do for you." He would put that against the unfortunate experience of Dr. Jacob. It had been said that the question had not been mooted in the Branches. He (Dr. Foster) had spoken on the subject at meetings of four or five Branches (Gloucester among others), and the Treasurer had consulted the Metropolitan Counties Branch, the largest in the kingdom. There had been no attempt at concealment, except (for obvious reasons) in regard to the particular site suggested. As to the proposal to go to the suburbs, it might be all very well to have a club-house for the comfort of the members; but the question was mainly one of business. What would be said if it were proposed to remove the *Times* office to Richmond, or the *Daily News* to the pleasant glades of Hampstead Heath? As a matter of business, it would be found impossible to conduct a newspaper in those localities. As to the cost of the JOURNAL not being met by the subscription, that, of course, might not be the case if the circulation were increased. It might not pay to produce 500 watches at £2 10s., but there might be a profit on five million. With regard to the particular locality to be selected, no site in the Strand had been chosen, and probably they would have to go elsewhere. They hoped to get a long leasehold for 80 years, at a rent of £300 or £400 a year, on which they could put up tentatively such premises as were required, with rooms for meetings and a reading-room for members. No scheme would have any support from him which was not founded on the strictest business lines.

The amendment was then put, and rejected by a large majority, and the motion for the adoption of the report was carried, with only two dissentients.

The meeting was then adjourned, and the members reassembled at 8 P.M.

President's Address.—The President, Dr. EDWARDS, delivered an address, which is published at page 185.

Dr. STRANGE (Worcester) moved that the best thanks of the Association be given to the President for his interesting and instructive address.

Dr. WM. ROBERTS (Manchester) seconded the motion, which was carried by acclamation.

The President briefly acknowledged the compliment.

Vacancies in Council: Amended By-law.—Dr. FOSTER said that some difficulty had arisen with regard to the filling up of vacancies on the Council occasioned by death, retirement, and acceptance of office. In order to remove it, the solicitor had suggested the following new by-law, the adoption of which he (Dr. Foster) now moved:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative in respect of whom such casual vacancy may have occurred would have retained the same."

Dr. BRIDGWATER (Harrow) seconded the motion, which was agreed to.

Payment of Representatives of Branches.—Mr. DIX (Hull) moved, pursuant to notice,

"That the railway fares—first-class return—of representatives of Branches who attend the meetings of the Council, shall be paid from the funds of the Association."

Having so recently dealt with the matter in the JOURNAL, he said it was unnecessary to repeat the arguments he had brought forward. His main point was, that those who were appointed to transact the affairs of the Association, should not be put to unnecessary expense in doing so.

Mr. VINCENT JACKSON (Wolverhampton) seconded the motion. Dr. WARD COUSINS (Southsea) proposed that the resolution be considered that day six months. The resolution, he said, had been brought forward by Mr. Dix at the last meeting of the Council, but it did not even meet with a seconder; and he thought that, under those circumstances, it was undesirable to bring the matter forward at the annual meeting. A subcommittee had been appointed to consider the organisation of the Branches, and such a matter of detail might well have been left to the Committee. No Branch had applied for the payment of the expenses of its representative. Another argument against the proposal might be found in the presence, that day, of a representative from the Jamaica Branch. Every colonial and Indian Branch might send a representative to the Council, and would it be suggested that his travelling expenses should be paid by the Association?

Dr. JOSEPH ROGERS (London) said that if third-class fares had been proposed, something might have been said for the resolution, but he thought that first-class fares ought not to be paid out of the funds of the Association.

Dr. GRIGG (London) said that a circular had been sent to the Branches, asking their opinion on the subject. Only one thought that the proposal to pay railway-fares might be adopted; but nine-tenths of the Branches would not agree to it on any terms. After such an expression of opinion, he thought that it was wasting time to discuss the matter year after year.

Dr. PHILLIPPO (President of the Jamaica Branch) said that that Branch did not desire the payment of its representative's expenses. The colonial representatives were only too happy to be permitted the honour of attending the meetings, and participating in the important work of the Association.

Dr. EYTON-JONES (Wrexham) said that he had on former occasions opposed Mr. Dix's proposal on the ground that it was the pride and happiness of every member of the profession to labour for its interest without fee or reward, just as a Member of Parliament took pride in working for the interests and glory of the empire. He had himself, for many years, been in the habit of travelling nearly 200 miles to attend the meetings of the Council, and he had felt amply rewarded in the sentiments expressed by his Branch at his going at his own expense to take a humble part in the management of the Association.

Mr. DIX, in reply, said he did not propose the payment of any "fee or reward" to the representatives of the Branches. As to the attendance of a representative from Jamaica, that gentleman would, under the proposed rule, be only entitled to his "railway fare."

The amendment of Dr. Ward Cousins having been withdrawn, the motion was put and negatived by a large majority.

Qualifications of Representatives of Branches.—Mr. GEORGE BROWN (London) moved, pursuant to notice, the following alteration in By-law 17.

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

It was evident, he said, from the returns of the Council attendances, that the interests of the Branches could not be well cared for. If his resolution were adopted, distant Branches could elect a representative in or near London, in which case the payment of expenses would be avoided.

Mr. BRINDLEY JAMES seconded the motion.

Mr. HUSBAND protested against any system which would give a preponderating influence in the Council to London men. That would be the result of the adoption of Mr. Brown's proposal, which would destroy the balance which should exist between London and the provinces.

Mr. WHEELHOUSE said that Mr. Brown's proposal had been defeated by large majorities on two previous occasions, and he believed that the members would be acting wisely in enforcing their previous decisions.

The motion was then put, and rejected by a large majority, two hands only being held up in its favour.

SECOND GENERAL MEETING: WEDNESDAY, JULY 29TH.

Dr. EDWARDS, President, took the chair at 11 A.M.

Council for 1885-86.—Mr. FOWKE read the names of the Council for 1885-86.

Place of Meeting in 1886: President-elect.—Dr. B. FOSTER said that the new Council had held its first meeting that morning, and one of its first duties had been to consider the place of meeting for the next year. An invitation had been received from the medical profession at Brighton, and also from the Brighton Corporation. The Association had been disappointed on a former occasion when it had arranged to go to Brighton, but he had no doubt that they would be amply compensated by the cordial reception they would receive on the occasion of their next year's visit to that attractive town. He begged to move "that the invitation from the medical profession and from the Corporation of Brighton to hold the annual meeting of the Association there in 1886 be accepted, and that Dr. Withers Moore be appointed as President-elect." Those who knew Dr. Withers Moore personally would, he was sure, rejoice at the selection that had been made by the practitioners of Brighton, and everyone who attended the meeting under his presidency would go away glad and happy that such a choice had been made.

Mr. MACNAMARA (London) seconded the motion, which was carried by acclamation.

Dr. WITHERS MOORE said his grateful acknowledgments were due to the members for the handsome manner in which they had elected him as President for the year 1886, and also for the acceptance by the members of the Brighton invitation. He did not propose to inaugurate his year of probation by paying his kind friends at Brighton the poor compliment of depreciating their choice; the members would have to take him for better for worse. But, in looking over the list of the names of the illustrious men who had occupied the chair in past years, he was somewhat appalled at his temerity in venturing to accept such a position. Although, however, it was not given to him to hope to emulate the example of the eminent men who had preceded him, he yielded to none of them in earnestness of purpose, or in the sincere desire to do his duty as President of the Association. He would certainly have the advantage of being surrounded by able heads, willing hearts, and liberal hands. They had chosen as their chancellor of the exchequer a gentleman well known in the Association, one who, in conjunction with Mr. Ernest Hart, Mr. Husband, and others, was mainly instrumental in placing the Association in its present satisfactory financial condition. They did not expect him (Dr. Moore) to bring about so good a financial result in regard to the meeting at Brighton; but he hoped that he would not tax their forbearance too much. If, at the end of his term of office, he secured to them the good opinion of their fellow-members, they would be well repaid for any trouble and expense to which they might be put. He hoped that the Brighton meeting would be a success, and that he himself might leave the chair with its honour unsullied and its dignity unimpaired.

Mr. E. C. BABER (Brighton) expressed his gratification at the reception of the Brighton invitation, and at the choice of Dr. Withers Moore as President-elect.

Address in Therapeutics.—This was delivered by Dr. W. ROBERTS, of Manchester. It is printed at page 188.

Dr. CHADWICK (Tunbridge Wells) proposed a vote of thanks to Dr. Roberts for his address. He (Dr. Chadwick) was perhaps the oldest lecturer on therapeutics in the room. More than forty-five years ago he delivered his first lecture on the subject; and, when he contrasted the material then eliminated in a series of 100 lectures with the lecture just delivered, he was lost in admiration at the progress that had been made in that department of science. He hoped that the members would not forget the pregnant suggestion that every stomach differed from every other, and that each patient therefore required special treatment. That view opened up an immense field of inquiry, and would, no doubt, lead the members to be their own experimentalists.

Dr. CUMING (Belfast), in seconding the motion, said that Dr. Roberts, not content with presenting a review of a subject, or a portion of a subject, had given an important addition to their knowledge of dietetics. The union of breadth of view with minute accuracy of detail, exhibited in the address, formed the highest type of medical work, and deserved the grateful acknowledgment of the members.

The motion was unanimously adopted.

Dr. ROBERTS acknowledged the vote of thanks, and the proceedings closed.

THIRD GENERAL MEETING: THURSDAY, JULY 30TH.

Amendment of Articles of Association.—The Articles of Association 13 and 15 were amended as proposed, subject to approval of an Extraordinary General Meeting to be held on August 14th. In future, instead of 50 members, 100 will be required to affix their signatures to any requisition for a General Meeting.

The Reports of the Parliamentary Bills and the Medical Reform Committees were received.

The Address in Surgery was delivered at 11 A.M. by Professor J. MAESHALL, F.R.S., and will be published in the next number of the JOURNAL. A vote of thanks was proposed by Mr. ERICHSEN, seconded by Professor BENNETT, and unanimously adopted.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

TOZER'S AMBULANCE STRETCHER.

THE ambulance-stretcher, of which a drawing is given, was designed by Mr. Superintendent Tozer, chief of the Birmingham Fire-Brigade, and commends itself by its simplicity and cheapness. The apparatus

TOZER'S AMBULANCE STRETCHER,

PRICE 30/-

SALT & SON, BIRMINGHAM.



is light, and easy of adjustment, the size and weight being printed on the diagram. The price is 30s., and Mr. Tozer has placed his idea in the hands of Messrs. Salt and Son, Corporation Street, Birmingham. The section-diagram shows the method of folding and unfolding the stretcher.

THE case of Gerhardt v. the Great Northern Railway, remitted from the Queen's Bench Division of the High Court of Justice, came on for hearing at the Middlesex Sheriff's Court last week, for the purpose of assessing the amount of compensation to which the plaintiff was entitled for serious bodily injuries he had sustained in an accident received in the Canonbury Tunnel accident in 1881, alleged to have been caused through the negligence of the defendants' servants whilst he was a passenger in one of their trains. In the result, the jury assessed the damages at £4,000. Replying to Mr. Archibald, the Under-Sheriff said he should certify for a special jury, but he had no power to grant costs on the higher scale.

DR. McALDOWIE was entertained at a complimentary dinner, on Friday evening last, by the members of the Stoke Centre of the St. John Ambulance Society. Dr. McAlldowie is to be congratulated on the successful results of his teaching. Out of 32 candidates prepared by him for the examination, which was held on May 8th, no less than 29 have obtained certificates.

BRADFORD INFIRMARY.—The following appointments have been made for a term of ten years. *Physicians:* W. Alexander, M.D.; Herbert C. Major, M.D. (in place of the late Dr. Tibbits). *Honorary Medical Officers:* J. H. Bell, M.D., and D. Goyder, M.D. Mr. T. C. Denby has been appointed Surgeon, in place of Mr. Henry Meade, who has completed his second term of ten years.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 1st, 1885.

THE MEETING AT CARDIFF.

THE fifty-third annual meeting of the British Medical Association, which commenced on Tuesday last at Cardiff, has fulfilled very completely the agreeable anticipations which had been raised as to its success. The Association had not met in Wales since 1853, when the number of members, by a curious coincidence, exactly corresponded with that of the numerals indicating the date of the year. The Association was then in a somewhat languid condition; its annual increment being about 20 or 30. There was a Branch for Monmouthshire and South Wales; this, however, subsequently collapsed, but has since been revived, and is now a most vigorous, and, intellectually as well as numerically, a powerful society. The JOURNAL had, in the beginning of the year, been transferred to London, but was struggling for its existence. The contrast and retrospect are satisfactory, and they leave us full of respect for the courage and earnestness of the earlier workers, who fought onward under much difficulty, with but little encouragement, and with almost imperceptible progress during a long series of years.

Cardiff itself is a striking example of rapid growth attending enterprise and activity. It is a town which has exhibited an almost American speed of progress. The glens which were, not many years since, the haunt of the cuckoo—Cogan—now constitute a closely built suburb, of which every street testifies to the prosaic but valuable results of a great mineral and shipping trade, developed within the last half-century.

The profession of Cardiff and South Wales have shared in the general prosperity of this part of the principality, and have led the van in scientific and sanitary progress. Cardiff and Swansea are exposed to special perils, by the nature and rapid growth of the seafaring and labouring population; and by their frequent and close maritime connection with Spain, they are at this moment peculiarly exposed to the importation of the epidemic now raging in the Iberian Peninsula. Dr. Paine and Mr. Dyke are two among the best known medical officers of health; and the success with which the dangers to which we have referred may be averted will be largely in proportion to the extent to which the counsels of these able sanitarians are followed, and their behests fulfilled.

Dr. Edwards, the President, in his exceedingly able, well arranged, and suggestive address, made a just acknowledgment of the great benefits which these rising towns have derived from sanitary

science, which has conquered thus far those inherent internal and external dangers from disease, to which towns such as the leading emporium of trade in South Wales are inevitably exposed by the very laws of their origin and increase.

The business of the Association has included some matters of much importance. That which excited most attention on the opening day was the proposal of the Council to expend a large sum, amounting probably to at least £20,000, in the erection of suitable premises for the central business of the Association in London, on a freehold or long leasehold site. This proposition, which has for some time been under consideration, and which has undergone much discussion in Council, and minute examination by committees, naturally gave rise to some debate. It seems to have been assumed, on the one hand, that such an expenditure would be an unremunerative and unnecessary outlay. On the other hand, the whole weight of the evidence, and the conclusions of the various committees who had examined the facts, was on the other side. The purchase of freehold sites and the erection of suitable business premises in London is not in itself, if carefully and prudently conducted, a bad investment or an unsafe way of employing a balance of funds for which there is no urgent immediate use. Money so employed is not of necessity thrown away, if no other ground than that of safety of investment be in view. But, in this case, it was shown that weighty reasons of quite another kind added force to the proposition.

The origin of these funds is the JOURNAL. Until the Association was provided with a journal, which gave, weekly, an adequate return to the members for their annual subscription of a guinea, the number of the members, and the returns from advertisements, crept slowly along, with scarcely perceptible advance from year to year; and the Association, year after year, trembled in the balance of financial difficulty, and could hardly ever be said to be in easy circumstances. From the day that the JOURNAL was put on a more vigorous basis, and was raised to a position in which it was qualified to become a recruiting agent for the members and finances of the Association, the future of the whole society assumed another aspect. The annual increment sprang, almost at a bound, from an average of 30 or 40 to a new series of 500; and this rate it has steadily maintained, and with as steadily successful a result. Each year, for the last 20 years, special numbers of the JOURNAL have been issued in June and December for distribution throughout the profession; each such issue has brought in hundreds of applications for membership, so that the JOURNAL has, in fact, provided a very large percentage of the new members, as well as serving as the connecting link which, ever present from week to week, binds those members in union, and preserves their constant intercommunication with each other. These are the plain facts, and are matters of statistical record.

In like manner, it is an indisputable fact that, for a long series of years, the advertisement-sheet of the JOURNAL, growing with the circulation and with effective business-management, has furnished the Association with an addition to its income, amounting to about one-half of the total sum paid by members as their subscription. Thus, from a financial point of view, the JOURNAL is the element in the organisation of the society which is the main source of income, and the chief cause of the financial prosperity which has permitted the handsome grants for scientific and other public purposes, and which has allowed the accumulation of surplus funds from year to year. The Council had to consider the fact that the present premises are inadequate

for the preparation and publication of the JOURNAL, as they also are for the accommodation of the JOURNAL itself, and of its various committees. For many years—indeed, ever since the offices at the Strand were first occupied—the editing-in-chief of the JOURNAL has been conducted elsewhere than at the offices, and in premises which have been provided gratuitously, and employed in the service of the Association without payment or return. The subeditorial and the secretarial offices are utterly inadequate for the purpose, and unfitted for continued occupation. The printing offices have been outgrown; there has been no room for the Council meetings, which have had to be held in Exeter Hall; and the committees have been very inconveniently lodged. The propriety, and even necessity, for making suitable accommodation was obvious, and the Council have arrived at the only possible conclusion; and there is every reason to anticipate that the proposed change will be made with the prudence and foresight with which the Association has, from past experience, just cause to credit its Council.

While, therefore, the objections which one or two speakers—for the most part the perennial objectors at successive meetings—were not either unnatural or undesirable, they only showed up the more clearly the logic and force of the propositions of the Council; and it is not surprising that the announced intention of the Council on the subject was approved by an overwhelming majority.

One or two proposals of other kinds which have been more than once brought before meetings of the Association, and on each occasion rejected—Mr. Dix's proposal to pay members of Council for their attendance, and Mr. George Brown's to remove residential limitations to the qualification of Branch representatives on the Council—were once again rejected; and with somewhat more overwhelming majorities than on previous occasions. There are obvious limitations to the wisdom or propriety of occupying the time of the Association in successive years with proposals of which it has already expressed its emphatic disapproval, and supporting them by arguments which appear equally devoid of novelty and essence. It is probable that the decisions so clearly announced by the Association at Cardiff may save further waste of time and abuse of its patience in this respect.

The announced arrangements for the Sectional proceedings and the general business and amusements have been carried out without let or hindrance, and have been favoured by fine weather. The numbers in attendance are large, and the general success of the meeting, promoted and secured by admirable arrangements, may be pronounced to be complete.

THE ADDRESS IN MEDICINE.

SUCH gatherings as the annual meetings of the British Medical Association afford both social and intellectual pleasures. The social, perhaps, may make the more impression at the time, but the intellectual may be both enjoyable at the moment, and also can be stored up in print for future use, and read with much greater satisfaction and interest from some memories of the time of their origin. To anyone seriously interested in his profession, it must be a pleasure to be taken for a time from his lesser daily cares to consider such a retrospect of a large subject and a long experience as Dr. Wilks laid before his audience last Wednesday, when delivering his address to the Medical Section, which we print to-day.

Dr. Wilks touches on a wide range of topics, and feels himself expressly justified in so doing from his belief in the interdependence of all the

functions of the body. The extent and conditions of such interdependence furnish some of the most fundamental problems that the physician has to deal with, and, unfortunately, they are no less difficult than fundamental. They are very imperfectly solved as yet, and little help can be looked for from the specialists. To determine how far, if at all, one organ can take upon itself the functions of an incompetent neighbour, is one of the subjects arising out of the interdependence of the different parts of the body, on which Dr. Wilks dwells more particularly. When the organs are double, it does not surprise us to see one supplement the other. If one kidney, for example, is rendered functionless by the injuries of a calculus, its fellow is almost certain gradually to become able to compensate for it; and even if one, in fairly good function, be suddenly and entirely removed, the other generally proves equal to the sudden increase in its labours. But if both kidneys, or the one survivor, become incapacitated by pathological change, a state of renal inadequacy must sometimes be reached, and then the question of what other organs can be employed to supplement the kidneys becomes a matter of the greatest practical importance. "May not the record be true," says Dr. Wilks, "that, under these circumstances, urine has been secreted by the nipples and other parts of the body?" At any rate, the physician has taken the hint, and relieves his patient—for the time, at least—by stimulating the functions of the skin and the intestinal canal, but we cannot but believe he would be glad of further assistance. That Nature provides the expansion of one lung to fill up, to some extent, the deficiencies of its fellow; that one lobe of the liver can grow to compensate for a defect in the other, is difficult neither to imagine nor observe; but what can, to any considerable extent, compensate for a general loss of function, either of lung or liver, is a question to which neither theory nor practice can as yet give a very satisfactory answer.

In the organ of highest elaboration, the brain, in which many functions have their more or less definitely localised place, there may be complete compensation for injuries of some functions, but not of others; and it is worth notice that it is the lower functions, such as the unconscious guidance of the organic life, that are most localised, and least easily replaced; whilst the highest—such as are necessary to thought and intelligence, are those that are most widely spread, and in which injuries can be most completely compensated. The complexity, in fact, of the connections of their interdependence makes it more difficult to intercept them altogether.

Dr. Wilks, we are very glad to see, puts in a word for the importance of the old study of heredity and temperament. In many forms of disease, it is only on such an estimate of all the facts of life that any true understanding or treatment can be based. The acknowledgment of the presence of bacilli in some diseases does not render it, even in them, in the least superfluous. Consumption, though it is associated with a bacillus, has been, and will continue to be, associated also with a temperament, and the most important point in the whole matter, namely, that it is strongly hereditary, is due not to the bacillus, but to the temperament. Modern medicine tends to attempt less curative and more preventive treatment, and to estimate the dangers of a situation in such a fashion as is necessary for prevention a study of temperament is of the greatest advantage. It is a knowledge, too, that the text-book is apt to leave entirely out of sight, for it is a matter, in fact, which a book can hardly make intelligible without great literary skill. And the modern doctor, in his student-days, is

inclined to make himself the unintelligent creature of his text-book, rather than the observant pupil of his clinical teacher. He must be forced, as far as may be, to study from the life, and temperament certainly can be studied only from the life.

On various other large subjects, Dr. Wilks has fertile suggestions to offer. He has spent some time and trouble in confirming his first impression, which was originally judged to be heretical, that hæmoptysis occurs more often in the night after some hours of sleep, than in the day after some hours of exertion. He does not claim to give a full explanation, but remarks that the help to the circulation given by the respiratory movements is certainly less by night than by day, so that tension might in that way possibly be raised; but, at any rate, he does not hesitate to draw the inference, which is of no little importance to many who are suffering from a tendency to hæmoptysis, that they need not be frightened into preserving that harassing and absolute quiet which is devised to guard against a recurrence of hæmorrhage. Certainly, Dr. Wilks's inference is supported by some of the many methods of cure, especially in the high Alps; but if it were acted upon in all cases, though it might possibly be justified on the whole by its relief of perpetual discomforts, yet it would occasionally bring a responsibility on the medical adviser from which he would be glad to be free, for the occurrence of fatal hæmoptysis during exertion is certainly not unknown. The rupture of aneurysms and of blood-vessels in the brain is also more frequent by night than by day, and the conditions controlling the matter deserve some of the more elaborate care that Dr. Wilks claims for them. And there are many other observations of interest for which we have to thank Dr. Wilks, and for which we most gladly refer our readers to the address itself.

THE ADDRESS IN THERAPEUTICS.

DR. W. ROBERTS devoted his address to that department of therapeutics which ought to be held as the first and the most important, but which is too often neglected, or entirely overlooked, by the hospital teacher, and not sufficiently studied by the practical physician. "Perhaps of all the duties which fall to the province of the medical practitioner, there is none," Dr. Roberts observed, "so common as the duty of regulating the diet of his patients." Dietetics, therefore, formed the subject of the address, a most interesting discourse, which, in some respects, reminded the audience of Dr. Lauder Brunton's recent Lettsomian lectures.

Dr. Roberts began by complaining of the want of a guiding principle in the medical profession on the subject of feeding the sick, a result of defective instruction at medical schools. The physician too often measures his patient's digestion from his own. It appears that many problems in human dietetics cannot be solved by physiology alone, but require a practical observation and study of the practices and customs of mankind in relation to eating and drinking. These customs, like everything else in nature, are not fortuitous, but the outcome of profound instincts which correspond to important wants of the human economy, and are the fruit of a colossal experience accumulated by past generations. The main dietetic customs correspond to the wants of the average healthy and temperate constitution, yet, by idiosyncrasy, such customs may be harmful or deadly to particular individuals. In infancy and age these customs ever demand certain important modifications. In any case, these customs must be observed and even respected; they would never have arisen without cause, and cannot be departed from with impunity.

On the basis of these customs, intended for the healthy, must be framed the principles of dietetics for the sick. Dr. Roberts distinguished two kinds of sick-diet, that for those who can take solid food, and that for those who cannot, and who therefore must be fed on a plan deviating widely from the common custom. He deprecated irksome restrictions, and advocated variety. It appeared to him that it was better to lessen the quantity of certain articles of diet than to forbid them entirely, and he expressed a more favourable opinion of fresh vegetables and fruit than is generally in vogue. Perhaps the most interesting part of his address related to the therapeutics of certain beverages. He promised the early publication of some experiments which he has made to ascertain the effects of alcohol, tea, coffee, and cocoa on the action of the salivary and peptic glands, and on the fluids which those glands secrete. Anticipating, to a certain extent, more complete details, he gives a general summary of the conclusion to which he has been led by these experiments. Distilled spirits were found to promote digestion very distinctly when taken in moderation. Wine and malt-liquors differed greatly in this respect from spirits. Wines inhibited the action of saliva to a marked extent. This was found to be due to the distinct acidity which all wines possessed. This acidity was checked by alkaline carbonates, a fact which explained the value of table-waters. When wine was taken in combination with an effervescent water, it ceased to embarrass salivary action. Wines also exhibited a retarding effect on peptic digestion; in this respect, champagne and similar alcoholic effervescent were found to be the least injurious.

The want of a guiding principle in dietetics was practically illustrated by Dr. Roberts' opinion on tea. There is great want of unanimity on the value, the virtues, or the harmful properties of that popular domestic beverage. Many physicians condemn it altogether; others believe it to be harmless, or even highly beneficial, if taken within a very few minutes after the boiling water has been poured upon the tea-leaves in the tea-pot. In this way, it has been asserted, but little tannin is taken into solution, and tannin is the cause of dyspepsia amongst tea-drinkers. Dr. Roberts agreed as to the noxiousness of the tannin, but declared that, owing to its solubility, it could not possibly be separated from the other constituents of tea, even by the most rapid percolation. Through the tannin, the tea was found to have an intense inhibitory effect on salivary digestion. The addition of bicarbonate of soda was found to mitigate greatly the injurious effects of tea on the digestion of starch. So general is the consumption of tea, and so diverse are the opinions of physicians on its effects, that any new observations on its action cannot fail to be of value to the profession, which will look forward with interest to a fuller account of Dr. Roberts' experiments.

Turning to the diet of the sick who were unable to take solid nourishment, Dr. Roberts spoke chiefly of milk and broth. He dwelt upon the value of the more agreeable preparations of peptone and pancreatine, compounds not, as a rule, very palatable to the invalid when mixed with milk. The lecturer referred to the absence of albumen in solution in beef-tea, and to the fallacy of rejecting the undissolved remnant of the meat-fibre, which, if made into a paste, and flavoured with salt, would constitute a nourishing, digestible, and agreeable form of food. Favourable mention was made of cold-made meat-infusions, and of fortified gruels. By the addition of one-eighth of its weight of ground malt to a cereal flour, a liquid, and at the same time nutritive gruel can be prepared, of high value in

typhoid fever and other exhausting diseases. The ordinary gruels cannot be made strong enough without losing their fluid character and becoming thick and pasty, unless the malt be added. Dr. Roberts concluded with an instructive enumeration of the ingredients and apparatus which he considered to be necessary for the *cuisine* of the sick-room and nursery. We believe that practitioners who have heard this address, or who will read it in our pages, will not fail to profit by Dr. Roberts' instructions. We must express a hope, not quite so certain to be gratified, that hospital-lecturers will henceforth devote more time than hitherto to instructing their classes in dietetics. A good lecture, like that under consideration, would be of higher value to students than tedious discourses on the preparation of alkaloids. These latter compounds may, or rather must, be left in the hands of the pharmaceutical chemist, but, as Dr. Roberts observed in speaking of patent foods, "it is a serious disadvantage that the control of the preparation of food for the sick-room and nursery should pass from the hands of the medical attendant to those of the purveyor." This must inevitably be the case as long as students remain uninstructed in the art of preparing food for the sick, or, at least, in superintending its preparation.

THE ADDRESS IN THE SECTION OF SURGERY.

DR. BENNETT's address in the Section of Surgery is entirely devoted to the discussion of a few plain, practical facts in connection with some of the most ordinary injuries of civil life which lie on the surface and involve no disputable theory nor special methods of investigation, but which are for that very reason, of the greater practical importance and interest.

In the first place, the present Professor of Surgery at the University of Dublin entirely disposes of the paradoxical contention of his famous predecessor, R. W. Smith, that the appearances in specimens of Colles's fracture which had been accepted as proof of impaction are not really so, and that this fracture is, practically speaking, never impacted. Dr. Bennett records that out of 100 specimens of Colles's fracture in the university museum, 48 were impacted. This question, then, may now be regarded as settled.

In another matter, we cannot so unreservedly follow the Professor. He says, in speaking of fracture of the ribs, that "not a clinical observation, or a specimen that he knows of, confirms the view that when the chest-wall is broken by indirect violence, when the ribs break as the result of compression of the chest, as a whole, their fragments are thrust outwards." We think that if Dr. Bennett will examine a specimen presented by Mr. Caesar Hawkins to the museum of St. George's Hospital, and now numbered ser. i, 22a, he will find such a condition. At the same time, we would not contest his statement if it were merely limited to asserting that outward displacement is less common than the older surgeons seem to have believed. The words of the paper before us are not perfectly clear; but they seem to imply that the whole thing is imaginary; and this appears to us to go a great deal too far. As to fractures of the costal cartilages, we quite subscribe to Dr. Bennett's opinion that they are by no means rare, and that they usually are followed by bony union.

The observations on the frequent occurrence of an oblique fracture of the upper part of the fibula in injuries which seem, at first sight, limited to the ankle, are important, inasmuch as this fracture, being

unaccompanied by displacement, is prone to be overlooked, an error which may lead to very unpleasant consequences, both to the patient's comfort and to the surgeon's reputation, for, as Dr. Bennett remarks, "the surgeon who treats a sprained ankle for a week or a fortnight, only to find it necessary to confess the existence of a fracture on that date, discovered by himself or another, does not feel pleased or proud of his skill in diagnosis."

The other topic treated of by Dr. Bennett is of still greater interest, namely, the frequent occurrence of an injury to the right thumb, which is thus described by the Professor—"an oblique fracture, detaching the palmar half or more of the articular surface which faces the trapezium, with that projection of the base of the bone into the palm which supports the surface. The entire bone, except the little piece so separated, slips backwards, simulating in the living a subluxation of the bone in this direction. The appearance in the living of a subluxation is confirmed by measurement; for, as the fracture does not implicate the dorsal surface of the bone, the length on this aspect is unaltered." The injury is, according to our author, almost always confounded with sprain, and the practical importance of the subject is great, since "a hand so injured remains, under the best of treatment, long disabled, and, without treatment, for a greatly longer time."

It will no doubt soon appear whether our author is correct in affirming the frequency of this injury, and its constant limitation to the right hand, for the matter is one of too much daily interest both to surgeon and patient to be overlooked.

We need say no more to commend this excellent specimen of "patient and diligent pathological study, combined with clinical observation," to the serious attention of our surgical readers.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 10th, and re-opened on Thursday, September 10th.

DRS. TILT, Fancourt Barnes, Bantock, and Heywood Smith, and Mr. J. Knowsley Thornton, have been elected Corresponding Fellows of the Gynecological Society of Boston, United States.

DR. VINTRAS, Senior Physician of the French Hospital, London, has been appointed an Officer of the Legion of Honour.

THE honour of nobility has been conferred on the eminent surgeon, Dr. Richard Volkmann, Professor of Surgery in the University of Halle.

DR. LAZAREWITCH, the eminent professor of Obstetrics and Gynecology in the University of Kharkoff, having occupied the chair for the full legal term, has been appointed emeritus professor.

DR. MERKEL, Professor of Anatomy in the University of Königsberg, has been appointed the successor of the celebrated Professor Henle in the chair of Anatomy at Göttingen. Dr. Merkel is a son-in-law of his eminent predecessor.

By the death of Professor Aebly, the recent vacancies in the German medical faculty in Prague are raised to three, namely, the chairs of medicine, ophthalmology, and anatomy. For the last, however, Dr. Carl Rable, assistant to the anatomical professor in Vienna, has been elected.

THE dinner of the past and present students of St. Mary's Hospital will take place on Thursday, October 1st, at the Holborn Restaurant, at six for half-past six o'clock. Dr. W. B. Cheadle will take the chair. In the afternoon of the same day, at three o'clock, an introductory address will be delivered by Mr. A. J. Pepper; and, on the following evening, a *conversazione* will be held in the Hospital and School Buildings.

CREMATION IN GERMANY.

At a sitting of the Corporation of Hamburg on July 15th, a motion for permitting cremation in the State of Hamburg, introduced by Dr. Grieschen, was carried unanimously. It is believed that the Senate of the State will give its consent to this resolution.

THE BRITISH PHARMACOPŒIA.

In connection with the issue of the forthcoming *Pharmacopœia*, Messrs. Martin and Sallnow, of 416, Strand, have published a very good characteristic portrait group of Professor Redwood, Professor Bentley, and Professor Atfield, three working professors of the Pharmaceutical Society, who have been assisting its production.

A HOSPITAL TRANSPORT-SHIP ON THE THAMES.

ON the afternoon of Saturday, July 25th, a new iron screw steam-vessel, built for the Port Sanitary Committee by Messrs. Edwards and Symes, was successfully launched at their works, North Greenwich. The steamer, which is 59 ft. long and 11 ft. beam, is arranged to accommodate the medical officer and inspectors forward, and has a large cabin aft for the conveyance of sick persons to hospital. She was built from the designs of Dr. Collingridge, the medical officer of the Port, and Mr. A. D. Lewis, naval architect.

HEALTH OF THE CAMP AT WIMBLEDON.

THE report of the health of the Wimbledon Camp, which was forwarded by Brigade-Surgeon Elkington on Monday last, is of a very satisfactory nature, especially considering the fact that, during the greater part of the time covered by it, about 3,000 men were living under canvas. The report states that, during the fortnight, 105 cases came under treatment, of which 17 were admitted to hospital. Of the latter, 11, being regular soldiers, were transferred either to their regimental hospitals, or to the Cottage Hospital at Wimbledon; one volunteer was sent home, and the rest returned to duty. The general health was very good, and although the total number of cases was greater than last year, the majority of them were of a trivial character, and yielded to immediate treatment.

SALICYLIC ACID SUET IN HYPERIDROSIS.

OUR Berlin Correspondent writes:—All the reports of the German army surgeons on experiments recently made with salicylic acid suet, agree in recommending its use as a remedy for extreme sweating of the feet. It is composed of 2 parts of pure salicylic acid to 100 parts of best mutton suet. The War Minister has, therefore, permitted the introduction of this preparation into the army medical stores, for the benefit of soldiers suffering from sweating feet, or soreness from riding.

PROFESSOR MILNE-EDWARDS.

THE eminent Professor H. Milne-Edwards, Grand Officer of the Legion of Honour, has just died, aged 85. His services to science are well known. The *Manual of Zoology* (translated by Dr. Knox) is probably the best read of his works in this country, but his most important contributions to scientific literature are contained in the 12 volumes of his *Leçons sur la Physiologie et l'Anatomie Comparées de l'Homme et des Animaux* (1857-1877). He was of English parentage.

ALLEGED OVERPRESSURE IN BOARD-SCHOOLS.

The report of the Committee of the London School-Board on overpressure, which we discussed last week, was the subject of a short debate at the meeting of the Board on July 23rd. Mr. Bousfield, in moving that the reference to the Committee be discharged, said that the report showed that the danger of overpressure was chiefly in the case of girls, and that the prohibition of keeping in after school-hours would do away with overpressure as far as the teachers were concerned. The Board refused to refer the matter back to the Committee with a view to elicit the opinion of the teachers, and the debate was allowed to drop, to be resumed, it may be hoped, at some future time.

THE THREATENED WATER-FAMINE IN LIVERPOOL.

The stock of water in the reservoirs which supply Liverpool has fallen very low, and, unless rain falls copiously in the interval, the supply will be quite exhausted before October. The new waterworks at Vytenwy are not yet completed, and meanwhile the second largest port in the kingdom is threatened with a water-famine. Professor Corfield's excellent lecture on the Water-Supply of Ancient Roman Cities may be commended to the attention of the citizens of Liverpool. At the present moment, when the eyes of all Europe are watching the success of English sanitary arrangements, a breakdown in such a town as Liverpool would be a national misfortune.

DR. A. B. SHEPHERD.

We deeply regret to announce that this well known physician died somewhat suddenly at Ambleside, Westmoreland, on Sunday morning ast. He had left London about eight or ten days before, and shortly after his arrival in the Lake District commenced to have acute rheumatism, for which he was treated by Mr. Redmayne, of Ambleside. Several joints were painful and swollen; but the temperature did not show much increase until Saturday last, when it rose to 102.5°. Dr. Wilson Fox, who happened to be at Ambleside then, saw the patient, who was conscious, sweating profusely, and whose temperature then exceeded 104°. On Sunday, at 4 A.M., Dr. Shepherd had become unconscious, and his temperature exceeded 106°; his medical attendant was then with him, and used his best endeavours to decrease the hyperpyrexia; but, in spite of all the means employed, the temperature continued to rise, and at 6.30 A.M., when Dr. Shepherd died, it was 109.4°. By his death, a familiar figure is removed from professional circles in London. The small space at our disposal to-day will not permit us to give an extended obituary notice of the deceased physician; its publication is consequently deferred.

NEPHRECTOMY AND NEPHROLITHOTOMY.

On July 25th, Mr. Knowsley Thornton performed abdominal nephrectomy for cystic kidney at the Samaritan Free Hospital. The patient, aged 22, had been under the care of Mr. Manley Sims. A drainage-tube was inserted into the loin, and removed on the second day; the patient is now convalescent. On July 27th, the same operator removed a smooth calculus, weighing two ounces, from the left kidney of a young woman who had been under the care of Dr. George Johnson. The case was supposed to be an instance of strumous kidney in its earliest stage, and the operation was commenced as in abdominal nephrectomy; but, as soon as the kidney could be touched, it was found to contain a stone, and strong adhesions prevented its removal. The calculus was therefore extracted, and a glass tube placed in the abdominal, and an India-rubber tube into the lumbar, incision.

THE HEALTH OF GERMAN SPAS.

The director of the mineral-water establishment at Wiesbaden, writing to a contemporary to contradict the report that typhoid fever is prevalent in the town, makes some damaging admissions. The average death-rate for the last quinquennial period is 19.6, but for

the week ending July 4th it was 24.4, and for the week ending July 11th, 27.7. The number of cases of death from typhoid fever and bowel-complaints is above the average, but he adds that all such cases are removed to the town hospital; whereas, in other "health-resorts," cases of illness are hushed up. There is good reason to fear that, in this statement, there is something more than professional jealousy; and that patients, going to some foreign "health-resorts," run considerable risk of finding the "cure" worse than the disease.

EXPLOSIVE PHYSIC.

A LIST has just been published, in the *Union Pharmaceutique*, of accidents which have recently occurred during the preparation or carriage of explosive substances used in medicine. At Strassburg, a chemist's assistant was changing some lycopodium-powder from one bottle to another; the particles that escaped mixed with the air, a jet of gas was burning, and a slight explosion occurred. The frightened assistant dropped the jar containing the lycopodium, the room was at once filled with the powder, and a violent explosion took place. Chlorate and permanganate of potash are also dangerous. M. Meyet has stated that a tooth-powder composed of chlorate of potash and cachou has been known to explode in the mouth of a person engaged in brushing his teeth. A druggist who dried some hypophosphite of lime in a receptacle containing sand was killed by its explosion. Oxalate and citrate of lime are also explosive, but only at a high temperature. Pills of permanganate of potash have been known to explode spontaneously. A mixture of perchloride of iron and glycerine exploded in the pocket of a patient who carried it. An eminent chemist at Paris prepared ozone with powders composed of equal parts of peroxide of manganese, permanganate of potassium, and pulverised oxalic acid. He took every recognised precaution, and the mixture was corked up in a bottle; a few minutes afterwards, an explosion took place, and the bottle was reduced to atoms.

SCOTLAND.

VACCINATION AND THE RECENT OUTBREAK OF SMALL-POX IN GREENOCK.

THE freedom from small-pox which Greenock has enjoyed for the last four years was recently interrupted by an outbreak of the disease. It was introduced by a man who had been on the tramp in England and the south of Scotland, and who sickened a day or two after his arrival in the town. In his case, the disease was so modified that it escaped recognition at first, until other members of the household where he was staying fell ill. By prompt removal of the affected persons, with revaccination and temporary isolation of those who were unaffected, but who had been exposed to the infection, the outbreak was completely arrested, and at this date the town is free from the disease. In connection with these cases, Dr. Wallace, the medical officer of health, writes as follows: "It may be stated, further, that the influence of perfect vaccination has been well exemplified in this outbreak. All, except the younger daughter, bore marks of good vaccination. In her case, however, the operation, which had been performed no fewer than four times, had been unsuccessful; the result being that the disease with her assumed, as has been stated, a confluent form, while with the others it was exceedingly mild."

THE SCOTCH FISHERY BOARD.

LAST year, it will be remembered, Professor Cossar Ewart paid a visit to the United States and Canada, with the object of personally seeing what was being done in those countries for increasing the fish-supply. The results of his visit were given in a very valuable report on the *Progress of Fish-Culture in America*, to which we drew attention at the time of its publication. It is understood that, in continuation of his inquiries, the Scotch Fishery Board has desired him to

visit some of the principal fishing-stations in Norway and Sweden, and report on the same. It is likely that the work will be undertaken this autumn, and it is to be hoped that he will embody his experiences of the Norwegian fisheries in as full and interesting a report as that dealing with America.

PROSECUTION UNDER THE PHARMACY ACT.

At Linlithgow, a prosecution and conviction has taken place for the sale, by an unqualified person, of chloral hydrate, the same being a poison under the Pharmacy Act. The accused was found guilty, and a penalty of £5 was imposed. The case has one or two points of interest, and especially in the line of defence taken up, which was that the Registrar of the Pharmaceutical Society of Great Britain, who acted as prosecutor, had no *locus standi* in Scotland, but should have taken action through the agency of the public prosecutor. This objection was held not tenable, and a conviction was very properly obtained, for it is most important for the public safety that such powerful drugs as chloral should only be sold by duly registered chemists and druggists under the Pharmacy Act.

UNIVERSITY OF ABERDEEN.

DURING last week, the examinations for degrees in medicine and surgery have been carried on. The visitors appointed by the General Medical Council paid a visit to Aberdeen last week to report on the final examinations. The visitors were Mr. Luther Holden, Dr. Kidd, and Dr. Finny, of Dublin. The visitors spent several days watching the clinical and systematic examinations in medicine, clinical surgery, medicine, and midwifery. The medical classes reassemble on October 21st, a somewhat earlier date than usual.

THE WEATHER IN SCOTLAND.

THE weather generally throughout Scotland has been marked by extreme heat, and from the north the temperatures registered have been very high. In some districts the warmth has been tempered by refreshing showers of rain, which have lowered the temperature and much benefitted vegetation. One death from heat apoplexy is reported from Kingussie, where very sultry weather has been experienced, the temperature in the shade registering 81°, while exposed thermometers in the sun showed readings ranging from 120° to 140°.

IRELAND.

TESTIMONIAL TO DR. BERRY, OF MALLOW.

A MEETING was held on last Saturday, in order to take the necessary steps to present an address to this gentleman, on the occasion of his leaving that town, where he has resided for the past forty years, to live in Dublin.

PROPOSED REDUCTION OF SALARIES OF MEDICAL OFFICERS OF BALLYMENA UNION.

A COMMITTEE, recently appointed to consider the question of reducing the salaries of the officers of the Ballymena Union, have recommended the following reductions—namely: Dr. Ross, from £160 to £100; Dr. Kidd, £135 to £80; and the dispensary medical officers, from £105 to £80 *per annum*. The consideration of the adoption of the report has been adjourned for a week.

RETIREMENT OF DR. BRODIE.

DR. BRODIE, one of the inspectors of the Local Government Board in Ireland, has retired on full pension, after an honourable service of 20 years as a public servant. For the last eight years of his official life, he has been in charge of the Cork district, and the esteem in which he is there held is sufficiently evidenced by the presentation to him, on his retirement, of two separate and valuable testimonials, one on behalf of the medical officers, and the other on behalf of the lay officers connected with the Poor-law service of the district.

CITY OF DUBLIN HOSPITAL.

THE following appeal has been issued on behalf of this hospital. "Stoppage of the Munster Bank; City of Dublin Hospital.—The above institution is indebted to the Munster Bank in the sum of £1,222, and funds are greatly required to immediately discharge this debt. The Board has been obliged at the present time to close a large number of beds, and trusts the public will respond to this appeal, and enable the suffering poor, as hitherto, to obtain the benefit afforded by the hospital. The funds supplied by the public during the past three years have not been sufficient to carry on the work of the institution."

BOARD OF SUPERINTENDENCE OF DUBLIN HOSPITALS: ANNUAL REPORT.

THE total number under treatment in the nine Dublin hospitals which receive Parliamentary grants amounted during the year to 10,051, of whom 8,867 left the wards cured, relieved, or were dismissed for other causes, including 495 who died. The mortality was 5.5 per cent. on those treated to a termination, and the total average daily number of beds occupied in all the institutions was 731.42. The Board speak highly of the great opportunities for medical education of Steevens Hospital, and regret that such an amount of materials for clinical teaching should be so little used. It has been asserted that the situation of the hospital was too far from the centre of the city for students to attend the medical school formerly attached to the institution. A scheme has been proposed to amalgamate this hospital with the House of Industry Hospitals, under joint management; and, if this could be carried out, it might, the Board think, prove beneficial to both institutions. The governors of the Meath Hospital have decided to set apart two detached wards, one for males and one for females, for the treatment of patients affected by septic conditions, or offensive cases likely to contaminate the air of a general ward. It is also contemplated to open a small ward for the treatment of children suffering from medical diseases, and to confine the "Smyly children's ward" entirely to surgical cases. A contract has recently been entered into by the governors of the St. Mark's Ophthalmic Hospital, by which at an expenditure of £600, accommodation will be provided for eight additional adult patients, and also a children's ward containing six or eight cots. The total income of these nine hospitals amounts to £39,926 13s. 9d., of which £15,972 15s. 9d. is derived from Government grants.

ADDRESS TO DR. F. X. MACCABE.

THE Poor-law Medical Union and other officers of the district which, until recently, were in the charge of Dr. MacCabe as Local Government Inspector, recently presented him with an address and testimonial on the termination of his official connection with them. Soon after Dr. MacCabe had been appointed to a position in connection with the Irish Prisons Board, a committee was formed, Sir Charles A. Cameron, President of the College of Surgeons, being chairman; and last week an illuminated address, accompanied with a massive silver salver and a splendid drawing-room clock, bearing suitable inscriptions, was given to Dr. MacCabe.

ANOTHER CASE OF SMALL-POX NEAR DUBLIN.

At a meeting last week of the guardians of the South Dublin Union, a communication was read from the medical officer of Rathfarnham District, to the effect that a resident of Edmonstown had been attacked with small-pox, and had been conveyed to Cork Street Fever Hospital. A sister of the patient worked at a laundry where clothes infected with the disease had been sent; and thus, from the grossest negligence, many valuable lives may be imperilled by the disease spreading in various directions. Sir Charles Cameron, medical officer of health, advocated the providing of a cottage hospital in Rathfarnham, this being the second case which recently occurred in that district; but the guardians did not consider this necessary. The following

resolution was adopted with only one dissentient: "That the person who sent clothes infected with small-pox to the Model Laundry at Edmonstown be prosecuted by the solicitor to the board."

CHOLERA.

ENGLISH PRECAUTIONS AGAINST CHOLERA.

On July 16th a conference was held between Dr. Buchanan, Medical Officer of the Local Government Board, and the Metropolitan Medical Officers of Health, as to the preparation of London against cholera. Dr. T. Orme Dudfield, President of the Society of Medical Officers of Health, presided, and introduced the subject by an account of the steps that had been taken since the summer of 1883, with a view to preparation against cholera.

Dr. Dudfield said that, in 1884, when cholera made its appearance in France, a conference to concert measures of defence for London was held by the medical officers of health, with the General Purposes Committee of the Metropolitan Asylums Board, that Board having been constituted a "Local Authority," under the Diseases Prevention Act, 1855, by the Diseases Prevention (Metropolis) Act, 1883. One of the objects of the latter Act was to make better provision, as regards the metropolis, for the isolation and treatment of persons suffering from cholera, and by it the Board was enabled to utilise its buildings, ambulances, and staff, for the execution of the powers and duties imposed on it under both of the Acts. Immediately after the passing of the Act, the Board resolved to provide accommodation for cholera-patients in the metropolis, as a whole, without respect to parochial boundaries, partly by the use of its own hospitals, partly by the acquisition of sites for huts, and partly by arrangements for the use of beds at general hospitals, at infirmaries, and at workhouses. The beds placed at the disposal of the managers were about 1,700, irrespective of 250 available at their own hospitals. The design in the proposed arrangements was to constitute the managers a first line of defence for immediate action on the appearance of cholera.

Had cholera come, the other local authorities (the vestries, etc.) would have been liable to provide additional accommodation for the sick, if necessary, as well as refuges for the other inhabitants of houses where there were cholera-patients too ill to be removed to a hospital.

The questions considered by the conference were mainly how an epidemic of cholera could best be met, and what convenient buildings or sites for hospitals could be made available in the several districts.

The committee had previously addressed a communication to the medical officers of health, in which questions connected with provision of hospitals, disinfection of excreta, hand-ambulances, notification of cholera-cases, etc., were dealt with, and to that communication a collective reply was sent, in September last, through the secretaries of the Society of Medical Officers of Health.

In 1883, and again in 1884, the Local Government Board addressed communications to the several "local authorities" with reference to cholera. The Board also issued two orders, with a covering explanatory letter; one addressed to the Port of London Sanitary Authority, who, of necessity, would constitute the outer line of defence; and the second addressed to all the other port sanitary authorities, etc. The Board also forwarded, for the information of all sanitary authorities, a "memorandum," prepared by their medical officer, on "Precautions against the Infection of Cholera."

The regulations issued by the Board in 1886, imposed on the vestries, etc., as "Local Authorities," the duty of making arrangements for the prevention and treatment of cholera, including the medical visitation of the houses of the poorer classes for the purpose of detecting cholera and diarrhoea, and the supply of medical attendance and nursing, and of medicine and disinfectants. What the Board had done in the past might be taken as an indication of what the Board would be likely to do in the future, should occasion arise. It was to be supposed, also, that the arrangements of the Asylums Board, made in 1883 and 1884, would hold good at the present time.

Dr. George Buchanan then made some interesting observations, in the course of which he said that the threat of cholera in 1883 was more serious than that which was now exciting attention, it being a peculiarity of cholera in Europe that it usually made a threatening appearance for about three years in succession, and then was heard of no more for a time. His object in desiring to take counsel with the medical officers of health was to avoid hurry and panic. In this country no confidence was reposed in quarantine, but much in the practice of medical inspection through the officers of the several port sanitary authorities. The duties of those authorities were defined by the

Board's order of 1883. A vessel coming from an infected country was required to anchor where ordered until inspected. If found healthy, all passengers were allowed to go free. If there were any sick on board they were detained, the healthy being allowed to depart, their several destinations being recorded, and the vessel was disinfected. The Board had been looking to the defences of the principal ports by inspection made in 1884. During the present year, the survey had been extended, and the various arrangements had been investigated, including the provision of hospital-accommodation. The Board's inspectors had looked closely to the condition of the several towns, and to see how the local authorities were doing their work. At some of the ports the arrangements were very satisfactory, the authorities being careful and thoughtful in their preparations; at others there were shortcomings. The inspectors had striven to rouse less careful authorities. A principal danger to be guarded against was the importation of cholera in rags, and so it had been arranged that rags should not be imported without proper precautions against possible mischief. With reference to the Society's views on the supervision of the water-supply, from its sources to the consumers' cisterns, expressed at the Conference in 1883, he had conveyed them to the Board. In Colonel Sir Francis Bolton, the water-examiner, the Board had an officer who devoted much thought and attention to this important subject. His reports showed the work done by the companies to safeguard the supply. In 1883, the sanitary authorities took steps for securing the purity of the water in cisterns, and this combination of local vigilance with central vigilance should be continuous. With respect to hospital-provision, it should be remembered, as had been stated, that the Asylums Board would only profess to provide a first line of defence. The 2,000 beds they were said to be able to provide would be very useful, but it was important to inquire as to the convenience of the proposed hospitals in point of nearness to those of the sick who would be likely to require hospital-treatment. The vestries and district boards would form the second line of defence, and this would be the more important should cholera come. The vestries would have to provide places of refuge for the healthy when the sick were too ill to be moved. With this branch of work, probably the most important, as being the best way of dealing with cholera, the Asylums Board would have nothing to do, nor with the provision of disinfectants, medicines, etc. He concluded by inviting suggestions from officers of health.

A discussion followed, in which the medical officers of health for Poplar, Bermondsey, Marylebone, Newington, the Strand, Chelsea, Battersea, and others, took part. The general feeling was—and with this the medical officer of the Board agreed—that, in the event of cholera making its appearance, the local sanitary authorities should be prepared to do their own duty, not resting too much on what the Asylums Board might be able to do, but depending primarily on their own efforts, alike for removing those conditions which allowed the spread of cholera, and for dealing with the disease if it became epidemic.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE FRIENDLY SOCIETY.

SECOND REPORT OF THE COMMITTEE TO THE MEMBERS.

GENTLEMEN,—It will be in your recollection that, when we presented our former report, the Society had been less than six months in existence, and its financial operations covered but one quarter. Thus, although great care had been exercised in the preliminary work, its success—and, in a lesser degree, even its usefulness and necessity—were matters of anticipation rather than accomplished fact. Since then, there has been fuller opportunity for testing, by actual work and experience, the plan put forward; and we venture to hope you will find in the present report enough to satisfy you of the usefulness and practicability of the Society's operations, and of the great possibilities that are before it in the future.

During the year there has been a steady and constant influx of new members (183 proposals having been received), and much interest has been taken in the work, resulting in cordial co-operation and valuable suggestions from many members and friends, for all of which we tender our hearty thanks, and trust this personal activity may continue, as we are certain nothing is more likely to promote the healthy and sound growth of the Society. It is also our duty to acknowledge the publicity and encouragement that have been given to the Society by most of the medical press, our special thanks being due to the *BRITISH MEDICAL JOURNAL* and the *Medical Times and Gazette*.

Perhaps the most interesting and exact description of the Society

consists in a recital of bare facts, and we have much pleasure in inviting your attention to the following detailed statement of the work.

MEMBERSHIP.

Up to June 30th, 678 members had sent in proposals, and the present results of these are as follows.

Good on the books	607
Suspended	3
Lapsed after paying one quarter ...	7
Lapsed after paying two quarters ...	3
Lapsed after paying three quarters ...	3
Proposers who paid entry-fee only ...	42
Declined	9
Deaths notified	4

Including the three under suspension (who may elect to continue), this leaves 610 members, whose memberships may be classed as follow.

Sickness, annuity, and life-assurance ...	81
Sickness and annuity	283
Sickness only	176
Annuity only	5
Annuity and life-assurance	1
Life-assurance only	21
Sickness and life-assurance	43

Dividing the various funds, and treating each separate assurance as a distinct contract, the following results are shown.

There are 373 contracts for annuities, classified as follows.

230 for £50 0 per annum.	
51 for 37 10 per annum.	
91 for 25 0 per annum.	
1 for 20 0 per annum.	

There are 144 life-assurance contracts, classified as follows.

105 for £200, or a total of £21,000	
1 " 175, " " 175	
2 " 150, " " 300	
22 " 100, " " 2,200	
1 " 75, " " 75	
11 " 50, " " 550	
3 " 25, " " 75	

145 contracts for a total of £24,375

In the Sickness Fund there are 583 contracts, for the following amounts.

322 contracts for £4 4s. per week.	
112 contracts for £3 8s. per week.	
149 contracts for £2 2s. per week.	

Taking these together, the general average rate of full sickness-pay is, as nearly as possible, 3.3 guineas per week; or, taking a fair approximation, £3 10s.

The present ages of the members who have sickness-contracts range from 23 to 54, and give a general average of 38.4 per member. At this rate, according to the data on which the tables are based, the average risk of sickness is 1.070 weeks per annum per member; but the risk of sickness cannot be correctly gauged by average age; and, to ascertain this accurately, it has been necessary to calculate the liability under each individual contract. This shows a net risk of 1.117 weeks per annum per member. Eliminating from the calculation a number of members who are undergoing their six months' probation, the Society's current expectation of sickness under the tables is at the annual rate of 578 weeks per annum, or, in other words, a constant average of a fraction over 11 sickness-claimants. This must, however, obviously be a continually varying quantity.

Examining the work of the various funds in detail, the following results are exhibited.

SICKNESS FUND.—This, by far the most important branch of the Society's work, is now in full operation, over 400 members having become eligible to receive payment on the 1st September, 1884. Since that time, £843 0s. 8d. has been expended for sickness pay. This amount has been paid to 57 members on account of 230 weeks' 5 days' sickness, in periods varying from a minimum of one week to a maximum of seventeen weeks one day. The illnesses, all of which have been fully and periodically certified and verified, have been of a very varied nature, and comprise eight cases of accidents from riding or driving, one of rheumatic fever, one of scarlet fever, three of rheumatism, 22 of affections of the throat or lungs, three of blood-poisoning, and others of a less serious character. The experience, so far, seems to show a probability that, after a reasonable lapse of time, and on a proper valuation, this fund will possess a profit surplus available for appropriation among its members. Extreme caution must, however, be exercised, lest too hasty deductions should be made, only to be falsified by later knowledge. Already there are evidences that,

while members of the profession escape many ailments and dangers to which the industrial classes are subject, they have to encounter special risks incidental to their work, and there are good grounds for congratulation that the rates adopted suffice to cover these contingencies. Further testimony of the necessity of ample premiums is to be found in the rates of one or two somewhat similar societies which—possibly prompted by our success—have been recently started, whose sickness-rates, if fully tested, will be found to be rather higher than our own. There is, too, the fact to be borne in mind, that whatever profits may arise must always remain the sole property of the members, and be applied for their advantage alone, and with this, and the present satisfactory balance in this fund alone of £2,846 9s. 7d., a policy of patience may well be exercised.

We cannot, however, leave the subject without pointing out how fully the usefulness of the Society has already been realised, several cases of sudden and severe illness having overtaken members almost on the threshold of their connection with the Society, and we have received several letters expressing a sense of the aid and comfort derived from the means adopted to secure an independent assurance.

In these matters facts are much more eloquent and convincing than mere theories, and we believe the two following typical cases are worthy your attention, as specially proving the usefulness of the Society.

A., a general practitioner in the Midlands, aged 27, joined the Society at its starting for sickness-pay of £4 4s., and an annuity of £50. He has up to the present paid premiums amounting to £13 4s. 2d. In November, 1884, he was attacked by rheumatic fever, and has received from the Society £47 8s.

B., a general practitioner in the south-west, aged 30, joined the Society for sick-pay of £4 4s., an annuity of £50, and payment of £200 at death, and has paid to the Society up to the present £21 0s. 10d. While engaged in professional work he was thrown from his horse, and sustained a compound fracture of the leg, and has received from the Society £54 12s.

ANNUITY FUND.—This fund, from its nature and constitution, is confined almost entirely to the reception and accumulation of the premiums against future claims, necessarily of a deferred character, and to their investment at as high a rate of interest as is consistent with perfect safety. We have, however, received several communications regretting that the Friendly Societies Act will not allow of a larger provision being made for any one member than the annuity of £50 *per annum*, and it has been suggested that means should be taken to enable members' wives to pay for annuities, with the right to continue such payments should they become widows before the annuity-age is reached. This suggestion is now under consideration, and if it be found possible to adopt this or any other plan calculated to increase the usefulness and popularity of the Society, prompt measures will be taken to carry it into effect.

Some regret has also been expressed by two or three of the members that, should the age of 65 not be attained, the premiums paid for annuities would confer no benefit. It must, however, be borne in mind that this was one of the elements taken into consideration when the tables were constructed, and any system of returning the whole or part of the premiums in such cases must necessarily be met by an increase in the rates. There is an easy method of correcting the result objected to by members taking at the same time as the annuity a sufficient life-assurance, as in that case one contract must be profitable just in proportion as the other is unprofitable. It may be possible, however, in the event of there being a profit surplus to this fund, to dispose of it in providing a payment on the death of members who do not live to the age of 65, and we have decided to lay the whole matter before the actuary at the first valuation.

ASSURANCE FUND.—Beyond the fact that no deaths have, up to the present, occurred among the members who have life-assurance contracts, there is nothing in the work of this fund calling for comment.

MANAGEMENT FUND.—It will be seen, on reference to the figures under this head, that the economy in management, which was promised at starting, has been fully maintained; for, while the rules stipulate that in no case shall more than ten per cent. of the premium income be used for this purpose, little more than half that amount has been sufficient up to the present, with the result that there is now a clear profit balance in the fund of £603 6s. 5d. There are few items in the expenditure calling for comment or explanation; but it will be noticed that the cost of acquiring investments has been at once charged to management, instead of being added as an asset to the price paid, and thus the amount of each investment standing in the books is really the exact purchase-money only. Up to the present, no cost has been incurred in office rent or furniture, and now that the Society has become fairly established, some arrangements of a very moderate nature

will be made in this direction. As this will be met by probable savings in other items, there is every prospect that the present low ratio of cost will be preserved, and in this matter the Society will continue to bear favourable comparison with kindred organisations. It must, however, be borne in mind that, with the exception of purely official work, the Society has been managed by its honorary officers; and our thanks, as well as those of the members, are especially due to the Chairman, Vice-Chairmen, Treasurers, and the members of the Executive Committee, who have given a great deal of valuable time and thought to the business.

INVESTMENTS.—During the year, a watchful care has been exercised over the balances, and as rapidly as possible the best investments have been sought for the accumulated capital. As a result, it will be noticed that nearly £6,000 is now placed in undoubtedly good securities, returning an average of over three and a half per cent. on the amount invested. This is the more satisfactory as this element is only next in importance to the premium-rates; and, as all the calculations are based on the assumption of a three per cent. interest, the continuance of an advantageous and higher average will help materially in creating surplus profits divisible among the members. In the matter of investments, we have received much assistance from Mr. Stephenson, the eminent actuary, and one of our arbitrators, and have had the advantage of the advice of the trustees, to all of whom we are greatly indebted.

The following is a general statement of the income and expenditure of the year, and the financial result:

	Income.		Expenditure.		Balance.	
	£	s. d.	£	s. d.	£	s. d.
Sickness Fund.....	3,072	15 9	843	2 8	2,229	13 1
Annuity Fund.....	1,821	0 2	nil		1,821	0 2
Assurance Fund.....	614	5 2	nil		614	5 2
Management Fund.....	700	12 0	367	5 10	333	6 2
	<u>£6,208</u>	<u>13 1</u>	<u>£1,210</u>	<u>8 6</u>	<u>£4,998</u>	<u>4 7</u>

Net accumulation in the year, £4,998 4s. 7d.

Among the matters brought under our consideration during the year, it is necessary to refer to the question of income-tax. This was raised by letters from several members, inquiring how far the amount paid to the Society as premiums was exempt from taxation, and the Secretary was instructed to make inquiries on the matter. He did so, and received a verbal answer from the Income-Tax Inquiry Department at Somerset House, that the amount so paid could be deducted from taxable income. This was notified to all the members; but, subsequently, a notice was received from the Commissioners, which reopened the whole matter. It was then found the exemption rested on the not very explicit terms of two Acts of Parliament; and an official letter has recently been received, to the effect that the exemption applies only to payments for annuities and life-assurance, and not to those on account of sickness-assurance. It has been pointed out to the officials that, under this decision, the members would in equity be justified in omitting any sickness-pay received from their return of income, and this view was concurred in. To meet the case, the Secretary will be glad to supply any member having a combined assurance with a certificate of what proportions of the premium are for sickness, and for other purposes. It must be understood that all interest, income, etc., of the Society is exempt from income-tax, and that this has in no way been called in question.

It is not now proposed to alter or amend any of the rules. As already stated, several suggestions on this subject have been received, all of which have been carefully noted, and the operation of several of the rules is being watched in order to ascertain if any, and what, modifications would be improvements. For the present, however, having regard to the short time they have been on trial, it is probably best to leave them unaltered until further information and experience are obtained, more especially as, taking the rules on the whole, they appear to give general satisfaction.

We take this opportunity of expressing the confidence which the experience of the past year justifies us in holding as to the work and prospects of the Society. We trust that the publication of this report will obtain for it a large accession of members. Although the present membership is more than sufficient to make the work of the Society sound and successful, it is by no means so large as we think—having regard to the numerical strength of the profession—it might, and, indeed, deserves to be. We hope that, in the near future, a special effort will be made to obtain for the Society increased publicity and a larger and more representative membership—a result that will be much helped if those who have already joined will personally bring the work to the notice of their friends, and endeavour to induce them to co-operate in an organisation which, while it provides a means for

mutual aid and safety, is based on principles of complete independence and self-help.

(Signed) by order and on behalf of the Committee,
July 15th, 1885. ERNEST HART, Chairman.

Statement of Assets and Liabilities as on June 30th, 1885.

CR.] ASSETS.		£	s. d.
£1,746 Great Western 5 per cent. Rent Charge Stock, cost price at 14½ per cent.		2,474	19 1
£2,365 Os. 9d. Croydon Corporation 3½ per cent. Stock, cost price at 97½ per cent.		2,300	0 0
Debt of Downham and Stoke Ferry Railway (4 per cent. interest)		1,000	0 0
Union Bank Current Account	£695 17 9		
Less Cheques not cleared	37 16 0		
		658	1 9
		<u>£6,433</u>	<u>0 10</u>
DR.] LIABILITIES.		£	s. d.
Sickness Fund		2,346	9 7
Annuity Fund		2,239	3 0
Assurance Fund		744	1 10
Management Fund		603	6 5
		<u>£6,433</u>	<u>0 10</u>

Statement of Accounts and Balances for the Year ending June 30th, 1885.

DR.] MANAGEMENT FUND.		£	s. d.	£	s. d.
To Balance, July 1st, 1884				270	0 3
„ Entry Fees		96	1 6		
„ Less returned		3	3 0		
				92	18 6
„ Second Notice Fees				1	18 0
„ Proportion of Premiums, 10 per cent.				606	15 6
				<u>£970</u>	<u>12 3</u>
CR.]		£	s. d.		
By Salaries and Auditors' Fees		206	8 8		
„ Printing, Stationery, etc.		56	19 5		
„ Advertising		2	11 3		
„ Stockbroker's and Banker's Charges and Stamps		27	13 6		
„ Travelling, Office Expenses, etc.		26	11 0		
„ Postage		36	15 0		
„ General Meeting Expenses		10	2 0		
		867	5 10		
Balance		603	6 5		
		<u>£970</u>	<u>12 3</u>		
DR.] SICKNESS FUND.		£	s. d.		
To Balance, July 1st, 1884				616	16 6
„ Members' Payments		3,043	10 9		
„ Interest		29	5 0		
		<u>£3,669</u>	<u>12 3</u>		
CR.]		£	s. d.		
By Sickness Pay		843	2 8		
„ Balance		2,846	9 7		
		<u>£3,669</u>	<u>12 3</u>		
DR.] ANNUITY FUND.		£	s. d.		
To Balance, July 1st, 1884				418	2 10
„ Members' Payments		1,801	1 2		
„ Interest		19	19 0		
		<u>£2,239</u>	<u>3 0</u>		
CR.]		£	s. d.		
By Balance		2,239	3 0		
		<u>£2,239</u>	<u>3 0</u>		
DR.] ASSURANCE FUND.		£	s. d.		
To Balance, July 1st, 1884				129	16 8
„ Members' Payments		607	13 11		
„ Interest		6	11 3		
		<u>£744</u>	<u>1 10</u>		
CR.]		£	s. d.		
By Balance		744	1 10		
		<u>£744</u>	<u>1 10</u>		

I certify the above to be correct abstracts of the accounts of the Society, which are duly vouched.
H. R. JENNINGS,
Public Auditor under the Friendly Societies' Acts,
July 11th, 1885. 46, Great Ormond Street, W.C.

SOCIAL SCIENCE ASSOCIATION.

THE annual business-meeting of members was held at the offices of the Association, in Adam Street, on Wednesday, July 22nd, the Treasurer, Mr. Joseph Brown, Q.C., in the chair. A report from the Council, detailing the action taken by the Association during the 12 months ending June, was presented and ordered to be received and circulated. The report dealt with several subjects of interest in regard to which special action had been taken; and, among these, may be mentioned the Fine Art Copyright Bill, promoted by a Committee of the Association; the death duties; the Corporate Property Security Bill; prison-administration in Ireland; secondary education; pollution of rivers.

The Council also reported that they had had under their consideration a proposal to add a further department for the discussion of temperance subjects. The proposal, which had been suggested at a public meeting held at Birmingham after the conclusion of the Congress business in September last, was one which the Council felt they could not support, in the interests either of the Association or of the cause of temperance. Recommendations or resolutions passed in such a special department would, it was felt, lose much of the weight they would otherwise possess if arrived at in a general section or department; and the creation of a further division in the organisation of the Society would be less a source of strength than of weakness.

The Council express their regret that, for the first time in the history of the Association, they have considered it prudent this year to forego the preparations for a provincial meeting. A hearty invitation from the city of Bath had been received and provisionally accepted, when the announcement came that the general election would probably take place in the autumn. The Council reluctantly decided, therefore, to defer their final acceptance, in the hope that the opportunity of meeting in that interesting city might be revived under more favourable circumstances for the next year.

It is proposed, however, that, in lieu of a Congress, a two days' Conference on "Temperance Legislation" shall be held in London in the month of January, all the expenses in connection therewith being raised by a special fund. This is a subject which, at the opening of a new Parliament, will receive widespread attention; and in its legislative aspects it is one in the solution of which the Association may usefully be able to take a part. The holding of such a Conference will afford an opportunity for the official expression of opinions as held by the leading societies interested in the subject. It will not, and under the constitution of the Association it could not well, be organised for the purpose of carrying out any distinctive policy. The outlines of such a policy will, it is hoped, be arrived at by the votes of those present; and the Council confidently trust that they may afterwards be found of some use in the proceedings of the legislature, for it is certain that Parliament will shortly have to deal in a practical manner with the laws affecting the sale of alcoholic liquors.

The following appointments in the Association for the ensuing year, 1885-86, were then made; the President of the Association and the Presidents of Departments for the past year continuing in their respective offices for a second year.

President of the Association.—The Right Hon. G. Shaw-Lefevre, M.P.

President of Council.—Sir Richard Temple, Bart., G.C.S.I., C.I.E., D.C.L., LL.D.

President of the Jurisprudence Department.—John Westlake, Esq., Q.C., LL.D.

President of the Education Department.—Oscar Browning, Esq., M.A.

President of the Health Department.—Norman Chevers, Esq., C.I.E., M.D., F.R.C.S. Eng.

President of the Economy and Trade Department.—Viscount Lymington, M.P.

President of the Art Department.—The Right Hon. A. J. B. Beresford-Hope, M.P.

Chairman of the Repression of Crime Section.—J. S. Dugdale, Esq., Q.C., Recorder of Birmingham.

Foreign Secretary.—John Westlake, Esq., Q.C., LL.D.

Treasurer.—Joseph Brown, Esq., Q.C.

Auditors.—Andrew Dunn, Esq.; Andrew Edgar, Esq., LL.D.

Secretaries of Departments.—I. JURISPRUDENCE AND AMENDMENT OF THE LAW: H. N. Mozley, Esq., M.A.; Meryon White, Esq., M.A.; A. Herbert Safford, Esq.—II. EDUCATION: Rowland Hamilton, Esq.—III. HEALTH: H. H. Collins, Esq.; Edward Seaton, Esq., M.D.—IV. ECONOMY AND TRADE: the Rev. S. A. Steinthal; Edward J. Watherston, Esq.—V. ART: A. H. Mackmurdo, Esq.; P. H. Rathbone, Esq.

The proceedings terminated with the election of the various Standing Committees of Departments, and hearty votes of thanks to the officers for their services during the past year.

MEETING OF METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE first meeting of the Joint Committee of the Association of Medical Officers of Health was held on Thursday, July 16th, at 4.30 P.M., at 1, Adam Street, Adelphi. The object of the meeting was to consider the desirability of, and what steps should be taken towards improving the tenure of office of medical officers of health. There was an unusually good attendance, comprising deputations from the North-Western Association of Medical Officers of Health, from the North Riding Association of Medical Officers of Health, and from the Midland Association of Medical Officers of Health. Among these, were Mr. Vacher (Birkenhead), Mr. Atkinson (Settle), Dr. B. Hill (Birmingham), Messrs. Henry May (Aston), C. Perks (Burton-on-Trent), George Fosbroke, Jun. (Stratford Combined District), Dr. H. Page (late Redditch), Dr. Saunders (London) and Mr. Vacher were appointed Secretaries. Several letters of apology for absence having been read, the meeting proceeded to the consideration of the special business for which it was convened. Considerable divergence of opinion was expressed as to the nature of the tenure of office as now held in various parts of the kingdom, and as to the constitution of the various sanitary districts. The Chairman observed that the metropolitan medical officers of health regarded their appointments as practically permanent, dependent on good conduct; and some of the provincial officers felt they held their positions on the same terms. Others, even from the large towns, felt that they had no such sense of security, but were at the mercy of local influence, or that of the local sanitary authority; indeed, more than one good man had been the victim of such local pressure. The scope of action and power of the Local Government Board was felt to be uncertain and unsatisfactory. Much difference of opinion was also expressed as to the wisdom of the present formation of sanitary districts. One of the deputations appeared to contend that small areas had some advantages in having local men for the office: the general opinion of the meeting, however, was that small districts should disappear, and important centres and combinations of districts of sufficient importance to guarantee an adequate salary and effective work should alone be allowed. Experience of all these various points was given by one or other of the members present. After much discussion, it was suggested by the Chairman that, without entering then upon the technical details and exceptions to the rule (and probably the metropolis would have to constitute the chief exception in the future as now) necessarily involved in the work, it would be better to agree to affirm a principle which ought to govern all the appointments. It was proposed, seconded, and carried unanimously, that it is desirable that the tenure of office of medical officers of health be made upon similar terms to that of the poor-law medical officers. It was subsequently proposed by Mr. G. Fosbroke, seconded by Dr. H. Page, and carried unanimously, that delegates from the British Medical Association, the Social Science Association, and such other public bodies as may be deemed desirable, be requested to unite with the members of that influential and representative meeting, to form a deputation to lay the subject before the Local Government Board on as early a date as possible. It was agreed that the full and technical terms of the resolution be forthwith drawn up by the secretaries, and printed, and circulated amongst the members of the Association for their consideration and suggestions, before the view of the deputation to the Local Government Board was finally prepared.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—The following is the list of officers of this Society, elected at the annual meeting on July 9th, 1885. *President:* Dr. Byass. *Vice-Presidents:* Mr. Charles Oldham, Dr. J. Harris Ross. *Treasurer:* Mr. Hodgson. *Honorary Secretaries:* Dr. Mackey, Dr. Uthoff. *Honorary Librarian:* Dr. Gasquet. *Council:* Mr. E. Cresswell Baber, Dr. Ewart, Mr. D. W. Giffard, Mr. Lockwood Hawken, Mr. F. A. Humphry, Mr. Athol Johnstone, Mr. Arthur Nicholson, Dr. Whittle.

HERPES IRIS AFFECTING THE CONJUNCTIVA.—Dr. Bergmeister describes a case of recurrent herpes iris of the conjunctiva, in a stone-worker, aged thirty, who had suffered from eight attacks. The mucous membrane of the nose and mouth were free, but the skin of both arms and legs were affected with the characteristic rash. A croupous membrane was seen in the eyes; the lids were swollen, and there was much catarrhal secretion. Similar cases have been mentioned by Fuchs in 1876, and by Neumann in 1883.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

NOTICE is hereby given that an Extraordinary General Meeting of members will be held at Exeter Hall, London, on Friday, August 14th next, at 4 o'clock in the afternoon, for the purpose of confirming the resolution passed at an extraordinary general meeting of members held at the Town Hall, Cardiff, on the 30th instant, namely, that Articles 13 and 15 be altered so as to read as follows:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any 100 or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting, and if they do not so within 21 days from the date of the requisition, any 100 members may themselves convene a meeting.

FRANCIS FOWKE, *General Secretary*.

Cardiff, July 30th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —J. MANTLAND, M.B., Honorary Secretary, Madras.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting will be held at the Horn Hotel, Braintree, Friday, August 7th, at 2.30 P.M. Dr. Elliston, of Ipswich, President of the East Anglian Branch, will preside. *Programme and Agenda.*—1. 2.30, General Meeting to arrange time and place of the next meeting. 2. The Treatment of Women after Child-birth, by the President. 3. The Radical Cure of Hernia, by C. B. Keetley, Esq., F.R.C.S., London. 4. A Case of Recovery from an Artificial Anus occurring after an Operation for Hernia, by J. Harrison, Esq., sen., Braintree. 5. A Case of Myxodema, by C. E. Abbott, Esq., Braintree. 6. Twin Abortion, by J. Sinclair Holden, M.D., Sudbury. 7. A short Account of the New Association of Members of the Royal College of Surgeons, by C. E. Abbott, Esq., Honorary Secretary of the Association for Essex. 8. Coxeter's Obstetric Vade Mecum will be shown by C. E. Abbott, Esq. At the conclusion of the meeting, there will be high tea at the Horn Hotel; tickets 3s. Any member wishing to be present, or to read a paper, or to exhibit a case, is requested to notify his intention to the honorary secretary on or before Tuesday, August 4th. —WILLIAM THOMAS JACKMAN, Honorary Secretary, Coggeshall, Essex.

SHROPSHIRE AND MID-WALES BRANCH: ANNUAL MEETING.

The annual general meeting of the Branch was held at the Salop Infirmary on Tuesday, June 30th, at 2 P.M. The President, J. D. HARRIES, Esq., occupied the chair.

Officers and Council.—After proposing a hearty vote of thanks to the retiring President, Mr. W. Bowen Davies, and having read his address, the President laid before the meeting the list of officers of the Branch nominated for the ensuing year, when the following gentlemen were declared duly elected. *President-elect:* W. H. O. Sankey, M.D. *Council of the Branch:* E. Andrew, M.D.; W. B. Davies, Esq.; W. Eddowes, Esq.; S. T. Gwynn, M.D.; J. R. Humphreys, Esq.; H. Keyworth, M.B.; E. Robinson, Esq.; H. J. Rope, Esq.; W. H. O. Sankey, M.D.; A. Strange, M.D.; R. W. O. Withers, Esq. (Auditor). *Representative on the Council of the Association:* Arthur Strange, M.D. *Honorary Secretary:* Edward Cureton, Esq.

Report of Council.—The following report was read.

"Your Council have to report that, during the past year, three

members have resigned the Branch, and that two members, Mr. E. J. Parry, of Shrewsbury, and Mr. J. Jones, of Llanfyllin, have been removed by death. The Branch, on the other hand, maintains its strength, being to-day 107 in number, as compared with 96 last year. Your Council much regrets to have to report that the average attendances of members at the quarterly meetings held during the past year have been so small, that it is compelled to abandon the idea of organising quarterly meetings for the future; but, instead, proposes to hold one annual and one half-yearly meeting, by which means it is hoped that larger gatherings of members may be secured.

"In conclusion, your Council wish to state that the finances of the Branch are in a satisfactory state, showing a balance of £32 9s. 4d. With respect to this balance, your Council wish to have the opinion of this meeting as to the advisability or not of voting a sum of money to one or other medical society of a benevolent character, as the Branch did last year. Upon reference to the annual report of the British Medical Benevolent Fund, it will be seen that several Branches have voted various sums from time to time to the Fund."

After the meeting had adopted the report of the Council, it was unanimously decided to vote five guineas to the British Medical Benevolent Fund, and a similar sum to the Royal Medical Benevolent College.

Papers.—The following were read.

1. Mr. Lawson Tait: On the Surgical Treatment of Gall-Stones.
2. Dr. Dalton (King's College Hospital): The Relation of Micro-Organisms to Disease; assisted by microscopic demonstrations.
3. Dr. Chapman (London): On the Rhythm of Heart-Sounds as an Element of Prognosis. This was followed by a discussion by Dr. Foster (Birmingham) and several others.

Specimens.—Selections of all the most recent preparations in pharmacy, together with an assortment of surgical instruments, were shown by Messrs. Cross and Son, of Shrewsbury. A series of digestive ferments, and a large variety of freshly peptonised foods, prepared with extractum pancreatis (Fairchild), were laid before the members. The rose-tint reaction of the peptones with Fehling's solution was obtained, both with peptonised milk and beef-tea. Various kinds of peptonised tabloids, and also several kinds of antiseptic sponges, wound-pads, etc., were exhibited.

Dinner.—The members, to the number of 36, afterwards dined together at the Lion Hotel, when the usual loyal and other toasts were given and duly honoured.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

The annual meeting of the above Branch was held in the Old Anatomical Museum, Cambridge, on Friday, June 12th, 1885; W. H. BULL, Esq., President, in the chair.

Officers and Council.—Dr. J. More, of Rothwell, was appointed President-elect; and Mr. C. Johnson, of Bedford, was placed on the Committee of Management in the room of Dr. More. All the other officers were re-elected.

Autumnal Meeting.—It was decided that the usual autumnal meeting should take place at Stony Stratford in the first week of October.

Mr. Knott.—It was announced that Mr. Knott, of Blisworth, had been successful in the recent election, and had obtained a pensionership at the Medical Benevolent College, Epsom.

The members afterwards joined the Cambridge and Huntingdon and East Anglian Branches in a combined meeting.

NORTH WALES BRANCH: ANNUAL MEETING.

The thirty-sixth annual meeting of this Branch was held at the Wynnistay Arms Hotel, Wrexham, on Tuesday, July 7th; R. A. PRICHARD, Esq., President, in the chair.

Letters of Apology.—Letters of apology were received from many members who were unable to attend, among them being Sir James Paget, Bart.; Dr. W. T. Edwards, President-elect of the Association; and Dr. Balthazar Foster, President of the Council, etc.

New Members.—The following members of the Association were elected members of the Branch: Dr. Imlach (Liverpool), Messrs. Robert Jones (Liverpool), E. Evans (Wrexham), Hoops (Rossett), Manisty (Gresford), and D. Edwards (Mold). The following gentlemen were elected members of the Association and Branch: Messrs. H. S. Michell (Gronant, Holywell), R. P. Roberts (Bethesda, Bangor), W. R. Parry Jones (Llanfair Caereinion), and J. P. Jones (Flint Dispensary, Holywell).

The PRESIDENT then introduced the President-elect, Mr. J. W. Roberts, M.B.

Report of Council.—The report of the District Council was read by the Honorary Secretary, from which it appeared that, since the last

meeting at Wrexham in 1877, the members of the Branch had increased from 72 to 106, and that the funds of the Branch were in a prosperous condition, and was unanimously adopted.

Place of Intermediate and Annual Meeting, 1886.—It was resolved, on the proposition of Mr. O. T. WILLIAMS, seconded by Mr. WM. JONES (Ruabon), that the next intermediate meeting be held at Penmaenmawr, and the annual meeting of 1886 at Festiniog.

District Council.—The following members were elected on the District Council for the ensuing year: Dr. Griffith (Portmadoc), Messrs. R. A. Prichard (Conway), R. Roberts (Festiniog), Charles Williams (Duffryn), Hugh Rees (Carnarvon), and J. Ll. Williams (Wrexham).

President-elect.—Mr. R. A. PRICHARD proposed Dr. Eytton-Jones of Wrexham as the President-elect for 1885-86; and, in doing so, referred to the invaluable services he had rendered to the Branch and the Association by acting as their representative on the Council, a position which they all regretted he found himself compelled to resign. This was seconded and carried unanimously, and Dr. Eytton-Jones thanked the Branch for conferring upon him the honour of electing him to fill the presidential chair a second time, an honour that had only been conferred once before on any member of the Branch, that being his late distinguished fellow-associate, Mr. T. T. Griffith.

Secretary and Treasurer.—Mr. Jones-Morris (Portmadoc) and Mr. John Richards (Bangor) were re-elected Secretary and Treasurer.

Representative on the Parliamentary Bills Committee.—Mr. P. Elias Owen (Llangefni) was elected representative on the Parliamentary Bills Committee.

Representative on Council of Association.—Dr. EYTON-JONES proposed, and Dr. ED. WILLIAMS (Wrexham) seconded, that the Honorary Secretary be elected the representative on the Council of the Association. This was unanimously carried.

President's Address.—The PRESIDENT delivered an address on "Mortality and Disease in North Wales." On the motion of Dr. EYTON-JONES, seconded by Mr. ROGER HUGHES (Bala), a cordial vote of thanks was awarded to him for his most interesting and instructive address.

Communications.—The following communications were made.

1. Mr. O. T. Williams (Holyhead): A Case of Erysipelas with Unusual Features.

2. Dr. Griffith: Abscess of the Brain. He exhibited the organ, and invited the opinion of the meeting on the indications and probabilities of success in operations in this malady. An interesting discussion ensued, which was taken part in by Drs. Mackenzie and Herringham (London), Roberts (Chester), Williams (Liverpool), Andrew (Shrewsbury), and the President.

3. Dr. Isambard Owen gave an address on Collective Investigation, inviting the Branch more generally to take up the question.

4. Dr. Stephen Mackenzie read a paper on Some Points concerning Acute Rheumatism requiring Investigation. A discussion followed, which was taken part in by Drs. Waters (Liverpool), Roberts (Chester), and Griffith (Portmadoc); and a vote of thanks was unanimously passed to Dr. Mackenzie for his most excellent and suggestive paper.

Hospitality.—Prior to the meeting, the members were most hospitably entertained at lunch by Dr. Eytton-Jones.

Exhibition of Drugs, etc.—An exhibition of instruments by Messrs. Wm. Wood and Son, King Street, Manchester, of drugs by Messrs. Evans, Sons, and Co., and of mineral waters by Messrs. J. F. Edisbury and Co., of Wrexham, was held in an adjoining room, and gave universal satisfaction.

Dinner.—The members, with the Mayor of Wrexham, the Vicar (Rev. Canon Howell), and other guests, numbering 42, afterwards dined together.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The annual meeting of this Association was held recently at the Holborn Restaurant, when the following officers were elected for the ensuing year. *President:* Dr. Travers. *Vice-Presidents:* Dr. Arnison, Dr. Tyson. *Secretaries:* Dr. Mears, Dr. Milson. *Council:* Drs. Archer, Armstrong, Baker, Cook, Dixon, Drummond, Goddard, Goldsmith, Leach, Morton, Philipson, Wilson. Several important subjects came up for discussion at the meeting. In the evening, the members, amongst whom were several guests, dined together. The next annual meeting and dinner will be held at Durham.

CHARCOAL AND CAMPHOR IN CHRONIC ULCER.—A mixture of equal parts of camphor and animal charcoal is recommended by Barboeci as an application to prevent the offensive odour and remove the pain of old excavated ulcers. The camphor acts as a disinfectant, and the charcoal absorbs and destroys the offensive odours.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Influence of Pilocarpine and Atropine on Secretion of Sweat.—*Total Vaginal Extirpation of the Uterus.*—*Perforation of Intestine in Typhus Ambulatorius.*—*M. Paul Bert on the Physiological and Ethical Aspects of Experiments on Decapitated Criminals.*—*Dr. Ferran's Inoculations.*—*A Scientific Centenarian.*

M. JUDIC, in a communication on the influence of pilocarpine and atropine on perspiration, made before the Biological Society, stated that if a dog's spinal cord be cut between the eighth and ninth dorsal vertebrae, its paws become the seat of intense perspiration. This appears to prove that there is a spinal nerve-centre, which regulates the secretion of sweat. After dividing the sciatic nerve, if the peripheral end be stimulated, the corresponding paw perspires profusely. The sciatic nerve is simply a transmitting agent; it establishes communication between the medullary and the peripheral nerve-centres. If, instead of stimulating the peripheral end of the sciatic, the nerve be left intact, and pilocarpine be administered to the animal, the perspiration is equally intense. If the nerve be cut and pilocarpine administered, the perspiration is normal. It may, therefore, be concluded that pilocarpine does not act on the glandular elements, but on the nervous system. Atropine produces the opposite effect to that provoked by pilocarpine.

At a recent meeting of the Académie de Médecine, M. Trelat read a memoir on total removal of the uterus through the vagina in cases of cancer. Santerre, in 1882, and Recamier, in 1829, were, M. Trelat asserted, the first to perform this operation, and were very successful. Nevertheless, fifty years passed before it was repeated. In 1878, the subject was discussed in Germany, and the removal of the organ was effected by abdominal section. M. Trelat, in a course of lectures delivered six years ago, proved by statistics that cancer-patients lived longest when not operated upon. The Bordeaux surgeons, since 1883, have removed the cancerous uterus through the vagina eleven times; five of the patients recovered, and six died. M. Dennis revived the question at the recent Paris Surgical Congress, and three distinct lines of treatment were upheld—partial operation, palliative dressings, and total extirpation of the uterus. Three weeks ago, M. Tillaux and M. Terrier read notes of two cases of cancer, in which they removed the entire uterus; both patients recovered. M. Trelat, a few weeks ago, performed the same operation, and the patient is getting well. M. Terrier again performed this operation still more recently, and the patient died from peritonitis. M. Trelat stated, at the end of his communication, that, when surgeons sought to determine the nature and seat of uterine cancer, as soon as the malady was suspected, extirpation of the uterus through the vagina would be as successful an operation as removal of scirrhous breasts.

At a recent meeting of the Société Anatomique de Paris, M. Maurice showed a specimen of perforation of the intestine, from a patient who had died from typhus ambulatorius. He had been so slightly affected by his illness, that he continued his military service till three days before death, when he over-indulged in eating and drinking, and, feeling pain, went into hospital. M. Maurice suggested that in similar cases of slight fever provoking so little inconvenience, intestinal perforation should be treated surgically.

M. Paul Bert, at a meeting of the Académie des Sciences, described MM. Regnard and Soyès' researches on the body of a decapitated criminal. They were undertaken with a view of elucidating some physiological data that still remain obscure. Nerves retain their susceptibility to stimulating agents for some minutes after decapitation. M. Regnard and Soyès tried to ascertain the area submitted to the influence of the sympathetic and pneumogastric nerves; also facts concerning the muscular contraction of the lungs and the nerves, which provoke this contraction, the function of certain muscles of the hands, at present undetermined, and the action of certain nerves in the legs and arms. The results of these experiments will be shortly published. M. Bert characterised the experiments as legitimate and such as may probably lead to important discoveries. Those of another class, made to determine how long general sensibility persists in criminals who have suffered capital punishment, M. Bert believes to be perfectly useless, and also illegal. The law, which was promulgated in 1792, particularly specifies that neither moral nor physical torture shall accompany capital punishment, therefore, any attempt to bring back the criminal to even momentary consciousness

is a direct infringement of the law. M. Savrey and Vulpian supported M. Bert's views.

M. Gosselin was directed, by the Académie des Sciences, to draw up a report on Dr. Ferran's last communication. He informs that body that he is unable to do so, since Dr. Ferran had not sent sufficient data for report. In order to judge the question, M. Gosselin desired to have an opportunity of investigating complete statistics of the inoculations and their results. The Academy of Valencia is instituting an inquiry of this kind, and begs the Académie Française to suspend its judgment until it is terminated.

The anniversary of M. Chevreul's birthday will be celebrated on August 5th. On July 31st he will have reached his 100th year. At that date the schools and faculties will be shut, and the students dispersed; they have, therefore, fixed on August 5th, and the fête promises to be unusually brilliant.

CORRESPONDENCE.

THE CASE OF DR. BRADLEY.

SIR,—I gladly avail myself of this, my earliest opportunity, to heartily thank you, and, by your kind permission, through the *BRITISH MEDICAL JOURNAL*, my many other kind friends, for your laborious and persistent efforts to obtain my release from Leicester Prison, which have, happily, resulted in success. Believe me, that words fail to express my gratitude for all the sympathy shown me during my imprisonment. It is needless for me to comment on the case further, than to state that I am perfectly innocent, and I am much obliged to those in authority for their great kindness in granting me a gracious pardon, for an offence I did not commit.—I remain, yours ever sincerely,

DAVID BRADLEY, M.D.

Barrow Hill, Chesterfield.

SIR,—As the recent conviction and imprisonment of Dr. Bradley has practically ruined him, it has been kindly suggested, by a number of members of the profession and others, including Sir William Jenner and Mr. Marston C. Buszard, Q.C., M.P., that a fund be raised for the purpose of helping him to recommence practice. Would you kindly allow an appeal to be made on his behalf, through the columns of your *JOURNAL*? Dr. Bradley has a delicate wife and one child, who are now entirely dependent upon the charity of friends and relations.

I shall be happy to receive subscriptions, and will give any explanations required.—I remain, yours faithfully,

Eastwood House, Chesterfield.

RICHARD JEFFREYS.

THE DISCUSSION ON PUERPERAL STATISTICS AT THE OBSTETRICAL SOCIETY.

SIR,—Please allow me to correct your report of my remarks at the Obstetrical Society's last meeting. I did not "object to Dr. Matthews Duncan's estimate of puerperal mortality," but to his disbelief of those who stated they had no death in 1,000 cases; and I instanced my own experience, of the accuracy of which I was certain, having the cases under observation for a long time afterwards.—I am, etc.,

George Street, Hanover Square.

J. BRAXTON HICKS.

MEDICAL EDUCATION AND APPRENTICESHIP.

SIR,—Having, at an earlier period of my life, been in extensive general country practice, I can most thoroughly endorse the letter of Mr. N. E. Davies in the *BRITISH MEDICAL JOURNAL* of July 18th, on the subject of medical apprenticeships. A young man, articulated to a well informed practitioner, especially one holding club and union appointments, cannot fail, in the course of a couple of years, to gather a large amount of medical and surgical knowledge in detail, which he will find eminently useful and conducive to future professional success. It is this knowledge of detail, of which mere hospital and college students are generally so deficient. In order, however, to make an apprenticeship a reality, and not a sham, as it is sometimes, any practitioner receiving pupils should hold a certificate, not only as to his professional capabilities, but as to the opportunities in the way of practical instruction he has to offer.

At the conclusion of an apprenticeship, an examination ought to prove the acquirements of the student, and, at the same time, guarantee the title of his master to be a teacher of the elements at least of his profession.—Faithfully,

Torquay.

SPENCER THOMSON, M.D., etc.

MEDICAL BOOKKEEPING.

SIR,—Having occasionally seen letters in the *JOURNAL* regarding various plans of bookkeeping for the profession, and as our annual meeting is to be held at Cardiff this year, I think it a good opportunity to draw attention to Dr. Sheen's system, which I have used for more than four years, and of which I cannot speak too highly. The books are sold by Mr. Wm. Lewis, of Duke Street, Cardiff; and I strongly recommend members to acquaint themselves with the system. I only use the day-book, with an ordinary ledger; but it would be an advantage to use a column in the ledger-index for charge per visit.—Faithfully yours,

W. L.

DISINFECTANTS IN MIDWIFERY.

SIR,—In reading the account of the proceedings of the Obstetrical Society reported in the *JOURNAL* of July 18th, I was much struck with the general tendency to attribute all the success of modern midwifery to the use of disinfectants. Dr. M. Duncan accentuates the proposition by the statement that, "in the history of the subject, all measures had failed to reduce mortality till antiseptics were introduced." Let me quote some of the statistics derived from the hospital for soldiers' wives at Aldershot, not so much to show any disbelief in the value of antiseptics, as to point out that their use is not the sole cause of success. I find that a series of 4,732 deliveries, extending over a period of 18 years, gave a mortality from all causes of 0.69 per cent. I may mention that these results have been obtained almost entirely without the use of antiseptics, in hospital buildings consisting of old wooden huts, lacking much that is considered essential in modern hospitals, and with very indifferent surroundings. Soldiers' wives, too, as a class, do not furnish the conditions necessary for a favourable set of cases; but, notwithstanding all these drawbacks, the results will bear comparison with the best of those obtained under modern antiseptic precautions. I think the ratio of deaths in childbirth is often overrated, and, in my experience, does not exceed 0.5 to 0.6 per cent. Any material reduction from these numbers we will willingly and thankfully attribute to antiseptics.—I am, etc.,

Aldershot.

FRANKLIN GILLESPIE, M.D.,
Surgeon-Major Army Medical Staff.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

SURGEON J. H. C. WHIPPLE, M.D., of the Coldstream Guards, has been appointed Surgeon-Major to the Grenadier Guards, in the place of Surgeon-Major H. G. H. Lawrence, who has gone on retired pay. Dr. Whipple served in the Egyptian war of 1882, with the 2nd Battalion of the Coldstream Guards, and was in the action at Tel-el-Mahuta, and at the battle of Tel-el-Kebir. He has the medal and clasp, and the Egyptian bronze star.

Surgeon-General JOHN IRVINE, M.D., has been appointed Honorary Physician to the Queen, *vice* the late Sir William Muir. Dr. Irvine entered the service as an Assistant-Surgeon, March 15th, 1850; became Surgeon October 2nd, 1857; Surgeon-Major, November 16th, 1869; Deputy Surgeon-General, November 8th, 1876; and Surgeon-General, June 1st, 1883. He was with Havelock's column throughout the operations in 1857, in Medical Charge of the Royal Artillery, and was present in numerous engagements with the rebels, including the siege and defence of the Residency of Lucknow, and its subsequent relief and capture under Lord Clyde (mentioned in despatches, medal with two clasps, and a year's service).

Surgeon WILLIAM ENGLAND, M.D., has resigned his commission in the Hampshire Yeomanry, which he joined on June 11th, 1869.

Surgeon F. J. LAMBRIN has passed the lower standard in Hindustani.

Surgeon W. A. CARTE, M.B., has been appointed Surgeon to the Coldstream Guards, *vice* J. H. C. Whipple, M.D., who has been promoted into the Grenadier Guards. Surgeon Carte entered the Army Medical Staff so recently as May 30th, last, since which time he has been serving at Aldershot.

Brigade-Surgeon R. O. HAYDEN, who went on half pay on June 30th, of last year, has been granted retired pay, with the honorary rank of Deputy Surgeon-General. His commissions are dated: Assistant-Surgeon, September 15th, 1857; Surgeon, February 17th, 1872; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, December 16th, 1882. Mr. Hayden served with the 60th Rifles in the Indian mutiny in 1858 (medal), and in the China war in 1860 (medal with two clasps, for the Taku Forts and Peking).

Surgeon-Major E. C. MARKEY has been promoted to be Brigade-Surgeon, *vice* S. S. Skipton, M.D., who has gone on retired pay. Mr. Markey ranks as Assistant-Surgeon, from March 1st, 1859; as Surgeon, from March 1st, 1873; and as Surgeon-Major, from April 1st, 1874. He was in the Afghan war in 1879-80, including the engagement at Saif-u-deen, the advance to Khelat-i-Ghiziz, the battle of Ahmed Khel, the march to Candahar, under Sir F. Roberts, and the battle of Candahar (mentioned in despatches, medal with two clasps, and bronze star); he was also with the Marri expedition.

Surgeon-Major G. C. GRIBBON, M.B., has also been promoted to be Brigade-Surgeon, *vice* W. O'Halloran, who has retired. Mr. Gribbon entered the service, April 20th, 1859; became Surgeon, March 1st, 1873; and Surgeon-Major, April 19th, 1874. He has the Afghan war medal.

Surgeon-Major C. E. SMITH, M.D., also has been appointed Brigade-Surgeon, *vice* J. H. Jeffcoat, who has accepted retired pay. Dr. Smith's commissions are: Assistant-Surgeon, April 20th, 1859; Surgeon, March 1st, 1873; and Surgeon-Major July 11th, 1874. He has no war record.

Surgeon-Major J. Y. DONALDSON, M.D., has likewise been promoted to Brigade-Surgeon in the place of N. Norris, who has gone on retired pay. Dr. Donaldson entered as Assistant-Surgeon, June 13th, 1850; became Surgeon, March 1st, 1873; and Surgeon-Major, January 6th, 1875. He is not credited in the Army Lists with any war service.

Surgeon-Major W. R. G. HINDS, M.D., has gone on retired pay with the honorary rank of Brigade-Surgeon. He ranks as Assistant-Surgeon from March 31st, 1865; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1877. He was in the war in Afghanistan in 1878-80, and has the medal for that campaign.

Surgeon J. D. DAVIES has resigned his commission, which dates from July 30th, 1881. Mr. Davies served in Egypt, and with the recent Suakin Expedition, whence his return has not yet been notified.

Quartermaster D. O'CONNOR is granted the honorary rank of Captain in the Army.

Mr. H. R. H. BROC has been appointed Acting-Surgeon to the 22nd Middlesex (Central London Rangers) Volunteers.

Surgeon, and Honorary Surgeon-Major W. H. FOLKER has resigned his commission in the 1st Volunteer Battalion of the Prince of Wales's North Staffordshire Regiment (late the 2nd Staffordshire Volunteers); he is permitted to retain his rank and uniform.

Acting-Surgeon J. M. THOMSON has resigned his appointment in the 2nd Shropshire Volunteers; his commission was dated February 10th, 1875.

Acting-Surgeon E. WILLIAMS, from the 1st Flintshire (Buckley) Engineer Volunteers, is appointed Acting-Surgeon to the 1st Lancashire Engineer Volunteers.

Honorary Assistant-Surgeon W. U. BUEE has resigned his commission in the 1st Bucks Volunteers, which is dated April 23rd, 1869.

Mr. G. H. JAMESON, M.D., has been appointed Acting-Surgeon to the 1st Volunteer Battalion of the Lancashire Fusiliers (late the 5th Lancashire Volunteers.)

Acting-Surgeon W. PASTEUR has resigned his appointment in the 20th Middlesex (Artists') Volunteers, which bears date May 13th, 1882.

Mr. EDWARD HARDINGE, late Assistant-Surgeon Royal Horse Artillery, died at Exeter on July 4th. He entered the service March 10th, 1858, and retired on half-pay on July 22nd, 1868.

On Saturday, July 18th, the Principal Medical Officer of the Home District, Surgeon-General Sir James Hanbury, made, at Wellington Barracks, the first official inspection of the Volunteer Medical Staff Corps. Surgeon Cantlie was in command of the corps, which formed as a battalion of four companies, in all 13 officers and 218 of other ranks. Nearly all the work performed had reference to the treatment of wounded men. Before leaving, Sir James Hanbury spoke of the importance of having such corps, and of the qualifications of the men on parade, but regretted that the lay element was not stronger.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR F. PARSONS, of the Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, February 10th, 1859. He served in the China war in 1860, and was at the action at Sinho, at the capture of the Taku Forts, and the occupation of Peking (medal with two clasps). He was also in the campaign on the north-west frontier of India in 1863, and at the forcing of the Umbuila pass (medal with clasp). He likewise served in the Egyptian war of 1882, with the 2nd Bengal Cavalry, and was in the action at Kassasin on September 9th, and at the battle of Tel-el-Kebir, and capture of Cairo (medal with clasp).

Surgeon G. T. THOMAS, Madras Establishment, has passed the examination in Persian, with high proficiency.

A good service pension has, on the recommendation of the Government of India, been bestowed upon Brigade-Surgeon C. J. F. MacDowall, of the Bombay Establishment. He served in the Russian war in 1855-56, with the Turkish contingent (Turkish medal and 5th class of the Medjidie); in the Persian war in 1857, including the capture of Mohumrah (medal with clasp); during the Indian mutiny in 1857-59 (medal); at the capture of Magdala in the Abyssinian campaign in 1867-68 (medal); and with the recent expedition to Suakin.

The services of Surgeon E. S. BRANDER, of Bengal Establishment, officiating Civil Surgeon of Backergunge, are replaced at the disposal of the Government of India, in the Home Department.

Surgeon G. F. A. HARRIS, Bengal Establishment, temporary second resident surgeon at the Presidency General Hospital, is confirmed in that appointment.

The services of Surgeon-Major J. CLEGHORN, M.D., Bengal Establishment, civil surgeon of Allahabad, are temporarily placed at the disposal of the Government of India in the Home Department.

Surgeon C. HENDERSON, Madras Establishment, Civil Surgeon of Hoshungabad, is temporarily appointed to the visiting charge of Nursingpore district, in addition to his other duties.

Surgeon D. St. J. D. GRANT, Bengal Establishment, is appointed to officiate in medical charge of the civil station at Tezpoore, the Lunatic Asylum Emigration Depot and Gaol, during the absence of Surgeon R. N. Campbell, M.B., on privilege leave, or until further order.

Surgeon M. J. KELAWALA, Madras Establishment, who has been doing duty in the Eastern district, is directed to do duty at Trichinopoly, under the orders of the Deputy Surgeon-General of H.M.'s forces, Bangalore Division and Ceded Districts.

Surgeon-Major H. A. LEWIS, Bombay Establishment, has been granted leave of absence to the Neilgherries for 182 days, on medical certificate.

Surgeon-Major R. LIDDERDALE, M.D., Bengal Establishment, Sanitary Commissioner, Bengal, with the local rank of Deputy Surgeon-General, has been gazetted Brigade-Surgeon. He entered the army service as Assistant-Surgeon, January 27th, 1858, but has had no war experience.

Surgeon-Major J. E. T. AITCHISON, M.D., C.I.E., Bengal Establishment, has also been gazetted Brigade-Surgeon. His commission as Assistant-Surgeon also dates from January 27th, 1858. He was in the Afghan war in 1878, and was at the capture of the Peiwar Kotal (medal with clasp).

Brigade-Surgeon J. HENDERSON, M.D., Madras Establishment, Superintendent of the Central Gaol at Bangalore, has been gazetted Deputy Surgeon-General. He entered the service February 20th, 1856, but has no record of war service.

THE NAVY.

The following appointments have been made at the Admiralty during the past week:—E. T. HUGHES, to be Surgeon and Agent at Holyhead; E. T. EDE, Surgeon to the *Pembroke*, additional; ALFRED CROPLEY, Surgeon to the *Hector*; JOHN JENKINS, Surgeon to the *Defence*; HORACE ELLIOTT, M.D., Surgeon to the *Excellent*, additional; E. D. MINTER, Surgeon to the *Royal Adelaide*, additional; J. N. CORBETT, M.D., Surgeon to the *Duncan*, additional; P. B. HANDYSIDE, Surgeon to the *Canada*; R. F. BOWIE, Surgeon to the *Asia*.

ERRATUM.—In the JOURNAL of July 18th, we stated that Sir SAMUEL ROWE had been appointed Consul at "Siberia," it should have been printed "Liberia."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,506 births and 3,126 deaths were registered during the week ending July 11th. The annual rate of mortality, which in the two preceding weeks had been 17.6 and 18.0 per 1,000, further rose during the week to 18.3. The rates in the several towns, ranged in order from the lowest, were as follow: Derby, 12.2; Halifax, 13.5; Bolton, 13.7; Leeds, 15.3; Bradford, 15.3; Brighton, 15.5; Bristol, 15.5; Hull, 15.7; Nottingham, 15.8; Leicester, 16.1; Wolverhampton, 16.5; Birmingham, 16.7; Portsmouth, 16.7; Huddersfield, 16.7; Oldham, 17.3; London, 18.0; Blackburn, 18.1; Preston, 18.7; Sheffield, 18.8; Salford, 21.0; Norwich, 21.2; Liverpool, 21.4; Sunderland, 21.6; Birkenhead, 21.9; Cardiff, 22.0; Plymouth, 24.0; Newcastle-upon-Tyne, 24.2; and Manchester, 25.8. In the 27 provincial towns, the death-rate averaged 18.5 per 1,000, and exceeded by 0.5 the rate recorded in London. The 3,126 deaths registered during the week in the 28 towns included 161 which resulted from diarrhoeal diseases, 141 from measles, 104 from whooping-cough, 32 from "fever" (principally enteric), 30 from scarlet fever, 19 from diphtheria, and 14 from small-pox; in all, 501 deaths were referred to the principal zymotic diseases, against 448 and 474 in the two preceding weeks. The zymotic death-rate was equal to an annual rate of 2.9 per 1,000. In London, the zymotic rate was 3.6; while it averaged only 2.4 per 1,000 in the 27 provincial towns, among which the zymotic rates ranged from 0.0 in Oldham and 0.6 in Derby, to 4.2 in Leicester, 4.3 in Salford, and 4.6 in Manchester. The deaths from diarrhoeal diseases, which had steadily increased in the five previous weeks from 31 to 97, further rose to 161; this disease was most fatally prevalent in Leicester. The deaths referred to measles, which had declined in the three preceding weeks from 187 to 145, further fell during the week to 141, and caused the largest proportional fatality in Manchester and Salford. The fatal cases of whooping-cough, which in the four previous weeks had risen from 102 to 128, declined to 104; this disease caused the highest rates in Blackburn, Manchester, and Plymouth. The 32 deaths referred to "fever" exceeded by eight the number returned in the preceding week, and caused the highest proportional fatality in Norwich and in Portsmouth. The fatal cases of scarlet fever, which had been 36 and 29 in the two previous weeks, were 30 during the week, of which four occurred in Leeds. The 19 deaths from diphtheria showed a further decline from the numbers in the two preceding weeks, and included 15 in London. Of the 14 fatal cases of small-pox registered during the week in the 28 towns, 11 occurred in London (exclusive, however, of 13 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), one in Bristol, one in Hull, and one in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the five preceding weeks from 1,389 to 859, further fell to 780 on Saturday, July 11th; the admissions, which had declined from 197 to 94 in the four previous weeks, further fell to 101. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was below the average. The causes of 60, or 1.9 per cent., of the 3,126 deaths registered in the 28 towns during the week were not certified, either by registered medical practitioners or by coroners.

During the week ending July 18th, 5,415 births and 3,321 deaths were registered in the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had risen in the three preceding weeks from 17.6 to 18.3 per 1,000, further rose to 19.5. The rates in the several towns, ranged in order from the lowest, were as follow: Halifax, 11.5; Bradford, 12.2; Brighton, 13.2; Hull, 13.4; Derby, 14.0; Bristol, 14.1; Portsmouth, 14.3; Birmingham, 15.0; Plymouth, 15.1; Nottingham, 15.8; Oldham, 16.1; Huddersfield, 16.1; Blackburn, 16.2; Wolverhampton, 16.5; Preston, 17.2; Bolton, 17.5; Leeds, 18.0; Sunderland, 18.3; Birkenhead, 19.6; Cardiff, 19.9; London, 20.6; Norwich, 21.7; Liverpool, 22.1; Sheffield, 23.2; Salford, 23.3; Manchester, 23.8; Leicester, 23.8; and Newcastle-upon-Tyne, 26.9. The death-rate for the week in the 27 provincial towns averaged 18.4 per 1,000, and was 2.2 below the rate recorded in London. The 3,321 deaths registered during the week in the 28 towns included 684 which were referred to the principal zymotic diseases, against 448, 475, and 501 in the three preceding weeks; of these, 291 resulted from diarrhoea, 148 from measles, 140 from whooping-cough, 40 from "fever" (principally enteric), 34 from scarlet fever, 23 from diphtheria, and 13 from small-pox. These 684 deaths were equal to an annual rate of 4.0 per 1,000. The zymotic death-rate in London was equal to 5.5 per 1,000, of which 2.7 was due to diarrhoea; while in the 27 provincial towns the zymotic death-rate did not exceed 2.8 per 1,000 (of which only 0.9 was due to diarrhoea), and ranged from 0.0 in Halifax, and 0.8 in Oldham and in Hull, to 4.6 in Liverpool, 5.4 in Newcastle-upon-Tyne, and 10.7 in Leicester. The deaths referred to diarrhoea, which had steadily increased in the six previous weeks from 31 to 161, further rose, under the influence of higher temperature, to 291, and showed the largest proportional fatality in Preston, Salford, London, and Leicester. The fatal cases of measles, which had declined from 187 to 141 in the four preceding weeks, were 143; this disease caused the highest death-rates in Sheffield and Newcastle-upon-Tyne. The 140 deaths from whooping-cough showed a considerable increase upon the number recorded in the previous week, and showed the highest proportional fatality in Cardiff and Derby. The 40 fatal cases of "fever" showed a further increase upon recent weekly numbers; this disease was somewhat fatally prevalent in Newcastle-upon-Tyne. The deaths referred to

scarlet fever, which had been 29 and 30 in the two previous weeks, further increased to 34, and caused the highest proportional fatality in Wolverhampton. The 28 fatal cases of diphtheria in the 28 towns included 16 in London and five in Liverpool. Of the 13 deaths from small-pox, 11 occurred in London (exclusive, however, of four deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals, situated outside Registration London), one in Sheffield, and one in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the six preceding weeks from 1,389 to 791, further fell to 775; the admissions, which had been 94 and 101 in the two previous weeks, rose to 118. The death-rate from diseases of the respiratory organs in London was equal to 2.5 per 1,000, and was slightly below the average. The causes of 64, or 1.9 per cent. of the 3,321 deaths registered during the week in the 28 towns were not certified, either by registered medical practitioners or by coroners.

In the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,414 births and 3,332 deaths were registered during the week ending the 25th ult. The annual rate of mortality, which had risen in the four preceding weeks from 17.6 to 19.5 per 1,000, was last week again 19.5. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 9.1; Norwich, 10.9; Wolverhampton, 11.2; Bolton, 11.4; Bristol, 13.6; Portsmouth, 14.3; Derby, 14.5; Hull, 14.6; Oldham, 15.3; Birkenhead, 15.7; Bradford, 16.3; Birmingham, 16.5; Plymouth, 16.5; Leeds, 16.9; Nottingham, 17.0; Sheffield, 17.1; Blackburn, 18.1; Huddersfield, 18.5; Salford, 18.7; Halifax, 18.9; Cardiff, 19.9; London, 20.9; Liverpool, 21.2; Sunderland, 21.2; Manchester, 24.6; Newcastle-upon-Tyne, 26.2; Preston, 27.0; and Leicester, 36.4. In the 27 provincial towns, the death-rate averaged 18.4 per 1,000, against 20.9 in London. The 3,332 deaths registered during the week in the 28 towns included 409 which resulted from diarrhoea, 125 from measles, 108 from whooping-cough, 37 from scarlet fever, 25 from "fever" (principally enteric), 24 from diphtheria, and 7 from small-pox; in all, 735 deaths were referred to these principal zymotic diseases, against 501 and 684 in the two preceding weeks. The zymotic death-rate was equal to 4.3 per 1,000. In London, the zymotic death-rate was 5.7; while it averaged only 3.1 in the 27 provincial towns, among which the zymotic rates ranged from 0.0 and 0.4 in Wolverhampton and Oldham, to 6.8 in Preston, 7.2 in Newcastle-upon-Tyne, and 16.1 in Leicester. The deaths referred to diarrhoea, which had steadily increased from 81 to 201 in the seven preceding weeks, further rose to 409, and caused the largest proportional fatality in Salford, Nottingham, Sunderland, and Leicester. The fatal cases of measles, which had been 141 and 143 in the two previous weeks, declined to 125; this disease was proportionally most fatal in Salford, Manchester, and Newcastle-upon-Tyne. The 108 deaths from whooping-cough showed a considerable decline from the number recorded in the preceding week, and caused the highest rates in Preston and Birkenhead. The fatal cases of scarlet fever, which had been 29, 30, and 34 in the three preceding weeks, further rose to 37, and caused the highest proportional fatality in Newcastle-upon-Tyne, Preston, and Leeds. The 25 deaths referred to fever showed a decline of 15 from the number in the previous week. The 24 fatal cases of diphtheria showed a slight further increase upon recent weekly numbers, and included 19 in London, and only five in the 27 provincial towns. Of the 7 deaths from small-pox in the 28 towns, six occurred in London (exclusive, however, of 12 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), and one in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the seven preceding weeks from 1,389 to 775, had further fallen to 643 on Saturday, the 25th ultimo; the admissions, which had been 94, 101, and 118 in the three previous weeks, declined to 72. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was slightly below the average. The causes of 66, or 2.0 per cent., of the 3,332 deaths registered during the week in the 28 towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

During the week ending the 11th ultimo, 845 births and 463 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had declined from 20.8 to 19.2 per 1,000 in the three preceding weeks, further fell to 19.0 during the week, but exceeded by 0.7 per 1,000 the average rate for the same period in the 28 large English towns. Among these Scotch Towns, the death-rate was equal to 14.4 in Leith, 15.6 in Edinburgh, 16.5 in Aberdeen, 19.1 in Dundee, 19.9 in Perth, 20.7 in Glasgow, 21.2 in Greenock, and 24.6 in Paisley. The 463 deaths registered during the week included 60 which were referred to the principal zymotic diseases, against 48 and 57 in the two preceding weeks; of these, 20 resulted from diarrhoea, 19 from whooping-cough, eight from scarlet fever, six from "fever" (principally enteric), four from measles, three from diphtheria, and not one from small-pox. These 60 deaths were equal to an annual rate of 2.5 per 1,000, which was slightly below the average zymotic death-rate during the same week in the 28 large English towns. The highest zymotic rates during the week in the Scottish towns were recorded in Perth, Paisley, and Glasgow. The 20 deaths from diarrhoea showed a further increase upon recent weekly numbers, and considerably exceeded those recorded in the corresponding week of the previous year; seven occurred in Glasgow, four in Edinburgh, and three in Dundee. The 21 fatal cases of whooping-cough showed a decline of two from those returned in the preceding week, and included 14 in Glasgow. The eight deaths from scarlet fever corresponded with the number in each of the two previous weeks, and included six in Glasgow. The six fatal cases of "fever" showed an increase upon recent weekly numbers; four occurred in Glasgow. The deaths from measles, which had declined in the three preceding weeks from 17 to nine, further fell to four, a lower number than in any previous week this year. The three fatal cases of diphtheria included two in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 2.5 per 1,000, against 2.3 in London. As many as 65, or 14.0 per cent. of the 463 deaths registered during the week in these Scotch towns were uncertified.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 764 births and 441 deaths were registered during the week ending the 18th ultimo. The annual rate of mortality, which had declined from 20.8 to 19.0 per 1,000 in the four preceding weeks, further declined to 18.1, and was 1.4 per 1,000 below the average rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 14.1 in Edinburgh, 14.2 in Aberdeen, 14.3 in Dundee, 14.4 in Leith, 16.9 in Greenock, 18.3 in Perth, 22.0 in Glasgow, and 22.9 in Paisley. The 441 deaths registered during the week in these towns included 22 which were referred to whooping-cough, 21 to diarrhoea, seven

to measles, three to "fever," one to diphtheria, and not one to either scarlet fever or small-pox; in all, 54 deaths resulted from these principal zymotic diseases, against 57 and 60 in the two preceding weeks. These 54 deaths were equal to an annual rate of 2.2 per 1,000, which was as much as 1.8 below the average zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates in the Scotch towns were recorded in Leith, Perth, and Paisley. The deaths from whooping-cough, which had been 21 and 19 in the two previous weeks, rose again to 22, and included 13 in Glasgow and three in Leith. The 21 fatal cases of diarrhoea, although showing a slight further increase upon recent weekly numbers, were considerably below the number returned in the corresponding week of last year. The deaths from measles, which had declined in the four preceding weeks from 17 to 4, rose again to 7, of which three occurred in Edinburgh and two in Glasgow. The three fatal cases of fever showed a decline of three from those returned in the previous week. The death from diphtheria was recorded in Edinburgh. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.9 per 1,000, against 2.5 in London. As many as 73, or 16.6 per cent., of the 441 deaths registered during the week in these Scotch towns were uncertified.

During the week ending the 25th ultimo, 895 births and 482 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,267,170 persons. The annual rate of mortality, which had declined in the five preceding weeks from 20.8 to 18.1 per 1,000, rose to 19.7 last week, and slightly exceeded the average rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 14.1 in Edinburgh, 19.0 in Leith, 19.1 in Dundee, 21.2 in Greenock, 23.7 in Paisley, and 24.1 in Glasgow. The 482 deaths registered during the week included 69 which were referred to the principal zymotic diseases, against 60 and 54 in the two preceding weeks; of these, 29 resulted from diarrhoea, 17 from whooping-cough, eight from measles, eight from "fever," four from scarlet fever, three from diphtheria, and not one from small-pox. These 69 deaths were equal to an annual rate of 2.8 per 1,000, which was as much as 1.5 below the average zymotic death-rate in the 28 large English towns. The highest zymotic death-rates during the week in the Scotch towns were recorded in Greenock and Glasgow. The 29 deaths from diarrhoea showed a further increase upon recent weekly numbers, but were only one half those recorded in the corresponding week of last year. The fatal cases of whooping-cough, which had been 19 and 22 in the two previous weeks, declined to 17, of which 12 occurred in Glasgow. The eight deaths referred to measles showed a slight further increase, and included six in Glasgow. Of the eight fatal cases of "fever," four were returned in Glasgow, and two in Aberdeen. Three of the four deaths referred to scarlet fever occurred in Glasgow, where all the three fatal cases of diphtheria were also returned. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 3.4 per 1,000, against 2.3 in London. As many as 66, or 17.0 per cent., of the 482 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending July 11th, the number of deaths registered in the 16 principal town-districts of Ireland was 312. The average annual death-rate represented by the deaths registered was 18.8 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 15.5; Belfast, 20.9; Cork, 14.9; Drogheda, 21.1; Dublin, 22.2; Dundalk, 18.1; Galway, 3.4; Kilkenny, 0.0; Limerick, 14.8; Lisburn, 14.5; Londonderry, 10.7; Lurgan, 20.5; Newry, 14.0; Sligo, 4.8; Waterford, 16.2; Wexford, 17.1. The deaths from the principal zymotic diseases were equal to an annual rate of 2.6 per 1,000, the rates varying from 0.0 in 11 of the districts to 4.8 in Belfast; the 88 deaths from all causes registered in that district comprising 12 from measles, three from whooping-cough, and three from diarrhoea. In the Dublin registration-district the deaths registered during the week amounted to 133. Twenty-four deaths from zymotic diseases were registered; they comprised four from measles, four from scarlet fever, two from whooping-cough, three from cerebro-spinal fever, two from simple continued and ill-defined fever, two from enteric fever, five from diarrhoea, etc. Twenty-one deaths from diseases of the respiratory system were registered; they comprised 10 from bronchitis, and six from pneumonia. The deaths of six children under 5 years of age (including 4 infants under one year old) were ascribed to convulsions. Sixteen deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and eight by diseases of the circulatory system. Phthisis caused 24 deaths, tubercular meningitis six, and cancer four. Three accidental deaths were registered. In one instance the cause of death was "uncertified," and in 20 other cases there was "no medical attendant."

In the week ending July 18th, the number of deaths registered in the 16 principal town-districts of Ireland was 371. The average annual death-rate represented by the deaths registered was 28.4 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 0.0; Belfast, 23.3; Cork, 18.8; Drogheda, 29.6; Dublin, 25.3; Dundalk, 17.5; Galway, 16.8; Kilkenny, 21.1; Limerick, 17.5; Lisburn, 19.3; Londonderry, 26.7; Lurgan, 15.4; Newry, 14.0; Sligo, 9.6; Waterford, 13.9; Wexford, 12.8. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 3.0 per 1,000, the rates varying from 0.0 in Galway, Newry, Drogheda, Wexford, Dundalk, Sligo, Lisburn, Lurgan, and Armagh, to 5.5 in Belfast; the 98 deaths from all causes registered in the last-mentioned district comprising 17 from measles, one from scarlatina, four from whooping-cough, and one from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 184. Twenty-two deaths from zymotic diseases were registered in Dublin; they consist of three from measles, four from scarlet fever, three from typhus, two from whooping-cough, one from cerebro-spinal fever, one from ill-defined fever, two from enteric fever, five from diarrhoea, and one from erysipelas. Forty-one deaths from diseases of the respiratory system were registered during the week; they comprised 25 from bronchitis and nine from pneumonia or inflammation of the lungs. The deaths of 13 children under 5 years of age (including 11 infants under one year old) were ascribed to convulsions. Three deaths were caused by apoplexy, seven by other diseases of the brain and nervous system (exclusive of convulsions), and 15 by diseases of the circulatory system. Phthisis caused 23 deaths, mesenteric disease three, and cancer six. Five accidental deaths were registered. In one instance the cause of death was "uncertified," and in 26 other cases there was "no medical attendant."

In the week ending July 25th, the number of deaths registered in the 16 principal town-districts of Ireland was 356. The average annual death-rate represented

by the deaths registered was 21.5 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 20.7; Belfast, 27.8; Cork, 18.8; Drogheda, 16.9; Dublin, 18.9; Dundalk, 21.8; Galway, 16.8; Kilkenny, 0.0; Limerick, 27.0; Lisburn, 29.0; Londonderry, 26.7; Lurgan, 15.4; Newry, 14.0; Sligo, 9.6; Waterford, 23.2; Wexford, 17.1. The deaths from the principal zymotic diseases were equal to an annual rate of 3.1 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, Sligo, Lisburn, and Lurgan, to 7.1 in Belfast; the 117 deaths from all causes registered in the last named district comprising 16 from measles, four from scarlatina, five from whooping-cough, two from enteric fever, and three from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 132. There were only 13 deaths from zymotic diseases registered during the week; they comprised three from measles, two from scarlet fever (scarlatina), one from typhus, one from diphtheria, one from ill-defined fever, one from enteric fever, and four from diarrhoea. There were fifteen deaths from diseases of the respiratory system; they comprised seven from bronchitis, and five from pneumonia (or inflammation of the lungs). The deaths of 11 children under five years of age (including nine infants under one year old) were ascribed to convulsions. Three deaths were caused by apoplexy, 12 by other diseases of the brain and nervous system (exclusive of convulsions), and seven by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 16 deaths, mesenteric disease five, and cancer four. Three accidental deaths and one case of suicide were registered. In one instance the cause of death was "uncertified," and in 12 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending June 27th, that the annual death-rate recently averaged 28.6 per 1,000 in the three principal Indian cities; it was 24.2 in Bombay, 25.5 in Calcutta, and 35.7 in Madras. Cholera caused 43 deaths in Calcutta and 15 in Bombay; small-pox five in Calcutta; and the mortality from "fever" was greatest in Madras. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in 22 of the largest European cities averaged 23.8, and was no less than 6.2 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 25.4, showing a decline from the rate in recent weeks; the 452 deaths included 13 from fever, 10 from measles, and nine from diphtheria. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 22.5, ranging from 14.6 in Christiania to 27.8 in Stockholm; scarlet fever caused five deaths in Stockholm, four in Copenhagen, and two in Christiania, while five and six deaths respectively resulted from diphtheria and croup in Stockholm and Christiania. In Paris, the death-rate was equal to 20.8, showing a further decline from the rates in recent weeks; 40 deaths resulted from measles, 18 from diphtheria and croup, and 16 from typhoid fever. The 169 deaths in Brussels, included six from croup and two from measles, and were equal to a rate of 20.2. In Geneva, the 29 deaths gave a rate of 21.2, and included a fatal case of typhoid fever. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate was 20.9, and the rates ranged from 18.7 in Rotterdam to 24.7 in the Hague; scarlet fever caused three deaths in Rotterdam, and diphtheria and croup four in Amsterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 30.0, and ranged from 24.7 and 24.8 in Berlin and Hamburg, to 33.7 in Breslau and 42.0 in Prague. Small-pox caused 35 deaths in Vienna, and four in Prague; typhus six in Hamburg, and four in Breslau; and diphtheria showed the greatest mortality in Berlin, Dresden, Trieste, and Hamburg. The death-rate averaged 23.9 in three of the principal Italian cities; it was equal to 22.5 in Rome, 23.4 in Venice, and 25.5 in Turin. Typhoid fever caused six deaths in Turin, diphtheria five in Rome, and the 65 deaths in Venice included three from typhoid fever, and two from small-pox. No returns have recently been received from Madrid or Lisbon. The 132 deaths in Alexandria included eight from whooping-cough, and three from "fever," and were equal to a rate of 29.7. In four of the largest American cities, the mean recorded death-rate was only 21.0, the rate ranging from 13.7 in Baltimore to 25.3 in New York. Scarlet fever and diphtheria showed more or less fatal prevalence in New York, Brooklyn, and Philadelphia; and the 107 deaths in Baltimore included three from typhoid fever.

OBITUARY.

GEORGE DRANSFIELD BROWN, M.R.C.S.

MR. BROWN died at his residence, Henley Villa, Uxbridge Road, Ealing, on July 17th, at the age of 57. He studied medicine at St. Thomas's Hospital, and became M.R.C.S. and L.S.A. in 1852.

He commenced the practice of his profession at Henley, where he held a poor-law appointment for some years. Removing to Ealing in 1863, he soon held a leading position in the town. On the formation of the local board, he was elected a member of that body. He was a member of the Metropolitan Counties Branch of the British Medical Association, and for some years had a seat in the Council; he was also a Fellow of the Linnæan, Obstetrical, and Quekett Microscopical Societies.

He devoted much of his time to the study of scientific subjects, and to the natural history, chiefly of the invertebrata. He also took a special interest in cryptogamic botany, and in British polyzoa, recent and fossil. His loss will be deeply felt by a large circle of friends, not only in the neighbourhood, but among the several public bodies with which he was connected.

DR. F. W. PAVY has, on account of professional engagements, resigned the office of Medical Officer of Health to the District of St. Luke's, Middlesex, which he has held for twenty-five years.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETIQUETTE.

ACCEPTING "Dr. A.'s" statement as an accurate record of the facts of the case he relates, there cannot, we fear, be a doubt that "Mr. B.'s" conduct indicates grave professional wrong-doing, and, also, personal improbity toward the practitioner for whom he acted as *locum tenens*.

CHARGES FOR (FEE) (IN) (THE) (MEDICAL) (OFFICE)

W. T. C.—Our correspondent's omission to furnish us with the very necessary detail in regard to the distance of the patient's residence from that of the practitioner in attendance, renders us unable to comply with his request. He will, however, we think, have little or no difficulty in gleaming the desired information from the Medico-Chirurgical Tariffs published by Mr. W. Wardle, of Shrewsbury.

WHAT BONE-SETTERS WILL DO.

SIR,—I admit that, in reading my letter in the JOURNAL of July 18th, there was room for the assumption that I did not see my patient for four days. Such, however, was not the case, as I called every day; but it was on the fourth day that I found my bandages removed. I shall act on your advice, lest I convert an impudent charlatan into a martyr.—I am, etc., A. F., M.D.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 27th.

The Medical Relief Disqualification Removal Bill, having been brought up from the Commons, was read a first time.

HOUSE OF COMMONS.—Tuesday, July 28th.

The Conway Board of Guardians and their District Medical Officer. —In answer to Mr. ROGERS, Mr. A. J. BALFOUR said, Mr. Davies was appointed medical officer of the Conway Union, with the salary of £75 and the extra fees allowed by the Local Government Board, and the guardians entered into a contract, under which they agreed to pay him for cod-liver oil and quinine. In January, 1883, the guardians proposed to commute the payment for the fees and medicines referred to for £10 per annum. Mr. Davies objected, and the proposal, consequently, was not submitted to the Board. The contract was determined two years ago, but this cancelling of the contract did not affect Mr. Davies's tenure of office. There is a dispute as to certain charges for medicines, but we are not aware of any reason why the salary of the officer should be withheld, and we have so informed the guardians.

Lunacy Acts Amendment Bill.—This Bill passed through Committee without amendment, and was read a third time.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—*Double Qualification.*—During the recent sittings of the Examiners, the following gentlemen passed their first professional examination.

A. W. Clarke, Mountmelick; W. Griffiths, Carmarvonshire; and R. G. Taylor, Middleton.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh.

C. D. Grant, Edinburgh; V. E. R. Ardagh, East Indies; B. S. Browne, West Bromwich; J. R. H. Dubourg, Elgin; M. English, Adamstown; J. W. Fox, Edinburgh; C. O'Farrell, Dublin; H. G. Leigh-Gilchrist, Manchester; C. L. Gabriel, Sydney; G. E. Gardie, Cork; H. E. G. Johnson, Liverpool; W. O. Magoris, West Hartlepool; G. T. Hartley, Castleford; R. Morrison, Toberdonney; J. J. Moran, Ireland; P. H. Moriarty, Ireland; R. T. Paton, Edinburgh; J. G. Nixon, Tralee; W. H. Roberts, Dublin; G. W. Robinson, Huddersfield; H. T. P. Sinclair, Belgium, India; W. J. Shiell, Dublin; C. A. Thorne, Cork; W. Overton, York; R. F. M. Quin, Ireland; and J. Thomas, Gisborne, Australia.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—During the recent sittings of the Examiners, the following gentlemen passed the final examination, and were admitted Licentiates of the College.

L. L. Hooper, Canada; N. C. McKinnon, Canada; J. Jackson, Canada; J. Lindsay, Canada; and W. Jaques, Canada.

The following gentlemen passed the first professional examination for the Licence in Dental Surgery.

G. R. Shiach, Elgin; A. Cocker, Halifax; and F. G. Allen, Ripley, Derbyshire.

The following gentlemen passed the final examination, and were admitted L.D.S. Edinburgh.

T. P. Ritchie, Edinburgh; D. Browne, Montrose; and A. Burns, London.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The examinations for the triple qualification of these bodies in Edinburgh were held in July, with the following results.

First Examination.—C. E. Dew, Weston-super-Mare; H. A. Becker, Cape Colony; O. S. Fisher, Stroud, Gloucestershire; G. J. Scantlebury, Victoria, Australia; J. C. Steedman, Stirling; J. Brown, Karsfairn; D. McArthur, Clifton; J. Adams, Melbourne; G. W. Anderson, Arbroath; W. W. Clegg, Halifax; J. D. Dale, Shrewsbury; A. Duncanson, Stirling; R. J. Courtenay, Sheerness; J. Chadwick, Burnley; J. A. Greigh, Edinburgh; C. Hicks, Bedfordshire; F. E. Hodder, Cork; T. H. Jones, Llwynnygroes; H. E. Mahonic, Sheffield; T. McElbubins, Kirkintilloch; D. S. Moncrieff, Dalkeith; J. W. Lindsay, London; H. Mathias, Maryport; J. McDiarmid, Argyllshire; H. N. Robson, Durham; J. L. Owen, Anglesea; R. G. Naylor, Calcutta; R. J. Pirie, Dundee; A. Ramage, Kilmarnock; E. D. Wellburn, Scarborough; H. Thomson, Belfast; R. A. St. Leger, South Africa; and J. Thomson, Glasgow.

Second Examination.—W. W. Clegg, Halifax; T. K. J. Fulton, Pondicherry; E. T. Hawkesworth, Cork; E. Hilliard, Tralee; R. J. Courtenay, Sheerness; J. G. Mackintosh, Edinburgh; A. A. Martin, Blairgowrie; T. L. Jones, Wales; R. Markland, Upholland, Wigan; J. J. McEniry, County Waterford; G. H. Rutter, Kent; W. M. Mackay, Caithness; T. W. Stewart, Annapore, Madras; S. Rumbold, Cambridge; F. M. Sykes, Manchester; H. W. Bryant, Melbourne; H. G. Heibers, Brighton; A. B. Frost, Wolverhampton; C. E. Dew, Weston-super-Mare; J. S. Fallon, London; O. S. Fisher, Stroud, Gloucestershire; T. H. Jones, Llwynnygroes; D. McArthur, Clifton; E. Harkness, Maryborough, Victoria; G. J. Scantlebury, Victoria; E. D. Wellburn, Scarborough; and T. Thompson, Lueker Vicarage.

Third Examination.—admitted L.R.C.P. Edinburgh, L.R.C.S. Edinburgh, and L.F.P. & S. Glasgow.—J. Anderson, Chelmsford; J. Donaldson, County Cork; J. H. Drake, Bucks; J. Doyle, Manchester; J. S. Fallon, London; O. S. Fisher, Stroud; A. B. Frost, Wolverhampton; F. A. Faria, India; A. Morley, Leeds; M. Mackenzie, Kilmore; J. Nesbitt, Belfast; C. J. McGrath, Cork; J. McKenzie, Canada; V. J. Pinto, India; H. de C. Woodcock, Sheffield; and R. S. Wadsworth, County Fermanagh.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 16th, 1885.

Elkington, Henry Percival George, M.R.C.S., 52, Gillingham Street, S.W.
Woods, Frank, M.R.C.S., 1, Fennel Street, Warrington.

On the same day the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,
Parson, Charles Jenner, Godalming, Surrey.

The following gentlemen passed on Thursday, July 23rd, 1885.

Achard, Alexander Louis, M.R.C.S., 33, Bonham Road, Brixton Rise.
Exton, Hugh, Bloemfontein, South Africa.

On the same day, the following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, namely,

Cavell, Herbert Bertram, 21, Brook Street, Grosvenor Square, W.
Owen, Arthur Deaker, Dart View, Totnes.
Radmore, George Richard, 47, Tonsley Hill, Wandsworth.
Sloman, Frederick, Farnham.

MEDICAL VACANCIES.

The following vacancies are announced.

- BRISTOL DISPENSARY.**—Two Medical Practitioners. Applications to Mr. E. Stock, 57, Queen Square, Bristol, by August 6th.
- CITY AND COUNTY LUNATIC ASYLUM, Stapleton, Bristol.**—Clinical Clerk. Applications to Dr. G. Thompson, Medical Superintendent.
- CLONMEL LUNATIC ASYLUM.**—Assistant Medical Officer. Salary £100 per annum, and £50 in lieu of rations. Candidates to be unmarried, and not over 32 years. Election on August 10th.
- COTON HILL LUNATIC HOSPITAL, Stafford.**—Assistant Medical Officer. Salary, £100 per annum. Applications by August 8th.
- CROYDON GENERAL HOSPITAL.**—House-Surgeon. Salary £100 per annum. Applications by August 7th.
- DEACONESSES' INSTITUTION AND HOSPITAL, The Green, Tottenham.**—House-Surgeon. Salary, £100 per annum. Applications to Dr. Laseon, Tottenham, by August 1st.
- DENTAL HOSPITAL OF LONDON, AND LONDON SCHOOL OF DENTAL SURGERY, Leicester Square.**—Demonstrator of Non-Cohesive Fillings. Salary, £50 per annum. Applications by August 3rd.
- DUNFANAGHY UNION.**—Medical Officer, Crossroad Dispensary. Salary, £110 per annum and fees. Applications to Mr. John Beattie, Honorary Secretary. Election on August 5th.
- GREAT NORTHERN CENTRAL HOSPITAL, Caledonian Road, N.**—Junior Resident Medical Officer. Applications by August 3rd.
- ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.**—House-Surgeon. Salary, £100 per annum. Applications to F. Brown, 46, Atholl Street, Douglas, by August 10th.
- LINCOLN COUNTY HOSPITAL.**—House-Surgeon. Salary, £100 per annum. Applications by August 15th.
- MANCHESTER ROYAL INFIRMARY, MONSALL FEVER HOSPITAL.**—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiology Applications by August 26th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to R. Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 1st.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications to H. W. Holder.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Resident Medical Officer. Salary, £120 per annum. Applications by August 1st.

ROYAL BERKS HOSPITAL, Reading.—House-Surgeon. Salary, £90 per annum. Applications by August 15th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Milnes Blumer.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Applications by August 15th.

MEDICAL APPOINTMENTS.

DYSON, William, B.A., M.D. Lond., appointed Physician to the Sheffield General Infirmary, *vice* H. F. Banham, M.D., resigned.

HAW, Walter H., M.R.C.S. Eng., L.S.A., appointed Resident Obstetric Officer to the Charing Cross Hospital, *vice* W. T. Wallington.

HEYCOCK, F. R., M.D., M.C., F.R.C.S. Edin., appointed Honorary Surgeon to St. Peter's Hospital for Stone, *vice* W. F. Teevan, F.R.C.S.

JONES, John Hervey, M.B., M.R.C.S., appointed House-Surgeon to the Clinical Hospital for Women and Children, Park Place, Manchester.

MACLAREN, Murray, B.A., M.B.C.M. Edin., and M.R.C.S. Eng., appointed House-Surgeon to the Bootle Borough Hospital, Liverpool.

PHILLIPS, Jas. R., L.K.Q.C.P.I., L.F.P.S.G., appointed Assistant Medical Officer to the Hartlepool Friendly Societies' Medical Association, *vice* Riveley, resigned.

STEDMAN, F. Osmund, M.R.C.S. Eng., L.S.A., appointed House-Surgeon to the Charing Cross Hospital, *vice* A. R. Jolliffe.

TEEVAN, W. F., F.R.C.S., appointed Consulting Surgeon to St. Peter's Hospital for Stone.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d which should be forwarded in stamps with the announcements.

BIRTH.

BATEMAN.—On the 26th ultimo, at Whitechurch, Oxon., the wife of Francis Bateman, M.B. Lond., of a son.

MARRIAGE.

SHANN—FLOWER.—On July 23rd, at St. Luke's Church, Chelsea, by the Rev. Gerald Blunt, M.A., Rector, assisted by the Rev. Reginald Shann, M.A., brother of the bridegroom, Henry Charles Shann, M.R.C.S. Eng., L.R.C.P. Edin., of Micklegate, York, fourth surviving son of the late George Shann, Esq., M.D., of Petergate, York, to Caroline Mary, eldest daughter of Professor Flower, LL.D., F.R.S., F.R.C.S., etc., Director of the British Natural History Museum, of 26, Stanhope Gardens, Queen's Gate, S.W.

DEATH.

ELLIS.—July 22nd, at "Sunset," Westward Ho, North Devon, after a long illness Robert Ellis, M.R.C.S., F.S.A., late of 63, Sloane Street, aged 62.

PREVENTION OF GLANDERS.—The thorough enforcement of the law directed to prevent the spread of glanders is of the utmost importance from a medical point of view, and it is satisfactory to find a magistrate inflicting exemplary penalties. A man named William Bowler, of Kennington, was recently summoned by the Board of Works to the Lambeth Police Court, for having caused to be led through the streets a mare suffering from glanders. There was a second summons, in which the defendant was charged with having the same mare in his possession in a stable, and not giving notice to the police authorities as to the condition of the animal. The offences having been proved, he was ordered to pay a penalty of £14, being £7 for each offence, together with 4s. costs.

CHAMBERLAND'S FILTER.—This apparatus has been warmly recommended to the Académie des Sciences by M. Bouley at a recent sitting. It consists simply of a tube of porous porcelain, through which the water is forced. Any micro-organism or living germ contained in the water is effectually stopped by this filter, which is often used by M. Pasteur for separating micro-organisms from the fluids in which they grow. Twenty litres of water can be filtered in one day, under a pressure of two atmospheres, through a tube measuring twenty centimetres in length by two and a half in diameter. The tube is fixed to the water-pipe, and can be thoroughly cleaned by putting it in the fire until the organic matter accumulated on its surface has been destroyed.

A GRATEFUL PARISH.—The parishioners of Terling, in Essex, have just presented the medical officer, Mr. Fraser, with a piece of plate, in recognition of his valuable and self-denying services during a recent epidemic of small-pox.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—Eas. London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th. 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL TITLES.

SIR,—I have been an L.R.C.P. and M.R.C.S. for over 24 years, and during that period I have worked in general practice as hard as anyone. I should much like to possess the M.D., or else to have the privilege now of placing Dr. on my card, but the only door I see open to me is through the degree granted to practitioners of 15 years' standing by the Durham University; but here I am effectually stopped: part of the examination is in Latin; I am about as fit to pass in this as a boy commencing his school-life. Being originally intended by my parents for a commercial pursuit, the classical part of my education was sadly neglected, and at my age I do not care to revive this lost knowledge. Now I feel that it is a little hard that there is no loophole for cases like mine, as I think, without any self praise, I could compete in practical professional work with any man who has the power of adding M.D. to his name.—I am, etc., L.R.C.P., M.R.C.S.

** Our correspondent must be aware that the London colleges are at present considering the question of conferring the title of "Doctor" on all who hold the two diplomas which he possesses. The whole question has been freely discussed in recent numbers of the JOURNAL.

HUMAN AND MAMMALIAN BLOOD.

C. B.—It is impossible to distinguish by analysis between the blood of a human being and the blood of any other mammal. For the microscopic appearances of the blood-corpuscles in different animals, consult any text-book on physiology.

REMOVAL OF THE TESTICLES.

SIR,—I have under my care an extremely interesting and distressing case of a young man, in whom eccentric sexual troubles exist, which would be, I am sure, cured if removal of the testicles would deprive him of sexual power and desires. The patient earnestly desires that the operation should be done, but I cannot consent to it, for I cannot find evidence to the effect that removal of the testicles in adult life destroys sexual desire, or even that it completely destroys the power of engaging in intercourse. Can any of your readers help me?—I am, etc., F. R. C. S.

RECOGNISED UNIVERSITIES.

SIR,—In your reply to "Inquirer" in the JOURNAL of July 18th, you use the words "recognised university." May I ask what is meant by a "recognised university"? How recognised? or from what source should the test of recognition come? There are five universities in England. Are they all entitled to that order of merit? Of course, degrees of dignity are admitted, but are their degrees all valid in the sense of recognition?—Yours, A CONSTANT READER.

* In reply to "A Constant Reader's" somewhat singular question as to "what is meant by a 'recognised university,'" we would define it simply as one legally authorised to grant a degree in medicine, or a diploma or licence in surgery, which would entitle the holder thereof to be registered by the General Council of Medical Education and Registration of the United Kingdom.

SMALL-POX IN THE LAST CENTURY.

A CORRESPONDENT sends us the subjoined extract from a Cumberland newspaper. "A memorial-brass in the ancient churchyard at Kirkbride tells a melancholy story of the ravages of the small-pox in the village of Kirkbride 141 years ago. It seems that a Rev. Lancelot Thompson was the curate-in-charge at Kirkbride, when the disease broke out in his family, which must have been a numerous one. On June 24th, 1746, his daughter Mary fell the first victim, at the age of 12. On July 6th, Jane died, at the age of four; on the 9th of the same month, Margaret, aged 10, followed; on the 12th, his son William died, aged eight years; and on the 15th, two of his daughters, Anne and Abigail, aged respectively six years and one year, completed the sad list of deaths in one family in the short space of three weeks. This brass, which is affixed to a stone beneath the chancel-window at the east end of the churchyard, bears the following inscription: "Near this place lie interred a son and five daughters, the issue of the Rev. Lancelot Thompson, and Margaret his wife, who all died from small-pox within the short space of three weeks, in the year 1746."

HOME FOR AN EPILEPTIC CHILD.

SIR,—Can you give me the name of any home where a child, aged 11, suffering from epilepsy, could be sent. It has had the attack for two years, and is almost uncontrollable on coming round. The parents are not well off, and could not pay large fees.—Yours truly, EPILEPSY.

HEALTH-RESORTS NEAR LONDON.

SIR,—You were so kind as to allow me to inquire of your readers as to localities near London that might bear some resemblance to Bournemouth in respect to soil and vegetation, and that might therefore be beneficial in some cases of catarrh. I have had already 12 answers, and I shall be glad if you will let me thank my correspondents for their great courtesy in giving me much useful information. In as few words as possible, I will give the general result. Woburn and Ampthill, in Bedfordshire, and Ightham, near Sevenoaks, are mentioned; but eight communications relate to a district which, judging from the descriptions given, must be one of the healthiest in England. It may, perhaps, be best described as having the shape of an open fan, the handle being at Weybridge. From Weybridge to Wokingham on the north, and to Godalming on the south, would represent the two sides of the fan, and a line from Godalming to Wokingham, with a curve sufficient to include Farnham and Eversley, would complete the boundary. Bagshot must have precedence as a convenient centre from which to explore one of the most favoured parts of this district, but the whole of it appears to possess exceptional advantages for those to whom a dry climate is a necessity.

Persons suffering from hay-fever might find it worth while to try the experiment of loitering for a few days amongst the heaths and fir-woods that abound near Bagshot, and I believe elsewhere in the area I have roughly defined.

With many thanks, I am, yours faithfully,

ALLEN D. GRAHAM.

DR. W. WOODWARD writes on the same subject: Dr. Graham will find Ascot, in Berkshire, everything he desires. The hotel is a first-class one, with very moderate charges, and can be strongly recommended.

ADDRESS IN SURGERY.

Delivered at the Annual Meeting of the British Medical Association in Cardiff.

BY

J. MARSHALL, F.R.S., F.R.C.S.,

Emeritus Professor of Surgery, University College, London; Consulting Surgeon to University College Hospital.

A FORTY YEARS' RETROSPECT.

MR. PRESIDENT AND GENTLEMEN,—Assuming that on such an occasion as the present my discretion is entirely unfettered, and feeling anxious to avoid wearying my audience with a formal essay, I have chosen for the subject of the Address in Surgery, which I have the honour of delivering here to-day, a comparative view of surgical practice, as I myself observed it, when acting as dresser under Robert Liston in the wards of University College Hospital, and of such as now prevails amongst us, particularly as exemplified in my own wards in that institution.

I at first contemplated, for the purpose of this comparison, the selection of the years 1843 and 1883, moving backwards from the last named date, because it coincides with that of the latest of our surgical registrar's reports, compiled by my former house-surgeon, Mr. Victor Horsley. But, on searching the old case-books, I found that, in the medical year 1844-5, I was myself one of Liston's dressers, and accordingly I resolved to compare that year with 1883, which two years, in fact, constitute the first and last of a series of forty. I soon found, also, this advantage, that the perusal of my own descriptive notes, and those of my contemporaries, brought back vivid remembrances of the more important cases then under treatment.

It gave me great pleasure to discover that two of my old and yet surviving friends, James Hakes, of Liverpool, and George Yeoman Heath, of Newcastle, were acting as Liston's house-surgeons in the year selected; and that amongst my fellow-dressers were Henry Wiglesworth, of Ashford; John Newton, of Liverpool; the late Thomas Atchison, of the Indian Medical Service; F. W. Marshall, of Brundall, near Norwich; and Wm. Cadge, of that city. It is with equal pleasure that I mention here the excellence and value of their reports.

Whilst thus limiting my comparison as to period and locality, and to events more or less within my own cognisance, I hope to be able to direct your attention to numerous points of practical interest, whilst occasional generalisations need not be excluded.

I propose to take up, in order, the following subjects: 1. The numbers of the cases, and the character of the diseases and injuries treated in the two selected periods; 2. The methods and means of investigation employed, whether clinical or pathological, for the purposes of diagnosis; 3. The treatment of the cases, understood in its widest sense, hygienic, dietetic, and curative; 4. The results obtained, as indicated by such factors as the duration of the treatment in the wards, the progress of the cases, and the relative mortality.

In dealing with these questions, either exact figures are given, or, when general statements are introduced, they are founded on the best attainable data.

1. *The Numbers of Cases, and the Character of the Diseases and Injuries to be Compared.*—In the year 1844-5, 284 patients were admitted into Liston's wards (excluding eye-cases); of these, 196 were males, and 88 were females. In 1883, there entered my wards 396 patients, of whom 223 were males, and 171 females. Liston's cases constituted about one-half, whilst my own formed only about one-third of the total number of patients received into the surgical wards.

In both sets of cases, fractures of various kinds, chiefly of the lower limbs, reached a very high number; next to these, especially in the earlier series, were wounds of the soft parts, chiefly affecting the head, neck, and upper limb. Burns and scalds were few in each period. Malformations of the lips, palate, fingers, and foot, were more numerous at the earlier date; but, as might be expected, *genu valgum* is not mentioned. New growths, though actually more numerous, were not relatively so in the later period, the proportions of these to the total number of cases being about $7\frac{1}{2}$ per cent. in 1844-5, and only 7 per cent. in 1883. There is, however, a marked increase in the epitheliomata, though scirrhus and sarcoma remain the same; whilst fatty tumours are more numerous in the earlier period. Of course, the numbers contrasted, 21 and 26, are too small to furnish evidence either way as to the commonly supposed increased prevalence of cancer amongst our existing population. The widespread and well

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grounded belief in the value of the early removal of all new growths, and the more ready submission of patients to operations now rendered painless by anæsthetics, must here be taken into account, as tending to swell the later numbers. Cases of venereal disease were formerly much more freely admitted into the wards of a general hospital than now, and, accordingly, are more numerous at the earlier date. Ordinary abscesses and ulcers are equally represented at the two periods. Gangrene was, and is, rare. Diseases of the joints, and also diseases of bone, are abundantly represented in each set of records; but, in the later period, cases of caries particularly abound, probably owing to the greater success of modern operative interference. *Fistula in ano* and stricture of the rectum are mentioned in both the early and the later lists; but it is remarkable that not a single instance of operation for hæmorrhoids occurred in Liston's wards in the year in question. Diseases of the rectum, however, were at that time marked subjects of the specialism founded by Van Butchell. Strangulated hernia, calculus, stricture of the urethra, and affections of the testicle, are met with, though in varying proportions in both lists; but cases of stricture especially are now more frequently admitted as in-patients for the purposes of the so-called radical cure. A single case of ovarian tumour, one of vesico-vaginal fistula, and one of aneurysm, occur in Liston's set of cases; but the last named disease is now comparatively rare, and the two former evils are usually relegated to special hospitals. The eye cases, which were received into Liston's wards, included strabismus, staphyloma, and cataract, for all of which he operated successfully. It would be a mere parade of knowledge to enumerate the numerous modern operations, such as osteotomy, colectomy, nephrectomy, and many others, which, of course, did not occur in Liston's experience.

As to the various forms of specific inflammations, and their consequences, which are now classed together as septic diseases, and which have long been the bane of surgical, and especially of hospital surgical practice, it is well known that they were not so clearly differentiated in 1844-5 as they are at the present time; but it is evident, from a study of the hospital records of the older date, that they were then extremely prevalent. Indeed, the chief lessons to be drawn from the facts I have undertaken to review relate to this class of diseases.

2. *Comparison of the Methods and Means of Investigating Surgical Disease Forty Years since and at the Present Date.*—In 1844-5, the finger, the educated finger, passed down the throat, or up behind the soft palate, was used to explore parts now examined by the laryngoscope or pharyngoscope. The convenient specula, which we now possess for various internal examinations, were then but rudely represented. There was no endoscope, and, above all, no ophthalmoscope. The place of the modern aspirating syringe was but imperfectly supplied by the exploring needle or trocar. Means were not then devised for measuring variations in the corpuscular and chemical elements of the blood in disease and in convalescent states. The presence of albumen and sugar in urine was, no doubt, easily and commonly detected; but quantitative determinations of those substances were troublesome and difficult to make, or were left unattempted; and the same is true in regard to such normal urinary constituents as urea and the chlorides, sulphates, and phosphates.

The clinical thermometer was not in use; yet, truth to say, it had been suggested as far back as the 17th century by Sanctorius, and was actually employed as a measure of the strength of fever, by De Haen and Dr. James Currie, at the end of the last century. But, though the thermometer was not employed in Liston's time for ascertaining the temperature of the body generally, it is interesting to note that, in a case in which he tied the external iliac artery for aneurysm, exact observations on the temperature of the two lower limbs were made by aid of that instrument.

In the absence of this now ubiquitous clinical registrar, on the indications of which we justly set so high an estimate, great care was then taken to note other signs of the febrile condition. Hence, in Liston's case-books, are to be found constant and minute records of the state of the skin and tongue; of that of the pulse and breathing; of the occurrence of rigors and sweats; of the supervention of delirium; of the quantity, character, and specific gravity of the urine; and of the occurrence of albumen in that fluid. In these respects, the notes upon the cases are for the most part perfect. There are also occasional stethoscopic observations; but there are no sphygmographic pulse-tracings. The elaborate temperature-charts and diagrams of the present case-books are necessarily absent; so, likewise, the electric and other tests, applicable to the detection of diseased conditions of the muscular and nervous systems, are entirely omitted.

Forty years ago, the microscope had just come into use for pathological, and therefore for clinical, observation. Liston's intimacy with Dalrymple, Gulliver, and Kiernan had its scientific as well as its

social side, and served to stimulate his interest in microscopic investigations. He possessed one of the best and most powerful instruments of that day; and, as I know from having had the privilege of assisting him, he was particularly interested in the character and mode of growth of new vessels in granulations and elsewhere, in the structure of tumours, the constituents of cancer-juice, the seat of the pigment-granules in melanotic tumours, the presence of spermatozoa in the fluid of certain hydroceles, and in many other facts of micro-pathology. The researches of Muller were then becoming familiar; but the further labours of Schwann and Schleiden, of Addison and Augustus Waller, of Virchow and Cohnheim, and of many others, had to be made generally known before the grand microscopes of the few were supplemented by the clinical microscopes of the many, which now, indeed, are in daily use in every hospital-ward. Liston's *Elements of Surgery* (last edition, 1840), though beautifully illustrated by Wm. Bagge, contains only one solitary woodcut devoted to a microscopic object—namely, a cluster of red blood-corpuscles, represented upon a scale of squares, without a single white blood-corpuscle amongst them. What a contrast to the countless illustrations of minute structures, organisms, and crystals, scattered through the pages of the modern textbook!

It is not surprising that the older case-books contain no account of the microscopic structure of morbid growths, or of the minute constituents and deposits of diseased fluids—much less any illustrative sketches of either; whereas, in the modern case-records of 1883, pen-and-ink drawings constantly occur, more especially, it must be admitted, representative of the larger facts of size, shape, and other obvious characters. Formerly, we find, in the notes, a mere statement that such and such a growth "exhibited the usual characters" of a fatty, sarcomatous, or scirrhous tumour; now, those characters, when necessary, are fully described, or, it may be, actually figured. Permit me here to emphasise the importance to the medical student of the art of drawing accurately, and to express my gratification at the contrast between the useful sketches which serve here and there to illustrate the pages of my own case-books, and the funny caricatures of the features of my old surgical Master which decorate the covers of his.

As a natural consequence of the improved methods and means of pathological and clinical observation which we now possess, the notes by the clinical clerks have become more ample. Indeed, I find that the average space now allotted to each patient's history and record is twice what it formerly was; and this is independent of the temperature chart or charts now affixed to every case, of occasional diagrammatic curves, and of certain hygienic tables, in which are recorded the septic or aseptic condition of every wound in a ward, and the concurrence or absence of serious infective disease. Nevertheless, as I have already hinted, the older notes are usually full and intelligent in all particulars to which they relate; and, as the duties of dresser and clerk, now assigned to different students, were, forty years since, performed by the same person, the observation and the description of characters and symptoms were the work of the same mind, and thus they probably gained in exactitude and completeness.

At the same time, the effect of the non-use of the microscope for purposes of diagnosis may perhaps be recognised in the application of the terms "ichthyosis" and "wart growth" to what would seem to have been, the one a dry epithelioma of the lower lip, and the other a papillary epithelioma on the margin of the tongue, both of which, however, were successfully excised. Of six cases of "lupus," so-called, it is almost certain that two at least were carcinomatous. Again, the obvious appearances of a growth named "medullary sarcoma" of the tibia, and those of a "fungus hematodes" springing from the skin of the forearm, are admirably depicted in words; but there is, of course, no recognition of the modern nice discriminations between the different forms of sarcoma, or between a soft sarcoma and an encephaloid cancer. Different morbid conditions of the kidney could not then be indicated by the various kinds of casts or other deposits in the urine; nor, lastly, were the numerous phenomena of disturbed sensation and motion, which enable us to determine the nature, and even the locality, of certain lesions of the brain and spinal cord, capable of being recorded. It would, indeed, become tedious, were I to recount all the references in the case-books of 1883, which serve to show the great advance which has been made in the methods and accuracy of surgical diagnosis since 1844-5. But it is in regard to the questions which next arise, namely, those which relate to the treatment followed in the two periods, that the contrast I have attempted to institute deepens in interest and in force.

3. *Comparison of the Treatment adopted in University College Hospital, at the two selected Periods, considered in reference to Hygienic Conditions, General Comforts, Diet, Medicines, and Surgical Appliances.*

—A.—*Hygienic Conditions.*—In 1844-5, the north wing of the Hospital not having been built, the surgical wards were much crowded; whilst, in 1883, in spite of an increase in the total aggregate of patients, the numbers in each ward were diminished, and the cubic space per bed proportionately increased. In the presanitary period of forty years since, sculleries and water-closets were but imperfectly separated from the wards; whereas now their separation is complete. Formerly, the doors, windows, and chimney-flues furnished but intermittent means of ventilation; now suitable channels, both inlets and outlets, are provided for the constant renewal of the air in the wards. Besides this, a laundry has been expelled from the basement, whilst that and all the corridors are now efficiently ventilated. The traps and drains are also maintained in good order. It is true that, in 1844-5, the Hospital had been built only ten years, and so far was relatively freer from the dangers of so-called hospitalism than now; but, to meet such contingencies, the walls of the wards have been recently lined with an impervious cement, which is regularly painted; whilst the floors are kept carefully purified. Lastly, in the good old times, there were no special isolation-wards for infectious diseases; whilst now there are special erysipelas-wards for both sexes.

B. *Diet and General Comforts.*—It cannot be doubted that quite as great attention is now paid to the question of diet as was formerly the practice: and, as all hospital committees well know, the expenses of general maintenance have increased. In the year 1844, for example, with a total number of 1,410 medical and surgical in-patients, the total general expenditure of the University College Hospital was £4,976, whereas in 1883, with 2,849 in-patients, it was £19,822; so that, whilst the number of patients is doubled, the total expenses of the establishment are multiplied fourfold. We may safely conclude that a certain share of this large increased expenditure arises from a bountiful attention to the dietary of the in-patients. As regards the personal care and comforts bestowed upon these patients, it may be pointed out that the salaries of nurses and domestics, which were somewhat more than £1,600 in 1844, amounted to £2,300 in 1883. Finally, it is with sincere expressions of gratitude to the Sisterhood who now so solicitously watch over the nursing and general economy of the wards, that one alludes to those numerous manifold improvements, which conduce not only to the comfort and cheerfulness, but to the well-doing and speedier convalescence of the inmates.

C. *Medical and Surgical Appliances.*—In 1844, the total expenditure on medical and surgical stores for the hospital, was £643, but in 1883 it amounted to £3,239; that is, the number of in-patients having become double, the cost of their medical and surgical treatment has been multiplied five times. The payments for medical stores alone amounted, in the two periods, to £437 and £1,474, showing an increase in the ratio of 3.3 to 1; but those for the surgical stores (exclusive of instruments) were, at the two periods in question, £206 and £1,765, making an increase of eight to one. Of this last named large sum, no less than £1,273 is specially set down to payments for "antiseptic dressings," of which, of necessity, by far the larger proportion was employed on in-patients. This great cost of the antiseptic system, as it is carried out at the University College Hospital, is a startling financial fact; but, if the results can be shown to justify the outlay, such expenditure is in itself highly to be approved. It is obvious, moreover, that the public, which provides the needful funds, ultimately reaps the benefit of that, as of all other improvements. Wealthy donors should remember this, in meting out their contributions to hospital resources.

The constant use of anaesthetics, not merely in operations, but for the purpose of more thorough, and otherwise painful, examinations in cases of injury and disease, greatly increases the relative cost of hospital maintenance at the present day. In 1844-5, these were yet un-employed; although it was Liston himself who, two years later, was the first in this country to perform an important operation under their influence. For it was in 1846 that he amputated through the thigh the lower limb of a man, put into a condition of insensibility by the vapour of ether, administered by the late Mr. Peter Squire, in the presence of the late Sir John Forbes, the then editor of the *British and Foreign Medical Review*. Liston's surprise and gratification when the patient, having recovered consciousness, refused to believe that his limb was off until it was shown to him, is still well-remembered by spectators of the scene.

Beside antiseptics and anaesthetics, to which we may add hypodermic injections, many new and expensive medicinal preparations are now ungrudgingly used in every hospital. Improved instruments for the performance of long-established operations, and innumerable and ingenious clamps, cauteries, and other novelties for the accomplishment of new and difficult surgical proceedings, are also freely pro-

vided for the modern hospital-surgeon and his patients. The cost of these at University College Hospital has doubled since 1844. In a word, it may be unhesitatingly affirmed, that the means, as well as the methods of surgical treatment, whether hygienic or curative, were, in 1883, far in advance of those which were available 40 years before that date.

Let us next proceed to consider the ultimate and practical question of results.

4. *Comparative View of the Results of Treatment at the Two Selected Periods.*—Under imperfect sanitary conditions, without special isolation wards, with less attention to the details of ward-management and to their cheering influences, with fewer scientific means of diagnosis, with no chloroform or ether, and no hypodermic method of quelling pain or other nervous disturbance, with simpler instruments, and less recondite dressings and appliances, were the results obtained in 1844-5 inferior to those realised in the same hospital, under other conditions, in 1883? The reply is "Yes," in certain particulars, but not in all.

In the first place, I find that, as well as I can determine, the average period of stay of a surgical patient in the hospital, in 1844-5, was 28½ days in the female wards, and 29½ days in the male wards; whereas, in 1883, it was about 26 days for the female, and 21 days for the male patients, this latter smaller ratio being due to the disproportionate number of simple fractures occurring in the male sex. Too much stress, however, must not be placed on these figures; since the total number of cases is not sufficient to neutralise the effect of important differences in the severity of the cases, whether in kind or in degree.

Partly on a similar ground, but also on account of the different value assigned by different persons to the terms "cured," "relieved," and "discharged as incurable," I refrain from recording, in regard to such general results, figures which would be unreliable, or actually misleading. For example, in the older records, cases of caries of bone, stricture of the urethra, epithelioma, and scirrhus, are entered as having been "cured," and in the later set, as being only "relieved," by operative treatment.

Even the ratio of mortality is deceptive, although it shows an advantage on the side of the later period, the percentage of deaths in 1844-5 being 7.5 for the males, and 6.5 for the females; whilst in 1883, these were about 5.75 and 5.74 respectively. But here, the fatal cases of the two periods are not commensurable, and a single accidental death, as for example from a burn, completely vitiates the result. Hence, a comparison of the treatment and its consequences, in distinct classes of injuries and diseases, will be found much more just and more instructive.

A. The chief point to be noted in regard to differences in the management of simple fractures consists in this: that those of the leg and thigh were formerly retained longer in McIntyre's or Desault's splints, before they were put up in starched apparatus, of which Liston was a great advocate. Patients so injured were, therefore, detained longer in the hospital than now. The introduction of the plaster-of-Paris treatment has still further abridged the time during which a bed is occupied with a case of broken leg, patella or femur. Wiring of bones was not attempted. Compound fractures proved to be very prolonged cases, and those of the lower limb were often fatal, with or without amputation.

B. Injuries not involving a breach of the surface of the body, simple inflammations consecutive to these, or so-called idiopathic local inflammations which come under the care of the surgeon, such as sprains, simple dislocations, synovitis, orchitis, and other cases, were not less satisfactorily treated in 1844-5 than in 1883, and the progress of the patients towards recovery was quite as rapid. Venesection is not mentioned in Liston's case-books, but cupping and leeching were in the ascendant. A patient with disease of the hip-joint, requiring at the time only the application of Liston's famous leather splint, informed her dresser that she had previously had 141 leeches applied around her hip in the course of three months. A man with acute synovitis of the knee was ordered 18 leeches over the joint on the day of his admission, 18 more on the day after, eight on the tenth day, and 10 on the twentieth day, and a week afterwards was discharged convalescent. For a condition described as "mania" from head-injury, a cupping to 12 ounces was ordered to the back of the neck, followed by two sets of leeches, 20 each time, to the temples, and, five days later, by a blister and the administration of calomel, and so was cured. Inflammatory urethral stricture, prostatitis, and supposed cystitis, were relieved by free cupping on the perineum, and so in many other diseases. Whether these sanguinary proceedings were necessary or even beneficial, and whether the local abstraction of blood is now too much neglected in cases of acute inflammation,

especially of important organs, are problems which I cannot here discuss.

C. In comparing the older and the more recent management of inflammations which end in suppuration, ulceration, or gangrene, or in combinations of these morbid processes, we meet with facts more or less unfavourable to the older practice, and unmistakably conclusive in support of the advantages of modern, that is, of aseptic, surgery.

Acute abscesses were treated by very free incisions with ultimate success; but suppuration continued for many days, and the abscess-cavity was filled up slowly. Nor were there wanting instances of more serious evils. Erysipelas and further abscesses often supervened. A patient with successive abscesses in the abdominal wall, due presumably to caries of the ilium, is recorded to have left the hospital on the thirty-second day, and to have died a few days afterwards. An acute abscess in the head of the tibia, opened with the trephine, was 77 days in healing. Abscesses and sinuses, around but not communicating with the hip-joint, are mentioned as not having become closed when the patient was discharged from the wards, after the expiration of 83 days. Lastly, an acute abscess in the knee-joint proved fatal, from distinct pyæmia, on the forty-seventh day, purulent deposits being found in the lungs after death. It is hardly necessary to state that poultices, and not antiseptic dressings, were employed; and, although counter-openings were freely practised, no drainage-tube was in use; and the abortive treatment of moderate-sized abscesses by aspiration and the injection of morphia, carbolic acid, or iodoform, was unknown.

Ulcers of the integuments, which usually are not prone to allow infective absorption, were very well managed in Liston's wards. Rest, elevation, and his favourite water-dressing, consisting of wetted lint, covered with oiled silk, cured most cases. All greasy applications were rigorously forbidden, for against these Liston waged an angry war. A spreading ulcer with fetid discharge was treated with a lotion of chlorinated soda, or a weak solution of iodine, both strongly antiseptic and germicidal agents. Red wash, which probably acts in both these ways, as well as a local stimulant, nitrate of silver, and sulphate of copper, were used as now. Strong nitric acid was applied against phagedæna; solutions of chlorine and iodine against slight sloughings and actual gangrene.

Periostitis, osteitis, caries of bone, and necrosis, were treated successfully, as now, by subcutaneous incisions, trephining, the extraction of sequestra, and scooping. In one report, the dresser mentions an instrument under the name of a "proper scoop," which, I assume, was really a "sharp scoop."

Veneral diseases were treated without mercury, or with as small doses as possible, in accordance with views which had then been ably propounded; and, as no distinction was made between the hard and the soft sores, so far as their possible consequences were concerned, whilst the majority of those taken into hospital were evidently soft chancres, followed by bubo, the non-specific or almost non-specific treatment was very successful. Iodide of potassium was becoming a favourite remedy; but it is curious to observe that a common formula in the notes was one grain of blue pill and one grain of iodide of potassium, combined in one mass, to be taken three times a day. When the iodide was administered alone, the usual dose was three grains three times daily; very seldom did it reach to four or five grains. In deep syphilitic ulcerations, and in sloughing gummata, a weak solution of iodine was commonly ordered as a lotion. Numerous cases of syphilitic caries and necrosis were admitted, and one of extensive disease of the parietal bone ended fatally, with abscess in the corresponding part of the brain.

D. *Wounds.*—Passing by burns, scalds, and injuries from caustics, I proceed to consider the cases of wounds of greater or less severity, 28 in number, which were received into Liston's wards in the year in question. Four of these occurred in women. One only healed within a week, and, as stated in the notes, "by the first intention"—namely, a wound in the palm, involving the superficialis volæ and another small artery. A cut down to the patella granulated and suppurated, and healed favourably in 17 days; an abrasion over the shoulder led to erysipelas and axillary abscess, the patient leaving the hospital on the eighteenth day; the fourth and last case, a punctured wound in the foot, became complicated with abscesses in the foot, leg, and thigh, and was detained in the ward for 55 days. Of the 24 examples of wounds happening to men, four only healed, presumably by the first intention, in from five to nine days; these were wounds affecting, respectively, the ear, eyelid, scalp, and scrotum, the last one laying bare the tunica vaginalis. In six other cases, very free suppuration, with accompanying fever, ensued—namely, in a wound of the scalp, a contused wound of the eyelid and eyebrow, a glass-cut of the forearm, a lonsplit in the perineum, a lacerated wound of the foot, and, lastly, a

scalp-injury requiring counter-openings; in these cases, healing was deferred to from 15 to 28 days. In the remaining patients, still graver complications ensued; they may be briefly summarised thus: Punctured wound of thumb, erysipelas; the patient, being in good circumstances, was sent out on the eighth day; bite on the back of knuckle, erysipelas, abscess; discharged on the twenty-first day; slight wound in butcher's hand, cellulitis, abscess in forearm and arm, 22 days; contused wound of leg, rigors, abscesses, 30 days; wound of ulnar and another smaller artery above the wrist, ligature, cellulitis, sloughing of fascia up the forearm, 32 days; lacerated wound of palm, abscess, sloughing, much fever, 34 days; punctured wound of thumb, suppuration, frequent rigors, 39 days; contused wound of ear and side of head, so-called "erythema," suppuration, 42 days; punctured wound of thigh, profuse hæmorrhage, suppuration, burrowing of pus, 45 days; attempted suicide, division of brachial artery at bend of elbow, cellulitis, sloughing of areolar tissue, severe fever, 54 days; gunshot wound of forearm without fracture, deep seated suppuration, with great fever, 58 days; lastly, two fatal cases, namely, a lacerated wound of the leg, erysipelas, rapidly spreading diffuse cellulitis, gangrene, and death on the eighth day; and a cut-throat dividing the trachea, followed by bronchitis and infective pulmonary abscesses, proving fatal after 61 days.

These cases, the only ones admitted, are surely sufficiently striking; but we have yet to consider the results of the cutting operations performed in the hospital during the twelve months of 1844-5.

Operations.—Five cases of lithotomy, four of herniotomy, and one of perineal section for laceration of the urethra, all successful, afford evidence of Liston's skill as an operator; and, as regards the duration of the cases, three of the lithotomy patients were cured within the month, one on the thirty-third day, and the remaining one, an elderly patient with large stone, on the fifty-third day. One of the hernia cases was discharged cured on the ninth day, one on the twentieth, another on the thirtieth, but one not until the forty-seventh day. The perineal section was closed on the twenty-eighth day. A case of phimosis, in a boy, required twenty-four days to cicatrise; and another, in an adult, was followed by erysipelas, severe rigors, and bubo, and was healed only after thirty-nine days. Fistule in ano behaved as now; but one patient thus afflicted died, on the seventh day after the operation, from pulmonary complications. Two cases of extravasation of urine were unavoidably fatal, in one of which minute abscesses were found in both kidneys.

For the removal or excision of new growths, twenty-one operations were performed in the year 1844-5—eight upon men, and thirteen on women. They may be thus briefly detailed. Male cases: three, namely, a small epithelioma of the tongue, epithelioma of the lower lip, and a small thyroid cyst, healed by first intention by the end of a week; two, namely, a larger thyroid cyst, and a broad epithelioma of the lower lip, healed with granulation in nineteen and twenty days; three, namely, a parotid tumour, a cystic sarcoma of the testis, and a large lymph-cyst of the neck, all attacked by erysipelas, were cured in twenty-nine, thirty-four, and fifty days respectively. Female cases: five fatty tumours, the wound, in four, healed by granulation on the twelfth, eighteenth, twenty-fourth, and fifty-seventh days; in the fifth, a succession of rigors on the first, third, and fourth days, with offensive discharges, the patient was sent out of the hospital on the fourteenth day, and died seven weeks later; five mammary tumours, one a cystic tumour, patient left the hospital doing well on the fourth day; the others, namely, a painful tubercle, two sarcomas with cysts, and a scirrhus, healed by granulation and suppuration, twenty-one to twenty-eight days; a large parotid tumour, followed by abscess and profuse suppuration, thirty-two days; and, lastly, a large thyroid body, seton inserted for ten days, suppuration, intense fever, fifty-seven days. To these cases, I must now add that of a very large ovarian tumour, of three years' duration, tapped once before; operated on, in the words of the case-book, "in Mr. Liston's usual manner," that is, "by a previous incision into the abdomen," and "the introduction into the cyst of a large trocar and cannula;" "thirteen quarts of a dark-coloured glutinous fluid" evacuated, some more afterwards squeezed out, wound closed; next day pain and vomiting; on third day, decided peritonitis; treatment by leeches, fomentations, opium, calomel, hydrocyanic acid, and creasote; incessant vomiting, exhaustion, and death on the twenty-second day. *Post mortem*: peritoneal cavity contained "three pints of purulent-looking fluid, with portions of badly formed lymph floating in it;" "cyst partly refilled," with "soft adhesions to adjacent parts." In Liston's *Elements of Surgery* (edition 1840) ovariectomy is denounced, from cotemporary experience, as an "unjustifiable piece of butchery!" How all this has been changed by cautious, and, if I may coin a word, *precautious* surgery!

In two subcutaneous operations, one for a contracted toe, and

another for displacing a loose body from the knee-joint into the areolar tissue outside the capsule, the wounds healed at once, without suppuration; but in a third, for dividing the proper extensor tendon and the long flexor tendon of the great toe, abscesses and ulceration detained the patient 69 days in the ward. Of plastic operations, Liston's great pride, a divided hare-lip united before the end of a week, and an example of webbed fingers healed in a fortnight; but four operations on the face, for pendulous upper eyelids, cancrum oris, partial destruction of nose and upper lip, and complete loss of the nose, required for the healing process 33, 42, 43, and 66 days respectively; an operation on the scrotum, designed to cover a testis exposed by gangrene, necessitated treatment for 50 days. Ten amputations and one excision of a joint are also recorded. First, four female cases: compound dislocation of finger, erysipelas, abscess in axilla, 30 days; diseased phalanges and joint of finger, erysipelas, abscess in axilla, 29 days; excision of elbow-joint, ends of humerus and ulna removed, abscesses and extensive burrowing of pus up and down the limb, eventual good result, 93 days; large "bleeding sarcoma," or "fungus hæmatodes," springing from the integuments of the forearm, three or four years' duration, lately rapid growth, axillary glands sound; amputation above elbow, rigors on seventh day, discharges very offensive, abscess in axilla with similarly offensive pus, sweatings, emaciation, jaundice, made out-patient on sixty-ninth day, death one month afterwards. Male cases, seven: compound fracture of finger, healed in 16 days; badly crushed finger, so-called "erythema," abscess in palm, patient discharged on twentieth day; comminuted fracture of finger, cellulitis, deep subfascial suppuration along the forearm, 59 days; disease of tarso-metatarsal joint of great toe, removal with internal cuneiform bone, prolonged suppuration in foot, 92 days. There remain three major amputations, all fatal. First case: a buffer-accident, compound fracture of tibia and fracture of head of fibula into the knee-joint on the right limb, fracture of tibia with lacerated wound of leg on left limb, primary amputation of right limb above the knee; progress favourable for three days, then some hæmorrhage, left limb became much discoloured, rapid exhaustion, followed by death on the eighth day; *post mortem*, collection of pus around cut end of femur, and extending as high as great trochanter, yellow line of demarcation on left leg, internal organs not examined. Second case: sarcoma of leg, originating in a cicatrix from burn; amputation above knee, profuse suppuration, separation of flaps, hæmorrhage, general oozing, death on the sixth day. Third case: sarcoma springing from front of tibia, amputation through knee-joint, patella and cartilage on end of femur left, good progress for five days; on the sixth day, a slight rigor; on the ninth day, severe rigors; on the eleventh day, another rigor, with profuse sweatings, discharges fetid, flakes of loose cartilage coming away; on the thirteenth day, another rigor, subsequently several others less severe, and death on the seventeenth day. No *post mortem* examination, but the case was typically pyemic.

In the case of aneurysm of the femoral artery, in which the temperature of the two limbs was registered by aid of a thermometer, as the tumour reached above Poupart's ligament, it was necessary to tie the external iliac artery. On the third day, swelling, and so-called "erythema," appeared around the wound; the patient had dyspnoea, a rapid pulse, restlessness, and delirium; the temperature between the toes of the affected limb, which became dusky, was gradually lowered to 84°, 72°, and 64°, as compared with 93°, 97°, and 78°, between the toes of the sound limb, the temperature of which, be it observed, also fell; the patient succumbed, apparently septicised, on the sixth day.

The picture thus finished of the results of the surgical practice in Liston's wards in 1844-5 is full of instruction. The separate mention of individual cases, all of which I have read from beginning to end, serves to enforce the lessons they teach. In the light of present knowledge, the frequency of grave inflammatory complications must be attributed to removable or corrigible conditions, which would have been prevented or minimised by more effectual sanitary arrangements, by the isolation of infective disease, and by strict antiseptic precautions.

It will have been noticed that, in cases of injury or disease not involving a breach of surface of the body, and in cases in which, as in operations in the perinæum or ischio-rectal fossa, antiseptic dressings are not available, the results of the older practice are quite upon a level with those of modern experience. Even in regard to ulcers, this is also true. But in the case of recently opened abscesses, and especially of open wounds, whether accidental or intentionally inflicted by the surgeon in his operations, in which the delicate walls of divided and exposed blood-vessels, the cut or lacerated surfaces of the interstices of the areolar tissue, and the torn and irritated lymphatics are helpless to resist the entrance into the system of infective fluids and

organisms, we find that prolonged suppuration, erysipelas, cellulitis, lymphangitis, pyæmia, and septicæmia, as it were, dogged the footsteps and foiled the handiwork of the most skilful operator of his time.

We have seen that all abscesses, when opened, continued to suppurate freely; whilst in four cases (14 being the total number), grave complications arose, one case ending fatally. Again, of 27 cases of accidental wounds, only five healed quickly by the first intention, seven by granulation and free suppuration, and 13 after prolonged suppuration, cellulitis, or erysipelas, whilst two terminated in death. Lastly, of 54 wounds made in operations, eight only united by the first intention, 26 closed after granulation and free suppuration, 14 were cured after the occurrence of erysipelas or cellulitis, with secondary abscesses, and, excluding two unavoidable deaths from extravasation of urine, four died of septicæmia or pyæmia.

It must be within the experience of every living hospital surgeon that no such calamitous results follow his own practice. It is unnecessary to quote here, in detail, the number and kinds of cases treated in my wards in the year 1883; but the facts relating to those cases, which are carefully reported, show indisputably that abscesses, both acute and chronic, treated by incision, proper drainage, and antiseptic dressings, heal with much less subsequent suppuration, and in less time, than under the open treatment; that accidental wounds, maintained in an aseptic condition, are far less frequently followed by serious complications than formerly happened; and that operation-wounds of all kinds heal more quickly and kindly under antiseptic treatment. By way of illustration, it may be mentioned that in 24 operations for the removal of new growths, the wounds were healed in five cases between the seventh and tenth days, in seven cases between the fourteenth and twentieth days, in seven cases between the twenty-fifth and thirty-fifth days, in four cases between the forty-third and fifty-fifth days, and in one only, a case of a double operation on a cancerous penis, on the seventy-third day. It must also be added that in no instance was there more than a show of suppuration, and that no case of erysipelas, infective cellulitis, septicæmia, or pyæmia, arose, during the year in question, in the wards under my care; yet these diseases were not absent from the hospital, for three cases of pyæmia, one of septicæmia, and five of erysipelas, originated in other wards, whilst 16 cases of erysipelas or infective cellulitis were admitted from outside into the proper erysipelas-wards. It must, in justice, to the older period when there were no isolation-wards, be granted that some of the cases of injury complicated with erysipelas were already so affected on their admission; but most of those cases, and all those following on operation-wounds, arose within the hospital, making a total of at least 24 cases of septic disease arising in Liston's wards in 1844-5, against none arising in my wards in 1883. It is easy to trace, in these older records, the frequent and long acknowledged co-existence of endemic and hospital erysipelas, to which a recent joint Franco-German Surgical Commission of inquiry into the effects of that disease has directed attention; and, indeed, it may be said that in Liston's time not only did inflammation, which, like fire, may be a good servant but is a bad master, attack every wound, and free suppuration, which if not a combative is an exhaustive process, run riot in the wards, but the demon of erysipelas, which so often gained an entrance therein, if it did not strike all the patients, at least hovered over every bed. Its vagaries were well understood; its advent took no one by surprise, and there was one bed in particular, in the corner of a certain ward, in which it most frequently seized its victim. This familiarity with it in hospital practice explains perhaps the promptitude, and, judging from the number of recoveries which followed it, the success with which it was treated when it occurred. But neither it, nor other septic diseases, nor the tendency to undue suppurative inflammation, were efficiently prevented.

On general principles, every surgical patient was subjected, almost *in limine*, to the inevitable purge, consisting of the nocturnal dose of blue pill or calomel, with colocynth and henbane, and a choice between castor-oil or a black or white saline draught in the morning. Subsequent fever was treated by salines, often combined, even in the later stages, with antimonial wine, and sometimes with the then new remedy, aconite; rigors, sweatings, and exhaustion, were combated with ammonia or mineral acids, administered in decoction of bark.¹ In the meantime, complete purity of the surroundings, absolute surgical cleanliness, and the exclusion of all noxious substances, were not strictly aimed at, or attained. Sanitary vigilance was dormant, or did not exist; and the dressings, the famous water-dressings, alas! were doubtless the constant innocent, but not innocuous vehicles of infection. Liston, as is well known, denounced all resinous plasters as

"dirty applications," and all ointments as "greasy abominations," prefixing to these appellations a strong characteristic epithet. Isinglass plaster, wet lint, and oiled silk, were no doubt neat, and to the eye cleanly; but they were not aseptic. Lint "stuffed" into open abscesses, sinuses, and carious cavities, or placed for a few hours between the flaps, after an amputation, would certainly contain organised or unorganised extraneous particles; and the water with which it was moistened, surely not previously boiled, would also contain them. The heat and moisture of the living tissues, and of the exudations from them, would favour the development of germs, as well as the formation of lifeless but injurious chemical compounds. To us, the consequences are clear. No change of dressings, however frequent, and no occasional use of chlorinated lotions, or iodised solutions, would cleanse effectually the microscopic but Augean recesses of the injured tissues. Hence, more or less suppurative action ensued, and more or less deadly agents of infection gained an entrance into the vessels and the blood. Asepticised air, hands, instruments and sponges, together with all the varieties of shortened aseptic ligatures, sutures, and dressings, form a remarkable contrast to Liston's means of treatment. It would be untrue, and a calumny against Nature, to say that these and other antiseptic agencies are everywhere and at all times indispensable necessities of surgical practice. As narrated to me by a French surgeon, an eye-witness to the facts of an African campaign, an Arab's cheek, all but sliced off and hanging down, may be stitched up in its place, and bandaged with strips from his own cotton garments, and may then unite by the first intention, with scarcely a drop of exudation; and I have been told of a gentleman colonist in Australia, who cut open his knee-joint in felling a gum-tree, sewed up the wound himself, and put on a back-splint, before the nearest surgeon, who resided 60 miles off, could arrive, and was cured "straight off" without suppuration, preserving a perfectly useful limb. Union by the first intention occurred long before the antiseptic system was devised; and it occurs still without its aid. But in formidable operations anywhere, and in most operations in hospitals, it is a safe and therefore an incumbent provision to adopt. In this view, adequate hospital expenditure for antiseptics is fully justified. Their employment shortens the period of cure, limits the amount of suppuration, diminishes the drain upon the bodily strength, lessens the risk of complications and the chances of future organic degenerations, and thus contributes to a more rapid, complete, and lasting recovery.

As anesthetics encourage patients to submit more frequently, willingly, and hopefully to more and more serious operations, so antiseptics have emboldened surgeons to attempt, and enabled them to succeed in, enterprises formerly considered hopeless and unjustifiable. When I remember Liston's grave and despairing looks at his too frequent disappointments, I welcome the confident glance and triumphant expression of many a modern operator.

Of the three great cavities of the body, the abdomen, with its membranous coverings, the least protected and most accessible, containing parts less immediately essential to life, and yet, from its size and the extent of its lining membrane, the most prone to a rapidly fatal inflammation, was the first to be entered by the properly aseptic hand; next, the thorax, with its half-bony and half-membranous walls, and therefore better protected and less open to access, containing parts more immediately necessary to life, but lined by a membrane of smaller extent, and subject to less formidable inflammatory reaction, yielded entrance to the antiseptic method of procedure; and, lastly, the cranio-spinal cavity, the smallest, the most perfectly enclosed, the best protected, enclosing organs of vital essentiality, and yet lined by a membrane of moderate proclivity to disease, has also been invaded by the new surgery, under the guidance of an improved diagnosis, in search of removable disease. Even the cervical region, which, though not designated a cavity, is, nevertheless, a specially adapted part of the general cavity of the body, has become the field for the employment of aseptic methods.

It might thus seem as if surgical enterprise and skill, applied to the trunk as contrasted with the limbs, had reached their utmost attainable limits; but it cannot be so. Already, the cry is for still greater security against the consequences of irritant and septic influences. That this will be obtained in the future, no one can doubt.

Forty years since, Liston was deprived of our present advantages, and suffered accordingly; but his dexterity and fame as an operator, his desire to simplify all surgical proceedings, his lasting devotion to and sound knowledge of anatomy, and his interest in the then opening science of pathology, require no vindication at my hands. May the next forty years witness as great advances as have been realised since his death; and, in that future, may the reputation of British surgeons, and the triumphs of British surgery, be maintained by our successors with undiminished lustre!

¹ "If morbid spot of septic sore invade,
By heaven-sent bark the morbid spot is stayed."

—From Rev. Sydney Smith's *Poetical Medicine Chest*.

REMARKS ON THE TENDENCY TOWARDS
SYMMETRICAL COMPLETION IN HERPES ZOSTER,
EXPLAINING THE GRAVITY OF THE NATURE
OF THE COMPLETED LESION.

By DAVID R. PEARSON, M.D. Edin., M.R.C.S. Eng.,

Surgeon to the Kensington Dispensary.

ON November 23rd, 1882, I was called to see Mr. F. D., suffering from the effects of chill. He had experienced what he described as a chilly rheumatic seizure, while crossing Hampstead Heath on the evening of Sunday, November 19th. On Monday, the 20th, he attended a concert at St. James's Hall. Coming out from the concert, he was detained in the passage by the crowd, and suffered acutely from an icy cold draught playing on the back of his head and neck. On my first visit, I looked upon the case as one of stiff-neck from chill. But on Saturday, November 25th, the seventh day after the first exposure to cold, I found the commencement of an abundant herpetic eruption over the right nape of the neck, shoulder, and upper arm, precisely the region supplied by the circumflex nerve, which comes off from the highest of the cords forming the brachial plexus, namely, from the fifth cervical, with possibly a few fibres from the sixth. The case ran a natural course, but was severe as regards pain, and the disability entailed on the patient in pursuing his work as an artist. When the pain was most trying, Mr. Prescott Hewett kindly saw the patient with me on Sunday, December 17th. On January 6th, 1883, I was able to cease attendance. Throughout that spring, however, the stinging after-pains and distress produced by use of the arm interfered with work. In the hot autumn of 1883, the pains almost disappeared, while Mr. D. was on a holiday in Yorkshire.

On December 28th, 1883, while I was visiting in the house for another purpose, Mr. D. took occasion to complain to me of an effect which appears worthy of record. He now stated that the pains (which during the previous winter and spring had been confined to points corresponding to the spots of the eruption on the right shoulder, neck, and arm) had transferred themselves in a more general rheumatoid form, giving pain on movement, symmetrically to the corresponding area of the left side. The pain was occasionally even more severe and disabling on the newly affected side. Sometimes it attacked in full force both synchronously; and sometimes the right, the original seat of pain, was still the worst.

This seems to argue conclusively that the effects of the chills caught on November 19th and 20th, 1882, caused irritation, probably inflammatory action, in the central spinal cells forming the origin of the circumflex nerve, first of the right side. This eventuated "in atrophy, or a tendency to it, in the posterior or sensory root of the painful nerve, or of the central grey matter with which it comes in closest connection." (See Anstie, in Reynolds' *System of Medicine*, vol. ii, p. 759.)

The importance of the case now turns upon the evidence that such a lesion may be progressive, and was progressive in this case. The process of invasion of the corresponding nerve-centre of the left side was gradual, and took about a year to manifest itself. It differed from the primary affection only in degree, but was so closely allied to it in effect, as sometimes to have given to the patient the feeling, "Can I again be about to have shingles on the other side?" When this process of extension had completed itself, the new symptoms about to be described show the origin of the belief in the gravity of a primarily symmetrical completion in the disease in the time of Pliny, when he wrote, "Zoster appellatur, et enecat si cinxerit." Observation does not bear out the fatal tendency of even this suddenly completed lesion, but the symptoms are significant. Thus, Mr. D. spent the autumn of 1884 in Norwich, and instead of comparative freedom from pain, as during the heat of the previous autumn, he had an illness which caused him considerable alarm, from its origin being clearly referred by him to the original seat of pain in the neck. He was suddenly seized with giddiness, and he could not walk. The sensations seemed to spring from the back of the neck, but proceeded to give a sense of weight in the eyebrows, and somewhat "the feeling of malaise caused by a sleepless night." He sent for local medical attendance, and was treated for biliousness, but the after-consequences of the conditions showed their meaning. He now began to suffer peculiarly on first getting into bed. If he lie down quickly, immediately after putting out the light, the hazy glimmer from the window facing him takes on a whirling appearance, revolving from right to left in a distressing manner. The force of this con-

dition is produced in direct ratio to the degree of incaution with which he lies down. This has caused him to get into the habit of resting his head upon his hand, and letting it down cautiously upon the pillow. The contact with the chill of the linen does not seem to be a factor in the producing cause. He further suffers from drumming in the ears. His own voice sometimes impresses itself upon him with a disagreeable ringing sound. Any shrill noise produces an unpleasant sensation to an exaggerated degree. Water from his bath, getting into his right ear, produces aggravated unpleasantness. There is often a persistent sound in the ears, as of the simmering of a kettle, which asserts itself above the roar of the streets in walking through them. Many of these are symptoms reminding one of a case of Menière's disease. Incidentally, these considerations provoke the question as to whether Menière's disease does not imply, when traced to its intimate source, the lesion of the nerve-centre controlling the labyrinth, whose disturbed condition is the peripheral symptom corresponding to the herpes in the case before us. The significance of the symptoms in that case is clearly due to the involvement of a complete entity, probably of grey matter, or a symmetrically entire group of nerve-cells, forming a centre for the nutrition and sensation requirements of the region indicated. The gravity of the general symptoms goes to prove that a morbid change cannot so complete itself without producing an effect upon the general health, which is not attained when only one-half of a nerve-centre is morbidly affected. There is probably a decussation of fibres in the nerve-centre, which at first retards the full force of the effect of the lesion while it is asymmetrical; but eventually these decussating fibres would form the lines of transmission of the morbid process, to the complete involvement of the whole centre. This complete involvement amounts to the loss of a definite entity, presumably of grey matter, however minute, in the nervous organisation, and the importance of the effect upon the general system is only attained when the loss is of a complete centre.

There is ground for belief that this expresses a natural law governing the action of the nervous system in disease. Thus, in closely observing a typical case of hemiparesis, such a case as begins with pain confined to one side, say over one eye, and gradually works round till the other orbital region is affected, it will be found that the severe depression of the whole system, culminating in nausea, or sometimes in actual sickness, is not physiologically attained till both sides have severally become involved in what may here be looked upon as the cycle of a nerve-storm. This forms the explanation of the relief thought to be afforded by the sickness. The true significance of the critical nausea is that it marks the termination of the storm, and is can be distinguished from the convulsive vomitings which sometimes occur during its progress, and which are not critical, because the storm has not worked out its cycle.

In considering this aspect of our case, an analogy for the whole morbid process is suggested by the views of Sir James Paget, in his address on Elementary Pathology, delivered at Cambridge in August 1880, and reported in full in the *BRITISH MEDICAL JOURNAL* of October 16th and 23rd of that year. Thus, when Paget says, p. 612, that "nearly 40 years ago, he ventured to suggest that symmetry in disease is determined by the disturbed condition of symmetrically distributed nerves, the disturbance issuing from a single nervous centre," he precisely summarises the description of the process of which this case is an illustration. It is a question as to whether the case does not afford an example of a suggestive similarity between plant and animal pathology. "The complication in considering animal pathology arises from the influence of a nervous system of a common nutritive fluid" (see Paget). Now, in the case under consideration, we have for the subject of disease a nerve-centre itself in a minutely defined entity, as shown by the precisely limited area of the distribution of its efferent nerves. The occupation of the patient may throw light on the reason for this spot being unable to resist the attack made upon it. He is a laborious and prolific artist, with his paint-brush constantly in his hand, and affording himself more frequently the opportunity of acquiring the artist's analogue to writer's cramp than strengthening his powers of constitution, already not too great. He is exposed, first, on one night, to an amount of chill which depresses his whole constitution, and, the next evening, to a direct effect of concentrated icy-cold air upon a weak part. The results follow as described. At the age of 60, although there is present no special gouty history, there may be degeneration of the vessels supplying this nerve-centre, but not more than in those supplying other centres unaffected. We may thus take it that the determination to this nerve-centre is due to its having been the subject of undue use, resulting in weakness rather than strength. The immediate cause is, unmistakably,

¹ For illustrative cases, see E. Living on *Megrim*, pp. 136-142.

cold. Here we come to the question whether there is not a relation between the effect of cold upon a spray of especially exposed leaves upon a plant, and this determinate lesion in animal structure.

The cause of an untimely withering of a definite area, such as a branch of a single plant, may be very similar to that which has occurred here. It is, perhaps, most frequently seen as the result of watering in the sunshine of frosty weather. The plant-circulation is stimulated for the moment, to be checked to destruction in the night. The area affected will coincide with the least vigorous section of the plant, or, in the case of numbers, with the least vigorous specimens, equally exposed to the adverse influence. In much the same way, it is in accordance with clinical observation, that the several tracts of grey matter, or definite brain-centres, may be unequally vigorous in a given individual. This may be due to hereditary conditions of configuration, or of intimate structure, as in cases of limited infantile paralysis involving speech-centres or motor-centres; sometimes to incidental causes of circulation, as in abnormal distribution or varicose conditions, or the irregularities produced by abnormal use, and in epileptiform conditions of unstable equilibrium; and sometimes to disease, as in the completed results of scarlet fever and of specific disease.

The lesson to be derived from the case now recorded is to sift to the bottom all obscure cases, involving disturbance of function. Upon such information alone can be founded rational views of treatment, or, what is more important in such nerve-cases, of management, which should always be mainly directed to the restoration and conservation of general health. These cases recover more or less completely, depending on vigour of constitution. The progress is slow, and the process not easy to understand. In some instances, particularly those of a gouty character, the lesion may be due to capillary embolism, the embolism being derived from gouty irritability of the lining membrane of the veins. In the case before us, it was more probably due to inflammatory action, eventually resulting in a dwindling or shrinkage of vessels. In that case, the circulation might in time become renewed, by anastomosis possibly, to the restoration of functional activity. Warm clothing, the heat of summer, the assimilation of good food, and even the act of partaking of easily digested food (probably by withdrawal of circulation from the nerve-centres to the acquirements of the digestive function), have marked effect on persons suffering from such lesions.

Becoming more vigorous in health during this spring, F. D. gradually lost the distressing vertiginous symptoms he had endured since the autumn of 1884. Those experienced during the day were the first to go; and during this hot summer, they are all so far in abeyance. A recent rest and change in the country was of the greatest service to him. As is usual, certain of the precise painful spots where the herpetic eruption has destroyed tissue, remain persistently painful on being touched. There are times when the spots corresponding to nerve-terminations on the other side are painful. But, whatever be the process of recovery, substantial recovery has taken place in this case.

F. D. occasionally now has headache, which he can always refer to the left supratemporal region, as he places his hand to indicate the seat of headache. The original herpetic eruption was on the right shoulder.

The involvement of the function of the auditory nerve, as in the vertiginous symptoms described, and in the irritability caused by loud talking, noises in the street, and the sound of the bath-water in the ears, is difficult to account for in a lesion spending its force on a nerve-centre so distant as the origin of the circumflex nerve. It is interesting to note that, in the process of recovery, these auditory nerve-symptoms were the first to go. The description of them reminds one of the temporary irritability caused by nervous headache. This nervous headache is possibly the most attenuated example of the epileptiform tendency. If so, it is probably due to hyperemia. The inflammatory lesion of nerve which produces herpes most probably leads to a temporarily persistent hyperemia affecting an area of central nerve-tissue wider than that on which the inflammation expends the force which leads to organic change.

In view that the insertion of the remarks on elementary pathology may seem fanciful, I should like, in conclusion, once more to refer the reader to Sir James Paget's suggestive paper, particularly to that part of it dealing with the repair of injuries (pp. 613-4 *Op. cit.*)

LONGEVITY.—A local paper states that, in the village of Cranborne, near Salisbury, out of a population of 550, there are two persons aged 89 years, two aged 87, one 86, two 84, one 83, and two 80.

DR. C. LANGE, reader in Pathological Anatomy in the University of Copenhagen, has been promoted to the rank of Professor.

ON THE PERIODS OF ERUPTION OF THE PERMANENT TEETH AS A TEST OF AGE.

By JOHN LIVY, M.D., Bolton.

UNTIL the passing of the Factory and Workshops Act, 1878, the certifying surgeons had no other means of ascertaining the age than those furnished by the eruption or otherwise of the permanent teeth, and the general *physique* of those presenting themselves for examination. Since the Act enforces the production of a birth-certificate, evidence of age from other sources is unnecessary. The subject, however, remains of practical value, and retains its interest from a biological as well as a forensic point of view. The appearance, the number, the character, and disposition of the teeth form one of the most valuable and important guides in determining the classification of mammals. Their relations to the food and habits of the animal, and the facility with which they can be examined, as well as their durability, render them alike interesting and instructive to the naturalist.

The object of this paper, and the subjoined tables, have been simply to ascertain the periods of eruption of the permanent teeth. In order to obtain reliable evidence of age, every case was rejected where the birth-register could not be produced. Some authorities say that the first molars appear at the end of the fourth year, while others give it as late as the seventh year. In the case of children under ten years of age, who are not allowed to work in mills or workshops, advantage was taken of the Education Act, which requires the birth-register of every child on first going to school. For the purpose of this inquiry, about 4,000 children were examined, 2,000 over 10 years of age, seen at various mills and workshops in Bolton, and 2,000 under 10 years of age, attending various schools in the town. The class of children were those of the ordinary working population of Bolton, a town containing over 100,000 inhabitants, and comprised the children of mechanics, cotton-operatives, bleachers, small shopkeepers, labourers, etc. The annexed tables show a considerable range in the periods of eruption.

As a single exception at the same time invalidates, and to some extent supports, a general law, so, when the exceptions are numerous, as will be found to be the case here, a more or less high degree of probability is all that is attainable. There is no law in biology absolute. Nature is variable, and yet there is a certain uniformity. At the same time, it may be affirmed that the eruption of the permanent teeth is the best physiological proof of age that we possess.

The typical number of teeth among placental mammalia is, according to Owen, 44, to others 40. Mammals only have a well marked division into four kinds; namely, incisors, canines, premolars, and molars. As is well known, the reduced human dental formula numbers 32.

The first and second premolars in man represent the third and fourth premolars in those animals having four premolars.

In the chimpanzee and the orangs, the second molar comes into position before the premolars. This, I have found, is a very frequent occurrence in the human subject, in both sexes, whilst the third or last molar is acquired before the canines.

When the typical number in diphyodont mammals is reduced, it is the first premolar that is absent, and the third or last molar. The first molar is, therefore, the first of its series, whilst the second premolar is the last of its series, and the fourth of the typical dentition.

The premolars in man have never more than two fangs, generally only one. The first and second molars have two fangs in the lower jaw, sometimes convergent, and occasionally divergent, placed anteriorly and posteriorly. In the upper jaw the molars diminish in size from before backwards. They have three fangs, and occasionally four, two external; the anterior is the longest. As a rule it will be found that the most vigorous and the most wisely fed children have the finest teeth. Indeed, it may be stated, almost axiomatically, the children of Irish parents have, as a rule, the best developed teeth.

In boys between 4 and 5 years of age, the lower first molars come first into place. In boys between 5 and 6 years of age, the first lower molars are acquired first, in the ratio of fourteen to one; at the same age the lower central incisors appear first, in the ratio of three to one. The lower lateral incisors also come first into position at this age. In boys between 6 and 7 years of age, the lower first molars are acquired before the upper first, in the ratio of three to one. The lower central incisors are the first to rise into position, in comparison with the upper central as seventeen to one, whilst the lower lateral incisors invariably first appear. In boys between 7 and 8 years of age, the first lower molars come first into place, in the ratio of five to one. The lower

TABLE A.—Boys.

Number examined.	Age.	Dentition.	Number.	Temporary only.	First Molars.	Incisors.		Premolars.		Canines.	Second Molars.	Remarks.
						Central.	Lateral.	First.	Second.			
34	4	Mean	33	T.O.	—	—	—	—	—	—	—	Of this number, only one child, aged four years and seven months, had two lower first molars.
	5	Highest	1	—	2	—	—	—	—	—	—	
126	5	Mean	90	T.O.	—	—	—	—	—	—	—	Of this number, 90 had temporary teeth only, 14 had four first molars, one child, aged five years and ten months, had four first molars, three central incisors, and two lower lateral incisors.
	6	Highest	1	—	4	3	2	—	—	—	—	
172	6	Mean	40	T.O.	—	—	—	—	—	—	—	The oldest child with temporary only was six years and ten months. Forty of this number had temporary only, 34 had all the first molars, one had four first molars, four lateral, and four central incisors, and also one first premolar. He was six years and six months old. Another had two lower first molars, one upper central incisor, no lateral incisors or first premolars; and two lower second premolars.
	7	Highest	1	—	4	4	4	1	—	—	—	
222	7	Lowest	3	T.O.	—	—	—	—	—	—	—	Of this number, three had temporary only, aged respectively seven years three months, seven years six months, seven years 10 months; 56 had four first molars, and two central incisors; 36 had two upper and two lower first molars, two upper and two lower central incisors, and two lower lateral incisors. One child, aged seven years seven months, had first molars central, and lateral incisors complete, and also four first premolars, and one lower second premolar.
	8	Highest	1	—	4	4	4	4	1	—	—	
176	8	Lowest	1	—	2	—	—	—	—	—	—	In this group, one child only, aged eight years and five months, had two lower first molars; 39 had first molars and central incisors complete, and two lower lateral incisors. One child, aged eight years and nine months, had all the first molars, central and lateral incisors, three first premolars, three second premolars, and one canine. Another, aged eight years and eleven months, had first molars, central and lateral incisors complete, two lower first premolars, no second premolars, and two lower canine.
	9	Highest	1	—	4	4	4	3	3	1	—	
154	9	Lowest	3	—	4	2	—	—	—	—	—	In this group, 22 had all the first molars and central incisors, and two lower lateral incisors. Two, aged nine years and seven months, had only four first molars, and two lower central incisors, whilst one, aged nine years and nine months, had all his permanent set, except the upper second molars and the dentes sapientes.
	10	Highest	1	—	4	4	4	4	4	4	2	
67	10	Lowest	1	—	4	3	2	—	—	—	—	Seven only in this group had first molars, central and lateral incisors complete and two upper premolars. One, aged ten years and one month, had four first molars, three central incisors, and two lower lateral incisors; whilst one child, aged 10 years, had every series complete, except the dentes sapientes.
	11	Highest	1	—	4	4	4	4	4	4	4	
10	11	Lowest	1	—	4	3	—	—	—	—	—	One child in this small group, aged 11 years, had only four first molars and three central incisors, one upper and two lower. Another had all complete as far as the canine, excepting one upper canine.
	12	Highest	1	—	4	4	4	4	4	3	—	

central incisors, as seventy-seven to one. The lower lateral incisors invariably appear first. The first premolars, representing the third in the typical number among the mammalia, come, as regards the upper and lower, into position in about equal proportions at this period of life.

In boys, during the ninth year, the first lower molars are invariably the first acquired. The lower central incisors show first, in the ratio of twenty to one. The lower lateral incisors, at this period of life, invariably show first. The upper first premolars show first as three to one. The upper second premolars, the fourth in the typical series, appear first in the ratio of two to one. At this age, the lower canines are invariably first acquired.

In boys between nine and ten years of age, the lower central and lower lateral incisors always cut the gum first. The upper first premolars appear first in the ratio of five to one. The upper second premolars rise into place in the ratio of seven to one. The lower canines and the lower molars invariably appear first at this time of life.

In boys between ten and eleven years of age, the lower central and the lower lateral incisors invariably appear first. The upper first premolars are first acquired in the ratio of three to one. The upper second premolars erupt first in the ratio of four to one. The lower canines invariably appear first. The second molars, upper and lower, appear first in equal proportions at this age.

In boys between eleven and twelve years of age, the second molars, upper and lower, are acquired in equal proportions in the small number examined, too small to attain anything like accuracy. The canines, as in previous ages, present in the lower jaw first.

In girls between the fourth and fifth year, the lower first molars are the first to emerge into position, as in the case of boys of the same age.

In girls between five and six years of age, the first lower molars are first acquired in the ratio of seven to one.

In girls between six and seven years of age, the first lower molars first come into position, in the ratio of eight to one. The lower central

incisors precede the upper central in the ratio of thirty to one, whilst the lower lateral incisors invariably appear first in this group.

In girls between seven and eight years, the first lower molars uniformly present first. The lower central incisors precede their antagonists in the ratio of sixty to one; the lower lateral incisors in the ratio of fifty to one. The first premolars appear first in this group in about equal proportions in each jaw. The same observation applies to the early eruption of the second premolars, and also to the canines at this early period.

In girls in their ninth year, the lower central incisors invariably appear first, and the lower lateral, in the ratio of twenty to one. The upper first premolars appear first in the proportion of five to one, whilst the second upper premolars cut the gum first in the ratio of six to one. At this age, the lower canines are first acquired in the proportion of five to one.

During the tenth year, girls acquire the lower lateral incisors first, in the ratio of eleven to one. The upper first premolars come first into position, in the ratio of two to one. The second premolars show first in equal proportions in each jaw, whilst the lower canines invariably emerge from the gum the first in this group.

In girls between 10 and 11 years, the upper first premolars appear first in the ratio of two to one. The upper second premolars appear first in the ratio of five to one. The canines in this group invariably erupt the first in the lower jaw. The same remark applies to the second molar. In girls in their twelfth year, both the first and second upper premolars first pierce the gums, whilst it is the lower jaw that has precedence in the case of the canines and the second molars. It will be found that the number of variations at each age steadily increases from five to ten or eleven in both sexes. It will also be observed that girls are slightly more advanced in their dentition (six ages out of eight). In two ages only, 6 and 7 years, are boys found ahead of girls.

TABLE B.—*Girls.*

Number examined.	Age.	Dentition.	Number.	Temporary only.	First molars.	Incisors.		Premolars.		Canine.	Second Molars.	Remarks.
						Central.	Lateral.	First.	Second.			
35	4 to 5	Mean	33	T.O.	—	—	—	—	—	—	—	The mean dentition of this group (33) consists of temporary teeth only. One child, aged four years and seven months, and another aged four years and eleven months, had each one lower first molar.
		Highest	2	—	1	—	—	—	—	—	—	
122	5 to 6	Mean	87	T.O.	—	—	—	—	—	—	—	The mean dentition of this group is temporary teeth only. One child, aged five years, had four first molars and two upper central incisors, and another, aged five years, had four first molars and two lower central incisors.
		Highest	2	—	4	2	—	—	—	—	—	
172	6 to 7	Lowest	19	T.O.	—	—	—	—	—	—	—	The mean dentition of this group was four first molars and two central incisors; 19 had temporary only, whilst one child, aged six years and seven months, had four first molars, four central incisors, and three lateral incisors.
		Mean	37	—	4	2	—	—	—	—	—	
		Highest	1	—	4	4	3	—	—	—	—	
199	7 to 8	Lowest	6	T.O.	—	—	—	—	—	—	—	Six persons in this group had temporary only. One of the six was aged seven years and nine months. The mean dentition (in 50) was four first molars and two lower central incisors, whilst the highest, aged only seven years and two months, had first molars, central and lateral incisors, and the first and second premolars complete, with one lower canine, and two lower second molars.
		Mean	50	—	4	2	—	—	—	—	—	
		Highest	1	—	4	4	4	4	4	1	2	
170	8 to 9	Lowest	1	—	2	—	—	—	—	—	—	In this group one child, aged eight years and four months, had cut only the two lower first molars. The mean dentition (in 28) at this age was the first molars, the central and lateral incisors complete. The most advanced member of this group had all complete as far as the canine, except one upper second premolar, (aged eight years and ten months).
		Mean	28	—	4	4	4	—	—	—	—	
		Highest	2	—	4	4	4	4	3	4	—	
140	9 to 10	Lowest	1	—	4	2	—	—	—	—	—	One child of this number, aged nine years and three months, had only first molars and two lower central incisors. The mean dentition proved to be first molars, central and lateral incisors complete, three first premolars and one second premolar (in 37). The two most advanced children in this group, aged nine years and nine months, and nine years and eight months, had all complete up to the second molars, excepting one upper molar. Great variation in group.
		Mean	37	—	4	4	4	3	1	—	—	
		Highest	2	—	4	4	4	4	4	4	3	
88	10 to 11	Lowest	1	—	4	2	—	—	—	—	—	The least advanced dentition in this group was that of a child, aged ten years and six months, with four first molars and two lower central incisors only. The mean dentition, (in 11) was the first molar, the central and lateral incisors complete, whilst the highest had all complete (aged ten years and eleven months), except the dentes sapientie. Considerable variety in group.
		Mean	11	—	4	4	4	—	—	—	—	
		Highest	1	—	4	4	4	4	4	4	4	
16	11 to 12	Lowest	1	—	4	4	4	1	1	2	—	Two in this group had the first five series of teeth complete. The most advanced (eleven years eight months) had all complete, except one upper canine, and one upper second molar, and the dentes sapientie. There was no mean in this small group.
		Mean	2	—	4	4	4	4	4	3	—	
		Highest	1	—	4	4	4	4	4	3	3	
7	12 to 13	Lowest	1	—	4	4	4	2	1	3	4	Two persons in this number had all complete as far as the second molars, and the others nearly so.
		Mean	2	—	4	4	4	4	4	4	2	
		Highest	2	—	4	4	4	4	4	4	4	

TABLE C.—*Tabular Statement of Teeth (permanent), as a Test of Age in reference to Factory Children.*

Boys.	Age.								Total.	Girls.	Age.								Total.
	9	10	11	12	13	14	15	16			9	10	11	12	13	14	15	16	
Lateral Incisors . .	2	42	9	4	1	1	—	—	59	Lateral Incisors . .	—	24	8	14	—	—	—	—	36
First Premolars . .	1	76	12	1	—	—	—	—	90	First Premolars . .	—	56	13	2	1	1	—	—	73
Second Premolars . .	—	59	36	5	—	1	—	—	101	Second Premolars . .	—	51	16	2	2	—	—	—	71
Canine	—	18	28	25	8	—	—	—	79	Canine	—	30	34	12	5	—	1	—	82
Second Molars . . .	—	5	42	67	275	184	78	12	663	Second Molars . . .	—	5	44	80	288	249	66	14	746
								Total	992									Total	1008

N.B.—The numbers below each age refer to the appearances of one or more of the series of teeth stated. For example—Of 59 boys with the lateral incisors as their eldest teeth, two were nine years of age, 42 were ten, nine were eleven, &c.

During the course of this inquiry, I could not help observing that caries is extremely common; indeed, it is quite the exception to find a perfect set of teeth, more especially among children over 10 years of age. This is largely due to want of care in the management of the teeth.

I have no doubt that the excessive use of sugar and tea is one of the principal causes of dental caries. Favoured by the temperature of the mouth, saccharine fermentation will terminate in the formation of butyric, lactic, and acetic acids, all of which exert a solvent action on

the enamel. When this latter has given way, the dentine becomes an easy prey to the same process. The tannic acid found in tea exerts a similar chemical effect on the teeth. Small pieces of meat lying between the teeth will likewise contribute to the production of caries. According to some recent experiments, bacteria of a special form are an essential element in the production of dental caries; one more illustration, if it were not unnecessary, to prove the pervading influence of micro-organisms in the ever growing class of ethetic diseases.

TABLE E.

Teeth.	Boys—Ages.								Girls—Ages.							
	5	6	7	8	9	10	11	12	5	6	7	8	9	10	11	12
Upper Molars	Inv.	14-1	3-1	5-1	Inv.	—	—	—	Inv.	7-1	5-1	Inv.	—	—	—	—
Lower Molars	Inv.	—	—	—	—	—	—	—	Inv.	—	—	—	—	—	—	—
Upper Central Incisors	—	—	—	—	—	—	—	—	—	—	30-1	60-1	Inv.	—	—	—
Lower do.	—	3-1	17-1	77-1	20-1	—	—	—	—	—	—	—	—	—	—	—
Upper Lateral Incisors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower do.	—	—	Inv.	Inv.	Inv.	Inv.	Inv.	Inv.	—	—	—	—	—	—	—	—
Upper First Premolars	—	—	—	Eq. nos.	3-1	5-1	3-1	—	—	—	—	Eq. nos.	5-1	2-1	2-1	—
Lower do.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Upper Second Premolars	—	—	—	—	2-1	7-1	4-1	—	—	—	—	—	—	Eq. nos.	—	—
Lower do.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Upper Canines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower do.	—	—	—	—	Inv.	Inv.	Inv.	—	—	—	—	—	—	—	—	—
Upper Second Molars	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower do.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Inv. Invariable. Eq. nos. Equal numbers.

N.B.—This table has been made to show the priority of the teeth of the upper and lower jaw in each series. Ex.—In boys of five years the lower molars invariably appear first. In boys of six years the same teeth appear first in the ratio of fourteen to one.

TABLE F.—Number of Variations in each Age.

Boys.			Girls.		
Number.	Year.	Variation.	Number.	Year.	Variation.
84	5th	1	35	5th	3
126	6th	8	122	6th	7
172	7th	21	172	7th	19
222	8th	28	199	8th	34
176	9th	30	170	9th	41
164	10th	44	140	10th	54
167	11th	33	88	11th	53
10	12th	9	16	12th	13

CASE OF DETACHMENT OF THE RETINA, WITH CHOLESTERINE IN THE SUBRETINAL FLUID.

By L. WERNER, M.B., B.Ch.,

House-Surgeon to the National Eye and Ear Infirmary, Dublin.

A. E., a healthy looking lad, aged 8, was admitted to the Infirmary, under the care of Mr. Swanzy, on the 8th of February last, complaining of blindness of the left eye. His family-history was good, with the exception of one brother, who is idiotic; but none of the family have ever suffered from eye-disease. The boy himself had always enjoyed good health up to March, 1884, when he was confined to his bed for three or four days with a bad headache. In July following, while climbing over a ditch, he received a blow from a broken branch on the left eye. The "white" of the eye, it would appear, was torn on the nasal side, and there was a little bleeding. The sight was affected immediately after the injury, but, according to the mother's statement, it recovered in a few days. From this time, nothing wrong was noticed until Christmas, when the boy accidentally discovered that he could not see if the right eye were covered. In January last, Dr. Warnock of Trillick (to whom I am indebted for many points in the history of the case) treated him for a severe pain in the left eyebrow and temple. The eye was neither congested nor painful at the time, but the pupil was somewhat dilated.

The following was the condition on admission. Perception of light was completely wanting; the anterior chamber was shallow; the pupil, which corresponded in size with that of the other eye, did not react to light, although contracting consensually and on convergence. By good daylight, a shining greyish reflection was visible in the interior of the eye. There was no perceptible difference in the intra-ocular tension of the two eyes; but in each it was, if anything,

slightly below the average normal tension. Viewed by focal illumination, the grey appearance of the pupil was seen to be due to an infinite number of minute sparkling crystals, apparently held in suspension by some substance which seemed to float in the vitreous humour when the eye was moved. The separate particles appeared, at first, to have no motion, except that which was imparted to them by the mass in which they were imbedded; but on closer observation, when the eye, after having been moved in various directions, came to rest, some of the crystals could be seen falling slowly towards the inferior part of the globe, while others remained suspended opposite the pupil. When the pupil had been fully dilated by atropine, it was found that the retina was very extensively detached, and that the crystals were situated, not in the vitreous humour, but between the choroid and the retina (that is, in the subretinal fluid), for the latter, although still transparent, could be distinctly seen in front of the sparkling mass. Several of the retinal vessels had a curved arrangement, with their concavity directed forwards, owing to the close apposition of the retina to the posterior surface of the lens. The temporal portion was completely detached, and stretched across, behind the lens, to the inner side of the eye, where it dipped back towards the fundus, the edge of the fold forming a bright line directed from above, downwards and inwards (as seen on a large scale in Fig. 1).

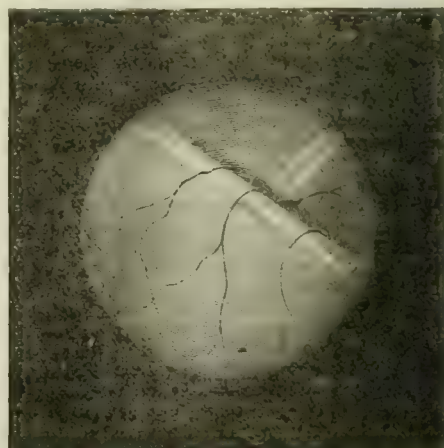


Fig. 1. Showing the retina as seen by focal illumination through the dilated pupil, the eye being rotated upwards and inwards.

The nasal side of the retina was also detached, and similar crystals shone through it, and towards the upper part it presented two narrow folds running antero-posteriorly.

Some of the above details were hidden behind the inner side of the iris; and hence, in order to see them, the eye required to be rotated well inwards, and the light thrown in very obliquely. The fundus was, of course, invisible with the ophthalmoscope, and the

above described appearances were not at all so well seen by reflected light as by focal illumination.

Fig. 2 represents my idea of the probable relation of parts, the retina remaining attached near the ciliary region, and around the optic papilla.

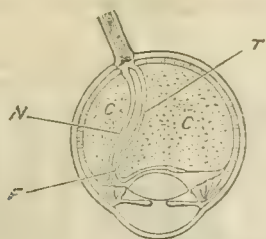


Fig. 2. An imaginary horizontal meridional section of the eye. —T. Temporal portion of retina. N. Nasal portion of retina. C. Cholesterol in sub-retinal fluid. F. Fold produced by retina doubling back on itself (represented in Fig. 1).

The right eye was, in every respect, healthy, with normal vision. The heart and circulation were normal, and the urine contained neither albumen nor sugar.

The case had been sent up from the country on account of a suspicion that it might be one of malignant growth. Mr. Swanzy, however, did not think the signs of the existence of such a growth sufficiently marked to make removal of the globe necessary. The patient was, therefore, sent home without hopes of recovery of vision in the eye, but with the prospect of its retaining its shape and tolerably normal appearance.

Von Gräfe states (*Archiv für Ophth.*, vol. ii, part 2, p. 319) that cholesterol has been seen during life in almost every part of the human eye; and, on examining the records of such cases, I find this statement amply verified, for it has been observed in every position with the exception of the conjunctiva, cornea, and sclerotic. The cases in which it occurs may be arranged under two heads; namely, in eyes otherwise normal, and in diseased eyes.

In normal eyes, the condition called *synchysis scintillans*, or *spintheropic* (Sichel), in which cholesterol and tyrosin crystals are suspended in a fluid vitreous humour, usually occurs in old people, and frequently with normal vision. In a case of *synchysis*, microscopically examined by Poncet, he found cholesterol, tyrosin, and spiculated phosphatic masses (Gräfe und Samisch, vol. iv, p. 697). Again, in healthy optic papillæ, cholesterol crystals are occasionally seen ophthalmoscopically, as first pointed out by Mauthner.

In diseased eyes, cholesterol is found : 1. in the anterior chamber, and attached to the anterior surface of the iris. According to De Wecker (Gräfe und Samisch, Band v, part 4, p. 697), in order that this should take place, there must be an abnormal communication between the vitreous humour and the anterior chamber; but in a specimen, kindly lent me by Dr. Redmond, in which the anterior chamber was full of cholesterol, this communication could not have existed, for the pupil was completely occluded by an exudation, glueing the iris to the anterior surface of the lens. 2. It is found in cataractous lenses and their capsules, and developed in capsules after the extraction of the lens. A singular instance is recorded by Dr. Diaz Rocafault, where, during the absorption of a soft cataract which had been needed, cholesterol appeared in the anterior chamber, and increased in quantity after repeated dissections. 3. It occurs in the hyaloid fossa and in the vitreous humour. Sometimes, the crystals in the vitreous humour are free; at others, they coexist with opacities, to which they may adhere. 4. It has been found in the retina, between the retina and choroid, and, in one case, between the choroid and sclerotic (Strawbridge, *Trans. American Ophth. Soc.*, 1875, p. 306). The latter was a remarkable case. The eye had been lost from traumatic irido-cyclitis, and cholesterol was found in the anterior chamber, on the anterior surface of the iris, in the shrunken lens, in the vitreous humour, and, lastly, between the choroid and sclerotic. There was also a formation of bone around the optic nerve and in the ciliary region. 5. Tweedy (*Lancet*, vol. ii, 1873, p. 519) has seen cholesterol crystals on the optic papilla, ophthalmoscopically, after optic neuritis, and also in a case of retinitis pigmentosa. 6. Finally, von Gräfe mentions (*Archiv für Ophth.*, Band viii, part 2, p. 359) an instance in which the lacrymal sac was greatly distended by a dark brown fluid containing abundance of cholesterol.

A satisfactory explanation of the occurrence of cholesterol in the eye is still wanting. Two theories of its origin have been put forward: one, that it is due to fatty degeneration; the other, that it

is the result of a hæmorrhage. Poncet attributes *synchysis scintillans*, in the aged, to a fatty degeneration of the vitreous body, analogous to atheroma of the arteries, and states that, in the young, it is associated with liver-disease, especially gall-stones. Gräfe believed that the existence of the cholesterol in the lacrymal sac was due to a hæmorrhage which had undergone chemical changes; and this is rendered plausible by the fact that, under the microscope, numerous small granules were seen—some orange-yellow, others of a dark reddish colour, which, when acted on by reagents, behaved in the same manner as hæmoglobin.

The above case possesses special interest, on account of its extreme rarity. With the exception of a single case recorded by von Gräfe (*Archiv*, vol. ii, part 2, p. 319), I am aware of no other instance similar to it. Previously to Gräfe's description, cholesterol had, indeed, been occasionally seen in the subretinal fluid, in pathological sections; but he was the first to have the opportunity of ophthalmoscopically demonstrating its existence, in this situation, in the living eye. In von Gräfe's case, although there was a complete funnel-shaped detachment of the retina, the optic papilla was still visible, and the red reflex could still be obtained in certain positions; whereas, in the case which I have described, the reflex was entirely absent, and the fundus completely obscured.

MORTALITY IN ENGLAND AND WALES, AND IN LONDON, DURING THE LAST THREE DECENNIAL PERIODS.

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THE science of vital statistics is of recent growth. Parish registers of marriages, christenings, and burials, appear to have had their origin in England in 1538, and the parish clerks of London commenced to make weekly returns from the 21st December, 1592. Those who have studied these curious returns right up to the year 1849, with an interruption between the years 1592-97, as preserved in the records of the City of London Grocers' Company, must feel convinced that in olden times, although the importance of vital statistics was recognised, as we also know from the ancient and modern histories of many countries, yet there was no system observed to collect the information and preserve it in records sufficiently accurate to be of any use in comparison of statistics of all times. The works of statisticians like Dr. Heberden and Captain Gant, though known to have been comprehensive in the last century, cannot stand their tests in correctness and precision of figures in our times. The total mortality in communities from all, as well as several causes, came to be determined in this country since the year 1838, when the institution of the Registrar-General's Office and the registration of death-certificates came into existence by the laws of the country. It is this institution, I believe, that gave birth to the science of vital statistics among civilised nations, under the auspices of the late lamented Dr. Farr. Since its first formation, the system of publishing records of statistics has much improved. But I think our Government would do a lasting national service, were they to make the publication of the statistics since the year 1840 complete and uniform, to afford comparison, and to enable us to judge of the merits and advantages of sanitation; of the changes in our methods of living, food, drink, and dress; of the benefits of the utilisation of steam-power, electricity, and other physical forces; and of the influences of the fashions and customs of society.

The accompanying Tables I and II are constructed from the figures in the Decennial Reports of the Registrar-General. The death-rates throughout these tables are calculated as per million living, to avoid the frequent repetition of decimals.

The population of England and Wales is principally urban. According to the last census, there were 771 urban districts with a population of more than 3,000 persons, whose aggregate population was 17,285,026, while the remaining rural population was 8,683,286. The total area of England and Wales is 37,319,221 acres. The total area of Registration London is 78,080, with a population of 3,814,571. Under these circumstances, the comparison of figures in these two tables becomes an instructive study. The aggregation of large populations in small areas frequently means a keener struggle for existence, overcrowding, neglect of sanitation, with their natural resultants, shortening of the period of individual lives, and increase in the rate of mortality. The national vital statistics have always been looked upon in certain quarters with suspicion; but, on comparing the hosts of figures in the two tables, one is compelled to recognise

TABLE I.—Giving the Average Annual Number of Deaths of Males and Females by Different Causes at Certain Ages to One Million

Ages.	All Causes.			Zymotic Diseases.																		Constitutional Diseases.											
				Small-Pox.			Measles.			Scarlet Fever.			Diphtheria.			Fevers.			Whooping-Cough.			Diarrhoea.			Scrofula and Tubes.			Cancer.			Phthisis.		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III			
Under 5 yrs	67585	68295	63120	1034	654	526	2798	2998	2567	4191	4624	3489	430	767	472	1417	1248	650	3024	3766	3651	5262	5983	5727	1919	2767	2549	22	18	12	1805	968	766
5 to 10	8465	7955	6430	257	145	283	275	242	206	1991	2166	1544	254	393	290	1007	923	517	174	152	134	228	160	68	282	244	2111	9	7	7	572	458	357
10 to 15	4970	4470	3700	73	56	137	38	29	22	494	501	324	104	136	782	710	458	10	8	6	106	68	22	232	195	1501	8	8	7	1027	825	663	
15 to 20	7035	6890	5830	98	86	197	13	11	6	100	108	103	41	59	32	942	849	542	1	2	1	111	60	20	208	181	138	17	18	16	2956	2449	2034
20 to 25	8680	8205	7040	132	138	299	9	8	6	73	92	62	20	38	20	815	772	508	7	7	3	175	95	34	172	148	101	28	30	27	4172	3925	3118
25 to 35	9745	9790	8930	98	103	238	6	6	5	43	60	46	13	26	16	650	672	410	1	6	3	256	154	58	140	117	79	102	112	125	4304	4385	3617
35 to 45	12315	12745	12620	53	74	167	3	5	3	30	28	24	12	21	17	628	750	378	2	6	2	345	216	95	110	97	69	383	439	529	4090	4032	3746
45 to 55	16580	17355	17720	38	50	111	2	2	2	19	14	8	9	22	14	723	844	401	3	2	2	482	318	159	117	107	75	854	1038	1263	3475	3355	3132
55 to 65	28930	30385	31490	24	36	71	1	1	1	14	9	5	10	26	17	965	1059	458	4	2	1	932	660	412	139	130	95	1392	1754	2214	2858	2681	2450
65 to 75	61995	62745	64850	18	26	46	1	1	8	10	5	2	12	27	18	1421	1310	552	6	1	2	2193	1651	1191	165	140	112	1927	2343	3110	2021	1631	1477
75 to 85 for (I and II)	140505	140505	161590	14	27	35	1	1	1	8	7	1	16	26	13	1587	1376	497	1	...	6	4801	3974	3510	118	96	56	2043	2567	3342	865	586	498
85 and upwards for (I and II)	299820	298605	...	25	25	...	0	8	...	0	3	...	22	23	...	1372	1153	...	0	0	...	7542	7040	...	80	60	...	2059	2520	...	511	307	...
All Ages	22185	22445	21271	222	163	235	412	440	378	877	972	715	109	184	120	908	885	484	502	526	511	1081	1077	935	408	438	445	314	383	472	2676	2475	2115

TABLE II.—Giving the Average Annual Number of Deaths of Males and Females by Different Causes at Certain Ages to One

AGES.	All Causes.			Zymotic Diseases.																		Constitutional Diseases.											
				Small-Pox.			Measles.			Scarlet Fever.			Diphtheria.			Fevers.			Whooping-Cough.			Diarrhoea.			Scrofula and Tubes.			Cancer.			Phthisis.		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III			
Under 5 yrs	78025	81621	72762	1296	1158	1133	3885	4175	3658	4878	5813	3069	394	924	565	1415	1261	559	6559	6528	6025	7079	7500	6585	2943	3140	3672	38	18	17	1473	1445	1016
5 to 10	9088	9105	7073	358	290	579	318	244	256	2279	2638	1402	146	295	288	965	925	435	340	268	254	543	293	64	372	255	255	13	11	10	640	555	416
10 to 15	4933	4154	3510	97	91	266	29	22	18	468	535	254	47	64	55	574	600	349	14	11	9	242	121	22	229	167	135	10	10	8	734	650	560
15 to 20	5808	5438	4682	135	143	346	9	7	6	135	176	81	19	24	23	724	639	399	3	3	5	239	91	14	151	117	95	26	27	19	2074	1972	1568
20 to 25	7295	7115	6138	191	217	469	9	6	5	78	119	49	10	25	15	680	581	362	2	1	2	318	127	22	157	79	46	40	34	34	3188	3177	2584
25 to 35	9544	9736	9005	121	158	387	5	5	5	52	74	48	9	23	16	501	598	267	8	7	5	461	213	45	82	67	47	131	155	158	4066	4196	3819
35 to 45	14438	14840	14340	57	119	282	2	2	3	33	39	24	10	24	15	600	840	269	5	1	9	692	308	81	76	68	42	567	622	702	4087	5065	4878
45 to 55	21124	21835	21449	44	63	182	2	1	2	28	18	8	7	24	15	820	1079	285	4	7	6	915	442	151	71	76	57	1230	1495	1643	4590	4676	6071
55 to 65	37297	38039	37490	13	30	110	1	1	1	16	11	4	13	30	21	1256	1479	377	7	6	1	1592	877	364	104	97	77	1996	2399	2939	3599	3626	3346
65 to 75	76049	73525	72085	12	36	63	0	2	0	16	3	1	17	35	25	1912	1757	431	2	1	0	3163	1717	1008	118	103	97	2607	3006	3675	2383	2101	1807
75 and upwards	174526	172141	165879	8	6	58	0	0	0	8	17	2	56	44	17	2546	1913	428	0	0	0	6817	4361	2923	129	72	70	2514	2965	3598	1295	1965	595
All ages	23642	26688	22373	276	302	439	532	555	507	978	1246	600	77	188	122	849	973	367	870	962	812	1519	1412	975	499	557	557	421	554	553	2865	2993	2560

their harmony, and to acknowledge that their inexactness is but a manifestation of the imperfection of human nature; and as we do in other departments of life, so we should in that of vital statistics, make the best use of what we possess.

I shall now make a few general observations on the comparative mortality of the three decennial periods, reserving particular observations for a more careful study on a future occasion. Mr. Humphreys, in his paper on "The Recent Decline in the English Death-Rate, and its Effects upon the Duration of Life," has shown that the decline in the recent years is not spasmodic but steady. The mortality during the period II was higher than I or III in England and Wales, as well as in London. It is difficult to account for this intermediate increase in the mortality, unless it were that since the decennial period I the phase of society has been undergoing rapid changes, swelling our town populations, and adding to the dangers of ever increasing and free intercommunication, both national and international, the evil influences of which have been either checked or prevented in the decennial period III by the sanitary measures. On leaving out the decennial period II from consideration for a while, when the mortality was the highest, we still find that during the last decade the mortality has been the least. Hence it becomes a question of great practical importance to the sanitarians and those who look after the health of the populations, to inquire into the causes of this diminished rate of mortality, so as to become enabled to grapple with many problems of health and sanitation, which are imperfectly understood in the present state of our knowledge. That the rises and falls in the rate of mortality in several communities are subject to certain natural laws, is evident from the

fact of their remarkable uniformity in different communities at several ages and from different causes.

In England and Wales, the general rate of mortality at all ages has fallen from 22,185 in the first decade to 21,271 per million in the third decade; in London, it has fallen from 23,624 to 22,373 per million. The question then arises, how this saving of life is effected. Take, for instance, children under five years of age, and it is noticeable that the annual rate of mortality per million in them has been reduced by 5,263 in London and 4,465 in England and Wales; and there is growth up. The rate of mortality among children between five and ten years is diminished by 2,005 in London and 2,035 in England and Wales. In this manner, appreciable and decided additions to populations are made from age to age up to 35 years, after which age there is a slight increase in England and Wales, while in London there is still a small fall. In England and Wales, the increase for the ages between 45 and 55 is 1,140; while for ages between 55 and 65 it is 3,560, and between 65 and 75 it is 2,855. In London, the increase begins with the ages 45 to 55, when it is 315; for 55 to 65 years, it is only 193; and it is after 65 years of age that there is a decided increase in the mortality, giving 3,964 for the years between 65 and 75, and 8,647 for ages 75 and upwards. It is evident from this that the diminution in mortality also means prolongation of life to maturity to most of the saved infants and children, and useful lives to some of them.

Having demonstrated that this diminution in mortality in the last decade has added to the population grown up and useful lives, increased human labour and industry, and thereby tended to promote directly and indirectly the health and happiness of the population in

Persons Living of those Ages, in England and Wales, in the Three Decennials: (I) 1851-60; (II) 1861-70; (III) 1871-80.

AGES.	Local Diseases.																		Hydrocephalus.	Childbirth and Metria.	Violent Deaths and Suicides.	Other Causes.								
	Nervous System.			Organs of Circulation.			Organs of Respiration.			Digestive Organs.			Urinary Organs.			Organs of Generation.														
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III												
Under 5 years	10824	10150	9081	391	374	90	10397	11043	12204	1295	1185	1276	32	97	150	6	4	3	2588	2212	1896	0	0	0	1294	131	1216	18784	18571	16779
5 to 10	582	568	578	227	221	143	566	551	557	251	197	194	35	66	93	6	7	2	363	291	301	0	0	0	457	384	818	694	607	
10 to 15	358	326	331	256	269	235	230	209	202	206	172	154	38	54	60	1	5	2	101	89	125	1	3	2	446	445	431	366	364	
15 to 20	402	381	359	374	326	308	310	301	287	233	259	60	81	102	7	9	9	30	21	44	144	101	83	306	502	420	458	375	371	
20 to 25	437	424	374	368	367	340	479	453	445	366	302	262	84	119	148	24	24	25	10	8	24	612	633	354	567	564	461	465	374	382
25 to 35	585	627	505	558	648	922	677	736	776	517	479	436	141	197	248	50	51	51	6	4	10	886	921	493	308	610	500	597	459	522
35 to 45	1026	1136	1232	1060	1212	1314	1286	1426	1622	913	910	900	221	324	427	106	97	94	5	3	10	404	888	488	674	749	724	927	777	830
45 to 55	1835	2030	2247	1981	2181	2267	2577	2913	3255	1636	1644	1673	341	487	664	148	157	147	6	2	3	71	60	27	821	918	925	1497	1243	1340
55 to 65	3958	4340	4911	4344	4671	4808	5621	6731	7428	2999	3018	3012	627	893	1194	160	178	174	6	2	3	0	0	0	997	1144	1155	3679	3046	3050
65 to 75	9368	10131	11438	8815	9330	9468	12216	14148	16095	4764	4823	4843	1419	1810	2213	167	197	218	7	2	2	0	0	0	1264	1367	1462	16155	13793	12622
75 to 85 for (I and II); 75 and upwards for (III)	16057	18342	21368	11970	12718	12118	19368	23680	30323	5102	5450	5700	2367	2887	3313	141	162	190	10	1	1	0	0	0	2051	2143	2502	72981	66405	78518
85 and upwards for (I and II)	18122	20734	..	9982	10380	..	23702	31172	..	4044	4686	..	2831	3190	..	98	122	..	0	0	..	0	0	..	3067	4585	..	22626	218111	..
All ages	2746	2792	2769	1245	1348	1307	3027	3373	3760	1004	981	977	216	301	391	54	57	54	399	348	317	320	321	165	742	776	732	5078	4759	4377

Million Persons Living of those Ages in London in the Three Decennials: (I) 1851-60; (II) 1861-70; and (III) 1871-80.

AGES.	Local Diseases.															Hydrocephalus.			Childbirth & Metria.			Violent Deaths and Suicides.			Other Causes.					
	Nervous System.			Organs of Circulation.			Organs of Respiration.			Digestive Organs.			Urinary Organs.															Organs of Generation.		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III			
Under 5 years ..	8230	8622	8251	481	398	134	14799	15042	16004	1293	1115	1258	67	116	142	9	8	6	4237	3541	2788	0	0	0	1638	2067	2005	17300	18721	15870
5 to 10 ..	636	590	580	284	297	234	716	653	653	244	208	174	43	87	111	0	3	5	409	353	355	0	0	0	457	435	366	682	642	602
10 to 15 ..	318	295	268	310	349	326	208	219	216	198	163	135	52	64	76	2	3	2	61	78	102	0	3	0	364	349	298	367	391	402
15 to 20 ..	336	349	290	378	375	378	321	307	285	255	214	194	70	104	121	9	13	10	20	21	36	6	75	66	448	413	346	389	349	408
20 to 25 ..	377	350	288	343	389	366	506	466	430	310	256	277	109	144	161	28	34	29	17	11	17	231	299	288	574	449	336	384	354	532
25 to 35 ..	569	596	512	557	671	609	722	767	824	444	455	447	183	240	290	66	74	69	7	8	12	440	451	415	454	492	476	582	482	492
35 to 45 ..	877	1262	1181	1187	1348	1467	1609	1696	1897	937	972	965	312	443	555	132	146	123	5	3	12	885	88	349	674	695	689	1680	770	670
45 to 55 ..	2311	2473	2521	2282	2519	2537	3768	4011	4352	1771	1814	1808	548	740	956	202	231	202	10	2	5	25	17	18	882	964	985	1667	1181	1133
55 to 65 ..	5248	5553	5661	4889	5110	4971	9224	10027	10348	3298	3208	3209	911	1308	1073	241	286	224	5	1	3	0	0	0	1157	1187	1286	3725	2987	2842
65 to 75 ..	12190	12632	12927	9124	8962	8951	19449	21023	22748	5373	5051	4719	1821	2200	2590	388	209	289	2	3	3	0	0	0	1491	1593	1562	16115	15092	11183
75 and upwards	21546	23917	24061	11635	12600	12049	33789	36134	42985	6506	6386	6586	2854	3162	3768	328	282	325	24	3	0	0	0	0	3299	2913	2970	81611	76393	65466
All ages	2471	2883	2588	1252	1466	1290	4044	4685	4605	1000	1053	954	279	414	459	74	92	75	602	559	421	164	175	156	738	905	791	4152	4516	3622

general, I shall pass on to consider the causes of mortality that have fallen back so notably in their numbers of death-rolls. There are others in which the mortality has been on the increase.

It is not my purpose, in this short communication, to deal with the twenty several causes of death as given in the two tables. Each one presents a special feature of its own, in males and females, at different ages, and in several communities, each of which I hope to deal with separately and individually on a future occasion. In this paper, I shall allude to them in general terms.

Among zymotic diseases, the mortality is specially diminished in fevers, as in England and Wales it is 908, 885, and 484, and in London 849, 973, and 367 per million living at all ages for the three decades respectively. In London, again, there is a very decided diminution in diarrhoea-mortality. While in both there is appreciable diminution in mortality from measles and scarlet fever, the mortality from whooping-cough is but slightly on the decrease in London, and almost stationary in England and Wales. The mortality from diphtheria, although small, is steadily increasing. I have already dealt with the subject of the increase in the small-pox mortality (*vide* BRITISH MEDICAL JOURNAL, May 31st, 1884, page 1041).

Of the constitutional diseases, phthisis has undergone a marked diminution. Dr. Longstaff's observations, based on another set of figures in his recent paper, are, in my opinion, verified in the figures of my two tables, which have a much wider scope. It is evident from these tables that the diminution of mortality from phthisis of 560 in England and Wales, and 305 in London, is a reality. The mortality from scrofula and tabes is on the increase. It is remarkable to notice that this increase is almost entirely among children under 5 years of

age; namely, in England and Wales, it has been 1,919, 2,767, and 2,549; and, in London, it has been 2,943, 3,140, and 3,672. Allegations have been made that this is partly due to vaccination by the inoculation of scrofulous lymph. My investigations into the subject are not yet complete, and I must entirely withhold my observations on the subject at present, with a suggestion to others interested in the question to prosecute such an inquiry. But I do think that the mothers of this generation are much to blame for it. The management of infants and their feeding is sadly neglected by them, and it would be wise to make some philanthropic efforts to educate the mothers in the management of infants, and guide them in feeding, especially when numerous varieties of infants' foods are launched in the market, each one with some special recommendation. It is remarkable to notice that the mortality from scrofula and tabes is decidedly on the decline at all other ages above 5 years. The mortality from cancer is also on the increase. Up to the age of 25, when it is least known, it is diminishing; but, with increasing age, the rise in the mortality becomes more manifest. Without entering into fuller details and arguments, I can state that this increase is solely due to increased pressure on the nervous system, combined with increased sources of accidents, and local injuries in urban districts. Many cases of cancer, as far as I can know, have been primarily local affections due to extraneous causes. Intermarrying of cancerous families would tend to increase the cancerous population. Although I agree with Mr. Jessett's suggestive observations in his able paper on "Increase of Cancer in England and Wales," I cannot help remarking that I look upon this increase as a necessary evil of increasing mental pressure and struggle for existence.

Of the mortality from organic diseases, that from the diseases of the nervous system, organs of respiration, and urinary organs, is on the increase; that from the diseases of the digestive organs is on the decline; and that from the diseases of the circulatory system and organs of generation is stationary.

The mortality from hydrocephalus, which is almost exclusively confined to children under 10, is rapidly diminishing. That from child-birth and metria is also diminishing. But this decline is especially notable in England and Wales, demonstrating the improvement in the practice of midwifery in the country, for the death-rate has fallen from 320 per million in the first decade, to 165 in the third decade. The deaths from violence and suicides do not call for any special observation here. The mortality from other causes—a heading very indefinite in its signification—has for its chief contributor deaths from unknown causes. This largely means unqualified medical practice. The figures from this source are higher in the table for England and Wales than in that for London. It is encouraging to think that this source of discrepancy is on the decline; but it still forms a heavy mortality, causing a serious drawback in the vital statistics. Had the promoters of the Medical Bill devoted more energy to check unqualified practice in this country, they would have rendered a more widely felt public service, and protected the poor and uneducated classes from quacks and impostors.

REMARKS UPON THE SECTION OF MENTAL DISEASES IN THE NEW NOMENCLATURE OF THE ROYAL COLLEGE OF PHYSICIANS.

By HENRY SUTHERLAND, M.D.,

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In order to estimate correctly the value of this new classification of mental diseases, it is necessary, for comparison's sake, to refer briefly to the original subdivisions of these disorders, published by the College of Physicians in 1869, and also to Skae's and Esquirol's classifications, to which, it is evident, the present one is indebted in no small degree.

The following table, where the order in which the diseases were arranged has been slightly altered, so as to bring those called by the same name side by side, will show at a glance the sources from whence the new classification has been derived.

College of Physicians, 1869.	College of Physicians, 1885.	Skae.
Mania.	1. Insanity.	Idiopathic mania.
Melancholia.	2. Mania.	(a) Sthenic. (b) Asthenic.
Monomania.	3. Hypochondriasis.	
Dementia.	4. Melancholia.	
	5. Monomania.	
	6. Dementia, including acquired imbecility.	
General paralysis of the insane.	7. General paralysis of the insane.	General paralysis of the insane.
Idiocy. Imbecility.	8. Idiocy. Synonym, congenital imbecility.	(Idiocy.) Intellectual imbecility; moral.
Puerperal mania.	9. Puerperal insanity.	Mania of pregnancy.
(a) Connected with parturition.		Mania of child-bearing.
(b) Connected with lactation.		Mania of lactation (and other forms of sexual insanity.)
	10. Epileptic insanity.	Epileptic mania.
	11. Insanity of puberty.	Mania of pubescence.
	12. Climacteric insanity.	Climacteric mania.
	13. Senile insanity.	Senile mania.
	14. Toxic insanity, from gout, alcohol, lead, etc.	Metastatic mania.
	15. Variety (52). Delirium tremens.	Dipsomania.
	16. Traumatic insanity.	Delirium tremens.
	17. Insanity associated with obvious morbid change or changes in the brain.	Traumatic mania.
	18. Consecutive insanity from fevers, visceral inflammations, etc.	Sunstroke mania.
	19. Cretinism.	Phthisical mania.
	20. Myxedema.	Syphilitic mania.
College of Physicians, 1869.		
Cretinism.		

Anyone who has studied the A B C of the subject, is aware that all classifications must be founded, according to the divisions of mind supposed to be affected (as "emotional insanity"), or according to the mental symptoms (as "mania"), or according to the bodily conditions associated with the mental disturbance (as "traumatic insanity").

The Committee for Mental Diseases, very wisely discarding the first of these classifications as being unpractical, have arranged these disorders of the intellect under two important divisions; the first in-

cluding forms of insanity arranged according to mental symptoms, the second according to the bodily conditions connected with them. This second division is further subdivided into those diseases of the mind dependent upon certain periods of life; those dependent upon external causes, and those dependent upon internal causes, which most probably arise from some disease of the nervous system.

If these diseases were arranged according to this subdivision, the list would read as follows.

I. *Insanity Characterised by Mental Symptoms.*—1, Insanity; 2, Mania; 3, Hypochondriasis; 4, Melancholia; 5, Monomania; 6, Dementia; 7, Idiocy; 8, General Paralysis. II. *Insanity Dependent upon Bodily Conditions.* (A) *Period of Life.* 9, Insanity of Puberty; 10, Puerperal Insanity; 11, Climacteric Insanity; 12, Senile Insanity. (B) *External Causes.*—13, Toxic Insanity; 14, Delirium Tremens; 15, Traumatic Insanity; 16, Consecutive Insanity; 17, Cretinism. (C) *Diseases of the Nervous System.*—18, Insanity of Brain-changes; 19, Epileptic Insanity; 20, Myxedema.

Anyone seeing this classification for the first time, must at once come to the conclusion that in it, to conciliate the disciples both of Esquirol and of Skae, substantives, such as the word dementia, and adjectives, such as climacteric, have both been allowed a footing. An improvement has been made by substituting the term Insanity for the term Mania, so often and so inappropriately used by Skae; and at least half a dozen of his forms of insanity due to sexual disturbance have been omitted.

Granting the necessity for those forms of insanity qualified by an adjective being included in the new classification, to satisfy scientific prejudice, it must be confessed that the Committee has performed its task with moderation and success. More especially would I direct attention to the two divisions "Insanity from Brain-change," and "Consecutive Insanity," as being both liberal in principle, and including a vast number of cases concerning whose etiology and pathology conflicting evidence might be adduced.

Modern research has necessitated the addition of the term "Myxedema," although much like its brother-disease, General Paralysis, the bodily symptoms are chiefly conspicuous.

Having said thus much in praise of this new classification, I may now turn a critical eye upon its deficiencies.

In the *Nomenclature of Diseases* of 1869, hypochondriasis was included under the head of "Functional Diseases of the Nervous System," and not, as at present, under "Disorders of the Intellect." Of course, the same word may bring different ideas to different minds; but to my thinking, there is nothing certifiable about hypochondriasis, pure and simple, as long as it does not glide into melancholia; and surely uncerifiable diseases ought not to find a place amongst mental diseases, if we wish classification to assist us in medico-legal questions.

The same remark applies to delirium tremens, a disease which often consigns the patient to an asylum, but which nevertheless in itself does not constitute insanity until it passes either into mania *ex potu* or chronic alcoholism.

I regret to see the term Monomania retained. Does it apply to one delusion or to one groove of delusions, or is it equivalent to exaltation?

Again, the would-be note of explanation attached to Dementia (I refer to the words "including acquired imbecility") is, I think, misleading. It would be far better to keep the term Imbecility for children, and Dementia for grown-up people, being consecutive or not upon other forms of insanity.

I may make a similar remark upon the explanation attached to Idiocy (I refer to the words "synonym, Congenital Imbecility." The writings of Drs. Down, Ireland, and Beach need only to be consulted for a moment to discover that idiocy is very frequently not congenital; as, for instance, when it is traumatic or when it succeeds scarlatina.

Cretinism and Myxedema might surely have been briefly mentioned under the head of Mental Diseases, as well as being included amongst those "not classified."

With these few exceptions, the work has been well done. Both schools, the Somatic and the Mental, have had their claims recognised, and this is something.

There can be no doubt that the more simple a classification is, the better for those who are obliged to use it.

There are but four states of mind which can be considered abnormal: one of excitement, one of depression, one of exaltation, and one of fatuity, corresponding to the old terms of Esquirol, (1) Mania, (2) Melancholia, (3) Monomania (?), and (4) Dementia. Congenital Dementia should be called (5) Idiocy and non-congenital "Dementia" proper. To these five substantives, any adjective the wildest imagination might suggest could be easily added.

In addition, the word (5) "Insanity" should be kept, and also (7) "General Paralysis," a disease so strongly marked out by its characteristics as to render it incapable of being classified with ordinary mental disease.

Concerning Epilepsy, I am doubtful. It is an attendant's term for a certain class of cases; but, considering the fact that it accompanies all the seven forms mentioned above, in many cases it can scarcely be counted apart from them without making the terms overlap.

Mania, Melancholia, Exaltation, Dementia, Idiocy, and General Paralysis, combined with a free use of adjectives, ought to satisfy the most pedantic scholar, and it is not certain that the one term "Insanity" would not be sufficient for all practical purposes.

A CASE IN WHICH A PATIENT REMOVED FORTY-THREE CALCULI BY A NOVEL METHOD FROM HIS OWN BLADDER.

By JAMES MURPHY, B.A., M.D., Etc.,

Surgeon to the Sunderland Infirmary, Lecturer at the University of Durham College of Medicine at Newcastle-on-Tyne, etc.

I RECENTLY exhibited, at a meeting of the Northumberland and Durham Medical Society, 43 vesical calculi, and the instrument by which a gentleman extracted them from himself; and a short account of the case will doubtless prove interesting to the readers of the BRITISH MEDICAL JOURNAL.

About five years ago, the patient, whose age was about 50, and who had always enjoyed good health, was very much surprised to find one day, as he was passing his urine, that it suddenly stopped before the bladder was relieved, and on consulting his medical attendant, the latter passed a silver catheter, and immediately struck a stone. The patient was apprised of this, and lithotomy was suggested; but, being of a mechanical turn of mind—he was by profession an architect—he declined to submit to any operation, preferring first to see what he could do in that way himself. While thinking the matter over, and maturing his plans, he spent several days in trying to get the stone back into the urethra, with a view of ejecting it by a sudden flush of urine, and for this purpose he tried several positions, on his face, knees, etc.; but though he could feel the stone fall on to the neck of the bladder, and, as he thought, touch the entrance to the urethra, he failed to make it enter the latter. After some deliberation, he constructed an instrument, consisting of a Florence flask, into which a cork was tightly fitted. This cork was perforated by a bone tube, into which a No. 10 black French catheter was made to fit with a screw; and, to make it perfectly air-tight, an India-rubber band could be rapidly passed over the joint. Owing to the extreme thinness of the glass in the Florence flask, boiling water could be poured into it, and he had some of the straw covering fitted on to the end of it, which, being a bad conductor of heat, enabled him to hold the flask after the boiling water had been poured out, while he screwed it on to the catheter previously introduced into his bladder, and produced a vacuum by the application of cold cloths to the flask. He then had an aspirator constructed, very similar to that used by Sir Philip Crampton many years ago, but of which it is needless to say he had never heard. He made several attempts with this instrument to get the stone into the urethra, for he never contemplated removing it directly by the aspirator, but never succeeded, as, not having a stopcock as in Crampton's aspirator, the formation of the vacuum was too gradual to form a sufficiently rapid current for his purpose. He therefore soon devised another form of aspirator, which was simpler in construction, and more efficacious in use. He purchased a large ear-syringe, to which he fitted on a No. 10 catheter, from which he had removed the end as far as the eyelet; and while his bladder was full, he got on to his knees, rolled the stone about till he considered he had it at the entrance to the urethra, then gently passed his catheter with syringe attached till he struck the stone; then, without displacing the stone, he gently withdrew his catheter about an inch, and rapidly pulled out the piston, and, after some failures, succeeded in getting the stone into the urethra, when, by means of straining at first, and afterwards, when it came within reach of his fingers, by external manipulation, he had the satisfaction of at last getting the stone into his hand; but he found his troubles were not then ended, for he found there were some others, which he removed in the course of a few days. He then continued quite well for some time, these operations of what may well be called "litholapaxy" in no way inconveniencing him; but after the lapse of several weeks, he found the old pain in his right loin (indicating the passage of a calculus through the ureter) returning;

and, after it had ceased, he again removed a couple of stones, in the same manner as previously; and so matters continued for a space of two years, calculi forming now and then, generally two or three being passed by the right kidney (never from the left), in rapid succession, and then being removed from his bladder; he continued well for several weeks, when the same process was gone through again. At last, getting tired of this breeding of stones, as he termed it, he was induced to go on a diet in which alcohol and saccharine fatty matters were avoided; and, in a little time, no more stones were found, and it is now nearly two years since he has been troubled with one. In all, he removed forty-three uric acid calculi, varying in size from a No. 6 shot grain to a large pea. He generally removed them as soon as they entered the bladder, and became so expert latterly that he could generally bring the stone into the urethra in two or three attempts; but, if he were otherwise engaged, he did not trouble much about the calculi, and sometimes kept them in his bladder for a couple of weeks without removing them. But this is a practice which he cannot recommend; for he assured me that, as soon as a calculus entered the bladder, the sooner it was removed the better. He knows each of the calculi by distinctive marks, and has an anecdote about most of them. One bears the mark where it was struck by the silver catheter; another was stopped in the urethra by coming sideways, and had with much difficulty to be flushed straight; another he calls "the porcupine," as he drank some medicine to try to dissolve it, with, he alleges, the unpleasant result that the soft parts disappeared, and left several rough edges, which made him feel as if he had the fretful animal in his bladder. As is usual, a distinct history of gout was obtained.

ON A FEBRILE DISORDER COMMUNICATED FROM CALVES, AND ACCOMPANIED BY AN ECZEMATOUS ERUPTION.

By T. FREDERICK PEARSE, M.D., Haslemere.

A CASE having the above characteristics has lately been under my care, and I have particulars of two other cases. Similar eczematous patches, but of a very mild form compared to that of my case, are said to be frequent on the hands, arms, and face of those having the handling of these diseased calves. The eruption on the animal is called by my patient (a castrator) "ringworm;" but there are certainly not the same acuteness of symptoms or discharge in the animal as in the disease propagated to the human subject. It is more than doubtful whether the disease in the calves is of the nature of "ringworm" at all. I have not had the opportunity of seeing the disease in calves.

The general symptoms, which came on somewhat acutely, were heightened temperature, varying from 99.5° to nearly 102°, with a frequent and weak pulse, moist but coated tongue, foul breath, a feeling of malaise, and general weakness. These have lasted for nearly a month, though they have somewhat improved during the latter half. My patient says that his brother suffered for six weeks during last winter in exactly the same way as himself.

The eruption consists of inflamed patches, somewhat like incipient boils, which burst, but, instead of discharging pus, pour out a very glutinous serous fluid, which quickly dries and forms a hard scab. There is considerable thickening and hardness of the skin around, and some slight enlargement of the lymphatic glands. The eruption is situated all round the chin, and under the jaws on both sides, with isolated patches on the forehead, eyebrows, and cheek. All round the lower margin of the face there is one continuous discharging surface. As soon as the scabs are removed, fresh discharge hardens and forms a scab again.

A question may, perhaps, be raised as to diagnosis. My patient was in perfect health before this attack, and never had an eruption of any kind about him before. It was treated by my *locum tenens*, in its early stages, for eczema, but apparently without the slightest benefit. The surface is hardly extensive enough, or associated with sufficient inflammatory appearances, to account for the decided general symptoms. Again, the thickening around the base of the eruption is too hard for acute eczema, and there is not the same swelling of the skin. There is not the same pain or soreness, either, as in acute eczema. I have prescribed quinine (three or four grains), with full doses (30 minims) of nitro-hydrochloric acid; and, locally, I tried, first, dusting with iodoform-powder; but, finding apparently little benefit from this, it was changed for oleate of mercury, with oleate of zinc, as an ointment. The sores have considerably improved, and the man's general condition is nearly restored.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF AN ACUTE FORM OF DIARRHŒA.

BEWILDERED as we may feel sometimes by the crowd of new remedies that are pushed and praised, there is a danger of our forgetting old and valuable medicines, or certain combinations of medicines, which have stood a long and thorough trial.

More than 30 years ago, a combination of laudanum and castor-oil was much prescribed for "dysenteric diarrhœa"; perhaps it got part of its title to therapeutic honour from the recollections of Dr. George Johnson's treatment of Asiatic cholera at King's College Hospital, in 1849.¹

An eliminative dose of castor-oil, or of Gregory's powder (*pulvis rhei compositus*) has been usually considered as an essential feature in the preliminary treatment of ordinary diarrhœa. But the management of this common malady, alvine catarrh, has never been raised to the scientific level of many diseases of rarer occurrence, and hence there is always a little uncertainty in our prognosis.

In the *Practitioner* for March, 1875, a formula was published by Dr. David Young, of Florence, which I have used ever since with the greatest advantage. He combined about two minims of castor-oil with three or four minims of solution of hydrochlorate of morphia (*British Pharmacopœia*), and rubbed them into an emulsion with gum acacia. To this were added spirits of chloroform, and a little syrup. These were the quantities for a single dose, which might be repeated every hour, or every two hours, according to the urgency of the case. If the diarrhœa were chronic, the quantity of castor-oil was increased; and if there were much pain, more morphia was prescribed.

I have found Dr. Young's mixture extremely valuable for nearly all forms of sudden and acute diarrhœa, such as we see often enough during August and September; and it is scarcely less useful in treating some chronic conditions of irritable bowel which have baffled the so-called routine-remedies with which we are all familiar. But when the castor-oil and morphia fail, or do little good after four or five doses, it may even aggravate the malady to continue them.

Warm milk and lime-water is the best food; a mustard-poultice may be put on over the stomach; and there should be absolute rest in bed.

JOHN KENT SPENDER, M.D.Lond., Physician to the Mineral Water Hospital, Bath.

SURGICAL MEMORANDA.

DISLOCATION BACKWARDS OF THE METACARPAL BONES.

THIS dislocation is of such very rare occurrence, that it finds little notice in surgical text-books, and it is not described in Lawrence's classical work. A short account of the following case may, therefore, be of some value. A gentleman over 50 years of age, and of large frame, was knocked down by a carriage, the wheels of which probably passed over him. He was conveyed to his residence in Eaton Square, and, when seen by his medical attendant, was found to have very extensive bruising of both legs, and of the right hand. The amount of extravasation was such as to preclude the possibility of ascertaining with any exactness the nature of his injuries. On this having partially subsided, he was examined by Sir James Paget, who detected displacement backwards of the fourth and fifth metacarpal bones. I was requested to attempt to replace them, and saw the patient on the following morning, a week after the accident. I found the heads of these two bones projecting prominently backwards, and their outline was very evident beneath the skin, which was tensely stretched over them. Such pressure as could be used without causing great pain did not alter their position, and accordingly ether was administered by Mr. Braine. When complete anaesthesia was produced, very moderate pressure caused them to return to their normal position with an audible click. They soon, however, slipped out again when the pressure was relaxed. A piece of wet millboard was made to embrace the palmar and dorsal surfaces of the hand, but, as this was insufficient to maintain the bones in their places, and they could be felt to slip out of position beneath it, further pressure was made by placing a thick pad of millboard over the displaced bones, and bandaging the hand very firmly to a wooden splint upon the palmar surface. This was removed on the fourth day, and the millboard on the tenth. There still was considerable discoloration, but the bones were satis-

¹ Dr. Johnson's book *On Epidemic Diarrhœa and Cholera* (1855), is one of the minor classics of medical literature; but even its illustrious author may now think that his plan was somewhat overdone, when 33 or 34 fluid ounces of castor-oil were sometimes administered to a single patient.

factorily in their normal position, and the hand at the end of five weeks is so far useful as to be available for writing, and can bear, without harm, the pressure of a walking stick, upon which considerable weight has to be placed. JOHN H. MORGAN, Grosvenor Street.

DIGITAL TENOTOMY IN PIANISTS.

IN answer to Mr. Ernest Bower's remarks upon my recorded case of the above operation, I am happy to say that the lady operated upon retains full power in the hand. As regards the finger itself, its power is increased because its extensor tendon can now act freely. As to possible dangers, these must be extremely remote, except from great carelessness, such as the use of a dirty tenotome, or from want of the very slight care and rest of the finger, which are necessary for a few days after division of the slip of tendon.

The operation has been performed by Dr. Forbes, of Philadelphia, 14 times, and with uniform success. The article in Dr. Stainer's *Dictionary of Music* gives an interesting account of the subject; it is written by Dr. Champneys.

NOBLE SMITH.

Queen Anne Street.

EPIPHORA AND SLIGHT ECTROPION CURED BY REMOVAL OF BURIED ROOT OF CANINE TOOTH.

Mrs. H., aged 43, was sent to me at the Dental Hospital, with a fistulous opening about half an inch below the inner canthus of the right eye, and well marked epiphora, as well as slight ectropion on that side. The woman complained of the tears continually running down her cheek, and appeared greatly troubled by the disfigurement, which she said was increasing. On examination, the mouth, as a whole, seemed in fairly good condition, but nothing could be seen of the right upper canine. The patient remembered the tooth breaking off some years before, but the root had not been extracted. On slight pressure, a small quantity of pus escaped through the opening in the cheek, but none into the mouth. With the aid of a probe I was able to detect something, which certainly felt like tooth-substance.

The patient refused to have any anæsthetic, so I proceeded at once to cut down to the buried root with a small scalpel; the cavity was then plugged open with lint; and the next day, when the hæmorrhage had ceased, I was just able to make out the edge of a tooth. This I managed to reach and extract with a pair of bayonet-forceps, but not without considerable difficulty. The root, I think I may safely say, was three-quarters of an inch in length; no abscess-sac came away with it, but its apex was quite denuded of membrane. From that time, the discharge of pus gradually stopped, things began to mend, and when I last saw the patient, she was quite well, the tears travelled in their usual direction, the eyelid was normal, and the opening in the cheek entirely closed.

The tooth could never have taken up its normal position in a line with the others, or its root would not have reached so far up; and the whole case seems to me to furnish a good example of the mischief which may arise from teeth, and clearly proves the advisability of examining the mouth in those cases in its neighbourhood whose etiology is at all doubtful—if, indeed, any proof be necessary, at any rate, so far as the eye is concerned, after the able paper read by Mr. Henry Power before the Odontological Society about eighteen months since.

It may be said by some that, in this particular instance, the ophthalmic lesion was merely coincident with, and not a consequence of, the dental mischief; but the fact still remains that the extraction of the tooth caused complete relief from the trouble, which for three months before had been gradually getting worse; and, as the case appears somewhat uncommon, I thought it worth recording.

J. M. ACKLAND, M.R.C.S., L.D.S. Eng., Southernhay, Exeter.

OBSTETRIC MEMORANDA.

RUPTURE OF MEMBRANES LONG BEFORE LABOUR.

ON January 4th last, I was called in to see Mrs. T., about three months pregnant. She had been working with her hands above her head, and had felt something give way. She had slight frequent pains, and the liquor amnii was coming away freely. As, on examination, the os uteri was found to be in a natural state, she was put to bed, and small doses of morphia were given her. The pains ceased, but the water continued to be discharged.

This went on incessantly till July 9th, when, after a natural and comparatively easy labour, she was delivered of a healthy, well developed female child. In an experience of over 3,000 cases, I have met with no similar occurrence.

During the latter six months of gestation she was in poor health, and suffered much latterly from the movements of the fœtus. The nearest approach to the above that I have met with, was one where the membranes gave way also at the end of the third month, and the child was born living at the end of the sixth month. It would be interesting to know the frequency of similar cases.

JAMES BRYDON, M.D., Hawick.

REPORTS OF SOCIETIES.

ACADEMY OF MEDICINE IN IRELAND: SUBSECTION OF STATE MEDICINE.

THURSDAY, MAY 14TH, 1885.

J. W. MOORE, M.D., in the Chair.

Relative Disease and Death-rate in Town and Country.—The REGISTRAR-GENERAL (Dr. Grimshaw) gave a summary of his paper on the relative prevalence of disease, and on the relative death-rate in town and country districts in Ireland.—The CHAIRMAN regarded the remarkable coincidence between the average disease and death-rate as one of the strongest arguments that could be adduced in favour of the registration of disease. Some of the epidemic diseases seemed to fall more heavily upon Dublin South than upon Dublin North, but with measles and scarlet fever it was otherwise.—Dr. JACOB asked how far these interesting and important facts ought to be discounted by the deficiencies of registration; because the curves on the charts, even on a cursory view, revealed certain points which he should not have expected.—Dr. HENRY KENNEDY emphasised the extreme value of the Registrar-General's information and remarks. The fact had been long established that the towns were less healthy than the country, and there was a perceptible difference, too, in favour of the healthy appearance of the country population, townspeople being more or less pallid. He had no doubt that a dry climate had an important bearing on health; for instance, people who went to reside in England at once lost rheumatism with which they were affected in Ireland. The registration of the causes of death depended on the professional knowledge of the medical men in each locality, and he had no reason to believe that facilities of knowledge in one place were greater than in another.—The REGISTRAR-GENERAL replied.

Compulsory Notification of Infectious Disease.—Dr. JACOB read a paper on the compulsory notification of infectious disease.—Dr. FITZPATRICK concurred in Dr. Jacob's observations that compulsory notification would place the medical profession in a most invidious position, without any possible good arising to the public.—The REGISTRAR-GENERAL (Dr. Grimshaw) differed from Dr. Jacob in everything he said, being strongly in favour of compulsory notification. Two questions were mixed up which should be separated; one, whether there should be compulsory notification of disease, and the other, whether the medical man should have any responsibility in directly notifying to the sanitary authorities. That notification would tend to prevent and diminish disease, he was certain. People complained individually of the losses inflicted on them, but the losses inflicted on others who caught the disease were just as great or greater; and, on moral grounds, independently of anything else, nobody had a right to inflict the misery. With regard to the figures brought forward, having read all that had been quoted in some shape or other before, he was bound to say he never could discover anything to show that injury had been produced by the notification of infectious disease. On the other hand, the sanitary authorities, knowing that a particular disease existed in a particular place, could take precautions to prevent its spread, and thereby benefit the community. But, where the sanitary authorities were unable to interfere, the disease had spread, destroying numbers of lives, and creating misery among the working classes, who were deprived of every penny they had.—Dr. COSGRAVE, having had practical experience of the working of the Act for two years in Huddersfield, pointed out that at least two of the objections urged against it did not amount to anything. One was, that the voice of the profession was not heard against the Act. But if it were found prejudicial by others than dissenters accustomed to air crotchets, no matter how destructive to the health of the population, the voice of the profession would be heard. Although the severity of the Act had been increased in Huddersfield, he did not find his brethren there complain of having to carry out its provisions. During his time, it was strictly carried out. But it was quite right that certain cases need not be notified; for instance, where a case could be isolated and treated in the house. That was a definite common-sense rule obviating any difficulty. With regard to the loss of money, in the majority of the cases where the

people were able to pay medical men, the patients could be treated in their own houses. But it was different with the people who lived in tenement-dwellings, who were not a paying class of patients; and, if those cases were moved into hospital, as they should be, the dispensary medical officers would have a much easier time than at present. As to imposing a penalty, he did not see how the principle differed from that of imposing it for not certifying the disease of which a patient died. He had himself opposed notification in the first instance. The best mode of notification was to hand the form filled up to the person in charge of the case, whose duty it was to transmit it; and therefore it could not be said the medical man went behind backs to notify. He thought that preferable to the present mode of direct notification. At the same time, he concurred in Dr. Jacob's appeal for an investigation into the working of the Acts, the question involved being one affecting the health and life of the population. He believed that notification struck at the root of infectious disease.—Dr. HENRY KENNEDY inclined greatly to Dr. Jacob's views, and regarded the evidence which he adduced as conclusive.—Mr. EDGAR FLINN, speaking from experience of the working of the Act in Leicester and Nottingham, believed that a measure for notification of disease would be of no great harm. He agreed, however, with Drs. Fitzpatrick and Kennedy, as to the great hardship of asking medical men to become detectives; and therefore that the measure should not be compulsory.—The CHAIRMAN avowed himself to be strongly in favour of the compulsory notification of infectious disease. The relation which the profession held to the State, or rather to the people of the country, should be remembered. The licensing bodies were acting under charter, and likewise the universities existed by the favour of the State; and, therefore, anything ordered to be done by the profession must be done, protest as they might. He regretted that Dr. Jacob should have given the character he did to some members of the profession; and he could not believe there were men in the profession who, when they deliberately recognised a case of scarlet fever, would set it down as one of nettle-rash or non-infectious disease, or state that they did not know what it was. At any rate, whoever did such a thing should be brought under the censure of his college or university, and deprived of his qualifications. A much more unpleasant duty was imposed upon the profession when medical men were asked to certify the cause of death, in which case privilege should be presumed to exist to even a greater extent. Dr. Jacob had drawn purely fancy pictures of the existing state of affairs. He had mentioned that the Act had led to concealment of disease, forgetting that, in towns where it was not in force, greater concealment prevailed. This was notoriously the case in Dublin. Speaking, perhaps, from a greater experience than Dr. Jacob's of the prevalence of infectious disease and its concealment, he knew it was dreadful. What was wanted was a code making notification applicable to the whole country, rich and poor, but with modifications. He approved of an inquiry into the subject, such as had been held in reference to the Public Health Act.—Dr. JACOB replied. The Registrar-General had entirely misunderstood his purposes and his views. It was not the notification of the existence of disease to a sanitary authority he deprecated at all, but the proposition that such notification should be effected through the agency of the medical profession, because he held that the beginning and end of the concealment of disease, and the consequent dissemination of infection, would be the exclusion of the medical man once he was forced to act as a detective. The argument of the suffering to individuals he passed by; individuals must ever suffer for the good of the community. Personal loss, therefore, had no element of argument for him, except so far as the individual was induced to conceal disease to avoid that loss. In fact, the whole pivot on which this argument turned was the concealment of disease from the sanitary authority. Where there was a medical man to the fore to give good advice and see it carried into effect, the concealment of disease was of comparatively little importance; but the concealment of disease where there was no medical man in the case was fraught with every element of destruction to the community. Dr. Cosgrave had said that, if this grievance were so bad as represented, the medical profession would have spoken out. The profession had spoken out as far as the circumstances allowed. Notification was sought to be imposed in Brighton by smuggling the clause into a harbour Bill; but he sent a marked copy to those interested, and the Bill was defeated. The same observations applied to Edinburgh and other places. Opposition had been given in several instances; but when the Select Committee on Private Bills was struck, it contained a majority in favour of compulsory notification, and hence a hearing was refused to Dr. Alfred Carpenter, who offered evidence on behalf of the profession to show that the working of the system failed to produce the results aimed at, the reason assigned being that no evi-

dence could be heard except from the towns to which the Bills related. Therefore, it was not to be said the judgment of the profession had been heard or pronounced. Death-certificates were utterly fallacious, and concealment was the practice wherever the incentive existed. For instance, syphilis and delirium tremens were represented by such euphemisms as spinal irritation, urinary disease, and debility; and often certificates were given, not for the disease which actually killed the patient, but for the symptoms, the true cause of death being assigned only in the case of paupers. He affirmed that the Acts which had been working for seven, eight, or nine years in 22 towns had utterly failed to produce any amendment of the public health, and, therefore, he asked the Academy to take a prominent position to prevent the further extension of the system.

REVIEWS AND NOTICES.

THE PATHOLOGY AND TREATMENT OF STRICTURE OF THE URETHRA AND URINARY FISTULA. By SIR HENRY THOMPSON. Fourth Edition. London: J. and A. Churchill. 1885.

IN this new edition of what has become a standard work on the subject, Sir HENRY THOMPSON adopts a plan which we should be glad to see more generally followed by authors, reducing the bulk of the work by upwards of 100 pages instead of increasing it. Authors and publishers generally pride themselves on their enlarging new editions, which too often give birth to little that is really original. Old faults are usually perpetuated and enlarged, and a great deal of useless padding goes to make up a heavy and cumbersome volume; but the new edition is made more imposing in appearance.

In the present case, however, the principle has been acted upon that a large experience necessarily renders a surgeon more sure of his opinions, and reduces the need or opportunity of speculative writing. Time has probably shown whether the author was right or wrong in his views, and it is rather an evidence of weakness and paucity of ideas to be harping on old strings, and either reiterating well-worn arguments, or insisting on the benefits the author and his fellow-workers have effected. It is suggestive of talkers of a certain school, who are not content to let corrected abuses lie buried, but must continually enlarge upon them to the neglect of reforming present abuses.

Mr. Syme, we believe, reduced the bulk of each succeeding edition of his *Surgery*, and it is a pleasure to find a modern author of such large experience following the same plan. Much that was, at the time of the first edition, of a controversial character has been removed, and all the illustrative cases excluded, the latter because, though at first necessary to support the author's statements, they are not now opposed to generally accepted ideas, and also because he thinks it better and simpler, after another ten years' experience, to give its results in the form of opinions as simply and briefly expressed as possible, unencumbered by those guarantees which might naturally be expected from an author in an early part of his career. With so much cutting out, it has been necessary to almost rewrite the work in order to attain greater clearness of expression, and to produce a more useful epitome of the subject than the original work contained.

With these objects in view, we find that the author has produced a work of undoubted value, and we look with interest for his experience in difficult and obscure conditions. We notice that the scare which was raised by Sir Andrew Clark on catheter-fever finds nothing to support it in Sir Henry Thompson's opinion. He objects to the terms "catheter-fever" and "catheter-life." The occurrence is not important enough to furnish an epithet to characterise the manner of this life. No doubt the habitual use of the catheter is a proceeding involving grave considerations for certain cases; but, for the majority of persons who are compelled to use it, enormous as are the advantages they gain, the risk is almost absolutely *nil*, and the habit becomes, after experience, a matter of toilette rather than of surgical treatment. We should have been glad to find some instances referred to, of the length of time catheterism has been continued safely in the author's large experience. Mr. Quain, in his *Clinical Lectures* (*Medical Record*, March, 1885), gives a case in which it was continued daily for thirty years for difficulty in passing urine; and Professor Humphry, in his address on Old Age, before the Medical Society, mentions a case in which the catheter had been constantly used for forty years. As catheter-fever is referred to by the author, we should have been glad to see what form and character of instrument he prefers when its use has to be continued for any great length of time. His reference to flexible India-rubber instruments is meagre; but we recognise that the subject of the work is stricture of the urethra, and that these instru-

ments are of more service for the removal of urine when the difficulty arises from other causes. But we feel very strongly that these instruments should be more used in the out-patient room by dressers, before they are allowed to use the metal instruments, which have been a curse to many patients. We also think that Sir Henry Thompson might urge more forcibly than he does that, with a metal instrument, "a lever of a very powerful kind is in action when depression of the handle is made, the extremity of which lever is in the operator's hand, the fulcrum at the convexity of the curve, the resistance being at the structures upon which the point impinges: and these may be perforated if undue force be applied." This warning certainly exists (p. 89), but does not appear strong enough or prominent enough for the importance that should be attached to it.

Similarly, we should have been glad to see stronger condemnation of carelessness in leaving catheters to become dirty. So much harm may result from this, and the interior may so easily become foul, while the outside remains clean, that too much caution can hardly be exercised. We observe that the author does not refer to the open-ended catheters, which certainly have the advantage of being more easily and thoroughly cleaned, and can be made so as to answer the purpose of the larger-sized instruments quite as readily as those with side openings.

He condemns the use of "celluloid" instruments, as possessing an elasticity and firmness which render them dangerous, and prefers the useful gum-elastic, which is plastic, for cases in which the catheter has to be used for any length of time.

The writing is clear and easy, as Sir Henry Thompson's naturally is, and the volume is worthy of its author's reputation. It forms, without question, the standard work upon the subject; and contains the epitome of the experience of one whose opportunities, in this respect, have been probably larger than those of any other British surgeon, and whose powers are sure to grace any subject he takes in hand.

FIFTY-THIRD ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in CARDIFF, July 28th, 29th, 30th, and 31st, 1885.

THIRD GENERAL MEETING: THURSDAY, JULY 31ST.

The third general meeting was held in the Town Hall, at 11 A.M.; Dr. EDWARDS, President, in the chair.

Visitors.—The following foreign delegates and guests were introduced by the President of the Council: Professor Lucae, of Berlin; Dr. Alexander M. Stein, of New York; Dr. Duncan Bulkley, of New York; the Rev. George E. Post, M.A., M.D., of Beyrout; Mr. Biden, of Hyères; Professor Lesshaft, of St. Petersburg; and Dr. Henry, of New York.

The Address in Surgery.—The PRESIDENT said it was one of the greatest pleasures to which he could have looked forward, in connection with the Presidency of the Association, to have the opportunity of meeting his old and valued friend, Mr. John Marshall. Amongst the pleasantest associations of his student-days, were the reminiscences of the invaluable services rendered to him by Professor Marshall as a student. He was, therefore, especially glad to welcome him as the reader of the Address in Surgery.

Professor JOHN MARSHALL then delivered the Address in Surgery. It is published at page 235 of this week's JOURNAL.

Mr. ERICHSEN (London) moved "That the best thanks of the Association be given to Mr. John Marshall for his able and interesting Address in Surgery." It gave him the greatest possible pleasure, on personal grounds, to make that proposition; for, since the early days which Professor Marshall had so graphically described, they had been associated together within the walls of the same institution, and, throughout that lengthened period, he had had numberless opportunities of admiring Professor Marshall's skill, and the qualities of his heart and head. The acquaintance then begun had continued in an unbroken line of friendship down to the present day. But, on far wider and broader grounds than any personal ones, he submitted the resolution with confidence; for no one could have listened to the address just delivered without feeling how interesting and important it was that men, with such long experience, and with such vast stores of accumulated knowledge, should, from time to time, illuminate the past by the light of present knowledge and science. No greater advantage could accrue to surgery and medicine than by comparing the results of the present day with those that had preceded it; and they must all feel, from the exposition that had been given, that they might well compare the results of surgery as now practised

with those of a former period. At no former time, in the history of surgery, had anything like the advance been made that had taken place during the interval between 1843 and 1885. Their thanks were due to Professor Marshall for the interesting and important address that he had given, and he was sure that the resolution which he had proposed would be heartily received by the members.

Professor BENNETT (Dublin), in seconding the motion, said that there was one point in the address which should be made known to the general public—namely, the great expense attending the antiseptic treatment.

Mr. S. H. STEEL (Abergavenny), in supporting the resolution, said he could confirm Professor Marshall's statements as to the progress made in surgery, even when compared with the results obtained in Fergusson's practice. With regard to the expense attending the antiseptic treatment, there was no doubt that it pressed heavily upon surgeons in private practice, and he was glad that attention had been called to it.

The motion was carried by acclamation.

Professor MARSHALL briefly acknowledged the vote of thanks.

SPECIAL MEETING.

The meeting was then made special, for the consideration of an alteration in the Articles of Association.

Dr. B. FOSTER called attention to the paragraph in the Report with regard to the number of members required to convene a special meeting, and proposed that in Articles 13 and 15 the word "fifty" be altered to "one hundred," so as to read as follows. "13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any 'one hundred' or more members, convene an extraordinary general meeting. 15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and, if they do not so within twenty-one days from the date of the requisition, any 'one hundred' members may themselves convene a meeting."

Dr. DRYSDALE (London) seconded the motion.

Mr. GEORGE BROWN (London) asked the President of Council to give some reasons for the proposed alteration.

Dr. B. FOSTER said that the reasons were pithily stated in the report which had been laid before the members. It was considered that, if 50 members were required to call a general meeting of the Association when the number of members was 2,000, at least 100 members ought to be forthcoming for that purpose, now that the number of members was 12,000, especially when they took into consideration the great trouble and expense involved in convening and holding a meeting of the Association.

Mr. CORNWALL (Fairford), in supporting the resolution, said that when a special meeting was held in Birmingham, convened on the requisition of 50 members, not one of those gentlemen attended.

Mr. WHEELHOUSE (Leeds), in supporting the resolution, said that, on the occasion referred to by Mr. Cornwall, he (Mr. Wheelhouse), as President of the Council, convened a meeting, and, in order to give all parts of the country a fair chance, he convened it in the most central spot in England. The entire Council of the Association and many other gentlemen attended from various parts of England, but not one of the 50 signatories to the requisition was present.

Mr. BROWN said that he thought that many of the 50 gentlemen would have attended if the meeting had been held in London.

The resolution was then put, and unanimously adopted.

THIRD GENERAL MEETING (RESUMED).

Report of the Parliamentary Bills Committee.—Mr. ERNEST HART, in bringing forward the Report of the Parliamentary Bills Committee, said that he did so on this occasion as a matter of form. The appointment of the Committee by the Association in general meeting had been declared by counsel to have no validity, and the Committee had accordingly been reappointed by the Council, to whom it was called upon to report, and with whom its appointment now laid. He observed, however, that there was a notice of motion on the paper by Dr. Jacob with reference to organising the political power of the Association, and giving instructions to the Parliamentary Bills Committee. This motion would now, he feared, be ruled out of order, but he hoped that an opportunity would be afforded to Dr. Jacob of expressing his views; and he thought, by a modification of the wording of the motion, and with the indulgence of the President, this might be obtained.

Report of the Medical Reform Committee.—Dr. WATERS (Chester) brought up the Report of the Medical Reform Committee, which had been submitted to and accepted by the Council.

Parliamentary Representation.—Dr. JACOB (Dublin) asked permission to bring forward a resolution, of which he had given notice, with

a slight verbal alteration, namely, "That it be a recommendation to the Council of the Association to consider the propriety, in face of the approaching general election, of arranging that immediate and active steps may be taken to organise the political power of the Association; to ascertain definitely the views of parliamentary candidates upon those questions in which the Association, and the medical profession, are specially interested; and, so far as may be possible, to influence the members of the Association to give their votes for those candidates whose views, so ascertained, are consistent with the policy of the Association and the good of the profession." Now, if ever, there was an opportunity for the Association to lay a foundation for future political influence. If the power possessed by so large a body spread throughout England, were judiciously applied, it might produce enormous influence in the House of Commons. That some such action was needful, was manifest from what they had seen in the progress of medical affairs during the past year. The President, in his address, had referred to the fact that sanitary affairs were passed over in the House of Commons with little or no consideration, that small sums of money, such as were spent without a moment's hesitation on other matters of State policy, were begrudged for the most vital and sanitary medical uses. The reason for that was that the profession was absolutely unrepresented in the House of Commons. The medical men who were there were doctors by accident and politicians by profession, and the general rank and file of members did not care a snap of the fingers for medical men or medical affairs. He ventured to suggest that the Association might with advantage move upon the lines that had been laid down by the Irish Medical Association. While the British Medical Association, possessing 12,000 members, found it hard to produce six men on the benches of the House of Commons night after night, the Irish Medical Association, with 600 members, would have no difficulty in producing sixteen. The Irish Medical Association possessed so much influence that, on a recent occasion, they were able to bring together, in one of the conference-rooms of the House of Commons, twenty-nine members, who were pledged to support and maintain the interests of the Irish bodies. [A voice: "Were they not thereto support certain corporations?"] He merely mentioned the matter as showing what influence could be brought to bear upon Parliament. They had now two months before them. The Irish Medical Association had made out lists of all the candidates for Irish constituencies, to whom letters would be sent at the proper time, and, where the answers were satisfactory, letters would be sent to the members of the Association, requesting them to consider the interests of the profession, and put aside all other considerations, if possible, for the purpose of supporting the candidates in question.

Dr. DRYSDALE (London) seconded the motion. He had no knowledge of the matter, but he was impressed by the statements made.

Mr. BROWN (London) supported the motion.

Mr. ERNEST HART said that the proposal was one of extreme gravity; and with an Association so complex and varied in its constitution, and so extended, a proposal of the kind needed much consideration. He did not propose to speak or vote upon it, but he hoped it would not be considered that the resolution was accepted by himself or others, who, in consideration of the small number present, and the few minutes available, could not debate the proposal.

Dr. WATERS (Chester) denied the accuracy of Dr. Jacob's statements. With regard to the Lancashire and Cheshire district, each of the members was canvassed, and, whatever his political views, he was pledged to support the action of the Association. Indeed, they had the whole front opposition bench willing to concur in any measure of medical reform that had the approbation of the British Medical Association.

Members had been called on to make up the requisite number to make a meeting to hear the speaker propose his motion, and several now left, and the attention of the President was called to the fact that a quorum (25 members) was not present. The President, after counting the members, found that only 18 were present, and the meeting was accordingly adjourned.

FOURTH GENERAL MEETING: FRIDAY, JULY 31ST.

The fourth general meeting was held at 10 A.M. on Friday; Dr. EDWARDS, President, in the Chair.

Report of the Collective Investigation Committee.—Dr. B. FOSTER moved that the Report of the Collective Investigation Committee, as printed in the *Daily Journal*, be received and adopted, and that the Council be requested to reappoint the Committee.

Dr. DRYSDALE seconded the motion, which was agreed to.

Dr. B. FOSTER alluded to the paragraph in the report with reference to Sir William Gull's visit to Copenhagen. It would be remembered, he said, that, at the Belfast meeting, it was resolved that

Sir William Gull should be requested to go to Copenhagen to represent the Collective Investigation Committee, and bring about the result which he effected so admirably and successfully. They had all had the pleasure of reading in the pages of the JOURNAL the address which Sir William Gull had delivered at Copenhagen, and they owed him a vote of thanks for the labours he had undertaken, and the manner in which he conducted the work assigned to him. He, therefore, had great pleasure in proposing "That the best thanks of the Association be given to Sir William Gull for the able and effective address which he delivered before the International Congress at Copenhagen last year."

Dr. CHRISTIE seconded the motion, which was agreed to.

Report of the Scientific Grants Committee.—Dr. B. FOSTER moved:

"That the report of the Scientific Grants Committee be received and adopted, and that the Council be requested to reappoint the Committee."

He did not know anything that had been done much more interesting to him to read than the report of the Committee, containing very full accounts of the investigations that had been made by the aid of the money of the Association. It would be seen from the report that the money—£300 a year—had not been thrown away, but was producing good results, encouraging men to carry on a somewhat arduous and unremunerative work, who would otherwise probably be compelled to forego their interesting and important researches.

Dr. CHADWICK (Tunbridge Wells), in seconding the resolution, said he could assure the members that the greatest care and discrimination were exercised in the distribution of the grant. No money was given which was not properly earned. They took care to be thoroughly satisfied as to the nature of the application before any money was granted. The sum at their disposal, however, was limited, and they had always so managed matters as not to exceed it.

The motion was agreed to.

Address in Public Medicine.—Mr. THOMAS JONES DYKE delivered the Address in Public Medicine. It was published at page 192 of last week's JOURNAL.

Dr. PAINE (Cardiff), in moving a vote of thanks to Mr. Dyke for his admirable address, said that he had peculiar pleasure in doing so, since he and Mr. Dyke had been pioneers in the health-department of the district. He had read with great advantage the reports which Mr. Dyke had submitted from time to time, and he had been struck with the concurrence of the results of their labours, bearing out as they did the results which he himself had been able to submit in his paper on Tuesday. It was an extraordinary circumstance that, at the time when Mr. Dyke commenced his career, the death-rate in Merthyr was 33 per 1,000, and in Cardiff it was 32, and in each case the death-rate had been reduced in nearly the same proportion. Mr. Dyke had reduced his rate from 33 to 23, and in Cardiff the rate had been reduced from 32 to 20. Their labours had been in the same path, and their results almost identical. There might have been local causes operating in some degree in one district that did not operate in another, but the results had been singularly alike. He attributed the results that had been obtained in Merthyr to the labours of Mr. Dyke. He was sure that all the members would feel gratified that, in the district visited that day, the results of the sanitary measures adopted, although costly, had been so satisfactory. It was something for a medical officer to be proud of that such results had been achieved. It was to him a great pride, approaching as he was towards the end of his career, to be able to speak with satisfaction, and he was sure that Mr. Dyke could do the same, of the authorities under which they had acted. There was nothing that he valued so much during his career as the confidence of his own Board. He was sure that, if officers did their best to obtain that confidence, the Boards would treat them fairly, as they had done in Merthyr and Cardiff. He had never submitted a single suggestion that had not been unhesitatingly adopted, regardless of cost.

Dr. BALLARD (London), in seconding the motion, said that Mr. Dyke had finished his admirable paper by a violent attack against the department which he (Dr. Ballard) had the honour to serve, but he assured him that he did not intend to take the attack in any but a Pickwickian sense. Nothing could more clearly demonstrate the enormous value of the sanitary work done in the districts of Cardiff and Merthyr than the two papers of Mr. Dyke and Dr. Paine. He well remembered the abominable condition of the two towns, the health of which was now so satisfactory. Formerly, Cardiff was full of pigsties and Irish cabins, but now it was a paradise.

Dr. DRYSDALE (London) also supported the resolution. He said he had been at the meetings of the principal international medical associations in Europe, but since he had been at Cardiff he had learnt more about the causes of cholera, irrigation of sewage, and the like,

than he had learnt at any of the congresses that he had ever attended. A man who could reduce the death-rate from 33 to 23, and the cases of phthisis from 38 to 18, should occupy a far higher position even than the emperor who found Rome of bricks and left it of marble.

The motion was agreed to.

CONCLUDING GENERAL MEETING: FRIDAY.

The concluding general meeting was held at 2 P.M.; Dr. EDWARDS, President, in the chair.

Report of the Habitual Drunkards' Committee.—Dr. NORMAN KERR (London) read the report of the Habitual Drunkard's Committee, and proposed the following resolution. "That this meeting requests the Council to take such steps as may most effectually influence the legislature to enact a permanent and improved measure for the care and cure of habitual drunkards, providing for a relaxation of the rule requiring appearance before two justices prior to admission into a retreat, for the empowering of some authority to commit habitual drunkards in certain cases to a retreat, and for the investing guardians with the power to detain habitually drunken paupers, who voluntarily enter the workhouse, for a period sufficient to effect improvement or cure." The present was the first occasion on which they had been able to produce any statement, by a government official, to the effect that there had been a real and practical carrying out, before the public, of the provisions of the Act. There had been several homes, some of them well conducted, in which patients had been received, but there had been no home carried on by persons deriving no pecuniary interest from the undertaking. The present, therefore, was an important public experiment, intended to give the Act a fair trial, so that whatever good there was in it might be well elucidated. Of those who had been discharged from the Dalrymple Home, 50 per cent had remained all right as abstainers, and 20 per cent. more had been greatly improved, and able to carry on their ordinary occupations. In reference to the question of inebriety, the great difficulty had hitherto been that temperance, religious, and moral reformers had forgotten what medical men well knew, that man was a physical being, and that there were certain antecedent physical conditions to his moral and spiritual relapse. The great mass of the community interested in temperance did not recognise the physical disease underlying the great question of inebriety, and it was important that public opinion should be enlightened upon that point, and with that view a new society had been formed. There were three defects in the Act, and the principle underlying each had been dealt with by resolutions of the society. The first important point was that the measure should be permanent. The present measure, imperfect as it was, would expire in a few years, and if they did not bestir themselves as soon as the general election was over, the result might be that all the retreats at present established would fall to the ground. It was also desirable that they should have more extended power. For every 150 applications to enter into the Dalrymple and other homes, not more than one might enter, though all the relatives and friends concurred in the applications. One reason was, that it was almost impossible to get a woman to appear before two justices to confess herself an habitual drunkard within the meaning of the Act. The power of admission into a retreat for reformation and cure ought to be as wide as possible, and no unnecessary difficulty should be put in the way. There were plenty of safeguards provided. An appeal could be made to a magistrate within a certain time for an order to prevent improper incarceration. Another point in the resolution had reference to habitually drunken paupers. Many of these persons entered the workhouse apparently for no other reason than to be repaired, like ships taken into port, in order to go out again and carry out their career of debauchery. It was very unfair that there should be no power on the part of the poor-law guardians to detain them for six, or seven, or eight months, at all events, till they were improved in their habits and the disease was alleviated.

Mr. BRINDLEY JAMES (London) seconded the resolution.

The PRESIDENT suggested that the first part of the resolution only should be adopted: "That this meeting requests the Council to take such steps as may most effectually influence the legislature to enact a permanent and improved measure for the care and cure of habitual drunkards." That, he thought, would meet with general concurrence, but the latter part of the resolution would give rise to great diversity of opinion. He himself thought that it was a great security to require the signature of two magistrates. It was well known that sinister influences were sometimes brought to bear by relatives.

Dr. NORMAN KERR adopted the suggestion of the President as to the omission of the latter part of the resolution, and the first paragraph of it was unanimously agreed to.

Votes of Thanks.—The following votes of thanks were unanimously agreed to.

Moved by Mr. SYMPSON (Lincoln), seconded by Mr. BROMHEAD (Bath), "That the warm thanks of the Association be given to His Worship the Mayor of Cardiff, and to the Mayoress, for their kindness in arranging to receive the members of the Association at a *soirée* this evening."

Moved by Dr. DONALD MACINTOSH (London), seconded by Dr. NORMAN KERR (London), "That the cordial thanks of the Association be given to the High Sheriff and Mrs. Hill for their hospitality in giving a garden-party on Wednesday last."

Moved by Brigade-Surgeon DUDLEY, seconded by Dr. DUFFEY (Dublin), "That Lord Windsor be requested to accept the best thanks of the Association for throwing open his gardens at Penarth, and for his invitation of the members to a garden-party this afternoon."

Moved by Mr. BALDING (Royston), seconded by Mr. DAVIES (Bristol), "That the warm thanks of the British Medical Association be given to Lord Bute for his invitation to an entertainment at Caerphilly Castle on Saturday, and for throwing open Cardiff Castle and grounds to the members during the meeting."

Moved by Dr. WITHERS MOORE (Brighton), seconded by Dr. EYTON-JONES (Denbigh), "That the President of the Association and the Members of the South Wales and Monmouthshire Branch be requested to accept the warmest thanks of this meeting for their hospitality in giving a splendid reception on Wednesday evening."

Moved by Dr. PHILLIPPO (Jamaica), seconded by Dr. HERRINGHAM (London), "That the British Medical Association hereby desire to express their grateful thanks to the Mayor and Corporation of Cardiff for the use of the Town Hall for the meetings, thereby contributing so much to the comfort and convenience of the members."

Moved by Mr. ARTHUR JACKSON (Sheffield), seconded by Dr. HARRISON (Clifton), "That the best thanks of the Association be given to Dr. Alfred Sheen for the arrangements for the reception of the members, and for his successful labours in organising the meeting."

Moved by Dr. DEMPSEY (Belfast), seconded by Dr. WILKS (London), "That the hearty thanks of the Association be given to the Local Reception Committee and the Honorary Secretaries, Dr. Taylor, Dr. Wallace, Mr. Horder, Dr. Vachell, Mr. Hardyman, and the Museum Committee, and to the Local Treasurer, Mr. Edgar Jones, for their successful efforts in the organisation of the entertainments, excursions, dinner, etc."

Vote of Thanks to the President.—The PRESIDENT then left the chair, which was taken by Dr. B. FOSTER, who proposed:

"That the warm thanks of the Association be given to the President, Dr. W. T. Edwards, for his very able and courteous conduct in the chair."

Everyone who had watched the proceedings of the annual meeting must have remarked how successfully everything had gone on under the President's management. There had been no hitch with regard to the work of the Association; everything having been conducted smoothly and satisfactorily. In fact, he thought that the work of the Association had been done more speedily and thoroughly than on any previous occasion within his memory. As to the personal aspect of the question, meetings of that kind were always rendered peculiarly pleasant, because they formed the starting-point of friendships that often lasted for their lives; and he was quite sure that they would all feel, on leaving Cardiff, that they had met with an additional friend in Dr. Edwards.

Dr. CHADWICK seconded the motion, which was carried by acclamation.

The PRESIDENT, in acknowledging the vote of thanks, said he was deeply grateful for the generous sentiments that had been expressed towards him. He did not feel that he deserved them, but he was conscious of having entertained during the last twelve months a sincere and ardent desire that the Cardiff meeting might be a thoroughly successful one. Though he could not say that his health had suffered, his comfort had certainly been to some extent disturbed in the prospect of the meeting; but he felt amply repaid by the delightful week through which they had passed.

The proceedings then terminated.

ANNUAL DINNER.

The Annual Dinner was held on Thursday evening, July 30th, in the Park Hall; Dr. EDWARDS, President, in the chair. The customary loyal toasts, "Her Majesty the Queen," and "the Prince and Princess of Wales, and the Rest of the Royal Family," having been proposed and duly honoured,

The PRESIDENT proposed "The Health of the Bishop of the Diocese, and the Clergy and Ministers of the Different Denominations."

It was a great pleasure to him that it had been convenient for the Lord Bishop of the Diocese to be present. His lordship was at present a comparative stranger in Cardiff, but he was already creating for himself a feeling of affection and regard which augured for him a career of great usefulness and spiritual good; and he was sure that all the members of the Association would wish him God-speed in his labours. The clergy under his immediate supervision, and the ministers of all other denominations, were also included in the toast. The members of the Association, in their professional capacity, came into very close relationship with ministers of religion; they acknowledged, in their relationship to their patients, no creed; but they recognised in any faithful minister a messenger from the bountiful Giver of all Good, and felt that they were helpers together in one Christ-like service. The more intimate the relation existing between the two professions, the better for their patients and for the churches with which they were identified, and the better for humanity. He would couple with the name of the Bishop those of the Rev. Mr. Williamson (Non-conformist) and the Rev. Mr. Richardson (Catholic).

The BISHOP of LLANDAFF, in acknowledging the toast, said he desired to thank the President for the kind words which he had uttered with regard to himself, which at any rate he would endeavour to deserve. As to the clergy, if he might regard the manner in which the toast had been received as a proof that in the estimation of the members the clergy, as a body, were endeavouring faithfully to discharge their sacred duties, he believed that they thoroughly deserved the compliment. Sometimes he was told by his friends that he worked too hard. All that he could say was, that he could not help it. The rank and file of the clergy over whom he presided compelled him to perform so many functions in different parts of the diocese, that he had not much rest; but the work was one which he rejoiced to undertake, and he hoped that it was not without good fruit. The President had referred to the close relations which should exist between the clerical and the medical professions. That was only in the natural order of things, because they were sister professions. They both dealt with the same subject—man; both had for their object the relief of his sufferings; and it was essential to the success of both that there should be some knowledge of habits and antecedents, with a view to a correct diagnosis, before a satisfactory cure could be effected. The two professions also crossed one another in a very happy way. While the soothing draughts of the medical man tended to make the mind of the patient calm for the reception of the ministrations of the clergy, those ministrations, by teaching resignation and submission, helped him forwards towards recovery. Lastly, they were both following the example of their great Master, whose life was spent, he might say, as a clergyman and a doctor, ministering to the souls and the bodies of men. If they were actuated by the same spirit, they would be taking the best step for the welfare of both classes of patients. He wished to say, in conclusion, that if the distinguished guests whom Cardiff had been receiving during the week were as well pleased with their entertainment as the inhabitants of Cardiff were pleased to receive them, he believed they would all go home happy. [*Cheers.*]

The Rev. Mr. WILLIAMSON also acknowledged the toast, and said he desired to endorse all that had been said by the lord bishop of the diocese. The two professions were certainly very closely allied, because the object of both was to increase the sum of human happiness, and to wage war with the causes of human misery. They were coming more and more to understand the close relation that existed between mind and body. A good deal was sometimes expected from ministers of religion which really ought to be expected from the medical profession. Many cases of religious melancholy, perhaps most cases, more properly belonged to the medical profession than to the clerical, being simply forms of nervous disorder; and the advice which he generally gave in such cases was, "Don't send for the parson, but send for your doctor." [*Hear, hear.*]

The Rev. Mr. RICHARDSON said he was quite sure that the most friendly feeling existed between the medical man and the Catholic priest, each recognising the importance of the services rendered by the other at the bedside of the patient.

Mr. WHEELHOUSE, in proposing the health of the "Army, Navy, and Auxiliary Services," said he had recently had actual experience of the fact that the Army was, as it always had been, ready to go anywhere and to do anything which the occasion required; and the medical department was in no way behind any other. Indeed, all the departments exhibited the old national feeling that what they were told to do, whether they could do it or not, they would do. [*Cheers.*] With regard to the Navy, he believed the country had nothing to fear from any other power in the world. Although the Navy might not be everything that could be desired at the present moment, the

men composing it were just the men they wanted, men who would go anywhere and do anything. As to the Volunteer Forces, it had been his privilege to attend a drill-competition amongst the militia and the volunteers, and in looking at the men he felt that they were men who would well defend the country at home, so that all the other soldiers might go abroad, and the prestige of the English Army be raised to the highest point at which it had ever stood, and England remain the Prince of the World. [Cheers.]

Colonel TUCKER, in returning thanks for the Army, said it was generally admitted that, during the last few years, a large portion of the Army had done its best to perform its duty, and he had no doubt it would continue to fulfil its important functions to the best of its ability.

Colonel HILL, in returning thanks for the Auxiliary Forces, said that those forces had, up to the present time, had all the advantages on their side. They had done nothing in the way of providing posts of emolument for the medical profession, or interesting cases in the way of wounds to be treated. [Laughter.] They had, however, made serious demands upon the time and attention of the medical profession, which had been met with the utmost propititude and devotion. The posts of medical officers to volunteer corps were no sinecures, but often involved great inconvenience, and even pecuniary loss. He wished, in his civil capacity (as High Sheriff of Glamorganshire), to express the strong desire felt in the county to offer the Association the warmest possible welcome. Such meetings were necessarily of great interest and utility to the profession, and clearly exhibited the enormous strides that had been made. When it was first announced that the Association would meet at Cardiff, he turned to the *Encyclopædia Britannica* to learn something of the origin of surgery. [Laughter.] He had expected to find its origin traced to some of the two-legged subjects of the Pharaohs, but he was surprised to find that the honour belonged to the hippopotamus. [Laughter.] It appeared that, when that animal felt a little depression, perhaps after a period of dissipation, such as the members of the Association had been going through, when it came from its morning bath it was in the habit of running a portion of its leg against a stump, in order to cause bleeding, and when it was sufficiently relieved, it went about its usual avocations. If the hippopotamus had been living at the present day, it would have been entirely "out of it," because he understood that bleeding was now a thing of the past. But, badinage apart, they all felt greatly indebted to the medical profession, from whom they received many benefits in the time of sickness. [Cheers.]

Dr. WALTER DICKSON, in returning thanks for the Navy, said that it had most important duties to perform in defending from foreign aggression the commerce and the colonies of the country, extending throughout the world, in acting as the police of the Mercantile Marine, and in undertaking important surveys and expeditions in the service of the country. He hoped, therefore, that a large and efficient Navy would always be maintained, equal at least to the navies of two or three other powers. [Cheers.]

Dr. CHADWICK proposed the health of "the Mayor and Corporation." The Association, he said, had received the most cordial welcome from the Corporation, who had placed the Town Hall at its disposal, in which all the business could be transacted, and the mayor had honoured the members by inviting them to a reception, which would take place on the following day. The Association resembled Cardiff itself in its rapid and extraordinary growth during the past fifty years, and there was that bond of sympathy between them which rendered the present toast peculiarly appropriate.

The MAYOR OF CARDIFF, in responding to the toast, congratulated the President on the distinguished position which he occupied in connection with the British Medical Association, and expressed the pleasure he had experienced in offering the members of the Association, in his official capacity, a most cordial welcome to the town of Cardiff, whose inhabitants esteemed it a very high honour to have the Association in their midst.

The DEAN OF LLANDAFF proposed "Prosperity to the British Medical Association." One man, he said, had offered him information on the subject, and another had offered him statistics; but he ventured to think that neither the one nor the other would be suitable at that late hour. His business was simply to express, on behalf of the inhabitants of Cardiff and the county, the welcome which they offered to the British Medical Association, and their thanks to them for having condescended to visit that centre of industry, and to cheer and honour it by their presence. [Cheers.] Though not a medical man himself, he was descended from a very long line of medical men, as well as clergymen—first for a hundred years in the town of Leominster, and then for more than a hundred years in the almost homonymous town of Leicester. But there was a third learned pro-

fession, with which he was also closely and lovingly connected; and he sometimes ventured, in another place, to tell that other profession that they too were professors of the "healing art;" that, while his own profession humbly endeavoured to minister to the mind, and the medical profession busied themselves with the body, they had to deal with the third element of human welfare—the State; and the safety and honour of that profession would only be found so long as they made it their business to relieve the poor and fatherless, and to see that such as were in necessity had right. The President and himself, during the short period in which he had been connected with the town of Cardiff, had seen it the recipient of many honours, and the earnest combatant in many struggles. He need not refer to that greatest of struggles in which they had both worked shoulder to shoulder, the bringing of the University College of South Wales into its present habitation in Cardiff. But he thought that no honour which had befallen the town during his connection with it could be placed above that which they had received in the visit of the British Medical Association. There was one great advantage of the medical profession over all the others which he had ventured to name; it was the popular profession, and he thought it owed that popularity in part to the fact that it was able to present an united front to all comers. [A voice: "I wish it were so."] He also wished that it was entirely so, and that the *odium theologicum* of which they sometimes heard, had no emulous rival in the *odium medicum*. He sometimes thought, however, that in that respect there was a close parallel between his profession and the medical. There was a tenacious orthodoxy in the medical profession, and the bitterest feelings that had ever existed between the Church and Nonconformity had certainly had their parallel in the feelings with which the medical profession regarded "quackery," which was heterodoxy in the medical point of view. There was no feeling ever engendered in the Church of England towards Nonconformists to be compared in bitterness with that which was sometimes expressed—not, he was sure by the present audience, but by some who bore the names of medical men—towards homeopaths, hydropathists, and most of all the bone-setters. [Laughter.] He wished only to add a word of respectful sympathy with the profession of which those present were honoured representatives. He knew no body of men more devoted to the pursuit of truth. There was no labour, no self-denial, which the medical profession would not go through to attain some further insight into one of the very simplest mysteries of the bounty of God. And devoted as they were to the pursuit of science, they were yet ready at the call of sorrow, of pain, and of sympathy, to tear themselves from the most beloved study, and devote themselves to any, the humblest, office of humanity. In that respect, the medical profession was setting a noble example, and that example was, he believed, nobly followed by the profession of which he was himself a member. [Cheers.] The two professions were sisters in the truest and highest sense of the word. He doubted whether God made all the distinctions they did between body and soul, but he was certain that body and soul acted and reacted upon one another in such a way that the physician of the one must be the brother of the physician of the other. [Cheers.] With all his heart, with all the feebleness of his voice, and all the weakness of his frame, he offered them a hearty welcome to Cardiff. It was perhaps too late to bid them welcome, but he hoped they would carry away with them a visible impression of that busy active pushing town, in the midst of which the lot of so many of them was cast for labour, and scarcely for rest. [Cheers.]

Dr. B. FOSTER, in responding to the toast, said that one of the features of the Cardiff meeting, of which the members would carry away a happy remembrance, was the fact that the toast of the British Medical Association had been proposed by so distinguished a member of the Church of England as the Dean of Llandaff—[cheers]—one who, by his culture, his learning, and the broad liberality of his thought, was a distinguished ornament of a distinguished church. It was, he thought, a fitting thing that one great profession should select one of its ornaments to compliment another profession, which, if doing less lofty, was performing no less noble and useful, work in the world. The British Medical Association, which had been just toasted, and of which he was the humble mouthpiece, was a body which even a town of the magnitude of Cardiff might welcome with a certain amount of respect and regard; for it comprised the backbone of the medical profession of the country, the great mass of the general practitioners practising in the three kingdoms, numbering 12,000 men, and forming the largest scientific association that the world had ever seen. They were not governed by any small body of consultants, or of men holding high position in connection with the colleges, but by the general practitioners throughout the country. When other bodies had failed to give expression to the thoughts, aspirations, and desires of the profession, the British Medical Association had been its fitting

and proper mouthpiece. Nearly thirty years ago, they looked forward to a great change in the position of the profession from the passing of the Medical Act, and they were then promised a governing body that should rightly guide the destinies of the profession, in the shape of the General Medical Council. For nearly thirty years, they had suffered under the General Medical Council. Instead of finding it a guardian of the best interests of the profession, they had found it a body that raised their fees, and gave them very little in return. The illustration had sometimes been applied to it of the poor man who fell among thieves, and was taken up by the good Samaritan. The priest and the Levite, it would be remembered, passed by on the other side, and the poor Samaritan took up the man, bound up his wounds, and dressed them so skilfully, that he was restored to health and usefulness. The medical profession had been very much in the position of that poor man. It had but few friends, and it had been left to the British Medical Association to take up its cause, and to plead it, as he hoped it would prove, successfully. At a recent Board School examination, the question was asked by an inspector, how it was that the priest and the Levite passed by on the other side, and that the poor man was unheeded by them. No member of the class could answer the question except a little ragged boy, who held up his hand, and said, "Oh, they knew he was robbed already." [Laughter.] The medical profession had been placed in that position too long. The colleges had received their money for diplomas; the Medical Council had received fees for registration; and yet, when the profession wanted any organisation to defend its interests, it had only the British Medical Association to plead its cause. It had hitherto pleaded that cause ineffectually, but he hoped that, under the new constitution, the voice of the Association would be distinctly uttered, and that the legislature would lend an attentive ear to the demands which might be made in behalf of the profession by such men as Professor Erichsen, when he addressed the House of Commons as the representative of the University of Edinburgh. [Cheers.] The Association, however, could only work successfully if it was united. Its cause was aided most effectually by the splendid publication of which they were so proud, the BRITISH MEDICAL JOURNAL, which had been brought to its present state by Mr. Ernest Hart. [Cheers.] The members of the Association worked for it voluntarily, and they did so because in the medical profession they received the best of all training for voluntary work, spending as they did some of their best years, and the best hours of every day, in the service of the poor. In that respect they were a popular profession, and well fitted to guide legislation into the right channels for the moral and social improvement of the masses of their fellow citizens. Before sitting down, he had another task to perform, that of proposing the health of the President. [Cheers.] Dr. Edwards had won their esteem and regard by the ability manifested in his address, and by the able, courteous, and firm manner in which he had presided over the meetings. Before they knew him as President he, the son of a well remembered and respected practitioner of the district, had won for himself not only the regard of his medical brethren, but a wide popularity beyond their ranks; so that, when the visit to Cardiff was decided upon, he was selected as the most suitable representative to preside over the meeting, and the choice was a splendid one. On few occasions, indeed, had they had an abler president. ["Hear, hear."] It was one and not the least of the useful functions of the Association that, while other institutions connected with the profession neglected distinguished men in the provinces, it did its best to bring men like Dr. Edwards to the front rank, and place them in positions such as that which he so deservedly occupied. [Cheers.] With all heartiness he proposed "The health of Dr. Edwards, President of the British Medical Association." [Loud Cheers.]

THE PRESIDENT, in responding, said that whatever might have been the fondest dreams of his youth, nothing could have given him, at the end of his professional career—"No, no"—more gratification than to have been chosen by his professional brethren to occupy the position which he then filled. He thanked Dr. Foster for the generous sentiments he had expressed, and he assured the members that it would be his constant endeavour, during his term of office, to discharge the onerous duties entrusted to him in a manner that would meet with their approval, and contribute to the dignity and efficiency of the deliberations of the Association. For many years it had been his desire to see Cardiff brought to the front in connection with the Association, but the knowledge that he had been generously thought of as president had debarred him from taking any active steps in the matter. It was known to his more intimate friends, that for many years overtures had been made to him to become president of the Association; but the difficulty he had in coming to any conclusion as to his capacity for properly filling the office, and especially composing

an address that should be worthy of the occasion, had prevented him from accepting the proffered distinction. But he had to some extent overcome those difficulties; and the kindly expressions of fraternity that he had received on all hands had filled him with a sense of gratitude which no language of his could ever fully express. He was confident that the visit of the Association to the town would produce, among the members of the profession, and among the laity in South Wales and Monmouthshire, so favourable an impression as to the character of the members of the profession, that their status in the eyes of the public at large would be greatly improved. [Cheers.] And he believed that the presence of so many distinguished scientific men in their midst could not fail to leave a mark in the history of Cardiff, which none of them would forget. The position which he occupied was one of great difficulty; but the business discussed at meetings had been of so friendly and sympathetic a character, that it had been a great pleasure to him to preside over them, and he hoped that his ruling had met with the general concurrence of the members. He desired heartily to thank his brethren who had nominated him to the office which he held. It had been his highest pleasure to form and cement friendships among his neighbours, and there was no more precious gift of Providence to him than to occupy the position which, he humbly hoped, he held in their affection and esteem. [Cheers.] He also thanked the laymen, especially the mayor and the high sheriff, for their kind co-operation in promoting the success of the meeting. They had vied with the members of the profession in securing an amount of hospitality that should be in accord with the general characteristic of the principality. Before sitting down, he wished to propose the toast of "the University College of South Wales and Monmouthshire." He hardly knew how to dissociate that body from the University College of North Wales. They were engaged in a great educational movement, which had found a response in the heart of Welshmen, and he believed also of Englishmen. He would couple the toast with the name of Principal Jones, who in his career at Oxford had received such distinctions as to make his name an honoured one throughout the principality. [Cheers.]

PROFESSOR JONES, in response to the toast, said he believed it would be a great benefit to provincial students for them to remain in the provinces while passing through the first years of their student life. It was quite unnecessary that, in studying the preliminary subjects of anatomy and physiology, the student should be in attendance at a metropolitan hospital. He heartily thanked the members of the Association for the graceful hospitality that had been extended to him.

DR. WILKS proposed the toast of "The Guests," who, he said, were of two classes: those belonging to the medical profession, and those engaged in other occupations. The medical guests had come from every part of the world, while the others were distinguished residents in the neighbourhood of Cardiff. Among the medical guests whose names had been given to him was Professor Ziemssen, and it was a great honour to the Association to have a man of his distinction among them. They had also the honour of the presence of Professor Bulkley, Dr. Stein, and Dr. M. Henry, of New York, Professor Lucae, of Berlin, Mr. Post, of Beyrout, and Dr. Philippo, of Jamaica. The presence of so large a number of distinguished men from different parts of the world, and of other visitors from the locality, was a proof that medical men were united, and the world might say regarding them, "See how these doctors love one another."

PROFESSOR LUCAE responded to the toast, and expressed his gratitude for the hospitality he had received in Cardiff and the neighbourhood.

DR. BULKLEY also responded to the toast. There was, he said, a similar Association to the British Medical in America, and its annual meeting had been held in New Orleans, and many of the members had had to travel 1,500 miles to attend it. They were working in the same field, trying to advance in the same way, and they were greatly interested in the work that was being done in England. American medical men had great pleasure in visiting the English hospitals, and learning what they could from the experience there acquired.

MR. ERNEST HART, in proposing the "Readers of Addresses and Presidents of Sections," said that the list on which the names of the Readers of Addresses and Presidents of Sections were inscribed was a roll of honour. Those whose memories stretched back to former meetings could not fail to have a vivid recollection of the silver-tongued and persuasive eloquence of Paget, the firm incisive periods of Jenner, the copious wisdom of Christison—the Nestor of the North—the condensed brevity of Syme, the rushing and massive diction of Simpson, the epoch-making address of Bowman, the victorious experience of Spencer Wells, the brilliant epigram and audacious paradox of Gull, and the thoughtful conservatism of Savory. Their

memories included addresses of many hardly less eloquent and illustrious. To that list were now to be added the names of Roberts, Marshall, Dyke, Wilks, and others, whose addresses they had heard or had yet to hear. They stood in the first rank among men of equal eminence, and they added lustre to, if they also derived some reputation from, the posts which were conferred upon them. The members, he was sure, desired to convey to them their hearty thanks for the eloquence and the ability of their addresses, for the honour they had done to the Association in accepting the offices offered to them, and the signal ability with which they had filled those posts. He coupled with the toast the names of Mr. John Marshall and Dr. Yellowlees. [*Cheers.*]

MR. MARSHALL, in acknowledging the toast, thanked the members for the honour conferred upon him by his appointment as one of the readers at the Cardiff meeting. When invited to fill that office, he felt that it was his duty, at whatever sacrifice of time or labour, to accept the invitation.

DR. ROBERTS (in the absence of Dr. Yellowlees) also briefly responded to the toast.

PROFESSOR BENNETT proposed the health of "the Reception Committee, the Honorary Secretary, and the Treasurer," whom he thanked in the name of the members for their many and anxious efforts to make the Cardiff meeting a success.

DR. SHEEN, in replying, said there was no doubt that he and his colleagues had had a good deal of work to do, but they had had the able assistance of the men who had undertaken the various departments, and were greatly indebted to them for the success of the meeting.

In the course of the evening, between the speeches, a selection of music was given by Mrs. Gertrude Lewis Phillips and the members of Llandaff Glee Union.

ENTERTAINMENTS.

SOIRÉE AT THE PARK HALL.—On the evening of Wednesday, the President and the members of the South Wales and Monmouthshire Branch gave a *soirée* in the Park Hall, which was very numerous attended. The list of invitations included, in addition to the members of the British Medical Association, almost all the leading residents of South Wales. By universal admission, the *conversations* far surpassed in external magnificence anything that had before been attempted in Cardiff. For one thing, prior to the existence of the Park Hall, there were not the facilities for accommodating such a throng as that which gathered on the occasion. Certainly there were in no degree worthy of mention the same conspicuous advantages for entertainment. The most striking novelty was the adornment bestowed in the vicinity of the "Feeder," a canal by which water is supplied to the docks. A promenade 200 yards in length was illuminated by hundreds of Japanese lanterns, which were also at intervals suspended across the Feeder. Large groups of visitors enjoyed the scene throughout the evening. Within the building, nothing had been omitted which could enhance the pleasure of the guests. Flowers of the choicest description abounded, and the entrance exhibited quite a conservatory of plants. There were further objects of interest in a valuable collection of oil and water-colour paintings, kindly lent by Mr. J. P. Thompson and Captain Short. There were also a great variety of drawings and of scientific instruments, including a phonograph, which reproduced with extraordinary accuracy the sounds of the human voice; also a collection of ancient Japanese chased and damascened metal sword-guards, lent by Mr. Ernest Hart. A musical programme had been arranged of an unusual extent, the artistes including Mr. Hugh Brooksbend, Madame Williams-Penn, Eos Morlais, Dr. and Mrs. Frost, Miss Lucy Clarke, and the Blue Ribbon Choir. For dancing, which commenced at 11, the band of the Penarth Brigade of the Glamorganshire Artillery Volunteers performed. An abundant supply of refreshments was supplied, the caterer being Mr. Whiteley, of Bayswater. Altogether, Dr. Taylor and his able staff of assistants are to be highly congratulated on the results of their labours.

RECEPTION BY THE MAYOR OF CARDIFF.—On Friday evening, the Mayor and Mayoress of Cardiff (Mr. and Mrs. Andrew Fulton) held a reception in the Park Hall, in honour of the visit of the members of the British Medical Association to Cardiff. To a certain degree the decorations were similar to those at the previous *soirée*, but, if anything, were even more elaborate than on that occasion. The large number of guests, certainly not less than 1,300, began to arrive shortly after eight o'clock, and were received by the Mayor and Mayoress in the reception-room. During this time a concert was in progress in the large hall, while, for those who desired a change, visits could be paid to several rooms, where a highly interesting collection of paintings, china, scientific instruments, and other objects were ex-

hibited, and a series of electrical experiments conducted. Mr. Storrie, the curator of the Cardiff Museum, superintended a collection of microscopes, with some fine and rare specimens, the instruments being arranged on a revolving table. The banks of the "Feeder" were again brilliantly illuminated for a promenade, and a choice selection of music was here played by the Hungarian band, who also went through a well selected programme of dance-music later on. Refreshments were served throughout the evening in the reception-room, the lesser hall and promenade. An excellent programme of music was gone through by the following artistes. Mdm. Hattie Davies-Edwards, Miss A. Jones, R.A.M.; Miss M. Jones, Mr. C. Jones, Mr. J. E. Deacon, and the Cardiff Orchestral, Choral, and Orpheus Societies. Miss Bernstein accompanied at the piano, Mr. S. G. Fifoot presided at the organ, and Mr. D. C. Davies was the conductor. Dancing commenced at 11 p.m., and was kept up for the next three hours.

GARDEN PARTY AT ROOKWOOD.—In response to the invitation of Lieutenant-Colonel Hill, High Sheriff of Glamorganshire, and Mrs. Hill, a distinguished party of ladies and gentlemen assembled at Rookwood to meet the members of the British Medical Association on Wednesday. The weather was admirable. The grounds at Rookwood are not only extensive, but are laid out with taste and splendour, regardless of cost. Rookwood House commands one of the finest views in Llandaff, and the lawn and tennis-ground have a magnificent south aspect. The grounds wind to the west, and in the pasture-field at the back, a fine northern landscape is brought to view. Nothing could have been brighter or more cheerful than the array of visitors assembled to do honour to the members of the Association, who flocked thither by hundreds. Inside the grounds were the Bishop of Llandaff, the Mayor of Cardiff and Mayoress, the President of the Association and Mrs. Edwards, Bishop Perry, Bishop Hedley, and many other of the principal inhabitants of the county. The visitors, including the members of the Association, numbered several hundreds, many ladies being present. To provide for their amusement, the lawn was marked out for tennis. In the grounds at the back were targets, bows, arrows, etc., for archery; bowls, swings, and everything that could amuse the visitors were provided; while by the side of the building the excellent band of the Penarth Artillery Volunteers played at intervals a very choice selection of instrumental music, including some of the finest band-compositions of the day, with solos for the principal performers. To give a Welsh tone to the entertainment, a band of native glee-singers, conducted by Mr. C. Davies, sang a number of Welsh pieces of vocal music; and Madame Hattie Davies-Edwards, who appeared in Welsh costume, sang in Welsh "The Bells of Aberdovey," "Over the Stone," and other Welsh songs, and was frequently encoored; while Master Bevan gave at intervals specimens of peillion singing with the harp. Telynwr y Brynniau, a celebrated Welsh harpist, played some Welsh airs and harp-compositions arranged by J. Thomas. In the schoolroom, upstairs, a collection of M. Pasteur's microbes and various disease-germs were shown, by the aid of the oxyhydrogen-lantern, by Mrs. Priestley; and in the summer-house, Surgeon-Major Fleming, who has returned from the Soudan, exhibited a number of trophies taken during the late Egyptian campaign. Two large marquees had been erected on the lawn and in the pasture-field, where refreshments of a light kind were distributed with an unsparing hand, while Colonel and Mrs. Hill were moving among the guests, giving a hearty welcome to all.

GARDEN PARTY AT PENARTH.—On the afternoon of Friday, July 31st, the members of the Association, with a large party of local ladies and gentlemen, enjoyed the hospitality of Lord and Lady Windsor, at the Windsor Gardens, Penarth. The spot is a most delightful one, and the grounds have been laid out with consummate taste by Mr. Ralph Crossling, formerly head gardener to St. Fagan's Castle. From the situation of the gardens upon the cliffs, glimpses of the Bristol Channel are had, and the walks, encompassed by flower-beds and shrubberies, form a promenade which it would be difficult to surpass in this neighbourhood. In an appropriate position a splendid marquee had been pitched, and here, under the supervision of Mr. Brighton, the representative of Mr. Whiteley, elegant refectory was provided to the 800 and more guests who were present. The splendid band of the Penarth Artillery played a choice selection of music in a manner which quite charmed the ears of the listeners. Lord and Lady Windsor would have been present to welcome the visitors, but for previous arrangements which called them to Vienna. In their absence the duties of host fell upon Mr. Forrest, who fulfilled an onerous task with tact and urbanity. All the arrangements were complete, and no stone was left unturned to make things smooth and secure the happiness of those present. During the afternoon Mr. Howe, photographer, took a number of groups.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 8th, 1885.

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THE ANNUAL MEETING AT CARDIFF.

Writing last week, while yet the meeting was in course of progress, we said that it had fulfilled very completely the agreeable anticipations which had been raised as to its success. We can now repeat that assertion without reserve. The large attendance of members, the able and courteous management of affairs by the President, the genial cordiality of Dr. Edwards and his professional brethren in Cardiff, the hearty welcome given to the Association by the civic authorities, and by all the leading inhabitants of Cardiff and its neighbourhood; the scientific value of the addresses, and of the papers and discussions in the sections; and the splendid weather which prevailed throughout the week, all contributed to render the meeting one than which, it may be safely said, none has ever been more pleasant and successful.

Of certain matters of business, to which reference was made in the Report of Council, we spoke last week, and it is not necessary to further allude to them at present. The reports of the various Committees were presented, but gave rise to little discussion. It has been decided, under legal advice, that the Association has no power to appoint Committees independently of the Council; and, consequently, the Medical Reform Committee, the Parliamentary Bills Committee, the Scientific Grants and Collective Investigation Committees, and others, are henceforth to be nominated by the Council. The reports of the several Committees have appeared in the JOURNAL, and the names of the members of the Committees, as appointed by the Council, will be duly announced.

On Thursday, the third day of meeting, after the reading of the Address in Surgery, the meeting was made special for the consideration of a proposed alteration in the Articles of Association. Hitherto, the number of members required to call a special general meeting has been 50. This number was fixed when the Association was much smaller in numerical strength than at present: but it is now felt that, with the great increase of the Association, the number entitled to call a meeting should be raised to 100. The proposal was adopted, and will be submitted for confirmation to a special meeting of the Association to be held in Exeter Hall, on Friday the 14th instant, at 4 P.M.

The scientific features of the meeting were of a high order. Large and attentive assemblages of members listened to the instructive addresses of Dr. William Roberts in Therapeutics, of Mr. Marshall in Surgery, and of Mr. Dyke in Forensic Medicine. In the Sections,

also, valuable addresses were delivered by the several presidents, and several important papers were read and discussions held. Among them may be mentioned the discussions in the Section of Medicine, on the Treatment of Acute Rheumatism and on the Clinical Aspects of Glycosuria, introduced respectively by Dr. Bristowe and Dr. Pavy; in the Section of Surgery, on Tumours of the Bladder, introduced by Mr. Reginald Harrison, and on Operative Interference in Intestinal Obstruction, by Mr. Troves; in the Section of Public Medicine, where highly valuable papers on Cholera were read by Dr. Paine, the able Medical Officer of Health for Cardiff, and Surgeon-Major Pringle, formerly of the Indian Medical Service; as well as several discussions on important practical subjects in the other Sections. The general addresses, and the addresses of the Presidents of Sections, are published in the last and the present numbers of the JOURNAL; and the papers read, with the discussions thereon, will have early insertion.

The scientific and practical work of the meeting was amply sufficient to justify the assembling of a large number of medical men from all parts of the kingdom; but the success of the meeting was rendered still greater by the cordial welcome afforded to the visitors. Not only did the President and the local members do their best to consult the comfort and convenience of their guests, but the generous hospitality afforded from without the profession could not be surpassed. The Town-hall was placed at the disposal of the Association during the week. The two evening receptions, given by the President and Local Committee, and by the Mayor of Cardiff, were largely attended, not only by the members of the Association, but by large concourses of lay visitors. The Marquis of Bute, to whom Cardiff is greatly indebted for its present prosperity, showed his interest in the proceedings by ordering that Cardiff Castle should be open to the members at any time—a permission of which large numbers availed themselves, and by inviting a large party of members and their friends to a sumptuous luncheon on Saturday, in the picturesque ruins of Caerphilly Castle. Lord Windsor gave a garden party in his beautiful gardens at Penarth; and the High Sheriff of Glamorganshire, Lieut-Colonel Hill, not only received several members as his guests at his house, but also gave a garden party on Wednesday afternoon, which was largely attended. Opportunities were given for pleasant morning drives to several interesting places; and on Saturday the members enjoyed excursions to Tintern Abbey, Caerphilly Castle, and other places.

The President and the Local Committee of Arrangement are to be heartily congratulated on the success which attended their endeavours to make the meeting thoroughly successful. The Local Committee consisted of the President; Mr. G. A. Brown, of Tredegar; Mr. P. R. Cresswell, of Dowlais; Dr. Andrew Davies, Dr. M. G. Evans, Mr. W. M. H. Evans, Mr. Hardyman, Mr. Horder, Mr. D. E. Jones, Mr. Plain, Dr. W. Taylor, Dr. C. T. Vachell, and Dr. T. Wallace, of Cardiff; Mr. G. A. Davies and Dr. A. G. Thomas, of Newport; Mr. D. A. Davies, Mr. J. F. Fry, and Mr. J. G. Hall, of Swansea; Mr. Evan Jones, of Aberdare; Mr. J. D. James, of Blackwood; Mr. R. F. Nell, of Penarth; Dr. Redwood, of Rhymney; and Mr. T. J. Webster, and Mr. J. L. W. Ward, of Merthyr-Tydfil. To all these, thanks are justly due; but especially to the President, whose judicious and courteous conduct of business, and genial hospitality, were universally recognised; to Dr. Sheen, the assiduous Secretary to the Local Committee; to Dr. Taylor, who had the care of the *soirée*; to Dr. T.

Wallace, the Secretary for Hotels and Lodgings; to Mr. Horder, the Dinner Secretary; and to Dr. C. T. Vachell, the Excursions Secretary; and to Mr. Hardyman and the other Museum Secretaries. All these may be assured that their labours are highly appreciated, and will be held in grateful remembrance by all who attended the meeting.

An interesting feature was imparted to the meeting by the presence of several foreign guests—Professor Lucae, of Berlin; Professor Zehender, of Rostock; Professor Lesshaft, of St. Petersburg; Dr. Bulkley, of New York; the Reverend Dr. Post, of Beyrout, and others; as well as leading members of two distant Branches—Surgeon-General Cornish, of the South Indian and Madras Branch; and Dr. Phillippo, of the Jamaica Branch. Both these gentlemen attended the meetings of Council, as representatives of their Branches.

THE ADDRESS IN SURGERY.

No fact in the history of the art and science of medicine is more obvious, or more universally recognised, than the vast progress which has been made during the last few years in the department of surgery. So obvious is it, that it might seem to be almost a superfluous task to call special attention to it; yet Mr. Marshall's Address in Surgery, which is published in this day's JOURNAL, deserves, and will doubtless receive, careful perusal and attentive study. He has chosen as his text a comparison of the surgery at University College Hospital in 1844-45, when he was a dresser under the celebrated surgeon Robert Liston, with that of 1883, when he himself was one of the surgeons to the hospital. A careful examination of the case-books kept at these periods has enabled Mr. Marshall to make a very effective contrast of the surgery of the older and of the later periods.

Passing by the summary of the number of cases, and of the general characters of the injuries and diseases, the comparison of the means of investigating surgical diseases with those in use at the present time is interesting. In 1844-45, the laryngoscope, the endoscope, the ophthalmoscope, the clinical thermometer, were unknown; the microscope had just come into use for pathological and clinical purposes; and the qualitative determination of the urinary constituents was a difficult and tedious task, rarely attempted. On the other hand, under Liston, careful observations were made on the signs and symptoms of disease; and that great surgeon was greatly interested in microscopic investigations, though perhaps he did not know, or only imperfectly foresaw, the vast aid which they would render to pathology and surgery.

An instructive contrast is drawn by Mr. Marshall between the clinical records of 1844 and those of the present day. It would be unjust to describe the notes made by the clinical clerks and dressers in 1844 as meagre; in many points, they were ample. Yet, as Mr. Marshall points out, the introduction of improved and elaborate methods of observation has led to increased elaborateness of description, accompanied by the accessories of sketches, temperature-charts, hygienic tables, etc., which were unknown in the older time.

A brief comparison of the hygienic conditions of University College Hospital in 1844-45, and of the diet and comforts afforded to the patients in the two periods, is followed by an interesting contrast of the medical and surgical appliances. On this subject, Mr. Marshall first turns to the question of cost, and shows that, while the number of in-patients in 1883 was double that in 1844, the cost of their treatment had increased five-fold. The increase was principally in the

surgical department, where it was in the proportion of eight to one being £206 in the former period, and £1,765 in the latter. Of this, no less than £1,273 is set down to payments for antiseptics. The increased use of anæsthetics—which were unknown in 1844—is another source of increased expense. Hypodermic injections, new medicinal preparations, and numerous improved and new surgical instruments and appliances, must be added to the means of which the surgeon of forty years since had no knowledge.

With all the comparative disadvantages under which the hospital surgeon laboured in 1844, were his results inferior to those of his successor in 1883? This is the next matter which Mr. Marshall discusses, and the answer drawn from the data which he has investigated, is "Yes; in certain particulars, but not in all." In arriving at this conclusion, he attaches comparatively little importance to the statistics of the average stay of patients in hospital, or to the rate of mortality, statistics in both cases being attended with fallacies; and he prefers, as more just and instructive, a comparison of the treatment and its consequences in certain classes of injuries and disease. For his statistics of these, founded on an elaborate examination of the cases recorded in the two periods, we must refer our readers to the address itself. The frequency in the older period of grave inflammatory complications, and of suppuration, the comparative rarity of "union by the first intention," the frequent occurrence of erysipelas and of other diseases due to preventable causes, contrast strongly with the results now familiar to surgeons. The prevalence of such diseases in the era of Liston is succinctly explained by Mr. Marshall. "Complete purity of the surroundings, absolute surgical cleanliness, and the exclusion of all noxious substances were not strictly aimed at or attained. Sanitary vigilance was dormant, or did not exist; and the dressings, the famous water-dressings" (of which Liston was the great advocate), "alas! were doubtless the constant innocent, but not innocuous, vehicles of infection." Now, "asepticised air, hands, instruments, and sponges, with all the varieties of aseptic ligatures, sutures, and dressings, form a remarkable contrast to Liston's means of treatment;" and we know the results. At the same time, Mr. Marshall does not believe that these agents are everywhere, and at all times, indispensable. Under favourable conditions, Nature is sufficient to effect union by the first intention. But, in formidable operations anywhere, and in most operations in hospital, the antiseptic system is a safe, and therefore an incumbent provision to adopt. In this view, adequate hospital expenditure for antiseptics is fully justified. Their employment shortens the period of cure, limits the amount of suppuration, diminishes the drain upon the bodily strength, lessens the risk of complications, and the chances of future organic complications, and thus contributes to a more rapid, complete, and lasting recovery. How greatly would Robert Liston have rejoiced, if the results now familiar to surgeons had been attainable in his time!

Mr. Marshall's Address in Surgery merits careful perusal by all enlightened surgeons, as a valuable contribution to the history of surgery by one who has been an eye-witness of the practice and results of the two contrasted periods; first as a pupil of one of the most eminent surgeons of the day, and, forty years later, as a worthy successor of his great master in the hospital. And, beyond its scientific importance, the address has a social interest. The few graceful words with which Dr. Edwards introduced Mr. Marshall to the meeting expressed his deep gratification at meeting, under such circumstances, with an old fellow-pupil and valued friend; and what the President

said was, no doubt, felt by others among the audience. The occasion was one, among many, which well demonstrated the benefits of the British Medical Association, not only in the advancement of medical science, but in the promotion of social amenities among its members.

THE TENURE OF OFFICE BY MEDICAL OFFICERS OF HEALTH.

So far as the utterances of public men are any criterion of the directions of prospective legislation, the reform of local government appears marked out by general consent as a matter to be grappled with in the immediate future. This is not quite so simple an affair as our lighthearted orators would have their audiences believe. Legislators may talk in fine swelling words about the relief of Parliament and the formation of district councils; but when they come at close quarters with the fortress against which they are now discharging preliminary shots by way of finding the range, they will discover it to be no means an easy one to storm. This is, however, rather anticipating matters. Whether difficult or not, local government must be reformed; and, if for no other reason, then, so far as the medical profession is concerned, because the skilled officers on whom falls the most important part of municipal duty, namely, the conservation of the public health, are disgracefully and shabbily treated under the present system.

There have been many mutterings of late with regard to the appointment and tenure of office of medical officers of health, and as will have been gathered from the meeting of the Joint Committee of the Association of Medical Officers of Health which we chronicled last week (see page 225), steps are being taken to bring the question under the personal notice of the President of the Local Government Board.

We have seen combination after combination, formed with infinite patience, crumble to pieces at the will of a cross-grained or ignorant constituent body, the greatest personal sufferer being, of course, the medical officer of health, who had forsaken other avenues of professional advancement in the hope that he might find fame and honour in the paths of public medicine. We have seen officers dismissed for speaking their minds with truth and freedom as to the sanitary evils they found around them, or their official lives made so intolerable that, like Mr. Shirley Murphy, there was no course open to them but resignation. We have seen practically every officer, however tried and skilful, subjected to the trying ordeal of re-election at frequent, sometimes annual, periods, with the haunting fear, ever present upon him, that some member of the local authority, with whom the fearless performance of his duty had brought him in conflict, would compass his rejection or supersession. To these re-elections has now been added a new terror, which we do not remember to have noticed in such malignancy before. It has come to be the fashion for local authorities to re-elect their officers only on the condition of their accepting a diminution of pay. The Local Government Board have been making some futile protests against this growing habit; but, so far as we can see, it appears to be, nevertheless, extending. In the discussions which will be sure to take place early in the new Parliament with reference to local government, it will be necessary, therefore, to keep the appointment and pay of sanitary officials well before the public mind. One of the best and most energetic of health-officers remarked truly enough, in a recent address,

that, "in the present state of opinion, and the perpetual conflict between private interest and public duty, the post of an earnest, conscientious officer of health is one of devotion, danger, and self-sacrifice, scarcely justifiable considering the inadequate return he receives for it."

We have no intention, at the present moment, of analysing in any detail the causes of the dissatisfaction with their position which health-officers all over the country are increasingly beginning to feel. But we think it opportune thus early to direct the attention of the profession, and, through them, of the public, to one phase of the question of local government that calls very pressingly for attention and reform. Health-officers must be appointed on some more reasonable system; they must be safeguarded from capricious clippings of their already inadequate emoluments and they must have greater security of tenure.

An excellent example of the evils of the present system has just arisen; and has provoked, indeed, these remarks. Dr. M'Grigor MacLagan has for twelve years served with conspicuous zeal and success the rural sanitary authority of the Hexham Union. His annual reports have been full, complete, and interesting, as we can personally testify; and his detailed work in the district has been no less thorough. Dr. MacLagan has devoted himself to his sanitary work, spending himself, out of his own private means, many hundreds of pounds to supplement the annual sum of £300 assigned to him by the authority as recompense for his personal services and for all travelling and other expenses. With full knowledge of these facts, how are Dr. MacLagan's brilliant services recognised and appreciated by the authority? By a resolution to reappoint him for three years at a salary diminished by £50 *per annum*. We cannot waste space by chronicling the narrow-minded and short-sighted remarks of the members supporting this proposal. They agree in the value of their officer's services; appear to be in a way more or less proud of him; recognise the necessity of having an independent man without private practice; and then munificently offer, as the guerdon of such an officer, the absurdly inadequate sum of £250 a year. Dr. MacLagan has appealed to the Local Government Board, and perhaps that body may write a regretful letter to the local authority, and try to prevail upon them to be less niggardly. The position of the health-officer is certainly not free from difficulty. To decline the appointment means the snapping of the chain of good work performed *con amore* during a long series of years; to accept involves a tame surrender of principles which every health-officer must feel now require to be enunciated with no uncertain voice.

We trust that the Local Government Board, who alone are able to give effective help in the matter, may rouse themselves to speak their mind freely and unmistakably to the Hexham authority. It must be remembered, however, that at present all that the Central Board can do is to advise, protest, and cajole. If the local authority be recalcitrant, the only remedy of the Board is to withdraw its payment of a moiety of the officer's salary; and this, as a rule, results in the district being given over to health-officering on the principles of a Dutch auction. If we are to accept the existing authorities as the unit of sanitary government, we must have some superior authority, whether it be a County Board or the Local Government Board, to protect officials from the caprices of their masters, and to maintain some control over the action of members of local authorities; and, whatever happens, we must have the medical supervision of the public

health placed upon a sound and permanent footing, and must sweep away the abounding anomalies and absurdities of the present system.

PRECAUTIONS AGAINST CHOLERA.

At a time when cholera is seriously prevalent in Spain, it is reassuring to know that the central authorities charged with the supervision of the public health in our own country, are doing all that lies in their power to prevent the disease being introduced, and to be ready to deal effectually with any cases that may by chance reach our shores. The staff of the Medical Department of the Local Government Board have for some time past been doing, unostentatiously, a vast amount of excellent work in this direction, by local visitations, and by conferences with the local health authorities as to the sanitary shortcomings of their districts. Not only has sanitary administration at our seaports been rigidly criticised, but the most suspicious rural and urban inland districts have been surveyed; and we are glad to believe that, in most instances, the useful and practical hints of the Central Board have been appreciated and acted upon. It would, of course, be remarkable if there were not forthcoming instances of unreasonable obstinacy, and of inclination to postpone the carrying out of essential sanitary improvements until the occurrence of some serious epidemic.

In continuation of their work of preparation, the Local Government Board have just re-issued, to every urban, rural, and port sanitary authority in the kingdom, the memorandum of "Precautions against Cholera," prepared by Dr. Buchanan two years ago; and they have urged the authorities to take such measures of precaution as the sanitary condition of their respective districts may demand. This well thought-out memorandum points out that former experience of cholera in England justifies a belief that the presence of imported cases of the disease at various spots in the country will not be capable of causing much injury to the population, if the places receiving the infection have had the advantage of proper sanitary administration.

Cholera, it is observed, has a certain peculiar infectiveness of its own, which, where local conditions assist, can operate with terrible force, and at considerable distances from the sick. Probably, under ordinary circumstances, a cholera-patient has no power of infecting other persons except by means of the discharges from his stomach and bowels, nor any power of infecting even by them except in so far as particles of them are enabled to taint the food, water, or air, which people consume. Thus, when a case of cholera is imported into any place, the disease is not likely to spread, unless in proportion as it finds, locally open to it, certain facilities for spreading by indirect infection.

Dr. Buchanan urges, therefore, immediate and searching examination of sources of water-supply, with the view of remedying and preventing pollution; immediate thorough removal of every sort of house-refuse and other filth which has accumulated in neglected places; prevention of future accumulations of the same sort; attention to all defects of house-drains and sinks; thorough washing and lime-washing of uncleanly premises, etc. "It may fairly be believed," the memorandum proceeds, "that, in considerable parts of the country, conditions favourable to the spread of cholera are now less abundant than at any former time; and in this connection, the gratifying fact deserves to be recorded that during recent years enteric fever, the disease which in its methods of extension bears the nearest resemblance to cholera, has continuously and notably declined in England. But

it is certain that in many places such conditions are present as would, if cholera were introduced, assist in the spread of that disease. It is to be hoped that, in all these cases, the local sanitary authorities will at once do everything that can be done to put their districts into a wholesome state. Measures of cleanliness, taken beforehand, are of far more importance for the protection of a district against cholera than removal or disinfection of filth after the disease has actually made its appearance."

The argument, however, which will have, perhaps, as much weight as any other with local authorities is the one that "the sanitary improvements which would justify a sense of security against any apprehended importation of cholera, would, to their extent, though cholera should never reappear in England, give amply remunerative results in the prevention of other diseases."

DRS. SINCLAIR COGHILL and A. W. EDIS, have been elected Corresponding Fellows of the Gynæcological Society of Boston.

The Library of the Obstetrical Society will be closed from August 17th to September 17th.

THE library at Guy's Hospital will be closed on Saturday, August 8th, at 3 P.M., and re-opened on Tuesday, September 1st, at 9.30 A.M.

THE Bradshawe Lecture of the Royal College of Physicians for 1885 will be delivered by Dr. Goodhart on Tuesday, August 18th, at 4 o'clock. He will take as his subject "Morbid Arterial Tension; a Review."

SIR W. BARTHELOT has undertaken to ascertain from the President of the Local Government Board what steps are being taken in the various seaports and towns to prevent the introduction of cholera into this country. The hon. baronet will at the same time call attention to the state of Covent Garden Market.

THE sentence in the leader of last week on page 216, column 2, line 2, referring to the inadequacy of the existing premises in the Strand, should read that the premises are inadequate "for the accommodation of the Association itself and its various Committees." The JOURNAL has no committees, the committee called the Journal and Finance Committee being a Committee of the Council for the control of the JOURNAL and of the general finance of the Association.

WE are requested by the Medical Officer of the Local Government Board to give renewed publicity to the fact—which we have more than once announced—that for the convenience of members of the medical profession and others, copies of certain of the reports made to the Board by their medical inspectors are now placed on sale. The firms from whom such reports may be obtained are Knight and Co., 90, Fleet Street; Shaw and Sons, Fetter Lane; Hadden, Best, and Co., West Harding Street, Fetter Lane; and P. S. King and Son, Canada Building, Westminster, S.W.

THE RELATIONS OF SCARLATINA AND DIPHTHERIA.

THE affinity of one infectious disease to others is a subject of much interest, which deserves more study than has been given to it by our epidemiologists. The relations of scarlatina to diphtheria appear especially to be worthy of investigation. In a recent report to the Local Government Board by Mr. R. D. R. Sweeting, the following striking phenomenon in outbreaks of scarlatina and diphtheria at Northampton are all too briefly recorded; 1, the co-existence of scarlet fever and diphtheria in the same subject; 2, cases of undoubted

scarlet fever with transient but typical diphtheritic patches on the tonsils; 3, diphtheria following scarlet fever in the same subject, and *vice versa*, but more usually the former; 4, the two diseases following each other in the same house in different members; 5, different members being attacked coincidentally, some with one, and others with the other disease. It would be interesting to have further clinical details as to these cases.

THE HOSPITAL AT PORT SAID.

THE Gordon Memorial Hospital has been abandoned, but we learn from Port Said that the hospital there has been materially improved; it has been retiled, whitewashed, ventilated, and otherwise rendered cleaner and more habitable. Latrines will be erected so soon as it is determined whether the dry-earth system or the pneumatic cart should be adopted.

SANITARY HANDBILLS.

To familiarise the public with the nature and purpose of sanitary precautions is admittedly of the first importance. Yet it is left in England to voluntary associations, such as the National Health Society, to issue plain words of advice to householders about matters which effect the public health. In America this duty is accepted and performed with much diligence by the several State and City Boards of Health. Dr. Raymond, the Health Commissioner of Brooklyn, N.Y., sends us a very useful paper on the Restriction and Prevention of Infectious Diseases, which has been framed for general distribution, and which is admirably clear and concise.

ISOLATION-ACCOMMODATION AT THE DERBY COUNTY ASYLUM.

THE Derbyshire magistrates appear to have treated with a certain levity a proposal made at their last quarterly meeting for the spending of £2,600 in erecting a detached hospital at the County Lunatic Asylum for infectious and other cases requiring isolation. It is difficult to credit, what the mover of the resolution said, that the asylum had been built without any hospital whatever. Clearly so remarkable an omission ought to be made good without further delay, and we cannot see what useful object is to be served by referring the matter back to a committee; especially as Dr. Webb, of Wirksworth, told the magistrates that the Commissioners of Lunacy have reported that the asylum has not the appliances necessary in so large an institution for stopping at the outset the progress of infectious disease. Should such an outbreak occur at the asylum, the magistrates will have incurred a very serious responsibility.

THE NOTIFICATION OF INFECTIOUS DISEASES AT YORK.

It may be remembered that, in the session of 1884, powers of requiring the compulsory notification of infectious disease were inserted into the York Improvement Bill of that year under very extraordinary circumstances. The corporation had not asked for these powers, and, of course, had not given any preliminary public notice with regard to them, as would appear, from the Standing Orders, to be requisite; but whilst the Bill was under discussion by the customary committee of the House, Mr. Hastings, one of the members of that Committee, and the introducer of a measure to make the notification of infectious disease compulsory throughout the country, happened to ask the promoters why they did not ask for such powers for York. The counsel in charge of the Bill seems to have been unprepared with any other answer than that they had not thought about it; and being anxious, no doubt, to please the Committee, he assented to the introduction into the Bill of Mr. Selater-Booth's model clauses of 1882. In this way the medical practitioners of York found themselves in the position of being liable, under penalty, to report to the sanitary authority all cases of infectious disease in their practice. The Town Council, though having powers of notification thrust upon them in this amazing manner, do not appear to have considered until lately whether they should exercise such powers; but they have now adopted a

lengthy report of their sanitary committee, dealing with the enlargement of the corporation fever-hospital, in view of the appearance of small-pox in the city, at the end of which is, amongst others, this recommendation. "That Clauses 135 and 136 of the York Extension and Improvement Act, 1884, relating to infectious diseases, be put in force, and that the town clerk and medical officer of health be instructed to prepare the necessary forms, and take such measures for bringing the Act into operation as they may deem expedient." The discussion upon the report of the Committee turned wholly on the question of the hospital-extension, and no one seems to have said a word as to the last recommendation quoted above. Perhaps the councillors did not understand its significance, for the resolution is certainly very ambiguously worded. However this may be, it is understood that compulsory notification of all cases of infectious disease will be put in force in the city at once. We make no comment upon these facts, beyond the somewhat obvious remark that they show in very startling colours the methods in which we legislate nowadays in matters affecting the social condition and public liberties, and indicate forcibly the necessity for dealing with sanitary legislation by a comprehensive measure and after due general inquiry.

THE ILLINOIS STATE BOARD OF HEALTH.

THE State Board of Health for Illinois sends us a number of documents regarding its work, which show that the Board is earnestly and energetically striving to instil into the minds of every one that it can reach a knowledge of the principles and practice of public hygiene. Its last quarterly report contains a gratifying account of progress in this direction. The most important effort of the Board at the present moment is the compilation of a State Sanitary Survey, forms for which have recently been compiled, and sent all over the State. The schedule to be filled up appears to contain everything that is requisite for a complete knowledge of the sanitary circumstances of each house, and thus of each district; and we can well understand that the facts which the survey has revealed are stirring up the local authorities to greater sanitary activity. We wish the Illinois Board of Health all success in its praiseworthy efforts to fulfil the objects of its creation.

STROPHANTHIN, THE NEW DIURETIC.

PROFESSOR FRASER'S paper on *Strophanthus hispidus*, read in the Section of Pharmacology and Therapeutics, at the meeting of the Association at Cardiff, places us in the possession of a new and valuable heart-remedy and diuretic. It appears that the drug is extensively used in many parts of Africa as an arrow-poison. In the Manganga district, near the Zambesi, it is called "kombé," whilst in Senegambia and Guinea, the name "Inée" is more commonly employed. Dr. Livingstone, in his *Narrative of an Expedition to the Zambesi*, refers to this poison, and says the arrows are usually made in two parts. "An iron barb is firmly fastened to one end of a small wand of wood, 10 inches or a foot long, the other end of which, fined down to a long point, is nicely fitted, though not otherwise secured, in the hollow of the reed which forms the arrow-shaft. The wood immediately below the iron head is smeared with the poison. When the arrow is shot into an animal, the reed either falls to the ground at once, or is very soon brushed off by the bushes, but the iron barb and poisoned upper part of the wood remain in the wound. If made in one piece, the arrow would often be torn out, head and all, by the long shaft catching in the underwood, and striking against trees." The plant which yields the poison belongs to the Apocynaceæ, and has been described and figured by Professor Oliver, of Kew, under the name of *Strophanthus Kombé*. It is a woody climber, and flowers in October and November. The foliicles vary in length from 10 to 12 inches, and contain from 150 to 200 seeds, each weighing about half a grain, and bearing a beautiful plumose tuft, placed at the extremity of a delicate stalk. They contain no alkaloid, but are rich in an active principle, which Dr. Fraser calls "strophanthin." This is a crystalline substance of intense activity, which seems destined to play an

active part in our list of heart-remedies. In physiological action it is allied to digitalin and other members of the digitalis group. It has been used, both experimentally on animals, and clinically in the wards, at the Infirmary at Edinburgh. The dose for hypodermic use is from one hundred and twentieth to one sixtieth of a grain. In the discussion which followed the reading of Dr. Fraser's paper, Dr. Murrell pointed out that the introduction of strophanthin would serve to commemorate, in a way which would otherwise be impossible, the centenary of the publication of Withering's classical work on *The Foxglove and some of its Medical Uses*.

REFUSE-REMOVAL REFORM.

UNDER this heading appears an article in the *Sanitary Record* of July 15th, which is worthy of the attention of members of sanitary authorities, as well as of every urban householder. The need for personal vigilance of householders, and the duty of each *magister domi* to himself act as sanitary inspector for his own little domestic district, and assure himself, by occasionally lifting the lid of his dustbin, that no organic matter is placed therein that has not undergone the ordeal by fire; the importance of a daily collection of dust; and the desirability of the sanitary authorities undertaking the scavenging, and not, as is the rule at present, deputing their dirty work to comparatively irresponsible contractors, are properly insisted upon; and some useful hints are given regarding the size and situation of dust-bins, the construction of collecting carts, and the ultimate disposal of refuse. On another page of the *Record*, Dr. David Pearson compares "Dust-bins at Home and Abroad," to the great disadvantage of the unsavoury and unwholesome arrangement prevailing in London. We have ourselves lately called attention to the nuisance and danger of the present systems of refuse-storage and removal in the metropolis and suburbs, and published suggestions for their better regulation in the *JOURNAL* of June 13th, p. 1207. The apathy of the general public in the matter, however, is as great an obstacle to its reform as the indolence of sanitary authorities. It would seem an almost hopeless task to arouse to a sense of his responsibility the average householder, who permits the storage, in a foul and sodden box—in proximity to his own and his neighbour's windows—of a reeking mass of animal and vegetable garbage, which is permitted to putrefy for a longer or shorter period at the discretion of the scullery-maid and the convenience of the dustman.

GERMAN SURGERY.

A CORRESPONDENT writes from Leipzig to one of our contributors: I have been spending much time here, and have found Leipzig very convenient for work; it is also within easy reach of Professor Volkmann at Halle. Professor Thiersch has been very kind to me, and I have seen a good many cases of much surgical interest: excisions of the rectum, pylorus, kidney, etc., besides numerous joint and plastic operations. Volkmann is a splendid operator; I think he excels in excising the rectum. Celerity in operation seems to be aimed at both here and at Halle; this is obtained by ignoring hæmorrhage to a much greater extent than we do in England. Enormous quantities of corrosive sublimate are used for irrigation at Halle. The dressings are, first, a small piece of gauze highly charged with iodoform, and then a large bag of what they term "turf-moss." I think it corresponds to our heather. It is prepared by washing, soaking in carbolic acid, and, lastly, drying. On my way here, I stayed a few days in Hanover, and saw several operations performed by Dr. Lindemann. He showed me a very ingenious apparatus for supporting the head in cervical cases. His cases of amputation and necrosis were all in baths of potash or soda. I saw an extraordinary case of an old woman, who had a large portion of the dura mater exposed and pulsating without any symptoms. The primary disease was abscess and necrosis of the walls of the frontal sinus. I have seen the medulla of the long bones scraped out several times. After excision of the knee, iron nails four inches long are used to fix the bones. They are removed at the end of three weeks. Pro-

fessor Thiersch had a very good case of epispadias the other day. He divides the operation into three stages, and he showed me a man upon whom he had operated thirty years ago, and who now has a wife and family. I also witnessed a good case of skin-grafting. Grafts, of the size of half-a-crown, were taken off the arm of a patient by means of a microtome-razor, and placed on a huge ulcer of the leg. They did well. Before all operations, a great deal of ether is used to cleanse the skin. The plaster-of-Paris jackets are made extremely well here, very light, yet strong; the plaster is certainly of very good quality. A curious case occurred the other day, rupture of the adhesions of an ovariectomy-wound on the eighth day after removal of all the sutures. The bowels protruded, and were exposed for some time, but after washing they were returned, and the woman recovered without a bad symptom. In operations for cancer of the tongue, the lingual artery is always tied as a preliminary to the main operation. I also saw a palate which had been shot away, and successfully filled up by skin from the cheek. It was curious to see hairs growing in the roof of the mouth.

THE LATE PROFESSOR PACINI.

A COMMITTEE has been formed at Florence for the purpose of collecting subscriptions for a memorial to the late Professor Pacini. It has issued a circular which contains the following statement. "Honour to the memory of a great citizen, destined to remind posterity of his virtues and his labours, is a duty which the nation that gave him birth is bound to discharge. From such men proceeds an example which acts as a noble oration, preaching great deeds to future generations. Italy has such a duty to perform in memory of Phillip Pacini, who discovered the tactile corpuscles, who, since 1854, has devoted himself to profound and original researches on the specific nature of Asiatic cholera, and who has introduced a method of artificial respiration, which repeated experiments have proved to be the best for saving life. It is for Italians, then, to perpetuate the fame of this man, who, springing from a humble origin, has succeeded, by force of will, in gaining universal renown in anatomy and biology; who, after a life of exemplary activity, in the course of which he never thought of his own interests, but rather considered the welfare of humanity, died poor, leaving to his successors nought but certain precious documents of high merit, such as the 'Structure of the Retina,' 'The Electrical Organ of the Gymnotus,' and 'The Extra Vascular Circulation of the Blood.'" The subscribers to the memorial will be informed of its nature, which will be decided upon when the entire subscriptions are received. The Committee consists of Professor G. Pellizzari, President; Dr. Aurelio Bianchi, Cavalier Dr. Luigi Billi, Cavalier Antonio Civelli, Cavalier Dr. P. Cresci-Carbonai, Cavalier Dr. Cosimo Franceschi, Cavalier Dr. C. Frascani, Dr. L. Giuntoli, Dr. G. Marcacci, Dr. F. Settimelli, Professor A. Tafani, Professor A. Targioni-Tozzetti, Professor Pasquale Villari, Senator; Dr. Carlo Stacchini, Signor Olinto Squarcialupi, Secretaries.

A FEVER-STRICKEN STEAMER.

THE following particulars of the eventful voyage of the English steamer *Ecossais*, to the West Coast of Africa, are given by a contemporary. The *Ecossais* was under charter to a Liverpool firm, and had not completed her outward voyage, before her commander, Captain Holmes, was attacked with the coast-fever, and died. The unfortunate gentleman belonged to Liscard, in Cheshire, and was well known and respected. As soon as the steamer reached the rivers in the vicinity of Bonny, several of her crew were down with the fever. Those in charge of the steamer made inquiries respecting the nearest hospital, as there was no medical man on board the *Ecossais*, and finding that the institution was at the English settlement of Lagos, several hundred miles off, put back to that port. Having obtained assistance, the steamer was able to complete her outward voyage, but on the way home the crew were again stricken down with the malady, and several of the poor fellows died. At one time on the Windward

Coast, it is stated that all of the ship's officers were ill, and the navigation of the steamer had to be performed by one of the engineers and a carpenter. She was fortunately brought into a port of safety, but, according to latest accounts, many of the men were still suffering from the prostrating coast-fever.

SMALL-POX AND VACCINATION IN EAST HAM.

At a recent meeting of the East Ham local board, it was reported that, during the 12 months that had elapsed since the first case of small-pox occurred in the district, there had been 356 cases and 47 deaths. Of the total number of persons who contracted the disease, 35 had never been vaccinated, and of these, 13, or 37 per cent., died; 299 had been vaccinated in infancy, and of this number only 34, or 11 per cent., died; while, amongst 22 cases occurring in persons who had been vaccinated more than once, there was not a single death.

PROFESSOR HUXLEY.

It is announced that Professor Huxley, P.R.S., has agreed, at the request of the Committee of Council on Education, to continue to act as Dean of the Normal School of Science and Royal School of Mines at South Kensington, and also to be responsible for the general direction of the biological instruction therein.

A TRAGIC OCCURRENCE.

WE deeply regret to learn that Dr. Maurice O'Connor, medical superintendent of the infirmary of the parish of St. George's-in-the-East, committed suicide, on Monday last, by taking a dose of strychnine during the progress of an inquiry which had been instituted respecting the alleged misconduct of a principal officer of the workhouse and of other officials. The inquiry was immediately suspended. An inquest was held on August 5th, when evidence was given that the deceased had been greatly distressed during the progress of the inquiry, and a verdict of suicide while in an unsound state of mind was unhesitatingly adopted by the jury.

A FEVER EPIDEMIC.

THE West London District School, situated about midway between Staines and Ashford Stations on the South-Western Railway, is said to be just now the scene of a severe outbreak of typhoid fever, no fewer than 239 patients being at present in the hospital-wards. The school, which was opened in 1872, receives pauper children from the three parishes of St. George, Hanover Square, Paddington, and Fulham, and is certified to afford accommodation for 790 inmates. At present, there are 720 in the school, boys and girls. On July 12th, symptoms of enteric fever were observed in many of the children, and by the 24th ultimo, no fewer than 230 had been stricken down almost simultaneously. On the 27th ultimo, two of the patients died; on the 24th, another succumbed, and a fourth on the last day of the month. James Ball, assistant baker at the establishment, also contracted the fever and died. This is the total mortality so far. There was one fresh case yesterday, and it is gratifying to be able to announce that, although many of the invalids cannot yet be considered out of danger, all are going on very favourably. The outbreak is traced, as usual, to defective water-supply.

THE EDUCATION OF THE BLIND.

THE *Gazette* of Friday, July 31st, announces that Her Majesty has been pleased to appoint the Duke of Westminster, the Bishop of London, Mr. A. J. Mundella, M.P., Mr. F. J. Campbell, D.L., Dr. T. R. Armitage, author of *The Education and Employment of the Blind*, and Dr. W. Tindall Robertson, a Royal Commission to investigate and report upon the condition of the blind in the United Kingdom, the various systems of education of the blind, elementary, technical, and professional, and the existing institutions for that purpose; the employment open to and suitable for the blind, and

the means by which education may be extended so as to increase the number of blind persons qualified for such employment. The inquiry will not be confined to this country, but will be extended throughout Europe and the United States, and it is estimated that the work will occupy at least two years. Some disappointment has been caused at the omission to make the condition of deaf-mute children a subject of inquiry by Royal Commission equally with that of the blind.

THE HOUSING OF THE POOR BILL.

SINCE the original introduction of this Bill, it has been decided to extend its provisions to Scotland and Ireland. It was at one time hoped that the Bill would come on for second reading in the Commons on Monday, and Sir Charles Dilke, though still indisposed, attended to take part in the debate; but the pressure of other business forbade the possibility of touching the Bill on Monday. There is still great opposition to the proposal to sell the sites of Millbank and Pentonville prisons at less than their market value, in order to facilitate the erection thereon of artisans' dwellings. Sir Richard Cross has said that he would be "exceedingly sorry" to have to expunge this provision, and probably the clause will be allowed to remain. The opposition to Clause 13, as to the implied condition in the letting of an unfurnished house, that it is fit for habitation, is more reasonable, and the Home Secretary has expressed his willingness to modify it in a direction not yet defined. No doubt the clause could better justify its existence in a Bill as to the housing of the rich than in one as to the housing of the poor; and so important an alteration in the law certainly demands more leisurely consideration than can be given to it by an expiring Parliament in its last gasps. There is, indeed, some doubt whether the Bill will be carried through at all.

"ACCIDENTALLY DROWNED."

THE drowning season is again in full swing, and the newspaper-heading "Bathing Fatalities" threatens to remain standing for some weeks to come. A cursory analysis of the 10 or 15 cases already reported shows that, though a few of the victims were unable to swim, and unquestionably died from drowning, or, as Johnson quaintly puts it, "suffocation by water," yet a larger proportion were expert swimmers, for whose sudden loss of buoyancy and fatal submersion the popularly accepted theory of cramp is an unsatisfactory and inadequate explanation. Of this class of accidents, one case, that of a man who was drowned in the Thames on Sunday, may be quoted as typical of all. The deceased, accompanied by a friend, had swum across the stream, when the latter heard a cry, and, looking up, saw his companion throw up his arms and disappear. At the inquest it was suggested that the deceased had been seized with cramp, and the jury returned the verdict usual in such cases, a verdict which, in so far as it implies that asphyxia is the sole or even ultimate cause of death, is probably incorrect in a large number of cases. Cramp, though an exceedingly painful affection, and one to which bathers are especially liable, is quite insufficient to account for the abandonment of effort and sudden disappearance of a healthy swimmer; the very tyro in the art knows from experience, however little, that there is but a trifling difference between the specific gravity of his body and that of the fluid supporting it, and that if all his limbs be paralysed with cramp, the slightest movement is enough, even in fresh water, to keep his mouth and nose above the surface. It is true that the swimmer is tempted to over-confidence in his staying-power, and that the unaccustomed eye is apt to underestimate distance over water, so that when the self-allotted task is but half finished, its accomplishment often seems almost hopeless. But danger makes life seem dearer: comparative rest may be easily obtained by floating; and the delivery and sequence of the strokes, however feeble, is so mechanical that it would be hardly less suicidal for a disheartened or frightened swimmer to throw up his arms and voluntarily consign himself to death, than for a tired traveller to precipitate himself

from the height which showed him that his destination was a few miles further off than he anticipated. It is not improbable that failure of the heart is, in many cases at least, the primary cause of death. A plunge into cold water is sufficient to throw a weak heart into a dangerous state of tension, which is further increased by swimming—an exercise perhaps the most violent in which it is possible to indulge. It is a remarkable fact that few, if any, of the subjects of so-called "cramp"—not, be it understood, the ordinary bather's cramp, but the mysterious seizure which impels its victim to throw up his arms and sink with a single cry—are ever recovered alive, and it is not an unreasonable inference that in many cases death occurs independently of, perhaps previously to, submersion. A necropsy or two might throw some light on the matter, but in the meantime it is desirable that the excellent bathing-rules of the Royal Humane Society be taught in every school, as a preliminary to instruction in swimming, and that medical men should impress upon all subjects of cardiac weakness the risks of prolonged immersion and exercise in chilly water.

THE HOSPITAL SUNDAY FUND AND UNIVERSITY COLLEGE HOSPITAL.
AN attempt was made, at the meeting of the Council of the Hospital Sunday Fund on July 31st, to deprive University College Hospital of the customary grant, on the ground that no person was admitted on the nursing staff who was not a member of the Church of England. The facts of the case, as stated by Mr. Prevost, Treasurer of the Hospital, and a member of the Council of the College, are as follows. In 1860, a temporary arrangement was entered into with an Anglican sisterhood connected with All Saints, Margaret Street, to nurse the hospital; in 1862, the arrangement was made permanent, and has remained in force ever since. The nursing has been exceedingly well done, and the medical and surgical staff, as well as the Hospital Committee, which is composed of men of widely different religious denominations, have always worked in perfect harmony with the nursing staff. The Committee have never interfered with the regulations made for the internal discipline of the nursing body, only stipulating that the sisters and those working with them should in no way interfere with the individual religious views of the patients; this stipulation has always been honourably fulfilled, and no religious observances whatever are carried on by the nursing staff within the precincts of the hospital; the members of the nursing staff supplied under the contract are members of the All Saints Home, and must conform to the regulations of the sisterhood, but no inquiry into religious belief is made of persons merely desirous of learning nursing. It may further be added that there is a chaplain appointed by the Committee, who is quite independent of the sisterhood, and that no charge of attempted proselytism has been made. The Council determined to make the grant this year, but to refuse further aid until the matter had been thoroughly investigated by a committee, and settled. The agitation raised curiously resembles the recent successful attempt to "laicise" the French hospitals, though its method is less direct. The proper position for the opponents of the present system to take would be to memorialise the Council not to employ a sisterhood. There is no question as to the excellence of the nursing or the good of the patients, merely as to the particular religious tenets held by the association of ladies who manage the nursing; and while these remain a matter for their private and individual consideration, and do not interfere with the religious practices or secular opinions of the patients, it seems unfortunate that they should be made a burning question.

THE HEALTH OF SWANSEA.

SPEAKING at a recent special meeting of the Swansea Town Council Dr. Ballard, Local Government Board Inspector, alluded to what he termed the recent terrible outbreak of fever. He was shocked beyond measure at the surroundings of the principal watershed, and said a specific instance of pollution had probably caused 400 cases of fever, and would have caused 4,000, but for the energy of the medical

officer. The people had been living on the edge of a precipice for years, and now they had learnt by experience what the result of that was. He urged immediate alterations, at all costs. Mr. Ebenezer Davies, the medical officer of health, writes as follows. "As reports of an alarming character in regard to the health of Swansea have found currency in the columns of the metropolitan and provincial press, I shall be obliged if you will give equal publicity to the fact, which I am able to verify, that the outbreak of enteric fever from which we have suffered the past month is, as regards the occurrence of new cases, practically at an end. The total number of deaths registered from fever since the commencement of the epidemic up to Saturday last was (in a population of 72,000) 22, and there are still cases under treatment. No doubt the quality of our death-roll has been unfavourable during the present month; but, notwithstanding this, the annual rate of mortality, which for the month of June was as low as 12.5 per 1,000, has during the first three weeks of this month, including the deaths from fever, not exceeded 19.9 per 1,000, and last week was 16.6 per 1,000. The water-supply from one of the storage-reservoirs, situated eight miles from Swansea, which, there was reason to believe might be contaminated, was on June 26th, after inspection by myself, and before any prevalence of fever in Swansea was reported or known, cut off from the town. The cause, therefore, not being a continuing cause, it is not surprising that the epidemic has subsided as rapidly as it reached its culminating point."

SCOTLAND.

THE death of a child, aged 3½ years, from sunstroke, occurred last week in Dumfriesshire.

AT a public meeting, held in Glasgow, it was decided to petition in favour of immediate passing of the Criminal Law Amendment Act, and of extending the age of legal protection to 18 years.

GLASGOW ROYAL INFIRMARY.

THE elections for the forthcoming vacancies in the visiting staff of this hospital have been postponed until the 10th instant. No fresh candidates have come forward beyond those mentioned previously in the JOURNAL. Considerable uncertainty seems to exist as to how the appointments will fall, but if the feeling of the medical members of the Committee has its due weight with the lay element on the Board, it seems probable that Drs. Anderson and Fleming will be appointed visiting physician and surgeon respectively. There can be no doubt that their length of service on the dispensary staff renders it difficult to pass over their claims.

GLASGOW UNIVERSITY.

THE annual graduation in medicine, which marks the formal closing of the summer medical session at the University of Glasgow, took place on July 30th. The ceremony was held in the Bute Hall, and was largely attended by the general public. At such a late period of the session, the number of students in residence is small; but those present deported themselves in a manner that it is to be hoped may characterise all public university ceremonials. There was an entire absence of any noisy demonstrations, and everything passed off in a quiet and orderly manner. The capping was done by Principal Caird; and, when the professors of the various classes had presented the medals and prizes to the more distinguished students, the usual address was given to the new graduates by Professor Leishman. It was, of necessity, of a valedictory nature; but the wise counsel that it contained lost nothing by the friendly words in which it was clothed, and the fluent eloquence with which it was delivered.

THE SCOTTISH METEOROLOGICAL SOCIETY.

AT the half-yearly meeting of the members of this Society, held in Edinburgh on July 27th, a very satisfactory report from the Council

was read and approved. Amongst the special work accomplished is the completion of the papers on the rainfall on the British islands, on the meteorology of Culloden for the 40 years ending 1880; on the meteorology of Ben Nevis for the 12 months ending May 31st; and on the meteorology of San Jorge, Central Uruguay. The work at present on hand, in addition to the ordinary routine office-work, includes two special lines of inquiry; one is being conducted by Mr. H. N. Dickson, and consists in investigations into novel matters in regard to the temperature and humidity of the air; the other is the registration of earth-movements, and is being undertaken by Professor Ewing, of Dundee. Mr. Dickson's observations as to the difficulties attending the procuring of true results from thermometers and hygrometers, have already brought out some interesting points, and he proposes to continue his researches during August on Ben Nevis, where he expects that the great dryness of the air will facilitate his work. Professor Ewing also purposes conducting his inquiry on Ben Nevis, and will direct his attention to the great forms of earth-movement, namely, earthquakes proper, earth-tremors, and changes in the vertical, a class of movements that Professor Darwin recently investigated at Cambridge. For Professor Ewing's observations a seismometer has been specially erected on the mountain. It will thus be seen that the scope of the work undertaken by the Meteorological Society is most important and extensive, and merits liberal support from the public.

TRAINED NURSES IN POOR-HOUSE HOSPITALS.

In cases of illness, the point that probably most affects the welfare of the patient is the qualifications of the nurse in attendance. So much of the treatment is necessarily carried out through her instrumentality, and the success of the treatment employed may be so favoured or impeded by her proceedings, that the modern idea of nursing is that it should only be undertaken by those who have been carefully taught and trained. Especially is this felt to be the case when dealing with a number of sick and helpless patients, such as are met with in our large infirmaries. This being so, we regret to see that the authorities of the Govan Parochial Board of Glasgow have decided, on the score of expense, not to adopt, in connection with their hospitals, the system of having trained nurses, as urged on them by the Board of Supervision, and for the adoption of which the Government now holds out special inducements. At their last meeting, the Board decided to continue their present system of utilising pauper inmates to do the nursing, under supervision from the superintendents. We think that this is an unfortunate decision to have come to. When it is considered that nursing includes careful watching and intelligent observation of the patient, with the view of noting changes and symptoms of importance in his condition, and that it aims at carrying out practically towards individual patients, or collections of patients, those sanitary rules which we know are necessary for those in health, and are of still greater consequence to the sick, we feel that untrained and untrained nurses should no more be placed in charge of a single patient, or of a hospital-ward, than that an unqualified man should be appointed medical officer to a parochial infirmary.

GENERAL SANITARY AUTHORITY FOR THE CLYDE.

THE expense that has been incurred in connection with carrying out the recent and necessary cholera-precautions that have to be observed at seaport towns, has raised the question whether it would be advisable to have a general sanitary authority for the Clyde ports, making it a distinct board, with its own staff of officials. As the matter stands at present, all the outlay for the arrangements made to prevent the introduction of cholera by ships arriving in the Clyde falls on Greenock, the first port of call, although the ports higher up the river get the benefit of the sanitary supervision exercised. The Greenock authorities seem to think, and not unreasonably, that they should be relieved of some of this expense, which has to be met in the interest of the other ports as well as their own, and they have brought

the matter under the notice of the Board of Supervision. Various suggestions have been thrown out, and, among them, the proposal mentioned above of having a distinct sanitary authority for the Clyde, supported by Greenock, Glasgow, Port Glasgow, and Bowling in varying proportions. It seems a reasonable idea, and would, we think, be found in practice to work well, and would meet the objection that has been put forward by the Greenock authorities to bearing the whole expense of sanitary duties, which, at times like the present, are certainly onerous and costly.

MEDICAL MISSIONARIES.

THE Edinburgh Medical Missionary Society's quarterly paper (August) states that "several of our students have recently received appointments, and have left, or will soon leave, for their distant spheres of labour. Mr. Churcher, M.B. and C.M., will be leaving in the autumn for Algeria, as the agent of the mission to the Kabyles; Mr. James Wilson sailed early in June for Johore; Mr. Scholes, L.R.C.P. and S., has left for the Congo in connection with the American Baptist Union; Mr. Fry, M.B., C.M., has been appointed by the London Missionary Society to Neyoor, Travancore; and Mr. Pritchard, M.B., C.M., will go to China in connection with the same society.

MR. ERICHSEN'S CANDIDATURE.

THE following letter has been issued to the medical members of the General Council of the Universities of Edinburgh and St. Andrew's, dated 22, Cavendish Square, London, July 28th, 1885: "You must, we feel assured, recognise that, as a university elector, you stand on a different footing from that of an ordinary county or borough voter. The original design of giving to the universities a member of their own implied this. It therefore becomes incumbent on university men, be their party politics what they may, to secure as the representative of their Alma Mater, not only one whose known character and abilities will carry weight in the discussion of imperial questions, but one who also, from his special culture and knowledge, is capable of handling with the requisite skill all questions relating to university and other educational and scientific matters. It is for such reasons that Mr. Erichsen has been requested to become a candidate for the Universities of Edinburgh and St. Andrew's in Parliament; and on like grounds we venture to solicit your suffrage on his behalf. Sanitary and medical science is most inadequately represented in the British Parliament, and, as a natural consequence, important legislative measures, having a direct bearing on the physical welfare of the nation, receive very inadequate attention, and are very imperfectly handled. This is always noticeable when such questions as quarantine, contagious diseases, vaccination, sale of poisons, lunatic asylums, are under discussion. The views and arguments of the few who are competent to discuss such questions are too often slighted, or overborne by the ill-founded objections of those who have not the requisite knowledge of such subjects, or who are swayed by mistaken, though well-meaning, enthusiasm. It is only by the aid of scientific medical representatives that so serious an evil can be remedied, and the return to Parliament of so distinguished a member of the medical profession as Mr. Erichsen would, we believe, be deemed a national boon. Mr. Erichsen's career, character, and position in the profession, are so well known and appreciated, that it would be unbecoming to adduce any special proofs of his eminent fitness to represent medical science in Parliament. As upwards of 3,600 members of the General Council of these universities—more than one-half of the constituency—belong to the medical profession, it is to them that we venture to appeal, and to suggest that, on the present occasion, feelings of party politics should be made to give place to the higher considerations of the national advantage to be secured by the return to Parliament, as the representative of these universities, of one so capable to represent science, especially in its medical aspect, as Mr. Erichsen." It is signed by Jas. Risdon Bennett, M.D., LL.D., Chairman of Mr. Erichsen's London Committee; George Ogilvie, M.B.; Thomas Raleigh, M.A., Honorary Secretaries of Mr. Erichsen's London Committee.

IRELAND.

THE APOTHECARIES' HALL OF IRELAND.

At the annual meeting of the Governor and Council, convened by the statute of incorporation, on the 1st instant, the following members were duly elected as office-bearers for the ensuing year. *Governor*: Robert Montgomery. *Deputy-Governor*: Edward J. O'Neill. *Court of Directors and Examiners*: E. W. Bolland, Thomas Collins, John Evans, A. Harvey, Charles Holmes, Charles H. Leet, Charles Moore, H. P. Nolan, Richard S. O'Flaherty, Sir G. B. Owens, John Ryan, James Shaw, George Wyse. *Representative on the General Medical Council*: Thomas Collins. The revision of the preliminary and professional curriculum, in accordance with the recent "recommendations" of the General Medical Council, was submitted to the meeting, and, being approved of, was ordered to be printed.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE births registered in the Dublin Registration District during the quarter ended July 4th numbered 2,606, or 29.5 in every 1,000; and the deaths 2,643, or 29.9. Zymotic affections caused 409 deaths, a number 49 in excess of the previous quarter, and equal to an annual rate of 4.6. The increased mortality from zymotic diseases was due to the prevalence of measles, which caused 158 (or 39 per cent.) of the deaths in this class. Small-pox was fatal in two instances, being the only fatal cases of that disease recorded in the Dublin Registration District since May 1881. Scarlet fever caused 46 deaths; fever, 63; whooping-cough, 42; diarrhoea, 29; and diphtheria, 10. Deaths from diseases of the respiratory organs numbered 510, and comprised 303 from bronchitis, and 127 from pneumonia. Phthisis caused 356 deaths; mesenteric disease, 67; tubercular meningitis, 77; and cancer, 45.

BELFAST HOSPITAL FOR DISEASES OF THE SKIN.

DURING the past year, over 1,000 persons were treated at this institution, all the cases admitted being discharged cured. The total number of patients who have been under treatment since the establishment of the charity in 1865 was 18,313; and, when it is taken into consideration that every one of these passed under the immediate care of Dr. H. S. Purdon, some idea may be formed of the amount of attention and labour which he has gratuitously bestowed upon the suffering poor of Belfast and neighbourhood. The cost (£50) of painting the hospital was defrayed by Miss Benn, whose relatives have been liberal benefactors to this charity.

STIMULANTS IN WORKHOUSES.

A MEETING of the Kells guardians was held last week to receive a report from a committee which had been appointed to hold an inquiry in reference to an alleged increasing expenditure in the union. The committee gave the average weekly cost of patients, together with that in other unions which they had ascertained, for the month of March. These returns showed that the cost was highest in Kells Union, as compared with Oldeastle, Carrickmacross, Drogheda, Ardee, and other places. The committee believed this to be due to the various extras ordered by their medical officer, Dr. Ringwood, and in corroboration referred to a statement recently made by Dr. Burke during an inquiry held by order of the Local Government Board. Dr. Burke stated that he had personally examined very many of the patients ordered stimulants, among whom he found several school-children varying in age from five to eight years, besides many of the infirm from 60 to 80, exclusive of adults; in all, 62 patients, to whom there appeared to be issued daily wine, whisky, and brandy, irrespective of a bottle of porter to each of 29 attendants. Subsequently to the reading of this communication, Dr. Ringwood stated he would continue to treat the patients under his care in whatever way he thought proper. The committee believed that, in view of facts put forward by them,

the board of guardians could no longer have confidence in Dr. Ringwood as medical officer of the workhouse, and they respectfully put it to the guardians whether his continuance in that office would be in the interest of the sick poor and of the ratepayers. The report was adopted by 21 against 10 votes.

CHOLERA.

CHOLERA AT MARSEILLES.

THAT cholera has broken out in the South of France, the daily telegrams from Marseilles leave, we fear, no room for doubt. The increased mortality, the daily average of which it was stated on Monday had risen from 40 to 60 or 70, is not, however, due entirely to deaths from cholera, but is attributed in part to "typhoid fever," 1,200 patients from the Pas des Lanciers camp having been sent to the hospitals. The occurrence of typhoid, however, is, according to our English experience, the index of the liability to cholera-invasion. There were, it is reported, 20 choleraic deaths the week before last, and 30 last week. The mortality has daily increased until, during the 24 hours ending Wednesday evening, 82 deaths are stated to have occurred in the city, of which 35 were from cholera. M. Legend, Minister of Commerce, has visited the city, accompanied by Drs. Brouardel and Proust, and visited the Conception Hospital, where a special cholera-ward has been provided.

The Minister of Commerce has not concealed from the authorities his dissatisfaction on seeing that nothing has been done since last year to improve the sanitary condition of Marseilles. In fact, after the summary measures hastily taken last year when cholera was raging, the Municipal Council discussed at several sittings the measures to be taken to improve the health of the town, for which Ministers on the occasion of their visit had opened a first credit of 300,000 francs. When the disease subsided, however, the Municipal Council forgot and neglected all these questions, and the town is now as dirty and as unwholesome as last year.

On Monday, there were 19 deaths, and there has been a marked increase in the number since then.

The Pharo is to be opened, and the sisters and hospital-attendants installed. The Board of Health have begun to issue foul bills of health. For some days, the clean bills have certified that the state of health was "satisfactory," instead of certifying as usual that it was "very satisfactory."

Some cases of cholera have proved rapidly fatal, the sufferer dying in three or four hours after being attacked.

On Tuesday the Sanitary Council met under the presidency of the Prefect. The following telegram was sent to the Minister of Commerce.

"We certify that the sanitary state of the town and its environs is satisfactory enough, but that some sporadic cases of cholera have been reported within the last few days, with a tendency, however, to diminution."

Three healthy soldiers, who occupied a tent in a small provisional cantonment erected on the cavalry exercise-ground, were attacked by the disease and died in a few hours. Quarantine has been imposed on all arrivals from Marseilles at Gibraltar, Athens, and Alexandria.

CHOLERA IN SPAIN.

In Madrid, the official cholera-bulletin reports 4,282 cases and 1,570 deaths in Spain on Wednesday.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Thursday, August 6th. The minutes of the quarterly Council on the 9th ult. were read and confirmed. A report was received from the Court of Examiners, which was approved and confirmed. A report was received from the Court of Examiners of a candidate found qualified for the Fellowship. The diploma of Fellow was issued to Mr. Herbert Jekyl Dyson.

The usual motion was passed that the Museum and Library be closed during the month of September for the purpose of general cleaning.

On a report from the Nomination Committee, Mr. A. Winterbottom was re-elected Dental Examiner.

The report of the Building Committee of the Royal Colleges of Physicians and of Surgeons was read, approved, adopted, and entered on the minutes. A motion, that authority be given to the Building Committee to carry out the proposed plans, including the necessary legal arrangements, and that the College Seal be affixed to such legal instruments as the solicitors of the two Colleges shall advise: and another, that it be an instruction to the Building Committee that no alteration in the plans be permitted after the contracts have been made, until the sanction of the Colleges has been obtained to such alteration, were carried.

A report was received from the Committee of Delegates appointed by the Royal College of Physicians of London and the Royal College of Surgeons of England, to consider the question of the advisability and practicability of granting the title of "Doctor" to persons who have received the diplomas of the two Colleges, and entered on the minutes but its consideration was deferred till an extraordinary meeting of Council in October.

THE MEETING OF FELLOWS AND MEMBERS.

A report from the President and Vice-Presidents, on the arrangements for the meeting of Fellows and Members of the College to be held in October, 1885, was approved, adopted, and entered on the Minutes; it reads as follows.

1. That the meeting of the Fellows and Members be held on Thursday, October 29th, at 3 o'clock P.M.
2. That notice of such meeting be given to the Fellows and Members by advertisement in the medical journals and two London daily newspapers, not less than thirty days before its date.
3. That the report from the Council do comprise a record of the transactions of the Council during the collegiate year, from July, 1884, to July, 1885, in a form similar to that of the Secretary's report as published in the Calendar, the returns of the results of the several College examinations, and a statement of the College receipt and expenditure during the same period.
4. That such report be printed and circulated to each Member of the Council, and be taken into consideration at the quarterly meeting of the Council on the 15th of October next.
5. And that the report, as then approved, be forwarded to the editors of the medical journals, and to any of the Fellows and Members who shall apply for it.

A letter was read from Mr. Jonathan Hutchinson, placing his resignation in the hands of the Council, asking that such resignation might take effect from the 12th of August next, and adding that he was willing to again undertake the office should his colleagues do him the honour to re-elect him. The resignation was accepted, and the President stated that the vacancy in the Court of Examiners occasioned by Mr. Hutchinson's resignation will be filled up at the Quarterly Council on the 15th of October next.

A letter was read from Mr. T. More Madden, Honorary Secretary to the Medical Board of the Children's Hospital, Dublin, requesting that the College will recognise the certificates of attendance on the practice of the Children's Hospital and the clinical lectures delivered therein, as well as the certificates of proficiency in vaccination given by its staff to such pupils as may be entitled to receive these certificates. The letter was referred to the Committee of Management.

Mr. Marshall's motion, seconded by Sir Spencer Wells, was carried unanimously:

"That, in recognition of the time and thought devoted by Sir James Paget, during many years past, to the revision and completion of the Catalogue of the Pathological Collection of the Museum, and of his many other important services to the College, he be requested by the Council to sit for a marble bust, to be placed in some suitable position in the College buildings, executed at the expense of the College; and that the President and Vice-Presidents be asked to communicate with Sir James Paget, and to take the necessary steps to give effect to the foregoing resolution."

Mr. Hutchinson gave notice of motion:

"That a committee be appointed to consider the practicability of adding a clinical wing to the Hunterian Museum, to be associated with the name of Paget, and to have for its especial, but not exclusive, object the display of casts, photographs, drawings, etc., illustrating the results of disease and injury in the living subject."

DONATIONS AND BEQUESTS.—Her Majesty the Queen has given £100 to the German Hospital, as an addition to the collection at the anniversary festival.—Mr. Francis Parsons, of Hornsey, has bequeathed £500 to St. Alban's Dispensary, and £500 to the Hemel Hempstead Infirmary.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of this Association was held in the Public Hall, Cardiff, Wednesday, July 29th, 1885; Dr. JOSEPH ROGERS, President, in the chair.

The CHAIRMAN: Gentlemen, I believe it is pretty well known to all the members of the Association who have attended our annual meetings that, for some years past, Mr. Ernest Hart, the Editor of the BRITISH MEDICAL JOURNAL, has placed the columns of that JOURNAL at your disposal, subject to his editorial approval, for the ventilation of questions that may arise in the course of the year. I now wish to show you what has been done in the interest of the poor-law medical service, and, through it, in the interest of the general public; and I will therefore briefly relate what has happened since we last met in Belfast.

At our meeting last year in Belfast, attention was called to the case of Mr. Coombe, of the Malden Union. This gentleman was requested to attend a farm-labourer's wife, with eight children, in labour. The case was an urgent one. He declined to attend, unless an order were procured from the overseer, the relieving officer living four miles away. The order was granted, and the attendance given, a similar course having been followed at a previous confinement. The guardians refused to pay, alleging that overseers had no authority to give orders. On December 18th, the fee was paid for and on an appeal to the Local Government Board, the department replied that overseers, and assistant-overseers, could legally give an order for medical attendance in all cases of urgent necessity, and that, when such orders had been given, either by them or the relieving officer, it required no confirmation by guardians; all that they had to do was to pay the fee.

A gentleman not a poor-law officer was summoned to a case of urgency, the poor-law officer having declined to attend. At the conclusion of the attendance, he wrote to ask, with much simplicity, from whom he was to get payment—from the guardians, the medical officer, or the patient. We pointed out that he had no claim against the first two, and it was hopeless to expect anything from the last. In the JOURNAL of October 14th, page 745, a story is related where a relieving officer having granted an order to a poor woman, and reported the same to the guardians, the order was annulled. Our correspondent feared that, if he declined to attend, and the woman died, public feeling would be excited against him. In our reply, we showed that the odium would fall on the Board, which had annulled their own officer's order.

On November 15th, page 989, we published the report of the proceedings of the guardians of the Totnes Union, who had called before them the deputy medical officer of the workhouse, Mr. L. Harris, and Mr. J. Cape, district medical officer, these officers having stated at an inquest that great delay occurred in the removal of paupers from their homes to the workhouse, that they were sent there only to die, and that the reports of medical officers were nearly always ignored, and that the way in which their recommendations were carried out was simply abominable. The guardians endeavoured to induce these officers to withdraw these statements, but, to their credit, they refused.

On November 22nd, page 1047, reference was made to the refusal by Mr. W. C. Morison, Coroner for East Surrey, to pay the fees laid down by the Coroners' Witnesses Act, 6 and 7 William IV, chapter 69, section 5.

On November 29th, page 1161, an answer was given to a gentleman who wrote to ask whether his appointment, as a dispensary medical officer, did not justify his demanding to be called in to every case of sudden or accidental death occurring in his district, to the exclusion of all other medical men. We showed the absurdity of such a question.

On December 6th, page 1168, we called attention to the case of Dr. Riddell, of St. Thomas's Union, Exeter. This gentleman had incurred the hostility of certain of the guardians, who took up the case of a woman named Grace Burridge, who had been put up to complain of neglect on the part of Dr. Riddell; it further appeared that the clerk and two of the guardians had gone to her cottage, and taken down the woman's statements—that, too, without receiving any authority so to do. Subsequently, the clerk called on Dr. Riddell, and read the woman's statements, the truth of which that gentleman indignantly denied. The woman's statements and Dr. Riddell's reply were read at the next board-meeting, and an effort was made to get them sent to

the Local Government Board, so as to force on an official inquiry. This proposition would have been carried but for the intercession of Earl Devon, who pointed out that the central authority would not take action upon such a statement as this, seeing it was fairly met by Dr. Riddell's explanation. There was a very lengthy discussion, and much strong language used, even slanderous in its character; but, ultimately, the proposition was negatived by 15 to 11 votes. This case is an illustration of the ease with which these charges are made, and how difficult it is to get clear of them.

A correspondent, under the signature of "Medicus," also asked our opinion as to his duty in visiting a person alleged to be a lunatic, whose insanity he could not discover. We pointed out what were his obligations, and cautioned him that cases of even undoubted insanity were sometimes extremely difficult to detect, and that their diagnosis required much tact and discretion.

In giving a summary of the various Poor-law matters that came under observation in 1884, we pointed out that in no previous year had there existed such a desire, on the part of boards of guardians, to escape from their legal obligations to their medical officers; and we further showed that, in any appeal to the central department, the guardians had either been upheld, or the department had declined to interfere. This unquestionably arose from the fact, that the late President's time was more constantly taken up by other considerations, and so the permanent officials had it entirely their own way.

On January 10th, page 104, may be found a comment on a case that occurred in the St. Pancras Workhouse. From this it appeared that a woman, having been sent to the Highgate Infirmary, had manifested symptoms of mental derangement; she was therefore sent back to the workhouse, and unfortunately died seven hours after admission. An inquest being held, the jury came to the conclusion that it was a death from natural causes, to wit, syncope; but they added a rider that, as certain complaints had been given in evidence against the officials of the infirmary, etc., they suggested to the guardians an inquiry into the same. An inquiry was held, and presided over by a medical man. This not proving satisfactory, application was made to the Local Government Board to hold an official inquiry; and in the letter asking for the same, it was reported that the Chairman, a medical man, had reasonable grounds for believing that it was a case of typhoid fever, and that the death was accelerated by the removal. This was a very remarkable assumption, seeing that a *post mortem* examination had been made, and evidence given disposing of any such idea, by Dr. Stevenson, the medical officer of health for St. Pancras.

On the same page, reference was made to a case that occurred in the Skipton Union. Dr. Wylie, the medical officer of the workhouse, having a patient excited, and otherwise mentally deranged, sent him to the county asylum. For doing this, he was called to account by certain of the guardians, who urged that he might have retained him in the workhouse, and thereby expense would have been saved in the extra cost for maintenance, and that he was probably moved to do so to enable him, Dr. Wylie, to get his fee of 10s. 6d.; a most insulting assertion, but one not unfrequently made by boards of guardians.

On the same page was published the opinion we obtained from Mr. Arthur Beetham, Gray's Inn Square, as to the interpretation which should be put on the fifth section of the Coroners' Witnesses Act.

Similarly, on the following page, an answer was given as to the reception of paupers in hospitals, to which we refer those who have not seen the same.

On January 17th, page 157, attention was drawn to a coroner's inquest at the Toxteth Park Workhouse, whence it appeared that a man was taken in a fit, and, by direction of the master, was sent to the infirmary, but no application was made to the visiting medical officer, nor was he seen by the resident medical officer until a short time before he died. The resident medical officer having refused to certify, an inquest was held, when it came out that there was considerable effusion at the base of the brain. The coroner, in summing up, dwelt with great severity on the conduct of the master, and intimated that, if the man's condition had not been shown by the *post mortem* examination to have been a hopeless one, he should have directed the jury to bring in a verdict of manslaughter. In commenting on this case, we pointed out how very unfortunate for all parties such an occurrence was, as it would probably lead to the medical officer being sent for needlessly to every trifling fit that occurred.

On the same page, attention was called to the action of the Leigh board of guardians. The district medical officer having visited a case by order of a relieving officer, found his patient in a very debilitated condition, whereupon he directed that the relieving officer should supply him with two pounds of beef. The order was ignored. The

medical officer having reported the circumstances to the board, the relieving officer was called upon to explain his conduct. Ashe was not able to do so satisfactorily, it was moved, seconded, and carried, that the relieving officer should be at once discharged. We commend this action of the Leigh board to all boards of guardians, to relieving officers, and to those permanent officers of the central department, who often side with relieving officers and boards when they set the authority of their medical officers at defiance.

On January 31st, 1885, page 261, reference was again made to the Coroners' Witnesses Act by Mr. Lowndes, of Liverpool, on which a short comment was made.

On February 7th, page 304, attention was drawn to the refusal by the guardians of the Cuckfield Union to grant superannuation allowance to Mr. Porter, who had held office 27 years, the reason being that he had not given his whole time to the duties of his office.

On the same page, an answer was given to a correspondent who wrote to complain that, although there was a rate-supported infirmary in the town in which he lived, yet the voluntary hospital was partly filled by paupers. In the reply it was pointed out that, although such was the case, yet, as the salary of the medical officer was only £16 a year for a house licensed for 200 inmates, the condition of things of which he complained would continue until this latter arrangement was amended.

On page 411, we gave a reply to a gentleman, who wrote to complain that the guardians had declined to pay a fee of £1 ls. for removal of a malignant growth on the lip, when it was pointed out what should have been the course he should have followed; namely, that he should have written and stated the difficulty, if any, that existed, and then asked that some payment should be made.

On February 28th, page 463, attention was drawn to a hard case where a medical gentleman, having gone to reside in the country without apprising the registrar thereof, had his name struck off the Register. This he only discovered on applying at the National Vaccine Establishment for some lymph. At the same time, he had applied for and had been appointed as a district medical officer. He sent the money to get his name restored; but, although this was done, the Local Government Board decided that he could not claim his salary for the three months his name was off the Register. Professor Thorold Rogers saw Sir C. Dilke on the subject, who could only say that if the guardians paid the salary, and the auditors disallowed it, he would use his influence at the Board to get the surcharge set aside. In the JOURNAL of March 7th, page 511, will be found a resolution of our Council sympathising with this very unfortunate gentleman.

On March 14th, page 571, we drew attention to the case of Dr. Bernard, Medical Superintendent of the Small-Pox Hospital, Stockwell, who had received a notice determining his appointment after nine years' service. Although we did not succeed in getting the managers to reconsider their determination, yet, through a memorial we drew up and presented to them, a grant of money as compensation was awarded to Dr. Bernard on his loss of office.

In the JOURNAL of March 21st, page 624-5, will be found a letter from me on the certification of lunatic paupers in workhouses, consequent on the decision of Mr. Justice Wills, in the case of Hicks v. Bedford. In the JOURNAL of March 28th, page 680, will be found replies made by Sir William Harcourt, late Home Secretary, and Mr. G. Russell, Permanent Secretary of the Local Government Board, to questions which we were instrumental in getting put on this subject, in which both these gentlemen exhibited a very imperfect knowledge of the importance of this matter.

In the same issue may be found an annotation, "Whom can we hang?" When public attention was first drawn to the extravagance exhibited at the Eastern Small-Pox and Fever Hospital, the managers cast about for some one whom they could sacrifice, and their choice fell on Dr. Collie, the Medical Superintendent, whom they suspended. The public not being satisfied with their view of the matter pressed for an official inquiry, which, being granted, has resulted in one of the most extraordinary exposures of official corruption that have ever been made. But, up to the present, nothing has transpired justifying the action of the managers in suspending Dr. Collie, who, we learn from those who know him, has been sacrificed to the righteous indignation of the public at the gross extravagance which has occurred there. Dr. Collie, we learn, had only a nominal, not a real control over what went on; whilst his duties were so onerous, that, if due regard were to be shown to the sick, his primary duty, he had not time to see to other matters at all. Probably, if you agree with this view, some expression of sympathy will be accorded to this unfortunate gentleman.

On the same page attention was called to the case of Mr. Smith, of Heckfield, Hants. He, though not a medical officer, had been re-

quested, by an order from the relieving officer, to visit an alleged lunatic. He did so, and certified that the man was insane. The magistrate, however, declined to sign the certificate. On sending in his claim for £1 ls. to the Wokingham Board of Guardians, they declined to pay. Mr. Smith, however, appealed to us; we advised that he should write, and threaten legal proceedings. This had the desired effect; the guardians paid the fee. We learn that the man has since made repeated attempts to destroy himself.

In the issue of April 6th, 1885, page 758, will be found an abstract of the proceedings in the case of *Donbavand v. Morrison*, tried in the County Court, Croydon. It was on the initiative of our Council, and it was to test the correctness of the view held by Mr. Morrison, that the wording of the fifth section of the Coroners' Witnesses Act, and the subsequent ones, laid down the principle that workhouses and workhouse-infirmaries, under the Metropolitan Poor Act, etc., were public institutions within the meaning of the clause. Unfortunately, the decision of this county court judge was against our interpretation of the clause, and against the practice which has been in vogue for 48 years. The judge not only decided against us, but gave costs on the highest scale, whereby our Council had to pay £9 9s. to recover £2 2s., which had been kept from Mr. Donbavand, and £11 11s. besides, making altogether £20. We asked for an appeal, the judge reluctantly assented, but as we found that such appeal would entail a very large outlay to prosecute, and the appeal we made for help was limited to a few subscribers, we decided not to prosecute it, but to try the matter again before some other county court. In the meanwhile, the subject is one of much importance to the 650 workhouse medical officers, as we learn that the Coroners' Association have taken steps to make coroners generally acquainted with this county court judge's decision; and it would not be surprising if the refusal to pay these fees became general. This brief reference would not be complete, were we not to remind you that the initiative in refusing these fees came from Dr. Danford Thomas, Coroner for Central Middlesex, who owed his appointment to the exertions of his medical brethren, and who required them by raising this objection, whereby he has practically reversed the views held by Mr. Thomas Wakley, Dr. Lankester, and Dr. Hardwicke, the coroners who preceded him.

In the JOURNAL of April 25th, page 872, will be found an annotation on the case of Mr. Bethell, of the Bridgnorth Union. He had been called in the night to an urgent case of midwifery. The husband was destitute. Mr. Bethell told him to apply to the relieving officer for an order, who brought the case before the guardians during their sitting; they refused the order. In his letter to the Board, asking why they refused the order, he had the courage to ask, "whether, for the future, you will hold yourselves responsible for any death which may happen to mother or child, whilst I am waiting for an order?" The Chairman, before reading the letter, said its contents were such, that he was sure the Board would agree with him, that the writer should be dismissed, or called on to resign. The annotation was forwarded to all the Shropshire papers, and produced such a strong public feeling against this board, that they reversed their decision, and ultimately paid the fee.

In the JOURNAL of May 9th, 1885, page 970, will be found certain resolutions which were adopted by our Council, at its meeting on May 5th; generally, they referred to Clause 10 of the ex-Lord Chancellor's Bill, and Sections 1, 2, 3, 4, 5, 6, and 7. Now it may be argued that, as the present Government has abandoned that Bill, all occasion for alarm is over—but it is not so. The spirit that provoked those provisions is not dead. It is only dormant; and therefore it behoves us to be on the alert, so as to prevent a similar act of injustice from being perpetrated by the present Government, or by the one which may follow it.

In the JOURNAL of June 6th, page 1179, will be found the first of a series of annotations on the action taken by the Conway Board of Guardians towards Mr. T. Davies, district medical officer of that union, which may be briefly described as follows. Mr. Davies was appointed District Medical Officer in 1873. His salary was fixed at £75 a year. The area of his district was 13,544 acres, or 12 miles by six. The population at the last census (since much augmented) was 12,000. In addition to the £75 a year, he was allowed the extra medical fees as settled by the general orders, and he was further allowed to charge the cost of cod-liver oil and quinine supplied to the pauper patients. Very soon after his appointment, an attempt was made to induce him to accept a fixed sum for such extra fees, etc., but he refused. Two years ago an attempt was again made to force him into a commutation of them; and the guardians not succeeding, they directed that such supply should be made by Mr. Davies through a prescription, which should be countersigned by the relieving officer, and taken to a druggist. This ingenious plan led, as might have been

foreseen, by any but an ignorant body of country guardians, to a larger outlay on expensive medicine. And again an attempt was made by the Board, who had been incited by their Chairman, the Rev. W. Venables Williams, to compel this medical officer to accept their terms; and the Chairman indulged freely in threats of what he and the board would do if Mr. Davies did not give way. At this stage, and in consequence of what we saw in the local press, and what we gleaned from other sources, the Council of our Association adopted a resolution which we published in the JOURNAL, forwarded to the Board of Guardians, and also published locally. The resolution and the comment in the JOURNAL became the subject of a most excited discussion, which commenced with, was led on, and mainly conducted by, the Rev. Chairman, who, wholly misconstruing his sacred office, and his duty as a guardian of the poor, thought fit to indulge in offensive denunciation of the BRITISH MEDICAL JOURNAL, our Association, and the unfortunate medical officer; and who was enabled thereby to induce his followers at the board to refuse to pay, or rather to withhold payment of, the last quarter's salary and extra fees, because Mr. Davies would not consent to have his salary diminished by this attempt to make him commute his extra fees, and the supply of cod-liver oil, and quinine, for a paltry payment of £10 annually. Those who are anxious to see to what lengths this Chairman, and the guardians who agree with him, have gone, are referred to the JOURNAL of June 13th, page 1228; of June 27th, page 1317; July 4th, page 45, etc., and subsequent issues.

Unfortunately, our efforts to benefit Mr. Davies have not yet been attended with the results we expected, but as the action of this Board of Guardians is outrageous, and cannot be maintained, we have every confidence that we shall eventually succeed. Indeed, action on our part is absolutely necessary, for if this Board is allowed to do with impunity what they have done, there will be no security for any poor-law medical officer in the Kingdom; for all that it will be necessary for a board to do, which has been incited against their officer or officers, is to cancel his contract, then peremptorily call on him or them to accept some paltry sum in commutation of extra fees and the supply of expensive medicines, and, if he or they object, then pass a resolution refusing to pay his quarter's salary and extra fees.

Since I prepared the headings of the different points I had to bring before you, I drew up and sent to my brother, Professor Thorold Rogers, M.P., the form of a question which was put in the House of Commons last night. The answer given is in the highest degree satisfactory, inasmuch as the department has thereby settled once for all the meaning of cancelling a contract. It is now laid down that the cancelling of a contract does not imply the vitiation of an appointment; and the decision of the guardians to withhold the salary is declared to be an improper procedure. I have done my best to throw light on the subject, and I think you will agree with me that it is very fortunate that we have got something like an answer to the important question that has been raised. I hold in my hand Mr. Davies's contract; he sent it to me in order that I should see how it was worded, and, from the peculiar wording of this document, it was just possible that Mr. Davies, after all, may have no case. I find, from communications with medical officers in one of the midland counties, that they, having signed a contract some time ago, in reference to their appointments, have now been called upon by their board of guardians to fill up a fresh contract, which is worded like this one. Therefore, to a certain extent, there is a fear that the appointment may be determined by the caprice of the guardians.

Years ago, it was recommended, in the House of Commons, that Poor-law and Board of Health appointments should be permanent; but if we are to be thrust out by documents drawn up in the office of the Local Government Board, so that a man may unconsciously sign his own death-warrant, it is time that the question should be fought out to the bitter end. If there is to be nothing permanent in our appointments, there is an end to everything like independence on the part of the poor-law medical officer. If Parliament were likely to sit beyond next week, I should like to frame a question, in order to inquire how this document came to be worded in so peculiar a manner.

Mr. BRIDGER (Cottenham) said he signed a printed document of a somewhat similar character in 1869, at the time of his appointment.

Mr. EDWARD CRICKMAY (Laxfield) said he had never signed any such contract, though he had held his appointment for some years.

The PRESIDENT moved a vote of thanks to Mr. Ernest Hart, the editor of the BRITISH MEDICAL JOURNAL, for the extended facilities which he had afforded the Association in the publication of the reports and comments, and for his uniform sympathy and aid to the Poor-law Medical Officers and their Association.

Mr. CORNWALL suggested that the *Lancet* should be included in the vote of thanks.

Dr. MILWARD seconded the vote of thanks to the medical press which was put and agreed to.

Mr. J. WICKHAM BARNES said: Having heard from Dr. Rogers a summary of some of the work of the Association during the past year, it is my duty, in the absence of the Treasurer, to give you some information as regards our position numerically and financially. I am very pleased to tell you that our numbers are increasing, and that much greater interest is being taken by our members in regard to the work of our Association. We still find that many poor-law medical officers hold aloof for various reasons, one of which I will mention—namely, the fear of coming into conflict with their guardians through our interference in their behalf in order to correct abuses connected with their appointment. I can only say that the Association would never dream of taking up their cases without their consent, especially if it would in the least tend to their injury. It has always been my practice to advise medical officers to make all the friends they can among the guardians, and avoid coming into conflict with them, if possible; for, as a rule, the Central Board sides with the guardians (a loss, in any case of public scandal or illegality), and the medical officer goes to the wall. As regards our financial state, we have a balance of over £50 on the right side; and we should have had a much greater one, had it not been for the Croydon trial. We have here to-day poor-law medical officers from all parts of the kingdom; and, as legislation of a most vital character to their future interests is now taking place, it will not be out of place if I make a few remarks upon the subject, and invite your opinions and discussion. I need not say that I allude to Mr. Collings's Bill. This is not a question of politics, nor do I wish to introduce any political element into my remarks; but a more retrograde measure, or one that has received less thought or consideration, has never, in my opinion, been run through Parliament. It is a measure that goes far beneath the surface—one of a most retrograde character as affecting the recipient, of serious moment to the now overtaxed ratepayers, a bone of contention to boards of guardians, and one of continued oppression to the poor-law medical officer. With regard to the future appointment of medical officers, I consider that this question is a vital one. No doubt many will see the eagerness with which the House of Commons and the House of Lords have rushed through this measure; and they will now almost demand relief, and feel that they are doing good service by pauperising themselves.

The PRESIDENT: Having studied the administration of medical relief in Ireland (I have been there three times for the purpose of investigating the state of things on the spot), I may say that, at the present time, medical relief in Ireland is simply abominable. The way in which orders are given to persons in a condition well able to pay is thoroughly discreditable. Persons having small farms, or shops at a rental of £20 or £30 stocked with goods, get what is called a "scarlet-runner," and the unhappy dispensary medical officer is bound to go at a moment's notice. It is not a disqualification, and it is not considered discreditable to receive medical relief in this way. The medical officer has no authority in the matter, and he is often put to considerable inconvenience and expense. There is one thing to be said about the Irish system, that there is no medicine to find, and the salary is larger than it is in this country. Mr. Venables Williams wants to carry the matter out to the bitter end, so that the medical officer may have to find and dispense medicines, and that at a salary far less than is paid in Ireland. If that be carried out, we shall be like toads under a harrow, worried to death by the additional work thrown upon us. The system will sap altogether the independence of the working classes, and I believe it is one of the most retrograde steps taken by any political party in this country.

Mr. J. WICKHAM BARNES said he had received many letters from medical officers throughout the kingdom, who were almost unanimous in their desire that the Bill might be thrown out by the House of Lords.

Dr. LEWIS said he had the Chairman's permission to say a few words. Though not a member of the Society, he had been a medical officer of unions, perhaps longer than any person then present. In the year 1845, he became medical officer of the western portion of the Cardiff union, and he had been also many years medical officer in Bridgend and Cowbridge. He still took considerable interest in matters of that kind, and, as a magistrate of the county, he regularly attended all the meetings of the Cardiff union. He had, of course, as a magistrate, a good deal to do with lunacy cases, and he was always ready to give whatever assistance he could in the matter. Poor-law medical officers, in the position they occupied, which was a noble and an honourable one, had their reward in the consciousness of the ser-

vices they were rendering. He should be glad for the members to visit the Cardiff union, which was certainly a very fine institution, a little too expensive perhaps, but very well managed. In the remarks of the President on the subject of medical disqualification, he had not separated medical relief from medical extras, which were really on a different footing. He had himself taken up the question of good food, air, and nursing for the poor, and had the honour of being the originator of the "rest" which had been recently established; it contained 40 beds, which were all occupied. They were intended for the labouring classes, and the charge made for them was 10s. 6d. a week; the patients were generally turned out in very good condition. There was another matter in which the medical officer could assist the magistrates enormously; he referred to the question of the loan. Relieving officers did not want the trouble, and the guardians were often too anxious to get home to their dinners, instead of attending to their work.

Dr. MARTIN proposed a vote of thanks to Dr. Rogers for the valuable services he had rendered to the Association.

Dr. KING (Chepstow), in seconding the motion, said that Dr. Rogers had done the best that he could for the members, and it was only natural that he should do so, having been a poor-law medical officer himself. He was glad to hear the remarks of the Secretary that cases were not taken up without the consent of the persons immediately concerned. He himself had a very fair Board of Guardians, but there was, perhaps, too large a clerical element in it. Whenever the clergy and the farmers took opposite views, he generally found that the farmers were on his side.

Mr. TERRY (Frome) said he did not think that the Medical Disqualification Bill would very much affect him in his union. The agricultural labourers cared very little about voting; and, as far as medical relief went, he thought it would make very little difference whether the Bill passed or not.

Mr. BARNES said he thought it would make a difference when the men were more educated.

The PRESIDENT thanked the members for the compliment paid to him, and said he hoped to continue the work as long as he lived, since it afforded him amusement, and also gave him the opportunity of doing good by occasionally assisting a lame dog over the stile when he had got into a quarrel with his Board of Guardians.

THE CASE OF DR. BRADLEY.

THE annual gathering of the British Medical Association, at Cardiff, afforded an excellent opportunity for convening a meeting of the members of the profession who sympathised with Dr. Bradley. This meeting was held in the Town Hall, Cardiff, on July 30th, under the presidency of Mr. Lawson Tait, of Birmingham, who sketched the history of the case, already well known to our readers. He remarked that the doctor was put upon his trial for rape, but was found guilty of an attempt only.

Dr. Bradley's friends regarded this as an extremely illogical conclusion on the part of the jury, and the circumstances of the case were then inquired into by these friends. They spent a great deal of time, and went to considerable trouble, in their investigation of the whole circumstances of the case; and the result of this inquiry justified steps being taken with a view to the release of Dr. Bradley.

He (the chairman) had himself seen Lord Coleridge, the judge who tried the case, on the subject, and his lordship had afforded him every facility for obtaining information. Lord Coleridge had shown him the notes he had taken of the evidence.

It was true, the chairman went on, that the doctor had been liberated, but that had been done in a very unsatisfactory manner, the Home Office expressing no opinion as to his guilt or otherwise. The Home Office did not appear to have inquired into the merits of the case. He had seen the late Home Secretary on the subject, but, owing to the great pressure of business at the time, Dr. Bradley's case had never been properly inquired into. However, Dr. Bradley had been liberated, and it was now their duty to pass a resolution which would give a certain amount of satisfaction to him. If medical men could be sentenced to two years' imprisonment upon such evidence as that which Dr. Bradley was convicted, then none of them were safe. He moved:

"This meeting learns with satisfaction that the Home Secretary, in view of the inadequate evidence on which Dr. Bradley was convicted, has set him free."

Mr. Jeffreys, of Chesterfield, in seconding the resolution, gave particulars of the feeling which had been created owing to the conviction of Dr. Bradley. Throughout the area of his practice near Chesterfield, he was greatly beloved by his patients, and specially so by the

poor. In proof of this, a memorial signed by 2,000 persons had been presented to the Home Secretary for Dr. Bradley's release, it having emanated from those amongst whom he had professionally laboured.

The resolution was carried unanimously.

Dr. JACOB. Dublin, moved:

"This meeting, convinced of the innocence of Dr. Bradley, and profoundly sympathising with him in the ruinous injury which has been inflicted on him, and the suffering and loss which he has incurred, recommends his case to the liberal consideration of the profession, and will use its best endeavours to raise a fund which will in some measure indemnify him for the severe pain and loss which he has suffered, and which is to him and his family fraught with the most disastrous consequences."

Mr. ARTHUR JACKSON, Sheffield, seconded this resolution, which was also carried unanimously.

IRISH GRADUATES' ASSOCIATION.

The eighth annual meeting of the above Association was held on Wednesday, 29th ultimo, in the Town Hall, Cardiff. In the absence of the out-going President (Professor Stokes, of Dublin), Dr. Waters (Chester), one of the ex-Presidents was moved to the chair, which he subsequently resigned to Dr. H. Macnaughton Jones, F.R.C.S.I., after the nomination of the latter as President for the ensuing year had been confirmed by the meeting.

The PRESIDENT, in his opening address, referred to the large increase which had taken place in their numbers during the preceeding twelvemonth. There were 132 on the roll after the Belfast meeting; there were now 257, notwithstanding the loss of one member by death (Dr. S. Warren, of Hoylake), and of two by resignation. The increase would have been still greater but for the name of the Association, which had prevented many of those eligible for membership from joining. These gentlemen (who were mostly practitioners resident in England and Wales) had no degree from either of the Irish Universities. They held a diploma from one or other of the Irish licensing bodies, but were afraid of the charge of "sailing under false colours," if they allowed their names to appear on the roll of an Association of Graduates. So many had been deterred by this fear that the Council recommended—after much consideration of the question—that the name should henceforward be "The Irish Medical Schools' and Graduates' Association;" and they hoped that under its new designation it would gather soon into its ranks a very large proportion of the two thousand qualified for membership, who were practising in Great Britain. Their object was to enroll all those registered practitioners who hold any Irish qualification or had studied at any recognised School of Medicine in Ireland.

The President concluded by moving the adoption of the report, which was to have been moved by the new Chairman of Council, Professor G. F. Yeo, who had been detained in town by his duties as Examiner to the University of London. Considerable discussion ensued in reference to several of the rules in the code suggested by the Council; but, after a division on the question of the new name, and after a few minor alterations had been unanimously accepted, the motion of the President was declared carried, and the new rules adopted. Among the latter was one fixing the 17th of March as the date for the annual meeting, to be held henceforward in London, and another raising the subscription to five shillings *per annum* for all those enrolled on and after St. Patrick's Day, 1886, and two guineas for life-members. The report showed a balance in the hands of the Treasurer of £33 9s. 3½d.

After a hearty vote of thanks to Professor Stokes, for his conduct as President of the Association during the past twelvemonth, the meeting adjourned to the 14th October next in London.

The annual dinner took place on Wednesday evening, at the Philharmonic Restaurant, Cardiff. Thirty-nine members and their friends sat down.

ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the College was held on Thursday, July 30th, Sir W. JENNER presiding.

The late Dr. Shepherd.—Before the commencement of business, the President adverted to the recent death of Dr. A. B. Shepherd, and a motion was unanimously passed expressing the regret of the College, and its sympathy with Mrs. Shepherd in her unexpected bereavement.

Murchison Scholarship.—A communication was received from the University of Edinburgh, stating the result of the examination for the Murchison scholarship. The examiners reported that Mr. Joseph

Griffiths, of the University of Edinburgh, had gained the scholarship, and that Mr. S. Plowman, of St. Thomas's Hospital, had highly distinguished himself in the examination.

The Dublin Hospital for Sick Children.—An application was received from the medical board of the Hospital for Sick Children, Dublin, for recognition as a place of study. This was referred to the Managing Committee.

New Members and Licentiates.—The following gentlemen were admitted members. John Anderson, M.D. Lond.; R. H. Fox, M.D. Brussels; W. D. Halliburton, M.D. Lond.; Arthur Shadwell, M.B. Oxford; St. Clair Thomson, M.B. Lond.; Leonard C. Wooldridge, M.B., D.Sc. Lond.

The licence of the College was conferred upon fifty-one gentlemen who had passed the required examinations. Twenty others will be entitled to the licence on completing their examinations in surgery.

Baly Medal.—On the nomination of the Council, ratified by an unanimous vote of the Fellows, the Baly medal was conferred upon Mr. W. K. Parker, F.R.S.

The Colleges and the Title of Doctor.—A report was received from the delegates appointed by this College and by the College of Surgeons to confer as to what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of "Doctor." The delegates had carefully considered this question, and had also considered the memorial, signed by more than 600 teachers, practitioners, and students in medicine, and referred to them, advocating the amalgamation of the two Colleges into one Royal College of Medicine, for the purpose of granting degrees in medicine and surgery. They reported that in their opinion it is desirable that persons examined by the two Colleges conjointly, and found duly qualified, should, in virtue of that examination, have a degree in medicine and surgery conferred upon them; and also that the curriculum of study and the examinations to be undergone for the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England are equal to those required by most of the universities for degrees in medicine and surgery. They added that they were of opinion that, should the two Colleges approve these conclusions, means could be found for giving effect to them.

At the suggestion of the President, the report was received and entered on the minutes, the discussion of the subject being postponed until October; the President appealed to the Fellows to give the subject their careful and candid consideration, in order that a conclusion might be arrived at, conducive at once to the general advantage of the profession and to the welfare of the College.

Premises for Conjoint Examination.—An important report was received from the Building Committee, recommending the adoption of plans submitted for the erection of the new examination hall for the conjoint examinations. The new hall is urgently needed, the greatest inconvenience now existing, owing to the great increase in the number of candidates. At a recent examination, no fewer than 520 presented themselves, and accommodation had to be obtained in distant localities. The plans provide for simultaneous examination of 650 candidates. After some discussion, chiefly relative to the desirability of obtaining a general criticism of the plans before final adoption, it was resolved that authority be given to the Building Committee to carry out the plans submitted, with any modifications which may be suggested and which they may think proper to adopt, and that the College seal be affixed to such legal instruments as the solicitors to the two Colleges advise.

Croonian Trust.—Counsel's opinion was received on the subject of the Croonian Trust. Counsel advised that it is necessary to prepare a definite scheme for the employment of the increased income of this trust, and to obtain sanction for the same from the Charity Commissioners or the Court of Chancery.

Appointment of Officers.—The following gentlemen were appointed officers of the College.

Censors: Drs. Habershon, Stone, Pollock, Dickinson; *Treasurer:* Dr. Duckworth; *Registrar:* Sir H. Pitman; *Librarian:* Dr. Munk; *Assistant-Registrar:* Dr. Allchin; *Curators of Museum:* Drs. Wegg, Beale, Bastian, Curnow; *Finance Committee:* Drs. Hare, Wood, E. Liveing.

Examiners.—The following gentlemen were elected Examiners.

Chemistry: Mr. Heaton, Drs. Stevenson, Bernays, Russell, Mr. Foster; *Materia Medica:* Drs. Brunton, Bruce, Taylor, Murrell, Lees; *Elementary Physiology:* Drs. Ewart and Harris; *Physiology:* Drs. Harley and Wooldridge and Professor Schäfer; *Osteology and Anatomy:* Drs. Carrington and Anderson, Mr. Morris; *Medicine:* Drs. Beale, Sturges, Sutton, Church, Cheadle, Pye-Smith, Bastian, Cayley, Whipham, Green; *Midwifery:* Drs. Gervis, Williams, Black; *Surgery:* Mr. G. Pollock, Mr. Couper, Mr. Beek.

THE NEW LAW AS TO MEDICAL RELIEF.

SINCE our last reference to the subject of the Government measure for removing the electoral disqualification hitherto attaching to the acceptance of medical relief from the poor-law authorities, the Bill has had some dramatic experiences, though it is now secured from further dangers by safe passages through all its stages, having received the formal signification of Her Majesty's pleasure on Thursday, August 6th.

Whilst we were going to press with the JOURNAL of the 18th ultimo, the House of Commons was hotly debating the second reading of the Bill, and talked about it until two o'clock in the morning of the 17th (indeed, the successive stages of the Bill were all decided by the Commons in the small hours). An amendment by Mr. Pell "that, in the relief of destitute paupers out of any poor-rate, this House declines to draw a distinction in favour of enfranchising those who obtain it in the form of medical treatment, and those who are compelled to accept it in the form of bread," was rejected, after a long discussion, by 279 votes to 20. In the Committee stage, the Bill was debated for nearly 12 hours on Tuesday, July 21st, taking up practically the entire sitting.

On Thursday, July 23rd, the principle of the measure was again exhaustively discussed, upon the amendment proposed by Mr. Collings that "medical or surgical assistance" should include medical comforts. The Government refused to accept this extension, and, being defeated by 180 to 130 votes, disowned further responsibility for the measure. Thereupon Mr. Collings assumed charge of it; and, after a lengthened wrangle, it was resolved to postpone the third reading until the next day, in order that the Government might make a declaration of its intentions. Accordingly, on the Friday, Sir Michael Hicks-Beach announced that, although the Government disapproved of the change made in the Bill, they did not intend to oppose it on its third reading. This stage was accordingly taken at a later period of the sitting, when the Bill was passed without further debate. In the House of Lords, there was, on July 27th, a not very creditable display of feeling as to who was to take charge of the measure, the Earl of Milltown insisting, for no very apparent reason, upon his right as an independent peer to take up a Bill that had come up "derelict" from the other House. Eventually, Lord Granville yielded the position to which he for some time adhered—that, as he had been asked by the foster-parents of the Bill to pilot it through the Lords, he was entitled to regard it as his own; and it was decided to take the second reading on the following day. This stage was got through without a division, and on Thursday, July 31st, the Bill was considered in Committee. Lord Balfour of Burleigh moved the insertion of a clause providing that the Act should continue in force until the year 1887 only, unless Parliament should otherwise determine; but this amendment was eventually withdrawn, and the Bill passed through the Committee without alteration. On the next day, Friday, it was read the third time, and passed without comment. As it now stands, it provides that, "where a person has, in any part of the United Kingdom, received for himself, or for any member of his family, any medical or surgical assistance, or any medicine at the expense of any poor-rate, such person shall not, by reason thereof, be deprived of any right to be registered or to vote either (a) as a parliamentary voter, or (b) as a voter at any municipal election, or (c) as a burgess, or (d) as a voter at any election to an office under the provisions of any statute." This is, however, not to apply to the election (a) of any guardian of the poor, or (b) of any member of any parochial board in Scotland, or (c) of any other body acting in the distribution of relief to the poor from the poor-rate.

The term "medical or surgical assistance" includes "all medical and surgical attendance, and all matters and things supplied by or on the recommendation of the medical officer having authority to give such attendance and recommendation at the expense of any poor-rate."

THE PATENT MEDICINE TAX.

A VERY diffuse and, it must be confessed, very ungrammatical report, has just been issued by the Board of Inland Revenue, on the various duties under their management. From a laudatory letter by Mr. Gladstone which is printed in the preface, it would appear that this report has been largely the work of Viscount St. Cyres, under which unfamiliar and brand new courtesy-title the identity of Mr. W. S. Northcote, the eldest son of the present Earl of Iddesleigh, is tempo-

rarily obscured. Amongst the numerous taxes which come in for discussion is the stamp-duty still leviable upon patent medicines; and, as this particular tax has of late been much canvassed in Parliament and by our own Association, it may be of interest to reproduce what the Board of Inland Revenue have to say concerning it.

The Board begin by remarking that, under the Acts 23 Geo. III, c. 62, 25 Geo. III, c. 79, and 42 Geo. III, c. 56, stamp-duties were granted on certain medicines, and on licences for selling the same; but the principal Act now in force is the 52 Geo. III, c. 150, which, after giving a schedule of medicines liable to the duty, proceeds to enact generally that it shall apply to "all other pills, powders, lozenges, tinctures, etc., to be used or applied externally or internally as medicines or medicaments for the prevention, cure, or relief of any disorder or complaint incident to, or in anywise affecting, the human body, wherein the person making, preparing, uttering, vending, or exposing to sale the same, hath or claims to have any occult secret or art for the making or preparing the same, or which now are or shall be prepared, uttered, vended, or exposed to sale, under the authority of any letters patent under the great seal, or which now are or shall be by any public notice or advertisement, or by any written or printed papers or handbills, or by any label or words written or printed, affixed to or delivered with any packet, box, bottle, phial, or other enclosure containing the same, held out or recommended to the public by the makers, vendors, or proprietors as nostrums or proprietary medicines, or as specifics, or as beneficial for the cure or relief of any distemper, malady, ailment, or disorder, or complaint incident to or in anywise affecting the human body." The following exceptions have been made by various Acts. (1) "All medicinal drugs whatsoever which shall be uttered or vended entire, without any mixture or composition with any other drug or ingredient whatsoever" (52 Geo. III, c. 150). (2) "Ginger and peppermint lozenges, or any other article of confectionery, unless the person vending the same shall vend the same as medicines, or as beneficial for the prevention, cure, or relief of any distemper, malady, ailment, or disorder incident to or in anywise affecting the human body" (55 Geo. III, c. 184). (3) "All artificial mineral waters, and all waters impregnated with soda or mineral alkali, or with carbonic acid gas; and all compositions, in a liquid or solid state, to be used for the purpose of compounding or making any of the said waters" (3 and 4 Wm. IV, c. 97).

The Commissioners remark that it cannot be too widely known that the medicine-stamp is nothing but a tax, and that they are bound to issue the stamp to any proprietor of a medicine liable to duty who pays for the same. "The revenue-stamp in no way guarantees the efficacy of the articles round which it is wrapped." The duties on patent medicine are charged on the *ad valorem* principle, and range from 1d. (for value not exceeding one shilling) to £1 (for value exceeding £50). They are to be paid by the proprietor, compounder, or first vendor, before the preparation is sold or exposed for sale, or delivered out of his custody or possession for sale, either wholesale or retail, and for either foreign or home consumption. The labels are to be so affixed that the packet, box, bottle, pot, or other inclosure cannot be opened, and the contents poured out or taken therefrom, without tearing the label, so as to prevent its being used again.

In addition to the tax upon the medicine itself, an excise licence is required to be taken but yearly, in any part of Great Britain, by the owners, proprietors, makers, and compounders of, and persons uttering, vending, or exposing for sale, or keeping ready for sale, any medicine liable to stamp-duty. This duty on patent medicine vendors' licences was first imposed in 1783 as a stamp-duty. In 1864, it was transferred to the excise revenue. It was rendered uniform throughout Great Britain (the duty does not apply to Ireland) in 1875, and the sum of 5s. imposed. The licence is dated on the day it is issued, and continues in force until the 1st of September following. A penalty of £20 is incurred by a person selling medicines liable to stamp-duty without a licence. One licence authorises the sale of patent medicines in two or more shops occupied by one person. In 1884-5, 20,012 licences were issued, the duty on which amounted to £5,003.

The revenue from patent medicines has almost doubled since 1869. In the last sixteen financial years ended March 31st, the receipts from this source appear, from a return in the appendix to the Commissioners' Report, to have been as follows:

1870	...	£72,353	1878	...	£125,142
1871	...	71,343	1879	...	132,386
1872	...	86,517	1880	...	135,366
1873	...	95,813	1881	...	139,763
1874	...	99,808	1882	...	145,266
1875	...	114,323	1883	...	154,774
1876	...	123,136	1884	...	159,238
1877	...	118,222	1885	...	170,337

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

NOTICE is hereby given that an Extraordinary General Meeting of members will be held in the Council-Room, Exeter Hall, London, on Friday, August 14th next, at 4 o'clock in the afternoon, for the purpose of confirming the resolution passed at an extraordinary general meeting of members held at the Town Hall, Cardiff, on the 30th instant, namely, that in Articles 13 and 15 the word fifty be altered to one hundred, so as to read as follows:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any 100 or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting, and if they do not so within 21 days from the date of the requisition, any 100 members may themselves convene a meeting. FRANCIS FOWKE, *General Secretary*.

Cardiff, July 30th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTHERN COUNTIES (SCOTLAND) BRANCH. ANNUAL MEETING.

THE annual meeting of this Branch was held in the Victoria Hotel, Inverness, on July 8th, when the chair was taken at first by Dr. M'INTYRE, of Fort William, President.

New Members.—Drs. Chapman, and Duncan M'Kay, of Inverness, and Dr. Fortescue Fox, of Strathpeffer Spa, were unanimously elected members.

President's Address.—On taking the chair, the President-elect, Dr. McNEE, of Inverness, read a paper on the Germ-Theory of Disease. He began by showing that the antiseptic system in surgery was built on the foundation of M. Pasteur's researches and observations in the process of fermentation. He went on to show how, to M. Lemair, through his pamphlet (*Du Coaltar Saponine*), published in 1860, and a larger work (*De l'Acide Phénique, de son Action sur les Végétaux, les Animaux, etc.*), published in 1863, was due the credit of really originating the antiseptic system; but that nevertheless to Sir Joseph Lister, more than to any other surgeon, was surgery indebted for making out the system that now bore his name. After paying a very high and well deserved tribute of respect to Sir Joseph Lister, "whose memory would be green in the annals of surgery long after the very names of many of his most illustrious detractors would be buried in oblivion," the paper described what was really meant by the "germ-theory of disease," and in what manner the germs were supposed to give rise to disease; the writer expressing the opinion that the fermentation-theory, or something akin to it, had probably most supporters, and was more generally applicable. Next came a tentative classification of pathogenic micro-organisms after Dr. Harley, of which the micrococci, the bacilli, and the bacteria, were the germs most frequently met with; then followed, in minute detail, the conditions necessary to be fulfilled in experimenting with any one of these organisms, before it could be considered as the real cause of any particular disease, and where these conditions were fulfilled, there did not seem any room for doubt as to the causal relation of the germ to the disease in question. M. Pasteur's communication to the Academy of Sciences on April 30th, 1877, was then referred to, in which he demonstrated that the bacilli, called leiterii, filaments, rods, etc., discovered by Davaine and Rayer, in 1850, were the sole cause of splenic fever in the ox, sheep, horse, rabbit, etc., these constituting splenic fever, the first specific disease that could, without doubt, be attributed to a specific organism. Pasteur's further researches and discovery of a protective vaccine through attenuating the splenic virus of fever was also noticed. The author then gave a list of most of the diseases in man and the lower animals in which a micro-organism was found by one or more observers, and supposed to be the cause of the disease under observation. He commented, at some length, on those cases where the proof seemed most complete, such as fowl-cholera in the lower animals, and erysipelas, gonorrhoea, malignant carbuncle, wool-sorters' disease, etc., in man; and merely referred to other diseases where, as yet, the proof was very incomplete. The remarkable similarity of symptoms during life, and correspondence of

post mortem appearances, in the fatal cases in an outbreak at Welbeck in 1880, among 75 persons who had partaken of beef and ham-sandwiches at a sale of timber, and a similar outbreak among 15 persons at Nottingham, in 1881, who had taken some baked pork, were then noticed; a bacillus was found in the cases which, after cultivation and re-inoculation, reproduced the affection. The interesting experiments of Klebs and Crudeli, showing the causal connection between the soil and the malarial fever of the Roman Campagna (doubted, however, by Sternberg), those of Dr. Becker with the micro-organism of acute infectious osteomyelitis, discovered by Schüller and Rosenbach, and those extremely interesting and instructive observations of Dr. Manson, of Amoy, respecting the connection between the filaria sanguinis hominis, and its embryo, and lymph-diseases, were all passed under review. As an example of the care, caution, and extensive knowledge required on the part of workers in the experimental microscopic world, as well as the difficulty of making sure that one was working with only one kind of organism, the writer instanced the different manner in which Koch, somewhat accidentally, discovered how the field-mouse and house-mouse were affected by an injection of the same putrid fluid, which, in the one case, caused septicæmia and gangrene, and in the other gangrene, but no septicæmia. The same experimenter, by exposing some sterilised gelatine-material in a shallow glass to the air of London for four hours, found 40 to 50 different organisms deposited in it. After some general remarks, Dr. McNee concluded as follows. "I must conclude by inquiring, as shortly as possible, what your position and mine ought to be with regard to this germ-theory of disease in its present condition. I think we ought to be reverent, humble, patient, discriminating disciples. I am myself quite a believer in it, as you must have gathered from what I have put together in this paper; but I would not like anyone to run away with the impression that I am a credulous disciple of that school, as I certainly would not ask or wish any of you to be. While I acknowledge with much thankfulness and deep gratitude much good, and, I have no doubt, enduring work that has been done in this line, and look forward with hope to a great deal more, I am quite well aware that a vast deal of nonsense has been spoken and written on the subject, that much chaff is found mixed with the wheat. Nay, more, I am far from thinking that it is the wheat, and wheat only, that I have put before you in this paper, as many of the observations therein referred to require confirmation ere they can claim a place among our list of accepted facts. We have not yet arrived at a stage in this investigation to warrant us indulging in any dogmatic assertion, but I think a good foundation has undoubtedly been laid; the building is being reared, and the builders very busily engaged in shaping the stones that are destined to form part of the mason-work. In any case, I believe the foundation is sound, and I have not much fear for the superstructure. Methinks we are soon to have great discoveries in this microscopic world; consequently, we must be on the alert. Believing, as I do, that much of the future progress of pathology, and through it, of medicine, lies in this direction, I would like myself, and advise others, to watch attentively all that goes on in this region, trying to keep abreast of the work done, to read, study, reflect, and digest what is being written on the subject. Though many of us, from lack of training and opportunity, cannot engage in the thick of the battle, yet we may, from our elevated height of unprejudicial observers, see and judge better of the progress of the fight and the success of the combatants than those enveloped in the smoke and dust of the battle-field. Let us then, in a true scientific spirit, try to make the most of this obscure parasitic world, endeavouring to get out of it all it has got to teach, avoiding, on the one hand, a cold unreasonable scepticism, and, on the other, a servile credulous belief, but weighing all that comes within our grasp in the scales of a sound and impartial judgment; unhesitatingly reject the false, but hold fast the real and the true; and thus I have little doubt all of us will profit much, and, I would fain hope, our patients more, from this germ-theory of disease."

After a lengthened discussion, a very hearty vote of thanks was accorded to Dr. McNee for his instructive address.

Hypodermic Injector.—Dr. WHITE (Elgin) exhibited a new hypodermic injector invented by himself, and explained its advantages.

Reports from the local Investigation Committee and Committee on "Fees and Ethics" were submitted.

Representative on the General Council.—Dr. McIntyre was re-elected representative of the Branch on the Council of the Association.

Next Annual Meeting.—It was agreed that the next annual meeting of the Branch should be held at Elgin on the second Wednesday of July, 1886, and it was further agreed that Dr. Robert Craig, of Glenurquhart, Inverness-shire, be President-elect.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Microbe of Albuminuria and the Relation of Albuminuria to Eclampsia.—General News.

M. DOLERIS, assisted by M. Poney (Montevideo), has continued his researches (commenced in 1883) on the microbe of albuminuria, and the connection of albuminuria with eclampsia. In a communication to the Biological Society, Mr. Doleris stated that albuminuria, during pregnancy, happened in the proportion of 1 to 20 cases. The urine of pregnant women who are free from albuminuria may present organisms, though every precaution be taken; the proportion is 1 to 5. Dr. Doleris believes this may result from catarrh of the vagina extending to the urethra, and, perhaps, the bladder; this possible cause of mistake must be borne in mind in making researches. Dr. Doleris observed in twenty cases that the urine of pregnant women contained organisms, generally presenting the aspect of small chains. Their blood was examined, and used for artificial cultivations; but organisms were not detected. Nevertheless, Dr. Doleris does not consider that their absence is proved, because only a few drops were withdrawn from a finger of each patient. The blood and urine of five patients exhibiting albuminuric eclampsia was examined; the increase and decrease of the microbes was observed to be synchronous with the appearance and disappearance of convulsions. MM. Doleris and Poney will shortly publish the results of the inoculations, and the chemical analyses they made.

M. Gariel, in a lecture given at the Normandy Société d'Hygiène, has treated the question of electricity and hygiene. The connection between these two subjects is rarely realised. It is generally known that electro-plating replaces gilding and silvering with mercury; but, beyond this, little is known of the hygienic importance of electricity. The first example cited by M. Gariel is the electric sifting machine, better known in America than in England. The jerking movements formerly given to the sifter, in order to separate the flour from the bran, diffused among the surrounding atmosphere fine dust, inimical to health; it caused disturbance of the respiratory organs. Electricity is also of inestimable value as a life-saver in mines. Formerly, numbers of miners lost their lives, because, when their fuse burned too quickly, they had not time to seek safety before it exploded; or, if it burned too slowly, believing it had gone out, on approaching to place another fuse, they lost their lives. Electricity induces explosion at the moment desired; if it fail, the locality can be approached without danger. Part of M. Gariel's lecture treated of the application of electricity to alcohol. The alcohol extracted from the residue of beetroot, after it has been used for making sugar, contains aldehydes, which are both unpalatable and dangerous to health. MM. Mandin and Schneider have constructed an electric instrument, which adds a sufficient number of molecules of hydrogen to these alcohols, so that, by distillation, all alcohols may be obtained free from such dangerous substances. M. Gariel also referred to the application of electrical currents for the prevention of deposits in boilers; and for warming the atmosphere, a method especially desirable for confined areas, such as railway-carriages. He also touched on the benefit to public health that would result from the use of the electric light. M. Gariel terminated his lecture by a few words concerning the influence of electricity on living beings. He believes that it must be extremely beneficial, but admits that its effects are all but unknown. Experiments on plants have given definite results, but are somewhat contradictory. M. Gariel's lecture is published at length in the May number of the *Revue Scientifique*.

The Comité d'Hygiène has been twice consulted by the Minister of Commerce concerning the practice of adding salicylic acid to drinks and articles of food. That body declared it to be dangerous to public health. The subject will shortly be discussed at the Académie de Médecine.

Dr. Dujardin-Beaumetz, in a communication to the Académie de Médecine on carbondisulphide, shows how intimately science and public health are connected. The manufacture of carbon-disulphide has of late years immensely increased. It is especially used in oil-factories and for treating vines attacked by the phylloxera. In 1885, twelve million kilogrammes were thus used. M. Dujardin-Beaumetz has administered carbon-disulphide to animals by passing it into the stomach, the respiratory organs, the veins, and the skin. Passed into the digestive organs it is never poisonous; 25 grammes daily have been absorbed by patients without any ill effects. A dose of 40 centi-

grammes to every kilogramme of the animal's weight has provoked sickness and diarrhoea. A daily dose of 1.5 grammes, continued for some time, produced weakness and trembling of the limbs, in a dog weighing 13 kilogrammes. Introduced into the respiratory organs, it affected guinea-pigs, but not other animals. Applied to the skin, carbon disulphide produces local anaesthesia. It is a powerful counterirritant. Carbon disulphide diluted with water, introduced into the vascular system is harmless. M. Dujardin-Beaumetz concludes his communication by saying that carbon disulphide is toxic, either from its inherent properties or from the impurities it contains. In consequence of the faulty way of preparing this substance, it always contains sulphuretted hydrogen. He believes the fact that accidents are rare when it is used in oil factories, and for treating vines, is because carbon disulphide, rendered pure by distillation, is used in the factories, and when it is used for vines, the open air removes all cause of danger.

An unfortunate accident has happened at the St. Louis Hospital. Two patients were ordered a teaspoonful each of eau de vie allemande (tinctura jalapae composita). The dispensing chemist attached to the hospital made a mistake, and delivered gouttes noires de baumé (guttæ nigrae de baumé). Both patients died a few minutes after taking the dose, without uttering a cry or a groan. The author of the mistake tried to commit suicide, but was prevented. He has passed excellent examinations, and is considered one of the most distinguished of the Paris hospital chemists.

Dr. Duval, member of the conseil-général and the departmental commission of the Seine Inférieure, has been named Knight of the Legion of Honour. The Minister of Commerce has also decreed that Dr. Vintras, physician to the French hospital in London, shall be promoted to the rank of officer, and M. Peyron, director of the Assistance publique, and M. Masson, the director of the travaux d'Assainissement de la Seine, are created Chevaliers, in consideration of their services to the hygienic and educational exhibition held at London.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Vacation-Lectures in Berlin.—Visitors at German and Austrian Watering-Places.—Siberian Plague.—Prize for a New Ear-Trumpet.—Syringes for Dr. Ferran's Inoculations.—Deaths in the Profession.

THE catalogue of the autumn cycle of vacation-courses, commencing on September 25th, and lasting till the end of October (already announced in the JOURNAL of June 27th), is as follows:

1. Normal and Pathological Anatomy, and Histology. Six courses by Drs. Jürgens, Grawitz, Wernicke, P. Guttman, Bränsicke, Israel, and Professors Wolff, Mendel, and Rabl-Rückhard.
2. Physiology, Medical Physics, and Chemistry. Four courses by Professor Christiani and Drs. Herter, Munk, and Weyl.
3. Materia Medica and Toxicology. One course by Dr. G. Lewin.
4. Twelve courses by Professors A. Fränkel, Litten, Zuelzer, Ewald, and Drs. P. Guttman, Riess, Lazarus, Lewirski, Baginsky, Ehrenhans, Grunmach, Klein.
5. Psychiatry and Diseases of the Brain. Four courses by Drs. Sarder, Mölli, Mendel, Thomsen.
6. Diseases of the Nerves and Electro-therapeutics. Five courses by Professors Bernhardt and Eulenburg, and Drs. Remak, Wernicke, and Oppenheim.
7. Surgery. Five courses by Professors Küster, Busch, Gluck, and Drs. Hahn and Haus Schmid.
8. Ophthalmology. Two courses by Professor J. Hirschberg and Dr. Horstmann.
9. Otology. Three courses by Drs. Schwabach, L. Jacobson, and B. Baginsky.
10. Larynx and Nose. Three courses by Drs. Lablinski, B. Baginsky, and H. Krause.
11. Gynaecology. Six courses by Drs. Veit Martin, Landau, Löhlein, Hofmeier, and Wyder.
12. Dermatology and Syphilis. Four courses by Professor Lewin and Drs. Lassar, G. Behrend, and Köbner.
13. Judicial Medicine and Hygiene. Five courses by Professor Liman, and Drs. Falk, Herter, Sauder, and L. Levin.

Anybody desirous of attending any of these courses, or of obtaining further information, can do so by applying to Herr Anders, Hagelsberger Strasse 2, Berlin. The office at this address will be open from 10 to 7, four days before the commencement and after the conclusion of the cycle.

Professor J. Hirschberg is the Chairman of the Committee connected with these courses.

The following statistics, up to July 15th, will show the number of patients who have visited the chief German and Austrian watering-places this season for the purpose of taking the waters:—Aix-la-Chapelle, 13,314; Baden-Baden, 23,142; Franzensbad, 3,087; Gastein, 1,832; Ischl, 5,214; Johannsbad, 1,068; Karlsbad, 17,619; Marienbad, 7,829; Nannheim, 1,014; Reinerz, 2,221; Teplitz, 15,752; Wiesbaden, 48,016; Wildbad (Wurtemberg), 3,212.

A telegram has reached Berlin from Posen, announcing that the Siberian plague has broken out in several districts of the Government of Kostrom, on the Volga. Comprehensive precautionary measures are being taken by the Government to prevent its extension.

Baron Léon von Leuval, of Nice, founded a prize of 3,000 francs, on the occasion of the third Otological Congress, for the best instrument, constructed on the principle of the microphone, for assisting the faculty of hearing for deaf people, being one that can be conveniently carried about. Those competing for this prize are to send their instruments before December 31st, 1887, to one of the members of the jury—namely, Professor Dr. E. Hagenbach-Bischoff, president of the jury, at Basle; Dr. Benni, at Warsaw; Professor Dr. Burckhardt-Merlan, at Basle; Dr. Gellé, at Paris; or Professor Dr. Adam Politzer, at Vienna. Only finished instruments will be accepted, which will be tested as to the perfection of their mechanical construction, and the correct application of physical laws, but chiefly as to their powers of improving the sense of hearing. The judgment of the jury will be made known at the fourth International Otological Congress at Brussels, in September, 1888.

A number of skin-syringes have been sent by Messrs. H. Selzer and Co., surgical instrument-makers, of Cassel, to Valencia, for use in Dr. Ferran's cholera-inoculations. They differ from the usual Pravaz syringes, in being a little shorter and much broader at the point, and in having a much wider channel to allow for the thick constitution of Ferran's inoculation-matter.

Professor Dr. Oscar Berger, of Breslau, well known as a neurologist, died on July 19th, at Salzbrunn, whither he had gone to take the waters, at the early age of 41. He died of cerebral hæmorrhage of a tuberculous nature.

The death is also announced of Professor Dr. Albrecht Budge, of Greifswald, son of Julius Budge, the anatomist and physiologist, at the age of 40.

Professor Dr. George Hirsch, the senior member of the medical faculty at Königsberg, died on July 21st.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Important Decision under the Liverpool Sanitary Act.—Defective Drainage in Southport.—Cases of Accidental Poisoning.—University College.—Stanley Hospital Building Fund.—The Hospital Collections.—A New Ambulance-Chair.—Memorial to the late Dr. Crichton.—Death of Dr. Mouritz, of Runcorn.

AN important decision regarding the destruction of unsanitary property has recently been given in the Court of Queen's Bench. Under the Liverpool Sanitary Act of 1864, there must be a medical officer's report that the houses are unfit for human habitation or dangerous to health, and a copy must be sent to the owners of the property, with notice that, on a given day, it is to be brought before the grand jury, who, after considering the report, and viewing the premises, "make a presentment thereon." This course was pursued in the present case; but, before the sessions, the owners applied to the Recorder to be allowed to appear before the grand jury and dispute the report. This he declined to allow; and the grand jury, without hearing the owners, but after viewing the houses, "presented" that they were unfit for human habitation. The owners then carried the case to the Queen's Bench, desiring to set aside the presentment, on the ground that they had not been heard. After a long argument, the court came to the conclusion that the proceeding at the Liverpool Sessions was invalid, as the owners had not been heard.

At Southport, a few days ago, the owner of some property was summoned for allowing a nuisance to exist on it. The town-clerk stated that the property consisted of five cottages, three of which were wholly without any kind of drainage, whilst the other two had a defective drain leading to a cesspool in the back garden. The bench made an order for the abatement of the nuisance within fourteen days.

During the past few weeks, there have been several deaths in Liverpool and neighbourhood from accidental poisoning. Nearly all of these appear to have resulted from the dangerous, and seemingly growing, habit of taking sedatives for the relief of pain without the advice or sanction of a medical man. In one instance, however, a liniment was taken instead of a mixture. This last case occurred on the 7th of last month. The wife of Dr. W. T. Sheppard was using aconite-liniment for an injury to one of her shoulders, resulting from an accident sustained whilst riding. On the date mentioned, she took a dose from the bottle containing the lotion, just as she was retiring to rest, and when the gas in her room was lowered. She at once discovered her error and summoned help. Medical assistance was procured immediately, but proved of no avail, the unfortunate lady expiring at six o'clock on the following morning, seven hours and a half after the fatal dose. Much sympathy is expressed for Dr. Sheppard, who is a well-known practitioner in the Edge Hill district. The occurrence was rendered still more distressing by the fact of Dr. Sheppard's absence from home. Finding that his wife was progressing favourably, and recovering rapidly from the effects of her riding accident, he left for London only half an hour before the poisoning took place.

The new chemical laboratories now in course of construction at University College will be ready for opening next Easter. The cost of the building has exhausted the funds at the disposal of the Laboratories Committee, and in consequence, a sum of £3,000 is urgently required to meet the expenses of the necessary furniture and fittings. The medical guarantees for the temporary (five years) endowment of a chair of engineering are complete; and the Council will proceed at once to elect a professor, who will commence work in October.

Over £2,000 has already been promised towards paying off the building debt, amounting to £3,000, of the Stanley Hospital. Among the promises is a contribution of £1,000 from Lord Derby.

The Hospital Sunday and Saturday Funds are now practically closed, although there are still a few collecting-boxes outstanding. The Sunday collections amounted to £6,555 12s. 6d., or about £840 less than last year's; but the Saturday collection shows an increase of £66. The money has been apportioned to the various charities, the amount divided amongst them being £8,880.

An extremely valuable and ingenious folding ambulance-chair has been invented by Dr. Mowll, Staff-Surgeon R.N., of New Ferry. It is intended for use on board ship, in mines and collieries, and in all circumstances where, from want of space, an ordinary stretcher or ambulance cannot be employed.

A handsome polished red granite obelisk has been erected in the Walton Cemetery to the memory of the late Dr. Crichton. The sum of £125 13s. was subscribed for the memorial by the friends and patients of the deceased gentleman.

Dr. Mouritz, the medical officer of health for Runcorn, died a few days since, after a short illness. He was widely known and respected, and very popular, and will be greatly missed.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

Poisoning by Tinned Meat.—Final Examinations at Edinburgh University.—Heroism of a Scotch Medical Man in Spain.

THREE persons, a man and two children, were almost fatally poisoned in Edinburgh, on July 23rd, by eating tinned meat, which was pronounced by the medical man in attendance, Dr. A. E. Henderson, to be putrid. The youngest child was quite cyanotic and almost pulseless on the arrival of the medical man. All have now recovered. This case is yet another illustration of the small protection of the Adulteration Acts as at present administered.

The final examinations at the Edinburgh University have been completed, with the result that over 200 students—the largest number that has ever been capped in one year—were presented for their degrees at the graduation ceremonial on August 1st. The visitors at the finals were Mr. Timothy Holmes and Dr. Bristowe. Their report of the examination will be presented in due time to the General Medical Council, who delegated them to be present at the examinations.

One of the morning papers and all the weeklies have an article with the heading "Heroism of a Scotch Doctor in Spain." With much in that article we heartily agree. Nothing could exceed in true bravery and devotion the action of Dr. J. S. Mackay, the Surgeon of the Rio Tinto Mining Company, Andalusia, in going from the extreme west to the cholera-stricken centres of the east and the interior. The French and Spanish Governments never fail to reward such splendid heroism in the interests of humanity; but the British Government

have hitherto been tardy in fully recognising the hazardous services rendered by medical men, whether in the battle-field or in plague-stricken centres, where they have to combat with secret and silent dangers no less menacing to one's existence than the bullet or the spear.

CORRESPONDENCE.

THE AIR OF LONDON.

SIR,—It may interest some of your readers (and especially such as are engaged in studying sanitation) to know that ozone exists in marked quantity in the air of West London. From the observations I have made, I am inclined to believe that a certain velocity of the wind is necessary to enable the ozone to escape destruction, and also that the test-papers will not be affected if the observation be made in close proximity to buildings placed to windward. My first experiment was made in Mr. Arthur Lewis's grounds on Campden Hill, where, on exposing the ozone test-papers for 48 hours, they became very decidedly acted upon. There was an effect after 24 hours as reported to me, but I had not the opportunity of noting this myself. My second experiment was made on the balcony of a house in Porchester Square. The balcony faced westward, and there was a brisk breeze blowing from the south-west. In this case, 24 hours sufficed to give a very decided reaction. A third experiment was made in Addison Road, Kensington, with a marked result, notwithstanding that the road lies many feet below Campden Hill and Porchester Square. I have not made any further experiments, and write this in order to invite attention to the subject, and thus, perhaps, to enlist the help of observers who may have the opportunity of examining the air in other parts of the metropolis.

My experiments were made when the air was very dry; but, in all probability, a still more powerful action would be observed in a moist atmosphere. From what is here shown, it is clear that much benefit must be derived from obtaining a good current of air through London houses when winds prevail, thus ensuring the ready oxygenation of the contaminating gases existing in badly ventilated and imperfectly drained houses.

In conclusion, I cannot but think it is to be regretted that a few simple directions have not been published for the guidance of those who cannot afford to adopt expensive methods of ventilation. A few pounds is nothing to some householders, but a few shillings is much to others; and if these latter were instructed to keep their windows open on the landings of the staircases, and on the basement of the house, to an extent varying with the external temperature, and at the same time to keep a window open at the top of the house, a great deal would be done in sanitation, and no expense need be incurred. It would be interesting to know the condition of the air in crowded localities, such, for instance, as Seven Dials. The children running about those streets are often very healthy-looking, and many have ruddy complexions, possibly owing to the disinfecting properties of ozone brought by the more rapidly flowing winds occasionally visiting that crowded locality.—I have the honour to be, sir, obediently yours, Athenæum Club, Pall Mall, S.W. G. OWEN REES.

PERCHLORIDE OF IRON IN PLACENTA PRÆVIA.

SIR,—Dr. Gervis, in his address to the Obstetric Section at Cardiff on Puerperal Mortality, thus refers to the use of perchloride of iron in placenta prævia: "In cases of placenta prævia, it has been my custom for some years... to mop the uterine surface from which the placenta has been detached with a solution of the perchloride of iron. In the first instance, I did this to check the *post partum* hæmorrhage which often occurs from the placental sites in prævia cases; but I believe that not only has it this virtue, but that it acts antiseptically as well, both by its influences on the bruised surface-tissue, and by its astringent effect in the avenues of entrance for germs—avenues which, on account of the cervical position of the placenta, are also more accessible to germs than where the implantation is normal."

The several properties of the ferric chloride, namely, the hæmostatic, tissue-constricting, and antiseptic, here referred to, have been insisted upon by me, through not a little criticism, more or less candid, during the last 30 years. It is, therefore, with much satisfaction that I find my teaching endorsed by the experience of my former colleague.

But it is not for the purposes of history that I trouble you with this communication. I am anxious to draw attention to the clinical points mentioned by Dr. Gervis. Of course, in an address of the kind, it

was impossible to discuss at all fully the treatment of placenta prævia and hæmorrhage. Still it appears to me that the practice, as he describes it, is not free from danger, and therefore requires elucidation, if not correction.

In the first place, abundant experience has satisfied me that "swabbing the part freely with a solution of perchloride or persulphate of iron," which I stated might be desirable (see *Obstetric Operations*, 1876) is not often necessary. If the case be properly managed on the principles expounded by me, of first rupturing the membranes; then (2) of detaching the placenta; then (3) of dilating the cervix, if necessary by Barnes' bags, before proceeding to delivery, there will not often be post partum hæmorrhage enough to call for styptics.

Further, another remedy stands before the ferric solution. That is, hot water. It is often efficacious in constringing the vessels; and it is therefore wise to use it before resorting to the iron; and also because it is the most effectual means of clearing the uterus of clots. And lastly, I wish to point out that although the iron, has, as I insisted in the Obstetrical Society in 1865, an antiseptic value, this ought not to be counted upon without using certain precautions. The ferric element must be in due proportion to the blood to coagulate it perfectly; and even given this condition at the time, retained clots may undergo decomposition, which may be the source of septicæmia. This danger may not be so great, but it is a possible one. We must not rely upon the antiseptic action of iron as absolute. I cannot do better than conclude this note with the following quotation from the second volume of *Obstetric Medicine and Surgery*, written by myself and Dr. Fancourt Barnes: "The remote danger of septicæmia is minimised by taking care not to inject iron until the uterus is completely emptied; by washing out the uterine cavity with carbolic injections daily; and by the use of all those means to obviate septicæmia which will be indicated in the chapter on puerperal fever." Judiciously employed, ferric injections occupy an important place amongst the preventions of puerperal fever, and in keeping down puerperal mortality.

ROBERT BARNES.

AN APPEAL.

SIR,—The following case has come under my own notice, as Treasurer of the British Medical Benevolent Fund, within the last week.

A medical man, in practice in Australia, lost his life through an accident. His widow and two daughters came to England expecting to find friends, but these were on the point of returning to Australia. Being without advisers here, they were robbed of nearly all they had by a fraudulent trustee, and have had to strive for a maintenance by letting their house out in apartments, and teaching. The mother, however, has been suffering for eighteen months from gastric ulcer, and requires the constant attendance of one of the daughters, so that one only can go out to teach, and their resources have, consequently, run down to the point of exhaustion.

A grant of £20 has been made from the fund, the maximum which can be afforded to any single case, £10 of which has been given at once, while the remainder is to be distributed in monthly instalments. But this just falls short of what is required to give these poor ladies another chance. Twenty or thirty pounds more would redeem a valuable pianoforte, which would enable the girl kept at home in attendance on her mother to earn something by giving music-lessons, and this would probably suffice to maintain them.

Under such circumstances I have felt justified in departing from my rule of not asking for aid for individual cases, and in placing the facts before the profession. I shall be happy to take charge of anything which may be sent for these ladies; at the same time, I trust the fund will not suffer, relieving as it does more than 150 deserving and urgent cases yearly, besides giving over 50 annuities to aged members of the profession.—Your obedient servant,

W. H. BROADBENT, M.D.

34, Seymour Street, Portman Square.

INDIA AND THE COLONIES.

UNIVERSITY OF BOMBAY.—The Medical Faculty of the University have expressed themselves in favour of introducing the degree of M.B. for such licentiates as should take the ordinary university degrees without further medical examination. The matter will be referred to the Syndicate, by whom it is likely to be warmly discussed. Elsewhere, the M.B. is only given as the reward of a stiff medical examination, and is a certificate of professional fitness. This new proposal would make it an honorary appendage to the L.M. and S.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, July 31st.

Medical Relief Disqualification Removal Bill.—The Earl of MILLTOWN, in moving the third reading of this Bill, said he desired to thank their lordships on both sides of the House for their forbearance, which had enabled him to pass the Bill with such facility. He sincerely trusted the experience of the next few years would show that the fears of some of their lordships with regard to it were groundless. The Bill was read a third time and passed.

Monday, August 3rd.

Lunacy Acts Amendment Bill.—This Bill passed through Committee.

Burgh Police and Health (Scotland) Bill.—This Bill passed through Committee.

HOUSE OF COMMONS.—Monday, August 3rd, 1885.

The Army Medical Service.—MR. BERESFORD asked the Secretary of State for War whether he would have any objection to lay upon the table of the House the names of the medical officers of the Army who have returned from foreign service within the last three years, with the dates of their proceeding on foreign service again; and to state the length of home-service of each medical officer.—MR. W. H. SMITH said he was not prepared to lay on the table the return asked for. It was obviously impossible to convey to the House, in the form of a return, all the circumstances of an officer's service abroad, or of the emergency that might in certain cases necessitate the curtailment of his service at home. As Secretary of State for War, he held himself responsible generally that the roster and system of relief were fairly worked.

OBITUARY.

AUGUSTUS BURKE SHEPHERD, M.A., M.D., F.R.C.P.

AUGUSTUS BURKE SHEPHERD, whose sudden death will be deeply and widely felt, was educated at Tunbridge School and at Brazenose College, Oxford. After taking his degree in arts, he entered at Guy's Hospital, where he became much attached to the late Dr. George Barlow, then senior physician, and always retained the highest esteem for that learned, thoughtful, and accomplished man. In some of the most estimable traits of character, there was resemblance between the master and the scholar. He formed at Guy's Hospital friendships which lasted all his life, and had all the traditional attachment to his Alma Mater.

Taking deep interest in auscultation and the pathology of the lungs, Dr. Shepherd sought and obtained a place on the staff of the Victoria Park Hospital, where he gained the esteem and friendship of the late Dr. Peacock, and of Dr. (now Sir) Risdon Bennett. He afterwards became assistant-physician to St. Mary's Hospital, and devoted himself, with characteristic energy and unselfish zeal, to teaching histology and morbid anatomy. At this time, he was also physician to the Waterloo Infirmary for Women and Children; but, on being appointed Dean of the Medical School of St. Mary's, he gave up other posts, and worked heart and soul for the students' welfare, a generous devotion which he felt to be amply repaid by the warm gratitude that he earned.

Being appointed Gulstonian Lecturer, he delivered his lectures at the College of Physicians on the pathology of phthisis, especially its morbid anatomy; and added to the volume, when published, some most beautiful coloured drawings and histological plates.

After many years' faithful service as dean and as assistant-physician, Dr. Shepherd did not care to await the slow process of promotion by seniority; and, being possessed of good fortune and without children, he resigned his hospital appointments, gave up the profession, and bought a beautiful house on the borders of Windermere, where he and his wife spent the vacation last year. He was a most zealous and public-spirited Fellow of the College of Physicians, and Secretary of the Fellows' Club. He had lately made all the arrangements for one of the most elegant and tasteful *conversazioni* which the College has ever given; and, having joined his wife at Ambleside, was coming up on purpose for the comitia, held on the 30th instant, and the Fellows' dinner, which was to follow it. Before that day, after a very brief illness, he was taken from the scenes he loved so well; and when the College met, Sir William Jenner (as President) announced, in a few well-chosen words of esteem and regret, the loss it had sustained.

The cause of Dr. Shepherd's untimely death, at the age of forty-six, was acute rheumatism, with hyperpyrexia, a disease from which, we believe, he had first suffered when at Guy's Hospital.

He was a man whom the profession can ill spare; for, although he had never courted practice, and lately had altogether retired, yet his sympathies and interest were with us, and he was never slow to give expression to his warm charity, his loyalty to honourable principles, and hatred of whatever seemed unworthy. He was always ready to further public causes, not only with his purse, but by his time and sympathy and judgment.

He was, in his family and to his friends, most genial, frank, and kind-hearted, feeling for and inspiring strong attachment among his intimates, respecting and respected by all honourable men. His memory will long be cherished with affection.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty during the past week. F. A. JEANS, Surgeon, to the *Penelope*; C. W. MAGRANE, Staff-Surgeon, to the *Carysfort*.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR JAMES PARR has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service as Assistant-Surgeon May 28th, 1857; became Surgeon May 31st, 1871; and Surgeon-Major, March 1st, 1873. Mr. Parr has not seen war-service.

Surgeon-Major RICHARD TOBIN has also gone on retired pay, with a step of honorary rank. His commission as Assistant-Surgeon dates from March 31st, 1865; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1877. Mr. Tobin went out with the recent Suakin expedition in February last, but is not credited in the Army Lists with any war-service.

Surgeon W. KELLY, who is serving in Bombay, is transferred from general duty, Presidency Circle, to general duty, Sind Circle.

Mr. CHARLES DAVIDSON, M.D., has been appointed Acting-Surgeon to the 2nd Middlesex Artillery Volunteers; and Mr. A. B. WADDELL to the same position in the 2nd Hampshire Rifle Volunteers.

Surgeon J. H. S. MAY, of the 2nd Devonshire (Prince of Wales's) Volunteers, is granted the honorary rank of Surgeon-Major.

Surgeon and Honorary Surgeon-Major H. S. SMITH, of the 12th Middlesex (Civil Service) Volunteers, has resigned his commission, which dates from August 31st, 1860; he is permitted to retain his rank and uniform.

Deputy Surgeon-General OLIVER BARNETT, C.I.E., died at Eastbourne on July 24th, from illness contracted while on field-service at Suakin, in the 55th year of his age. Mr. Barnett entered the Army Medical Department as an Assistant-Surgeon, November 24th, 1854; became Surgeon, June 8th, 1867; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, July 21st, 1880; and Deputy Surgeon-General, October 1st, 1883. He was nominated a Companion of the Order of the Indian Empire, May 24th, 1881. He was Principal Medical Officer at Ismailia during the Egyptian war in 1882, and was mentioned by General Wolseley for his services, granted the medal for the campaign, the third class of the order of the Medjidie, and the Egyptian bronze star. In February last, he accompanied the expedition to Suakin as Principal Medical Officer, and recently returned to England.

Surgeon R. S. J. HENDERSON, M.B., left Suakin for England, invalided, by the *Geleona*, on July 28th.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON C. E. LLOYD, of the Madras Establishment, who retired on April 26th last, is now granted the rank of Deputy Surgeon-General.

Surgeon-Major H. DE TATHAM, M.D., M.R.C.P., M.R.C.S., Bombay Establishment, is appointed Civil Surgeon, Nasik, but to act as Civil Surgeon and Superintendent of the Medical School, Hyderabad.

Surgeon-Major C. T. PETERS, M.B., Bombay Establishment, is to act as Civil Surgeon, Nasik, during the absence of Surgeon-Major De Tatham, or until further orders.

Surgeon-Major R. H. BATTY, Bombay Establishment, has been permitted by the Secretary of State for India to return to duty.

Surgeon A. MILNE, M.B., Bombay Establishment, has been appointed Officiating Medical Officer to the 1st Sind Horse, during such time as Surgeon Street may be employed in the Civil Department, or till further orders.

Surgeon J. G. HANCOCK, Bengal Establishment, is appointed Medical Officer to the 3rd Punjab Cavalry at Rajpore.

Surgeon-General W. R. CORNISH, C.I.E., Madras Establishment, has retired from the service, which he entered as Assistant-Surgeon, April 1st, 1854, attaining the rank of Surgeon-General, April 5th, 1880. He was nominated a Companion of the Order of the Indian Empire, January 1st, 1880, but does not appear to have seen war-service.

Deputy Surgeon-General J. M. JOSEPH, M.D., Madras Establishment, has also retired, he having been granted a pension of £950 per annum. He entered the service as an Assistant-Surgeon November 20th, 1852, and attained the rank of Deputy Surgeon-General, May 16th, 1880, but has no war-record.

The undermentioned gentlemen have been granted leave of absence for the periods specified. Surgeon-Major E. A. BRICH, Bengal Establishment, Surgeon-Superintendent of the Presidency General Hospital at Calcutta, for one year on medical certificate; Surgeon-Major R. T. LYONS, Bengal Establishment, Medical Officer 17th Bengal Native Infantry, furlough in India for 270 days on medical certificate; Surgeon-Major E. B. RUTLEDGE, Bengal Establishment, Civil Surgeon of Dumdum, privilege leave for three months; Surgeon-Major J. DAVINSON, M.A., M.D., C.M. Aber., Bombay Establishment, Superintendent of Mahabeshwar, privilege leave for three months.

ARMY MEDICAL SCHOOL AT NETLEY.

THE present session of the Army Medical School at Netley was brought to a close on Monday last, when the prizes were handed to the successful students by Sir Arthur Hayter, in the presence of a large assemblage, in the lecture-theatre of the Royal Victoria Hospital. In the course of some remarks, Sir Arthur said there had been attacks made upon the medical arrangements in connection with the expedition to Egypt conducted by Lord Wolseley, and brought to such a successful close at Tel-el-Kebir. These attacks he considered unjust, and the explanation of any defects in the hospital arrangements at Ismailia was one that should be made known to the English people. If there were any defects at Ismailia, it was in consequence of the fact that the military hospitals, with all their paraphernalia and equipment, were separated from the troops, and that the expedition, which in its origin was intended to be conducted from medical bases at Cyprus and Malta, was, owing to the exigencies of the service, transferred to Ismailia, and the military expedition to the Canal, in which everything was to be sacrificed to the rapid advance and seizure of the railway, and, above all, the Lake and Kassassin Locks, without even the previous information of the principal medical officer, Sir James Hanbury. There were, in such a campaign as this, many medical requirements for which it was impossible adequately to provide, more especially without transport, and when success depended entirely upon a sudden rush, such as had to be made to seize the Kassassin Lock and the railway by the cavalry under Sir Drury Lowe. Yet he maintained that the experience gained in this campaign had enabled them to place a more recent campaign, under General Graham, in all its medical details, on a basis which seemed to him unassailable, even by the most hostile critics. Much had also been done by the late Government in other directions. Forty additional nurses had been added to the principal military hospitals; 500 men from the Militia were to be annually trained in the duties of orderlies, and placed under the principal medical officers of districts; while a considerable addition had also been made to the Medical Staff Corps.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEE TO MEDICAL AGENTS.

SIR,—An assistant, C., obtains through a medical agent, A., a three weeks' *locum tenens* on trial engagement; salary, two guineas and a half per week. A. informs C., at the same time, of the salary the principal, B., is prepared to offer to a suitable man. C., I might add, had had considerable experience as a *locum tenens*, and never before had accepted a less salary than three guineas per week, and his only idea in accepting the above mentioned was in hope of obtaining the permanent engagement. B. is anxious to get an assistant who will make a prolonged stay; and, as C. will not hold out any hope of such, he obtains, through A., another assistant, D. B. informs C. of this, and requests that he should remain on for a fortnight, and take charge while he went for a holiday. C. applies to A. for another engagement. D. is found not to suit, and leaves at once, and C. continues for some time as *locum tenens*, and finally engages as assistant to B. He informs A. of this, and asks what fee he has to pay. What fee should C. have to pay, or should he have to pay both *locum tenens* and assistant's fee?

. Under the circumstances related by our correspondent, the fee charged by the medical agent appears to us to be in excess of that he may reasonably have expected to pay. Having, however, made a second application for a like appointment (though subsequently rendered unnecessary), the customary fee for such would be fair and just; but to substitute for it the larger one for assistantship does not coincide with our own views of justice. Be that as it may, we think that the practical experience, which our correspondent has gained by the transaction may fairly be regarded as a valuable set off against the extra charge; and, having thus ventilated the subject, we would advise him to rest content therewith.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE HEALTH OFFICERSHIP OF BUGLAWTON.

DR. P. M. DAVINSON, of Congleton, the ex-health-officer of Buglawton, writes to us a second letter with regard to the recent appointment of medical officer of health for that place, on which we commented in our issue of July 4th. He attempts to induce us to express an opinion on a hypothetical case which he puts—a course proverbially dangerous, and one which, we feel sure, Dr. Davidson will forgive us for declining. We willingly give publicity, however, to the further contents of our correspondent, which are substantially as follows.

"Dr. Davidson admits, for the sake of argument, that a majority

of the Board determined to reduce the salary in any event; but they could not have done so, had there not been a member of our profession willing to assist them." And he contends that no one, for that purpose, was justified in taking an inadequate salary, which £5, or £10 either, would be, in view of the fact that Buglawton is not a town at all, but a large rural district, 20 miles in circumference, and includes several villages. Five pounds, Dr. Davidson thinks, would not be a high charge for any medical man to make for a single inspection of such a district, keeping out of view altogether the other well known duties of a medical officer of health. The gentleman appointed in Dr. Davidson's place was, he says, well aware, three weeks before accepting the appointment, that the salary was to be £5, instead of £10; and also with the circumstances of Dr. Davidson's supersession, having then discussed the whole matter with some mutual friends. The appointment was never offered to him, or made for more than one year.

On the general question of the tenure of office by medical officers of health, we make some remarks in another part of our issue, which, we trust, will be satisfactory to Dr. Davidson.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Members on July 30th, 1885.

J. Anderson, M.D. St. Andrews, 105, Gloster Place, W.; R. H. Fox, M.D. Brussels, 43, Finsbury Circus, E.C.; W. D. Halliburton, M.D. Lond., 135, Gower Street, W.C.; A. Shadwell, M.B. Ox., Brighton; St. C. Thomson, M.B. Lond., 18, Gloster Walk, W.; L. C. Wooldridge, M.B. Lond., Guy's Hospital, S.E.

Admitted Licentiates on July 30th, 1885.

J. H. B. Allan, M.D. McGill, 56, Gore Road, E.; T. M. Angior, Bootle, Liverpool; H. W. Austin, Stoke, Devonport; W. J. T. Barker, General Hospital, Bristol; G. Bent, 96, Charlwood Street, S.W.; A. A. Brockat, St. Thomas's Hospital, S.E.; A. D. Chapple, Leigham Court Road, S.W.; T. H. Chittenden, Whitwell, Welling; F. C. Clarkson, Grove Road, Surbiton; F. J. Clendinnen, 32, Calthorpe Street, W.C.; J. S. Carguven, 12, Craven Hill Gardens, W.; T. A. Dagg, 36, Granville Square, W.C.; W. F. Dearden, Portland House, Bolton; W. H. Dodd, Sirhowy, Tredegar; E. W. Du Buisson, 46, Nelson Square, S.E.; J. M. Evans, 59, Turner Street, E.; A. G. R. Foulerton, 16, Norland Square, W.; J. H. Gough, St. Mary's Hospital, Manchester; D. Gow, M.D. Toronto, 7, Nicholas Street, E.; W. Habgood, Wimborne; H. G. S. Hore, Guy's Hospital, S.E.; A. W. Hunton, Royal Infirmary, Manchester; Habeeb Jaboor, London Hospital, E.; Hanna Jaboor, London Hospital, E.; T. B. Jacobson, Guy's Hospital, S.E.; J. Jarvis, Bury St. Edmunds; A. Jervis, St. George's Hospital, S.W.; P. A. Lloyd, Manor House, St. Mark's Road, W.; G. W. A. Lynch, 48, Minford Gardens, W.; W. H. B. Moore, 5, St. Paul's Road, N.W.; J. Oliver, 259, Friern Road, S.E.; A. T. O'Reilly, 34, Huntley Street, W.C.; H. C. Parsons, Hampton Wick; F. A. Pring, 47, Endell Street, W.C.; J. J. G. Pritchard, Ferndale, St. John's Park, S.E.; H. E. Rayner, 33, Great Charlotte Street, S.E.; T. Rushbrooke, 22, Rutland Street, N.W.; G. Schofield, Guy's Hospital, S.E.; H. W. Shadwell, 157, Hammersmith Grove, W.; G. F. Smith, 11, St. Anne's Terrace, N.W.; J. Smith, 29, Cassland Road, E.; W. O. Steinhilf, 7, Rudall Crescent, N.W.; T. H. Sykes, Southport; J. P. Wagstaff, 61, Acre Lane, S.W.; H. S. Walker, Elms, Wakefield; J. Welpton, 81, St. Mark's Road, Leeds; F. F. White, 35, Sussex Gardens, W.; D. F. Whiteley, 29, Great Percy Street, W.C.; C. Williams, 39, Gower Street, W.C.; E. L. Williams, 2, James Street, Buckingham Gate, S.W.; A. Wilson, 131, Railton Road, S.E.; G. J. Wontersz, 1, Rankellor Street, Edinburgh.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 30th, 1885.

Beddow, Josiah, M.R.C.S., Upper Clapton.
Harris, Percy Reeves Traer, Bethune Road, Amhurst Park, N.
Lernmitte, Charles Gower, Sheen Park, Richmond.
McLachlan, John, M.B. and C.M. Edin., Lothian Street, Edinburgh.
Thornton, Edward, M.R.C.S., Shrewsbury.

On the same day, the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,

Jollye, Francis Wm., Spalding.

MEDICAL VACANCIES.

The following vacancies are announced.

CLONMEL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 per annum, and £50 in lieu of rations. Candidates to be unmarried, and not over 32 years. Election on August 10th.

COTON HILL LUNATIC HOSPITAL, Stafford.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 8th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by August 15th.

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications to F. Crows, 16, Atholl Street, Douglas, by August 10th.

LINCOLN COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by August 15th.

MANCHESTER ROYAL INFIRMARY, MONSALL FEVER HOSPITAL.—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiology. Applications by August 26th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Physician. Applications by August 31st.

REETH UNION, North Riding of Yorkshire.—Poor-law Medical Officer, Moker District, and Medical Officer of Health for the whole Union. Applications by August 15th.

ROYAL BERKS HOSPITAL, Reading.—House-Surgeon. Salary, £90 per annum. Applications by August 15th.

SALISBURY INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by August 21st.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Milnes Blumer.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Applications by August 13th.

MEDICAL APPOINTMENTS.

HARRIS, Thomas, M.D. Lond., appointed Honorary Assistant-Physician to the Hospital for Consumption and Diseases of the Throat, Manchester.

MORRIS, E. Freeman, late House-Physician and House-Surgeon at Leeds Infirmary, appointed House-Surgeon to the York County Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

WALLACE.—On the 1st instant, at 4, Newton Place, Charing Cross, Glasgow, the wife of Abraham Wallace, M.D. Edin., of a son.

MARRIAGES.

BEAUMONT—HOLT.—July 30th, at St. John the Evangelist's, Brownswood Park, by the Rev. D. W. Weir, M.A., assisted by the Rev. E. C. Jarvis, M.A., Edgar Beaumont, L.R.C.P. Lond., M.R.C.S. Eng., of Upper Norwood, to Catherine Lucy, eldest daughter of E. Holt, of Wakefield, Yorks, and Brownswood Park, London, N.

HODGSON—MILNE.—On the 30th July, at the Congregational Chapel, Burton Joyce, by the Rev. F. Robinson, of Riddings, assisted by the Rev. J. Hodgson, of Milsbridge, John Hodgson, M.B. Lond., M.R.C.S., of Oldham, to Florence, second daughter of the late Samuel Milne, Esq., of the Grove, Burton Joyce, Notts.

PURDY—JOBBERNS.—On the 4th instant, at St. Margaret's, Bay View, Aberdeen, by the Rev. J. M. Danson, M.A., St. Andrew's Episcopal Church, assisted by the Rev. R. Mackay, M.A., St. John's, Longside, James Robert Purdy, M.B., C.M., Oulton, near Leeds, to Mary Beattie, second daughter of Captain J. Jobberns, late 39th Foot.

THOMAS—WILLEY.—July 30th, at St. Mark's Church, Sheffield, by the Rev. H. Arnold Farell, M.A., William Frederick Thomas, Surgeon, Her Majesty's Madras Army, to Jeannie, eldest daughter of the late G. C. Willey, Western Bank, Sheffield.

DEATHS.

NICHOLSON.—On July 29th, at his residence, 53, George Street, Hull, John Lee Nicholson, M.R.C.S., L.S.A., aged 69.

VINEN.—On Monday, July 27th, at 17, Chestow Villas, Bayswater, Emily Charlotte, the beloved wife of Edward Hart Vinen, M.D.

CHILD-LABOUR IN FACTORIES.—From the last report of the New Jersey Inspector of Factories and Workshops, it appears that there were last year 15,000 youths and children at work in 5,000 factories in that State. The average age at which they went to work was nine years. All of them had been accustomed to work 10 hours a day, and many of them even 14 hours. Those who had entered the shops the earliest in life were the puniest and most ignorant. The weekly wages of the children did not average two dollars. The inspector remedied many of the grievances, and sent a considerable number of the children to day and night schools. Upon investigation, the New York Bureau of Labour Statistics also found a bad state of infant-labour. In some mills, little children were kept at work under their drivers 11 hours per day all the year round; subterfuges were adopted for employing very young children, and overseers were permitted to beat them with straps. Men have been turned out of the mills because children and women can be got to work more cheaply. The superintendent of one factory said: "Families come here from Ireland, and the girls are as healthy and rosy-cheeked as you would ever see, and yet in two years the girls would be in consumption, and half the family would be gone in seven years." The Commissioner reports that families cannot be supported without the wages of the children, and that, even thus aided, "a majority of families barely manage to make both ends meet at the close of the year, while a considerable number actually find themselves in debt." The question of child labour and of pauper-labour in the United States is a very pressing one, and is beginning to secure serious attention.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—	Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 9; Dental, M. W. F., 9.30.
GUY'S.—	Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. F., 12.
KING'S COLLEGE.—	Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 2; Throat, Th., 2; Dental, Tu. F., 10.
LONDON.—	Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX.—	Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S.—	Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S.—	Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S.—	Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S.—	Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE.—	Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER.—	Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

BIOLOGY AND MEDICAL STUDENTS.

SIR,—It has been said by Spinoza that error is but imperfect truth, which seizes on one aspect of the question to the neglect of all the rest.

This is just what Mr. Ray Lankester has done. If medicine were a perfect science, no doubt we might so learn it as to proceed from theory to practice with something like mathematical certainty; but, in its present state of imperfection, the utility of such attempts must be admitted; and I think we ought to acknowledge more than we do the necessity of studying our profession otherwise than as the outcome of merely theoretical considerations.

In our eagerness to reach an ideal standard of perfection, we are too apt to forget that the medical art is much older than what we call the science, and of independent origin.

"Medicines and cures," says Celsus, "were first found out, and then, after, the reasons and causes were discovered; and not the causes first found out, and by light from them the medicines and cures discovered." This distinction still holds good.

The ancient physicians looked upon medicine as the art of diagnosing and treating disease, in which the unerring tact of a practised and sound judgment was of primary importance. With them, the rapid and searching glance of comprehension into the hidden sources of disease was, as it ever will be, the principal and most essential thing. All the scientific paraphernalia of modern educational culture are simply introductory to this great end; they are really external to it, and much less important than it. In ultimate resort, it is upon intuition, rather than upon syllogism, that the solution of many medical problems depends.

Thus, also, Aristotle, in his *Analytics*: "Since, of the faculties that concern the understanding by which we learn the truth, some are always true, and some admit of falsehood, as opinion and reasoning; and since science and intellect are always true, and there is no other kind of science more exact than intellect, and since the first principles are clearer than the demonstrations, and since all science is together with reason, there can be no science of the first principles; and since nothing can be truer than science except intellect, intellect must be intellect of first principles; and this appears both from considering these things, and that the beginning of demonstration is not demonstration, so that neither is science the beginning of science. If, then, we have no kind of truth which exists independently of science, intellect (*voûs*) must be the beginning of science."

The great variety of subjects, and the immense number of empirical facts, which the present system of medical education so perversely demands, is, I think, to be regretted; because this state of things tends, with increasing force, to the study of isolated phenomena, and small and narrow domains. It causes the knowledge of Nature, as a great and comprehensive whole, to be sadly neglected. The mind, by this process, is fattened and bewildered, and fails to acquire a correct understanding of the true nature of things. Thus is generated that narrow-mindedness which forgets the great in studying the small.

In this state of things, we must seek the explanation of the remarkably anomalous so painfully obvious connection with medical examinations, that nearly all the subjects they embrace may be considered immediately the ground is over, without the slightest detriment to any future professional prospects.

Men learn nothing by passing examinations, except to readily learn vanity and self-conceit. The best interests of education assuredly demand less examinations and more sound teaching; teaching, that is to say, not with the object of satisfying the unreasonable demand of insatiable examiners, but of seeking out and knowing the truth.

It has been well said, a student of Nature bows to no authority; for there is nothing either more ancient or of higher authority than Nature, which reveals to the inquiring mind the laws of its stupendous harmony. This is my interpretation of Mr. Lankester's "Lehrfreiheit" and "Lehrkraft." The fewer obstacles interposed between the student and Nature the better. Sincerely yours,

W. ROGER WILLIAMS.

SIR,—Will some kind member furnish me with a suggestion as to the diagnosis and treatment of the following troublesome case?

Three years ago the patient, aged 40, lost, through disease, the nail of the middle finger. The nail has since grown again, although the surface has, he says, on several occasions "healed up," it is, however, constantly recurring ulceration. Being a working man, he finds this a great impediment, and came to me, asking me to amputate. I was unwilling to do this without an effort to remedy the condition. I, therefore, first of all tried a topical action, and subsequently strong carbolic acid ointment, in both cases with very little benefit. According to his statement, it has been seen by "lots of doctors," under whose treatment it has been more or less benefited for a time.—I remain, yours faithfully,

L.R.C.P., M.B., M.A.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following questions in Physiology and Anatomy were submitted to the candidates at the recent primary examinations for the membership. Candidates were required to answer at least four questions in each section, and were allowed to read that they might with advantage answer all six. 1. Give the characters, distribution, and uses of yellow elastic tissue. 2. Name the several proximate constituents of bread; describe the elements which such undergoes in the alimentary canal. 3. Describe in proper sequence the action of the right auricle, right ventricle, and pulmonary artery, with their valves, during a complete cardiac cycle. 4. What kinds of impulses travel along the anterior and posterior roots of the spinal nerves? How have the facts been demonstrated? 5. Describe the physical and chemical characters of lymph. What is its function? Compare it with chyle and with blood. How is the temperature of the lymph maintained? What is the temperature of the body? How is it prevented from rising above certain limits? To what extent does it vary in different parts of the body? 6. Describe the os calcis, with its muscular and ligamentous attachments. 2. Describe the mechanism of pronation and supination of the forearm and hand, and enumerate the muscles by which these movements are effected, giving their nervous supply. (A full description of the individual articulations is not required.) 3. The abdomen having been opened, state in order the viscera which must be removed to expose the whole of the vena cava inferior. 4. Enumerate the ligaments which connect the occiput with the atlas and axis, and describe the movements which take place between these bones. 5. Describe the areas of distribution of the various cutaneous nerves of the buttock and thigh. 6. Describe the structure and relations of the prostate gland, and the portion of urethra contained within it.

THE PRACTICE OF MEDICINE AND SANITARY REGULATIONS IN SWEDEN.

SIR,—Being lately in Sweden with my wife, I wanted some medicine for her, and went to an apothecary, and wrote a prescription. On presenting it to the apothecary, he said he could not dispense it, unless countersigned by a Swedish medical man. I told him I was a doctor of medicine, and gave my card. He said it did not matter; that they were not allowed to dispense a prescription or sell any poisonous drug without the signature of a Swedish medical man. I wanted some arrowroot, and went to a grocer; I was there told that grocers were not allowed to sell arrowroot, that it was considered as a drug, and could only be procured from an apothecary, and that a grocer would be heavily fined if he were found selling any article considered as a drug; but the apothecary is not allowed to prescribe, or a medical man to dispense his own medicine; and a prescription must be dated and signed by a medical man before being redispensed. Hence, the medical man, the apothecary, and the public are each protected by the State—a hint in the framing of any new English Medical Bill.

In each parish or subdivision of a town, a medical man is appointed every week, whose business it is to attend gratuitously day and night anyone who may send for him. The names of those appointed for the week are published in the daily papers.

A superior staff of men in uniform are employed as sanitary inspectors, whose business it is to be constantly patrolling the streets, inspecting markets, warehouses, and other places, seeing that all dust and refuse is cleaned away, unwholesome food seized and destroyed, and the sellers fined, and that all sanitary appliances are in proper order. No dustbins are allowed. All refuse of the house has to be placed in the front in front of each house very early in the morning, and carts go round at six a.m., and clean everything up. A fine is imposed on any householder who neglects to put out the refuse daily, or who is behind time in doing so; so that by seven a.m. all the streets are clean and swept up. Some such regulations are wanted in this country. What a good arrangement it would be for getting up servants in proper time, and giving them opportunity of doing their morning's work before the family came down to breakfast! The Swedish servants do double the work, and at half the wages paid to English domestics.—Yours faithfully,

HOME FROM A HOLIDAY.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—The objections taken by your correspondents, Mr. Workman and "A Subscriber for Many Years" to a proposal of mine to limit the benefits of the Royal Medical Benevolent College to subscribers, seem to call for a short reply. That something should be done in the matter is not denied, and will not be denied, by anyone, since the Council of the College, in the report just issued, express considerable anxiety because of the eight vacancies only which they were able to declare, "a number which bears a very small proportion to the number of candidates" year by year. Indeed, it goes on to say, "the pressure for the admission of the necessitous orphans of medical men as foundation-scholars seems continually to increase; but unfortunately, so far from the financial condition of the College enabling the Council to hold out any hope of enlarging the number of scholars, it becomes rather a matter of growing anxiety whether it will much longer be possible to maintain the number at its present level, painful as it would be to reduce it, with such a condition of the candidates' list."

Concurrently, too, with an overcrowded list, the Council have to deplore a gradual falling off in the amount of the annual subscription. Last year, however, by an extraordinary effort, there was a slight indication for the better; £200 more was collected than the previous year, but the income on the whole is very far short of what is absolutely necessary to maintain the benevolent operations of the College on its present footing.

Should no change for the better take place, the Council will, of a necessity, be compelled to consider what is the better course to take, whether to bring about a gradual reduction in the number of Foundation Scholars by the election of fewer than eight, or recommend to the subscribers the election of the orphans of those who have taken an interest in promoting the success of the College. To this latter course your correspondents object, because, in their opinions, "it would practically turn the College into a provident society." They would rather see "an effort made to increase largely its income," but they propose no scheme for bringing this about. The Council, in fact, have lately made a further effort in the direction indicated; and it has only added the small sum before mentioned to the income of the institution. Who then will show the Council a better way of proceeding to awaken the 15,000 members of the profession to a sense of duty in so noble and philanthropic a cause?

"A Subscriber for Many Years" does not attempt the task, although he is of opinion that "to place restrictions on the benefits might have a very injurious effect on the interests of the College." He also believes it would "give it something of the character of a provident or mutual assurance institution, while it would not enhance its claims on the more wealthy." My answer to this argument is that, in the case of kindred institutions for widows and orphans, the provident principle, which is a fundamental one, in no way operates to their disadvantage. Furthermore, when he goes on to say, "surely it is the duty of the prosperous to aid in this way their less fortunate brethren," it does appear that his own growing tenderness to suffering is accompanied with a corresponding gentleness towards wrong, and, like many more of us, "his morality grows laxer as his heart grows softer." If this maxim were followed out to its logical conclusion, it would be, in the cant of the day, democratic, and nothing else, since it would enable us to shuffle off other obligations beside those of education, which we owe to our families and to society. Self-help, providence, and independence, are reckoned among the most valuable of our possessions. If, however, they are no longer to be inculcated and cultivated, then the machinery is losing its virtue, and will soon have to be treated as piece of lumber to be got rid of.

I will not pursue this part of the question further, but add another statistical fact to that given in my former letter with regard to the election of subscribers.

Since the opening of the College, now 30 years ago, 167 pensioners have been elected, 14 only of whom (by themselves or their husbands) have been subscribers. During the same time, there have been 275 foundation-scholars elected, of whose parents 48 only have been subscribers. These figures represent pretty closely the average percentage of the subscribers and non-subscribers that partake, or have partaken, of its benefits. I wish also to point out that certain small advantages are given to subscriber candidates, and perhaps in this direction it will be possible for the Council to offer further preponderating advantages. By-law 16 reads as follows. "In the case of a member of the medical profession who is, or has been, an annual or life-governor of the College, or his widow, or his son, seeking admission into the College as a pensioner or foundation-scholar, such governor, or his widow, or son, shall, at the first

election at which he or she shall be a candidate, in addition to the number of votes polled in the ordinary way, be entitled to additional 10 votes for every guinea annually paid, as well as for every guinea accruing from compound interest on such subscriptions."—I remain, sir, your obedient servant,
Bedford Square.

JABEZ HOGG.

EPIDEMIC SORE-THROAT.

SIR,—The matter brought before the profession by Dr. Morton seems to me so important, that I beg you to allow me to respond to his request for further facts.

About a year ago, I was called to see a family, lately from Australia, in which several of the children had such sore-throats as described by Dr. Morton, with this addition, that the tonsils were much enlarged. The drainage was very imperfect, and the authorities have since interfered.

Lately, I have seen another case of a boy in a house where a recent investigation of the drainage has revealed a breach in the pipes just outside the front door.

Within the last day or two, I have attended a clergyman with the following symptoms. Left palate and tonsils inflamed, with a thin white film upon the former. There was some quickening and irregularity of the pulse, and an evening temperature of 101°, falling in the morning to 99.8°. The attack commenced with vomiting, diarrhoea, and headache. The tongue was loaded. The urine contained a number of leucocytes. The patient was well in six days. This gentleman has much visiting to do in the lower and crowded parts of the city, and it was after a hard day that he first complained; but, in his bedroom, there is one of those suspicious fixed basins, although I cannot find anything wrong with the trapping. Trusting you will be able to find a corner for this communication, I am, yours faithfully,

D. AITKEN.

3, ARGYLE PLACE, EDINBURGH.

THE CLIMATE OF NEW ZEALAND.

SIR,—My attention has been drawn to a letter from Dr. James Hudson, of Nelson, New Zealand, wherein he states that that town is (in his opinion) the only place in the colony which offers a suitable climate for the phthisical. This statement ought not to go uncontradicted. Dr. Hudson's knowledge of other parts of New Zealand cannot surely be very extensive; and his opinion is not borne out by my larger experience.

Regarding goitre, which is very prevalent in certain districts of the colony, I may point out that "proximity to the hills" can hardly be the cause, for it is more often seen on the Canterbury Plains than elsewhere. The water-supply from distant mountains may have more to do with the disease.—I am, etc.,

G. W. GRABHAM, M.D. Lond., M.R.C.P.

Inspector-General of Hospitals and Asylums.

THE CARRIAGE-TAX.

MEMBER B.M.A.—Carriage-licences are regulated by the Customs and Inland Revenue Act of 1869. By Section 18 of that Act, the licence for a carriage is 15 shillings, if the carriage have less than four wheels, or, having four or more wheels, weigh less than four hundredweight. If it have four wheels, and weigh four hundredweight or upwards, the price of the licence is two guineas. The exemption from taxation is given by Section 19 to "a wagon, cart, or other vehicle, used solely for the conveyance of any goods or burden in the course of trade or husbandry, and whereon the Christian name and surname, and place of abode or place of business of the owner shall be visibly and legibly painted in letters of not less than one inch in length." Unless our correspondent can make out himself to be a burden and his practice a trade, we fear this exemption will not help him; and if his Stanhope weigh more than four hundredweight, he is liable to pay two guineas.

PARASITICIDES IN THE TREATMENT OF PULMONARY PHTHISIS.

SIR,—In the JOURNAL of May 23rd, there appears an article by Dr. Morgan, under the above heading. In it, he expresses the opinion that the inhalation of peat-smoke by healthy persons is preventive of pulmonary phthisis, even though they live in dwellings the reverse of sanitary. Speaking of the inhabitants of the North-western Highlands, he says: "Many of them live under the same roof as their cattle; and in numerous instances the air of the dwelling reeks with the impure exhalations given off from the excretions of these joint inmates of the cabin." Yet, in spite of these exceptionally deleterious domestic influences, he describes these Highlanders as "singularly exempt from the ravages of tubercular phthisis." This exemption he ascribes to the inhalation of the products of the combustion of peat. This would seem strong evidence of the possession of a potent influence by peat-smoke in the prevention of this disease. Should the experience of medical men in other localities, where peat is the only fuel used and where the condition of the dwellings is much the same as that of the Highlanders, correspond.

In the JOURNAL of June 27th, also appears a letter from Dr. Murray, of Stranraer, in which he expresses strongly his belief in the soundness of Dr. Morgan's conclusions, and adds that, for the last 22 years, he has been in the habit of sending phthisical patients to rusticate in peat-districts.

I am convinced that the inhalation of the products of the combustion of peat has no effect on the prevention of tubercular phthisis, and, consequently, that the sending patients to a peat-district is not indicated. I practise in an agricultural district in the south of Co. Derry, where peat is exceedingly plentiful, and is the only material used as fuel. The inhabitants, generally speaking, are poor; the houses are small; the fires, always of peat, are invariably burned on the floor; usually there are chimneys, but so imperfect as not to prevent, in most instances, the products of combustion from mingling with the air of the apartment; in short, many of these cottages resemble closely the "boathies" described in Dr. Morgan's article.

Here we have a district of 26,000 acres, covered to a large extent with peat, peat-fires universal, the people well developed and healthy, and yet we can claim no singular exemption from phthisis. On the contrary, it is sufficiently common to convince me that the efficacy of the products of peat-combustion is unproven, and that the sending a phthisical patient to a peat-district, for any advantage from that useful material other than that of heat, has no scientific basis to recommend it. During the past year, there were registered in this district 164 deaths; of these, 33 were from tubercular phthisis. Possibly elevation has something to do with the fortunate immunity from this scourge enjoyed by the Highlanders.—I am, etc.,

GEORGE M. THOMPSON, M.D., M.Ch., L.M.

MR. J. P. MEARNS.—The solicitors of the Medical Defence Association are Messrs. Pridham and Piper, 1, Old Serjeant's Inn, Chancery Lane. The Chairman of Council of the Medical Alliance Association is Mr. R. H. S. Carpenter, 120, Stockwell Road, S.W.

THE CAUSES OF CANCER.

SIR.—I have worked for some years at the question of the etiology of cancer, and, with this object in view, far and wide in the broad field of literature I have searched and examined. I published a paper on cancer in the JOURNAL in April 1883. In August of the same year, I suggested, in a letter to the JOURNAL, that cancer should form one of the subjects of inquiry by the Collective Investigation Committee; and I am glad to see that, in the able hands of Mr. Butlin (see JOURNAL, July 11th, p. 5), there is now some likelihood of the matter being thoroughly inquired into.

In criticising my conclusion that the fecundity of women and the prevalence of high nervous tension should be classed as strong predisposing causes of cancer, Mr. Butlin states that there is absolutely no proof at present that very fruitful women and highly nervous people are "peculiarly" liable to cancer. Now, statistics which I have quoted, collected by Moore, showed that cancer of the uterus was most common in women who had borne fine children, and Scanzoni determined the same fact; and, with regard to the question of nervous persons, it is generally admitted by surgeons that a close connection exists between mental shock and the appearance of mammary cancer. This fact is frequently referred to in the pages of surgical text-books. It does not, therefore, seem extravagant to hold that nervous persons, in one respect at least, are more liable to cancer than others whose nervous systems possess more stability. Mr. Butlin may, of course, have some reasons for refusing to accept the applicability of these statistics to the case in point, but in my opinion they seem to be conclusive enough; and there is, moreover, the concurrent testimony of Birkett, West, and Volpein, of the special liability of the breast and uterus to undergo malignant degeneration in married women who have borne children. Mr. Butlin, however, qualifies his criticism by the insertion of the phrase "at present," and here I am quite in accord with him, inasmuch as the statistics above referred to cannot be described as having the freshness of youth; indeed, according to my reading, there have been no published observations dealing with this matter for many years; and, bearing this fact in mind, I would suggest that the Collective Investigation Committee might, with advantage, institute an inquiry based upon the relative frequency of cancer in the case of married and unmarried females.

Turning, now, to the discussion of the hereditary theory of cancer, I think there is no statement which cannot be disposed of showing that cancer is in any respect more hereditary than, for instance, small-pox, scarlet fever, or measles. In both cases, nothing more is transmitted than a predisposition to suffer from the diseases in question. A man is predisposed to scarlet fever by virtue of his humanity; but this predisposition—which, of course, may vary in degree—may or may not become manifest. He may never be exposed to the infection, or, if exposed, may pass scatheless through the risk. A man is not the subject of scarlet fever, in spite of the predisposition to the disease which he may inherit, until the appearance of the usual symptoms by which it is characterised; neither is he the subject of cancer, in any sense whatever, in spite of cancerous progenitors, until some organ or part becomes the seat of a malignant growth. Therefore, it is impossible to speak of cancer as being hereditary in the usual acceptance of this term. Each man and woman inherits a predisposition to become cancerous after a certain age is reached, and this is largely under the influence of certain causes which, perhaps, it is true to describe as exciting. Similarly, then, as scarlet fever does not arise *de novo*, and without the presence of the germ of this disease, so the predisposition to cancer, of degrees of which it is quite possible to conceive, will presumably be found not to exhibit any activity except under the influence of one or more causes with which it invariably seems to be so closely allied. Thus it seems rational to conclude that, even in persons whose cancerous disease is said to be hereditary, some amount of care in the avoidance of deleterious habits might have had the effect of maintaining the predisposition to the disease in a condition of really masterly inactivity. For instance, Dr. Stallard states that in San Francisco carcinoma of the stomach is very predominant amongst the male population; and he attributes this result to a very likely cause, the prevalence of the practice of drinking "cocktails" in the morning, together with bitterns in the middle of the day, and punches at night. Now, in view of this, a man in San Francisco might not suffer from cancer of the stomach if he had strength of mind enough to deny himself what are called "cocktails." It is evident, however, that any inquiry into the whole question of cancer is likely to yield good results which deals with the combination of circumstances under which the disease seems most prone to occur. It is probable that we are a very long way off determining in what cancer as a disease consists; but there is no disputing the fact that we have certain knowledge of many of its causes, or at least of the conditions under which it commonly arises. We are sure, for instance, of the connection between smoking and cancer of the lip, and soot and epithelioma of the scrotum; and in these cases it is evident that some perversion of nutrition is excited by the stem of the pipe on the one hand, and the soot on the other. But, if physical agents can act as exciting causes of cancer, there is no apparent reason why morbid conditions should not lead to the same result. And, from this point of view, it is not improbable that eczema of the nipple and leucoma of the tongue owe their precancerous connection to the fact, that the chronic inflammatory changes with which they are associated act as exciting causes of cancer in organs for which the disease exhibits a marked predilection.

I may add, in conclusion, that a few months ago the idea presented itself of examining the records of all the European States, with the view to "an inquiry into the comparative mortality from cancer in the European States." But some hours spent in the library of the Statistical Society exposed me to the disappointment of finding that, in consequence of the meagre details which are furnished to this country of the mortality-statistics of other countries in Europe, the collection of facts for the purpose would be a matter of considerable difficulty. In time, however, I hope to be able to do something in this direction.—I am, sir, yours faithfully,

H. PERCY DUNN.

THE FIRST APPENDIX TO THE "MEDICAL DIGEST."

SIR,—Considering that during the past four years much has been written on medical science, it has been suggested that it would be acceptable to many if the first appendix to the *Medical Digest* were to be issued at the end of 1885, instead of at the close of 1886, as originally proposed.

I wish upon this point to elicit through your JOURNAL the opinions of those interested in the subject. A post-card addressed to myself, or to the publishers, Messrs. Ledger, Smith, and Co., St. Mary Axe, E.C., expressive of such opinions, and noting, at the same time, any needed corrections in the edition of 1882, will oblige, yours truly,

RICHARD NEALE, M.D. Lond.

60, Boundary Road, South Hampstead, N.W.

PRACTICE IN NEW ZEALAND.

The Edinburgh Medical Missionary Society's quarterly paper publishes the following paragraph.

OPENINGS FOR CHRISTIAN PHYSICIANS IN NEW ZEALAND.—The following extract from a letter, written from Waipukurau, near Napier, New Zealand, will, we hope, be read by some young Christian medical men who are on the outlook for a useful, as well as inviting, sphere in which to practise their profession. We shall be glad to hear from any such. Our friend writes:—

"I wish some steady young doctors would come out to this part of the colony. It would be a great benefit if these doctors had some regard for religion. At present, we are here in need of a medical missionary, or a medical man who would occasionally conduct religious services. His station would be, at present, an outlying one, where there is no medical man within 40 miles, and where a minister preaches only about four times a year. The district is well able to give a suitable man £300 a year. There is another district in the Wairarapa, near Wellington, where the people are prepared to give £300 yearly, in addition to his practice, for a good Christian medical man, and between his practice and the amount promised, he would have at least £500 a year. If you know of a young medical man who has a character for piety, or even a regard for religion, you would greatly oblige me by bringing these openings under his notice. In this country, we need men of Christian principle."

The address of the Edinburgh Medical Missionary Society is 56, George Square, Edinburgh.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. W. Philipson, Newcastle-on-Tyne; Mr. G. Cartland, Windsor; Mr. D. Bradley, Dudley; Mr. W. H. Omerara, Carlisle; Mr. W. J. Sansbury, London; Dr. W. R. S. Jeffries, Chatham; Mr. Furness Simmons, London; Mr. W. P. Y. Bainbridge, Droitwich; Dr. W. Bruce, Dingwall, N.B.; Dr. Styrup, Shrewsbury; Dr. J. W. Bullen, Bandon; Messrs. Sampson Low and Co., London; Messrs. Burroughs, Wellcome, and Co., London; The Secretary of the Royal College of Physicians, London; The Rev. W. G. Hazlerigg, Wiesbaden; Mrs. S. Aldridge, Dorchester; The Secretary of the Medical Faculty, University of Aberdeen; Mr. A. Gubb, London; Mr. J. F. Dixon, Sevenoaks; Dr. Petch, York; Dr. R. Bowes, Oldham; Mr. A. Stewart Norman, Havant; Dr. A. Tucker Wise, Malaya, Switzerland; Mr. Wm. Garner, London; Dr. Maxwell, Sandgate; Dr. A. Sheen, Cardiff; Mr. C. T. Mitchell, London; Dr. R. Pearson, London; Dr. Leech, Manchester; Dr. G. Owen Rees, London; The Secretary of the Cambridge Scientific Instrument Company; Dr. Robinson, Dublin; Our Glasgow Correspondent; Dr. G. E. P. Nixon, Shrivensham; Dr. Jeffreys, Chesterfield; Dr. Chalmers, London; Mr. C. R. Straton, Wilton, Salisbury; Dr. R. Wade Savage, London; The Rev. G. Howard Wright, London; Mr. J. Hussey Williams, Southport; Dr. A. Hegg, London; Mr. F. P. Atkinson, Surbiton; Mr. Wm. Barlow, Bolton; Dr. Broadbent, London; Dr. E. E. Moore, Downpatrick; Mr. H. J. Masters, Leicester; Mr. H. T. Tomlinson, Nuneaton, Warwickshire; Mr. W. H. Withington, Manchester; Our Edinburgh Correspondent; Mr. J. P. Philpot, Parkstone; Dr. G. C. Kingsbury, Blackpool; Dr. A. Edis, London; Mr. E. Freeman Morris, Leeds; Dr. W. S. Robertson, Port Said; Mr. T. C. Blanchard, Linares, Andalusia; Dr. Monckton, Maidstone; Mr. T. W. Cook, Exeter; Mr. R. Richley, Spennymoor; Dr. E. Markham Skerritt, Clifton; Mr. W. J. H. Wood, Boston; Messrs. Mawson and Swan, Newcastle-on-Tyne; Our Correspondent in Cairo; Mr. R. J. Gilbert, London; Our Aberdeen Correspondent; Dr. A. Ambrose, Bournemouth; Mr. R. S. Anderson, Spennymoor; Mr. Percy Pope, South Hayling; A Member; Mr. E. Sheaf, Newcastle-on-Tyne; Mrs. Timmins, Carmarthen; Mr. J. F. MacLaren, Suakin, Egypt; Dr. J. Sinclair Coghill, Ventnor; Dr. R. Barnes, London; Dr. Murrell, London; Dr. Poulain, London; Dr. McKendrick, Glasgow; Dr. T. Maxwell, Woolwich; Mr. H. D. Palmer, Colchester; Mr. C. E. Purslow, Birmingham; Surgeon-Major Baker, Salford; Dr. J. S. Langdon, Seville; Dr. D. C. Black, Glasgow; Mr. S. Osborn, London; Mr. James Dixon, Dorking; Dr. T. Harris, Manchester, etc.

BOOKS, ETC., RECEIVED.

A System of Practical Medicine by American Authors. Edited by W. Pepper, M.D., assisted by Louis Starr, M.D. Vol. II. General Diseases (continued) and Diseases of the Digestive System. London: Sampson Low, Marston, Searle, and Rivington. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE DIAGNOSIS AND TREATMENT OF TUMOURS OF THE BLADDER.

Introduction to a Discussion in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

BY REGINALD HARRISON, F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary, and Lecturer on Clinical Surgery in the Victoria University.

AT the request of the secretaries of this Section, I have undertaken the responsibility of opening a discussion on the diagnosis and treatment of tumours of the bladder. Only a few years ago, any one occupying this position would probably have felt bound to offer an apology to his audience for the scantiness of the material upon which he had to dilate; such, however, has been the progress of surgery within our recollection, that I feel myself differently circumstanced, and shall ask your indulgence in my attempt to compress the large amount of material which the experience of many has already supplied.

Time is more than precious on occasions such as these, and I must, therefore, avoid all historical references, deeply interesting and instructive as they are, and deal with my subject from a purely clinical point, feeling assured that this is the direction which will best answer our purpose to-day. Under the guidance of the distinguished surgeon who presides over our Section, and in the presence of many who have made valuable contributions to this subject, I have the satisfaction of anticipating that the speakers who follow me will fill in the numerous gaps I must necessarily leave, and correct defects in my statement, of which I am only too conscious.

I shall confine my remarks to tumours of the bladder proper, adopting, where requisite, the nomenclature set forth in the report of the Committee appointed by this Association, for the drawing up of which we are largely indebted to Mr. Paul (BRITISH MEDICAL JOURNAL, January 12th, 1884).

It is hardly necessary that I should occupy time with any remarks on the diagnosis of these growths, other than those which will incidentally occur. Chief reliance will be placed on the circumstances under which blood appears in the urine, the manner in which the mechanism of micturition is interfered with, the presence or absence of evidences of new growth in the excretion, and the direct and indirect indications which may be afforded by the use of the sound or the catheter.

It will be convenient to arrange tumours of the bladder into two classes or stages; (1) those which, during their entire existence, or for a portion of it, occasion either slight or no distinct indications of their presence; and (2) those which declare themselves by symptoms either seriously disturbing the function of micturition, or which, by their constancy or degree, threaten the life of the patient.

From the manner in which I have thus attempted, in general terms, to make use of a classification, it will be at once understood that, individually, I should be guided as to treatment, not by the fact alone that a patient has a growth in his bladder, but by the symptoms it produces.

The mere subjective evidence that a person has a tumour of this kind would not, I submit, warrant the adoption of any operative measures to effect its removal, even if, in addition, it were possible to demonstrate its existence by other means than digital exploration. Some tumours of the bladder which have been found in the *post mortem* room appear to have had no history connected with them; and instances are known in patients of the total disappearance, after

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varying intervals, of symptoms which were unmistakably those of villous growths or papilloma. Of the latter, I believe that I am acquainted with more than one case. These are important facts, as they seem to indicate that what nature can accomplish, art may hope to imitate. How these growths thus disappear, whether it is by an accidental self-strangulation, or by an inflammatory act, it is impossible to say; but that they do so occasionally, without recurrence, I have not the least doubt. Unfortunately, however, by far the larger proportion of them sooner or later pass out of the condition where operative interference is not to be recommended, and enter upon what I have taken as the second stage of their existence. Whether the transition is slow or rapid, gradual or sudden, much depends on their kind; but whether innocent or malignant, primary or secondary, the great majority of them, sooner or later, make it apparent that life will eventually be destroyed, either by persistent hæmorrhage, or by the degree to which micturition is interfered with.

The question of operative interference will now be entertained; but, before anything further can be said as to the hope of success which is likely to follow this, it is necessary that a more accurate knowledge of the connections of the growth should be obtained. This brings me to speak of digital exploration of the bladder.

If you will look at the two drawings before you, you will see examples of two very opposite conditions; one where everything may be hoped for from operation, where modern surgery has proved complete recovery to be possible; and the other where nothing is to be expected, except the relief of those symptoms of urgency which have rendered an opening into the bladder necessary.

The first drawing represents a villous growth of three and a half years' duration, with a narrow pedicle, and is taken from Quain's *Clinical Lectures* (Plate xxiv), which have recently been published; the second is an epithelioma, extensively connected with the posterior wall of the bladder, from a specimen of my own in the Liverpool Museum. Illustrations like the latter tend to show that, though the diagnosis may be correct, the prognosis, so far as operative treatment is concerned, may fall very short of our desire, as the propriety of attempting to remove such growths can never be decided until the finger has been placed in contact with them.

Digital exploration of the bladder, relative to the treatment of tumours, seems to me to be called for when it can fulfil at least three objects: (1) the relief of symptoms which are otherwise irremediable; (2) verifying the diagnosis of tumour; (3) determining whether the removal of the growth can be proceeded with. The circumstances which require a surgeon to open the bladder for the purpose of finding out what is inside it must be very exceptional; but when, by this proceeding, the three important objects I have mentioned are to be obtained with little risk, then its importance cannot well be overrated. There are recorded cases which seem to suggest that, if the exploratory examination had been limited to providing a means for draining the bladder, and for examining the growth, it would have been better.

In the case of an epithelioma of the bladder, such as you see in the illustration, which I have also taken from Quain (Plate xxix), to attempt its extirpation is obviously out of the question; to explore it with the finger, and to feel so far satisfied, and, at the same time, to give the patient an opportunity of emptying his bladder completely by means of a short and open road so long as he lives, is legitimate; nay, further, experience has already sufficiently shown that there is no better way of controlling the considerable bleeding which nearly always attends these cases, than by providing the means of permanently maintaining the bladder in a condition of more or less contraction.

And now a few words in reference to the operation for exploring the bladder with the finger. If there be two ways to a place, of about the same length, but with somewhat different surroundings, you may depend upon it you will have two sets of travellers, with the same aims, but with very opposite notions as to the respective merits of the two routes: so with the bladder; though we are agreed as to the necessity of exploring it, we are not so unanimous about the route. In this country, as well as in America, median perineal urethrotomy seems to be preferred; whilst in France, the claims of the suprapubic operation have been forcibly urged by Professor Guyon, Pousson, and others. Sir Henry Thompson has advocated the former method, not only as being the safest and most convenient for exploration, but, as he has shown by examples, for extirpating these growths. It seems to me that this form of procedure is to be preferred on several grounds.

In the first place, it provides a direct access to the more usual position of these growths; by a continuance of the incision forwards into the membranous urethra, and backwards to the extreme limit of the

prostate, it affords more room for manipulation than at first sight appears; but what is of more importance, it is, I believe, the best position for the drainage to follow, which is a most important item in the management of these cases. If a perineal exploration show the position or character of the tumour to be such as would be benefited by an access from the front, should it be determined to remove it, there is nothing to prevent the addition of the suprapubic incision, as Billroth demonstrated. A suprapubic incision is none the worse for having a more dependent opening, as Frère Côme practised 100 years ago in connection with his success as an operator for stone. But, as I have already intimated, the great importance of the after-treatment, in relation to thorough drainage, renders to my mind the perineal procedure almost a necessity.

In connection with this point, it must not be forgotten what are the conditions under which these operations are often undertaken. In addition to the tumour which it is purposed to remove, there are usually present, either in the bladder itself, or in the organs associated with it, pathological changes which add considerably to the danger arising from the retention of anything which ought to escape. The viscus is occasionally sacculated, the ureters are patent and frequently largely distended, whilst the kidneys are rarely sound where the obstruction caused by the growths has been of long continuance. Hence we have much to fear from any extension of a suppurative process after the operation, as I have seen in two instances which have recently come under notice. One of the best safeguards against a contingency such as this is thorough drainage, and this, I think, can best be secured through an opening in the perineum.

The feasibility of attempting to remove the tumour having been determined by digital exploration, the precise means of doing so has now to be considered.

It will not be necessary for me to describe at length how this has been effected after an opening has first been made into the bladder; in some instances, the finger-nail has sufficed; in others, various kinds of forceps; quite recently, Mr. Pitts has recorded (Clinical Society, May, 1885) a case where a growth was successfully removed by the *écraseur*. In examining two cases which terminated fatally, it appeared that, if it had been possible to have applied a ligature round the pedicles, and then to have removed the growths cleanly, either with forceps or with scissors, a different result might have followed. The nearest approach to such a proceeding seems to be one recorded by Mr. Henry Morris (*Lancet*, April 21st, 1884), who failed on the first attempt to remove a growth in consequence of the want of the most appropriate means for extraction; the patient was left for two days, when the tumour was found prolapsed into the wound.



Having stretched the edges of the wound apart by retractors, he succeeded in placing a ligature of catgut over the base of the growth,

and removing it with scissors. The patient made a good recovery.

When, after the bladder has been opened and explored, it seems practicable to remove the tumour, this should be effected as completely as possible; to take away a portion of it is to leave the remainder to inflame, suppurate, and possibly to become gangrenous, thus providing a fruitful cause for pyelitis, through the largely dilated ureters. Not being entirely satisfied with the forceps that hitherto have been used for the purpose of seizing and extracting these growths, I have had others made for me by Messrs. Krohne and Sesemann, which, so far as I have been able to judge of them in practice, are well adapted for this object.

It will be seen that they consist of an ordinary pair of bladder-forceps, with a free margin; by this contrivance, it is almost impossible to do any damage to the wall of the bladder itself. The removal of the growth is effected partly by twisting slowly with the hand, and partly by the crushing action of the jaws of the instrument. In the exploration of the pedicle, both before and after removal of the growth, I have found one of Marion Sims's enucleator-hooks exceedingly useful. If, however, the connections of the tumour be extensive, and there be a doubt as to whether all can be removed without doing serious damage to the bladder itself, I feel sure that we had better content ourselves with the opening, which may under all circumstances be safely made, and with the drainage that this opening with a suitable apparatus will provide. The lesser proceeding has in many instances proved the means of arresting hemorrhage, and of adding materially to the comfort, as well as to the life, of the patient, even where it has been found impossible either to remove the tumour, or with safety to reduce its size.

Time will not permit me to illustrate these remarks with cases from my own practice, where I have operated in accordance with the views expressed in this paper; these have already been noticed in a previous communication (On the Surgical Treatment of Hæmaturia, *Liverpool Medico-Chirurgical Journal*, July, 1884).

I hope that Dr. Stein, of New York, who has contributed important matter to the literature of this subject (*A Study of the Tumours of the Bladder*, New York, 1881), can tell us something to-day as to the general results following operative treatment, drawn from his most recent investigations upon this point (Results of Operations on Bladder-Tumours, *New York Medical Record*, No. xxvii, 1885).

What applies to the male is equally applicable to the female; though with the latter, by reason of the anatomical differences in the parts, both exploration and removal can be more readily effected. My friend Dr. Alexander, of Liverpool, was, I believe, one of the first in this country to demonstrate the successful removal of growths from the bladder under these circumstances.

Of excision of portions of the male bladder, I have had no experience; so far as I am aware, it has been limited to some experiments on the lower animals, in furtherance of the subject which we have now under discussion.

In conclusion, it cannot be denied that operative surgery has already proved itself to be of considerable service in the treatment of a very distressing class of disorders, in which little is to be expected from medicinal agencies.

If I may be thought to have been too general in some of my remarks, permit me to say that this has been my intention; my object has been to open a discussion, and not to narrow it unnecessarily. The time has not arrived when it would be possible to lay down hard and fast lines of demarcation; much must be left to individual judgment. Where therapeutics are to end and surgery is to commence, experience, and the application of those principles which are of general utility, and are not exclusively applicable to any one set of organs, will enable us to determine what is best for each case as it presents itself to our notice.

Dr. A. W. STEIN (New York) said that, in forming a judgment of the relative advantages and disadvantages of each operation, one must not be guided simply by the percentage of deaths or recoveries, but must inquire into the following circumstances; 1, the conditions which, in each operation, favoured success; 2, the causes determining a fatal termination, which was rarely due to the operative procedure, whatever method might be adopted; 3, the actual condition of the patient at the time when he was reported as recovered, many cases being reported as recoveries which were not so, on account of incomplete removal of the growth, or of recurrence of symptoms; 4, the time that had elapsed since the operation. He had collected records of 57 operations on 56 males, and 47 on 46 females. In the females, dilatation of the urethra was done in 38 cases; of these, 25 recovered, three were improved, and 10 died, the causes of death being

malignant disease (in five at least), imperfect removal, and renal disease. Incision of the urethra and colpo-cystotomy were performed in nine women, of whom six recovered and three died. In the male, perineal cystotomy was done nine times, with six recoveries and three deaths. Hypogastric cystotomy was performed 14 times on 13 subjects. In one case, it was associated with lateral cystotomy, and in one with external urethrotomy. One patient (Billroth's) recovered; 12 died, six from malignant disease (four of whom survived several months), four from advanced renal disease, etc., and two from imperfect closure of the vesical walls. External perineal urethrotomy was done in 34 cases; of these, 20 recovered, but in five, at least, there was incomplete removal; in some the symptoms recurred, and others were too recent to afford data. There were 14 deaths from incomplete removal of growths (all sessile), serious pathogenic changes, and malignant disease. Success depended on timely and complete removal. Therefore, the question lay between external perineal urethrotomy and hypogastric cystotomy. The evidence was conclusive that senile growths were not manipulated with advantage, especially when the growth was located on the anterior or the lateral walls of the bladder; then there was danger of perforating the bladder, as had occurred in the hands of Senftleben and Sroinski. This should teach one to avoid extreme traction and twisting. In suprapubic cystotomy the dangers were to be avoided by distension of the bladder, and its elevation by the colpeurynter; by inserting a T-shaped drainage-tube, if the wound were left open; possibly suture of the bladder to the abdominal wall might be done. The advantages of the operation were these. The parts were freely exposed to view, and could be manipulated, an advantage that must, in many cases, supersede every consideration. Suprapubic cystotomy had not yet had an opportunity of showing what it could do. For the removal of certain growths, external perineal urethrotomy was useful. Dr. Stein recommended bisection of the prostate. He showed a bisector, and also exhibited his female urethral dilator and speculum.

Mr. J. R. HUMPHREYS (Shrewsbury) thought Dr. Stein's instrument for dilating the female urethra a most valuable improvement. With care, the vagina might be dilated so as to explore the bladder with the finger without any fear. He had done this, so that the whole of the interior of the bladder had been felt all round, and in due time the patient had made a perfect recovery.

Mr. W. J. PENNY (Bristol) advocated the superior claims of suprapubic cystotomy done with strict antiseptic precautions. He believed that the septic diseases, pyæmia from the perineal wound, cystitis, and pyelitis, as secondary results, which had occurred in the hands of the most skilled surgeons, could most certainly be prevented by the suprapubic operation, provided strict antiseptic precautions were taken, that the bladder-wound were accurately sutured, and that the viscera were drained antiseptically. The operation had fallen into disrepute owing to bad results, caused by peritonitis and extravasation of urine. These results could be prevented, as he had seen on two occasions in the practice of Sir Joseph Lister, where the precautions he had mentioned above were strictly carried out. Dr. Vincent, of Lyons, and Dr. Adolph Fischer, of Buda-Pesth, had shown, by experiments on the lower animals, that the mere contact of urine with the peritoneum was not so injurious as was generally supposed, and that the results of wounds of the bladder depended, to a great extent, on the accuracy of the suture. Mr. Lockhart Stephens had lately performed with Mr. Penny a suprapubic cystotomy on the dead subject, and they were then enabled to see the whole interior of the bladder, through a two-inch incision in the walls, with the greatest ease. It was also possible to reflect light from a laryngoscope-mirror into the bladder, and thus more thoroughly to explore it. Again, suprapubic cystotomy was an easier operation in fat people with deep perineæ, in men with enlarged prostates, and in children, in whom the bladder was situated more in the abdomen, and the structures round its neck were likely to break down under the dilating force of the finger. In ordinary cases of exploration of the bladder by the suprapubic operation, the peritoneum need not be injured; but even supposing it were, Dr. Vincent and Dr. Adolph Fischer had shown that portions of the bladder could be excised, and the animals recover; and Mr. Penny believed that, in a short time, malignant diseases, with the portion of bladder to which they were attached, would be excised successfully. This could only be done by the suprapubic operation. The only dangers which were common to suprapubic cystotomy as well as to all operations on the urinary tract, were urinary fever and suppression of urine; but he thought that these disasters were less likely to happen in the high operation, as the fundus was less freely supplied with nerves than the neck of the bladder and the urethra.

Mr. KER (Halesowen) was of opinion that removal of tumour of the

bladder might often be undertaken, even in unpromising cases. In the female this was easily accomplished by dilatation of the urethra. The following case, recently under his treatment, illustrated the above statement. Mrs. R., aged 42, mother of nine children, was first seen in August, 1882. The patient had been suffering from hæmaturia for six months previously. This had been thought to be due to the presence of a stone. The urethra was dilated and the bladder explored. Large soft growths were found in the trigone, and another at the apex, below the symphysis pubis. The growths were removed with the *écraseur*, and the bladder subsequently washed out with a solution of perchloride of iron. The recovery was complete, and she soon returned to her household duties, which were very heavy, as she was a poor woman, with a large family. In May, 1885, Mr. Ker was again consulted on account of recurrence of symptoms six weeks previously. He again dilated, and found that the growths had recurred; he removed them as before, this time sponging over the surface of the bladder with iodine-phenol. This time more difficulty was experienced, and he had to use one of Durham's retractors, and scraped away considerable portions. Subsequent microscopic examination proved the growths to be alveolar carcinomata. On July 29th, the patient was perfectly well. For the purpose of diagnosis and operation in the male, Mr. Ker would always adopt the perineal incision.

THE MODERN TREATMENT OF UTERINE MYOMA.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By LAWSON TAIT, F.R.C.S.

I do not need to repeat the statement which now falls from the pen of every writer on the subject, as from the lips of every operator, that, within the last few years, enormous advances have been made in pelvic and abdominal surgery. I still find it necessary, however, to keep on repeating much that I have already said on the subject, because we are still very far indeed from seeing the applications of these advances as full as they should be for the relief of suffering humanity; and, therefore, I desire once more to draw the attention of my professional brethren to the modern, and I would add the rational, treatment of uterine myoma.

The necessity for this repetition was most fully forced on me by an incident which occurred only three short weeks ago in my consulting-room, an incident which would have been ludicrous had it not had a somewhat ghastly significance.

Two ladies from a northern city were shown in by my servant. They were clearly sisters. One had a terribly anæmic face, whilst the other had the appearance of robust health. They were respectively 38 and 36 years of age; and, to my surprise, it was the younger and healthy-looking woman who was announced as the patient. She had come to consult me about an abdominal tumour, which I found to be a soft myoma, reaching almost to the ensiform cartilage. During the simple examination, the elder sister became so ill that I had to supply her with a stimulant and send her out of the room. After my interview with the younger sister, the elder asked that she also might consult me, though she had no intention of doing so when they came. I found her condition due to a small bleeding myoma, for which she had been treated by one of the most eminent gynaecologists by tonics and pessaries for some years without the slightest benefit. The younger had seen many specialists, and had been advised to let her tumour alone; and, therefore, I had in my room at the same time two women, sisters, and both in the process of dying from a disease which is said to be not fatal to any extent, to be less fatal than the operations performed for its cure; to constitute in fact merely "a lump in the womb of no consequence whatever."

In my opinion, these two women afforded examples of a state of professional ignorance and prejudice which is a disgrace alike to the time in which we live, and to the condition at which the art and science of surgery has arrived. With this expression of view, the mildest I

can coin, I shall proceed to show why I think that both of these women ought to have had their uterine appendages removed years before the period of their first interview with me.

These two women give perfect illustrations of the different ways in which uterine myoma kills, the elder by exhaustive bleedings, and the other by the rapid growth of a deadly tumour. Neither of them can, from the record of her past history, by any possibility live five years longer if left alone, and both, by the delay of proper means for relief, have incurred an enormously enhanced risk when these means come to be applied.

The first point of my thesis is to show that removal of the uterine appendages for myoma, when properly performed, is not a fatal operation, but one with hardly any mortality at all, even when the tumours are large, and when the patients are brought almost to death's door by hæmorrhage. I therefore append a list of 58 cases in which I have operated since January, 1884, without a single death; and I select that period, not because I had a heavy mortality before then, but because it is the latest date up to which my practice has been published in

No.	Residence.	Medical Attendant.	Age.	M or S.	Date.	Hospital.	P.	R.
1	Darlaston	Dr. Totherick	30	M	1884. Feb. 20	H	—	R
2	Monmouth	Dr. Marsh	38	M	" 21	H	—	R
3	Leicester	Dr. Clifton	34	S	" 29	H	—	R
4	Leeds	Dr. Hunter	47	M	March 2	—	P	R
5	Birmingham	Dr. Warl	29	M	" 27	—	P	R
6	Birmingham	Dr. Wilson	37	M	" 28	—	P	R
7	Cannock	Mr. Blackford	33	S	April 5	—	P	R
8	Kidderminster	Mr. Holyoake	46	M	" 9	—	P	R
9	Kendal	Mr. Green	30	M	" 18	—	P	R
10	Wolverhampton	Dr. Underhill	40	M	" 22	H	—	R
11	Ripley	Mr. Allen	42	M	" 23	—	P	R
12	Leamington	Dr. Smith	44	M	" 25	—	P	R
13	Leamington	Dr. Thursfield	40	M	" 26	—	P	R
14	Hereford	Mr. Vevers	40	M	May 16	—	P	R
15	Birmingham	Dr. Wilson	39	M	" 17	—	P	R
16	Newport, Mon.	Dr. Davies	44	M	" 20	H	—	R
17	Ross	Mr. Norman	44	M	June 3	—	P	R
18	Birmingham	L. T.	37	S	" 6	—	P	R
19	Bromyard	Mr. Horton	36	M	July 9	—	P	R
20	Nottingham	Mr. Evan Smith	46	M	" 10	—	P	R
21	Wolverhampton	Dr. Lycett	45	M	" 22	—	P	R
22	Sutton, Surrey	Mr. Benson	48	S	" 31	H	—	R
23	London	Dr. Armitage	44	S	Oct. 4	—	P	R
24	Llantrissant	Dr. Davies	46	M	" 15	—	P	R
25	Birmingham	L. T.	39	M	" 21	—	P	R
26	Coventry	Dr. Partridge	30	M	Nov. 3	—	P	R
27	Walsall	L. T.	42	M	" 10	H	—	R
28	Brighton	Dr. Bluett	35	S	" 12	—	P	R
29	Nottingham	Dr. Howitt	41	M	" 13	—	P	R
30	Manchester	Dr. Lee	38	M	" 17	H	—	R
31	Birmingham	L. T.	43	M	" 25	—	P	R
32	Birmingham	L. T.	42	M	1885. Jan. 12	—	P	R
33	Cheltenham	Dr. Cardew	33	S	" 23	—	P	R
34	Wakelield	Mr. Slater	42	M	" 26	—	P	R
35	Birmingham	Mr. Leech	35	M	Feb. 10	—	P	R
36	Nottingham	Mr. Evan Smith	44	M	" 14	—	P	R
37	Tamworth	Dr. Ruston	43	M	March 17	—	P	R
38	Oswestry	Mr. Cartwright	50	M	" 20	H	—	R
39	Leicester	Dr. Clifton	28	M	" 30	—	P	R
40	Newport, Mon.	Dr. Thomas	47	M	April 14	—	P	R
41	Evesham	Dr. Gibbs Blake	34	S	" 14	—	P	R
42	Birmingham	Dr. O. W. Barratt	44	M	" 24	H	—	R
43	Birmingham	Dr. Hoare	45	M	May 11	—	P	R
44	Shifnal	Dr. Mayer	29	M	" 23	—	P	R
45	Birmingham	Drs. Newton and Aldridge	34	M	June 1	H	—	R
46	Redditch	Mr. Mathews	59	M	" 11	H	—	R
47	Birmingham	Mr. Harmar	36	M	" 12	—	P	R
48	Wolverhampton	Dr. Scott	36	M	" 25	—	P	R
49	Ireland	Dr. Barnardo	34	M	" 26	—	P	R
50	Birmingham	Mr. Prosser	32	M	" 27	H	—	R
51	Leicester	Mr. Griffiths	47	M	July 4	—	P	R
52	Salop	Dr. McCarthy	42	M	" 7	H	—	R
53	Birmingham	Mr. Whitcombe	33	M	" 8	—	P	R
54	Oswestry	Dr. Lewis	36	M	" 8	—	P	R
55	Oxford	Dr. Tuckwell	35	M	" 14	—	P	R
56	Dawley, Salop	Dr. Soame	47	M	" 17	—	P	R
57	Smethwick	Dr. Jackson	44	M	" 17	—	P	R
58	Rugby	Dr. Duke	46	M	" 21	H	—	R

detail. In the series published up to the end of 1883, there were 50 cases of removal of the uterine appendages for myoma with two deaths, so that my modern experience gives a series of 108 cases with two deaths, and my belief is that the real mortality of the operation in experienced hands is not more than 1 per cent. Adverse critics have been delighted to rake up my early cases in which the mortality was nearly 25 per cent.; but I need not say that, as I

originated this proceeding, I had to bear the burden of the blunders inseparable from ignorance, blunders which have helped me not only to mend my own ways, but also to mend the ways of those who came after me, and who have forgotten to credit me with the better results which my misfortunes provided for them.

The tumours for which these operations were performed varied in size from the bulk of an orange to a size extending far above the umbilicus. The list which I have just submitted proves surely that this operation is a safe one. Now I want to prove the second part of my thesis, that its results are satisfactory and permanent, so that we may with confidence recommend it for the relief of suffering and the saving of life.

The idea of this operation occurred to me somewhere in the year 1871, but it was not till August 1st, 1872, that I carried it out. The same idea occurred to Hegar, of Freiburg, and he carried it out on July 27th, 1872.

On May 24th, 1881, I read a paper on my first 30 cases of the operation before the Royal Medical and Chirurgical Society, but my statements only provoked incredulity, and that conservative body did not even think it worth while to publish my paper. I received their formal thanks without emotion, and sent my paper to America, where it was published in the *American Journal of Medical Sciences*, January, 1882, and in the *New World* it at once received the attention which I knew the facts merited. I can speak now calmly of the action of the London society, but I felt very bitterly about it at the time.

The list which I now submit includes my first 50 cases of this operation where recovery took place, with a detailed statement of the results up to a date as late as I have been able to obtain information. For the statements concerning a few of the cases, I am solely responsible, as they are drawn from personal interviews with the patients; but in every instance where it was possible, the statements are made on the evidence of a practitioner who sent the patient to me for operation, or was associated with me in the responsibility of the case, or under whose cognisance she has been since the operation. On some of the more striking cases, and on some salient features, I make brief comments; but, in the main, the evidence is allowed to speak for itself.

CASE I.—J. H., aged 40, had been under my care for some 12 months for exhausting hæmorrhage, arising from a myoma which occupied the pelvis. On August 1st, 1872, I removed the appendages, and the patient made an easy recovery. She went to reside very soon after the operation in Cheltenham, at which time I lost sight of her; but in 1874 I heard of her in Bristol, and then in London, and in 1882 she was in Birmingham, when I saw her in perfect health. She had never menstruated since the operation, and the tumour had certainly diminished in size.

CASE II.—E. C., aged 40, was placed under my care by the late Mr. Giles, of Stourbridge. She had suffered for years from menorrhagia, due to a myoma, which could be felt above the brim of the pelvis. I removed the appendages on May 22nd, 1873. I saw the patient in 1876, and ascertained that she had menstruated regularly for a few months after that time, but that it had suddenly ceased and never reappeared. The tumour had diminished in size. The patient now lives in America.

CASE III.—Leamington, Dr. Tomkins, 47, m., op. Oct. 18th, 1879. —"Worcester, July 14th, 1885.—My dear Tait,—I have not seen anything of Mrs. — for the last three years; but, from what I have heard of her, I believe the results of the operation to have been entirely satisfactory. The hæmorrhage ceased, and the tumour diminished considerably, but I cannot say if it has entirely disappeared. Since the operation, she has had fairly good health, instead of being a chronic invalid, as she was before you removed the appendages.—I am, yours very truly,—GEORGE W. CROWE."

CASE IV.—Stafford, Dr. Tylecote, 52, m., op. Nov. 30th, 1879.—"Great Haywood, Stafford, July 14th, 1885.—Dear Mr. Tait,—I am sure you will be glad to hear that Mrs. —, who was so reduced by repeated attacks of uterine hæmorrhage as on several occasions nearly to have lost her life, and on whom you performed the operation six years ago for removal of the uterine appendages, is now in very good health, capable of taking and enjoying plenty of exercise, and leading a very active life. In fact, she dates her gradual restoration to health and a life of usefulness from Advent Monday, 1879, the date of the operation. Of the good results of the operation there can be no question, for which we all feel very grateful to you.—Believe me, yours very truly,—E. T. TYLECOTE."

CASE V.—Walsall, Mr. J. Clay, 34, m., op. January 13th, 1880.—The tumour in this case has almost entirely disappeared; the fundus feels very little larger than normal, whilst the tumour originally reached above the umbilicus; and, in order to get the appendages out,

I had to make an incision nearly six inches long, the scar of which is still five inches long. She has menstruated regularly ever since the operation, and occasionally the loss is somewhat profuse.

CASE VI.—Southport, Dr. Elias, 48, s., op. January 17th, 1880.—This case has been published in detail. The patient died, about six months after the operation, of cancer of the uterus. The operation completely arrested menstruation.

CASE VII.—52, s., op. March 10th, 1880.—This patient has never menstruated since the operation, and has since the termination of her convalescence led a very active life, and is now in perfectly good health. She is the sister of her medical attendant, and therefore I refrain from giving any testimony from him by name.

CASE VIII.—Leicester, Dr. Clifton, 42, s., op. April 7th, 1880.—This patient has not menstruated since the operation, and is now in perfect health. I saw her on July 11th, 1882, made a careful examination, and could not discover a trace of the tumour.

CASE IX.—Chasetown, Dr. Clarke, 39, m., op. April 22nd, 1880.—I saw this patient on February 6th, 1884. She had never menstruated since the operation; and, on examination, not a trace of the tumour could be discovered, although it originally completely filled the pelvis.

CASE X.—Solihull, Dr. Insull, 46, s., op. May 8th, 1880.—The difficulty of removing the appendages in this case was so great that the tumour had to be dragged out through an incision, extending more than three inches above the umbilicus, and great difficulty was encountered in getting the tumour back into its position. On September 8th, 1881, the patient was perfectly well, had never menstruated since the operation, and the tumour was about one-third of its original size, for it did not extend much more than half way between the pelvis and the umbilicus. This patient was always a weak-minded semi-imbecile woman, and is now under care in the County Asylum.

CASE XI.—Birmingham, Dr. Drummond, 49, m., op. August 17th, 1880.—Dr. Drummond reported to me, on May 28th, 1881, that this patient was perfectly well, and had never menstruated since the operation. I have been unable to trace her since.

CASE XII.—Coventry, Dr. Fenton, 47, m., op. September 1st, 1880.—I saw this patient for another ailment in June of this year. She had never menstruated since the operation, and the tumour had entirely disappeared.

CASE XIII.—Stourbridge, Dr. H. Smith, 50, s., op. September 2nd, 1880.—“Stourbridge, July 22nd, 1885.—Dear Mr. Tait,—Your patient, Miss —, is now able to take short walks, and to go about a little among the poor of her parish. Before the operation, she had not left her room for eleven years. She can even occasionally attend church.—I remain, yours sincerely, H. HAMMOND SMITH.”

CASE XIV.—Bloxwich, Dr. Somerville, 35, m., op. Oct. 20th, 1880.—“Highfield, Bloxwich, July 14th, 1885.—Dear Mr. Tait,—In answer to your inquiries about Mrs. —, I am glad to say that she is perfectly well; and being the wife of a butcher, where there is lots of work to be done in the shop, from Monday morning till Saturday night, when they close at 11 o'clock, I can safely say that, for the last twelve months, she has done more work than you could find two men capable of doing; so that, I think, her case needs no further comment of mine.—Very faithfully yours, J. H. SOMERVILLE.”

CASE XV.—Birmingham, Mr. J. W. Taylor, 44, s., op. Dec. 18th, 1880.—“July 15th, 1885.—My dear Mr. Tait,—When I last saw Miss —, she had completely recovered. There had been no hæmorrhage for a long time, and the myoma had practically disappeared.—Yours truly, J. W. TAYLOR.”

CASE XVI.—Coventry, Dr. Plowman, 32, m., op. Jan. 13th, 1881.—She is in perfect health, and feels or suffers nothing from her old complaint. Dr. Pickup was kind enough to hunt up this patient for me, and I saw her on July 23rd, 1885. She has never menstruated since the operation, is entirely free from pain, and in perfect health. She can do all her house-work without any trouble, and looks stout and well. The tumour is now not much larger than an orange. At the time of the operation, it rose above the pelvic brim.

CASE XVII.—Brierly Hill, Dr. D'Arcy Ellis, 41, m., op. February 5th, 1881.—I saw this patient January 17th, 1883, in perfect health.—“a new woman,” she says—and only just a trace of the tumour could then be felt. Dr. D'Arcy Ellis reports:—“Brierly Hill, July 24th, 1885.—My dear Mr. Tait,—I have seen — to-day, and she reports as follows. ‘Since January, 1883, my health has been better than it had been for two years. I can do all my housework, including washing, without suffering any pain, or more than ordinary fatigue. I was quite unable to do my work for three years before the operation. My weight has increased very considerably. I am very thankful that I went to Mr. Tait, as I think the operation saved my life.’ I have taken her statement exactly as it was given to me. I

consider her case a ‘triumph of surgery.’ Her pitiable condition and agonising pain had excited the sympathy of all who knew her. She is now quite a transformed creature.—Believe me, yours very truly, H. D'ARCY ELLIS.”

CASE XVIII.—Birmingham, Dr. Kenny, 43, m., op. February 12th, 1881.—“St. Mary's Square, Birmingham, July 22nd, 1885.—Dear Mr. Tait,—Mrs. —, upon whom you operated for a myoma, first mentioned her symptoms to me about 12 years ago, about two years after her last confinement. She was seen by several consultants, but gradually got worse, and, after spending several months in each of the Birmingham hospitals, went home, as she believed, to die. She was then so anæmic that she could not walk across a room, from the palpitation induced by the effort. She was debarred the small pleasure of looking out of her windows, because of the youngsters in the street calling to each other ‘to come and see the dead woman.’ It is now four years since you operated upon her, and she is going on remarkably well. She is, in fact, as well as ever she was in her life.—Yours sincerely, J. H. KENNY.”

CASE XIX.—Darlaston, Dr. Sutton, 38, s., op. April 20th, 1881.—The details of this case were published in the *Lancet*, October 6th, 1881, as follows. “Dr. Sutton, of Darlaston, brought a lady to me in March last, suffering from hæmorrhage and retention of urine, due to a large uterine myoma, which was shaped like a cocked hat, the upper apex running up as far as the right kidney, and the lower running into the pelvis. To this peculiarity was due the symptom which gave her most distress—the persistent retention of urine. She was 38 years of age, and unmarried, and the importance of the case was increased by the fact that she was a relative of her medical attendant. The tumour had grown very rapidly, for the symptoms had been in existence only a few months. It was quite fixed in the pelvis, so that nothing could be done by lifting it up by means of a ring; and there was no hope of removing it successfully. I therefore proposed to remove the uterine appendages; and this I did with Dr. Sutton's consent, and in his presence, on the 20th of April last. I was assisted by Mr. Raffles Harmar. The appendages were extremely difficult to find, as they were all down behind the tumour, and for some time I feared I should not be able to reach those of the right side. I succeeded, however, in getting them completely out, removing the Fallopian tube close to the uterine cornua. The tumour I estimated to be about 5 lbs. in weight. She speedily recovered from the operation. She has just been to see me to-day, and tells me that she has never seen the slightest sign of menstruation since the flow which always follows the operation. The use of the catheter was discontinued within a month of the operation, and to-day there is not a vestige of the tumour to be discovered; it has entirely disappeared.”

CASE XX.—Droitwich, Dr. Cuthbertson, 43, m., op. June 15th, 1881.—I saw this patient April 5th, 1883. She had never seen the slightest appearance of menstruation since the operation, and was in perfect health. The tumour had completely disappeared.

CASE XXI.—Birmingham, Mr. Hallwright, 47, m., op. June 17th, 1881.—The details of this case have been published in the *Medical Times and Gazette*, for August 2nd, 1884. I received from Dr. Saundby a jar containing the uterus of a woman, aged 47, from whom I removed the uterine appendages for a large myoma on June 21st, 1881. At that time she was under the joint care of Mr. M. Hallwright and myself, for profuse menorrhagia, accompanied by intense pain. All other efforts having failed to relieve her, her health being completely destroyed and the tumour growing rapidly, I advised the operation. The tumour reached about an inch above the umbilicus, and the upper end of the incision necessary to reach the appendages was almost at that landmark. Dr. George Fyfe, Dr. Savage, and Mr. Raffles Harmar, were present at the operation. She made an easy recovery, and never lost a drop of blood from the uterus after her convalescence, which was completed within a month. She rapidly gained strength and health, and, as she said upon my frequent visits to her, had neither ache nor ail. She happened to live close to my house, and was therefore frequently exhibited to visitors. She has been seen and examined by Dr. Marion Sims, Dr. Battey, and Dr. T. A. Emmett. Ten days ago she suddenly began to suffer from symptoms of intestinal obstruction, and as this resisted all ordinary measures, I opened her abdomen for the second time, last Wednesday, July 23rd. Dr. Sydney Jones, of Lydney, Dr. Vander Veer, of Albany, and Mr. J. W. Taylor, were present. I feared, of course, that the obstruction was due to some adhesion of intestine to the stumps of the former operation, but I am glad to say that my fears had no foundation. I performed enterotomy, but she survived the operation only some 15 hours. Dr. Saundby made the *post mortem* examination, and removed the uterus entire. The myoma had shrivelled to the size of a small orange, certainly less than one-tenth

of its size three years ago, and there is no trace of ovaries, or tubes, or stumps, or ligatures. The preparation is in the museum of the Royal College of Surgeons.

CASE XXII.—Ironbridge, Dr. Law Webb, 38, s., op. August 25th, 1881.—This patient is in perfect health, and a detailed statement of her case is given further on in the paper.

CASE XXIII.—Wolverhampton, Dr. Pope, 40, m., op. November 19th, 1881.—I saw this patient July 22nd, 1885. She has menstruated only about three times since the operation, at irregular intervals, and very slightly, and without pain. She is now in perfect health, able to do any kind of work. The uterus is quite sessile, and not a trace of the tumour to be discovered.

CASE XXIV.—Birmingham, Mr. C. J. Bracey, 36, m., op. January 4th, 1882.—I saw this patient, November 22nd, 1883. She had had three very slight periods since the operation, lasting only for a few minutes. The tumour, I estimated to be about one-third of its original size.—“155, Hagley Road, Edgbaston, July 15th, 1885. My dear Tait,—When I first saw Mrs. —, she had been suffering from severe and frequent hæmorrhage, the result of uterine myoma, and was in a desperate condition. I never saw a person more completely blanched, and it was clear that she had but a few months to live unless some change could be effected in her state. She had been given up as hopeless by her own doctor, and her father, a German physician of some eminence, had told her nothing could be done to save her life. I was present when you removed the ovaries and Fallopian tubes, and watched her gradual but steady recovery. Since then I have seen her occasionally, and she has continued in good health. She has had no return of her hæmorrhage, is unconscious of the existence of any tumour, and presents the colour and appearance of perfect health. She has travelled several times to her German home, and can walk, work in her garden, and take her share in household duties of an active kind.—Yours truly, CHAS. J. BRACEY.”

CASE XXV.—Wolverhampton, Dr. Lyeett, 40, m., op. January 4th, 1882.—This patient has menstruated regularly since the operation, but in diminished quantity. The tumour has gone on growing, and is now of a very large size, and the patient is slowly dying from its increase.

CASE XXVI.—Stonehouse, Gloucester, Dr. Eshelby, 37, s., op. January 10th, 1882.—Dr. Watters, of Stonehouse, who succeeded Dr. Eshelby, has been unable to trace this patient.

CASE XXVII.—Conway, Dr. Prichard, 46, m., op. January 29th, 1882.—“Conway, N. Wales, July 16th, 1885.—Dear Mr. Lawson Tait,—I saw Mrs. — the day before yesterday in Conway. She is very well, in fact, has not been so well for many years. She is able to go about the small farm-duties she has to do in style. She used to menstruate occasionally, but with very little pain; now it has altogether ceased for the last 12 months; the appearance of the tumour seems to be much less also.—Yours truly, R. ARTHUR PRICHARD.”

CASE XXVIII.—Llandudno, Dr. Nicol, 45, m., op. March 13th, 1882.—I saw this patient in July, 1885. She has never menstruated since the operation, and is perfectly well.

CASE XXIX.—Birmingham, Dr. Gaunt, 49, s., op. March 21st, 1882.—This patient is now engaged as a domestic servant. She has never menstruated since the operation, and the tumour has shrunk to about half of its original size.

CASE XXX.—Birmingham, Mr. Fairley, 45, m., op. March 29th, 1882.—I have seen this patient repeatedly since the operation, the last time only a few weeks ago. She is in perfect health, has never menstruated since the operation, and the tumour has almost entirely disappeared.

CASE XXXI.—Wolverhampton, Dr. Lyeett, 45, m., op. March 29th, 1882.—This patient never menstruated after the operation, but she developed malignant disease of the omentum, and died in the August following the operation, that is, five months after. Dr. Totherick supplied me with the details of the *post mortem* examination.

CASE XXXII.—London, Dr. Atkins, 33, m., op. April 2nd, 1882.—“July 14th, 1885.—Dear Mr. Tait,—I shall be happy to answer any questions you may wish to put to me, only I must warn you beforehand that, like the needy knife-grinder, ‘Story, sir, I have none to tell,’ for I very soon regained my usual health, and have kept it ever since, I am glad to say.”

CASE XXXIII.—Birmingham, Mr. J. W. Taylor, 44, m., op. April 8th, 1882.—“3, The Crescent, July 15th, 1885.—My dear Mr. Tait,—I saw Mr. — a few days ago. The general health of his wife remains very good, but her mind is still affected, and she remains at the Asylum.—Yours truly, J. W. TAYLOR.”

CASE XXXIV.—Dudley, L. T., 21, s., op. April 20th, 1882.—Dr. Bellingham, of Dudley, writes July 22nd, 1885.—“I called to see —. She was waiting behind a counter, her mother having gone

into a small way of business. She told me she was never better in her life, and had no illness she could refer to the condition before the operation. I may add that I never saw her look so well as she did to-day.”

CASE XXXV.—Oxford, Mr. G. Jones, 46, s., op. April 27th, 1882.—“Birmingham, July 21st, 1885.—My dear Tait,—From August 20th to the 25th, 1882, menstruation came on as freely as ever, and again from December 12th to the 22nd. January, 1883, she had a loss, which continued for a fortnight, and for three or four days again in February. Since that time she has seen no discharge at all, either menstrual or leucorrhœal. She writes that her health is wonderfully improved, and all pain, irritation, and inconvenience that she has had since the operation have wonderfully decreased during the last six months. I have no doubt the myoma is now very sensibly diminished, but as I have not seen her since January, 1883, I have had no opportunity of examining her. I may say that, since the beginning of 1883, she has performed her usual routine of duties.—Yours very truly, GEORGE JONES.”

CASE XXXVI.—Alfreton, Dr. Fielding, 45, m., op. May 6th, 1882.—I heard from Dr. Fielding two or three days ago that this patient is in a very satisfactory condition, but I have not seen her since the operation.

CASE XXXVII.—Southampton, Mr. Seaton, 44, m., op. June 9th, 1882.—“Rutland Lodge, Bitterne, Hants, July 17th, 1885.—My dear Mr. Tait,—I saw — in the summer of 1883, when she called upon me, and expressed herself as quite well, and quite able to carry on her ordinary duties of domestic service.—Very truly yours, DANIEL SEATON.”

CASE XXXVIII.—Leicester, Dr. Clifton, 35, m., op. June 16th, 1882.—I saw this patient October 15th, 1884; found that she had never menstruated since the operation: the uterus was perfectly sessile, and not a trace of the tumour could be discovered.

CASE XXXIX.—Droitwich, Dr. Spofforth, 35, m., op. June 16th, 1882.—I saw this patient July 27th, 1885. She has never menstruated since the operation. She steadily improved in condition, and is in perfect health.

CASE XL.—Chesterfield, Dr. Hale, 44, m., op. June 27th, 1882.—“Chesterfield, July 15th, 1885.—Dear Mr. Tait,—Your patient, Mrs. —, has never menstruated since the operation; the tumour has very considerably reduced in size, and the cornua which was felt on the right side of the fundus is gone, and it was of considerable size, as I daresay you will remember.—Yours faithfully, THOS. F. HALE.”

CASE XLI.—Birmingham, Mr. Bracey, 45, m., op. July 13th, 1882.—I saw this patient in February, 1885, and found she had menstruated occasionally, but very slightly, only amounting to a show. The myoma had very much shrunk in size.

CASE XLII.—Birmingham, Dr. W. Thomas, 32, m., op. Sept. 9th, 1882.—I saw this patient July 15th, 1885. She has never menstruated since the operation. The tumour has entirely disappeared, and her health is perfect.

CASE XLIII.—Ludlow, Dr. Brooks, 40, s., op. September 29th, 1882.—I saw this patient on June 18th, 1885. She had never menstruated since the operation, and remained quite well until three months ago, when she had an attack of sickness, accompanied by some bearing-down pain, lasting a few weeks. The uterus was found to be quite sessile, and not a trace of the tumour could be discovered.

“Ludlow, July 22nd, 1885.—Dear Mr. Tait,—I saw Miss — yesterday, and made some inquiries as to her condition, and I find she has never menstruated since the operation, and that, apart from some general debility from which she has suffered all her life, she is in perfectly good health. On examination, all I could discover of the myoma (which, if I recollect right, was about the size of a small orange) is a small nodule, about the size of a horse-bean, and which is not at all tender to the touch.—Yours faithfully, J. E. BROOKS.”

CASE XLIV.—Rugby, Dr. Mackenzie, 46, s., op. October 20th, 1882.—I saw this patient on May 21st, 1883. She had not menstruated since the operation, and was in perfectly good health, but the tumour had not altered in any way. She makes her living now as a house-keeper.

CASE XLV.—Hay, Dr. T. Jones, 43, s., op. October 21st, 1882.—“July 16th, 1885.—Dear sir,—I am very pleased to tell you that I am quite well. I have not been so well for some years. I have not seen anything of my monthly times for about two years. I have never been unwell more than three times since the operation. I shall ever feel indebted to you for your wonderful cure.”

CASE XLVI.—Bloxwich, Dr. G. Sharp, 18, s., op. November 6th, 1882.—“Walsall, July 14th, 1885.—My dear Tait,—The girl has done well, better even than we hoped for.—Yours truly, GWINNETT SHARP.” I examined her July 15th, 1885. She has never menstruated since

the operation, and is in very good health. Not a trace of the tumour is to be discovered.

CASE XLVII.—Birmingham, Dr. Haines, 42, m., op. December 18th, 1882.—I saw this patient, July 16th, 1885. She has never menstruated since the operation, except one little show, which occurred about nine months after. She is in perfectly good health, and leads an active life as housewife. The tumour is now not much larger than a clenched fist, lying free in the pelvis with the uterus. Before the operation, it reached nearly to the umbilicus.

CASE XLVIII.—Kidderminster, Dr. Lees, 44, m., op. February 12th, 1883.—This patient died suddenly a year after the operation, never having menstruated between the times. The tumour was found to have diminished, and no trace of the ligatures or stumps could be discovered.

CASE XLIX.—Evesham, Dr. Hyde, 44, s., op. February 19th, 1883.—Leominster, July 25th, 1885.—My dear sir,—I have not seen Miss — for some time, but the last time I saw her sister she gave a good report of her. She was living at Pembroke, and I have not heard of her changing, but should I get any information of her I will let you know.—Yours very truly, W. E. HYDE.

CASE L.—Davertry, Dr. T. Forster, 49, m., op. March 16th, 1883.—Dr. Thompson Forster wrote to me July 17th, 1885, concerning this patient. "She has seldom any pain from the myoma, and then only uneasiness; it is now just about the size of a cricket-ball. She has never had any menorrhagia since the operation, and she has menstruated only twice, once rather freely about the end of June, 1884, and again slightly in February, 1885. There can be no doubt that the operation has been of great benefit to her, making her life fairly comfortable, whereas before it was a burden to her."

Here, then, we have a series of cases, the earliest of which is nearly 13 years old, and the latest two and a half. Of the 50 cases, we have failures in only two instances, the details of one of which I have already published. It was a case of cancer of the body of the uterus, which I mistook for a myoma, or a myoma which became cancerous after the operation. Neither of these alternative suppositions, in the least, can now form an argument against my operation; mistaking malignant for non-malignant tumours is constantly occurring in every department of surgery, and I cannot expect to be free from it. In the second case, menstruation has not been arrested, and the tumour has gone on growing.

Two of the patients have been admitted to asylums since the operation; but, in one case, the insanity was pretty evident before the removal of the uterine appendages; and, in the other, it showed itself almost as soon as she was out of the anæsthetic, so that the indirect effects of the operation can hardly be credited with this unsatisfactory result; it is merely the insanity after operation, which is known to occur after almost every surgical proceeding which is undertaken. Against this unfortunate incident, I can set off two cases where pronounced symptoms of insanity were completely cured as a direct consequence of the operation.

In the paper, of which I have already spoken as having been presented to the Royal Medical and Chirurgical Society of London, and by them refused publication, and then published in the *American Quarterly Journal of Medical Sciences* for January, 1882, I summarised my conclusions upon several points. The first of these was as follows: "That, as far as its primary results are concerned, removal of the uterine appendages, for the arrest of intractable uterine hæmorrhage, is an operation which is as easily justified as any of the major operations of surgery." I can now emphasise this conclusion thoroughly, and extend it. I say that the primary mortality of this operation is so low, that it can be justified far more decidedly on that score than any other of the serious operations of surgery.

The second conclusion was to the effect: "That, so far as its secondary results are yet seen, it is an operation which yields abundant encouragement for its further trial." Here, again, the experience of four years' longer interval enables me to speak far more decidedly than I did at first. The secondary results of this operation are as brilliant as those of any other operation in the whole realm of surgery with which I am acquainted. It saves life and relieves suffering, quite as emphatically as the removal of ovarian tumours. Of the fifty cases, of which I now give the secondary results, we can only point to two failures; but, even in these, a considerable amount of relief was obtained. The second of the two (Case XXV) has been a failure, for the operation has only partially checked the hæmorrhage, and it has not in the least degree interfered with the progress of the tumour. Two of the patients have died from other causes since the operation, and one I have been unable to trace recently; but I have forty-five cases of which I can give a complete and accurate account almost up to the date of my writing. Concerning these forty-five, I think I can ask

with an amount of certainty about any fifty cases of any other operation—such as, for instance, lithotomy—if it be at all likely that forty-five, out of fifty cases, would be in so perfectly satisfactory a condition at a period dating from two and a half to thirteen years after their performance, as I can prove my patients to be. Complete, and, in the great majority of the cases, immediate arrest of menstruation, has been secured by the operation, and in thirteen cases the tumours have entirely disappeared; in eighteen cases, they have been very materially diminished in size, and rendered perfectly harmless. This, therefore, substantiates my original statements, made in 1881, that removal of the appendages had this remarkable effect.

The final conclusion, which I indicated in the paper from which I am quoting, was: "That the whole subject was one well worthy of more study, and should not be made the subject of premature and hostile conclusions." Certainly these hostile and premature conclusions were made and very widely promulgated; but the proofs which I have advanced in the present paper must be sufficiently conclusive, in the minds of the intelligent and unprejudiced members of my profession, to justify me in claiming that my original conclusions are completely established; and that, in this operation, I have succeeded in making a substantial addition to our means of relieving suffering and saving life.

A few other points demand some notice at the present moment. Personal questions concerning the priority of a discovery, or priority of the introduction of new proceedings, are never very satisfactory; and I have no very great interest in this part of the present question, which has been frequently discussed, other than that I am somewhat jealous for the honour of English surgery, and do not like to see the persistent inclination on the part of some of my metropolitan brethren to give the credit of the introduction of the plan, now universally adopted, of removing the uterine appendages for the relief of pain and hæmorrhage, either to Germany or to the United States, when, as a matter of fact, it was done by myself, after mature deliberation and discussion, some considerable time before it was done either by Professor Hegar or by Dr. Battey. The details have already been published in my book, and I need only briefly refer to the fact that the first discussion and final settlement of the proposal was made in October, 1871, the operation upon that patient being performed successfully on February 11th, 1872. Dr. Hegar's case was performed on July 27th, 1872, with a fatal result. My second case, which was also successful, was performed on August 1st, 1872; and Dr. Battey's, which was also successful, was performed, for reflex nervous troubles, on the 17th of the same month. The discussion of the principle of the operation was given in full in my Hastings Essay on "Diseases of the Ovaries," published by the British Medical Association in 1873. So long as these facts cannot be contradicted, the whole merit of the thing, however much or little it may be, belongs to British surgery.

The view which is so constantly asserted, that uterine myoma is not a disease which is at all fatal, and therefore deserving of any kind of surgical treatment, is absolutely contradicted by the fact that everyone in whose practice the disease occurs to any large extent is found to be engaged in discussing the alternate proposals of enucleation of the tumours, or the performance of hysterectomy. Thus, my friend and former master, Dr. Matthews Duncan, will be found, in many of his writings, to be engaged in discussing, from time to time, the relative merits of enucleation and hysterectomy, both of which operations he has attempted himself. He estimates that the mortality of enucleation is about 50 per cent, whilst he debits hysterectomy with a mortality of 70 per cent. With both of these conclusions I entirely concur. Enucleation in my own hands, as in the hands of everybody else, has had a mortality so terrible that I absolutely condemn it, and entirely refuse to continue its practice. Hysterectomy, on the other hand, has not been quite so bad. My mortality, with the improved methods and improved clamps, is about 20 per cent.; whilst the attempts that I have made to pursue what is theoretically the best method of dealing with the uterine pedicle—the intraperitoneal plan—have been extremely unfortunate. I therefore have unhesitatingly condemned hysterectomy, and I never should perform it if I possibly could avoid it. But it is clear from what I have said that there are certain cases in which the performance of the operation of removal of the uterine appendages does not arrest the growth of the tumour, and these cases must subsequently demand the greater operation. Other cases will also demand it where the tumour has grown after the menopause; in such, of course, removal of the appendages being altogether out of the question. But what I contend for is this: that if the removal of the appendages were performed on patients early in the history of these cases, as it ought to be, very few indeed would arrive at the necessity for the operation of hysterectomy.

The following two cases, which I have already published in detail,

show that enucleation does not necessarily cure the disease, for in both the disease returned after enucleation, that is to say, fresh nodules grew, and in one (Case xxii) the removal of the appendages was subsequently performed with an absolutely satisfactory result, and in the other the patient, having refused to submit to this operation, died of the continuance of her hæmorrhage.

J. F., Ironbridge (Case xxii), sent to me by Dr. Law Webb, February 8th, 1878, for last six or eight months had had profuse losses, hardly a fortnight clear, the slightest exertion bringing it on. The fundus uteri was large, and evidently occupied by a tumour. Ergot and bromide of potassium were advised. As this had no effect, I dilated the uterus in the beginning of March, and removed, by enucleation, a myoma as large as a small orange from the posterior wall of the uterus. On May 31st, 1880, I heard from her that she was perfectly well. On August 4th, 1881, I had a letter from Dr. Law Webb, as follows. "Miss —, a patient of mine, from whom you took a uterine myoma, about two years ago, has been again flooding at her monthly periods, and has other symptoms which make me think there is probably another tumour requiring your kind attention. I have, therefore, urged her to see you. She could come up again next week." I found, on August 19th, when I saw her, that she had been flooded, with great profuseness, for four months, and that the fundus was much larger than it was at any previous operation. I therefore removed the uterine appendages on August 25th, 1881. She made an easy and perfect recovery. The menstruation, which came on after the operation, ceased on the 30th, and she has never had the slightest show since January 30th, 1882. I saw her looking remarkably well, and much stronger than she had been for years. She told me she had no signs of menstruation. She married in July of the same year, and had one faint menstrual appearance twelve months after marriage. I saw her on July 31st, 1884, in perfect health.

A. H. came to the hospital May 15th, 1879, aged 28. The cervix was dilated, and after an interval of eight weeks the tumour came down and was enucleated on August 12th. The hæmorrhage was so severe that the patient nearly died from it. She was in a state of extreme anæmia, and remained in the hospital till September, slowly rallying. She never recovered completely from the anæmia, but her health improved immensely, so that she entered into an engagement of marriage. Shortly after that the hæmorrhage recurred, with almost as much violence as before, and on examination, some time in 1880 it was found that another myoma had grown. I then proposed to remove the uterine appendages, but to this she demurred, and on consulting Mr. Spencer Wells, as I am informed, she was advised to let it alone, and therefore nothing was done. She died of hæmorrhage early in 1882.

I am induced to allude to these cases chiefly on account of the recommendation, on the part of Dr. More Madden, in a recent paper, to reusitate the condemned operation of enucleation. I think that the evidence which I have now laid before you, is quite sufficient to maintain the thesis with which I started, that removal of the uterine appendages is an operation with a low mortality, that it is extremely effectual, and that therefore it ought to take the place absolutely of the operation of enucleation, and ought to be employed for the purpose of reducing the number of cases for hysterectomy to the lowest possible point.

A CASE OF HYSTERECTOMY FOR UTERINE MYOMA.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By WILLIAM WALTER, M.A., M.D.,

Surgeon (late Obstetric Surgeon) to St. Mary's Hospital for Women and Children and the Manchester and Salford Lying-in Hospital.

[From notes by Dr. DONALD, House-Surgeon.]

ON May 16th, 1885, E. P., aged 40, unmarried, by occupation a weaver, was admitted into St. Mary's Hospital, Manchester, on account of a myoma of the uterus growing from the fundus, and reaching upwards an inch and a half above the umbilicus.

The patient had never been pregnant, and usually enjoyed fair health. At 16 the catamenia commenced, and menstruation continued to be regular and free from pain until six years ago; since then, she had frequently suffered from dysmenorrhœa and menorrhagia.

The tumour was not perceived by the patient until 12 months before her admission into hospital, during which time it had steadily increased in size. Six months later she began to suffer almost constantly from pain in her back and both iliac regions, of a dragging

character, which repeatedly hindered her from following her employment. She had, moreover, lost flesh, and had become very haggard and careworn in appearance.

A physical examination revealed the presence of a hard, smooth, and somewhat globular tumour, growing from the fundus uteri, reaching to an inch and a half above the umbilicus, and fairly movable in the abdomen. Examination by the vagina showed that the hymen was unruptured, that the cervix uteri was high in the vagina, and pointing backwards, and that the cavity of the uterus measured three inches.

As the patient was entirely dependent upon her own exertions for a livelihood, I determined to perform an exploratory operation, with the object of removing the uterine appendages or the tumour in question.

The operation was performed on June 10th, chloroform being the anæsthetic used. An incision was made in the middle line, three inches in length; and, finding that the attachment of the tumour to the fundus was not a very wide one, I at once prolonged the incision upwards, a little above the umbilicus. Several adhesions were then found between the great omentum and the upper portion of the tumour; some of these contained large tortuous vessels, and were ligatured with carbolised silk before they were divided.

The tumour was now drawn out of the abdomen through the abdominal wound; and, Lawson Tait's clamp being applied below both ovaries to the body of the uterus, the tumour was removed with a scalpel about half an inch above the wire of the clamp, and was found to weigh afterwards $5\frac{1}{2}$ pounds. The abdominal cavity being cleared from all oozing, a glass drainage-tube was inserted into Douglas's pouch, and the edges of the wound were brought together with carbolised silk sutures. On the completion of the operation, the patient seemed somewhat faint, but a hypodermic injection of ether quickly restored her. The dressings applied to the wound were corrosive sublimate gauze and wood-wool pads.

During the first twenty-four hours after the operation, nearly one ounce and a half of blood was sucked through the drainage-tube, and the patient required several doses of morphia to lull the pain referred to the lower part of the wound.

On the second day, her temperature reached 102°. Three doses of ten grains of antipyrin were administered every three hours, and the temperature fell to 99.4°, rising the day following to 101°.

On the third day, the fluid sucked through the drainage-tube was not so red in colour, but contained some pus; and the day following the fluid was quite purulent, but entirely free from odour. The amount of fluid now removed from the tube was 4 drachms twice a day, therefore it was thought advisable not to withdraw the tube. The pedicle every day was dusted with iodoform.

On the seventh day, the fluid drawn from the tube was still half an ounce twice a day, but now it had assumed an offensive odour; there was also a good deal of tympanites, and much pain and soreness of the abdominal wall through the pressure exercised there by the clamp, which was causing ulceration of the skin, notwithstanding every care that was exercised daily in dressing the wound to draw a thin pad of gauze under the ends of the clamp. Her temperature now ranged between 99° and 101°, and her pulse rose to 136. Her condition, in fact, was very serious, and I felt that at all hazards I must dispense with the clamp.

The patient was placed under chloroform, and I separated, with my finger, the adhesions that had formed between the pedicle and the lower angle of the wound, sufficiently to allow my transfixing the stump with a strong needle mounted on a handle and threaded with a double silk ligature; the stump was ligatured, and its surface, as soon as the clamp was removed, was touched over with the thermo-cautery; the stump then sank about three-quarters of an inch from the level of the wound, and, in case of secondary hæmorrhage occurring, I allowed the ends of the ligature to remain uncut for a few days.

The relief to the patient's suffering by the removal of the clamp was most decided, and within two days her general condition had also improved, the pulse falling from 134 to 108, and the temperature from 102.4° to 100.6°.

It is unnecessary for me to enter into all the details of the after-progress of this case, but to one or two points I must briefly refer.

On the seventeenth day there was still issuing from the tube as much as five drachms of pus a day, having a very fetid odour, and on that day a fecal smell, whilst around the tube and apparently from the inferior edge of the pedicle was issuing a fecal discharge. The tube was now removed.

On the day following (eighteenth), the portion of the stump ligatured sloughed away, and the parts quickly assumed a much more healthy

appearance. The faecal discharge, however, continued more or less for twelve days, and then stopped, the wound discharging only a little pus, and the cavity caused by the sinking of the stump lessening every day. The patient daily improved in appearance; but eight days later, that is, on July 17th, a small quantity of faecal discharge again came through the lower angle of the wound; but she was able to leave her bed and lie upon a sofa, and is now almost quite convalescent.

The PRESIDENT, in inviting discussion, expressed his own opinion that, in cases in which no other treatment availed, and in which the woman's life was threatened, it was obviously correct to remove the appendages.

Dr. PLAYFAIR (London) said that every one would fully acknowledge the great value of Mr. Tait's paper. It was impossible not to recognise the enthusiasm with which he worked at this subject, and the value of the results he had to show. He would venture to suggest, however, that Mr. Tait had first made his enemy, and constructed his opposition, which he had demolished with such knock-down blows. So far as he knew, all advanced gynaecologists fully recognised the importance of this operation in all suitable cases of bleeding myomata, and were grateful to Mr. Tait for the work he had done with regard to it. He rather thought that Mr. Tait had confounded the opposition made by many to his views on the removal of the appendages in other cases, such as in certain chronic forms of ovarian or other disease, with a supposed opposition to this. His own experience was strongly in its favour. Of course, his personal experience was small, but the results in the few cases he had operated on were all that could be desired. He should like, however, to have some information from Mr. Tait as to what were the precise indications for it, and what he would call prostration sufficient for it. That was really what was wanted. If the tumour were not producing bleeding, and the patient were strong and well, he could not see how the patient should be subjected to such risk, especially as in the larger tumours there would be a chance of having to remove all the tumour. One of his nurses, who worked hard, had had such a tumour, reaching to the ensiform cartilages; he removed it all. Mr. Tait, however, must not be surprised that he met with opposition. It was the case with all who introduced new things in practice; and on the whole it was good, as it kept down excess, and threshed out the subject. He had himself experienced this in other subjects, and it was inevitable.

Dr. IMLACH (Liverpool) remarked that, meanwhile at least, hysterectomy was a more dangerous operation than that of removal of the uterine appendages, which, therefore, should be preferred. If operation for bleeding fibro-myoma were too long delayed, the safer operation was sometimes impossible. He had removed the uterine appendages twenty times for uterine tumour, and all the cases had made a good recovery. It was important to distinguish between cure of the menorrhagia and diminution in the bulk of the tumour. In all but one of his cases, the menopause had been immediately induced, but the volume of the tumour only diminished slowly. Where the bulk of the tumour caused paralysis, intestinal obstruction, etc., hysterectomy was the better operation, as removal of the appendages would fail to relieve these symptoms for an indefinite period. Often, when there was pain as well as menorrhagia, with an intrapelvic uterine tumour, hydrosalpinx, pyosalpinx, or even haematosalpinx would be found; in such cases, removal of the uterine appendages had a very satisfactory result.

Dr. M. CAMERON (Glasgow) said that he had under his notice the case of a young German lady, which illustrated the good result following the modern treatment of uterine myoma. This patient suffered from severe flooding, due to the presence of a myoma in the posterior wall of the uterus. Considering that an operation was needful, she consulted a surgeon noted for his success in abdominal surgery. He recommended removal, but afterwards, when the patient was in his ward, changed his mind, and dismissed the case as one unsuitable for operation. The patient was very much distressed over her condition, thinking her case was one beyond relief. Feeling the necessity of some operation, Dr. Cameron urged the patient to consult Dr. Keith. On examination, Dr. Keith agreed as to the immediate necessity of operation, and would not allow the patient to return to Glasgow. He found that the tumour could not be removed without danger to her life, and, therefore, removed the uterine appendages. Some months after, on examination, Dr. Cameron found that the tumour had diminished much in size, but now the hypertrophied posterior lip became greatly enlarged; but a simple operation removed this condition. The patient was now well.

Dr. EDIS (London) remarked that there could hardly be a better comment upon Mr. Lawson Tait's able paper, and the method of treat-

ment therein advocated, than the specimen of myoma which Dr. Walter had exhibited. Mr. Tait's statistics of the operation for removal of the uterine appendages showed that the risks were extremely slight, and the advantages gained very considerable. In a large majority of the cases, the myoma ceased growing, and the haemorrhage was checked; whereas the mortality in those cases where hysterectomy was performed, even in the most skilled hands, was very large, and appalled any but the most experienced operators undertaking the management of such cases. Dr. Edis hoped the day would soon come when such specimens of large uterine myoma would be so rare as to be real curiosities. They should never be allowed to grow to such dimensions; provided, of course, that the symptoms to which they gave rise were such as to justify interference. The whole art of the medical profession was now directed to the prevention of disease, whether in the form of epidemics or of local conditions; and the sooner the fact was recognised that the growth of these uterine myoma could be cut short by such a comparatively simple operation, the better for all concerned. It was not correct to state that none of these patients suffering from myoma died from haemorrhage. They did; and, as to waiting for the menopause, this was a myth. Dr. Edis had seen numerous cases where haemorrhage continued long after the age of 50, the patients having been advised by others to wait for the climacteric.

STRANGULATED UMBILICAL HERNIA: REMOVAL OF SIX INCHES OF SMALL INTESTINE: RECOVERY.

Read before the Staffordshire Branch.

By W. H. FOLKER, F.R.C.S.,

Surgeon to the North Staffordshire Infirmary.

LOUISA K., a married woman, aged 47, residing in Longton, was admitted into the North Staffordshire Infirmary on February 28th, 1884, suffering from strangulated umbilical hernia.

About 12 years ago, whilst carrying a basket, she suddenly felt something give way at the umbilicus, and a swelling arose, accompanied by pain and sickness. These symptoms subsided in three days, but since that time she had had several recurrences, generally lasting only a few hours, and being relieved by her assuming a recumbent position.

On February 25th, the patient had a return of all the symptoms, but attended with a burning pain, which continued to increase. She was induced to send for a medical man, who urged her to apply at once to the infirmary. At first she declined, but the pain and sickness increasing, she came in on the 28th.

On admission, the patient, a corpulent woman, appeared to be in a most exhausted condition, suffering from almost constant vomiting of a faecal character. She had a large umbilical hernia, evidently not only strangulated, but gangrenous, for even the skin covering it was quite black, and smelt most offensively.

Immediate operation was resorted to, the patient being cautiously etherised. An incision was made, of the length of the tumour, opening the sac, when a large piece of bowel was found to be quite black, the contents having escaped into the sac through an opening about an inch and a half in length; the omentum and everything within the incision was gangrenous. The skin and everything that was sloughing, except the bowel, was first removed, and the cavity well washed out with carbolic lotion, and then the bowel (which was small intestine) was drawn well forward till a sound portion was reached at each side; the inner halves of each portion were cut through and carefully stitched together, with their peritoneal surfaces in contact, the outer half of each piece of bowel affording a secure hold whilst this was being done; these were then removed, and the cut edges secured to the skin, forming an artificial anus. The edges of the skin below were brought together by two harelip-pins, and the parts dressed with oiled lint (carbolic oil 1 in 20), covered with absorbent wool, a wide flannel roller being applied over all. She was ordered to have the urine drawn regularly with the catheter, and to take ice and soda-water.

February 29th (the day following the operation). The temperature was normal. There was faecal discharge from the bowel-opening. The patient was looking better, although vomiting, with a faecal odour, still continued, and she had some little pain. A subcutaneous injection of morphia was given, which relieved the pain and checked the sickness. The skin over the abdomen was covered with oxide of zinc ointment spread on lint.

March 1st. The faecal discharge continued, and the temperature remained normal, although the sickness still persisted, but without any odour. Hypodermic injections and dressing were repeated.

March 2nd. The upper pin was removed, as it was threatening to cut through, the parts being very tense. The sickness had nearly ceased. Temperature 100.4°. The treatment was continued.

March 6th. She was doing well; the temperature was normal; there was no sickness. As the external parts were giving way, the last pin was removed, which caused the skin-wound to gape very much, though the edges of the intestines remained perfectly adherent to each other and to the abdominal wall. Strapping was used to support and to bring the parts as much together as possible. The use of the catheter was discontinued.

March 10th. I sponged the edges of the wound with solution of nitrate of silver, 10 grains to the ounce; and gave an enema of soap and water, which returned without bringing anything. Morphia had to be continued, on account of the patient's sleeplessness.

March 18th. The edges of the wound, looking somewhat undermined, were packed with iodoform-gauze. This was ordered to be repeated as often as necessary; for, from the constant welling up of fecal matter, the patient required dressing several times a day. This afternoon, an attack of sickness came on, which lasted from 3 o'clock till 7, but was stopped by a draught of morphia and bismuth.

March 20th. She complained of pain in the wound from the iodoform-gauze, and had a little sickness occasionally.

April 9th. The patient to-day said that she thought she was pregnant, as she discovered milk in her breasts. She was, therefore, carefully examined, and such was found to be the case.

April 17th. A consultation was held, to consider the question of allowing the pregnancy to go on, when it was decided that it would be better to cause abortion. Accordingly, on the following day, a sound was passed by the house-surgeon, Dr. Hatton; but no pains followed.

April 18th. I introduced the sound myself; slight pains followed, but passed off again very shortly.

April 22nd. I passed a whalebone sound, and left it in for about half an hour. Pains came on, but passed off again about midnight. The next day, some ergot of rye was given, and early the following morning the fetus came away.

May 10th. The patient having now recovered from all effects of the abortion, it was determined to try to close the artificial opening in the bowel; accordingly, at 2 p.m., a blade of Dupuytren's enterotome was introduced into each opening of the bowel, and brought very lightly together. At 2.45 sickness came on; but, under the influence of a morphia draught, ceased towards evening.

May 13th. There was no pain or sickness. I tightened the enterotome a little more, having screwed it up a little on the 10th. Flatus passed *per anum* to-day for the first time.

May 15th. I screwed up the enterotome as tightly as it would go. This was followed in the evening by very sharp pain, which was entirely relieved by morphia.

May 21st. The enterotome came away to-day (that is on the eleventh day). Flatus passed in abundance, but no fecal matter yet, *per anum*.

May 25th. The temperature rose to 101.4°, with some pricking pain and general uneasiness. An enema of soap and water was administered, which brought away some hardened feces and flatus, and relieved all the other symptoms.

May 27th. In the hope of restoring the continuity of the intestinal passage, and of preventing the feces from being discharged through the artificial opening, a piece of stout India-rubber tubing, three-fourths of an inch in diameter, and about 5 inches in length, was introduced, one end into the ascending, the other into the descending portion of the bowel. It was secured at the centre by a strong piece of silk, the ends of which were left hanging from the opening.

May 28th. The tube was forced out of the wound this morning. Dr. Hatton reintroduced it, but it was again forced out at 9 p.m.

May 29th. The tube would not remain in; it was, therefore, discontinued.

May 31st. I reapplied the enterotome to-day; this was followed, as on the former occasion, by pain and sickness, which was relieved by morphia.

June 9th. The enterotome came away (the tenth day).

June 12th. The edges of the opening were brought together by a broad piece of plaster, but without effect.

June 18th. Hitherto the patient had had no solid food, and complained of feeling hungry; the diet was, therefore, changed to ordinary solid food.

June 23rd. An enema of soap and olive-oil brought away a fairly natural motion. This was repeated on the 26th, when the bowels were freely relieved. They were moved again by the natural effort, an hour afterwards, and again a second time in two hours.

July 1st. I refreshed the edges of the external opening, and brought the parts closely and accurately together, with five deep, and three superficial sutures. Solid food was ordered to be discontinued for a few days.

July 2nd. Fæcal matter was forced through the wound, and in a day all broke down, the stitches were removed, and the discharge was as free as before.

July 16th. She got up for the first time; the discharge was the same.

July 29th. On making a digital examination to-day, both ascending and descending portions of bowel were found to be quite free, and of uniform calibre, the slight prominence, the remains of the spur, could only just be felt by the extremity of the forefinger when introduced to its full length. An enema produced an ordinary motion. Another plastic operation was therefore performed, but with no better result, for in two days the discharge began to force its way through between the stitches.

Enemata were now administered every other day, and a fortnight afterwards the edge of the wound was cauterised, in the hope of causing it to contract. This was continued for some time, the application being varied from time to time between nitrate of silver, fuming nitric acid, and the thermo-cautery.

September 22nd. She had a natural motion for the first time to-day, and again on the 29th; but as this did not occur again, enemata were regularly administered, and always acted copiously; but still fecal matter continued to well up through the wound, although it was reduced to the size of a threepenny-piece.

At the end of October, wishing to go home, she was discharged at her own request, all the various attempts to close the wound having failed. She has presented herself from time to time at the infirmary, but remains exactly in the same state as when she left. The remains of the spur could be felt with a probe at about an inch and three-quarters from the surface.

REMARKS.—This is not a case commonly met with; and, as the discussion may perhaps bring forth different opinions as to the treatment adopted, I would first say that, six inches of intestine having sloughed and burst, its entire removal was imperatively required. Then came the question as to how the remainder was to be treated.

The sloughing was so extensive, that I dared not rest content with opening the bowel and leaving it to form an artificial anus by adhesion, as has occasionally been done in inguinal hernia when the bowel was not fit to be returned: and for the same reason I was afraid to attempt to unite the two ends of the bowel together and return it, and therefore decided upon the method of treatment which I have described.

When the patient was found to be pregnant, the question of allowing her to proceed to the full time gave rise to some little doubt. If pregnancy had been allowed to go on, it would not have been prudent to have attempted Dupuytren's operation, as it might have caused miscarriage whilst the clamp was on the bowel, and possibly have been fatal; and danger was also to be apprehended from the extreme distension of pregnancy, and the straining pains attending it; and, lastly, there was the great delay. All this was fully explained to the patient and her husband, and consent was at once given.

The application of the enterotome, on both occasions, only caused a little nausea and sickness, which was easily controlled by a dose of morphia, until it was finally screwed up tightly, when some sharp pain was experienced, but was easily relieved.

The instrument came away on the tenth and eleventh days, which, I believe, is about the average time.

The chief point, however, on which I am anxious to hear the opinion of others is, why does the opening not close? and wherein have I been in fault in my attempts to produce its closure?

There must be a clear passage in the bowel, both ascending and descending, of at least an inch in diameter, as was proved by the introduction of the three-quarter-inch India-rubber tube; the lower level of the bowel is nearly two inches from the surface. There seems no impediment in the bowel, or why should fecal matter pass as it does when an enema is given? and why should it force through a small narrow opening in the upper part, when there is a free and much larger channel on a lower level?

UNIVERSITY OF VIENNA.—Drs. Hofmokl, Ultzmann, and Anton Wölfler have been appointed extraordinary professors of Surgery, and Dr. Mauthner extraordinary professor of Medical Chemistry.

MOSS AS A SURGICAL DRESSING.—For some months past, moss has been employed as a surgical dressing in the Teaching Hospital in St. Petersburg; it costs 50 kopecks a pood (a shilling for 36 pounds). The results have been very satisfactory.

SURGICAL MEMORANDA.

DISLOCATION OF THE METACARPAL BONE OF THE THUMB.

MR. MORGAN'S case of dislocation of the metacarpal bones is of considerable interest, on account of the rarity of the accident, and following on his subject it may be interesting to mention a case that has lately come to my notice. Some months ago I was consulted by a young gentleman, aged 22 years, who was suffering from the effects of a severe fall from his bicycle. He had been riding at great speed, when he was suddenly thrown over the handles of the machine, falling on his right hand and side. On examination, in addition to severe contusions of the shoulder and arm, I found that the carpal end of the metacarpal bone of the right thumb was dislocated backwards, producing a well-marked prominence, over which the skin was tightly stretched. There was much swelling of the back of the hand and wrist; indeed, such an amount of extravasation that it was impossible at the time to decide whether other injury did not exist. Considerable extension and pressure (without anaesthesia) were required before reduction was effected. A well-padded wooden splint was then applied to the palmar surface, extending upwards beyond the wrist, and a stout pad over the seat of the recent dislocation. The splint was kept on for a week, and the last bandage was discontinued at the end of a month. I saw him two weeks later, and he had then free use of the injured hand, although slight thickening around the joint remained.

G. WALTER STEEVES, B.A., M.D., Parkfield Road, Liverpool.

CLINICAL MEMORANDA.

A CASE OF ACUTE IDIOPATHIC PARTIAL SPINAL MYELITIS.

THE subject was M. A. S., female, married, aged 28, of a family with marked neurotic tendency. There was no history or evidence of injury to the spine, caries, etc. The onset of the disease was ascribed by the patient to slight chill. On June 28th last, while walking about the house, she felt a pain come in her back and shoot down the legs. This pain continued during the next seven days, during which time she felt that power of movement and sensation was gradually leaving her legs. On July 6th (eighth day from the onset), I first saw her, and found complete loss of power of movement in both legs. Sensibility to touch and to pain was lost as far up as the knee; there was coldness of the lower extremities. In the left leg, there was complete loss of patellar tendon-reflex; it was diminished in the right. On tickling the sole (very rough), she said it felt as if it were touched, and caused in the left leg no reflex contraction; in the right, very slight. There was severe pain in the lumbosacral region, and a difficulty in commencing defecation and micturition. On July 11th, in the lower extremities, movement and sensation to touch and pain were completely lost. The bowels had not acted for six days. There was total inability to pass urine, and extreme distension of the bladder gave rise to very slight uneasiness and no pain. The passage of the catheter was not felt. There was severe "girdle" pain round the lower part of the abdomen, in frequently recurring and intensely painful paroxysms. Trophic changes were now becoming well marked. The erythema, which for several days had existed in the lumbosacral region, marked the site of a developing bed sore, equilateral, and with slight vesication. Subcutaneous hæmorrhages had also appeared on the hips, groin, and lower part of the abdomen, livid blue in colour, resembling bruises in an early stage. There was also fever. The temperature was 101° Fahr. The tongue was moist, and coated with a soft creamy fur. The legs had recovered their natural warmth. On July 12th, the temperature was 103.4° Fahr.; the pulse 143, soft and compressible. There was free perspiration. The urine, drawn off by the catheter, was very ammoniacal, and contained a large quantity of blood and pus. On July 14th, death occurred by asthenia.

HENRY T. TOMLINSON, M.B. Edin., Nuneaton.

SUPPRESSION OF URINE IN DIPHTHERIA.

As I have failed to find any mention, in the leading textbooks, of suppression of urine as a possible cause of death in diphtheria, I think the following brief note may be of interest.

E. G., aged 3, was first seen on July 13th. He was suffering from a mild attack of diphtheria. There was a distinct false membrane, but this was easily detached. The temperature was 102°, the skin moist, and the patient had no difficulty in swallowing. No bad symptom arose until July 22nd. The throat was now almost well, and the

little patient becoming bright and hungry, but during the whole of that day he passed no urine. Diuretics, hot fomentations, and baths were tried, but had no effect. This condition continued during the next day, but there was no apparent constitutional disturbance. During the third day of the suppression, July 24th, the patient began to be delirious, and sank into a comatose condition in the evening, dying just before midnight, not having passed any urine for over 70 hours. It is also worthy of notice that, during the three days the suppression lasted, diaphoretics had no effect, even pilocarpine failing to produce perspiration.

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REPORTS

OF
HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

ST. BARTHOLOMEW'S HOSPITAL.

CASES ILLUSTRATING THE OPERATIVE TREATMENT OF RECTAL
CANCER.

(Under the care of Mr. HARRISON CRIPPS, F.R.C.S., Assistant-Surgeon to the Hospital.)

THE four following cases have recently been under treatment at the same time; they form an instructive group, illustrating important principles of treatment. The successful issue of the cases bears evidence to the care and attention of Mr. Wells, house-surgeon, who recorded the following notes.

CASE I.—H. G., aged 68, was admitted on February 26th, 1885, with the following history. In November, 1883, he first suffered pain in the rectum, which he attributed to a fall; it had continued ever since. Early in 1884, he had difficulty in passing his urine; and, a few months later, difficulty in passing his motions, which, he noticed, were becoming smaller. He never had any hæmorrhage from the rectum, but lately there had been a certain amount of discharge. He had a frequent desire for a motion, but often only passed a small quantity of mucoid material. Lately, the bladder had been very irritable, especially at night, requiring him to get out of bed every hour or two. He had become much thinner.

On admission, he was wasted and cachectic. On examination of the rectum, at an inch and a half from the anus, on the right side, a growth was found, extending from the middle line behind to a little beyond the middle line in front. The growth was deeply ulcerated in the centre, the edges being hard and irregular. The finger could be passed beyond the growth in an upward direction, but the base of the growth appeared to be somewhat fixed to the prostate.

March 9th. Mr. Cripps removed the growth, including a portion of the prostate. A small strip of the bowel on the left side, not affected by the growth, was left. Microscopically, the growth presented the usual characters of malignancy.

March 10th. The temperature was 100° Fahr. He had slept better than usual, and was almost free from pain.

March 11th. The urine was passed naturally, but with much pain; it contained some blood.

March 12th. The wound was syringed twice daily with weak carbolic lotion. From this time, the temperature remained normal, his general condition much improved. On April 10th, some tendency for the part to contract was noted, and there was some hardness over a small portion of the remains of the prostate. For the next month, he improved daily; he was gaining power over his motions. He still continued the daily use of the bougie. He was discharged on May 26th. The power over the motions was improving, but he had not yet complete control.

CASE II.—E. M., aged 27, was admitted on February 5th. She had five children: the youngest was 2 years old. After the birth of her first child, 10 years ago, she appears to have suffered either from piles or fissure. Four years ago, after the birth of another child, she again suffered from rectal trouble, and soon afterwards noticed that the motions were smaller in diameter. She occasionally passed blood. She dated her illness from the last attack, but had been much worse lately, having considerable pain when the bowels acted, passing small quantities of blood, or blood and mucus. On examination by the rectum, at one inch and a half from the anus on the left side, a hard circumscribed swelling, about the size of a florin, was felt, with an

ulcerated depression in the centre, around which was an excrescence. The finger could be passed beyond the growth, and the rectum was movable on the underlying structures.

Mr. Cripps removed two inches and a half of the left half of the bowel on February 16th. Microscopical sections of the growth showed it to be a case of adenoid or cylindrical cancer, infiltrating the muscular coat of the bowel. She passed a fair night. The temperature was 101° Fahr. She did well until February 22nd, when the temperature rose to 103.5° in the evening. There was some slight redness about the anus. She was ordered some castor-oil.

February 27th. There was no redness, but during the previous two days the temperature had ranged between 101.5° and 104.5° Fahr. The urine contained a small quantity of blood and albumen.

March 13th. She had emaciated rapidly during the previous 10 days, the temperature varying from 101° to 105° Fahr. She had a rigor on March 12th and 13th, and there had been a good deal of vomiting and diarrhoea. The rigors, high temperature, and vomiting caused a suspicion of septicæmia; but on March 18th, although there was some vomiting and diarrhoea, the patient was rather better. On April 1st, she was very much better; her appetite was good, and the temperature normal.

April 10th. She got up daily, felt well, and could retain her motions. There was some tendency to contraction of the bowel. A bougie was passed daily. When discharged, on May 1st, she had no pain or diarrhoea. The gut had come down to within half an inch of the anus.

CASE III.—H. E., aged 58, admitted on March 30th, was a well nourished healthy looking woman, the mother of 15 children. She had enjoyed good health till about a year earlier. At that time she felt some pain in the rectum, the motions became frequent, and she had diarrhoea alternating with more solid motions. She had been losing a considerable amount of flesh. On examination by the vagina, an irregular swelling could be felt on the posterior wall, rough and ragged from ulceration of the lower part; beyond this, it could be felt as a smooth hard oval growth covered by mucous membrane, extending as high as Douglas's pouch. On examination of the rectum, a considerable mass of hardened growth protruded from the anus. In the interior of the bowel, on the anterior wall, was a fungous ulcerating mass, corresponding to that felt by the vagina. By making the patient strain down, the finger could just reach to the limits of the growth, but it felt firmly fixed in the situation of Douglas's pouch. The inguinal glands were considerably enlarged. Owing to the rigidity and fixity of the bowel, Mr. Cripps considered the disease too far advanced for removal. The patient remained in the hospital for two or three weeks, and was greatly benefited by the rest, having very little pain or trouble in passing her motions. Under these circumstances, the operation of colotomy was deferred.

CASE IV.—J. W., aged 48, married 16 years, was admitted on March 23rd. She had had two children and no miscarriages. For 16 months she had suffered from menorrhagia and metrorrhagia. During the last 12 months, she had had difficulty in passing her motions. She had had pain, which had become constant, for seven months: the motions were the size of a cedar pencil. Her bowels had not been open, without medicine, for some months. She had been losing flesh. She had had no previous illnesses. She believed that her father died of cancer of the rectum. She was a healthy looking well nourished woman. On the posterior wall, in the rectovaginal septum, was a hard mass, giving to the finger in the vagina a sensation as if the bowel were loaded with hardened faeces. It commenced about an inch from the orifice; it was granular, uneven, and overhanging at its edges; nothing was to be seen externally. The mucous membrane of the rectum felt healthy to the extent of about one inch, but in front at this point, there was a fungous growth corresponding to that felt in the vagina. The finger could not be passed beyond the disease, and the bowel was much constricted.

March 30th. Mr. Cripps performed left lumbar colotomy. The space available between the last rib and the crest of the ileum was very small, and the patient being very fat, the bowel was got at with difficulty. Inflation by the rectum was resorted to, and the bowel easily found.

April 1st. The wound was a little inflamed, and two sutures were removed.

April 2nd. The wound looked better; the remaining sutures were removed.

On April 9th, 10th, 13th, 14th, 15th, a small motion was passed by the rectum. By April 25th, the wound was quite healed, and all motions passed by the colotomy-wound. She was discharged on April 30th.

REMARKS BY MR. HARRISON CRIPPS.—The symptoms in each of the cases described were such as are commonly met with in rectal cancer, the more prominent being constipation, diarrhoea, discharge, some bleeding, and loss of weight.

Such symptoms are, of course, common to other rectal disorders—such, for instance, as fibrous stricture, simple ulceration, polypoid growths—but in all cases in which such a group of symptoms is present, the possibility of malignant disease should be remembered, and a careful digital examination accordingly made.

It is by the early detection of the disease that the removal of the growth is alone possible. The duration of the symptoms in Case II, with such slight progress of the disease, is very exceptional. Clinical and microscopical examination showed that the case, however, was undoubtedly one of adenoid cancer. I strongly suspect this was an instance of malignant disease, engrafted on a simple chronic ulcer, an analogous condition to that which is occasionally met with in the tongue, where a simple ulceration, which has been intermittently troublesome for years, may ultimately take on a malignant character.

After making the diagnosis of malignant disease, the question of first importance is, whether it is possible to remove it by operation. Such cases as No. II are, unfortunately, but rarely met with, but, when they occur, are especially favourable for excision. In the case narrated, the growth was but an inch and a quarter in diameter. Its lower margin was only an inch from the anus, and, above all, the disease had not passed beyond the external muscular coat, so that the bowel was still movable on the neighbouring structures.

CASE NO. III was of a different order. Here the disease was far more extensive. It involved the entire circumference of the bowel. Its upper limit could not be clearly ascertained, while the disease had extended beyond the muscular tissue of the bowel, extensively involving the neighbouring tissues. When the finger was passed into the gut, it felt rigid, immovable, and obviously firmly fixed to the neighbouring structures. This was a case in which any attempt at removal would have been useless; for, although it might have been possible to get beyond the disease in an upward direction, it would certainly have been impracticable to have efficiently removed it from its lateral connections with the vagina, uterus, and Douglas's pouch.

The same remarks apply to Case IV, for here the rectum was firmly imbedded, and adherent to all the pelvic structures, which were doubtless extensively invaded by cancerous infiltration, so that the removal of the whole disease was rendered absolutely impossible.

I believe that any surgeon, examining Case II, would have recognised it as one peculiarly suitable for operative interference, and advised the removal of the growth; while, on the other hand, the impracticability of dealing locally with such an extensive disease as that in Case IV would scarcely have admitted of question.

Apart from the exceptional cases in which the growth is limited, and not far from the anus, and the common run of cases in which the disease is undoubtedly too extensive for removal, there will remain a certain number of instances in which difference of opinion will legitimately exist as to the desirability of excision. For such cases, it is impracticable to lay down any arbitrary rules apart from the consideration of the special features in any particular instance; but, speaking generally, the following features will serve as a reliable guide: 1, the height of the disease; 2, its position; 3, the implication of neighbouring structures; 4, the general constitutional condition of the patient.

1. *The Height of the Disease.*—If, after a thorough examination, under an anæsthetic if necessary, the finger cannot be passed beyond the growth, in my opinion, an operation should not be undertaken, unless the growth be confined to the posterior wall, as mentioned in the next paragraph. Four inches I consider to be the limit that can be explored by the finger. It cannot be said that it is impossible to remove a greater extent of bowel; but, when once beyond the reach of the finger, it is impossible to know accurately how high the disease extends, or what connections it has formed; so that, after an operation of great danger and severity, it would be very doubtful whether the disease had been removed.

2. *The Position of the Disease.*—When situated wholly on the posterior wall, the growth can be removed at a somewhat greater height than when surrounding the bowel or situated anteriorly. If, on examination, the front wall seem free, and the finger can feel the growth posteriorly, though unable to get beyond its upper border, it would be advisable at least to make a posterior linear incision, with a view to a further exploration, and removal, if possible.

3. *The Implication of Neighbouring Structures.*—If, when the finger is passed beyond the disease, the bowel show some movement on the neighbouring structures, it generally means that the growth has not extended beyond the rectal walls, and that the case is suitable for removal. On the other hand, if, on digital examination, the bowel

feel hard, rigid, and firmly bound to the surrounding organs, the case is an unfavourable one for operation. The rigidity and fixity of the bowel almost certainly imply an infiltration of cancer into the neighbouring tissues, so that removal of the rectum does not mean the removal of the disease. The adhesion which is not uncommonly found between the disease and the lower part of the vagina does not, however, prevent an operation, for the mucous membrane on the posterior wall of the vagina can generally be peeled off the subjacent growth. In the male, it is much more difficult and unsatisfactory effectually to remove the growth when it invades the prostate. In Case 1, there was some doubt before the operation as to whether the prostate was actually invaded. At the time of the operation, it was found to be slightly implicated; and, although all the tissue that was obviously infected was removed, I expect an early recurrence, and fear the patient will be but little benefited by the removal.

4. *The General Constitutional Condition of the Patient.*—Care should be taken to examine the abdominal viscera; for although secondary deposits, when slight, cannot be detected, occasionally, even when the local disease is small, secondary deposits in the liver may be suspected, in which circumstances no operation should be performed. Age is no necessary bar to the operation; nevertheless, if the local conditions be only doubtfully favourable, it would be right to give a young patient a chance of an operation, which in an older person would be scarcely justifiable.

Taking all cases of rectal cancer at the time when they come under the surgeon's observation, it will be found that those which fulfil the conditions for successful extirpation are exceptional, and it will be only in a comparatively small number of cases that this operation can be recommended. That the operation in well selected instances is of the utmost benefit, admits of no question.

A considerable period of fair health may be enjoyed before recurrence takes place, and I have known cases in which years have elapsed after operation without pain, discomfort, or symptoms of return; and it is quite possible that a permanent cure may be occasionally effected, just as sometimes occurs after the removal of cancer from other parts.

The details of the operation are now too generally known to need description; but it may be well to remind operators how much the subsequent difficulties of contraction are diminished if even a small strip of healthy mucous membrane can be retained. It is also of extreme importance to allow the wound to heal over a full sized bougie. Contraction nearly always accompanies the healing process, but can be kept in check by commencing the use of the bougie not later than the twelfth day after operating.

Colotomy.—If it have been decided that the case is one unsuitable for excision, the next question arising is as to the propriety of colotomy. Some surgeons have recommended that this operation should be performed in all cases of rectal cancer unsuitable for excision. The operation is often one of the greatest service, but I do not think that it is so in every case, or irrespectively of the stage to which the disease has advanced. Rectal cancer, at an early period, often produces but slight distress. There may be neither pain nor constipation; and, with the exception, perhaps, of a little morning diarrhoea, the discomfort may be so slight as not to interfere with the daily avocations of the patient. Moreover, it occasionally happens that the disease may almost have run its course without producing local trouble. In such circumstances, the patient's comfort is diminished rather than increased by an artificial anus. On the other hand, when the advancing disease causes stricture and ulceration, the value of colotomy can scarcely be overrated.

The symptoms of stricture and ulceration are very characteristic. The sufferer complains of a teasing diarrhoea, necessitating frequent visits to the closet. The material passed is not a true fecal evacuation, but consists of a mucoid discharge more or less mixed with fecal debris, and is often dark coloured from being stained with blood.

The pain of the disease varies greatly, sometimes being very slight. As a rule, the nearer the growth is situated to the anus, the greater the distress it causes. The patient is very frequently troubled with abdominal pains and flatulence. The distressing diarrhoea seems sometimes to be caused by the ulcerated surface of the growth, but in some of the more troublesome cases it results from a considerable mass of fecal material accumulating above the stricture. The bowel thus never is properly evacuated, only a portion of the mass coming away with the copious mucoid discharge which its presence occasions. This form of diarrhoea has been very aptly compared to the dribbling away of urine from a distended bladder; and, as the one can be relieved by the catheter, the other is often benefited by a thorough washing away by enema.

When the symptoms of stricture once commence, they are progres-

sive, and the patient steadily loses ground. The frequent fluid stools, combined with advancing symptoms of obstruction, gradually exhaust him; while, not uncommonly, life is terminated more abruptly by complete obstruction, or by peritonitis resulting from perforation.

When the symptoms of stricture become prominent, I would advise colotomy without delay. By waiting, the patient is deprived of the advantages of the operation, or it may have to be undertaken when the strength is so exhausted that a comparatively safe operation becomes one of considerable danger. The benefit afforded is often very great. Patients who have been harassed for months with symptoms of stricture are at once relieved of their most distressing trouble, and the closing months of life are passed in comparative rest.

REVIEWS AND NOTICES.

CONTRIBUTIONS TO THE SURGICAL TREATMENT OF TUMOURS OF THE ABDOMEN. Part I. Hysterectomy for Fibrous Tumours of the Uterus. By THOMAS KEITH, M.D., LL.D. Ed. Edinburgh: Oliver and Boyd. 1885.

DR. KEITH'S clinical experiences have been to a great extent already recorded in the JOURNAL. In these *Contributions*, his authoritative opinion, together with the record of his practice in the field of hysterectomy, are collected in a convenient form for reference. This work will probably excite a considerable amount of controversy, as the author differs throughout from several distinguished contemporary operators.

Dr. Keith takes pains to express great diffidence as to the justifiability of hysterectomy; indeed, he exceeds the rank and file of general surgeons and a well known treatment-school of gynecologists, in demurring to the establishment of that operation, in the sense in which ovariectomy has been established. He endeavours to increase the force of every argument that has been brought to bear against hysterectomy. This operation is not, he says, and never will be, in the same position which ovariectomy held five-and-twenty years since. Nineteen-twentieths of those who have a simple uterine fibrous tumour have not much to gain by chancing a dangerous operation, and may lose much, having much to lose. "The restless surgery of to-day will let nothing alone," Dr. Keith complains; and hence Dr. Bigelow's statistics of 359 recorded operations with 132 deaths. Turning to removal of the ovaries for the relief of uterine fibroids, he speaks of it as an operation to be welcomed by all, though it will not supersede hysterectomy altogether. He rightly insists that oophorectomy should be performed as early as possible, for it is an extremely difficult or impossible operation when an uterine tumour has grown large. It may, every surgeon must bear in mind, be excessively difficult and dangerous even when the tumour has not grown large, through adhesions binding the appendages to the pelvis or intestines, and other complications. Dr. Keith gives a graphic description of a difficult operation of this kind. The fact ought to be emphasised, that a large number of recorded hysterectomies were meant to be oophorectomies when the patients were placed upon the operating-table. The uterus had to be removed in such cases, on account of the impossibility of removal of the appendages alone without very great risk of uncontrollable hæmorrhage.

Turning to the study of histories of cases of uterine fibroids, Dr. Keith states that he has watched such cases for years, and has never once met with a fatal case of hæmorrhage in his own practice. He admits, however, in an important paragraph which will not fail to catch the attention of other operators, that, indirectly, simple fibrous tumours may be the cause of death oftener than is believed. Inflammation of the uterine veins may cause fatal embolism; and these tumours are not unfrequently complicated by malignant disease of the peritoneum, possibly from the constant irritation to which they subject that serous membrane. After the menopause, these tumours may undergo sarcomatous degeneration, and in any case they greatly complicate visceral and constitutional diseases.

Notwithstanding all the above objections, Dr. Keith admits that, under several conditions, hysterectomy may be reasonably advised. Large rapidly growing tumours, or such as cause persistent hæmorrhage, in young women, all cases of real fibrous cystic tumours that can be removed, all suppurating tumours, most soft oedematous fibroids, and such as set up peritonitis and threaten malignant peritoneal complications, come under this category, which, it must be admitted, appears wide, and likewise elastic, after the author's sweeping objections to hysterectomy taken as a whole, and will be liable to application by others in a sense contrary to those objections. Through

this catalogue of justifiable conditions many will, naturally enough, defend themselves against Dr. Keith's very serious charge that "a great number of uterine fibroids are removed, or attempted to be removed, without the slightest necessity."

In describing the operation of hysterectomy, Dr. Keith declares his disregard of the practical objection to carrying the abdominal incision through the umbilicus; and, contrary to Sir Spencer Wells's method of including only the skin and peritoneum in the sutures, he includes all the tissues. He is not sure but that the wound is firmer when the middle line is avoided, and the sheath of one of the recti muscles is opened throughout. He prefers a large thin clamp to Kœberlé's instrument, and lays stress on the fact that the septic uterine canal is laid open in the course of the operation. Dr. Keith, not without reason, objects to emptying the bladder before operation, as this practice prevents its easy recognition when it is in close relation to the tumour. "Leave it full, and the bladder difficulties are wonderfully modified."

We need hardly say that Dr. Keith expresses his strong objections to Listerism, and his belief that his well known successes, in a series of ovariectomies performed under spray, were in no ways due to the use of that appliance. The greater part of the *Contributions* is devoted to a series of histories of the author's thirty-eight cases. Three of these cases proved fatal.

Dr. Keith's principle, in conducting an argument, is *fortiter in modo, fortiter in re*; and many readers may regret certain adjectives, such as "stupid" and "nonsensical," which are to be found in his pages. Nevertheless, if a surgeon believe that an operation is unjustifiable and dangerous, he has certainly the right of denouncing it in the strongest terms of righteous indignation. It is only because the author qualifies his objections to hysterectomy, by precept and by example, in the manner above noted, that more respect for opposite opinions might have been desirable. The publication of full details of each case is a most satisfactory feature in the *Contributions*, both as a question of principle and as a guide to others. The work, filled as it is with such grave and deliberate assertions, made by a surgeon of great skill, mature experience, and recognised authority in its subject, should be carefully studied by every surgeon who contemplates operative interference for the cure or relief of uterine tumours.

DESCRIPTIVE CATALOGUE OF THE PATHOLOGICAL SPECIMENS CONTAINED IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND. Second Edition. By Sir JAMES PAGET, Bart., Member of the Council of the College, with the assistance of JAMES FREDERIC GOODHART, M.D., and ALBAN H. G. DORAN, Fellow of the College. Vol. iv. London: J. and A. Churchill. 1885.

THE second edition of the catalogue of the five series of pathological specimens in the Museum of the Royal College of Surgeons is rendered complete by the appearance of the fourth volume. The circumstances under which both editions of the *Descriptive Catalogue* were published must now be very generally known; they are recorded at length in the preface to the first volume of the second edition. It is sufficient for us to observe that, in 1842, Mr. James Paget, according to a resolution of the Council, began to assist Mr. Stanley in examining the collection as it then existed, with a view to preparing a catalogue. In 1849, they completed the *Catalogue*. In July, 1871, the Council sanctioned a proposal that a new edition of the *Catalogue* should be prepared by Sir JAMES PAGET, with the co-operation of Dr. GOODHART and Mr. DORAN. In July, 1885, that edition appeared complete.

The collection at present contains over 5,000 specimens, exclusive of the Toynbee and Bader series, the great collection of calculi, and a few other special groups, the last number in the *Catalogue* being 4,880, whilst a considerable number of specimens were added during its preparation, and numbered "A," "B," and so on. The present volume includes "Morbid Conditions of the Urinary Organs, of the Nervous System, and Organs of Special Senses, of the Generative Organs and Breast, and the Anatomy of Stumps." The six specimens illustrating diseases of the suprarenal capsules were all added since 1876; they include two fine dissections of the capsules, with the simular ganglia and solar plexuses, from cases of Addison's disease. The kidney-series was much enriched by the labours of Dr. Goodhart, when pathological assistant to the Museum, and the specimens show as much of renal disease as possibly can be shown under the circumstances. The bladder, urethra, and testicle series are well known to all visitors to the Museum; they are especially valuable for purposes of instruction, being easy of demonstration. The series illustrating diseases of the female organs, and accidents and diseases incidental to gestation and parturition, have been greatly enlarged during the past

10 years, especially in specimens illustrating diseases of the Fallopian tube and extra-uterine gestation. The collection of specimens of diseases of the breast has been much augmented since the publication of the first edition of the catalogue; but tumours, especially mammary tumours, are not satisfactory for demonstration when preserved in alcohol. It must not be supposed that spirit necessarily destroys histological elements beyond recognition. In this volume are two specimens (3,684, 84A), which formed part of John Hunter's original collection a century ago. In 1881, Mr. Eve, who has had a share in the preparation of the *Catalogue*, proved by microscopic examination that they were examples of rhabdomyoma, or tumours made up of striped muscular fibres, affecting the kidney. This being the case, rare tumours of the breast or of other parts are at least worth preserving in stock.

A distinct benefit has been conferred upon the medical public by the completion of the second edition of the *Catalogue*. For years, the older issue proved quite inadequate to the large number of students and qualified men who studied in the Museum, whilst the transitional condition from 1878 until last July involved great inconvenience, the re-numbering of the specimens and the absence of a full description of additions entailing much annoyance and waste of time. All these inconveniences are now things of the past, and the famous pathological collection at Lincoln's Inn Fields possesses a catalogue which will enable the physician, surgeon, and pathologist to make the best use of its wide resources.

NOTES ON BOOKS.

Elements of Surgical Pathology. By AUGUSTUS J. PEPPER, M.S., M.B. Lond., F.R.C.S. Eng. Second Edition. Cassell & Co., Limited. In the second edition of this useful text-book, which we have already had occasion to criticise favourably, the chapters on Inflammation and Deformities have been rewritten. Neugebauer's opinions on spondylolisthesis have been introduced, as well as some paragraphs on acute rickets, sporadic cretinism or foetal rickets, cell-multiplication, progressive obliterative arteritis, and Raynaud's disease. This latter term, as most of our readers must be aware, is applied to a partial or complete local suspension of vitality dependent upon disturbance of the vaso-motor apparatus, and often bilaterally symmetrical. The fingers and toes are the parts usually affected. Mr. Pepper's manual is thoroughly adapted for the student, and cannot fail to prove useful in affording instruction to the practitioner, who has no time for the study of pathology, and but little for the perusal of the proceedings of societies in the medical papers.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—The prizes were distributed in the Board-Room of the hospital to the successful students by Sir Prescott Hewett, Bart., F.R.S., on Tuesday, July 28th. The list of prizes and prizemen is as follows. 1. The William Brown (£40 Exhibition with an Honorary Certificate), Mr. George Francis Smith. 2. The Treasurer's Prize (£10 10s. with an Honorary Certificate), Mr. Arthur Vernon. 3. The Brackenbury Prize in Medicine (£32 with an Honorary Certificate), Mr. G. F. Smith. 4. The Brackenbury Prize in Surgery (£32, with an Honorary Certificate), Mr. De Nyssen. 5. Sir Benjamin Brodie's Prize (£6, with an Honorary Certificate), Mr. Russell Coombe. 6. The Henry Charles Johnson Prize in Anatomy (£10 10s., with an Honorary Certificate), Mr. A. H. Ward. 7. Sir Charles Clarke's Prize (£6, with an Honorary Certificate), Mr. Arthur Jervis. 8. The George Pollock Prize in Physiology (£18 12s. 6d., with an Honorary Certificate), Mr. Lancaster. 9, 10, 11. Honorary Certificates for Proficiency in Anatomy, Mr. Lancaster, Mr. Parker, and Mr. J. Wayte. 12. Three Years' General Proficiency Prize (£10 10s., with a Certificate of Proficiency), Mr. De Nyssen. 13, 14, 15. Certificates of Proficiency in Medicine, Surgery, and Pathology, Mr. Remfry, Mr. Percival, and Mr. W. L. Dickinson. 16. Certificate of Proficiency in Surgery, Pathology, and Midwifery, Mr. Vernon. 17. Certificate of Proficiency in Medicine and Surgery, Mr. Goodale. 18. Second Year's General Proficiency Prize (£10 10s., with an Honorary Certificate), Mr. Lancaster. 19. First Year's General Proficiency Prize (£10 10s., with an Honorary Certificate), Mr. Le Cronier. 20. Honorary Certificate of Proficiency, Mr. Cyril Ogle. 21. Extra First Year's General Proficiency Prize (£10 10s., with a Certificate), Mr. Herbert Higgins.

MEDICAL MAGISTRATE.—The name of Mr. James Stewart, of Tarbert, Harris, N.B., has been placed on the Commission of the Peace for the county of Inverness.

FIFTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION

Held in CARDIFF, July 28th, 29th, 30th, and 31st, 1885.

PROCEEDINGS OF SECTIONS.

The subjoined brief summary of the proceedings of Sections at the annual meeting of the British Medical Association in Cardiff will indicate the nature and extent of the work done. The papers read, and the discussions thereon, will be published in the JOURNAL.

SECTION A.—MEDICINE.

President—Samuel Wilks, M.D., F.R.S. *Vice-Presidents*—T. D. Griffiths, M.D.; Byrom Bramwell, M.D. *Secretaries*—W. Price, M.B.; E. Markham Skerrett, M.D.

Wednesday, July 29th.

The proceedings of the Section were opened by the President, Dr. Wilks, who delivered an address, which was published at page 196 of the JOURNAL for August 1st.

A discussion on the Treatment of Acute Rheumatism was opened by Dr. J. S. BRISTOWE (London). The following members took part in the debate: Dr. Sidney Coupland, Professor P. W. Latham, Dr. Prosser James, Dr. W. R. Thomas, Dr. Markham Skerrett, Dr. Pavy, Dr. J. Harker, and Mr. G. Padley.

Dr. L. D. BULKLEY (New York) read a paper on Asthma as related to Diseases of the Skin. Dr. Byrom Bramwell made some remarks.

Mr. C. R. STRATON (Wilton, Salisbury) read a paper on Chorea; its Prechoreic Stages.

Thursday, July 30th.

A discussion on the Clinical Aspect of Glycosuria was opened by Dr. F. W. PAVY (London).

Dr. MARKHAM SKERRETT (Clifton) contributed a paper on Acute Febrile Glycosuria. The following gentlemen joined in the debate on these papers: Professor P. W. Latham, Dr. W. R. Thomas, and Dr. G. H. Savage.

Mr. LOCKHART STEPHENS (Bristol) read a paper on a Case of Simple Stenosis of the Oesophagus, and exhibited the specimen.

Dr. W. R. THOMAS (Sheffield) read a Few Remarks on the Influence of Malaria on the Progress of other Diseases.

Dr. C. R. DRYSDALE (London) read a paper on the Hygienic Treatment of Phthisis.

Dr. DRYSDALE also read a paper on the Treatment of Syphilis and the Alleged Prevention of Tertiaries, which was discussed by Dr. A. D. Webster, Dr. J. F. Payne, Dr. L. D. Bulkley, and Dr. Rabagliati.

Dr. RABAGLIATI (Bradford) read a Criticism of the New Nomenclature of Disease, on which remarks were made by Dr. J. F. Payne.

Dr. J. A. CAMPBELL (Carlisle) showed 56 sets of Biliary Calculi, found in 628 *post mortem* examinations at the Carlisle Asylum, and gave an account of certain facts as to age, sex, number of cases in which abdominal symptoms were found during asylum-life, and in which changes of structure in the liver were found.

Friday, July 31st.

Mr. W. P. BIDEN (Hyères) read a paper on the Climate of Hyères. Dr. SIDNEY COUPLAND (London) read a paper on Gangrene of the Lung, on which remarks were made by Dr. Byrom Bramwell.

Dr. T. D. GRIFFITHS (Swansea) read a paper on the Predisposition of the Apices of the Lungs to Tubercular Disease.

Dr. A. J. HARRISON (Clifton) described a New Method of Treating Tinea Tonsurans. Remarks were made by Mr. Malcolm Morris and Dr. J. F. Payne.

Dr. F. W. PAVY (London) read a paper on Cyclic Albuminuria (Albuminuria in the Apparently Healthy). A discussion followed, in which Dr. Milner Fothergill, Dr. J. Barr, Dr. J. D. Thomas, Dr. W. R. Thomas, Dr. L. D. Bulkley, Dr. W. J. Tysor, Dr. T. D. Griffiths, and Mr. S. B. Farr, took part.

Dr. PROSSER JAMES (London) read a paper on Pancreatic Digestion. Dr. J. F. PAYNE (London) read a paper on Albuminuria in Secondary Syphilis.

Dr. MILNER FOTHERGILL (London) read a paper entitled, When a Patient Dies of Exhaustion, of what does he Die?

The following papers were taken as read in this Section.

BRAMWELL, Byrom, M.D. (Edinburgh): Right-sided Endocarditis. MYRTLE, J. A., M.B. (Harrogate): Cutaneous Eruption traceable to Central and Local Nerve-Influences.

LOKIMER, G., M.D. (Buxton): Acupuncture, and its Uses in some Forms of Chronic Rheumatism.

TYSON, W. J., M.D. (Folkestone): The Moral Treatment of Patients.

SECTION B.—SURGERY.

President—Edward H. Bennett, M.D. *Vice-Presidents*—P. R. Cresswell, F.R.C.S.; Edmund Owen, F.R.C.S. *Secretaries*—G. A. Brown, M.R.C.S.; Thomas Jones, F.R.C.S.

Wednesday, July 29th.

The PRESIDENT, Professor E. H. Bennett, delivered an introductory address, which was published at page 199 of the JOURNAL for August 1st.

Mr. REGINALD HARRISON (Liverpool) opened a discussion on Tumours of the Bladder, their Diagnosis and Treatment, in which Dr. Stein (New York), Mr. J. R. Humphreys, Mr. W. J. Penny, and Mr. Ker, took part.

Mr. WILLIAM ADAMS (London) read Observations on the so-called Congenital Dislocation of the Hip-Joint. Professor Bennett showed a recent dissection and other specimens; and remarks were made by Mr. C. B. Keetley, Mr. Mayo Robson, Mr. Bernard Roth, and Mr. Noble Smith.

Dr. WARD COUSINS (Southsea) read a paper on a New Washable Truss, with Remarks on the Treatment of Congenital Hernia in Children; and also one on the Treatment of Retention of Urine by a Capillary Catheter.

Dr. A. SHEEN (Cardiff) read a paper on Strangulated Hernia.

Dr. J. DAVIES THOMAS (Adelaide) read a paper on the Treatment of Pulmonary Hydatid Cysts by the Establishment of Large Openings into the Sac and subsequent Free Drainage.

Thursday, July 30th.

Mr. TREVES (London) opened a discussion on Operative Interference in Intestinal Obstruction. The following members took part: Mr. Lawson Tait, Mr. Greig Smith, Mr. A. Eddowes, Mr. Mayo Robson, Mr. R. N. Pughe, and Dr. Ward Cousins.

Mr. MAYO ROBSON (Leeds) read a paper on a Case of Enterectomy for Acute Intussusception; and one on a Series of Cases illustrating the Use of the Eucalyptus-Air and Dry Dressings.

Mr. R. N. PUGHE (Liverpool) read Notes of a Successful Case of Abdominal Section for Internal Strangulation.

Mr. E. STANMORE BISHOP (Manchester) read a paper on Enterorraphy, with a Description of a New Form of Suture.

Mr. EDMUND OWEN (London) read a paper on Caries of the Cervical Vertebrae; on which remarks were made by Mr. Bernard Roth, Dr. Ward Cousins, Mr. Noble Smith, and Mr. R. N. Pughe.

Dr. H. L. SNOW (London) read a paper on the question, Is Cancer Hereditary? Remarks were made by Dr. Davies Thomas.

Mr. C. B. KEETLEY (London) read a paper on the Radical Cure of Hernia by Injection; on which remarks were made by Mr. Edmund Owen and Mr. George Brown.

Mr. R. H. B. NICHOLSON (Hull) described a Case of Renal Lithotomy or Nephrotomy.

Mr. LOCKHART STEPHENS (Bristol) contributed a Case of Suicidal Injury to the Stomach, in which Death followed from Internal Hemorrhage.

Dr. WALTON BROWNE (Belfast) read a paper on Scarlatinal and similar Eruptions following Surgical Operations.

Friday, July 31st.

Mr. BERNARD ROTH (London) read a paper on Two Hundred Consecutive Cases of Lateral Curvature of the Spine, treated without Mechanical Support. Mr. William Adams made some remarks.

Mr. BRINDLEY JAMES (London) read a paper on the Treatment of Lumbago and Rheumatic Pains by his Percusso-punctator; on which Mr. T. Morgan made some remarks.

Dr. C. B. BALL (Dublin) described a case of Melanotic Sarcoma of the Rectum.

Mr. J. FARRANT FRY (Swansea) read a paper on the Cure of Varices by Excision.

Mr. C. W. MANSELL MULLIN (London) read a paper on Chronic Sprains.

Mr. T. E. CAHILL read a paper on the Latest Surgical Dressings. Dr. Drysdale made a few remarks.

SECTION C.—OBSTETRIC MEDICINE.

President—Henry Gervis, M.D. *Vice-Presidents*—S. H. Steel, M.B.; W. C. Grigg, M.D. *Secretaries*—A. P. Fiddian, M.B.; D. Berry Hart, M.D.

Wednesday, July 29th.

Dr. GERVIS, the President, opened the proceedings by an introductory address, which was published at page 201 of the JOURNAL for August 1st. A vote of thanks to Dr. Gervis was proposed by Dr. Priestley, seconded by Mr. Steel, and carried.

Dr. PRIESTLEY (London) read a paper on the Occasional Latency and Insidiousness of Grave Symptoms in connection with the Puerperal State. A discussion followed, in which the President, Dr. Edis, Dr. Grigg, Dr. Wilson (Baltimore), Dr. Chalmers, and Mr. Steel, took part.

Papers were next read by Dr. GRIGG (London) on Antiseptic Midwifery, as conducted in a Lying-in Hospital; by Dr. AUST LAWRENCE (Clifton), on the Septic Origin of Pelvic Inflammation; and by Dr. W. L. REID (Glasgow) on the Duty of Consultant and Practitioner in Relation to Puerperal Fever. A discussion followed, in which the President, Dr. M. Cameron, Dr. Lawrence, Dr. Edis, and Dr. Grigg, took part.

Thursday, July 30th.

Professor LESSHAFT (St. Petersburg) gave a demonstration of Specimens, illustrating (1) the Structure of the Pelvis; (2) the Influence of Mechanical Violence on the Form of the Skull in Young Animals; (3) the Modifications in the Skeletons of Young Animals, caused by exclusive Animal and exclusive Vegetable Diets.

Dr. W. S. PLAYFAIR (London) read a paper on the Proper Sphere of Constitutional and Topical Treatment in certain Forms of Uterine Disease. A paper on the same subject, by Dr. Clifford Allbutt, was read in his absence by Dr. Berry Hart. A discussion followed, which was shared in by Dr. Edis, Dr. Lawrence, Dr. Meredith, Dr. Imlach, Dr. Berry Hart, Mr. Steel, Dr. Wilson, the President, and Dr. Playfair.

Mr. LAWSON TAIT (Birmingham) read a paper on the Modern Treatment of Uterine Myoma.

Dr. W. WALTER (Manchester) read a paper on a Case of Hysterec-tomy. The reading of these papers was followed by a discussion, in which Dr. Playfair, Dr. Imlach, Dr. Cameron, and Dr. Edis, took part; and Mr. Tait replied.

Friday, July 31st.

Dr. BERRY HART (Edinburgh) read a paper on the Mechanism and Management of the Third Stage of Labour, and used the oxyhydrogen light for the purpose of illustration. The President moved a vote of thanks to Dr. Hart, which was carried by acclamation.

Dr. BRAXTON HICKS (London) read a paper on a Condition of the Inner Surface of the Uterus after Delivery of the Child, of practical importance.

Dr. FREELAND BARBOUR (London) read a paper on the Anatomy of the Placental Site with reference to the Third Stage of Labour, and showed specimens.

Mr. G. PADLEY (Swansea) read papers on (1) a Case of Acute Abscess of the Unimpregnated Ovary, with Recovery by Absorption; (2) Accidental Rupture of an Ovarian Cyst, with Recovery without Reaccumulation. Remarks were made by Dr. Imlach and Dr. Berry Hart.

Mr. D. A. DAVIES (Swansea) read Short Notes of a Case of Chronic Inversion of the Uterus.

The following papers were taken as read:

Griffiths, G. de Gorrequer, Esq.: The Arrest of *Post Partum* Hemorrhage.

Kerr, Norman, M.D.: Hot Water Injections in *Post Partum* Hemorrhage.

Madden, T. More, M.D.: On Ovarian Displacement.

SECTION D.—PUBLIC MEDICINE.

President—David Davies, M.R.C.S.Eng. *Vice-Presidents*—Ebenezer Davies, M.R.C.S.Eng.; J. Lloyd-Roberts, M.B. *Secretaries*—E. Rice Morgan, M.R.C.S.Eng.; Herbert M. Page, M.D.

Wednesday, July 29th.

The PRESIDENT, Mr. D. Davies, Medical Officer of Health for Bristol, delivered an address, which was published at page 203 of the JOURNAL for August 1st.

Papers on Cholera were read by Surgeon-Major R. PRINGLE, M.D. (Blackheath); Dr. L. AITKEN (Rome); and Dr. H. J. PAINE (Cardiff). Dr. E. Ballard, Mr. T. J. Dyke, Mr. Johnson Martin, Mr.

Ebenezer Davies, Dr. C. R. Drysdale, Surgeon-General Cornish, Mr. Lloyd-Roberts, the President, Dr. Macarthur, and Mr. F. M. Corner, took part in the discussion which followed.

Dr. J. MAUNSELL (Bath) read a Summary of Views on Medical Aid, comprising letters and notes by Mr. T. Holmes, Dr. Joseph Rogers, and Dr. W. Ogle (Derby).

Thursday, July 30th.

Mr. VACHER (Birkenhead) read a paper on the Summer Diarrhoea of Children: one Disease or many? A discussion followed, in which Mr. Johnson Martin, Dr. S. Wright, Dr. Swete, Dr. Paine, Surgeon-Major Pringle, the President, Dr. Ballard, and Dr. Drysdale, took part.

Dr. SWETE (Worcester) read a paper on a Real Danger, where there is a Constant Service Supply of Water, of Disseminating Enteric Fever; on which remarks were made by Surgeon-Major Pringle and the President.

Mr. JOHNSON MARTIN (Bolton) read a paper on Overpressure in Schools, and Home Lessons. Dr. Swete, Dr. Drysdale, Surgeon-Major Pringle, and the President made some remarks.

Dr. A. MANTLE (Durham) read a paper on Infectious Sore-Throat in which Rheumatism played a prominent part.

Friday, July 31st.

Dr. STETHILL H. WRIGHT (Southport) read Remarks on the Present Management of the Sanitary Medical Service, with Suggestions for its Improvement. A brief discussion followed, in which Dr. Page, Mr. Lloyd Roberts, and the President, took part.

Mr. LLOYD-ROBERTS (Denbigh) read a paper on Epidemic Pneumonia.

Dr. C. R. DRYSDALE (London) read a paper on the Influence of Comfort in Lowering the Death-rate, which was discussed by Dr. Paine, the President, Surgeon-Major Pringle, Mr. Ebenezer Davies, and Mr. Rice Morgan.

Mr. BRINDLEY JAMES (London) read a paper on the question, Are Coroners' Juries Necessary? The President and Dr. Drysdale made some remarks.

The following paper was taken as read:

DAVIES, J. W., M.D. (Ebbw Vale): Natural Elements as Disinfectants.

SECTION E.—PSYCHOLOGY.

President—D. Yellowlees, M.D. *Vice-Presidents*—G. J. Hearder, M.D.; G. E. Shuttleworth, M.D. *Secretaries*—C. Pegge, M.R.C.S.; A. Strange, M.D.

Wednesday, July 29th.

The PRESIDENT, Dr. YELLOWLEES, delivered an address, which was published at page 204 of the JOURNAL for August 1st.

Dr. J. A. CAMPBELL (Garlands Asylum, Carlisle) read a paper on the Treatment of Maniacal Excitement. This was followed by a discussion, in which Dr. Hack Tuke, Dr. Macleod, Mr. E. Powell, Dr. Bonville Fox, Mr. Conolly Norman, Dr. Mickle, Dr. Wood, and Dr. A. Strange, took part.

Thursday, July 31st.

Dr. D. HACK TUKE (Hanwell) read a paper on Lunacy Legislation, which was followed by a discussion, in which Dr. Joseph Rogers, Dr. Campbell, Mr. Conolly Norman, Dr. Bonville Fox, Dr. Stewart, and others, took part.

Dr. W. J. MICKLE (Bow) read a paper on Brain-Disease of Traumatic Origin, on which remarks were made by Dr. Yellowlees, Dr. Tuke, Dr. Campbell, and Dr. Shuttleworth.

Friday, July 31st.

The discussion on Lunacy Legislation was resumed.

Dr. HACK TUKE proposed that the section of the Lunacy Law Amendment Bill dealing with the protection of medical men signing certificates, should be extended to medical men who took charge of patients, and that in any action taken against such medical men, the person instituting proceedings should be required to give security for the costs incurred in the event of his losing the action.

Dr. STEWART proposed, as an amendment, that the latter part of the resolution be omitted.

The amendment was not seconded, and the original motion was carried, Dr. Mickle undertaking to lay the resolution before the Parliamentary Bills Committee.

SECTION F.—OPHTHALMOLOGY AND OTOTOLOGY.

President—Henry Power, M.B., F.R.C.S. *Vice-Presidents*—E. Woakes, M.D.; D. Q. Lloyd Owen, F.R.C.S. *Secretaries*—J. Milward, M.D.; A. Emrys-Jones, M.D.

Wednesday, July 29th.

The President Mr. POWER, opened the proceedings with an address, which was published at page 206 of the JOURNAL for August 1st.

A discussion took place on the subject of a Prize for a Sound-deadener, offered in 1883 by Mr. Bartleet.

Dr. WARD COUSINS (Southsea) read a paper on a New Aural Inflator, Evacuator, and Injector; with Remarks on Chronic Middle-Ear Disease. A discussion followed, in which Dr. Woakes, Mr. Cresswell Baber, Professor Lucae (Berlin), Mr. H. B. Hewetson, and Dr. Cousins, took part.

Mr. CRESSWELL BABER (Brighton) described a case of Rhinolith.

Dr. WOAKES (London) opened a discussion on Syphilis as a Factor in Ear-Diseases, which was shared in by Mr. Hewetson, Mr. Cresswell Baber, Dr. C. J. Lewis, Mr. Edgar Browne, and Professor Lucae.

Thursday, July 30th.

Dr. ARTHUR BENSON (Dublin) opened a discussion on Causes of Atrophy of the Optic Nerve other than Glaucomatous. The following gentlemen joined in the discussion: Mr. Richardson Cross, Dr. Mules, Mr. Power, Dr. Emrys-Jones, Mr. Edgar Browne, Mr. Simeon Snell, Mr. Vose Solomon, Mr. H. B. Hewetson, Professor von Zehender (Rostock), Mr. A. Prichard, and Mr. Marcus Gunn.

Dr. EDWYN ANDREW (Shrewsbury) and Dr. MULES (Manchester) described cases of Exstirpation of the Eyeball. Dr. Emrys-Jones, Mr. Lloyd Owen, Mr. Vose Solomon, Mr. Hewetson, and Mr. Richardson Cross, took part in the discussion which followed.

Friday, July 31st.

Professor LUCAE (Berlin) read a paper on the Conduction of Sound through the Bones of the Head as a means of Diagnosis of the Seat of Ear-disease. A discussion followed, in which Dr. Woakes, Mr. Cresswell Baber, Mr. Hewetson, and Dr. Post (Beyrout) took part.

Dr. POST (Beyrout) described a Modification of the Operation for Transplantation of the Ciliary Margin. Mr. Powis, Mr. Edgar Browne, Dr. Ward Cousins, and Mr. Marcus Gunn, took part in the debate which followed.

Mr. H. B. HEWETSON (Leeds) read a paper on Antiseptic Precautions during Cataract and other Operations on the Eye, by means of Mr. Mayo Robson's Dry Eucalyptus Spray, followed by Antiseptic Dressings. Remarks were made by Dr. Emrys-Jones, Mr. F. Hodges, Dr. E. Andrew, Mr. Edgar Browne, the President, Mr. Marcus Gunn, Mr. Bower, and Mr. F. R. Cross.

Mr. HEWETSON also read a paper on the Treatment of Interstitial Keratitis by Syndectomy in the Acute and Semi acute Stages, without the Assistance of Specific Medicines or Counterirritants. The paper was discussed by Dr. Ward Cousins, Mr. Vose Solomon, Dr. Andrew, and the President.

Mr. F. RICHARDSON CROSS (Clifton) read a paper on Traumatic Errors of Refraction; and one on Congenital Defects.

The following papers were taken as read.

MORTON, A. S., and BARRETT, J. W., M.B. A Clinical Investigation of the Merits of the Various Methods of Practising Retinoscopy.

BENSON, A. H., M.D. Notes on a Case of Micropsia with Slight Ophthalmoplegia Interna.

BRAILEY, W. A., M.D. On Stretching of the Supratrochlear Nerve.

SNELL, Simeon, Esq. The Causes of Blindness in the Inmates of and Workers at a Blind Institution.

HARRIDGE, G., Esq. A short note on the Examination of the Cornea and Lens, with the direct Ophthalmoscope, having behind it a Strong Convex Lens.

JACOBSON, D. Julius, Esq. 1. Herpes Corneae Catarrhalis. 2. Glaucomatous Cupping of the Optic Disc, with perfect Acuteness of Sight. 3. The Spring Catarrh of the Conjunctiva.

SECTION G.—PHARMACOLOGY AND THERAPEUTICS.

President—T. R. FRASER, M.D., F.R.S. Vice-Presidents—J. Talfourd Jones, M.B.; W. Murrell, M.D. Secretaries—Evan Jones, M.R.C.S.; J. H. Wathen, L.R.C.P.

Wednesday, July 29th.

The PRESIDENT, Dr. Fraser, delivered an address, which was published at page 209 of the JOURNAL for August 1st.

Dr. LEECH (Manchester) opened a discussion on the Duration of the Action of Drugs, in which Dr. Isambard Owen, Dr. Spender, Dr. Fraser, and Dr. Leech, took part.

Dr. TALFOURD JONES (Brecon) opened a discussion on Hypodermic or Subcutaneous Medication, in which he was followed by Dr. J. K. Spender and Dr. Sheen.

A paper by Dr. LAUCHLAN AITKEN (Rome), on the Subcutaneous Injection of Salts of Quinine, was read in his absence by Mr. A. Gubb.

Thursday, July 30th.

Dr. LONG FOX (Clifton) opened a discussion on the Action of Diuretics; in which he was followed by Dr. Talfourd Jones, Mr. J. H. Wathen, Dr. Stockman, Dr. Shingleton Smith, and Dr. Fox.

The PRESIDENT opened a discussion on the Action and Uses of the Digitalis Group; with special reference to Strophanthus Hispidus. Dr. Murrell, Mr. Bowes, Dr. W. Roberts, Dr. Dudley Buxton, Dr. Talfourd Jones, Dr. Norman Kerr, and Dr. Fraser, took part in the debate which followed. A demonstration of the action of Strophanthine on the Heart was given.

The Section considered a proposal of Dr. Balthazar Foster, made through the Collective Investigation Committee, "That this Section should discuss new remedies, and make a selection for further investigation, in conjunction with the Collective Investigation Committee." After discussion, the proposal was approved, and a committee was appointed.

Dr. NORMAN KERR (London) read a paper on the question, "Ought Alcohol to be prescribed, and how?"

Friday, July 31st.

A debate on Anæsthesia, General and Local, was introduced by Dr. DUDLEY BUXTON (London); who was followed by Dr. Milne Murray, Mr. G. H. Bailey, Dr. Redwood, Mr. J. H. Wathen, Dr. Talfourd Jones, Dr. Bampton, Mr. Morgan, Mr. Webster, Mr. Makuna, Dr. Fraser, and Mr. A. S. Gubb; after which Dr. Buxton replied.

Mr. M. D. MAKUNA (Rhondda) read a paper on Extract of Quebracho.

EXCURSIONS.

EXCURSION TO TINTERN AND RAGLAN.—At 10.30 A.M., on Saturday, August 1st, a party of members and ladies, numbering one hundred and seventeen, left by special train for Chepstow, where they were met at the railway station by Dr. Lawrence and Dr. Yates, LL.D., of Chepstow, who kindly undertook the office of guides. Six well-horsed brakes were in readiness to convey them to Tintern. The first halt was made at Chepstow Castle, where Dr. Yates gave a short account of the castle, and exhibited a fine collection of photographs. The drive was resumed through the beautiful grounds of Piercefield Park on to the foot of the Wyndeliff, the pretty glimpses of the Wye cliffs being pointed out by Dr. Lawrence in passing. The party then walked to the summit of the Wyndeliff, and, the atmosphere being clear, a good opportunity was offered of enjoying the extensive view, embracing portions of no fewer than eleven counties, with a long stretch of the Bristol Channel and River Wye—even the American visitors expressing their admiration. The carriages were found waiting at the Moss Cottage, and Tintern was reached about 1.45 P.M. An excellent luncheon was served in a marquee in the grounds of the Beaufort Arms Hotel, at a spot commanding a fine view of the Abbey. After luncheon, a vote of thanks to Dr. Lawrence and Dr. Yates for acting as guides, and to Dr. Vachell as Honorary Excursion Secretary, was moved by the President-elect (Dr. Withers Moore), and carried by acclamation. In returning thanks, Dr. Vachell referred to the very large share which Dr. Sheen had taken in all the arrangements for the Cardiff meeting. Tintern Abbey was then visited, and at 4.30 the carriages left for Tintern Station, a special train being in waiting to convey the party to Raglan. A slight change in the programme was necessitated to enable those travelling north to catch their train, and the time allowed for the visit to the castle was shortened by half an hour; but tea was found ready in the banqueting hall, and all were able to take a cursory circuit of the charming ruins. The party now began to break up, some returning *via* Hereford, others by Chepstow, others again left at Newport, and the rest reached Cardiff at 8.30, all expressing themselves well pleased with the excursion. Much credit is due to Mr. Allen, the District Superintendent of the Great Western Railway, for having spared no pains to promote the comfort and convenience of the party.

EXCURSION TO CAERPHILLY CASTLE.—A large party of members and their friends, among whom were many ladies, on Saturday, August 1st, accepted the invitation of the Marquis of Bute to visit Caerphilly Castle. At 10 A.M., one portion proceeded by special train from the Taff Vale Railway Station to Quaker's Yard, whence a walk of a mile and a half brought them to the top of Pen-y-bryn, a mountain 1,200 feet high, in the centre of the South Wales Coal Basin, commanding a fine view of the Brecon Beacons, Bristol Channel, and parts of Monmouthshire, Gloucestershire, and Carmarthenshire. After enjoying the

views, they proceeded by the Rhymney Railway to Caerphilly, where they were joined by another party of the excursionists who had come direct from Cardiff. After promenading for some time in the grounds and exploring the extensive and interesting ruins of the castle, the guests assembled at half-past two in the banqueting hall, where, to the number of 250, they sat down to a sumptuous luncheon, to which they had been invited by Lord Bute. The chair was occupied by Mr. J. Lewis, one of the trustees of the Bute estate; who, after luncheon, gave the Association a hearty welcome in the name of Lord Bute, who was, to his regret, unable to be present; and at the same time congratulated the Association on having chosen as their President a man so highly esteemed in the locality as Dr. Edwards. Mr. Corbet, solicitor to Lord Bute, also spoke to the same effect. The President of the Association, in a few words, acknowledged the kind expressions that had been uttered, and desired that the hearty thanks on the part of the Association should be given to Lord Bute for his generous hospitality. After luncheon, an excellent photographic group of the visitors was taken under the curious leaning tower by a local artist; and the proceedings ended with dancing. Early in the evening, the visitors returned to Cardiff, highly pleased with their day's entertainment.

MORNING TRIPS.—On the mornings of Wednesday, Thursday, and Friday, trips were made by numerous members of the Association and their friends. On Wednesday morning, a party of members of the Association drove to Court-y-ralla, the residence of the Misses Rows, where they spent an hour or two in going over the beautiful grounds. Amongst other trips organised was one to the docks, the gentlemen visiting the latter being conveyed thither by a special train on the Rhymney Railway. On Thursday morning, a large party of members of the Association and their friends left Cardiff for Cefn Mably, the residence of Colonel Tynte. Amongst other trips organised was one to Penarth, the excursionists being conveyed by a special train to that delightful suburb. In the morning, a special train was also run from the Rhymney Railway Station to the docks, and several gentlemen availed themselves of this opportunity to inspect the new dock in course of construction, and the hydraulic machinery, tips, and other loading and discharging facilities at the East and West Docks. On Friday morning, a large party left Cardiff in brakes for Castle Coch, and inspected the vineyards and the castle. Another excursion, made up of gentlemen interested in mental diseases, paid a visit to Bridgend Asylum.

COLLECTIVE INVESTIGATION COMMITTEE.

LIST OF RETURNS RECEIVED DURING THE MONTH OF JUNE, 1885.
The Committee desires to acknowledge the following list of returns received during the month of June.

Aberdeen Branch: I, III, J. Mackenzie Booth, M.D.
Bath and Bristol Branch: XIII, H. Culford Hopkins.
Border Counties Branch: I, J. P. Balbirnie; W. L. Cullen, M.B. (3); II, J. P. Balbirnie; III, J. P. Balbirnie; IV, Barnes, M.D.; J. R. Hamilton, M.D.
Cambridge and Huntingdonshire Branch: XIII, J. H. Simpson, M.D. (4); D. B. Baling, F.R.C.S.
East Anglian Branch: XIII, C. B. Plowright.
Lancashire and Cheshire Branch: III, C. Rothwell; X, Nathan Hannah (3); Intemperance, J. Holms, M.D.; F. Nash; XIII, G. B. Barron, M.D.
Liverpool District: II, III (4), V (2), VI, A. Cresswell Rich, M.B.; VI, Dr. Barron; Intemperance, D. J. Mackenzie, M.D. (2).
Metropolitan Counties Branch: II, T. Morton, M.D.; X, T. Whipple, M.B.; J. Roche Lynch (2); Sidney Wachter; XIII, W. C. Adams, M.B.; H. C. Rogers; Intemperance, G. K. Poole, M.D.; C. E. Abbott; Trevor Fowler (2); T. Morton, M.D.; A. W. Wordley; Maurice Davies, M.D.
Midland Counties Branch: Intemperance, J. B. Unwin; T. Laurie Gentles (3).
Lincoln District: XIII, T. Symson, F.R.C.S.; A. W. Clark; W. W. Copley; E. Colby Sharpin.
Nottinghamshire District: I, R. Mears; II, H. Handford, M.B.; XIII, G. Vincent, M.B.
North of Ireland Branch: I, James Martin (6).
North of Scotland Branch: VIII, F. H. Clark, M.B.; Intemperance, J. Bruce Ronaldson, F.R.C.S.
South-Eastern Branch: I, III, T. F. Raven. West Surrey District: IV, X, A. R. Graham, M.A., M.C.
South-Wales Branch: X, T. Hall Redwood, M.A., M.D. (4); XIII, W. E. Williams; T. Hall Redwood, M.A., M.D. (2).
Southern Branch: Intemperance, P. W. Macdonald, M.B. (2). East Hants District: Intemperance, A. M. Garrington, M.D.; S. Andrews.
Wilts District: X, J. Lardner Green (4); XIII, C. F. Rumboldt, M.B. (2); Intemperance, J. H. Crisp; J. Hinton.
Staffordshire Branch: Intemperance, J. J. Ritchie.
Thames Valley Branch: I, VI, G. Crichton, M.B.
West Somerset Branch: I, II (3), III, VI, XIII, C. P. Coombes, M.D.; VII, X, Y, Z.
Worcestershire and Herefordshire Branch: Intemperance, Alfred Freer (4).
Yorkshire Branch: I, T. Smalles (2); X, Arthur Maude; Intemperance, R. J. Pyle-Smith.

DR. FRIEDERICK MERKEL has been called to succeed Professor Henle in the Chair of Anatomy in Göttingen.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 15th, 1885.

THE PROGRESS OF PHARMACOLOGY AND THERAPEUTICS.

SUCH was the subject to which Professor Fraser, the President of the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association, addressed himself in opening his Section. Few men could be found better adapted to descant upon the renaissance of pharmacology, or to point out the rational delimitation of that science. The peculiarity of the position of the Section, and its recent growth out of the older Section of Medicine, may seem to some minds to need an apologist, or, it may be, an advocate who would clearly indicate how the new Section not only has long been needed, but presents earnest of a most important and valuable future. Certainly Professor Fraser's words amply prove the positions in question. "Medicine," said the President, "is a progressive subject," and with this progress is involved its inevitable division into departments, among which, that devoted to pharmacology and therapeutics has asserted its claim to individual recognition among the sections. That such a claim has been preferred, and has received a tardy acceptance, seems incident to the very nature of the subjects. This view also is confirmed when we glance at the history of pharmacology. As is pointed out in the address, there are two ways of learning therapeutics; the one by clinical study, the other by pharmacological research. The clinical study involved too many and complex issues ever to lead to definite, at least, to scientific results; so that, until resort was had to direct experiment upon the normal organism, and physicians learned therefrom what were the physiological actions of drugs, no sure advance could be obtained in therapeutics. The older "systems of medicine" teem with what we at the present day regard as rank absurdities; the remedies were less studied than were the general systems of treatment, while the systems themselves were based upon pure speculation, without any attempt being made to bring the matter to the test of actual experiment. Bichat and Magendie recognised the necessity for ascertaining the action of remedies by experiments, and thus founded the science of pharmacology. But the practical business of curing disease must be furthered by such research, or the hold of pharmacology upon so pre-eminently practical a profession as that of medicine would be ephemeral, even to the vanishing point. Here Professor Fraser entertains no hesitating position: "precision," he assures us, "is attained in administration, errors in selection (of remedies) will be

avoided.....successful applications will be possible where the pathological changes are of a simple kind."

A further development of this important address, is the stress laid upon the importance of recognising and studying a pathological physiology. Morbid anatomy, so closely and zealously pursued, has replaced, for some, inquiry into the physiology of perverted function, of processes originating out of conditions nonexistent in the normal organ, or accruing upon actual new development of tissue. Save in so far as semeiology busies itself with the actual results of morbid processes, some manuals, and many clinical lectures, take little cognisance of such physiological problems. Pharmacology, which in one way conducts its researches by exciting departures from the physiological standard through the administration of drugs, naturally attaches especial importance to the study of the phenomena of the living organism during disease. Through the successful prosecution of such a study, moreover, can therapeutics alone hope to treat disease. Without depreciating the older method, namely, that of administering a remedy, and observing its effect, it must be admitted that researches into pharmacological domains present far greater opportunities of attaining to the exactness and precision to which Professor Fraser alludes. He sees no reason why the physician of the future should not use his agents with the same certainty and delicate accuracy which characterises the operations of the engineer. We heartily coincide in the wish for so happy a consummation, and believe that the institution of the Section of Pharmacology and Therapeutics, especially when its deliberations are presided over and directed by practical pharmacologists like Professor Fraser, will do much in promoting so desirable an end.

Undoubtedly, the progress of this department of medicine is at present hampered and crippled. It is pointed out, in the address, that the average student receives no instruction in the research-methods of pharmacology, and even, in many instances, has inculcated into his mind a certain depreciation of the scientific side of therapeutics. *Materia medica* and pharmacy usurp the place of pharmacology and therapeutics. Students who know nothing of the physiology of disease are, in their first or second year, doomed to "get up" certain cut and dried facts concerning plants and minerals; and upon these facts, added to an arbitrary posological table, they are examined. If they pass, they are presumably cognisant of therapeutics, and, so far, apt at treating disease. When they advance a few steps further, they accumulate "tips" as to treatment, and their course is run. Such a picture will not, of course, be taken as applying universally; many of the teachers in the schools are as thoroughgoing pharmacologists as is Professor Fraser himself, and their lectures abound with purely experimental results. But, even in their case, almost insuperable difficulties are offered to any practical demonstrations of the facts they teach. Laboratories, in which pharmaceutical research can be undertaken, are in England conspicuous by their absence; so that workers in this field must either curtail their efforts within the narrowest limits, or leave their practices to study at a foreign university. That the subjects of pharmacology and therapeutics should occupy a much later period in the student's curriculum than it does at present, no one conversant with teaching will gainsay, and Professor Fraser suggests the third session. Probably, it will be long before such a change be instituted—the more so, when we remember that the selection of teachers in our London schools is only too often made rather on account of the individual than because he knows anything of his subject. Pharmacology

has even now extended its ramifications so widely, that only a special and prolonged study of its facts and its methods can render a man in any way competent to teach it to a class. In despite of this, we find lecturers who have neither shown taste or power for prosecuting research, and who pretend to no erudition save a fair knowledge of the *British Pharmacopœia*.

When Professor Fraser's paper has been widely read and carefully considered, we may hope that his farsighted view of pharmacology will receive a more universal acceptance than his hitherto fallen to its lot, while the requirements for its progress being recognised will be met. There is no doubt that the influence of such an address cannot but be highly salutary. Although it may be urged that but little is said about the progress of pharmacology and therapeutics, yet what is emphasised is really far more to the point. To indicate that pharmacology is a science, and capable of enlisting in its service scientific methods, is a great step.

One other point upon which Professor Fraser touched with a light hand is the inclination there is for men unfamiliar with the new Section to betake themselves and their papers, although dealing with pure therapeutics, to the Section of Medicine. Such an obvious mistake should be remedied by the secretaries when they receive the papers, as much valuable time and material is wholly lost through introducing discussions into wrong Sections.

SEXUAL IGNORANCE.

RECENT painful disclosures have, among other results, raised an important question which, in the present state of opinion, can be most readily discussed in the pages of a medical journal. We refer to the complete ignorance regarding the sexual organs and the sexual functions which is permitted, and, indeed, sedulously fostered, by the ordinary education which boys and girls receive in this country. Not merely does our school-system provide no information on these topics which so vitally concern the happiness of every individual, but the slightest allusion to the subject is apt to be rigorously prohibited, and perhaps branded as obscenity. The result is, that there is a great deal of ignorance on these questions, and a still greater amount of half knowledge, which is more dangerous than either total ignorance or the fullest information. We have the authority of Sir James Paget for the statement that some men grow up, and even marry, in complete sexual ignorance; and that, while this is rare in the male sex, it is extremely common among cultivated and refined women.

The decent veil which we conspire to throw over everything concerned with the reproductive function serves, beyond doubt, some useful ends, and we trust the English people will always be characterised by their delicacy of thought and expression in this matter. But we are convinced that this secrecy, this "conspiracy of silence," has gone too far, and that it is productive of serious evils. We object, in the first place, to it as unnatural. That our educational methods and social practice should permit men, or more frequently women, to marry without knowing what marriage involves, is not merely unnatural, but may be the cause of much matrimonial unhappiness. Parents and school-masters act as if innocence in such matters could last for life, and as if knowledge were a crime.

But a much more serious, because infinitely more common, evil is the objectionable mode in which sexual knowledge generally gets access to the mind. Instead of being conveyed in some plain and

matter-of-fact manner, it is too often gained through the corrupting medium of lewd jest or obscene print. At the most emotional and plastic period of life, when new instincts are swelling up and causing great mental disquietude, we withhold from boys and girls the knowledge which nature is instinctively trying to impart, and we leave them to grope their way in darkness, or to seek illumination from some unhallowed source.

Why do the young so often regard an obscene work or print with such fearful but such irresistible curiosity? Not from mere depravity, as we often assume, but because they are thus unconsciously seeking information which they have a right to possess, and which we are conscientiously bound to supply in some form which will enlighten the reason, without inflaming the imagination and exciting the passions. Sexual knowledge is not wrong; its tendency is not necessarily injurious; but our mistaken methods of secrecy have undoubtedly the most unfortunate effect of stimulating the imagination to the highest point. We know the baleful fascination of forbidden fruit, not because it is sweet or pleasant, but simply because it is forbidden. This is a notable trait in human nature; but, in our attitude towards sexual questions, we have disregarded, or rather acted in direct contravention of it. The sexual function is naturally powerful, but we enormously increase its attraction for the young by labelling it as forbidden ground.

It is usually easier to indicate a disease than to apply a suitable remedy, but we shall not conclude without venturing a few suggestions. First, let us glance at what is suggested in the very few books which touch upon the question. Many urge that parents should convey knowledge on these questions to their children, at the time of life when external signs and new sensations indicate that the sexual instinct is beginning to awake. But many, probably a majority of parents, are not well fitted to undertake such a duty. Our language is badly provided with the necessary terms; and the untrained parent, ignorant of anatomical expressions, would find it hard to convey the necessary information without incurring the suspicion and, in his own mind, the reproach of indelicacy.

Some advise that the family medical attendant should act *in loco parentis* in this matter, but we are certain such action would be highly disagreeable to the members of the profession. One suggestion alone seems to meet the case; but, fortunately, it meets it most thoroughly. Elementary anatomy and physiology should form an integral part of every education. We might begin by teaching boys and girls the bones and skeleton, the functions of the heart, stomach, etc.; and then, when the suitable age arrives, the structure and functions of the sexual organs might be taken as the natural sequel of the previous portions of the course. In this way, the necessary knowledge would enter the mind naturally and simply, with no false shame on the one hand, and no fillip to the imagination on the other. We are confident that an immense reform would thus be easily and quietly effected, and that much evil and suffering would be averted. We should thus convey, in the most natural and unobjectionable form, knowledge which we have no right to withhold; and we should remove the unwholesome fascination which our present habit of secrecy imparts to sexual questions. Certain it is that the stealthy approaches of vice are favoured by the existing system.

It will often be found that there is a prevalent opinion that sexual immorality is to celibates a physical necessity, an attribute of manliness, and even a collateral or prevalent condition of health. This

degrading error has been so vigorously denounced by the ablest of modern physiologists, that no one has any longer a pretext for entertaining or promulgating it. It has been the source of much evil, however; and wherever such an opinion is met, it must be energetically denounced.

There is an aspect of the question which cannot be overlooked, especially as recent revelations have thrown a lurid light upon it. It has been abundantly proved that young girls are often entrapped to their ruin in the most utter ignorance of sexual questions, and of the physical significance of the act to which they are enticed. This is surely a lamentable instance of propriety over-reaching itself. Innocent ignorance is always attractive; but, if it be the means of luring the innocent victim to her doom, it is surely most dangerous. How then is the girl, approaching to sexual maturity, to be made acquainted with the solemn facts of creative act, and guarded against associating them with the base impulses of passion? We commend this difficult question to the thoughtful consideration of our readers. In this respect, also, the mothers and the teachers have a very solemn duty; and it is opportune to ask how, when, where, and by whom, it is best performed.

LUNACY-CERTIFICATES: NEAVE v. HATHERLEY.

THE recently concluded trial of Neave v. Hatherley conveys further warning of the dangers which medical men encounter when called upon to sign certificates of lunacy, although in the act itself they are but discharging a duty imposed upon them by law in the interests of the public. This trial, indeed, shows that the most honest and conscientious medical man may be exposed, even when acquitted of culpable fault, to all the annoyance, worry, and cost of an action, to the risk of an adverse verdict by a jury, taken haphazard from the residents of an assize-town, devoid of any special acquaintance with the features of insanity and the character of asylums, and getting their impressions of a case far too largely through the coloured medium of the speeches of the members of the Bar. Particularly at the present time is it likely to go hard with medical men involved in lunacy causes, by reason of the feverish excitement among the public consequent upon some recent trials, the aspects of which, in regard to the profession, we discussed in previous numbers.

Let us return to the action just concluded, and summarise its leading points. The plaintiff was a maiden lady, aged 45, of strongly pronounced religious opinions, as professed by the section of the English church known as the Low Church party. Probably her conviction that the end of the world is close at hand was a notion peculiar to herself, and not an article in the creed of the theological party in question; and, although a strong antagonism to the Church of Rome be one of its characteristics, yet again, the ideas of Miss Neave respecting the Jesuits cannot certainly be so classified. For that lady regarded them as well nigh ubiquitous; haunting her mother's house, in which she resided, disturbing its arrangements and quietude, and greatly interfering with her own happiness. The household servants were suspected to be members of the order, or otherwise spies in its employment; and Miss Neave felt it incumbent upon herself to make diligent searches about the house, and under beds, for concealed delinquents. Coupled with these misgivings, she had also the fear of poisoning by those same enemies of her peace, and, on one occasion at least, as asserted in evidence, she scattered an anti-septic upon the meat when cooking. For several years past her own

relatives and others looked upon her as very eccentric, and there was clear evidence that she was highly passionate. The eccentricity was the cause of great domestic unhappiness, and of frequent disturbance of the household by the unwillingness of servants to remain. Latterly it seemed to grow upon her, as likewise did her irritability, which was expressed in threatening language and actions towards her aged mother, as well as some of the domestics. Indeed, about twelve months before certificates were actually obtained, her mother and other relations consulted the family medical man, Mr. Hatherley, as to the propriety of secluding her; a proceeding, however, which that gentleman discouraged.

One well known peculiarity among the insane is the alteration of their natural affection, so that those most dear to them become the objects of dislike, or of positive hate; and it would appear that Miss Neave had lost, to some extent, her affection for her mother, and likewise her brother, although she manifested a remarkable jealousy in the welfare of her brother's infant, which she suspected (without any reason that could be proved) of being the victim of poison at the hands of its nurse.

Another characteristic of the insane is the denial of their own madness, and the attributing insanity to those connected with them. Now, Miss Neave asserted her mother to be out of her mind, and to be suffering with softening of the brain, as the result of drugs (really ether) administered to her by Mr. Hatherley. To this notion she adhered, in spite of the attempts of that gentleman to convince her to the contrary. Having this fancy as to her mother's mental weakness, she so far acted upon it as to charge herself, after a curious fashion, with watching her mother; and we have the fact witnessed, that, with this feeling in her mind, she perambulated the house at most unreasonable hours of the night, and in the early morning violently knocked for a lengthened period at her mother's door for admittance to assure herself of her safety. This not being granted, with childish petulance for a woman of her age, she went downstairs and unravelled a stocking her mother had knitted during the day, "thinking" (as the judge put it) "that would fetch her." Such is an outline of the facts elicited in the course of the trial, and, for the most part, from the mouth of the plaintiff herself.

Before, however, commenting upon these facts and the incidents of the trial, we would call attention to the age of the lady as not without importance in discussing the question of mental disturbance; seeing that it is an age in which the nervous system frequently loses its balance.

In his summing up of the case, Lord Chief Justice Coleridge submitted two questions to the jury for their determination. 1. Was the plaintiff, at the time (the certificate was signed) sane or insane? And the next (2) was, supposing she was sane, was the conduct of Mr. Hatherley, in signing the certificate, marked by want of reasonable care, skill, and caution? The finding of the jury was, that she was sane at the time indicated, but that Mr. Hatherley was not guilty of culpable negligence in certifying her to be insane. This, remarked the judge, was a verdict for the defendant. Thereupon followed the curious remark from the foreman, that such was not the intention of the jury. Happily for Mr. Hatherley, it would therefore seem the jury had not the ability to express their intention in words, otherwise he would have been mulcted in costs and damages.

We congratulate him upon his narrow escape, whilst at the same

time lamenting the state of the law that allowed him to be proceeded against for an act which, no one who reads his evidence can fail to see, was proposed under the conscientious conviction that it was for the advantage of the plaintiff and the good of her immediate relatives, who also fully sanctioned it. He was honestly and fully convinced, as a medical man, by a knowledge of the lady for a period of ten years, by repeated observations, and by comparison of her past and her then existing mental state, and, moreover, fortified, in his opinion, by the convictions of relatives and others, that the plaintiff was of unsound mind, and a fit subject for temporary seclusion in an asylum. Yet an opinion, so well based, and arrived at with so great deliberation, extending over many months, is overturned by a jury having no special knowledge of mental disorder, and no opportunities for forming an opinion of the case at all equal to those enjoyed by her medical attendant. And not only so, but, as a jury, they laboured under the disadvantage inseparable from the manner in which the case could be placed before them. They could not get a complete and unprejudiced history and presentation of facts; and, we may add, it is not in human nature to fail to sympathise with the sufferer of even a problematic wrong.

To deprive a person of his liberty, to lock him up in an asylum, hidden from the notice and the help of his fellow-creatures, occupying the position of a valuable commodity to be carefully preserved, and subjected to the conditions of asylum-life, and to the contact of decided lunatics, possibly for the remainder of his days—such are the *ad captandum* representations addressed to juries with telling effect. We will not stay to inquire how far the picture is sentimental, but proceed to say a few words on a method employed to negative the facts advanced to prove mental unsoundness; it is fallacious and misleading. The term eccentricity is employed to cover a host of disordered ideas and actions, and a jury are plied with the psychological puzzle how to distinguish eccentricity from insanity; and that they may be more perplexed in answering it, the several signs relied upon to prove mental aberration are taken singly, and shown, by appeal to the history of individuals accounted sane or only eccentric, to be not incompatible with the undefinable condition called sanity. The combination and cohesion of the "eccentric" ideas and actions are kept out of view, and still more so the domination of those ideas over the conduct of the individual. The contention or proposition, in short, is, that this and that and the other disordered notion or action may be witnessed in sane people, therefore their existence is no sign of insanity.

Again, as eccentricity is not insanity, so likewise, as we are told, the presence of a delusion does not signify that condition, and we seem in a fair way of so dealing with the indications of insanity that eventually none will remain. In fact, disputings may proceed without end over general terms, as sanity and insanity, eccentricity and delusion, admitting of no rigorous definition. It may be readily argued that eccentricity is the property of an individual and a sign of individuality, and that what is called delusion in a particular person, is nought else than a mistaken opinion, or else the marvellous offspring of an advanced philosopher's brain.

The lawyers have evidently found themselves in cloudland over the disputations that have taken place relative to the value of delusions as indicative of insanity, and, hoping to get a more solid foundation for their conclusions, have laid down the rule that for a delusion to prove insanity, it must be associated with peril. But this ingenious

limitation leaves them still in the land of doubt and wrangling; for what constitutes peril remains a debatable point for the exercise of forensic skill.

The dictum was brought forward in the case we have had under review, but counsel failed to open up the question whether peril accompanied the delusions attributed to the plaintiff; although the violence of conduct and the circumstance of threats being used might have supplied good grounds.

Finally, we would inquire, if verbal threats and threatening conduct do not constitute peril within the meaning of the legal dictum, must there be a felonious act before delusion becomes valid as indicative of insanity? If the law insist on serious peril, in the shape of violent assaults conjoined with delusion, to establish the existence of insanity, there ought, in justice to hundreds of lunatics now shut up in asylums, to be a grand "asylum-delivery."

THE TREATMENT OF MYOMA OF THE UTERUS.

MR. LAWSON TAIT'S paper, read in the Obstetrical Section at the annual meeting, will certainly turn the attention of the profession once more to the great question of prognosis in cases of uterine myoma. On this question, everything relating to treatment necessarily depends. Unfortunately, the opinion of experts is divided on this subject. Many go so far as to say that myoma never kills by its size alone, and that the hæmorrhage which it occasions may always be checked by various appliances without the extreme measure of hysterectomy. Others believe that a small myoma should always be removed, as the chance of its growing very large is considerable, and a large myoma is, they declare, a source of great danger to the patient. It follows that a very close investigation of the history of uterine myoma is yet needed, and a very long series of cases will be necessary for the purpose. The disabling character of myoma must in all cases be taken into account. It acts very differently in patients in different grades of society. Many such patients among the working classes are bread-winners for themselves and others, and the partial or complete rest necessary for the expectant treatment of myoma means ruin, or at least the deterioration of habits of industry. In a patient of a higher class, who can command carriage-exercise, and can solace herself by intellectual pastimes, myoma is, without any exaggeration, robbed of half its terrors—of all, the advocates of palliative treatment would say, but the operators declare that the element of danger remains.

Few will deny this element of danger, hence few can deny that operation is sometimes needed. Here three more difficulties come in view: should the operation be enucleation, or hysterectomy, or oöphorectomy? The risk of the first, its difficulty, and its very nature, condemn it as unsurgical, in the opinion of most authorities. Hysterectomy is, indeed, a great problem. When successful, recovery is, certainly, very complete. It cannot be said, however, that the most experienced operators speak with enthusiasm about it, and, without mentioning names, we know that many of the cases where these surgeons met with success, would have encountered a different fate in the hands of less experienced followers. The mortality remains high, and the operation difficult, yet experience may show that there may be improvements in operative detail, and, in fact, that more may be said in its favour and nothing more discovered that can discredit it.

Oöphorectomy is the third resource, and this is favoured by Mr. Tait and several other surgeons. His paper supplies arguments in its favour which it is not, therefore, necessary for us to recapitulate. There only remain, then, certain objections to be considered.

First, the operation is very difficult. Even those who have performed numerous abdominal sections admit that their first oöphorectomy was a much harder task than they expected. It is hard to say which is the most troublesome, to get at a small diseased ovary adherent to pelvic structures, or to secure the pedicle of an ovary attached to a large myoma. The latter only is the condition pertinent to the present question. Practice shows that securing the pedicle of the ovary in this case, so as to insure against all risk of hæmorrhage, is never easy, and often impossible, so that a contemplated oöphorectomy has had to be converted into a hysterectomy. Then it is sometimes very difficult to remove all the ovarian tissue on both sides; and, unless this be done, the operation is almost certain to fail in its object. Then, after oöphorectomy, the patient has often to wait a long time till the tumour has subsided, nor does this subsidence invariably take place.

The arguments in favour of this operation are, however, very cogent, nor can we deny that Mr. Tait's paper, on that account, merits the attention of the profession. It has been said that, roughly speaking, ovariectomy is a settled question. It will probably be long before the same can be said in regard to any operative treatment for uterine myoma.

DR. A. WYNN WILLIAMS (London) has been elected a corresponding Fellow of the Boston Gynæcological Society.

THE Professorship of Ophthalmic Surgery in the University of Gratz has been conferred on Dr. Blodig.

THE Academy of Sciences in Holland has awarded the Leeuwenhoek medal to Professor Ferdinand Cohn, of Breslau.

THE report of the Select Committee appointed to inquire into the sanitary condition of the House of Commons, with special reference to the evil smells that occasionally pervade the building, is not of a very conclusive character. Major Tulloch, R.E., who was appointed by the Local Government Board to look into the matter, reports that the origin of the evil smell is to be found in the sewers. Sir Robert Rawlinson, who was also asked to make an inquiry, finds that the sewers are in the main satisfactory, a view confirmed by an independent inquiry undertaken by Mr. Prim, assistant resident engineer.

IN our report last week of the *soirée* given at the Park Hall, Cardiff, we omitted to note the interesting exhibit of Mr. T. H. Thomas, R.C.A., of a collection of graphic and pleasing sketches, chiefly in the North-West of Canada and the United States; on the Canadian Pacific Railway in Assiniboia and Alberta, and in the Yellowstone National Park, Wyoming Territory, U.S.A. Mr. Thomas was the special artist of the *Graphic* with the British Association in Canada, 1884.

RAILWAY-GUARDS WITH SURGICAL TRAINING.

It is stated in the *Wiener Medizinische Blätter* that the authorities of one of the Russian railways have ordered that one of the guards on each train shall always be a *Feldscher*. These *Feldschers* are men who have had some surgical training in the army, and are employed as subordinate medical officers. Villages which are far from a medical man have usually a resident *Feldscher* who does most of the "doctoring" required by the inhabitants, that is, when they do not resort to old women who work by charms, or to other charlatans.

A ROYAL MEDICAL PRACTITIONER.

PRINCE LUDWIG FERDINAND OF BAVARIA, son-in-law of Queen Isabella of Spain, who obtained the degree of Doctor of Medicine at Munich last year, is now practising at Nymphenburg, Bavaria.

THE ROYAL RED CROSS.

THE decoration of the Royal Red Cross has, the *Gazette* states, been conferred by the Queen upon the undermentioned Princesses, in recognition of the services rendered by their Royal Highnesses to the Aid Society for the Sick and Wounded Soldiers and Sailors, namely, Her Royal Highness the Princess Louise, Marchioness of Lorne; her Royal Highness the Duchess of Albany; and Her Royal Highness the Princess Frederica of Hanover, Baroness Von Pawel Rammingen.

ST. JOHN AMBULANCE ASSOCIATION.

PRINCESS CHRISTIAN will present about 700 certificates to the City and Port of London District classes to-day (Saturday) at the Guildhall, the Lord Mayor presiding. Rapid progress is being made in the extension of ambulance-work, both in Australia and in New Zealand.

CHOLERA CONTAGION.

ATTENTION is being opportunely directed to the fact that the next few months will see several thousand packages of fruit consigned to the United Kingdom every week from the southern and western coasts of Spain—notably nuts from Barcelona, lemons from Valencia, and grapes from Almeria. These last are packed in barrels, filled up with cork-dust; and the attention of the authorities is called to the importance of this fact, in view of the great epidemic of cholera in Spain. This is the more important, inasmuch as cholera-contagion is believed to be frequently conveyed by food.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual general meeting of this Association was held at Queen's College, Cork, on August 4th, under the presidency of Dr. J. A. Eames. After a vote of thanks to Dr. Rayner, the retiring President, Dr. Savage, of Bethlem Hospital, was elected President for the next year. The Association considered and approved of a scheme for the granting of certificates in psychological medicine, and a paper was read by Dr. Hack Tuke on a case of Moral Insanity. At the adjournment for luncheon, a visit was made to the Cork District Lunatic Asylum, which contains nearly 1,000 patients, and which includes, among other well ordered arrangements, a very complete system of Turkish baths. At the afternoon sitting, an address was delivered by Dr. Eames, and the members of the Association afterwards dined together at Queenstown, which rising place, it was stated, had never before been chosen for the meeting of a scientific association. On the following days excursions were made to Killarney and other places.

A HEALTHY HEALTH-RESORT.

THE medical officer of Hastings presented his report this week to the corporation for the quarter ending June. It is stated that, with a population of 47,930, only 155 deaths had occurred, being at the rate of 12.98 per 1,000, which is a very low rate indeed for such a large and important health-resort. A large proportion of the deaths occurred amongst non-residents or visitors, apparently sent there as a last resource.

DR. ROBERTS ON PANCREATIC DIGESTION.

THE Association was fortunate in securing the services of so eminently practical a pharmacologist as Dr. William Roberts, of Manchester, to deliver the Address in Therapeutics at Cardiff this year. Dr. Roberts has succeeded in establishing for himself a world-wide reputation, not only as a physiologist, but as a clinical teacher, and his work always commands attention and interest. His Lumleian Lectures on the Digestive Ferments, delivered before the Royal College of Physicians of London in 1880, are usually regarded as a type of good scientific work. His address before the Association, on the

Feeding of the Sick, although more restricted in its scope, has been even more widely read, and has excited much comment, both in the medical and in the general press. We are glad to find that Dr. Roberts intends publishing, shortly, the results of the experiments on which he has been long engaged respecting the influence of salivary and peptic digestion on the "accessories," alcoholic beverages, tea, coffee, cocoa, etc., which are universally employed in one form or another as food. This is an inquiry of an eminently practical nature, the importance of which it would be difficult to overestimate. It is clearly a subject closely affecting the welfare of our patients, and one which must of necessity daily occupy the attention of every physician. Observations of this class, fortunately, do not necessitate the employment of expensive apparatus, and can be carried out almost as well in the consulting room as in the physiological laboratory. We believe that every medical man would do well to make a point of testing for himself the activity of the digestive ferments which he is in the habit of prescribing. It is a subject which will probably occupy the attention of the Collective Investigation Committee at no distant date. Dr. Roberts speaks of having recently had placed at his disposal a preparation, free from taste and smell, consisting of the pancreatic enzymes in a highly purified state. It is not hygroscopic, and may be kept unchanged for an indefinite period, freely exposed to the air. A substance of this nature, in the form of a white powder, was prepared some years ago by Fairchild, the American chemist, and has already been extensively used in this country. The pancreatic juice, as is now well known, consists of four ferments: trypsin, which changes proteids into peptones in alkaline and neutral media; a curdling ferment which curdles the casein of milk; the pancreatic diastase, which acts like extract of malt changing starch into sugar and dextrine; and an emulsive ferment which emulsifies and partially saponifies fats. There can be no doubt that, as a digestive agent, extract of pancreas is vastly superior to any preparation made from gastric juice. "The pancreas," says Dr. Roberts, "excels the stomach as a digestive organ, in that it has power to digest the two great alimentary principles, starch and proteids, and an extract of the gland is possessed of similar endowments." There can be no doubt that a series of carefully reported cases of different diseases treated by the pancreatic method of predigestion is a desideratum. It has proved useful in many hands in uræmic vomiting, gastric catarrh, pernicious anemia, gastric ulcer, and pyloric and intestinal obstruction. Its introduction has probably done more than any other therapeutic measure of recent times to lessen infant mortality.

THE BATHING OF CHILDREN IN WORKHOUSES.

A HORRIBLE misadventure, resulting in the death of a little boy, aged five, and the serious injury of another child, which has recently taken place in the Scarborough Workhouse, points to culpable negligence on the part of the authorities of that institution. From evidence tendered at an adjourned inquest, it appears that the boys in the workhouse are bathed every Saturday night, and that on the previous Saturday the bath had been prepared by two men named Atkinson and Garnett. Six buckets of hot and two of cold water were placed in the bath. A boy, aged fourteen, lifted the deceased into the bath, but he immediately jumped out, whereupon Atkinson placed him in the water again. The deceased cried out that the water was too hot, but Atkinson thrust him down, taking hold of his hands and legs. The skin came off his thighs and left side, and on removal from the bath he was found to be so seriously injured that medical treatment was unavailing. Another boy who was put into the bath was not sufficiently recovered to attend the inquest. The coroner was of opinion that the deceased met his death through misadventure, and that there was no ground for supposing that any criminal blame attached to Atkinson and Garnett. The jury, however, whose notions of justice were less hampered by judicial obstacles, with a laudable desire that the case should be the subject of another inquiry, returned a verdict of manslaughter against Atkinson, and censured his assist-

ant. The real criminal is undoubtedly the master or other official responsible for the rude and irregular manner in which the bathing of children of tender years appears to have been carried out in the work-house. In institutions where the consultation of the wishes of individual bathers is prohibited by disciplinary or other considerations, a thermometer is an absolutely necessary adjunct of the bath-room. For use in unscientific hands, the mercurial column should be unobscured by the divisions of Fahrenheit or Réaumur, and marked only with a single clear line to indicate the desired temperature. It is indeed devoutly to be hoped that the Scarborough workhouse is the only institution of its kind in which the thumb of a thick-skinned adult is considered an instrument of sufficient thermometric delicacy and trustworthiness for determining the temperature of children's baths.

THE SOCIAL SCIENCE ASSOCIATION.

At the last meeting of Council, the Chairman having drawn the attention of the members to the financial position of the Association, with a view to bring the annual expenditure within the annual income, it was after long discussion resolved, on the motion of Mr. Joseph Brown, Q.C., seconded by Mr. H. Mozley: "1, That, having regard to the financial position of the Association at the close of the last year's accounts in June, it is necessary to take effectual measures to reduce the annual expenses within the limits of the probable annual income of the Society; 2, That, to effect this object, the sessional meetings for reading and discussing papers should in future be limited by the Executive Committee to such as they may consider of pressing importance; 3, That, as far as practicable, the energies of the Association be concentrated on the Annual Congress, and such committee-work as may necessarily arise out of it; 4, That it is expedient to dispose of the lease of the rooms now held by the Association in Adam Street, Adelphi, in such way as the Executive Committee and Mr. Hastings, M.P., may agree to; and to hire the use of a less expensive room or rooms for such time of the year only as may be required; 5, That the law-books of the Association (excepting the Statutes) be sold, and the net proceeds applied in reduction of the amount of £244 12s. 6d. still due to the printers for the *Transactions* of the year 1883; 6, That, as soon as the present secretary ceases to hold office, by notice or agreement, or otherwise, it is expedient to obtain an honorary secretary, without salary if possible; and if not, to employ a secretary for such occasional services as may be required at a rate of payment not to exceed £100 in any year; 7, That the Executive Committee be empowered to carry the above resolutions into effect in such way as they may deem best, and to effect any further economies which may be practicable; 8, That the Treasurer be empowered until the next meeting of the Council to give a notice to determine the engagement of the secretary, in case he should think it desirable."

VACCINATION-CERTIFICATES.

Most of our readers probably know that vaccination may be performed only by public vaccinators, or by registered medical practitioners, and that certificates of vaccination are given by the person who performs the operation, or by the public vaccinator, if on personal examination he be satisfied that a child, whom he has not vaccinated himself, has been successfully vaccinated. If any person wilfully sign a false certificate, he is guilty of a misdemeanour. Mr. J. R. Marrian was charged under the Act, at the Birmingham assizes last week, with having improperly signed a certificate to the effect that he had successfully vaccinated a child named Squelch; he was acquitted of the charge, but the facts of the case are instructive. Mr. Marrian, it appears, is a duly registered practitioner, and vaccinates many children. He employs an assistant named Smith, who has no medical qualification. Mr. Smith has often vaccinated children in Mr. Marrian's absence, and vaccinated the child Squelch, though Mr. Marrian vaccinated other children on the same day. Mr. Smith afterwards filled up the vaccination-certificate, and placed it with

others before Mr. Marrian, who signed them all, and sent them off to the Registrar. Mr. Justice Day, in summing up the case to the jury, told them that wilfully to sign a false certificate of vaccination was a serious offence, but they must consider whether signing a certificate, when the child had in fact been successfully vaccinated in his surgery by his assistant, did amount to such a wilful signing as was contemplated by the Act. In the result, Mr. Marrian was acquitted; but the case may usefully serve as a reminder that vaccination cannot legally be performed by unqualified assistants. If the jury had not taken the view they did, Mr. Marrian would have been convicted of a criminal offence, and would have been subjected to a punishment probably of some severity. Even with a verdict in his favour, he has been put to expense and anxiety, which probably now make him think the services of an unqualified assistant dearly purchased. If other practitioners let such assistants vaccinate children for the future, they will run a considerable risk, and may not find either judge or jury so leniently disposed as was the case in Birmingham. The law only allows duly qualified practitioners to perform the operation—simple though it usually is—and the law in this respect ought to be enforced. Qualified men, who readily sign certificates, may find the result troublesome and expensive; and, if their signature be appended without due caution, may involve themselves in serious trouble.

FOOLHARDY FEATS.

NOWADAYS the Straits of Dover, like the Falls of Niagara, seem to offer an almost irresistible temptation to every one who hankers after risk or notoriety, and who thinks he can command the elements of air or water. Within the last few years the Channel has been crossed in balloon, in ship's dinghy, in canoe, in an inflated suit of clothes, and by a strong swimmer who subsequently met a premature death in endeavouring to satisfy the morbid public demand for foolhardiness. In addition to these successful feats, attempts innumerable have been made to reach the coast of France in every but the ordinary, and to most persons preferable, method; and, had the intervening sea been shallow enough, some enterprising pedestrian would doubtless long ere this have endeavoured to walk across. The daily papers recently devoted a considerable portion of what they are sometimes pleased to term their "valuable" space to a description of the voyage of eight young Oxonians, who embarked at Dover in a fragile craft built for racing on the placid waters of Thames and Isis, and who arrived at Calais four and a half hours later in various stages of collapse, owing to the severity of their exercise and the violence of the summer sun. The details of the voyage recalled those of the prize-fights of happily bygone days, the chief difference being that the professional pugilists had the excuse of wager or reward, and injured one another as much as possible, while the heroes of the Channel-row punished themselves, like fanatic Flagellants, for no tangible profit or reasonable purpose. A little national pride for the dogged obstinacy which glued these oarsmen, or such of them as were not utterly prostrated, to their thwarts until their self-imposed task was accomplished, is perhaps pardonable, but no healthy mind can approve the risk to health and life and the physical waste involved in such objectless and dangerous enterprises. Sensational performances invariably provoke imitation, and already the example of the gentlemen-adventurers of the week before last has been the excuse for some half-dozen less aristocratic and less successful attempts of a similar nature, and at least one narrow escape from drowning. Feats such as these prove nothing and accomplish nothing. They can be of no possible advantage to athletic science, nor will they lessen to weakly stomachs the terrors of the Channel. It is surely the duty of all lovers of healthy exercise to try to cultivate a better taste, and, while encouraging and directing into useful channels the pluck and endurance which won Waterloo, and which have made England mistress of the world, to discourage unequivocally the performance of purposeless and foolhardy feats.

THE VOLUNTEER MEDICAL STAFF CORPS AT ALDERSHOT.

On Saturday, August 8th, 100 men and eight officers of this corps proceeded to Aldershot for a week's training with the Medical Staff Corps of the regular army. On arriving at the station the corps was welcomed by the medical officers of the dépôt. Hundreds of the men of the Medical Staff Corps came to the station to welcome the much-talked-of corps, and altogether a royal reception was accorded. The officers were made honorary members of the excellent mess of the medical staff, and the kindness extended by these officers was of the heartiest description, and thoroughly appreciated. The sergeants of the medical corps entertained, at their mess, the non-commissioned officers of the volunteer corps on their arrival. On Monday the two companies of the corps took part in the field-day, and performed their work to the satisfaction of the Principal Medical Officer and the general officers. On Tuesday the corps amalgamated with the Medical Staff Corps, and had a most instructive day in the Long Valley, under the direction of Surgeons Miller and Grier. Seventy-four men were detailed as wounded, and dispersed throughout a wide area. These, after a careful search, were brought in on stretchers and improvised seats to a "wagon or collecting station," and conveyed thence to a dressing station and field hospital. On Wednesday the corps paraded in the drill ground of the Medical Service Corps, and pitched a bearer company encampment. The work was inspected by Dr. Crawford, the Director-General of the Army Medical Department, together with Surgeon-General Hendley, C.B. Other interesting drills and field days have been arranged to enable the corps to fully avail themselves of the advantages of their visit to Aldershot. A most instructive opportunity has been afforded, whereby it is hoped that the discipline and physique of the young medical men of the kingdom will be improved. To Surgeon-Major Ray the corps is deeply indebted for all the trouble and pains he has taken.

THE RECOGNITION OF INFECTIOUS DISEASES.

In the able and practical Address in Public Medicine, given by Mr. David Davies at the Cardiff meeting, there was one point of special importance which, we trust, may bear fruit, and that speedily. The facilities for the instruction of medical students in the physical characters and developments of the several diseases that we class as "infectious," are of a highly unsatisfactory kind, for the reason, amongst others, that such diseases are now under more enlightened views of practice, largely banished from the wards of our general hospitals. As was forcibly urged by Mr. Davies, one of the most troublesome difficulties which confront the medical officer of health arises from inaccuracy of diagnosis, and more especially from inaccuracy in regard to zymotic diseases. Diphtheria and croup, pneumonia and typhoid fever, tubercular phthisis and typhoid fever, typhus and typhoid fever, hæmorrhagic small-pox and scarlet fever, are mistaken one for the other, while, under the terms convulsions and fever, there are gathered motley groups of acute inflammation and of specific and non-specific fevers. The medical officer of health must discount the death registers in accordance with his experience of his professional brethren and of the diseases which they are called upon, frequently under the most disadvantageous circumstances, to identify. Mr. Davies, however, feels that "we want some substitute for the abolished apprenticeship" of former years. It may unhesitatingly be admitted that "the abolition of the apprenticeship-system was not an unmixed good," and we feel that the duty lies the more imperatively at the door of those who undertake the guidance of medical studies to see that the student is able to obtain clinical instruction in fevers. It is unfortunate, from this point of view, that some hospital authorities have seen fit not to admit cases of certain of the specific fevers into their wards; but it is much more important that means should be obtained whereby the student may be able to obtain instruction in the large fever hospitals into which such cases are now being more extensively draughted.

REMOVING MICROBES FROM WATER.

PROFESSOR FRANKLAND has, we read in the *Journal of the Society of Arts*, recently made a series of experiments on the relative efficiency of filtration, agitation with solid particles, and precipitation, as a means of removing micro-organisms from water. His method was to determine the number of organisms present in a given volume of the water, before and after filtration. The filtering materials were greensand, silver sand, powdered glass, brickdust, coke, animal charcoal, and spongy iron. These materials were all used in the same state of division, being made to pass through a sieve of forty meshes to the inch. Columns six inches in height were used. It was found that only greensand, coke, animal charcoal, and spongy iron wholly removed the micro-organisms from the water filtered through them, and that this power was lost in every case, after the filters had been in operation a month. With the exception of the animal charcoal, however, all these substances, even after being in operation for a month, continued to remove a very considerable proportion of the organisms present in the unfiltered water; and in this respect coke and spongy iron occupied the first place. Water containing micro-organisms was also agitated with various substances in the same state of division as above mentioned, and after subsidence of the suspended particles, the number of organisms remaining was determined. A gramme of substance was in general agitated with 50 cubic centimetres of water for a period of about 15 minutes. It was found that a great reduction in the number of organisms could be produced in this way; and the complete removal of all organisms by agitation with coke is especially to be remarked. Precipitation by "Clark's process" also showed that it affords a means of greatly reducing the number of these organisms in water. Dr. Frankland concludes from his experiments, that, although the production in large quantities of sterilised potable water is a matter of great difficulty, involving the continual renewal of filtering materials, there are numerous and simple methods of treatment which secure a large reduction in the number of organisms present in water.

SCOTLAND.

ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

DURING the month of July, there were 95 cases treated in the Royal Edinburgh Hospital for Sick Children, of whom 60 were in the hospital on June 30th, and 35 were admitted during the month. Forty-two were dismissed as cured, and eight were relieved. The average number of in-door patients during the month was 48. In the out-door department, 484 cases were treated as dispensary patients, and 18 children were vaccinated, making a total of 502. Of 224 new cases treated, 174 were from Edinburgh, 35 from Leith, and 15 from the country. The total number of cases treated during June was 597.

GLASGOW ROYAL INFIRMARY.

At the adjourned meeting of the directors of this hospital, held on the 11th instant, the chief business under consideration was the election of a visiting physician and surgeon in the room of Drs. Scott Orr and Ebenezer Watson, whose terms of office expire next October. Of the several applicants who came forward, Dr. J. Wallace Anderson and Dr. W. J. Fleming have been chosen, the former as physician and the latter as surgeon. As we have said before, the long time that these gentlemen have satisfactorily fulfilled the duties of the dispensary department entitled them to most favourable consideration at the hands of the committee; and there can be no doubt that their appointment will be received with very general satisfaction, not only on account of their fitness for the office, but because it indicates on the part of the directors a return to the practice, from which they departed last year, of conferring the chief posts in the hospital on those who have already served them in the more arduous and less inviting work of the out-patient department.

ABERDEEN ROYAL INFIRMARY.

It is not often that we have to draw attention to the unsatisfactory administration of any of the hospitals in Scotland, and it is only when some important principle seems at stake that we feel it incumbent on us to comment upon such matters, as the differences of opinion that from time to time arise, in connection with the management of all local infirmaries, are as a rule temporary, and never assume any serious proportions. In the case, however, of the Aberdeen Royal Infirmary, recent public utterances and statements reveal a condition of matters which has existed for such a considerable period of time, that there should be no longer any delay in rectifying the evils, and, if possible, taking steps to prevent their recurrence. As far as we can gather, the present state of affairs is this, that an investigation into the internal economy and administration of the Infirmary has revealed the existence of a number of defects in the condition and management of the hospital which demand immediate attention. Although those in authority admit the facts, and have had pointed out to them, by the medical staff, the remedies required, they have persistently neglected to carry out the recommendations laid before them, and have allowed the evils complained of to continue as before. It seems incredible that any body of managing directors, if they have the interests of the institution over which they have been placed at all at heart, should allow themselves so far to forget their position, and the responsibility it carries with it, as to ignore persistently and completely the suggestions of their medical staff. They must be aware that these latter can be actuated by no other motive than to see their Infirmary conducted on the most approved principles, and doing the greatest amount of good. That its power for good must be lessened by the present state of matters is self-evident, for no hospital can be looked on as in a satisfactory condition, nor can it obtain the public confidence, when the relation of the governing committee towards the medical staff is such as we have pointed out. It has been suggested that an inquiry should be held by some independent authority, as to how far any changes are called for in the hospital administration. To us, this seems hardly necessary. The time that would be spent in such a procedure would be more profitably employed in at once carrying out the wishes of the medical staff, who are most conversant with what is called for, and whose position entitles them to be the advisers of the board of management.

BRITISH ASSOCIATION IN ABERDEEN.

EVERYTHING seems to be in train to lead up to a successful meeting of this Association. The local secretaries and committees have pushed forward their work vigorously, and they have received the cordial co-operation of the inhabitants of the city, and that of the scientific societies of the north-east of Scotland. The meeting begins on Wednesday, September 9th, and ends on Thursday, the 17th. Sir Lyon Playfair, the President, will give his inaugural address on the evening of the 9th, while the two other evening meetings will be addressed by Professor W. Grylls Adams, on "The Electric Light and Atmospheric Absorption," and Mr. John Murray, the Director of the *Challenger* Expedition Commission, who will give a discourse on "The Great Ocean-Basins." Two *conversazioni* will be held on the evenings of the 10th and 15th. Besides the attractions of Aberdeen, excursions have been arranged to the most interesting scenery in the district. The Queen has been graciously pleased to grant permission for an excursion-party visiting Balmoral, her Highland home; while, as already intimated in this JOURNAL, Colonel Farquharson, of Invercauld, the Earl of Aberdeen, Wm. Cunliffe Brooks, Esq., M.P., and Alexander Irvine, Esq., of Drum, have invited members of the Association to visit their estates, and, no doubt, a true Highland welcome will await the guests. There will be some special exhibitions, including a display of the local products, geological, zoological, and botanical; while, under the auspices of the Scottish Geographical Society, there will be a loan-collection of maps, itineraries, plans, and views relating to Scotland. The Earl of Crawford and Balcarres will

place at the disposal of the Local Entertainment Committee, for the purposes of exhibition, a selection from his library, of MSS., printed books, illustrative of block-printing and early typography (1450-1478). Amongst the MSS. are the Colonna MS. (1410-23), Lydgate Troy (1425), and copies of the Sarum Missal. The total value of the MS. and books exhibited by his lordship will be about £25,000. The University authorities will also exhibit many interesting volumes and MSS., while private collectors will supply their quota. Add to all this the liberal hospitality of the Granite City, and we may look forward to a thoroughly successful meeting in September.

IRELAND.

CITY OF DUBLIN HOSPITAL.

THE Board of this institution have, in consequence of the want of sufficient funds, been obliged to close a large number of the beds. A bazaar, under influential patronage, will shortly be held in aid of the hospital.

HEALTH OF BELFAST.

DURING the five weeks ending the 25th ult., 151 deaths from zymotic diseases were registered, which included 104 from measles. The total births amounted to 736, and the deaths to 561, or a rate of 26.6 per 1,000. The death-rate was much below that of the month previous, but was still in excess of the average, especially in the deaths from measles and chest-affections.

THE GRADUATES' ASSOCIATION OF THE ROYAL UNIVERSITY OF IRELAND.

THIS Association has been formed to promote the movement which has for its object the placing of the University on a wide and liberal basis, by increasing the freedom and the responsibility of the assembly of graduates. It is sought to obtain for the graduates of the Royal University complete equality, as to all rights and privileges, with the graduates of other universities in Great Britain and Ireland. The adoption of such a policy, it is believed, will secure for education, in so far as it will be effected by the University, and for the University itself, the advantages of an abiding interest in their regard of the large number of educated men who are, or will become, members of the University; and will secure for graduates the opening of a field for public effort in regard to one of the most important questions which can affect society. Dr. Knight is the honorary secretary for Dublin, to whom, and to the other honorary secretaries in England, Ireland, and Scotland, applications should be addressed from graduates and undergraduates desirous of joining the Association.

HEALTH OF IRELAND: QUARTERLY REPORT.

IN the quarter ended June 30th, there were registered in Ireland 30,928 births, or a rate of 25.1 per 1,000; and 25,261 deaths, or 20.5 per 1,000. The birth-rate was under the average, and the death-rate above, for the corresponding quarter of the five previous years. The mortality from the principal zymotic diseases was somewhat above the average, measles being remarkably prevalent in Belfast and in Dublin during the quarter. Small-pox caused four deaths, the only fatal cases recorded in Ireland since the second quarter of last year. Deaths from measles numbered 704, and in seven unions 667 deaths, or 94.7 per cent. of the total mortality, occurred from this cause. Scarlet fever caused 293 deaths; typhus, 169, a number much below the average; whooping-cough, 339; diarrhoea, 263; and cerebro-spinal fever caused 29 deaths in Dublin. Two deaths were due to hydrophobia. There were 494 inquests held, a number equal to 1 in every 51 of the total deaths registered.

MEDICAL EXAMINATIONS IN THE UNIVERSITY OF KIEFF.—The *Russki Courier* says that the Council of the University of Kieff has requested the Teaching Administration to permit the examinations for Doctor of Medicine, instead of being conducted in all subjects simultaneously, to be taken in four groups.

CHOLERA.

THE REPORT OF THE BRITISH CHOLERA COMMISSION IN INDIA.

WHEN Drs. Klein and Gibbs were sent to India last year, we stated (BRITISH MEDICAL JOURNAL, vol. ii, 1884, p. 872) that the India Office proposed to submit their report to a committee appointed by the Secretary of State for India in Council, for consideration. We learn that this intention has been carried out, and that the report has been discussed by a Committee which assembled on July 17th. The members of the Committee were Sir William Jenner, Bart.; Sir William Gull, Bart.; Sir Joseph Fayrer, Sir Guyer Hunter, Sir W. R. E. Smart, R.N.; Professor Burdon Sanderson, Professor De Chaumont, Professor Aitkin, Deputy Surgeon-General Jeffery Marston, Dr. Norman Chevers, Inspector-General Macpherson, Dr. John Sutherland, and Dr. Timothy Lewis. Sir William Jenner was elected Chairman, and Dr. Lewis Secretary. We understand that a report has been drawn up, and, together with several appendices, will shortly be made public. The Government of India are making arrangements to have further investigations of a varied character, as to the essential cause of cholera, continuously conducted in India, under the direction of Dr. Douglas Cunningham. As the Commission sent out under the direction of Prof. Burdon Sanderson, by the Association for the Advancement of Medicine by Research, is now at work in the cholera-infected districts of Spain, the contributions made by this country to the question, though somewhat tardy in their arrival, are likely to be important.

ABERDEEN: PRECAUTIONS AGAINST CHOLERA.

THE medical officer of health, Dr. Simpson, has submitted to the Health Committee a report with special reference to the precautions which should be taken against cholera. Of course, the first condition is a proper sanitary condition of the people and the town, and with a view to meet this end, he proposes that all the courts and the closes in the city should be properly paved, whereby a thorough flushing and cleansing of these nooks and crannies may be effected. He advocates the entire abolition of cow-byres and pig-styes from the city. These precautions, combined with proper personal cleanliness, will do much to lessen the chances of a cholera-epidemic in the city.

REPORT OF THE ACADEMY OF MEDICINE OF MADRID ON DR. FERRAN'S SYSTEM.

THE decision of the Academy of Medicine upon the system of Ferran, recently made public, differs very little from that of the Scientific Commission at Valencia (See JOURNAL, July 4th, p. 33).

1. The Academy quite agrees with the Commission which went to Valencia in declaring that the epidemic, which commenced in the eastern provinces, and which has afterwards extended to other provinces, is positively Asiatic cholera. 2. With respect to whether the epidemic be more contagious than infectious, as the Commission affirmed, or if it be infectious and not contagious, as maintained by Señor San Martín in his separate note, the Academy limits itself to say, that the illness of which it treats is transmissible from the infected points to healthy ones. 3. The Academy accepts the fact that the inoculating fluid of Ferran contains comma-bacilli, as observed and confirmed by the Commission; but it adds that the strength of the fluid varies according to the cultivation and preparation, that is to say, that an equal quantity of the fluid may contain a greater or less number of bacilli. 4. The Academy cannot admit, without restriction, that inoculation is inoffensive, as affirmed by the Commission; for it is not easy to state definitely that, supposing an artificial cholera to be produced, it shall not cause some risk to places not attacked, and on account of individual idiosyncrasy, or on account of the decomposition of the fluids employed, or from other causes, the inoculated persons may suffer some injury. 5. The Academy, not having any exact and reliable statistics, is unable to report that the process is efficacious. 6. The Academy does not find any legal reason or motive why they should oppose inoculations under the responsibility of Dr. Ferran, believing that it is well to inform the public of the doubts which surround the scientific facts, and the effects of the inoculation on those who suffer it. 7. The Academy can neither recommend or defend the proceeding while there is any secret in it, or whilst experience has not proved its efficacy.

THE CHOLERA IN SPAIN.

OUR correspondent wrote from Valencia, at the end of July:

Since my last communication, there has been a singularly rapid decrease of cholera in this city, and in a number of the towns and villages of the province that suffered most severely; in others, it

hangs on persistently; while in others, recently invaded, it seems to have acquired greater virulence and force, radiating all through the contiguous provinces, and bringing a greater proportion of deaths than has yet occurred. I have letters before me from the provinces and some of the towns of Saragossa, Cuenca, and Soria which are simply full of "lamentation, mourning, and woe." They have been seized when quite unprepared: a general panic is the result, and numbers of places have been left without medical men or apothecaries, and all others that could escape have done so, and many of these have been tripped up by the avenger in their place of refuge. This has occurred to a large wealthy family among my own patients; indeed, it was a double family, as the father-in-law and two daughters went with them, eleven persons in all. They fled to a place in the hills called Villar de Arzobispo; every one was smitten; and the chief, my special patient, his two sisters-in-law, and servant, were cut down in from four to six hours. In a town of Soria, called Montegudo, 150 were attacked in one day, and every one died. In another place, all the members of the municipality were cut off except the alcalde; in fact, the daily accounts from the inland provinces and towns are appalling. The poverty of these people, in such a rich fertile country as this, is incredible. Yesterday, too, the first note of alarm has been sounded from Barcelona, and no doubt we shall hear more than we wish for from that great city.

My fears about the descent of cholera into the southern provinces have been sadly realised, and it is marching with strides through Orihuela (the garden of Spain) and its towns; and also into Andalusia and its cities and towns—Malaga, Cadiz, etc. I have a letter from Regena, a town on the borders of New Castile, of 1,500 inhabitants, denouncing in the strongest terms numbers of the better classes for their cowardice in fleeing from the place at its first onset. Amongst the number are the deputy of the province, five medical men, two apothecaries, all the lawyers, and most of the merchants. The Governor has sent to the Medical Institute here a communication, asking for medical volunteers to go to the infected towns, to be well paid by the State, but not one name has been enrolled. Amongst other measures taken here, the city has been divided into eleven districts, and a house has been selected in each, over which waves a yellow flag with the name and number of the district, and a large lamp, also numbered. The house is open day and night, with a staff of bearers and policemen, ready for any emergency, and instructed to register all who are seized in the district. Every day, rations of food are served out to the poor in these "Casas de Socorro," which have been established rather late, as the number of cases is not one-tenth so high as ten days ago. I earnestly hope that it may go on decreasing to final disappearance in the next week. The papers state that cattle of all kinds have refused to drink their accustomed water at Aranjuez from the Tagus; and that the wild bulls, bred for the bull-ring by the Duke de Veragua on his estate, lying between the Tagus and Jarama, will not touch the water from these rivers, or go near them, but wander a long way off to slake their thirst in the mountains.

I have as yet seen nothing of the English Cholera Commission; they have many splendid fields open for their researches. I trust they may come here.

Our correspondent writes from Valencia, under date August 6th, 1885: Since my last, the decrease in the cholera-mortality in this city and province is remarkable, and yet not owing to any special sanitary zeal on the part of the powers that be. Great good has been done by the conjoint action of all the well-to-do classes in daily supplying with food the great crowds of abjects, who flock in hundreds to the offices of the district over which floats a great yellow flag. The governor has been most active in visiting all the towns severely stricken, and the chief alcalde has visited all the public institutions belonging to the city. While most thankful for the rapid decline of cholera throughout this city and province, we have to lament its rapid spread in every other direction, and its sad havoc everywhere. Towns and villages, that thought they could keep themselves free by self-imposed "acordonamientos" and "lazarettos," have been scourged to so great extent, as to strike such a panic among the inhabitants that the well-to-do, the municipal officers and medical men fled, leaving only the poor and starving to battle with the awful foe. The Madrid government, seeing the folly of the "cordon and lazaretto" systems, ordered the governors of all the provinces to have them at once removed; but several have resisted the order, and among them those of Seville, Malaga, and Cartagena. These officers have been deposed, and others appointed who are trying to carry out the orders; but I fear it will lead to a political disturbance. In the gaol of Cartagena alone from 250 to 300 prisoners were struck down with the disease in three days, the bulk of these dying in a few hours. Hence the consternation among the other prisoners has produced a

great disturbance, and the Government had to send more troops to prevent a furious outburst.

I hear that we have, as yet, seen only the beginning of the attack of the disease in the south and west provinces; but I have been much surprised at its gaining a footing in so isolated a city as Madrid, situated as it is on a plateau of sand 2,900 feet above the sea-level, with a better fall for drainage than Edinburgh possesses. The purity of its water, moreover, is believed to be unequalled, and each house has its own supply direct from the fountains in the various parts of the city, all being from one source in the Guadarama mountains.

The following is the official list of the number of cases and deaths in Spain since the commencement of the present epidemic, up to July 31st.

	Cases.	Deaths.		Cases.	Deaths.
Valencia...	30,494	12,040	Cuenca	2,481	780
Murcia	14,967	4,219	Tarragona ..	2,857	594
Zaragoza ..	12,711	3,028	Albacete	2,076	515
Castellon ..	9,461	2,890	Juén	1,410	449
Alicante .. .	9,187	2,704	Badajoz	930	268
Toledo .. .	4,708	1,271	Segovia	482	275
Ternel .. .	4,663	1,001	Córdoba .. .	449	87
Madrid .. .	4,058	1,353	Zamora .. .	202	41
Granada .. .	3,109	1,020			

There must be added to these figures the cases and deaths in a number of towns and provinces which do not appear in the official list; these amount to 1,965 cases and 598 deaths, making a grand total of 114,740 cases, and 33,973 deaths.

The paper from which I take this severely remarks that "these are official figures; and, as we have said before, they ought to be much increased, so as to arrive at an approximate calculation, seeing that great numbers of deaths from cholera have been kept secret or withheld, and others have been placed as ordinary deaths."

The Ferran inoculation question is dying a cruel death for the "inventor." Dr. Ferran, after several conferences with the Prime and other Ministers, challenged the Government that, if it would name three towns, one being free from cholera, another where it had just set in, and the third where it was rife, he would prevent its entry into the first, expel it from the second, and stay it in the third. The first place selected was Don Benito, a small town of 5,000 inhabitants, in the province of Badajoz. His reply was that the town was too large, and refused to go. They next selected three towns in the province of Zaragoza—Hijar, Puebla de Híjar, and Albalet—containing each from 1,500 to 3,000 inhabitants. He started on his mission, and arrived at the first named, and the Alcalde at once sent the drum and bell round to announce to all who wished to be kept from cholera to come and be inoculated gratis. After six hours' waiting, not one person appeared. The same took place at the other two towns, and Dr. Ferran and his assistant were compelled to return to Madrid; to-day I see the Government have allowed him to select as his centre for future experiments Denia, in the province of Alicante, the centre of the raisin-growing and exporting district, and a few hours from this. In the meantime, there are cases by scores reported in the non-Ferranist papers, of deaths occurring after inoculation and re-inoculation, with names, and one case in Catarroja where a man had cholera and got over it; after that he was inoculated, and, about three weeks afterwards, died of a second attack of cholera. There is a well known apothecary here who had his daughter inoculated four times; she also died of cholera. I could weary your readers with such cases. The weather is delightful: moist heat; temperature, maximum in the shade, 82° Fahr., minimum, 76° Fahr.; black bulb at noon, south-west exposure, 110° Fahr.

CHOLERA IN MARSEILLES: UNSANITARY CONDITIONS.

How largely the prevalence of cholera at Marseilles is favoured by the unsanitary conditions that still prevail in that city, notwithstanding the warning voice of 1884, is clearly shown by a correspondent of the *Times*, who has recently visited every centre of infection, and who states that urgent sanitary measures necessary to prevent the return of cholera have been totally neglected. Big schemes for the drainage of Marseilles were, he says, prepared while the fear caused by the epidemic still prevailed; but financial means were wanting, and "doctors, it is said, disagreed as to what should be the method of drainage employed." The scheme before the authorities last winter only provides a main sewer to receive what now goes into the port, and convey it to the sea. This alone, it seems, will involve an outlay of £48,000, and still leaves the majority of the streets without sewers. The French Government, we are informed, has just made a grant of £24,000 for the construction of a system of drains, a sum only half sufficient for the main sewer alone. A Commission, officially instituted for the inspection of insalubrious

dwelling, has practically never commenced operations, and has left no trace of its presence. In the better class houses, the overflow from the cistern communicates directly with the soil-pipes. The danger of contaminating the drinking-water by these pipes is acknowledged, and has been brought to the notice of some members of the Commission, yet nothing has been done. The pail-system exists in many quarters, but needs extension to all houses that have no closets.

"When it was known that the cholera had definitely returned to Marseilles, the Minister of Commerce, M. Pierre Legrand, and the President of the French Commission of Hygiene, Dr. Brouardel, at once hastened to the scene of infection. M. Pierre Legrand was so deeply impressed with the horrors of the place, that he expressed his wonder at anyone living there 'unless he had been condemned to death.'"

The block of buildings in question are, it is stated, situated at No. 81, Rue de la Rive Neuve, and are divided into 140 small tenements, occupied for the most part by the poorest Italian labourers. Each apartment consists of two very small rooms, and there are no closets whatsoever throughout the whole building. Under the main entrance, a wooden door opens into the wall, and behind this door there is a sort of shoot. Here every morning may be seen a long file of inhabitants coming with receptacles of various dimensions to empty away the filth they have been compelled to keep in their small apartments all the previous day and night.

The Commissioner, continuing, says: "Immediately in front of this building is the old port, into which the shoot is drained. The Canal de la Douane passes by one side of this *cité ouvrière*, while the other sides are covered with large structures that exclude air and light. Taking the average of the last seven years, 5,618 cubic metres of heavy sewage-deposit was dredged out of the canal annually, though it measures but a few hundred feet in length, and 73,424 cubic metres from the old port. The water is black, its surface covered with bubbles of sulphuretted hydrogen, and the surrounding atmosphere poisonous. Yet this is the only air supplied to the 140 overcrowded tenements situated at the angle formed by the canal and the old port."

"Many similar instances could be given," says the *Times* correspondent; "but this one, now brought within the cognisance of the Minister of Commerce, will suffice to show how much the authorities are at fault. The censure they merit is due not so much to their failure in at once carrying out some costly and sweeping scheme of sanitary reform, but to the carelessness, the indifference, the inability displayed with regard to those measures of detail affecting for the most part the interior of dwellings, and which could have been applied without increasing the strength of the law as it now stands, or materially augmenting the financial resources of the municipality."

The Sicilians are already beginning to demand the application of the excessive quarantine regulations put in force in that island last year.

Four cases of cholera, one of which proved fatal, are said to have occurred on board a British steamer while undergoing quarantine at Mers-el-Kebir.

The Exchange Committee at Gibraltar is urging the Governor to establish an English cordon, fearing that otherwise infection may be imported from the Spanish lines.

THE ACADEMY OF MEDICINE OF LIMA.—A report has been presented to the Free Academy of Medicine of Lima, Peru, by Dr. Villar, from the commission which had been appointed to investigate the cases of yellow fever in Callao.

DRY TREATMENT OF BURNS.—Dr. Géza Dulácska recommends that burns should be dressed with soda sprinkled on cotton-wool, bandaged to the wound. The pain may be severe for a short time, but it goes off in half an hour. In an hour the effect is quite perceptible, the reddened skin having regained its natural colour, and the pain being gone. In three days the epidermis comes away, leaving a healthy corium below, without pain or suppuration.

SOCIETY OF APOTHECARIES.—The following gentlemen have been elected members of the Court of Examiners of the Society of Apothecaries of London for the ensuing year, namely, Henry Bullock, F.R.C.S.; Henry R. Croker, M.D.Lond.; Robert Fowler, M.D.Edin.; F. De Havilland Hall, M.D.Lond.; Robert J. Lee, M.D.Camb.; W. Withers Moore, M.D.Edin.; John S. Stocker, M.D.Lond.; John C. Thorowgood, M.D.Lond.; Francis Warner, M.D.Lond.; Andrew Clark, F.R.C.S.; G. H. Makins, F.R.C.S.; W. J. Walsham, F.R.C.S.

INVESTIGATION OF THE ACTION OF MEDICINES.

At the meeting of the Section of Pharmacology and Therapeutics of the British Medical Association on Thursday, July 30th, a discussion took place on a proposal by Dr. Balthazar Foster, made through the Collective Investigation Committee, "That the Section should discuss New Remedies, and make a selection for further investigation in conjunction with the Collective Investigation Committee." Dr. Foster urged the establishment of a subcommittee to examine and report on the various new medicinal agents as they were brought to the notice of the profession, with a view to recommending their insertion in the *British Pharmacopœia*.

Mr. J. HANCOCKE WATHEN, in bringing this proposal before the members, explained that it had met with the approval of the President and general officers of the Association. The proposal of Dr. Foster had already been considered by the Section last year, and a Committee was appointed to go into the matter; but, as the members of the Committee had been chosen from the four cardinal points of the United Kingdom, no report had been made by them. In drawing up a programme for this Section, it occurred to him that the new American drugs should be tried and reported upon; but, on consideration, he feared there were too many of them. Dr. Murrell had suggested ergotinine and hamamelis virginica, and others had suggested antipyrine, kelyline, and paraldehyde, for examination and report.

Dr. FRASER expressed grave doubts as to whether the formation of this subcommittee would be attended with the benefit that was anticipated; and, if it were the opinion of the Section that such was desirable, the question arose as to whether the above were the proper drugs to occupy the consideration of the practitioners of the country.

Dr. ISAMBARD OWEN said that further explanation was rendered unnecessary by the clearness of the proposition as laid before them. One remark, however, he considered it necessary to make as Secretary of the Investigation Committee, and it was that it had never been the intention of the promoters of this committee for it to form a little society apart—we only wished it to be a committee which should be doing the work of the Association; and about twelve months ago the Investigation Committee formulated their opinion that the subject matter of their inquiries should be drawn from the discussions in the various Branches, and the members of the various Branches were to be asked to give rise to such investigations, indicating at the same time the best manner in which they could be carried out. This proposal, however, extended that principle of the first promoters a little further, and it endeavoured to provide that the inquiries should take their origin in the discussions in the various sections. On the previous morning the members of the Committee in Cardiff met the President and officers of the Section to discuss not only this proposal, but also a similar proposal of Professor Humphry that this principle shall be extended to all the sections, and it was unanimously resolved to approve the principle proposed by Professor Humphry, and to suggest its adoption in the Therapeutic Section to begin with. He spoke, therefore, not only on the part of the committee, but for a good many of the presidents and officers of this institution. It was of course an experiment, for therapeutic enquiries were among the most difficult that could possibly be undertaken; but if the most difficult they are the most urgently required, and in the meetings of the branches which he had attended since he became Secretary of the Committee, there was a general opinion that the Committee should undertake some enquiries into therapeutic subjects.

Dr. KERR proposed that the Therapeutic Section should co-operate, and this proposition was seconded by Mr. Talfourd Jones, who said that of course outside members would be unable to carry out these enquiries in the way Dr. Fraser had done; but still they could always watch the results on their patients. He thought it would be desirable to confine their attention to two or three remedies; and remarked that he doubted very much whether ergotinine was worth including in the list, and thought ergot itself might be preferable.

Dr. Murrell, Dr. Talfourd Jones, Mr. Hancocke Wathen, and Mr. Evan Jones were proposed and agreed to as members of the sub-Committee, which it is intended shall co-operate with the Collective Investigation Committee.

MEDICINE IN RUSSIA.—Dr. J. Lazarewitch, Professor of Midwifery and Gynecology in the University of Kharkoff, has been raised to the dignity of Emeritus Professor. Dr. Kusmin, formerly assistant to Professor Sklifasovsky both in St. Petersburg and Moscow, has been appointed Professor of the Hospital Clinic in the latter city. He has acted as editor of the *Annals of the Surgical Society of Moscow*.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PURPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the *JOURNAL* of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the *JOURNAL* of May 9th. Replies are requested on the schedule issued with the *JOURNAL* of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.

—J. MAITLAND, M.B., Honorary Secretary, Madras.

PROCEEDINGS OF COUNCIL MEETING.

At a meeting of the Council for 1884-85, held in the Council Chamber, Town Hall, Cardiff, on Tuesday, July 28th, 1885; present,

Dr. BALTHAZAR FOSTER, President of the Council, in the Chair,	Dr. W. C. Griggs, London
Dr. James Cumming, Belfast, President	Mr. W. D. Husband, Bournemouth
Dr. W. T. Edwards, Cardiff, President-elect	Mr. A. Jackson, Sheffield
Mr. C. Macnamara, London, Treasurer	Dr. W. G. V. Lush, Weymouth
Mr. J. Wright Baker, Derby	Dr. W. W. Moore, Brighton
Dr. A. H. Bampton, Plymouth	Mr. J. Prankerd, Bath
Dr. T. Bridgwater, Harrow	Dr. A. Sheen, Cardiff
Dr. C. Chadwick, Tunbridge Wells	Dr. E. M. Skerritt, Clifton
Surgeon-General W. R. Cornish, Madras	Dr. A. Strange, Shrewsbury
Dr. J. Ward Cousins, Southsea	Mr. T. Simpson, Lincoln
Mr. J. Dix, Hull	Dr. T. W. Trend, Southampton
	Dr. E. Waters, Chester
	Mr. C. G. Wheelhouse, Leeds

The minutes of the last meeting having been printed and circulated, and no objection raised, they were signed as correct.

Read letters of apology for non-attendance from Dr. Mackenzie Booth, Dr. Barnes (Carlisle), Dr. Langdon Down, Dr. Bruce Goff, Dr. C. E. Glascott, Mr. T. R. Jessop, and Mr. Frederick Mason.

Read letter from Dr. Darbyshire, of Oxford, of which the following is a copy:

"40, High Street, Oxford, July 15th, 1885.
"To the Secretary of the British Medical Association.

"Sir,—At a meeting of medical men, held at the Radcliffe Infirmary, on the 23rd June, it was decided to apply to the central Council for leave to found a Branch Association, for Oxford and the neighbouring district, and the enclosed by-laws were agreed upon.

"I should be obliged if you would lay our request before the proper quarter, in order that we may consider the establishment of the Branch allowed.

"We have more than 50 members already.—Believe me, yours sincerely,

"S. D. DARBYSHIRE, M.D."

The by-laws of the proposed Branch were also laid before the Council.

Resolved: "That the laws of the Oxford and neighbouring District Branch, as now submitted, be approved; that the Branch be recognised; and that the Secretary be requested to send in, as early as possible, in accordance with the previous resolution of the Council, a definition of its area."

Resolved: "That the Minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations carried into effect."

Resolved: "That the 103 candidates whose names appear on the circular convening the meeting be elected members of the Association."

Resolved: "That the report of the Scientific Grants Committee, which had been printed and circulated, be received, so as to make two resolutions alike."

Resolved: "That the Report of the Parliamentary Bills Committee (which had been printed and circulated amongst the members of the Council) be received."

Resolved: "That, in accordance with the request of Dr. Elliston, the name of Mr. George Simpson be inserted in the annual report in the obituary."

Resolved: "That the Report of the Subcommittee appointed to inquire into the relation borne by the Collective Investigation Committee to the Council be received, and that the Secretary be requested to circulate it among the members prior to the October meeting."

At a meeting of the Council for 1885-6, held in the Council Chamber, Town Hall, Cardiff, July 29th, 1885; present,

Dr. BALTHAZAR FOSTER, President of the Council, in the Chair,

Dr. W. T. Edwards, Cardiff, President	Mr. A. Jackson, Sheffield
Mr. C. Macnamara, London, Treasurer	Mr. T. V. Jackson, Wolverhampton
Mr. J. Wright Baker, Derby	Mr. H. R. Ker, Halesowen
Dr. T. Bridgwater, Harrow	Dr. W. G. V. Lush, Weymouth
Dr. C. Chadwick, Tunbridge Wells	Dr. W. Withers Moore, Brighton
Surgeon-General W. R. Cornish, Madras	Mr. Jones Morris, Portmadoc
Dr. J. Ward Cousins, Southsea	Dr. J. C. Phillippo, Jamaica
Dr. James Cumming, Belfast	Mr. J. Prankerd, Bath
Dr. G. W. Crowe, Worcester	Dr. A. Sheen, Cardiff
Dr. A. Davidson, Liverpool	Mr. Septimus W. Sibley, London
Dr. A. Dempsey, Belfast	Dr. E. M. Skerritt, Clifton
Mr. J. Dix, Hull	Dr. A. Strange, Shrewsbury
Dr. G. F. Duffey, Dublin	Dr. W. Strange, Worcester
Dr. W. C. Griggs, London	Mr. T. Simpson, Lincoln
Mr. W. D. Husband, Bournemouth	Mr. F. Wallace, London
	Dr. E. Waters, Chester
	Mr. C. G. Wheelhouse, Leeds

The President of Council reported that the gentlemen whose names are as follows, together with the President of the Council, the President-elect, the Treasurer, and the Vice-Presidents, constitute the Council for 1885-6.

Aberdeen, Banff, and Kincardine Branch.—No return. *Bath and Bristol Branch.*—Mr. F. Mason, Bath; Dr. E. Markham Skerritt, Clifton, Bristol. *Birmingham and Midland Counties Branch.*—Mr. Hugh R. Ker, Halesowen; Dr. A. H. Carter, Birmingham. *Border Counties Branch.*—Dr. Henry Barnes, Carlisle. *Cambridge and Huntingdon Branch.*—Dr. Bushell Annington, Cambridge. *Dorset and West Hants Branch.*—Dr. W. G. Vawdrey Lush, Weymouth. *Dublin Branch.*—Dr. George F. Duffey, Dublin. *East Anglian Branch.*—Mr. T. W. Crosse, Norwich; Dr. W. A. Elliston, Ipswich. *East York and North Lincoln Branch.*—Mr. J. Dix, Hull. *Edinburgh Branch.*—Mr. J. Chieene, Edinburgh. *Glasgow and West of Scotland Branch.*—No return. *Gloucestershire Branch.*—Dr. F. Needham, Gloucester. *Jamaica Branch.*—Dr. J. C. Phillippo. *Lancashire and Cheshire Branch.*—Dr. G. B. Barron, Southport; Dr. A. Davidson, Liverpool; Dr. C. E. Glascott, Manchester; Dr. D. J. Leech, Manchester; Mr. James Taylor, Chester. *Metropolitan Counties Branch.*—Mr. Thomas Bridgwater, Harrow; Mr. H. T. Butlin, Queen Anne Street; Dr. W. Chapman Grigg, Curzon Street; Mr. Septimus W. Sibley, Harley Street; Mr. Frederick Wallace, Upper Clapton. *Midland Branch.*—Mr. J. Wright Baker, Derby; Mr. T. Simpson, Lincoln. *Northern Counties of Scotland Branch.*—Dr. D. Macintyre, Fort William, Inverness-shire. *North of England Branch.*—Dr. David Drummond, Newcastle-on-Tyne; Dr. G. H. Philipson, Newcastle-on-Tyne. *North of Ireland Branch.*—Dr. A. Dempsey, Belfast; Dr. J. Moore, Belfast. *North Wales Branch.*—Mr. W. Jones Morris, Portmadoc. *Reading Branch.*—Mr. W. B. Young, Reading. *Shropshire and Mid-Wales Branch.*—Dr. A. Strange, Bicton Heath, Shrewsbury. *Southern Branch.*—Dr. J. Ward Cousins, Southsea; Dr. Theophilus W. Trend, Southampton. *South of Ireland Branch.*—No return. *South-Eastern Branch.*—Dr. C. Holman, Reigate; Mr. G. F. Holdson, Brighton; Dr. C. Parsons, Dover. *South Indian and Madras Branch.*—Surgeon-General Cornish, Oriental Club, Hanover Square. *South Midland Branch.*—Dr. J. Bryan, Northampton. *South Wales and Monmouthshire Branch.*—Dr. A. Sheen, Cardiff. *South-Western Branch.*—Dr. P. M. Deas, Exeter. *Staffordshire Branch.*—Mr. T. Vincent Jackson, Wolverhampton. *Thames Valley Branch.*—Dr. J. Langdon H. Down, Harley Street. *West of Ireland Branch.*—No return. *West Somerset Branch.*—Mr. J. Prankerd, Bath. *Worcestershire and Herefordshire Branch.*—Dr. G. W. Crowe, Worcester. *Yorkshire Branch.*—Mr. A. Jackson, Sheffield; Mr. T. R. Jessop, Leeds.

Read Minute 1082 of the Council referring to the invitation to Brighton. Dr. Withers Moore, representing the profession of Brighton and the South-Eastern Branch of the Association, cordially invited the Association to hold the Annual Meeting of 1886 at Brighton.

Resolved: "That it be recommended to the General Meeting of to-day, that the invitation from the medical profession and Corporation of Brighton to hold the Annual Meeting of the Association there in 1886 be accepted, and that Dr. Withers Moore be appointed President Elect."

At a meeting of the Council for 1885-6, held in the Council Chamber, Town Hall, Cardiff, July 30th, 1885; present,

Dr. BALTHAZAR FOSTER, President of the Council, in the Chair,	Mr. T. V. Jackson, Wolverhampton
Dr. W. T. Edwards, Cardiff, President	Mr. H. Ker, Halesowen
Dr. W. Withers Moore, Brighton, President-elect	Dr. W. G. V. Lush, Weymouth
Mr. C. Macnamara, London, Treasurer	Mr. Jones Morris, Portmadoc
Dr. T. Bridgwater, Harrow	Dr. F. Needham, Gloucester
Dr. C. Chadwick, Tunbridge Wells	Dr. C. Parsons, Dover
Dr. J. Ward Cousins, Southsea	Dr. J. C. Phillippo, Jamaica
Dr. G. W. Crowe, Worcester	Dr. A. Sheen, Cardiff
Surgeon-General W. R. Cornish, Madras	Mr. S. W. Sibley, London
Dr. A. Davidson, Liverpool	Dr. E. M. Skerritt, Clifton
Mr. J. Dix, Hull	Dr. A. Strange, Shrewsbury
Dr. G. F. Duffey, Dublin	Dr. W. Strange, Worcester
Dr. W. C. Griggs, London	Mr. T. Simpson, Lincoln
Mr. W. D. Husband, Bournemouth	Dr. T. W. Trend, Southampton
Mr. A. Jackson, Sheffield	Mr. F. Wallace, London
	Dr. E. Waters, Chester
	Mr. C. G. Wheelhouse, Leeds

The minutes of the last and previous meeting were read, and found correct.

Read report of attendances of members of Council for the past twelve months.

Resolved: That the report of attendances, which appears in the Daily Journal of to-day, be received and entered on the minutes.

List of Attendances of Council and Committees, up to and including Meeting of July 28th, 1885.

(The letter R. means Representative of a Branch.)

NAME	Council Meetings Held (C)	Number of Times Summoned inclusive of Committees, etc.	Number of Total Attendances.
Dr. B. Foster, Birmingham, President of Council	20	25	
Mr. C. Macnamara, London, Treasurer	27	23	
Dr. T. Bridgwater, Harrow, R.	14	12	
Dr. J. Ward Cousins, Southsea, R.	18	14	
Dr. W. C. Grigg, London, R.	21	20	
Dr. W. G. V. Lush, Weymouth, R.	7	7	
Dr. W. W. Moore, Brighton, R.	7	7	
Mr. T. Simpson, Lincoln, R.	12	11	
Dr. T. W. Trend, Southampton, R.	7	7	
Dr. A. Carpenter, Croydon, Vice-President	6	10	10
Dr. E. Waters, Chester, Vice-President	6	9	7
Mr. C. G. Wheelhouse, Leeds, Vice-President	6	25	21
Dr. A. H. Carter, Birmingham, R.	5	7	5
Mr. T. R. Jessop, Leeds, R.	5	7	5
Mr. F. Mason, Bath, R.	5	12	10
Dr. C. Parsons, Dover, R.	5	15	11
Mr. J. Taylor, Chester, R.	5	7	5
Dr. C. Chadwick, Tunbridge Wells, Vice-President	5	15	13
Mr. J. Dix, Hull, R.	6	7	5
Dr. A. Sheen, Cardiff, R.	5	16	9
Dr. E. M. Skeritt, Clifton, R.	5	7	5
Dr. M. M. de Bartolomé, Sheffield, Vice-President	4	13	10
Dr. G. W. Crowe, Worcester, R.	4	8	4
Dr. P. M. Deas, Exeter, R.	4	8	4
Dr. A. Davidson, Liverpool, R.	4	9	5
Dr. C. E. Glascock, Liverpool, R.	4	7	4
Dr. Bruce Goff, Bothwell, R.	4	14	6
Dr. C. Holman, Reigate, R.	4	17	10
Dr. T. Eyton Jones, Wrexham, R.	4	9	4
Dr. D. J. Leech, Manchester, R.	4	11	7
Mr. S. W. Sibley, London, R.	4	9	5
Mr. A. Jackson, Sheffield, R.	4	9	4
Dr. A. Strange, Shrewsbury, R.	4	7	4
Dr. B. Annington, Cambridge, R.	3	7	3
Dr. H. Barnes, Carlisle, R.	3	7	3
Dr. G. F. Duffey, Dublin, R.	3	7	3
Dr. W. A. Elliston, Ipswich, R.	3	13	4
Mr. J. W. Baker, Derby, R.	3	7	3
Dr. J. Cumming (President), Belfast	3	19	3
Dr. W. T. Edwards (President-Elect), Cardiff	3	21	5
Dr. W. Strange, Worcester, Vice-President	2	13	4
Dr. G. B. Barron, Southampton, R.	2	7	2
Mr. T. W. Crosse, Norwich, R.	2	9	3
Dr. D. Drummond, Newcastle-on-Tyne, R.	2	7	2
Professor G. M. Humphry, Cambridge, Vice-President	2	9	2
Mr. T. V. Jackson, Wolverhampton, R.	2	9	2
Dr. G. H. Philipson, Newcastle-on-Tyne, R.	2	7	2
Dr. A. H. Bampton, Plymouth, R.	2	7	2
Dr. J. Bryan, Northampton, R.	2	9	2
Mr. W. D. Husband, Bournemouth, Vice-President	2	16	4
Mr. J. Pranker, Langport, R.	2	8	2
Mr. A. Baker, Birmingham, Vice-President	1	9	1
Dr. Dempsey, Belfast, R.	1	7	1
Dr. J. L. H. Down, London, R.	1	7	1
Dr. F. A. Mahomed, London (dead), R.	1	4	1
Dr. A. T. H. Waters, Liverpool, Vice-President	1	7	1
Sir H. W. Acland, Bart., F.R.S., Oxford, Vice-President	0	7	0
Mr. B. Barrow, Hyde, Vice-President	0	7	0
Dr. J. M'K. Booth, Aberdeen, R.	0	7	0
Sir G. Barrows, Bart., F.R.S., London, Vice-President	0	7	0
Mr. J. Ghene, Edinburgh, R.	0	7	0
Dr. A. Loché, Canterbury, Vice-President	0	7	0
Professor D. C. O'Connor, Cork, Vice-President	0	7	0
Professor G. E. Paget, F.R.S., Cambridge, Vice-President	0	7	0
Dr. W. F. Wade, Birmingham, Vice-President	0	7	0

The appointment of the Journal and Finance Committee, 1885-6, was considered.

The President of Council reported that the three retiring members were Mr. Husband, Mr. Wheelhouse, and Dr. Alfred Carpenter, and that Dr. Bartolomé and Dr. Wade had resigned.

Resolved: "That the 10 remaining members—Dr. Ward Cousins, Dr. Duffey, Dr. Bruce Goff, Dr. W. C. Grigg, Dr. C. Holman, Dr. D. J. Leech, Mr. F. Mason, Dr. Alfred Sheen, Dr. W. Strange, and Mr. T. Simpson—of the Journal and Finance Committee be re-appointed, with the *ex officio* members, namely, the President, the President-elect, the President of Council, and the Treasurer."

Several members of the Council having been nominated by the

Council, a ballot was taken. Mr. Husband and Surgeon-General Cornish were appointed scrutineers, and the five following members of the Council were declared to be elected: Mr. Sibley, Dr. Chadwick, Dr. Waters, Dr. Davidson, and Mr. Vincent Jackson.

The appointment of the Arrangement Committee was then considered, and it was

Resolved: "That the President, the President-elect, the President of Council, the Treasurer, Dr. Sheen, Dr. Crowe, Dr. Bridgwater, and Dr. Ward Cousins, together with eight members to be added by the local Reception Committee, be appointed the Arrangement Committee for the Annual Meeting at Brighton."

Resolved: "That the Trust Fund Committee be appointed as follows, viz.: the President, the President-elect, the President of the Council, the Treasurer, Dr. Chadwick, Dr. E. Waters, Mr. Husband, and Mr. Wheelhouse."

Resolved: "That the Scientific Grants Committee be appointed as follows, viz.: The President, President-elect, President of Council, Sir Joseph Lister, F.R.S., Mr. Alfred Baker, Dr. Ferrier, Dr. Michael Foster, F.R.S., Professor Gamgee, F.R.S., Professor Humphry, F.R.S., Dr. Klein, F.R.S., Sir James Paget, F.R.S., Professor Rutherford, F.R.S., Professor Burdon Sanderson, F.R.S., Professor Schäfer, F.R.S., Dr. Wilks, F.R.S., Mr. Butlin, Dr. Parsons, Mr. Sibley, Dr. A. Davidson, Mr. Arthur Jackson, Mr. Ernest Hart."

Resolved: "That the Medical Reform Committee be appointed as follows: the President, the President-elect, the President of Council, the Treasurer, Dr. E. Waters, Dr. Bartolomé, Dr. Alfred Carpenter, Dr. Chadwick, Rev. S. Haughton, F.R.S., Mr. Ernest Hart, Mr. Michael, Q.C., Dr. B. O'Connor, Dr. Heron Watson, Mr. Wheelhouse, Dr. Stokes, Dr. Bruce Goff, Mr. Hugh Ker."

Resolved: "That the Parliamentary Bills Committee be appointed of members whose names are as follows, namely: the President and the President-elect, *ex officio*; Dr. B. Foster, Birmingham, *President of Council*; Mr. C. Macnamara, *Treasurer*; Dr. H. Barnes; Mr. Ernest Hart; Mr. J. Wickham Barnes; Dr. Robert Barnes; Dr. J. W. Browne; Dr. J. C. Bucknill; Dr. A. Carpenter; Dr. G. W. Crowe; Dr. P. M. Deas; Dr. J. Langdon Down; Dr. W. C. Grigg; Mr. A. J. Harrison; Mr. Reginald Harrison; Dr. A. Henry; Dr. C. Holman; Mr. A. Jackson; Dr. A. Kidd; Dr. W. J. Mickie; Dr. D. Nicolson; Dr. W. Orange; Dr. Orton; Mr. O. Elias Owen; Dr. H. H. Phillips; Dr. Joseph Rogers; Mr. Septimus W. Sibley; Mr. W. D. Spanton; Dr. Strange; Mr. Henry Stear; Dr. Robert Tiffen; Mr. R. W. Watkins; Dr. E. Whittle; Dr. John Wight."

Resolved: "That the Premises Committee be appointed, namely, the President of the Council, the Treasurer; Dr. Bridgwater, Dr. Chadwick, Dr. Ward Cousins, Dr. W. C. Grigg, Mr. Vincent Jackson, Dr. Parsons, Mr. Wheelhouse, Mr. Dix, and Mr. Sibley."

Resolved: "That the gentlemen whose names are as follows be reappointed the Committee for Legal Restraint of Habitual Drunkards: The President and the President-elect, *ex officio*: Dr. Norman S. Kerr; Dr. B. Foster; Mr. D. Balding; Dr. R. W. Batten; Dr. G. F. Blandford; Mr. Harrison Branthwaite; Mr. William Cadge; Dr. C. Cameron, M.P.; Dr. Alfred Carpenter; Dr. W. Carter; Dr. C. R. Drysdale; Dr. J. W. Eastwood; Surgeon-Major G. J. H. Evatt; Dr. R. Farquharson, M.P.; Mr. W. C. Garman; Dr. J. Hill Gibson; Dr. Alexander Grant; Dr. C. J. Hare; Mr. Carsten Holthouse; Mr. Hugh R. Ker; Dr. H. Monro; Mr. G. W. Mould; Mr. R. H. B. Nicholson; Surgeon-Major G. K. Poole; Mr. J. Pranker; Mr. D. Valentine Rees; Dr. George Robertson; Fleet-Surgeon G. Robertson, R.N.; Dr. Joseph Rogers; Mr. A. B. Squire; Dr. G. D. P. Thomas; Mr. F. Vacher; Dr. A. Walker; Dr. H. W. Williams; Surgeon-General C. R. Francis; Dr. E. H. Vinen."

Resolved: "That the gentlemen whose names are as follows be appointed a Committee for the Consideration of Branch Organisation: Dr. J. Ward Cousins; Dr. J. Cumming; Dr. Langdon H. Down; Dr. B. Foster; Dr. W. C. Grigg; Mr. A. Jackson; Mr. T. V. Jackson; Dr. D. C. McVail; Dr. C. Parsons; Mr. C. G. Wheelhouse; Dr. Trend; and Surgeon-General Cornish."

Resolved: "That all committees be requested to report to the Council of the Association at each quarterly meeting of the Council."

Resolved: "That the best thanks of the Council be given to Mr. Husband for his long and valued labours on the Journal and Finance Committee."

NORTH OF ENGLAND BRANCH: ANNUAL MEETING.

The twenty-first annual meeting of this Branch was held in the Hexham Hydropathic Establishment on Thursday, July 16th; present, the retiring President (Dr. MUNRO) in the chair, the President-elect, Dr. Stainthorpe and about 22 members.

After thanking the members for the kindness he had received at their hands during his presidential year, Dr. Munro introduced Dr. STAINTHORPE, resigning the chair in his favour, when the latter delivered the presidential address.

President's Address.—Dr. STAINTHORPE, in the course of his interesting address, dealt with the great improvements, sanitary and otherwise, which had taken place during the past few years in Hexham. He then went on to consider the most marked advances made in medicine and surgery since he commenced to study medicine, a period of about 50 years.

Vote of Thanks.—On the motion of Mr. G. E. WILLIAMSON, seconded by Dr. LIMONT, a hearty vote of thanks was accorded to the President for his address.

Dr. ELLIS then proposed a vote of thanks to the retiring President, Dr. Munro, the Council of Management, and the other officers, for their valuable services during the past year. This resolution was seconded by Dr. LYON, and carried by acclamation.

Dr. MUNRO responded.

Report of Council.—The report of the Council of Management was read by the Secretary, Dr. Drummond, from which it appeared that, since the last annual meeting, the number of members had risen to 256, the largest total since the formation of the Branch; and that the finances were in a prosperous condition, the balance in the hands of the Treasurer amounting to £108.

The report was unanimously adopted on the motion of Dr. MIDDLEMISS, seconded by Dr. THOMAS WATSON.

Officers and Places of Meeting for the Year 1885-86.—The following resolution, proposed by Dr. DIXON, and seconded by Dr. MCKANE, was carried unanimously.

"That the next annual meeting be held at South Shields, the autumnal meeting at Saltburn, and the spring meeting at Roker; and that Dr. William Gowans be President-elect, Dr. David Drummond the Honorary Secretary, and Drs. Barron, Broadbent, Dixon, Eastwood, Fox, Middlemiss, Oliver, Philipson, and Williamson the Council of Management." Dr. Ellis referred to the large balance in the hands of the Treasurer, and asked to what use the Council intended to put it. The President, Dr. Ridley, and the Secretary made some remarks upon the subject, and it was decided to refer the matter to the Council of Management.

Dinner.—The members, with several guests, numbering about 30, afterwards dined together.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Victoria University Examinations.—Changes at Owens College.—*Central Medical Society.*—*Royal Infirmary.*—*The Medical Chronicle.*

THE July examinations of Victoria University, just brought to a conclusion, were noteworthy from the fact that they were the first at which candidates for the final M.B. examination presented themselves. The two successful candidates, Messrs. Clarke and Gordon, have the satisfaction of knowing that they are the first, and at the present time the only, graduates of medicine in Victoria University. Both gentlemen are old Owens College students. The final M.B. examination certainly does not err on the side of being too limited either in the range of subjects for examination, or in the expenditure of ink and paper in the examination-room, or in the practical part in the wards. Indeed, in the opinion of some of the examiners, a judicious cutting down in some of the departments would be advantageous, so as to lessen the somewhat inordinate length of the examination. The practical examinations were held at the Royal Infirmary and the laboratories of Owens College, and were mostly conducted by the external examiners, who included Drs. W. O. Priestley, Grainger Stewart, Payne, Stevenson, and Mr. Bellamy. This examination marks time in the history of the University, as showing that it is not only fully equipped, but has fairly started on what there is every reason to believe to be a long and honourable career.

At Owens College, change is the order of the day. To the regret of his many friends in Manchester, Dr. A. Gamgee has resigned his professorship and his physiciancy to the Hospital for Diseases of the Chest, to practise as a physician at St. Leonard's-on-Sea. About a year ago, he gave up some of his physiological work, with the idea of devoting much of his time to clinical medicine here; and there can be little doubt that, had

he elected to stay with us, he would quickly have made a reputation as a specialist in diseases of the chest. Owens College loses in him one of its most distinguished professors, and one on whom, as professor and teacher, it might reasonably have relied for many years to come. His resignation creates a vacancy, which is now being advertised, and it is a matter of vital importance to Owens College that it should be filled by one who has already made some reputation in this important branch of medical study. Mr. A. H. Young succeeds his friend and former colleague, the late Dr. M. Watson, as Professor of Anatomy, an appointment which is popular both with students and lecturers. As an old demonstrator of anatomy, and one who has done much good work in surgical pathology, and is also an exceedingly competent draughtsman, he cannot fail to command success as a lecturer and teacher. The chair of Obstetrics and Gynaecology, left vacant by the death of Professor Thorburn, has been filled up by the appointment of Dr. C. J. Cullingworth. No better appointment could have been made, Dr. Cullingworth having already made more than a local reputation both as an obstetric physician and as a lecturer on medical jurisprudence. On account of his many private engagements, Dr. Lloyd Roberts was not a candidate for the chair, but is, I believe, the only candidate for the obstetric physiciancy at the Royal Infirmary. The vacant lectureship on medical jurisprudence is, I hear, not to be filled up till the winter session.

The formation of a new Medical Society has been determined upon, to be called the "Central Medical Society;" although we are fairly well provided for in this way, considering that there are the Medical Society, the Pathological Society, and the Medico-Ethical Society. In some respects, the multiplication of medical societies covering similar ground is to be regretted, in that they lessen the influence and weaken the finances of the older medical society, which has long been well supported, and possesses an exceedingly good library of medical works and scientific periodicals. On the other hand, it is certainly a hardship to many that the Medical Society must, perhaps unavoidably, have its *habitat* at Owens College, which is situated at least a mile from the centre of the city, and, consequently, to many a visit to the library means a double journey. It seems a great pity that the suggestion that the older society should engage a central room, connected by telephone with the library at Owens College, should not as yet have assumed a practical shape, thus meeting the most forcible objection to the old society made by the founders of the new. Mr. F. H. Walsley is the president, and Dr. T. C. Railton is the honorary secretary of the new society.

The annual meeting of the Royal Infirmary was held on the 30th of last month. From the report it appears that during the year ending June 24th, 4,455 patients were admitted into the Infirmary and its affiliated institutions; there were 21,765 out-patients; and 1,491 home-patients; 1,364 were treated at the Monsall Fever Hospital; and 337 at the Lunatic Asylum at Cheadle, which is in connection with the Infirmary. The total expenditure amounted to £29,377. At a special meeting held on the same day, it was resolved to abolish all "out" or "home" recommendation papers, thus throwing the out-patient department free and open to all comers who could plead poverty as an excuse for free medical aid.

The *Medical Chronicle* is approaching the end of its first year of existence. The character of the articles and abstracts has been well maintained throughout the year; the greater part of the financial responsibility for another year has been assumed by John Heywood and Co., publishers, a fortunate circumstance for the guarantors, whose office for the first year has been by no means functionless.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Disinfection of Cattle-Trucks.—*Mortality in Paris and Provincial Towns.*—*New Histological Laboratory.*—*Proposed Crematory.*—*Poisoning by Mistake.*

M. REDARD, Médecin-en-chef to State-railways, in a communication to the Académie de Médecine, on disinfecting cattle-trucks, states that epizootic diseases have greatly increased since the creation of railroads. He has ascertained that such diseases are often contracted by healthy animals, from being brought into contact with the virus of infection during transit. The present methods of disinfection are powerless to prevent epizootic disease from spreading. Dr. Redard placed between the cracks of cattle-trucks portions of livers and kidneys reduced to pulp, which he had removed from animals dead from charbon, septicæmia, murrain, and glanders, and from fowls dead from fowl-cholera; also blood and intestinal contents. The trucks were afterwards disinfected, and animals inoculated with the virulent substances. One

hundred such experiments were made. Ten animals inoculated with cholera-virus died rapidly; the virus was not attenuated. Carbolic acid, zinc-chloride, and zinc nitro-sulphate, were used as disinfectants. Of ten animals inoculated with carbon-virus, one died. Zinc-chloride (2 per cent.) was used as a disinfectant. Ten inoculations with the virus of septicæmia, treated with carbolic acid (2 per cent.), killed nine animals. Two inoculations with glanders-virus, disinfected with carbolic acid and zinc-chloride, produced the characteristic lesions of glanders. The specimen of virus which was disinfected by carbolic acid was in contact with it during eight hours. All the animals inoculated with virus previously treated with sulphurous acid died rapidly. Virus treated with steam at 100° Cent. was also fatal. Steam heated to 110° Cent. disinfected the virus submitted to its influence. An ass inoculated with virus of glanders which had been thus disinfected during two minutes, did not show any symptoms of the disease. Two sheep were inoculated from murrain-pustules, and escaped the disease. The virus had been disinfected in one instance by steam at 110° Cent., the other between 95° and 100° Cent. Seven animals inoculated with the virus of fowl-cholera did not present any morbid symptoms; the virus was disinfected with steam at 110° Cent. Eight animals were inoculated with virus of septicæmia; one died three days after inoculation. Dr. Redard and Dr. Miquel, of Montsouris, submitted bacteria which resist heat, such as the *bacillus subtilis*, to the influence of steam heated to 110° Cent., and they were entirely destroyed. In order to disinfect with steam at 110° Cent., Dr. Redard recommends the following method. A spiral tube is placed near the fire of a steam-engine; the steam passes through it, and its temperature is raised. The tube is of iron; it has an inner diameter of 21 millimètres, and is two millimètres thick; its length, if straightened, would amount to seven mètres and 300 millimètres. A surface of 40 square decimètres is exposed to the action of the heat. The tube consists of seven spirals; each spiral has an external diameter of 18 centimètres. One of its extremities is connected with the tap of the boiler, and the other fits into a movable hinge, to which a pipe is added, and through which the steam travels along to the truck which is to be disinfected. This system, carefully carried out, provides steam at 110° Cent.

The mortality of children from one to five years of age is twice and a half more in Paris than in the provinces. Adult mortality in Paris amounts to 46,000 yearly. If the same proportion existed between Paris and the provinces as exists between other capitals and their provinces, the number of adult deaths would not exceed 35,000; thus, there is an excess of 11,000 deaths in Paris, due to inherent conditions of the capital. The agglomeration of masses is an important factor in this excess of comparative mortality. M. Colin, in his *Traité des Maladies Epidémiques*, says that in large cities and capitals contagious affections, such as typhoid fever, croup, measles, etc., do not die out as in provincial towns peopled by an autochthonous population. These affections are fostered by a constantly renewed population, and, in consequence, present the features of endemic maladies. The hygienic inequality of the different districts of the French capital is favourable to the diffusion of the affections mentioned above. The environs present no superiority over the densely crowded capital, because the air is vitiated by effluvia, etc., from factories. Moreover, a great many suburban districts acquire the proportions of cities, without possessing the sanitation which should be the precursor. In these localities, the water is frequently unfit for potable purposes, and insufficient to satisfy domestic and sanitary demands. The system of sewerage is deplorable; there is no means of carrying away the refuse of slaughter-houses, factories, etc. This results in the existence of private slaughter-houses, hotbeds of putrefaction and revolting emanations. Moreover, the meat killed in private slaughter-houses cannot be inspected.

A new histological laboratory will be organised, close to the meat-market of the Halles Centrales. The object in view is to determine the nature of the different diseases of the animals slaughtered and brought to market. The site is already chosen. The expense is estimated at 1,131 francs (£49 10s.), which sum has been unanimously voted by the Municipal Council. This laboratory will not only minister to public health, but also afford to veterinary surgeons the opportunity of completing their studies.

M. Chaissang has submitted to the consideration of the Municipal Council a plan for constructing a crematory at the Eastern Cemetery. As cremation is not sanctioned by law, the furnace is to be used for incinerating hospital debris.

An inquiry into the sad occurrence at the St. Louis Hospital, mentioned in my last letter, proves that one patient was ordered *eau de vie Allemande* (tinctura jalapæ composita), but the nurse believed that another patient required purging, and therefore gave him a dose;

otherwise the mistake of the hospital druggist would have caused one death instead of two.

CORRESPONDENCE.

THE COLLEGES AND MEDICAL TITLES.

SIR,—Now that the question of putting the holders of the double London qualification on an equality with their provincial brethren, by granting them the title of Doctor, has come to the front, it behoves those of us so provided to show—and that in no faltering tone—that we are really in earnest in this matter; and in this way to strengthen the hands of the united Colleges when it comes before Parliament. The most practical way of doing this would be by a petition to the Colleges, based on the reasons so eloquently put forward by Dr. Moxon and others, and praying for their earnest consideration and assistance. If a few gentlemen would kindly co-operate with me, I shall be happy to do my share of the labour incidental to obtaining the necessary signatures.—I am, sir, your obedient servant,

ALFRED S. GUBE, L.R.C.P., M.R.C.S.

Westminster Hospital, S.W.

THE NOMENCLATURE OF DISEASE.

SIR,—Permit me to endorse Dr. Sutherland's criticism of the new *Nomenclature* with reference to the terms Dementia and Idiocy. For statistical purposes, it seems peculiarly unfortunate that the former term should include, and the latter exclude, the numerous non-congenital forms of mental defect supervening in childhood. Practically it is important that, in the census and other official returns (for example, those of union medical officers), the distinction between the imbecility of childhood and the dementia of more advanced life should be kept in view: and it is to be regretted that the value of the census-statistics of 1881, with reference to "Idiots and Imbeciles," should be impaired by the inclusion, under the latter term, of more than 9,000 persons 45 years of age and upwards, many of whom may be presumed to have been the subjects of senile or consecutive dementia.

There is, indeed, much force in the plea put forward by Dr. Fletcher Beach for the disuse for scientific purposes of the term idiocy, and its substitution by that of imbecility, which should include all cases of mental defect existing from birth, or from an early age. Training institutions for imbeciles receive this class of cases exclusively; and it is satisfactory to find that the framers of the late Lunacy Bill have provided a special form of certificate for such, in which, for the first time, legal recognition has been accorded to the term imbecile, in the sense I have advocated.—I am, sir, yours obediently,

G. E. SHUTTLEWORTH, B.A., M.D., etc.,

Medical Superintendent Royal Albert Asylum, Lancaster.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 6th, 1885.

Medical Relief Disqualification Removal Bill.—In reply to Mr. JESSE COLLINGS, Mr. A. J. BALFOUR said that it was not the intention of the Local Government Board to issue instructions to overseers respecting the preparation of the supplemental lists required by the Medical Relief Disqualification Relief Removal Bill. The Bill provided that the clerks of the peace and town clerks should forthwith, after the passing of the Act, issue precepts to the overseers informing them of their duties under it; and he understood that the Home Office would, as soon as the Bill had passed, communicate with the clerks of the peace and town clerks on the subject.

Cholera.—Sir WALTER BARTLEOT asked the President of the Local Government Board what steps he had taken to call the serious attention of the local authorities in the various seaports and towns of the country to the terrible outbreak of cholera, not only in Spain, but also in France; whether the local authorities as well as the Local Government Board were taking efficient means to prevent its introduction into this country; and whether any steps could be taken to improve the disgraceful state of Covent Garden Market.—Mr. A. J. BALFOUR, in reply, said that the action of the Board might be shortly summarised. It had urged upon the several local authorities in England and Wales the importance of their taking such measures of precaution against cholera as the sanitary condition of their district might demand, and had supplied them with a memorandum by the medical officer of the Board on the subject. The importation of rags

from Spain had been prohibited, and, if there were any serious spread of cholera in France, an order would also be issued as regards rags from that country. The regulations in force last year during the prevalence of cholera in France and Italy for dealing with cases of cholera which might reach our ports were still in force. The staff of medical inspectors had been strengthened temporarily for the purpose of inquiring as to the sanitary condition of the ports and other districts which there was reason to suppose would be most likely to suffer from cholera in the event of its introduction into England; and Mr. Balfour was advised that, on the whole, there was reason for satisfaction with the action in preparation for cholera by the various sanitary authorities on the coast. The managers of the Metropolitan Asylum District had obtained the services of a medical man who had had large experience as a medical officer of health in the metropolis, with the view of his assisting them in maturing the arrangements as to a first line in defence in the way of hospital-provision which would be necessary in London in the event of an outbreak of cholera. Mr. Balfour added that it must be recollected that, whilst he was anxious to do everything in his power to aid the local authorities in fulfilling their duties, the responsibility for providing against the advent of cholera, and of dealing with it should it reach our shores, rested, and must rest, with them.

Monday, August 10th.

The Purification of the Thames.—In answer to Mr. BORLASE, Mr. A. J. BALFOUR said: We have been in communication with the Metropolitan Board of Works, and are informed that experiments as to the purification of the sewage discharged into the Thames at Crossness have been in progress for some months upon 1,000,000 gallons per day, and that the experiments, as far as they have gone, are considered by the officials of the Metropolitan Board of Works to have been sufficiently satisfactory to justify the Board in preparing machinery and plant for treating chemically and by precipitation 8,000,000 gallons of sewage daily. I may add that the Local Government Board have no jurisdiction as regards the discharge into the Thames of the sewage of the metropolis.—Mr. C. READ asked the Secretary of State for the Home Department, in view of the approach of cholera, and the desirability of appeasing the public mind as to the increasing pollution of the Thames, if he would state whether he had laid before the Metropolitan Board the memorial of Colonel Jones, V.C., and Mr. Bailey Denton, proposing the cleansing of the metropolitan sewage on Canvey Island in consonance with the views of the Royal Commission on Metropolitan Sewage Discharge, namely, "That it is neither necessary nor justifiable to discharge the sewage of the metropolis in its crude state into any part of the estuary of the Thames from the Nore upwards," and that "the sewage liquid, after separation from the solids," should be carried down to a point of the Thames lower than Hole Haven.—Sir R. Cross replied in the affirmative.

Wednesday, August 12th.

Housing of the Working Classes (England) Bill.—The report stage of this Bill was taken, and several amendments being agreed to, it was read a third time.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SUBPENA.

SIR,—I am summoned (under a recognizance-penalty of £10) to attend the County Assizes on Tuesday next, at a distance of 40 miles from the town in which I practice. It so happens that I am bound by my contract with the guardians (under Government) to vaccinate publicly the same day. Will, or may, this excuse me from attending the Assize Court; and, if not, what is my position towards the guardians and the public, as small-pox being in the neighbourhood, the consideration is no light one, apart from the legal question of the contract?

Again, supposing I am attending a woman in labour, or other serious case, on Tuesday next, what is my position, and what course is open to me? The time being short, your reply on Saturday next will much oblige, your faithful servant,

X. Y. Z.

. Professional business, whether official or not, is no excuse for disregard of a subpoena. Some judges insist on witnesses being in attendance during the whole assize, but generally it is possible to arrange for your case being taken on some particular day, so as to be free for the rest of the time. A witness should ascertain whether his case is likely to be taken on any given day, and make his arrangements accordingly.

REMOVAL FROM THE "REGISTER."

SIR,—A. B., registered in 1877 both a medical and surgical qualification, and in 1881 he went abroad as ship's surgeon for nearly 18 months, and, three weeks ago, on applying for an appointment, he is told that his name is not on the Medical Register. Not having looked at the Register for some years, and holding, as he does, his certificate of registration, he was surprised to find that his name was omitted. On inquiry he finds that, while he was abroad, a communi-

cation, which was sent to his address from the Registration Office, failed to reach him, and the authorities receiving no answer, in six months time struck his name off, in accordance with rule xiv. Is he entitled, pending the next meeting of the Medical Council, when his name will be restored, to recover fees, and sign death-certificates? Also, what is the date of the next meeting of the Medical Council?—I am, etc.,

INQUIRER.

. "A. B." not being in fact on the Register, cannot recover fees or give certificates. As, however, he is duly qualified he can practice, and will incur no criminal liability by so doing. His being struck off seems a hard case, and no doubt he will be reinstated. We cannot tell when the Council will meet; but in the meantime, our correspondent should make an application for restoration of his name to the Executive Committee of the Medical Council, who have power to act in such matters respectively of the meetings of the Council.

NAVAL AND MILITARY MEDICAL SERVICES.

MACLEAN TESTIMONIAL FUND.

We have great pleasure in publishing the subjoined list, which we trust will be largely increased.

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Deputy Surgeons-General—Army Medical Staff: R. A. Chapple, T. W. Fox, W. J. Fyffe, R. Hungerford, Sir J. A. Hanbury, C. G. Irwin, J. A. Marston, W. H. Muschamp, J. O'Neil, T. Tarrant, J. P. Thompson, W. A. Thomson, H. R. Veale, W. M. Webb, R. Webb.—*Indian Medical Service:* N. Chevers, J. Ewart, S. B. Partridge, W. Pearl, J. L. Paul, D. B. Smith.
Brigade-Surgeons—Army Medical Staff: W. G. Don, E. Footner, J. Jameson, W. Jobson, C. Mackinnon, A. S. O. Prescott, W. B. Ramsbotham.—*Indian Medical Service:* J. Browne, H. Cayley, W. F. de Fabek.
Surgeons-Major—Army Medical Staff: G. Ashton, A. Allan, S. Alcock, J. P. Brattin, F. M. Baker, G. F. Boulton, F. H. Blenkinsop, J. P. H. Bollean, C. R. Bartlett, A. Brebner, A. L. Brown, W. A. Catherwood, J. Coats, W. Cherry, C. S. Close, J. A. Campbell, H. Comerford, J. Coates, G. E. Dobson, F. A. Davy, F. S. B. de Chaumont, J. S. Duncan, J. P. Donaldson, F. Dick, W. Finlay, T. Faris, F. Ferguson, G. J. Gibson, W. C. Grant, A. A. Gore, J. R. Greenhill, T. J. Gallwey, D. C. W. Heather, G. A. Hughes, B. J. Jazdowski, W. J. Johnston, P. M. Kilray, R. Keith, T. Lewis, J. Langdon, W. H. Macnamara, T. J. Martin, J. Macnamara, N. B. Major, J. A. McCracken, A. W. May, W. Nash, T. F. O'Dwyer, F. Pont, E. Reporter, W. Robertson, C. F. Richards, E. A. H. Roe, J. Scanlan, G. B. Sanders, W. R. Stuart, F. B. Scott, R. R. Scott, J. C. Tormie, F. A. Turton, R. Tobin, J. G. Williamson, F. H. Welch, J. Wilson, S. J. White.—*Indian Medical Service:* H. Cook, S. L. Dobie, C. W. S. Deakin, G. R. Daph-tary, B. Evers, E. Pawcett, J. T. Fitzpatrick, A. Grant, K. P. Goopta, H. Griffiths, E. B. Gardner, G. C. Hall, T. H. Hendley, H. Johnstone, A. S. G. Jayakar, W. E. Johnson, J. Kelly, G. King, W. N. Keefer, G. G. MacLaren, D. P. Macdonald, J. F. P. MacConnell, J. J. Montreath, W. R. Murphy, T. Mayne, K. McLeod, T. J. McGann, W. Macrae, A. McClogh, W. H. Roberts, D. Sinclair, J. C. Shaw, C. Sigthorpe, L. D. Spencer, E. J. Waring, C. J. H. Warden, D. Wilkie.
Surgeons—Army Medical Staff: L. E. Anderson, J. D. T. Breckitt, G. S. Bagg, J. Battersby, A. Baird, O. Cusack, G. Courts, P. M. Carleton, J. P. Carrington, A. E. J. Croly, H. Charlton, T. A. Clery, W. Dugdale, A. H. C. Duggan, J. R. Dodd, J. B. Emerson, R. J. Fayle, J. W. Fogarty, R. J. Geddes, C. B. Hill, J. Heath, F. A. Harris, T. A. Perry-Innes, H. C. Kirkpatrick, W. R. Kyusse, E. H. Le Motte, B. W. Large, O. E. P. Lloyd, J. R. Lucas, G. Laffan, T. R. Lugard, J. Martin, F. R. Morse, H. J. MacLaughlin, H. S. McGill, R. W. Mapleton, J. MacConochie, N. McCreery, J. J. Morris, T. Moynahan, W. A. Morris, G. Nelis, P. J. Nealon, D. V. O'Connell, T. J. O'Donnell, E. V. A. Phipps, J. Prendergast, W. W. Pike, A. A. Pechell, T. A. Perryman, A. Peterkin, W. J. Pope, A. S. Rose, M. R. Ryan, A. O. Reynolds, J. I. Rowth, J. Riordan, H. J. Robbins, J. Stevenson, E. F. Smith, C. H. Swaine, C. W. Thelle, W. B. Thomson, H. Thomson, H. N. Thomson, F. W. Trevor, F. P. Wilkinson, G. E. Weston, A. L. Young.—*Indian Medical Service:* A. P. Adams, A. Adams, J. Blood, J. W. Clarkson, D. G. Crawford, S. H. Dautre, P. W. Dalzell, P. J. Damania, G. W. P. Denys, D. Elcum, N. S. Eyre, A. F. Ferguson, M. Gaisford, H. M. Hakim, J. Mac-Hatch, M. P. Kharegat, C. P. Lukis, J. Moorhead, F. R. Macdonald, J. MacGregor, E. R. Mulrone, H. K. McKay, R. Manser, T. Matland, J. F. Mullen, G. F. Nicholson, G. M. Nixon, G. H. Peavor, C. S. Rundle, D. R. Ross, A. E. R. Stephens, D. P. Walker, F. W. Wright.
Fleet-Surgeon: W. Reid.
Professor W. Aitken: R. T. Caesar, Esq.; H. Dayman, Esq.; Major-General A. F. Honchen; G. Knapp, Esq.; Sir W. Mac Cormac; D. Macfarlane, Esq.; Dr. MacIntyre; Captain Macdonald; Miss Macdonald; Dr. Markew; Dr. F. Powell; Dr. Quain; M. Rowan, Esq.; B. Sanders, Esq.; L. K. Sampson, Esq.; T. Trend, Esq.; J. Tyndall, Esq.; Sir Spencer Wells.
 Edinburgh. K. McLeod, Secretary and Treasurer.

THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT AND THE LATE GOVERNMENT.

A SHORT abstract of the remarks made by Sir Arthur Hayter, Financial Secretary at the War Office under the late Government, on the occasion of closing the summer session of the Army Medical School, at Netley, on the 3rd instant, appeared in last Saturday's JOURNAL. The observations made at the same occasion by Director-General Dr.

Crawford also deserve to be put on record, for they contain an important acknowledgment of the liberal treatment which the Army Medical Department received, as regarded the pecuniary means necessary for conducting the hospital-service with efficiency during the recent military operations in the Sudan. The following were the Director-General's remarks. It was very satisfactory to him to know that a class so large as that which had just passed through the school, numbering 83 altogether, should have come up to compete for 30 vacancies almost at a moment's notice. The Secretary of State was thus able to lay his hands on gentlemen for the service of the country, who, by the results of the London examination and by successfully passing through that school, showed they were perfectly trained and competent for work. They had heard from Sir Arthur Hayter not only what was expected from them now, but also in the future, and he was quite sure they would carry away from that school the knowledge requisite to enable them to do their work well; and he trusted there would be no lack of zeal on their part in trying to discharge the important duties, with which they would hereafter be intrusted, honorably, and with full satisfaction to the authorities to whom they would be responsible. He could not close without referring to what Sir Arthur had been good enough to say regarding himself in connection with the medical service of the late wars. It was very satisfactory to him to know, on such high authority as that of a late Minister of the Crown, that his conduct of the department, and the improvements he had tried to effect in it, had been regarded with satisfaction by high officials; and also that they thought the liberal financial support they had been disposed to give was well used. They had been indebted to the late Government for loosening the purse-strings to conduce to the efficiency of the department; and this had enabled them to do good work in the field, and at the proper time to place a staff for nursing in the hospitals, which left nothing to be desired. He wished to thank Sir Arthur for his goodness in coming that day, and still more for the general support he had given to him during the time that he had had the honour of holding his present position in the public service. Especially did he thank him for the great liberality with which he and his late chief, Lord Hartington, had treated the department financially. Without money they could do little, and he was bound to repeat that the late Government never kept him without it when he could show a sufficient reason for a grant to be increased. It was largely due to Sir Arthur Hayter that this was the case, and he again thanked him.

—NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty recently: R. J. SWEETNAM, Fleet-Surgeon, to the *Ajax*; J. L. SWEETNAM, Staff-Surgeon, to the *Shannon*; G. H. MADELEY, Staff-Surgeon, to the *Hotspur*; George Welch, Surgeon, to the *Ajax*; A. S. NANCE, Surgeon, to the *Shannon*; G. F. DEAN, Surgeon, to the *Hotspur*; W. B. DREW, Staff-Surgeon, additional, to the *President*; H. G. T. STRICKLAND, Surgeon, to the Hongkong Hospital; A. W. F. WHITLOCK, to be Surgeon and Agent at Wells.

The following appointments have been made at the Admiralty during the past week:—T. H. KNOTT, Fleet-Surgeon, to the *Malabar*; A. C. QUEELY, Staff-Surgeon, to the *Conquest*; J. B. B. TRIGGS, Staff-Surgeon, to the *Urgent*; William HAYES, Staff-Surgeon, to the *Express*; W. J. B. BOOKEY, Staff-Surgeon, to the *Royal Adelaide*; J. W. H. HAWTON, Surgeon, to the *Hye*; J. L. B. Oakeley, Surgeon, to the *Minotaur*; Clement ALSOP, Surgeon, to the *Lion*.

ARMY MEDICAL SERVICE.

SURGEON W. BARTIE, M.B., is appointed to have medical charge of the Lock Hospital at Dum Dum, Bengal, in addition to his other duties, *vice* Surgeon J. O. G. Sandiford, M.D.

Brigade-Surgeon J. JAMESON, at present serving in Madras in medical charge of the European Female General Hospital at Bangalore, is appointed Senior Medical Officer of the Station-hospital at Bellary.

Surgeon-Major E. C. R. WARD, serving in Bombay, has been appointed to the medical charge of the Poorundhur Sanitarium, *vice* Surgeon-Major Hare.

Quartermaster JAMES GORDON has been granted retired pay, with the honorary rank of Captain. Mr. Gordon entered as a Lieutenant of Orderlies, August 7th, 1875, and was gazetted Quartermaster from July 1st, 1881.

Acting Surgeon H. L. BROWNE, of the 1st Volunteer Battalion of the South Staffordshire Regiment (late the 1st Stafford Volunteers), has resigned his appointment, his commission being dated September 24th, 1873.

Acting Surgeon J. MACCACHIAN, of the 2nd Volunteer Battalion of the South Staffordshire Regiment (late the 3rd Stafford Volunteers), has also resigned his commission, which dates from June 23rd, 1875.

Surgeon C. HUSBAND has resigned his appointment in the 1st West Riding of Yorkshire Volunteers, on which he entered July 8th, 1874; he is granted the honorary rank of Surgeon-Major, and is permitted to retain his uniform.

Surgeon W. R. de MORINIS died at Suakin on June 15th. He entered the army on the 31st of January last, and was at once sent to Suakin. He was in his twenty-third year.

The following are the Surgeons on probation in the Medical Staff of the British Army who were successful at both the London and Netley examinations. First half-session: S. Hickson, H. J. Fletcher, S. H. Lindeman, E. Davis, S. Powell, F. W. C. Jones, J. Meek, A. E. Morris, E. Cornack, J. F. McMillan, C. O'Donel, W. A. Carte, A. O. Fitzgerald, F. D. Elderton, E. N. Sheldrake, R. E. Molesworth, J. W. F. Long, C. D. Josling, J. F. Bateson, W. T. Swan, J. Bulfin, R. L. R. Macleod, J. H. Curtis, G. G. Adams, J. M. F. Shine, W. B. Day, D. R. Hamilton, R. G. Thompson, C. T. Blackwell, R. I. Power, C. R. Kikelly, W. H. Bean, N. C. Fergusson, S. R. Wills, M. L. Hearn, S. L. Deeble, R. B. Hall, W. H. Bennett, J.

H. Greenway, R. G. Hanley, W. H. Bell, G. Cree, S. C. Philson, J. M. Nicolls, and F. W. H. D. Harris. Second half-session: J. F. McMillan, J. S. Green, G. H. Symes, C. A. Lane, P. C. H. Gordon, L. T. M. Nash, J. H. Brannigan, M. O. Halloran, C. S. Sparkes, W. H. Pinches, H. F. Horne, J. H. Daly, G. J. A. Tuke, P. de B. Skerrett, H. C. Dent, F. J. Greig, C. Hayden, H. D. Rowan, H. Carr, H. G. Hathaway, A. L. H. Dixon, C. G. Woods, P. J. Nunnerley, B. A. Maturin, H. V. Dillon, T. Daly, M. J. Sexton, H. T. Baylor, H. E. Cree, F. L. Carte, W. H. Starr, A. A. Sutton, A. P. H. Griffiths, W. S. Boles, H. L. G. Chevers, F. J. W. Stoney, J. F. G. Burke, and H. N. Kenny.

A recent royal warrant decrees that, in future, the appointment of medical officer to the Royal Military Asylum at Woolwich shall be held by an officer from the active list, and be tenable for five years only, "except under very special circumstances."

SURGEON D. L. PORTER died at Wady Halfa, in Upper Egypt, on June 21st last. He was born on May 8th, 1856, and entered the army medical service February 5th, 1881. He went to Malta in 1882, whence he was transferred to Egypt in March last.

SURGEON G. M. RUSSELL, M.B., died at Suakin on the 3rd ultimo, in the 32nd year of his age. His commission bore date February 4th, 1877. He had the medal for his services in Afghanistan in 1873-79, and went to Egypt early in the present year.

INDIAN MEDICAL SERVICE.

SURGEON F. D. C. HAWKINS, Bengal Establishment, Officiating Medical Officer 13th Bengal Lancers, is deputed temporarily for duty under the orders of the engineer-in-chief, Sind-Pishin Railway.

Surgeon-Major J. CLEGGHORN, M.D., Bengal Establishment, is ordered to act as Surgeon-Superintendent of the Presidency General Hospital at Calcutta, during the absence on leave of Surgeon-Major E. A. Birch.

Surgeon-Major A. F. DONSON, M.B., Madras Establishment, Officiating Residency Surgeon at Bangalore, is confirmed in that appointment consequent on the seconding of Surgeon P. H. Benson, M.B., for service under the Mysore Government.

Surgeon S. H. BROWNE, M.D., Bengal Establishment, having reported his arrival from furlough, is temporarily posted to Betul as Civil Surgeon. On being relieved by Dr. Browne, Dr. MEIKLEJOHN will proceed to Nursingpore, to which district he is posted as Civil Surgeon.

The services of Surgeon J. W. EVANS, Madras Establishment, Officiating Medical Officer of the Nair Brigade, are replaced at the disposal of the Military Department from the date of relief by Surgeon J. Keess, M.D.

The appointment of Surgeon M. J. KELAWALA, Madras Establishment, to the officiating medical charge of the 11th Native Infantry, *vice* Surgeon Wilkins, on other duty, is cancelled.

Surgeon J. SCOTT, Madras Establishment, is appointed Medical Officer to the 4th Infantry Hyderabad Contingent, at Bolarum.

Surgeon C. B. HUNTER, Bengal Establishment, is appointed to the Officiating Medical Charge of the 18th Bengal Cavalry at Jhelum, *vice* Surgeon-Major G. Griffith, ordered to Suakin.

Surgeon G. S. GRIFFITHS, Bengal Establishment, is appointed to the Officiating Medical Charge of the 1st Native Infantry at Rawul Pindie.

Surgeon-Major L. C. NANNY, Madras Establishment, has been appointed Honorary Surgeon to the South Indian Railway Volunteers.

Surgeon H. P. JERVIS, Bombay Establishment, of the 12th Native Infantry, is to take medical charge of the 7th Native Infantry at Ahmednuggur, *vice* Surgeon-Major J. Macgregor, M.D.

Surgeon J. P. BARRY, M.B., Bombay Establishment, is appointed to officiate in medical charge of the 2nd Native Infantry, during such time as Surgeon-Major C. T. Peters, M.D., is employed in the Civil Department, or till further orders.

Surgeon-Major H. ATKINS, Bombay Establishment, is transferred from general duty, Mhow Circle, to general duty, Sind.

Surgeon-Major R. CALDECOTT, Bombay Establishment, in Medical Charge of the 2nd Central India Horse and Gonaoli Political Agency, has returned to duty by permission of the Secretary of State for India.

Surgeon-Major H. E. BUSTEED, M.D., Madras Establishment, having returned from furlough, has resumed the duties of Assay Master of the Calcutta Mint, from Surgeon-Major J. Scully.

INDIA AND THE COLONIES.

INTERNATIONAL VIEWS ON CHOLERA AND QUARANTINE.

A SHORT report of the proceedings of the International Sanitary Conference at Rome, so far as they affected India, has been drawn up by Sir Joseph Fayer for the use of the India Office. We understand that this report states that there was an evident desire on the part of the technical delegates to diminish the incidence of quarantine, and to mitigate its hardships and delays. The discussions of the Technical Committee discovered an advance on the former state of opinion on these matters, and several points of importance were admitted; these were, that all land-quarantine and sanitary cordons were useless; that five days' detention of ships should be substituted for seven, hitherto the minimum, where cholera had occurred, or was suspected to have occurred, on board during the passage; that, though Indian ports were in future to be always considered infected, inasmuch as cholera is never absent from them, yet quarantine should only be imposed when the ship had had cholera on board after leaving port; and that pilgrim-ships should be detained at Camaran for five instead of ten days when infected, and for one day for inspection and cleaning the ship when not infected. These recommendations will have no executive force unless adopted by the Conference in plenary session, and it is, at least, doubtful whether it will ever reassemble.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE SECOND QUARTER OF 1885.

In continuation of the article upon the health of London, published in our issue of April 18th last, we are enabled to give in the sub-joined table the vital and mortal statistics of the 39 sanitary districts of the metropolis for the second quarter of this year, based upon the method of complete distribution of deaths occurring in public institutions, which was fully set forth in our issue above referred to. It may, however, be well to mention here that the whole of the deaths occurring in the institutions of London have been distributed among the various sanitary districts in which the patients previously resided; by this means, the exact number of deaths of persons really belonging to the respective sanitary districts is known, as all deaths occurring in institutions of persons who had previously resided in another district have been excluded from the total deaths in the district in which the institution is situate, and credited to the districts from which they came. The figures in the table, therefore, are the deaths of persons actually belonging to the respective sanitary districts; without such correction, the number of deaths in any given district does not afford reliable data upon which to calculate rates of mortality. As an instance of the importance of this system of correction for deaths in institutions, it may be noted that the uncorrected death-rate for St. George-in-the-East is 30.1 per 1,000; while, after the addition of

63 deaths of persons recorded in other parts of London who belonged to this sanitary district, the rate of mortality is raised to 35.6 per 1,000.

The births registered in London during the three months ending June last were 31,914, equal to an annual rate of 31.4 per 1,000 of the present estimated population of the metropolis, which is 4,083,928 persons. The London birth-rate in the corresponding quarters of the two preceding years was 34.2 and 33.1 respectively. The birth-rates in the various sanitary districts show the usual wide variations, the age and sex distribution of the population differing very greatly. In Kensington, St. George Hanover Square, St. James Westminster, and Hampstead, the birth-rates are exceptionally low, a large proportion of the population of these districts consisting of domestic servants. In Fulham, Chelsea, St. Luke's, Southwark, Newington, and in most of the East districts, where the population contains a comparatively large number of married persons, the birth-rates show a marked excess.

The 19,590 deaths recorded in London during the quarter under notice were equal to an annual rate of 19.3 per 1,000 of the estimated population, which was lower than that recorded in the corresponding quarter of any year on record, except in 1880, when the rate was only 18.9 per 1,000. The lowest death-rates last quarter among the 39 sanitary districts were 12.5 in Hampstead, 14.6 in Rotherhithe, 14.8 in Wandsworth, 15.7 in Lewisham, and 16.2 in Camberwell and in Plumstead. The rates ranged upwards in the other districts to 25.4 per 1,000 in St. Saviour, Southwark, 25.8 in St. Luke's, 25.9 in London City, 31.0 in Stepney, and 35.6 in St. George-in-the-East. During the quarter under notice, 3,227 deaths were referred to the principal zymotic diseases in London; of these, 1,183 resulted from

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after complete distribution of Deaths occurring in Public Institutions, during the Second Quarter of 1885.

Sanitary Areas.	Estimated Population middle of 1885.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Unde-fined Fever.	Diarthra.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.											
LONDON	4,083,928	31,914	19,590	31.4	19.3	3.2	3,227	602	1,183	137	211	661	12	129	23	260	139
<i>West Districts</i>																	
Paddington	110,291	783	469	28.5	17.1	2.5	70	4	25	2	9	19	—	5	—	6	137
Kensington	182,924	1,001	741	29.0	16.3	2.9	132	14	69	1	2	31	—	3	—	12	151
Fulham	140,136	1,281	663	36.7	19.0	3.1	108	11	40	2	—	36	—	5	1	13	137
Chelsea	95,592	861	452	36.2	19.0	2.4	57	3	17	1	13	10	—	4	—	9	134
St. George, Hanover Square	88,248	397	377	18.1	17.2	1.1	25	—	1	1	5	—	—	3	1	5	118
Westminster	57,031	373	284	26.3	20.0	1.7	24	4	4	3	—	—	—	1	—	—	137
St. James, Westminster	28,502	143	131	20.1	18.5	2.3	16	—	5	—	—	—	1	—	—	—	105
<i>North Districts</i>																	
Marylebone	151,302	1,229	808	32.6	21.4	2.5	96	13	34	1	4	21	—	4	—	19	168
Hampstead	61,950	327	161	25.3	12.5	1.3	17	3	2	1	—	5	—	3	1	2	95
St. Pancras	239,999	1,821	1,116	30.4	18.7	2.2	129	39	15	14	10	27	—	10	—	12	126
Islington	314,881	2,333	1,445	29.7	18.4	4.1	319	41	152	5	35	61	1	11	—	10	128
Hackney	218,635	1,570	961	28.8	17.7	4.0	218	34	120	9	9	26	2	9	—	9	140
<i>Central Districts</i>																	
St. Giles	42,038	358	243	34.2	23.2	2.7	28	6	3	1	5	10	—	—	—	3	115
St. Martin-in-the-Fields	16,028	78	91	19.5	22.8	2.0	8	3	1	1	1	—	—	—	1	1	291
Strand	30,527	164	153	21.6	20.1	2.1	16	1	3	2	4	5	—	—	—	1	146
Holborn	32,465	213	197	26.3	24.4	2.5	20	4	3	2	2	5	—	—	—	4	211
Clerkenwell	69,091	549	364	31.9	21.1	4.5	78	14	34	2	4	10	—	1	—	7	148
St. Luke's	44,043	425	283	38.7	25.8	4.1	45	2	23	2	2	9	—	1	—	6	162
London City	48,312	222	279	20.6	25.9	1.9	21	2	6	1	2	5	—	2	—	3	189
<i>East Districts</i>																	
Shoreditch	125,565	1,186	711	37.9	22.7	4.8	151	18	72	6	2	35	—	4	—	14	155
Bethnal Green	129,175	1,264	800	39.3	24.9	5.4	173	10	111	11	6	22	1	3	2	7	151
Whitechapel	68,828	583	385	34.0	22.5	3.9	67	5	25	6	2	17	—	1	—	9	296
St. George-in-the-East	46,490	412	412	35.6	35.6	7.3	85	5	41	6	1	14	—	1	—	17	245
Stepney	58,544	478	452	32.8	31.0	7.0	102	9	60	6	4	18	—	1	—	4	232
Mile End Old Town	110,709	979	565	35.5	20.5	5.3	146	17	72	7	7	31	—	1	—	3	154
Poplar	174,596	1,535	846	35.3	19.4	4.0	172	32	83	5	9	29	1	1	3	9	180
<i>South Districts</i>																	
St. Saviour, Southwark	27,674	214	175	31.0	25.4	3.6	25	7	3	4	2	6	—	—	—	3	173
St. George, Southwark	59,063	562	344	38.2	23.4	3.6	53	21	8	1	3	11	—	1	—	8	137
Newington	115,772	1,040	504	36.0	17.5	1.7	48	16	7	4	2	6	—	7	—	9	127
St. Olave, Southwark	10,735	79	60	29.5	22.4	3.0	8	—	3	1	—	—	—	—	—	3	241
Bermondsey	88,111	726	414	33.1	18.9	3.4	75	32	18	4	5	9	—	2	—	5	101
Rotherhithe	40,055	304	146	30.5	14.6	2.7	27	15	7	3	1	—	—	1	—	—	162
Lambeth	273,295	2,217	1,269	32.6	18.6	2.6	174	68	16	5	20	36	—	10	1	23	187
Wandsworth	257,092	1,998	946	31.2	14.8	1.6	103	16	16	3	11	42	—	9	2	3	109
Camberwell	227,917	1,687	921	29.7	16.2	3.1	177	82	22	3	12	37	4	7	1	9	118
Greenwich	145,569	1,242	702	34.2	19.4	3.2	117	33	22	4	8	33	—	7	2	8	134
Lewisham	36,758	420	211	31.3	15.7	2.5	33	8	19	—	1	6	—	2	—	2	107
Woolwich	77,242	316	198	34.5	21.6	2.3	21	9	6	—	1	1	—	1	2	1	155
Plumstead	53,848	544	311	28.3	16.2	2.2	48	4	15	1	4	12	—	3	—	4	108

measles, 661 from whooping-cough, 602 from small-pox, 269 from diarrhoea, 211 from diphtheria, 164 from fever (including 12 from typhus, 129 from enteric fever, and 23 from ill-defined forms of fever), and 137 from scarlet fever. These 3,227 zymotic deaths were equal to an annual rate of 3.2 per 1,000, which slightly exceeded that recorded in the corresponding period of 1884. The lowest zymotic death-rates in the 39 sanitary districts were returned in St. George Hanover Square, Hampstead, Wandsworth, Westminster, and Newington; the highest in Clerkenwell, Shoreditch, Bethnal Green, Mile End Old Town, Stepney, and St. George-in-the-East. In the East districts, the zymotic death-rate last quarter was equal to 5.0 per 1,000; while in the rest of London it did not exceed 2.8. Compared with the first quarter of the year, the fatality of small-pox, measles, diphtheria, and fever, showed an increase; while that of scarlet fever and whooping-cough declined. The 602 deaths of London residents from small-pox included 219 which were recorded in the Metropolitan Asylum Hospitals situated outside Registration London, all of which have been credited to the districts in which the patients resided before their removal to the hospitals. Of these 602 fatal cases, 82 belonged to Camberwell, 63 to Lambeth, 41 in Islington, 39 to St. Pancras, 34 to Hackney, 33 to Greenwich, 32 to Poplar, 32 to Bermondsey, and 21 to St. George Southwark. Measles was proportionally most fatal in Islington, Clerkenwell, St. Luke's, and throughout the East districts, especially in St. George-in-the-East and Stepney; whooping-cough in Greenwich, Fulham, Shoreditch, and Mile End Old Town; scarlet fever in Clerkenwell; diphtheria in Chelsea, Islington, and Lambeth; and "fever" in Greenwich.

Infant-mortality in London last quarter, measured by the proportion of deaths under one year of age to births registered, averaged 139 per 1,000, against 128 and 131 in the corresponding periods of 1883 and 1884. In the East districts, the rate of infant-mortality averaged 164 per 1,000 during the quarter under notice; while in the rest of London it did not exceed 133 per 1,000.

MEDICAL RELIEF DISQUALIFICATION BILL.

SIR,—Now that the new law for medical relief has passed, and poor-law medical officers are sure to have their work much increased, owing to the immunity from pauperism which the new Bill confers on anyone who may feel inclined to call in the "parish doctor," I think the salary should be increased, because, when a medical officer accepted office, it was distinctly understood that he would only have to attend pauper patients; but, according to the new law, he will be called upon to attend a number of other people who will not be included in the pauper list. Is he not entitled to some remuneration for his extra work, and should poor-law medical officers one and all apply for extra salaries?—Yours very truly,

A MEDICAL OFFICER.

OBITUARY.

NATHANIEL CAMERON, M.D.

FROM Freetown, Sierra Leone, we have news of the death of Dr. N. Cameron, of the Army Medical Department. Dr. Cameron died on July 10th from an attack of typhoid fever. He was a native of Abernethy, on Speyside. While attending the University of Aberdeen, he took high places in the classes of arts and medicine; and, on graduating in medicine, he obtained his degrees in medicine and surgery with highest academical honours, a distinction obtained by few. He acted as Assistant-Demonstrator of Anatomy under Professor Struthers, and subsequently became Resident Medical Officer at the Macclesfield Infirmary. In 1878, he passed into the Army Medical Department, when he was stationed in Sierra Leone, where, with intervals of leave, he has remained ever since. Besides being an ardent student of medicine, Dr. Cameron had special scientific acquirements, amongst these being notably his knowledge of Geology; he has left behind him an excellent collection of minerals and fossils, collected during tours in the British Isles and in his excursions abroad. Within a few months, Aberdeen has had to mourn the loss of two of its young, brilliant, and successful graduates—Cameron and Manson Fraser—both struck down in the full vigour of their development: the one by a deadly pestilence on an inhospitable shore; the other by the treacherous blade of a native of the Eastern Archipelago. Friends in the North mourn the loss of two noble sons of their Alma Mater—both graduates in arts and medicine of the University of Aberdeen.

JESSIE EMILY WRIGHT, the wife of a police-constable living at Plumstead, met with her death on Saturday, August 8th, from injuries sustained by the explosion of a paraffin lamp which the deceased was in the act of extinguishing.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Intermediate Examination in Medicine, 1885. Pass-list. Entire Examination.

First Division.—J. H. Abram, University College, Liverpool; E. O. Ashe, London Hospital; P. Ashworth, B.Sc., Owens College; M. Bannister, Owens College; G. Black, Guy's Hospital; E. H. Brock, Guy's Hospital; R. J. Carter, King's College; W. S. Colman, University of Edinburgh and University College; S. B. Cook, St. Thomas's Hospital; H. E. Crook, Guy's Hospital; C. P. Crouch, St. Bartholomew's Hospital; H. E. Cuff, Guy's Hospital; H. P. Dean, B.Sc., University College; E. Deanesley, University College; H. Duncan, St. Thomas's Hospital; F. Fawcett, St. Thomas's Hospital; T. Fisher, Guy's Hospital; G. T. Gifford, King's College; T. C. Gilchrist, Owens College; C. W. Jecks, University College; H. Johnson, St. Bartholomew's Hospital; A. A. Kinthack, B.A., University College, Liverpool; G. H. Lang, University College; M. P. Ledward, Owens College; W. J. Maillart, Guy's Hospital; H. Marriott, B.Sc., University College; W. P. May, B.Sc., University College; B. Melland, Owens College; A. A. Mumford, Owens College; G. H. O'Reilly, King's College; E. B. Randall, University College; G. E. Rennie, B.A., Sydney, University College; J. L. Roberts, B.A., B.Sc., Guy's Hospital; H. K. Roper, Guy's Hospital; E. A. Sadler, Queen's and Mason Colleges, Birmingham; H. A. Sansom, St. Thomas's Hospital; R. A. Sawyer, Guy's Hospital; A. Scott, Guy's Hospital; W. A. Slater, B.Sc., Guy's Hospital; G. B. Smith, Guy's Hospital; R. V. Solly, St. Thomas's Hospital; E. H. Starling, Guy's Hospital; W. P. Stocks, Owens College; H. Symonds, St. Bartholomew's Hospital; F. H. Taylor, London Hospital; A. H. Tubby, Guy's Hospital; J. O. Tunstall, University College; J. Wilkie, St. Bartholomew's Hospital; W. G. Williams, St. Bartholomew's Hospital.

Second Division.—A. Baxendell, Owens College; J. T. Bays, St. Mary's Hospital; L. T. F. Bryett, King's College; S. Bueno de Mesquita, Guy's Hospital; J. J. Buist, St. Bartholomew's Hospital; C. C. B. Burt, Westminster Hospital; J. T. Calvert, St. Thomas's Hospital; H. E. L. Canney, University College; H. A. W. Coryn, Charing Cross Hospital; R. F. Gill, University College; W. T. Grenfell, London Hospital; N. C. Haring, Owens College; E. B. Hastings, University College; A. E. Hensley, King's College; H. T. Kellsall, London Hospital; I. M. Macdonald, London School of Medicine for Women; L. W. D. Mair, St. Bartholomew's Hospital; E. Moss, Guy's Hospital; H. A. L. Pope, King's College; P. N. Randall, Guy's Hospital; J. J. Redfern, Queen's College, Belfast; B. Relton, St. Thomas's Hospital; J. C. Rossall, St. Mary's Hospital; C. F. Routh, Guy's Hospital; F. P. Sarjant, Guy's Hospital; E. H. Snell, Queen's and Mason Colleges, Birmingham; T. M. Stiles, Bristol Medical School; S. A. Tidesy, St. Mary's Hospital; H. E. Vincent, Guy's Hospital; H. P. Ward, King's College; H. Webb, London School of Medicine for Women and Royal Free Hospital; J. P. Williams, Owens College; M. G. Yunge-Bateman, Guy's Hospital.

Excluding Physiology.

First Division.—C. F. M. Althorp, Leeds School of Medicine; A. E. Giles, Owens College; J. E. Gould, University College; F. Harris, London School of Medicine for Women; B. G. A. Moynihan, Leeds School of Medicine; J. A. Shaw, University College; C. P. Spink, Leeds School of Medicine; F. A. Spreat, St. Bartholomew's Hospital; W. E. Tresidder, Guy's Hospital; J. W. Winterburn, St. Thomas's Hospital.

Second Division.—F. W. Abbott, Charing Cross Hospital; G. Barlow, Owens College; R. O. Bowman, Owens College; A. T. Brown, Guy's Hospital.

Physiology only.

Second Division.—W. H. Kelson, London Hospital; C. P. Oliver, Charing Cross Hospital; W. N. Risdon, Guy's Hospital; A. H. L. Stewart, St. Mary's Hospital.

UNIVERSITY OF EDINBURGH.—The following gentlemen received degrees in Medicine and Surgery on Saturday, August 1st, 1885.

Degree of Doctor of Medicine, with the Titles of the Theses. (* denotes those who have obtained prizes for their dissertations; ** those deemed worthy of competing for the dissertation-prizes; * those commended for their dissertations.) H. J. Barron, England, M.B. and C.M., 1883: Malignant Disease of the Testis. R. Bowes, Scotland, M.B. and C.M. (with Second-class Honours), 1881: Interrupted Respiratory Murmur. S. W. Bryant, England, M.B. and C.M., 1882: The Treatment of Insanity. H. L. Calder, Scotland, M.B., 1878: On the Treatment of Phthisis with Milk and Eggs. W. B. Carstairs, India, M.B. and C.M., 1877: The Therapeutics of Water. B. W. Cawthorne, England, M.B. and C.M., 1880: Diseases met with in a Stick Manufactory. R. P. Cox, M.B. and C.M., 1879: Membranous Dysmenorrhoea. **W. Cumming, Scotland, M.B. and C.M. (with Second-class Honours), 1883: On the Etiology and Pathological Relations of Bronchocele. **C. V. Delapine, France, M.B. and C.M., 1881: On the Determining Causes of Parturition. D. R. Dobie, Scotland, M.B. and C.M., 1882: Pleurisy and Allied Diseases of the Chest. A. C. Doyle, Scotland, M.B. and C.M., 1881: On Vaso-motor Influences in Tabes Dorsalis. ***H. Drinkwater, England, M.B. and C.M., 1877: The Epidemic of Measles Prevalent in Sunderland. *J. Ewart, Scotland, M.B. and C.M., 1880: Surgery Practice in Colliery Districts. E. Fraser, England, M.B. and C.M., 1882: On Enteric Fever. **F. Fraser, England, M.B. and C.M., 1881: On Diphtheria. ***J. L. Gibson, Australia, M.B. and C.M. (with First-class Honours), 1881: The Blood-forming Organs and Blood-formation: an Experimental Research. F. W. Grant (B.Sc.), Scotland, M.B. and C.M., 1882: On the Absorption of the Effluvia of the Intestinal Tract as a Cause of Anæmia. L. Grant, Scotland, M.B. and C.M., 1881: On the Value of Sulphide of Calcium as a Therapeutic Agent. W. F. Grant, India, M.B. and C.M., 1882: Some of the Pathological Relations of Insanity; with a Consideration of Certain Medicinal Agents used to influence directly the Insane State. H. Gordon, Scotland, M.B. and C.M., 1868: Circumstances affecting Health in a Manufacturing District. *J. Gordon (B.A.), Scotland, M.B. and C.M., 1867: Clinical Observations from the Records of a General Practice. **E. H. Greaves, England, M.B. and C.M. (with Second-class Honours), 1879: Clinical and Pathological Studies on the Nervous System. *C. B. Gunn, Scotland, M.B. and C.M., 1882: Bright's Diseases of the Kidneys. H. P. Hallows, England, M.B. and C.M., 1882: Treatment of

Diphtheria by the Internal Administration of Eucalyptus Globulus. T. S. H. Hinecks, England, M.B. and C.M., 1874; Aphasia. A. C. Keep, England, M.B. and C.M., 1882; The Thyroid Gland and its Diseases. **C. Kennedy, Scotland, M.B. and C.M., 1881; The Human Omentum: a Study of the Processes of Growth and Disease as seen in the Great Omentum in Man. H. D. King (M.A., B.Sc.), England, M.B. and C.M., 1881; The Treatment of Eczema. *W. Knott, England, M.B. and C.M., 1880; Contributions, Medical and Surgical. **A. M'Cormick, Scotland, M.B. and C.M., 1880; Myology of the Limbs of *Dasyurus Viverrinus*. F. A. Maciver, England, M.B. and C.M., 1883; The Incidence and Etiology of Pulmonary Phthisis and Allied Tubercular Diseases in Scotland. J. M'Lintock, Scotland, M.B. and C.M., 1878; Endemic Goitre or Bronchocele, and Allied Conditions. A. Macvie, Scotland, M.B. and C.M., 1882; Anemia, associated with Endemic Goitre. *B. L. Mills, England, M.B. and C.M., 1882; Urethral Rheumatism. **R. B. Mitchell, Orkney, M.B. and C.M., 1879; Insanity in Relation to Syphilis. C. Moon, Scotland, M.B. and C.M., 1880; On the Pathology, Symptoms, Diagnosis, and Treatment of the Gastric Ulcer. **W. Murdoch, Scotland, M.B. and C.M., 1877; Some Observations on the Weight of the Brain in the Insane: a Record of 500 Cases. J. A. Myrtle, England, M.B. and C.M., 1882; Those Skin-Diseases which are met with in Ordinary Practice, studied with a View to their Anatomical and Practical Features. A. J. Neale, England, M.B. and C.M., 1882; On the Cure of Psoriasis without the Use of Arsenic. **E. P. Neve, England, M.B. and C.M., 1882; The Pancreas: its Morbid Anatomy and General Pathology. **D. N. Paton (B.Sc.), Scotland, M.B. and C.M. (with First-class Honours), 1882; On the Relationship of Urea-formation to Bile-secretion. L. H. Pegler, England, M.B. and C.M., 1878; Clinical Notes and Cases in Diseases of the Ear. **R. Robertson, Scotland, M.B. and C.M. (with First-class Honours), 1878; Temperatures in Consumption. W. C. Scholtz, Cape of Good Hope, M.B. and C.M., 1881; General Notes of Cases in Private Practice. (Received the Degree on November 29th, 1884.) A. Simpson (M.A.), Scotland, M.B. and C.M., 1878; The Etiology, Pathology, and Treatment of Typhoid Fever. *A. T. Sloan, Scotland, M.B. and C.M., 1882; Goitre, with Special Reference to its Causation. *W. Stewart, England, M.B. and C.M., 1878; The Effect that the Trade and Mode of Living have upon the Health and Physique of the Lancashire Working People. E. J. Sykes, England, M.B. and C.M., 1880; Buxton: a Summer Resort for Phthisical Patients. A. C. Sym, Scotland, M.B. and C.M., 1882; On Sciatica. **J. Symington, England, M.B. and C.M. (with First-class Honours), 1877; Topographical Anatomy of the Child. C. J. Tiffen, England, M.B. and C.M., 1882; On the Use of Ergot of Rye in Obstetric Practice. W. J. Trentler, Bengal, M.B. and C.M., 1886; On the Evolution of Light from the Living Bodies of Man and the Lower Animals. *J. C. Voigt, Cape of Good Hope, M.B. and C.M., 1882; Record of Antiseptic Work with Eucalyptus Oil and Corrosive Sublimate. J. Walther, England, M.B. and C.M., 1883; Twelve Cases of Phthisis Pulmonalis treated with Arsenical Preparations. W. P. Warburton, Prince Edward Island, M.B. and C.M., 1885; On Pleurisy. E. H. England, M.B. and C.M., 1883; Epileptic Insanity. J. B. Wilkinson, England, M.B. and C.M., 1883; Observations on some Cases of Puerperal Fever and of Puerperal Inflammations. *C. H. Willey, England, M.B. and C.M., 1880; Contributions to the Pathology and Morbid Anatomy of Scarlatina and Variola. *W. Wilson, England, M.B. and C.M. (with First-class Honours), 1878; Mucous Disease.

Degrees of Bachelor of Medicine and Master in Surgery.—(a indicates that the candidate has passed the examinations with first-class honours; b indicates that the candidate has passed the examinations with second-class honours.) R. T. Allan, Scotland; J. Anderson, Ireland; J. A. Ashcroft, England; J. W. Astles, England; J. M. Balfour, Scotland; R. N. Bell, Canada; C. N. Bensley, India; R. Beveridge, Scotland; J. W. Black, Scotland; R. Blair, Scotland; R. Bone, Scotland; G. L. Bonnar, Scotland; C. C. Bose, India; L. J. H. Bonchet, Mauritius; R. Bowman, Australia; A. Brewster, Scotland; H. Brooks, England; H. Brown, England; M. Bruce, Scotland; R. N. Buist, India; W. Burns, Scotland; R. F. Burt, England; W. J. Cameron, Scotland; A. J. A. Campbell, Scotland; E. Chamberlayne, England; C. Chappleton, England; R. Chetham-Strode, New Zealand; P. P. Chetti, India; S. F. Clark, England; E. W. Clarke (B.Sc.), England; H. G. Clemon, England; H. F. W. Collinson, England; J. Cram (M.A.), Scotland; A. J. Cross, England; D. N. P. Datta, India; A. Davidson, Scotland; R. Davidson, (M.A.), Scotland; J. H. Dawe, England; J. W. Davies, England; J. Deleyrie, France; H. G. Dickman, Ceylon; W. K. M'K. Douglas, Scotland; W. O. Dow, Scotland; H. E. J. B. Du Moulin, Australia; W. M. Eaton, South Africa; G. G. Eyre (B.A.), England; W. C. Faulkner, England; L. G. Fischer, England; A. Fisher (M.A.), Scotland; H. S. R. Freeborn, England; A. E. S. Fry, England; J. Garvie, Scotland; J. E. Gemmell, England; J. Glegg, Scotland; J. G. Glover, Scotland; R. Gordon, Ireland; D. M. Greig, Scotland; C. W. M. Grier, Australia; T. H. Griffith, Barbadoes; J. Griffiths, Wales; W. B. T. Gubbin, England; J. A. Guthrie, England; J. S. Haldane (M.A.), Scotland; S. P. Hallows, England; J. T. Harvey, Australia; J. H. Hehn, Scotland; B. T. A. Helme, England; W. C. Helme, England; F. W. Hennessy, India; G. V. Hewland, England; J. R. Hill, Demerara; H. Hirst, England; J. J. Hoffmann, Cape of Good Hope; W. E. Home (B.Sc.), Ireland; R. E. Horsley, Australia; A. W. Hughes, Wales; S. Hughes, England; J. Hunter (M.A.), Scotland; R. Jackson, England; H. Jamieson, Scotland; H. John, Wales; G. F. Johnston, New Brunswick; T. Johnstone (M.A.), England; S. B. Jones, Wales; R. C. Joyce, Wales; B. E. C. Kingdon, England; F. Kraemer (M.A.), Hungary; A. J. C. Lamont, England; D. J. Lawson, Scotland; E. L. Lees, India; C. A. S. Leggatt, England; T. A. Leishman, Scotland; A. R. F. C. Leith (M.A., B.Sc.), England; J. L. Lewis, England; W. M. Little, Singapore; R. H. Lucy, England; J. S. M'Cracken, Scotland; D. M'Diarmid, Scotland; H. C. M'Fwen (B.Sc.), Scotland; W. G. M'Fwen, England; W. Mackay (M.A.), Scotland; F. W. Mackenzie, New Zealand; F. L. Mackenzie, Scotland; W. R. M'Kinnell, Scotland; C. J. R. M'Lean, Scotland; H. R. Maclean, Australia; W. H. M'Lean, New Zealand; R. MacLellan, Scotland; J. M. MacLennan (M.A.), Scotland; A. R. Macmillan, Scotland; R. S. Marsden (D.Sc.), England; D. G. Marshall, England; J. W. Martin, Scotland; D. J. Mason, Scotland; C. G. Mathew, Scotland; R. F. Meadows, Canada; C. H. Melville, India; H. B. Melville, Scotland; W. F. Menzies, Canada; W. G. Mitchell (M.A.), Scotland; D. M. Moir (M.A.), India; R. S. Morrison, Scotland; E. Morton, England; W. Murphy, England; W. R. Nasmyth, Scotland; F. Nale, India; J. H. A. Neethling, Cape of Good

Hope; W. B. Nisbet, England; E. S. Nutting, England; G. Ozanne, Guernsey; J. W. Pare, England; S. Partridge, England; A. Paterson, India; I. Paterson, Scotland; M. Paterson, Scotland; H. H. Pridie, Scotland; J. H. Pringle, Australia; E. T. Pritchard, England; S. H. Puckle (B.A.), Australia; A. Raines, England; C. A. Reany, Russia; F. G. Reiter, Cape of Good Hope; J. Richards, Wales; J. T. Richards (B.Sc.), England; J. B. Ridley, England; E. Robertson, New Zealand; G. M. Robertson, India; T. H. Robinson, England; B. A. Ross, Canada; W. L. Ross, Scotland; G. A. Scott, Scotland; W. E. S. Scott, England; H. Scurfield, England; C. F. D. Shaw, England; J. Simpson, Scotland; H. Sheldermine, England; E. W. Skinner, England; A. H. Smith, England; G. M. Smith, Scotland; G. L. Somerville (M.A.), Scotland; W. C. Spiller, England; W. H. G. Stephen, Scotland; J. Stewart, Scotland; R. Stewart (M.A.), Scotland; H. J. Stiles, England; R. Stirling (M.A.), Scotland; W. C. Stretell-Miller, Scotland; D. Sturrock, Scotland; J. F. Sturrock, Scotland; J. Sykes, Australia; C. Terrey, Australia; W. E. Thomas, Wales; W. J. Thomas, Wales; J. T. Thompson, England; H. A. Thomson, Scotland; H. T. Tomlinson, England; A. Turner, England; G. C. S. Vaughan, India; S. T. Vine, Jamaica; J. R. Wallace, Scotland; J. Warnock, Australia; G. de B. Watson, Hong Kong; F. G. Westera, New Zealand; A. B. Whitton, Scotland; S. T. Williamson, England; G. E. C. Wood, Scotland; H. Worsley, England.

The Ettles Scholarship for 1885 was awarded to H. J. Stiles, M.B. and C.M.; the Goodsir Prize to E. F. Neve, M.D.; the Wightman Prize to C. J. Lewis, M.B. and C.M.; the Beany Prize to H. J. Stiles, M.B. and C.M.; the Buchanan Scholarship to T. A. Helme, M.B. and C.M.; the James Scott Scholarship to R. Stewart (M.A.), M.B. and C.M.; the Murchison Scholarship to J. Griffiths, M.B. and C.M.

The following candidates have lately passed the second professional examination.

A. Alexander, C. M. Allan, J. Allison, W. O. R. Arnot, H. T. Barton, A. J. Beehag, J. S. Bell, W. W. O. Beveridge, J. Biggan (M.A.), T. M. Blumenreich, J. N. F. M. J. de Boissiere, A. E. Booth, J. E. Bowser, D. G. Braidwood, T. H. Bryce (M.A.), A. C. Burnell, F. J. Butt, C. G. Cassidy, J. T. Chamberlain, R. J. Copeland, C. N. Darwent, J. E. Davies, F. W. D'Evelyn, D. S. Doughty, A. Edington, M. Farquharson, T. H. Fiske, A. D. Fleming, W. A. Fleming, J. G. Fletcher, R. T. Forrest, R. J. Fox, D. A. Fraser, T. G. Galbraith, L. D. Gamble (with distinction), P. C. Garson, G. V. Gilray, G. P. Grant, G. Hall, W. H. A. Hall, G. G. Hamilton, G. S. Hicks, R. N. High-Hawkes, C. W. Hayward, H. B. Hetherington, G. S. Hicks, R. N. Highmoor, F. R. B. Hinde, J. H. Horsburgh, G. T. W. Howieson, R. P. Jack, F. M. Johnson, J. Jones, F. A. Jukes, G. Kelman, P. M. Kerr, E. L. B. Leubser, J. M'Andrew, T. M'Donald, G. S. Macgregor, I. D. Mackay, J. MacKerrow, H. W. G. Macleod, J. M'Naughton, R. H. Maizey (with distinction), A. Mann, G. J. M. Melle, G. W. Moseley, N. G. M'Nair, M. J. Oliver, G. J. L. O'Neill, J. C. Palmer, W. Philip, G. A. Pirie (with distinction), T. J. Pritchard, B. W. Quartey-Papalio, A. R. Rainy, J. Reid, W. B. A. Reid, W. S. P. Ricketts, D. Robertson, H. Robinson, J. G. de Rocha, S. J. Roderick, J. W. Rodgers, D. M. Sangle, A. E. Sloman, H. M. Smellie, C. E. G. Stalkart, W. Steven, T. Stevenson, G. H. Steyn, J. Strother, W. H. Sutherland, H. J. Taylor, I. Taylor, J. Taylor (M.A.), J. Tillie (with distinction), M. L. Trechman, W. A. Turner (with distinction), A. H. Vassie, W. Vickers, H. J. Walker, H. J. Waller, H. F. Waterhouse, J. P. Watt, J. L. Welch, J. H. Whiteside, J. R. Whitwell (with distinction), J. Wilkinson, C. L. Williams, A. W. Wilson, C. B. Wilson, G. Wilson, E. K. Woodhouse, D. J. van Wijk.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 6th, 1885.

Christmas, Charles Denn, Weltev Road, Hammersmith.
Codd, Henry Robinson, M.R.C.S., Willes Road, Leamington.
Finch, Richard Tanner, M.R.C.S., Rochampton.
Hurlbutt, Spencer, M.R.C.S., Chippenham Road, St. Peter's Park, W.
Kennedy, Angus Ross, Glasgow.
Stevens, James Jesse William, High Street, Strood, Rochester.
Tweed, Edward Reginald, 14, Upper Brook Street, W.

On the same day, the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,

Le Taesne, Ferdinand Simon, King's College Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination.

Briant, Arthur John, Liverpool Royal Infirmary School of Medicine.
Crowther, Astley Brodie, Manchester Royal Infirmary School of Medicine.
Ellis, William, St. George's Hospital.
Meadows, Naunton Wingfield Walford, Guy's Hospital.
White, Francis Silva, University College.

MEDICAL VACANCIES.

The following vacancies are announced.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill, Surrey.—Assistant Medical Officer. Salary, £160 per annum. Applications to the Secretary, 36, King William Street, London Bridge, marked Assistant Medical Officer, by August 22nd.

FROME UNION.—Medical Officer and Public Vaccinator. Salary, £77 per annum. Applications by August 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by August 15th.

LEEDS FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Surgeon. Salary, £200 per annum. Applications to C. H. Wilson, 9, Elmwood Green, Camp Road, Leeds, by September 1st.

LINCOLN COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by August 15th.

MANCHESTER ROYAL INFIRMARY, MONSALL FEVER HOSPITAL.—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiology. Applications by August 20th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Physician. Applications by August 31st.

REETH UNION, North Riding of Yorkshire.—Poor-law Medical Officer, Muker District, and Medical Officer of Health for the whole Union. Applications by August 19th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications to H. W. Holder.

ROYAL BERKS HOSPITAL, Reading.—House-Surgeon. Salary, £90 per annum. Applications by August 15th.

SALISBURY INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by August 21st.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Milnes Blunier.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

ST. GEORGE-IN-THE-EAST PARISH.—Medical Officer for the Infirmary and Workhouse. Salary, £300. Applications by August 19th.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician. Applications by September 2nd.

MEDICAL APPOINTMENTS.

ACKLAND, W. R., L.D.S.Eng., appointed Demonstrator to the Dental Hospital of London, *vice* Mr. William Hera, resigned.

BEEVOR, C. E., M.D. Lond., M.R.C.P., appointed Physician to out patients to the Great Northern Central Hospital.

BULLOCK, J. G. Wright, L.R.C.P. Ed., L.R.C.S.I., appointed medical officer to the Rugby Union Workhouse, and Medical Officer and Public Vaccinator to the Rugby District.

LAW, John Spence, M.B., C.M. Ed., appointed Clinical Assistant to the Birmingham Borough Asylum, Winson Green, *vice* Mr. A. H. Macandrew, resigned.

MACANDREW, Herbert, M.B., C.M. Ed., Clinical Assistant, Birmingham Borough Asylum, Winson Green, appointed Junior Assistant Medical Officer for Salop County Asylum, Shrewsbury.

SIMMONS, Fourness, M.B. Edin., appointed Resident Physician to the Chelsea Hospital for Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

VACY-ASH.—July 6th, at Agra, Bengal, the wife of Surgeon-Major R. Vacy-Ash, of a son.

MARRIAGES.

CHESTNUTT-Clough.—At Howden, East Yorks, on August 4th, by the Rev. W. Hutchinson, A.M., John Chestnutt, Esq., A.B., L.R.C.S., L.R.C.P. Edin., of Howden, eldest son of the Rev. W. W. Chestnutt, of Tralee, Ireland, to Annie Elizabeth, younger daughter of the late Thomas Clough, Esq., Malton, Yorkshire.

SLAUGHTER-ALDOUS.—On the 8th instant, at Petersfield, Hampshire, William Budd Slaughter, Surgeon-Major M.S., to Florence Ellen, only daughter of the late A. J. Aldous, Esq., of Southsea, Hampshire.

DEATH.

BECKINGSALE.—August 10th, at Newport, Isle of Wight, after a brief illness, John Edgar Beckingsale, F.R.C.S., J.P., aged 75. Friends will please accept this intimation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Mr. Augustus Winterbottom has been elected a member of the Board of Examiners in Dental Surgery.

HOSPITALS IN SWEDEN.—The new hospital buildings at Upsala, Sweden, are now ready for use, and have been delivered over to the medical authorities.

VACCINATION.—Mr. T. B. Ireland, the Public Vaccinator for the Tadcaster District of that union, has received a gratuity from the Local Government Board, for the efficient manner in which he has performed his duties as public vaccinator.

ALTERATIONS OF THE TEETH IN MORPHIA HABITUÉS.—According to M. Combe (*Revue de Thér. Medico-Ch.*, 1885, No. 7), the abuse of morphia produces well marked changes in the teeth. The tubercles of the molar teeth are destroyed, and a deep excavation is formed in their place. In other cases, the caries begin near the edge of the gum. The incisors and bicusps are surrounded on their anterior and lateral aspects by a narrow groove, similar to that observed in dyspeptic patients with acid saliva. In the canine teeth, the alteration begins at the point, which soon presents a distinct depression.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY.....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., 2; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 1.30; Skin, Tu., 1.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 3; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A FAILURE OF JUSTICE.

SIR,—The following case may be interesting. I can find no parallel case in any work to which I have access (Taylor's, Guy's, or Casper's *Jurisprudence*).

On the 9th April last, a message came to me that H. H. was about to be confined. I sent my assistant to attend her, and she was safely delivered of a female child (illegitimate) that day. For some time, he called daily, and reported to me that the mother and child were in a favourable state. On April 19th, the child died. I called that evening at the cottage, and informed the mother, grandmother, and brother, that, as I could not certify the cause of death, it would be necessary to have a *post mortem* examination; they agreed to this. Next day, I, with my assistant and two fourth year's students, performed the necessary operation. On external inspection, the child was seen to be slightly under the average size for an infant ten days old, but was mature and comparatively well nourished. The body was cold, and *post mortem* rigidity well marked. Death had taken place about 24 hours before the examination. There was great lividity on the head, trunk, and limbs. There were no external marks of violence. On opening the thorax, great turgescence of the contents was observable. The pericardium was normal, and contained a small quantity of fluid. The right auricle and ventricle of the heart were engorged with blood. The left side of the heart was empty, with the exception of a very small clot of blood in the left ventricle. The foramen ovale was partially closed. The inferior and superior vena cava were filled with blood-clot. The aorta was empty. The lungs were engorged with blood, and showed very dark-coloured patches here and there on the surface. Crepitation was present, and portions of the lung which were cut off floated in water. The thymus gland was large and normal. The trachea, larynx, and bronchi were normal, with the exception of a slight congestion of the mucous membrane in the left bronchus near the bifurcation of the trachea. The stomach was empty, excepting that there was a little mucus tinged with bile in it. The liver was slightly congested, the ductus venosus being still patent. The kidneys were slightly congested. The intestines generally were pale and distended with gas. The upper part of the pylorus was slightly inflamed. On feeling along the descending colon, a hard substance was found, which, on being cut down upon and taken out, proved to be a piece of cork, about the size of a small horse-bean. The opening was continued along the intestine, and in the transverse colon two straight pins, about one inch and a quarter, were discovered. The small intestine was then felt, and near the centre two pins, bent into the shape of a hook, were found. The points were first pushed through, the heads following easily. The whole length of small intestine was then slit up, and was found to contain a small quantity of feculent matter of a yellowish colour, but with little or no odour. The cranium was opened at the sutures, and the brain found to be perfectly normal. No extravasation of blood into the ventricles had taken place. The blood observed in the heart, lungs, and thorax, was very dark.

On the discovery of the pins, I sent for a policeman, who took charge of the pins, cork, and body of the child. The Procurator-Fiscal was communicated with, and came here the next day. In my preconception I gave it as my opinion that, from the foregoing appearances, the child died from asphyxia, not the result of external violence, and that the presence of the pins in the intestines, more especially of the two bent pins in the small intestines, was likely to set up a reflex irritation, leading to exhaustion and coma, having as a final result asphyxia.

What I wish to know is, whether I was right in arriving at this conclusion? The sequel of the case was as follows: The mother and grandmother were put under police supervision for a fortnight, until the mother was fit for removal. The accused were then taken to Dundries gaol, detained there nearly six weeks, then sent to Edinburgh, and, three days before the day fixed for their trial, were sent home. All the witnesses had been cited to appear at the Justiciary Court on the Monday, and it was not till Saturday afternoon that the citations were lifted. For my future guidance in such a case, I have applied to the Procurator-Fiscal, and he tells me he does not know the reason of the breakdown, and if he did, he is not allowed to communicate it to a third party. Such an utter failure of justice seems to me to be nothing more nor less than a premium on vice, and simply means that if four pins and a piece of cork be found by a medical man at a necropsy, in the presence of three witnesses, two of whom have passed the examination in pathology, and the third was a pathological medallist in a Scottish university, the less he says about it the better. I ask you to guide me in this matter, as it is not only a serious thing to the community at large that such things can go on with impunity, but also as tending to the discredit of the profession, if the testimony of medical men is to be so thoroughly set at naught. —I am, sir, your obedient servant, JOHN WILSON, Medical Officer, Wanlockhead by Abington, N.B. Duke of Buccleuch's Mines.

It is open to question whether our correspondent is correct in terming this case a failure of justice. It certainly is extraordinary that a child ten days old should have swallowed the articles named; and the presumption of homicide is thereby raised. To sustain such a charge, however, the death of the infant must clearly be connected with the articles swallowed, and it must be shown that they were administered feloniously. The theory that the pins set up reflex irritation, coma, and death, is open to question. Unfortunately, the history of the illness of the child is a blank.

HOME FOR CRIPPLED BOYS.

W. P. Y. B. desires to know of some home other than the Home for Crippled Boys, Kensington, where a cripple boy, aged 14 (minus one hand, congenital) could, on payment of a small sum, be received and taught a trade.

THE HEALTH OF GERMAN SPAS: WIESBADEN.

SIR,—Paragraphs as to the sanitary condition of this town having appeared in some of the London papers calculated to mislead many who might otherwise wish to visit, for health or pleasure, this charming watering-place, I trust you will find space in your columns to insert a few lines, stating what I believe to be the facts of the case.

I have been here six weeks, and during that time, even when the epidemic was reported to beat its height, I have heard nothing to induce me to think of running away from the place. To my knowledge, there has not been a single case of typhus fever. What fever there has been has been gastric and typhoid of a very mild character, most likely traceable to the excessive or incautious use of cold drinks and uncooked fruit during the very great heat a month ago. In the last six weeks, in a town of nearly 60,000 inhabitants, there have been 28 deaths attributable to fever. I may add that it is now almost extinct, and that no case of fever has occurred in any of the hotels or pensions. I enclose my name and address, which you are at liberty to furnish to any who wish for further information. —I am, your obedient servant, AUDI ALTERAM PARTEM. Wiesbaden.

CHOLERA IN SPAIN.

SIR,—I have been much interested in the weekly letters received by you and published in the *JOURNAL* from your correspondent in Valencia: and, in a desire to supplement his remarks, I would crave the favour of a few lines. My object is not to allude to any more than the excessive virulence of the epidemic as seen in Valencia, Mercia, Aranjuez, and now in Saragossa. It may not generally be known that agents are employed in almost all the small and large towns in Andalusia—that is, in Grenada, Jaen, Cordova, and Sevilla—to collect and send to the centres of rice cultivation and garden produce cultivation, the human soil, which, by the sad habits of the people, is deposited around the outer walls, and less frequented situations around the towns. This is carted away, and its use is to fertilise the gardens of Spain. I live in Linares, Province of Jaen, and have done so for 29 years, having been this time surgeon to the English and Foreign Mining Companies, and, beyond my M.R.C.S. and L.S.A., have been specially licensed to attend the English by royal decree of Isabella Segunda Reyna de las Españas. The towns and beautiful gardens of Spain have always enjoyed a notoriety for attacks of that peculiar fever, called here the *fevre pernicioza*, an intermittent which kills (by blood-poisoning) in usually its second attack, and, if not met in the first intimation by large doses of quinine, and awaiting the second attack a small blood-letting (four ounces), followed by strong brandy and water, and all the treatment for failing powers of heart, death is the rule. I had an opportunity, twenty years since, of treating several of these cases, and they closely resembled cholera, but wanted the retention of urine and the rice-water stool.

I would now wish to draw attention to the incontrovertible fact, that from India, and the Ganges particularly, comes this pest; by the bad habits of the people the waters are poisoned, and the disease thrives. In Valencia, Murcia, Aranjuez, Saragossa, etc., the soil was poisoned by human filth, then came irrigation, then the burning sun on the damp poisoned soil, then the germ of the disease lighted the match for the hecatomb of human victims. All went fairly well until the cholera came, then the microbe enjoyed his pleasure-ground. What should be done with human excrement? My answer would be, burn it all, for to retain it is to run the risk of the horrors of Spain at the present moment.—I remain, yours truly,

THOS. C. BLANCHARD, M.R.C.S. and L.S.A. Lond.,
Licenciado por la Reina de las Españas.

MEDICAL BATTERIES.

SIR,—The communication respecting medical batteries in your issue of July 11th, just received, illustrates the interminable misuse of electrical terms and the necessity of definite and logical meanings in speaking of currents. The galvanic current is not "constant," it varies in force continually, particularly in small or portable batteries, hence the value of large permanent outfits. The galvanic current may be, and in practice is, frequently and purposely "interrupted," and reversed for therapeutic measures. Galvanism cannot be replaced by currents from faradic machines of any kind. A "dynamo-electric" machine is a faradic apparatus, the current being obtained from a revolving armature-driver, in close proximity to electro-magnets, which are energised by a shunt current from the armature. "Galvano-faradic" machines are fed by an interrupted galvanic current through a primary coil surrounded by one or more secondary coils entirely disconnected and insulated from the galvanic current. "Magneto-faradic" machines have revolving coils before the poles of permanent magnets. However produced, faradic currents differ physically and therapeutically from galvanic currents, and in neither electro-diagnosis nor electro-therapeutics can faradism take the place of galvanism. They may be unidirectional, or bi-directional; galvanism is always in one direction. Galvanism possesses large quantity, but low tension—faradism less quantity but higher tension—currents from static machines very little quantity but extremely high tension. A dynamo must be large and well-built, hence it is beyond the reach of the general practitioner, and is too expensive for use, unless, as in my case, for example, it is employed for electric lighting by incandescent lamps, when it may be employed through a suitable rheostat. I insist upon large galvanic outfits, of from 100 to 250 volts; here with resistance interposed, you get nearly a constant current unobtainable from small cells or portable batteries. Small batteries are a nuisance to anyone, and unless one is expert in electrophysics, and something of a mechanic, any battery will be a trouble and a source of much expense. You must know what is wrong, and how to remedy it when difficulty occurs, and in addition you must be well up in electro-physiology and therapeutics to succeed or to do your patient justice.

A faradic machine for medical work should be "galvano-faradic" with several secondaries; mine has eight of differing lengths and cross-section, and of copper, silver, and platinum. The current is modified sensibly by method of winding also, as may be seen by examining its quality from an Edison, a Weston, a Vanleopole, or a brush dynamo, all of which, however, give faradic currents. I frequently demonstrate this fact to friends.

Let us use few terms in medical electricity, let these be descriptive, as I have tried to make them above, and let us drop the terms "constant," "interrupted," "magneto-electric," and "electro-magnetic," as misleading, particularly the last two which are common, and which mean one thing to one man and the opposite to another.—I am, respectfully yours,

WILLIAM R. D. BLACKWOOD, M.D.,
Philadelphia. Neurologist and Electrician to Presbyterian Hospital.

RICHARD BANISTER.

SIR,—In his address on ophthalmology at the meeting of the British Medical Association (BRITISH MEDICAL JOURNAL, August 1st, page 206), Dr. Power ascribes to Banister the authorship of a little work of 23 pages (No. 1, entitled, *A Brief Treatise Concerning the Preservation of the Eyesight*); but, on the title-page of the anonymous and undated volume (No. 2), to which this treatise forms an appendix, it is expressly stated that the treatise is "set forth by W. Banister, D. of Physick." The general title to the volume itself is *A Breviary of the Eyes, Containing the Knowledge and Cure of One Hundred and Thirteen Principal Incident and Cures Thereof*. First gathered and written in French by Jacques Guillemeau, Chyrurgian to the French King, etc.

In 1622, Banister published with his name (No. 3) *A Treatise of One Hundred and Thirteen Diseases of the Eyes and Eye-lidles*. This is a mere copy of No. 2, but Banister says not a word about its being translated from Guillemeau, and in like manner he reprints No. 1 as if it were his own composition. The whole is prefaced by 39 pages of prose and poetry, under the title of "Banister's Breviary of the Eyes." As regards plagiarism, "Richard Banister, Mr. in chyrurgery, oculist, and practitioner in physick," seems to have been very much of a rogue. —Yours faithfully, JAMES DIXON, Dorking.

AN APPEAL.

SIR,—I desire to acknowledge, with sincere gratitude, the prompt and liberal response to my appeal on behalf of the widow and daughters about whose case I wrote last week. I hope speedily to announce the restoration of the piano and the relief of these ladies from their difficulties.—I remain, sir, yours faithfully,

W. H. BROADBENT.

List of sums received up to August 11th:

	£	s.	d.		£	s.	d.
Dr. George Johnson	2	2	0	Sir Edwin Saunders	2	0	0
Dr. Travers	0	10	0	H. S. G. Eastbourne	0	10	0
Henry Smith, Esq., F.R.C.S.	3	3	0	G. Carrick Steel, Esq.,			
W. B. Owen, Esq.	1	1	0	F.R.C.S.	1	0	0
Professor Humphry	1	1	0	Dr. Bull	1	1	0
John Colebrook, Esq.	2	2	0	Dr. Walter Satchell	1	1	0
J. Lennox Browne, Esq.	2	2	0	Dr. Connel	1	1	0
Professor Joseph Bell	1	1	0	Dr. N. Henry Kane	2	2	0
Dr. Van Vestraut	1	1	0	Henry Stear, Esq.	2	2	0
James Taylor, Esq., F.R.C.S.	1	1	0	W. J. Mackie, Esq.	0	10	0
S. Burrows, Esq.	0	10	6	Dr. Kealy	1	0	0
Nath. P. Blaker, Esq.	1	1	0				

THE CASE OF DR. BRADLEY.

The following is a list of subscriptions to the Bradley Fund.

	£	s.	d.
Sir Wm. Jenner, Bart., K.C.B.	10	10	0
Sir Henry Thompson	10	10	0
Mr. Lawson Tait, Birmingham	10	10	0
Mr. Marston Buszard, Q.C., M.P.	10	10	0
Sir Andrew Clark, Bart.	5	5	0
Sir Edwin Saunders	5	0	0
Sir Wm. MacCormac	2	2	0
Mr. Jonathan Hutchinson, Cavendish Square	2	2	0
Dr. George Johnson, Savile Row	2	2	0
Dr. Robert Martin, Queen Anne Street	5	0	0
Mr. Geo. D. Pollock, Grosvenor Street	5	0	0
Mr. C. G. Wheelhouse, Leeds	5	0	0
Mr. Lennox Browne	3	3	0
Mr. Noble Smith, Queen Anne Street	3	3	0
Mr. W. Adams, Henrietta Street	5	5	0
Dr. Peter Redfern, Belfast	1	1	0
<i>The Medical Press and Circular</i>	3	3	0
Mr. James W. Barry, Bournemouth	3	3	0
Dr. Francis McLoughlin, Londonderry	3	3	0
Dr. Martin D. Bartolomé, Sheffield	2	2	0
Mr. W. Favell, Sheffield	2	2	0
Dr. Keeling, Sheffield	2	2	0
Mr. Arthur Jackson, Sheffield	2	2	0
Dr. W. R. Thomas, Sheffield	2	2	0
Mr. Simeon Snell, Sheffield	2	2	0
Mr. Henry Sewell, Winpole Street, W.	2	2	0
Dr. J. M. Kennedy, Peterborough	2	2	0
Dr. F. Richardson Cross, Clifton, Bristol	2	2	0
Mr. G. Booth, J.P., Chesterfield	2	2	0
Dr. Alf. Eddowes, Market Drayton	2	2	0
Dr. J. P. Smith, Lowestoft	2	2	0
Dr. Balthazar Foster, Birmingham	1	1	0
Mr. Bernard M. S. Roth, Winpole Street, W.	1	1	0
Dr. P. H. Mules, Bowden	1	1	0
Dr. J. Lawrence, Darlington	1	1	0
Mr. D. B. Balding, Royston, Herts	1	1	0
Dr. J. Barr, Liverpool	1	1	0
Mr. R. Bowes, Richmond, Yorkshire	1	1	0
Mr. Frank H. Hodges, Leicester	1	1	0
Dr. W. P. Herringham, Bedford Square, W.C.	1	1	0
Dr. Roger Prosser, Broomsgrove	1	1	0
Dr. W. Collier, Oxford	1	1	0
Mr. William Martin, Walkden	1	1	0
Dr. George Brown, London	1	1	0
Dr. William Benthall, Derby	1	1	0
Mr. A. H. Laver, Sheffield	1	1	0
Dr. H. A. Powell, Beckenham	1	1	0
Mr. H. Fearnside, London	1	1	0
Mr. Josh. A. Locking, Hull	1	1	0
Mr. George Walter Tait, Knowles, Birmingham	1	1	0
Dr. J. M. Finch, Borough Asylum, Leicester	1	1	0
Dr. Lauchlan Aitkin, Bournemouth	1	1	0
Dr. W. A. Satchell, St. Servan, France	1	1	0
Mr. John Bluett, Chesterfield	1	1	0
Mr. Richard Jeffreys, Chesterfield	1	1	0
Mr. J. Goodwin Shea, Chesterfield	0	10	6
Mr. G. P. Francis, Bourton, Dorset	0	10	0
Dr. Thomas Morgan, Montgomery	0	10	0
Mr. J. B. James, Bermondsey	0	10	6
Dr. Tom Nevill, Pimlico Road, S.W.	0	10	6
Dr. Grif Griffiths, Swansea	0	10	6
Dr. J. F. Fry, Swansea	0	10	6
Dr. De Vere Hunt, Bolton	0	10	0
Dr. Joseph Rogers, 31, Montague Place, W.C.	0	10	0
Mr. Alfred Reckless, Sheffield	0	10	0
Mr. F. M. Connor, Poplar	0	10	0
Dr. J. W. Buckle, Storrington, Sussex	0	10	0
Dr. J. B. Fry, Swindon, Wilts	0	10	6
Dr. J. S. Johnston, Sheffield	0	10	0

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BOOKS, etc., RECEIVED.

Van Ziemssen's Handbook of General Therapeutics. Vol. III. Respiratory Therapeutics. By Professor M. J. Oertel, M.D., of Munich. Translated from the German by J. Burney Yeo, M.D., F.R.C.P. London: Smith, Elder, and Co. 1885.

Contributions to Pathology and the Practice of Medicine. By J. R. Wardell, M.D. Edin. London: H. K. Lewis. 1885.

Unbelief: An Essay Addressed to Young Men of Every Christian Denomination. by Maurice C. Hime, M.D., LL.D. London: Simpkin, Marshall, and Co. Dublin: Sullivan, Brothers. 1885.

Cholera Curable. By John Chapman M.D. London: J. and A. Churchill. 1885.

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THE BRADSHAWE LECTURE

ON

MORBID ARTERIAL TENSION.

*Delivered before the Royal College of Physicians of London,
August 18th, 1885.*

By JAMES F. GOODHART, M.D., F.R.C.P.,

Senior Assistant-Physician and Lecturer on Pathology at Guy's Hospital.

It falls to the lot of the Bradshawe lecturer of to-day to deal with circumstances that are sadly peculiar, and which—young being the days of the foundation—no one has hitherto been called upon to handle. He is here to-day, not in his own right, so to speak, but to fulfil the duty, to reap the pleasures—in this instance but sad ones—which are some of the obligations of friendship. In happier fate, we should have listened to one of the most distinguished of the younger Fellows of this College, as he pointed, as assuredly he would have done, from the honoured and brilliant Past to the hopes of a robust and seething Present, and then, perhaps, on to the

"What Now discovers not, Hereafter knows,"

and the boundless capacity of the Future—fit subject of discourse by one whose enthusiasm seemed as limitless as it was prodigal.

But Mahomed's destiny was not this; his presence has gone onwards, and we who remember its individuality and its vigour may well make it our business to inquire what of the essence—

"The Living Power, if that which lived
True Life, live on"

--of that lost individuality is here.

But, although thus fettered, as I think, in the choice of a subject upon which to lecture—for there are other matters upon which, as being more conversant with them, I would rather dwell—when I come to examine them, my bonds are those not of restraint, but of freedom. For, on the one hand, the memory of the most illustrious Past, although not dead, yet sleepeth, and the task of wakening may most gently and naturally come by Time's substitutions and the more vivid impressions of its latest finished effort, the more recent Dead. And, on the other, in this particular instance, my subject happily embraces the work, not of Mahomed only—not of him first, far from it, though changeful fortune gives him now a courteous, sad, respectful precedence—but of such distinguished Fellows of the College, past and present, as Bright, Sibson, George Johnson, Owen Rees, Sanderson, Gull, Sutton, Dickinson, Broadbent, Galabin, and others. Indeed, when once the enumeration is begun, I know not where one is to stop; so many, according to my idea of what arterial tension embraces, have worked at some branch or other of it.

The subject, therefore, is appropriate, whether for a Bradshawe lecture in ordinary, or for one delivered under the—let us hope—long peculiar circumstances which attach to that of 1885, or for a lecture emanating from this College; for it concerns itself with a matter which, by the work of many of its Fellows, has been made, and still is, one of the leading pathological and clinical questions of the day.

I could not, of course, attempt in one short hour to review the whole history of arterial tension—a history practically concurrent with that of the circulation of the blood. Nor is anything of that soporific kind my purpose in this the middle of August. I am only concerned with the latest developments of arterial tension, the application of the idea to what, for want of a better term, I shall call the household explanation of disease. By that, I mean an explanation which can be made to apply to such multimorph conditions that, from one point of view, it is a morbid agency the importance of which can hardly be overrated: from another, it bears more the aspect of a faded Cambridge blue, so little of depth is there in the colour it contains.

These two alternatives will, I believe, fairly represent the value set upon the idea, or the fact, by practical men in the present day. I do not mean the conception of its value in the mind of the absorbed pathologist: he looks at things with an æsthetic severity of conviction that may chance to arrive at conclusions which are beside and

beyond our everyday realities. He works for to-morrow rather than to-day. His mood must often seem to be:

"Yet still shall I speed
On my way without heed,
Nor mourn for the wreck that is doing
For my calm, cold light
Is my own delight,
And I smile on the ashes of ruin."

The stress of the fight comes not on him; the upheavals produced by his dicta come upon the sons of men, and theirs is the stress in clambering the rugged crevasses of discovery.

Now, arterial tension and Bright's disease have danced so much together of recent years, that it is necessary to occupy much of the time with the aspect of the question derived from their association. Bright, in his day, noticed the hypertrophy of the left ventricle that occurs in chronic renal disease, and attributed it to the impurity of the blood, and to the extra work thus thrown on the heart, in consequence of the refusal of the tissues to allow a free passage to material of which they disapproved.

His words are these: "Either the altered quality of the blood affords irregular and unwonted stimulus to the organ immediately, or it so affects the minute and capillary circulation as to render greater action necessary to force the blood through the distant subdivisions of the vascular system." Dr. George Johnson, in his earlier writings, maintained much the same view, but abandoned it, in deference to the teaching of modern physiologists, for what is now well known as the stopcock-theory, which supposes, and no doubt justly so, that the function of the muscular coat of the arterioles is a controlling one; and that, when blood is ill adapted to the tissues, control will be increased, and the blood shut off more or less from the tissues. This must necessarily create obstruction behind, throw increased work upon the heart, and thus account for the hypertrophy of the left ventricle. Fully examined, there is not much objection to that way of stating the case; but there is just a touch of fancy in the stopcock simile, which provokes the criticism that it smacks too much of a purposive volition. The arteries might seem to say to the heart, "You shan't," and the heart to retort, "You shall;" or, as Dr. Dickinson writes, "the heart and arteries are thus represented as acting in antagonism, and hypertrophied by the efforts each makes to get the better of the other; the arteries contracting beyond their wont in the endeavour to shut the blood out of the tissues, the heart using increased efforts in the attempt to overpower their resistance and drive it in; and both, like conflicting athletes, are increased in muscle by the exercise." Dr. Johnson takes exception to that way of stating the case, but it is a clear way of putting the issue raised by a too dogmatic insistence on the stopcock analogy. In that light, the theory does not seem to me unphysiological. There is no strife in Nature; and, if the hypertrophy of the vessels exists, as it surely does, then both it and the increase of the muscular tissue of the heart must be part of one common process—one purpose, if you will—which is consistently and adequately explained by the effort of the entire muscular element of the circulatory system to forward a fluid to which the absorptive or appropriative powers of the tissues are ill adapted. I must say I find myself in complete accord with Dr. Dickinson, and Bright was probably well advised in confining himself to the facts. The bare supposition that the heart is large because it has more work to do, is quite unassailable. Nevertheless, Dr. Johnson advanced us an important step by insisting upon the thickening of the vessels, because so little attention had been paid to it. Bright, however, had noticed it, and you will see at once that the knowledge of that time implied its existence. It must be so. An athlete uses certain muscles for a certain purpose, and he perhaps doubles their size. We do not question the cause or the nature of the hypertrophy: the heart does double duty, owing to some impediment in one or other of its valves. Who questions the reason of its increase in size? If the stomach or the intestine have to overcome obstructions, and we find them thickened, again, who disputes the nature of the thickening? It goes without saying. In all these instances we see simple illustrations of a common physiological principle admitted by all. What reason, then, is there to discuss whether the muscle of the arterial coat hypertrophies? Of course it does, when excessive work is demanded of it, just as organic or any other muscular fibre elsewhere. Therefore, to the question, Is the muscular coat of the arterioles thickened in chronic renal disease? I reply not so much by a demonstration of the fact, which is, perhaps, not so easy as might at first hand appear, but by an appeal to the entirely *a priori* ground that it must be so. And I do this with intention, in the conviction that the appeal to demonstration, and to demonstration only, in the present day, is too absolute. No doubt it is, on the whole, the safest ground to tread; but appearances admit often of various interpretations; while, within

such limits as its present use, I believe my argument to be unassailable.

Some particular feature will, I say, admit of various interpretations. Thus, Sir William Gull and Dr. Sutton write: "As to the hypertrophy of arterioles we may say that, though the muscle in some of the larger arterioles especially seemed to be increased, yet we are still sensible of the difficulty of giving a true interpretation to such an appearance." They lay stress upon the possibility that irregular and unusual contraction of the vessels, and a want of constancy in the natural thickness of the layer in different arteries of equal calibre, may simulate disease; and those of us who are familiar with the pitfalls which abound, even for the wary, in latter-day microscopy, may well be ready to admit that these are no mere captious reservations of the hostile critic. I, however, agree with Dr. George Johnson, Dr. Dickinson, Dr. Galabin, and others, that a comparison of comparable specimens is not so difficult as to throw doubt upon the reality of the hypertrophy.

As regards the existence or not of spasm, Dr. Johnson's position is to my mind inadequate, by just so much as he rejects the function of the muscular coat of the arterioles as an auxiliary force in forwarding the circulation. I am aware of the difficulty of this question; that physiologists as a body are in favour of his position; and that demonstrable evidence against it is either absent or indecisive. Nevertheless, I cannot conceive the evolution of a circulatory system upon lines which, whatever name be applied to them, must be antagonistic. Dr. Johnson makes use of the term "an antagonism of forces." I would rather believe that, developed for a common purpose, and by a gradual evolution, heart and arteries so work together under natural circumstances that we cannot detect their harmony; and that, when it is possible to study the action of the muscular coat, it approximates to the conditions of disease. We say, for instance, that non-striated muscular fibre acts slowly and persistently, and that such an action is inconsistent with the lightning-wave which would be necessary, if the muscular arterioles were a propulsive power. But muscle, organic or other, acts as it is taught to do; the pupil, the œsophagus, the intestine, the uterus, the bladder, none of them act alike; and whether the aid to the circulation be vermicular, or what not, it cannot be but that the aid is positive. Some years ago, Dr. Charlewood Turner gathered the evidence on this head into a very able paper, his conclusion being entirely in favour of a considerable propulsive force being exerted by the muscular arterioles.¹ Dr. Dickinson also takes this view; and, in withstanding the increased blood-pressure, it surely must count for something, if it be but the pigmy to the giant.

A pure control-theory seems to me to bristle with difficulties in the direction I have indicated; but take the one case of digitalis, which will appeal as much as any to our practical interests in the question. Digitalis is said to increase the strength of action of the muscular wall of the heart on the one hand, of the arteries on the other.

If the muscular coat of the arterioles control and retard the circulation, the undoubted diuretic action of the drug is not easy to explain; and if, as the control-theory supposes, the stopcock-action be considerable, it would always be a question whether it would do more good by its action upon the heart than harm by its action upon the vessels. At any rate, the increased action of the latter might very conceivably, in a failing heart, bring about sudden dissolution.

It cannot be said with any certainty that this is one of the risks of its administration. The drug is not without its risks, but they are primary and central to the heart itself, and it would seem that the action of digitalis teaches that the muscular coat of the arterioles makes for propulsion rather than for retardation of the circulation.

But there can be no muscle, and no physiological muscular action, without the risk of, probably, under such circumstances as these, the frequent exhibition of morbid muscular action or spasm. It is clear that a muscular action which leads to hypertrophy might easily pass into spasm under conditions similar to, but in excess of, those which have provoked the increased action. And, indeed, the assumption of some such spasm, if not necessary, is, at any rate, agreeable to many of the phenomena of Bright's disease. I may instance the headache and the renal asthma, both which are sometimes much relieved by nitrite of amyl and nitro-glycerine, drugs which unquestionably relax spasm, and promote dilatation of the peripheral vessels.

Thus far I have devoted myself to the opinions of Dr. Johnson—first, because they preceded others; and, secondly, because by the effective presentation and vigorous advocacy of their author they have done much to promote our advanced knowledge, and to widen the borders of their own field of interest. It requires, indeed, but little imagination

tion to believe that, without this stage of its growth, the present conception of arterial tension would yet have to be developed. But be this as it may, the subject now expands in two noteworthy directions: by the hypothesis that chronic Bright's disease is an arterio-capillary fibrosis, or generalised tissue-change, on the one hand, and by the use of the sphygmograph on the other; and it is remarkable how these two lines of observation tend to support each other. As a direct recoil from Dr. Johnson's teaching, we may take the former first, although both proceeded independently and concurrently. I said a direct recoil from the teaching of Dr. Johnson, but it was not that; in point of time, and in the position it assumed in the discussion, it seemed to be; but it was rather the outcome of an approach of the question of the nature of chronic Bright's disease from the clinical side, or from a general rather than a local standpoint. Epigrammatically stated from the paper of Sir William Gull and Dr. Sutton, it is this: "Old age is not an entity, but a set of conditions predisposing to that state which is called chronic Bright's disease." And while to most this comes in natural order when the prime of life is run, yet to some old age is no matter of years and averages, but the running down of a spring set for an individual. It comes, at times, even to children. In the tints of summer, yes, even in those of spring, you can read old age if you will. And although chronic Bright's disease is in many cases associated with renal disease, it is not essentially a matter of organs; the generalised change in the tissues of the whole body is the essential, and to some this comes not by kidney chiefly, but by lung chiefly, by brain, by heart, and so on.

Now, here comes a difficulty in dealing with the case. May I say that this is a magnificent scheme of decay, to discredit which would be to do for this line of thought what I understand is meant by the expression "taking the romance out of life?" Still, life has the equivalent of romance attaching to it, which to many of us is most attractive, suggestive, propulsive. We often hear it said in the present day, this or that is mere sentiment, as if no solid worth attached to it; but I should like to know whether life would be worth living with all that is comprehended in the term "sentiment" cut out of it. What progress would be made in its absence? And I make bold to say before the Fellows of a College the reputation of which is based upon a firm foundation of fact laid by many generations of distinguished men, that pathology would lose much of its interest, much of the energy which characterises it and makes it so indispensably and helpfully the groundwork of medicine—physiology complete—if it chained us too subserviently to the march of facts. There are some, yes, many happily, who are absorbed upon the foundations, but they do not comprise the whole body of workers, and we cannot and would not do without the soul-inspiring idea, the fond imagining of the more precise knowledge of the future, forecast and sketched by the hand of genius.

This is a digression which will be pardoned, in that it helps me to convey what is, I think, the strength and the weakness of the argument of Sir William Gull and Dr. Sutton. The idea is a suggestive one, and it is largely true. Pathology is distinctly the richer for it; but it derives its strength less from the labours of the histologist than from the bird's-eye view, the intuition, may I call it so, of experience. There is ground in plenty for the argument that we wear out by tissues or systems; there is, I think, a fair amount of evidence admitting the opinion that chronic Bright's disease, with contracted kidney, is a generalised degeneration; but to base it upon the non-existence or unimportance of muscular hypertrophy in the arterioles, and to ascribe the thickening which exists to an essential hyaline-fibroid degeneration, is equivalent to the unskilful selection of a battle-field.

How far, then, do I think it true? Perhaps an answer to that question may best be arrived at by continuing upon the other, how far it is not true. And going to the other end of the circuit, there are groups of cases which admit no doubt, in which the disease in the kidney is certainly the cause of the changes in the heart and arteries. One of the first steps in the direction of proof of this kind was made by Dr. Galabin, when he showed that the heart and arteries are hypertrophied in a large proportion of cases of chronic parenchymatous nephritis (which, as a group, I may, perhaps, still call the large white kidney group, although the kidney is often contracted), and which are indubitably primarily renal. I have taken up the cases where he left off, and have collected from the *post mortem* records of Guy's Hospital all the cases of chronic parenchymatous nephritis that occurred in the ten years 1873 to 1882, amounting in all to 191. At the lowest estimate, taking the average of the healthy heart at twelve ounces, which is full high, 103 were above this and 83 below it. But the proportion claimed by hypertrophy is considerably higher than this; for, in the minority are fifteen children under ten, and seven more between ten years and fifteen, and others in which the left ventricle is stated to be thick or

¹ On the Functions of the Vessels in relation to the Circulation of the Blood. (St. Thomas's Hospital Reports, New Series, Vol. vi, 1875.)

markedly hypertrophied, although the actual weights would not indicate this. I think the preponderance may fairly be put at two to one. It has been said that hypertrophy is less frequent in these cases than in the granular kidney. But figures do not show this well. I have tabulated also the cases of granular kidney, recorded in our *Reports*, a total of 342 cases; and, taking the average again as twelve ounces, 103 are below that line and 226 above it. But it is not easy to come to a positive opinion in this way. I think Dr. Dickinson makes the observation that some of the cases of parenchymatous nephritis are primarily cases of granular kidney; and, in looking over a large number of cases like this, one cannot but be confirmed in the opinion, derived from clinical study, that it is quite impossible to separate too arbitrarily between the one form of disease and the other. The more acute form of disease is often far more insidious than is usually taught; the granular kidney frequently winds up with tubal or parenchymatous changes.

Perhaps I may remark, in passing, that a large series of observations of this kind may possibly throw some light upon the moot point, the rate at which the heart can put on muscle; for the heart has been found large in some cases in which there was every probability of the renal disease having existed but a few weeks.

Such differences as do exist between the two classes of cases are of more practical moment than of worth as distinctions. For, in the first place, it may be said that the failure of health and of nutrition will not unfrequently combine, so to reduce the arterial tension, as to deprive the circulatory system of any excuse for hypertrophy. The damage, too, in these cases is much more severe at any one time than the granular kidney can show; the left ventricle has, in consequence, more tendency to dilate, and thus to relieve the excessive tension and forestal the hypertrophy by the death of the patient. I put it thus pointedly as a fact of importance. In proportion as the renal disease is sudden and severe, so is the risk of dilatation of the heart. The more insidious it is, the more likely is the cardiac hypertrophy to be present in greatest perfection. Serious acute renal disease means sudden increase of arterial tension, and the imposition of greatly increased labour on the heart, and rapid dilatation of its wall, becomes a serious risk.

I speak with some diffidence before those of larger experience than my own; but surely this is corroborated by clinical observation. The most acute and sudden form of renal disease with which we are acquainted is undoubtedly that following scarlatina, and it is just here that acute dilatation of the heart occurs most typically. That coming next in severity is the chronic parenchymatous nephritis, in which dilatation is common; and, although it is more or less combined, it also closely competes with the hypertrophy. The granular kidney, which has small and inappreciable beginnings, and which drags its slow course through many years, while it cannot be said by any means to be ignorant of dilatation is, nevertheless, the disease in which the well known simple hypertrophy is most often found, and to a degree which is perhaps never reached under other circumstances.

There is another fact of similar bearing. It is this: that while granular kidney often terminates in cerebral hæmorrhage (86 times in 117 cases of apoplexy—*Guy's Hospital Post Mortem Records*, 1873 to 1882), the subject of chronic parenchymatous nephritis rarely dies by that means. Bartels states that he has never known death to occur in such cases from apoplectic effusion, and it is certainly a rare occurrence.*

At first sight, this might seem to be agreeable to such as maintain that the disease of the vessels is a peculiar one, and independent of the nephritis; for here is a severe form of renal disease, and the large heart in most cases, yet seldom apoplexy. But the better explanation is probably that I have given; it is obvious that dilatation of the heart is unfavourable to the occurrence of apoplexy; it relaxes the tension at the centre which would otherwise be put on at the periphery, and death comes about by cardiac failure, and not by peripheral hæmorrhage.

I have only time to add on this point that it applies, of course, not only to parenchymatous nephritis, but to all cases, more or less, in which there happens to be dilatation of the left ventricle. It is worth remembering, for it cannot be unimportant, whether the risks of an individual are those of apoplexy or of the more gradual process of cardiac failure; and the undoubted value of a drug such as digitalis in many of these cases, is a ready criterion of the importance of the point in the matter of treatment.

I have still something to add concerning the pathology of the arterial changes. Enough has been said about the reality of the mus-

cular hypertrophy; but what about the excess of hyalin-fibroid material, and the atrophy of the muscular coat in the arteries, that have been observed? I have no doubt of the correctness of the observation, and very little difficulty in explaining it. There is a general demand for extra labour, and a physiological response represented by hypertrophy; but, in the process, not only does the muscle thicken, but the other constituents of the arterial coats must thicken too, and thus the excess of hyalin-fibroid—of the connective material of the coats of the vessels—is natural to the circumstances. But, further, when once a growth is started which operates impartially upon several varieties of tissue, high and low, if the conditions for obtaining supplies be in any way prohibitory, as may be concluded is the case with the arterial coats, to judge from the frequency with which, even in otherwise sound bodies, atheromatous changes are met with, the least specialised, or less dainty feeders, are likely to have the best of it and to supplant the more highly specialised. There are plenty of instances in pathology of the ease with which embryonic or structureless tissue gets a living by the process which is popularly known as "sponging." There could not indeed be a more apt term, for these lowly organised tissues seem to live by a process of simple soaking. Take an *ant mortem* polypus in the heart, or even those larger masses of thrombus which sometimes form in the apex of the left ventricle. In either case, there are considerable tracts of clot which must have maintained themselves in this manner; and if you tell me that these things are dead, then so are we in great part (as has indeed been contended), for they are no more so than several of the parts of the living body; and I would have it that they thus live. But perhaps it may be said that the life of a clot is no fair evidence that definite structures will live after such a menial fashion. If so, there is a well worn case of the dissecting aneurysm, with its false channel as good as the natural one, as far as its lining membrane is concerned; or there is the still more ancient question of the nature, true or false, of the coats of an aneurysmal sac. The largest sac we can take, and that is no mean limit, will show as irreproachable a lining membrane, even to its reproduction of disease, as the vessel from which it springs; so that, brushing aside the cobwebs of the intellectual tarantula, it is impossible but that new coat has formed. Perhaps some may contend that it is formed by means of the legitimate blood-supply procured from the vasa vasorum. That may be allowed to be possible; but not the least of the advantages of holding such an office as this is, that one becomes entitled for one short hour to an opinion, and consequently I venture to adhere to the view (not by any means a novel one), that the internal coat of the vessel or sac, as the case may be, is derived directly from the blood-stream, by what may, perhaps, be described as a natural asphaltting process, the blood being asphalt, roller, and clerk of the works all in one. I dare not presume too much, or I should be inclined to investigate the mode of life of foreign bodies in the peritoneum and in the joints; of our natural cartilages and intervertebral substance, and even of tendon, notwithstanding the noteworthy observations of Dr. Mitchell Bruce upon its system of canals. I must, however, content myself with the statement that physiological and morbid phenomena alike appear to show that a perfectly natural tissue may not only live, but be the best of its kind in this easy way, while more highly strung tissues, such as muscle, give way and disappear. Therefore, I see no contradiction in the fact that, in the tissues and vessels of chronic renal disease, the muscle may certainly be thick in some parts, wasted in others; or that the vessels can be recognised as well by the hyalin-fibroid thickening of the coats as by the muscle.

But stronger, and perhaps less fanciful ground in favour of the existence of degenerative changes in this disease, may be found in what no one now questions, namely, that strain or overwork leads to disease. Nay, more, bearing in mind the observations of Dr. Moxon, upon ulceration of the aorta by friction, and on the nature of atheroma, it may be said that wear and tear lead to inflammation; and if there may be a question about this in the aorta, though I do not think there can be, there can be no question whatever in the pulmonary artery, where, when we meet with atheroma, there will generally be plenty of evidence that there has been obstruction to the passage of the blood through the lungs. What is true for the larger vessels is still more so for the smaller, for inflammatory processes are certainly more luxuriant in them than in the starveling products which constitute atheroma. Hence, as the direct outcome of the overwork, we might expect more or less excessive nucleation of the coats of the arterioles, and ultimate fibrosis. This is a point of importance, very properly insisted upon by Dr. Dickinson; and, I may add, not only in regard to the changes attaching to chronic renal disease, but also in dealing with the question of the nature of disease in the smaller vessels.

* Eight times in 191 cases, of which four admit of question, being not improbably cases of granular kidney with an acute parenchymatous change superadded. Cerebral hæmorrhage is still rarer in lardaceous disease, as Dickinson notes.

But not only do these cases of chronic parenchymatous nephritis testify to the potency of renal disease in causing hypertrophy of the heart and arteries; there are instances of granular kidney in children and adolescents which are to be traced directly to scarlatinal nephritis, and occasionally to poisoning by lead. Degenerative changes of any kind, although not unknown, are not common at these periods of existence, and it is therefore by so much the more certain that the renal disease initiates the circulatory changes. The same may be said of the occasional cases where the kidneys are spoiled by chronic obstruction to the passages; and finally, there are the experiments of Gravitz and Israel upon the lower animals, in which it has been found that an inflammation of the kidney can be produced by the temporary ligature of the renal artery on the one side, which, if the animal live long enough, is followed in course of time by contraction of the kidney, and sometimes by hypertrophy of the heart also.³

The arguments that have been used against the renal origin of the cardiac and vascular changes, although based upon admitted facts, are by no means conclusive; for instance, it is said that the kidney may undergo extreme degeneration without being attended by any such ulterior effects, and this is about equally true as regards the heart, as has been shown for both forms of disease, the granular and the parenchymatous. But the argument which is held to explain the same fact in relation to lardaceous disease, will apply to these forms of renal affection also. It is only in cases where the excretory area is disproportionately small for the body-weight, that the effect must be sought. If the body waste and the heart fail, the kidney may be small indeed, yet sufficient for its day, just as the chronic phthisic could not possibly have lived on, had not the progressive wasting compensated the balance. It is also true that the general changes may be extreme, and the kidneys only a little granular or coarse; but this may mean much less than it appears to do, for very aberrant organs may look most meek to the naked eye.

These constitute the main points adverse to the contention of Sir William Gull and Dr. Sutton in its entirety. They show conclusively that renal disease will produce hypertrophy of the heart and of the smaller arteries; and this is indeed admitted by most pathologists, of whom I will specially mention Dr. Dickinson as having, as long ago as 1877, said all that one can possibly say now.

But there is another aspect of the question, and this it is which provides ground for a belief in the existence of diffused degenerative changes such as have been described.

I suppose that, ever since Bright's time, it has been felt by all that albuminuria must often be but a rough and a late test of disease—that there are conditions preceding it which, if we could recognise them, would tell us more; and one of the earliest of my medical experiences was the work of Dr. Owen Rees in the wards at Guy's Hospital, upon the detection by tincture of galls of morbid conditions of the urine which could not be reached by the nitric acid test. That line of research has been developed of recent years by tests of greater delicacy, and we now hear talk of physiological albuminuria, peptonuria, and so on. So far as my own experience has gone, I have not met with much encouragement in the field of pre-albuminuric precipitates, and all the less because it holds out hopes of great things as regards the early detection of disease. Peptonuria and physiological albuminuria do not seem to me at present to have shed much light on anything, not even on gout or indigestion, which are ever ready to coquette with novelty; yet ideas of this kind are beginning to colour our thoughts and our practice. Only the other day I saw a lady suffering much from headache, and with a variable but often copious albuminuria of seven or eight weeks' standing to our knowledge. I need not go into details of the case; it will suffice to say that, although it was admittedly obscure, I thought that some serious organic disease of the kidney must exist. It was arranged that another opinion should be obtained, and one for which assuredly I am not wanting in respect. This resulted in the verdict that the headache was megirim (which was quite possible), and that the albuminuria was a functional one dependent upon malnutrition.

But I must not pursue this question. I have no wish to prejudice its issue, only at present its promise hangs back a little, and we have hitherto learnt more from sphygmographic observation, and it is here that Mahomed entered the field. The way being prepared by Burdon Sanderson, he improved upon Marey's instrument, and soon settled

down to an elaborate investigation of the pulse-tracings of disease, and he, more than any other, has familiarised us with the characteristics of the pulse of high tension. If others have treated the subject with a more philosophic delicacy of perception of the fallacies which strew the path of this method of investigation, as perhaps they have, it was a matter of earlier training and culture, not of spirit, and he was too enthusiastic to be self-contained.

I say this intentionally, because, looking back upon the history of the sphygmograph—if it can be said as yet to have a history—I doubt whether the observations of Mahomed have received quite their due meed of estimation. Yet his was the work which kept the subject going, and of which our present knowledge is, in great part, the development.

If I were to choose from Mahomed's many papers that which has always seemed to me the most valuable, I should select one published in the *Transactions of the Royal Medical and Chirurgical Society for 1874*, on the Etiology of Bright's Disease and the Pre-albuminuric Stage. It bears directly upon the present part of our subject. In it was shown precisely that morbid conditions of the pulse (high tension) precede any evidence of disease in the kidney; and he draws the conclusion, from a number of observations, that the vascular condition is the cause of the albuminuria, and not the converse, as had been generally supposed.

His observations and conclusions seem to be particularly worthy of credence, because they no more than state, in terms of greater precision, what had been long known. There was nothing new in the knowledge that the pulse is hard under certain circumstances; let the early and long day of venesection attest that. There is no novelty in the assertion that careful purgation is the best means of preventing or combating the onset of scarlatinal dropsy; let the sheet-anchor of the treatment of Bright's disease attest that. The sphygmograph but told us in one sense what we knew before, but it told its tale with a graphic interest which had much of the merit of a new discovery. It did not educate the finger, but it reduced the composite of the impressions derived from touch; and this account of high tension, demonstrated by the sphygmograph, but not unknown before, leans obviously towards the hypothesis advanced and supported by Dr. Walshe⁴ as early as 1849, that Bright's disease is not renal, but primarily a blood-disease. It is fair to suppose that the blood is, under such conditions as those of acute gout, lead-poisoning, blood-poisoning of some other kinds, some states of anæmia, and so on; in a condition which renders it repulsive to the tissues, and that the kidney only suffers in common with the other members; and it is quite possible—nay, there are grounds for believing—that under circumstances which apply to and are imposed upon all, it may suffer more than the rest by reason of some disability inherent in its anatomical structure, for example; or an undue readiness of its glandular elements to undergo degenerative changes; or a disproportionate activity of function, for it is hardly to be supposed that there is no maid-of-all-work in a household so economically conducted as ours. At any rate, it is well known that diseased conditions of the kidney—of the epithelium chiefly, but not only—are common enough in the *post mortem* room in all sorts of cases, which could not by any means be primarily renal; and such changes are probably far more common than allied ones in the liver.

The greater frequency of the occurrence of lardaceous disease in the kidney might also be an instance in point. It must, however, be said that the apparent precedence of high tension does not necessarily carry the conclusion that the kidney follows the lead of the blood. It may still be that the excess of tension is compassed, if not by albuminuria, yet by some milder form of renal inadequacy, to adopt Sir Andrew Clark's happy, if somewhat gossamer term, as the initial fault. The pathologist has no right to be contemptuous of function. It cannot be but that it sometimes fails first; it cannot be but that it often fails before any appreciable structural change is manifest; so that in scarlatina, gout, and such like conditions, it may so be that the tension is responsive to the visceral failure.

But if this importance attaches to function, as it surely must, it may be contended, on the other hand, that it supports the probability of the production of an arterio-capillary fibrosis by means other than renal defect. Can it be, with other excretory organs of probably no less importance, namely, the skin, the liver, and the intestine, that the kidney monopolises the power of thus rendering the blood distasteful to the tissues? Surely some of the many disorders of a huge viscus like the liver must be efficient, even if gout be discredited for being a trimmer; and it is possible enough, it is probable enough

³ In looking over our *post mortem* record for the purposes of this lecture, I have noted one case of one-sided disease, the other kidney being only hypertrophied, in which the heart was enlarged. Dr. Galabin had previously noted two others in earlier years, and there are several in which one kidney having been long destroyed or substantially crippled, the other having undergone inflammatory changes in addition to the hypertrophy, characteristic disturbances have followed.

⁴ Bright's Disease not Essentially a Renal Disease, but Essentially and Primarily a Blood-Disease (*Lancet*, 1849, vol. ii, p. 29).

from the clinical side of the case, that certain morbid states of the nervous system, "worry," for example, when expressed in terms of nervous action, by their influence on the peripheral circulation, will bring about the same result. Indeed, Dr. Clifford Allbutt, in one of his many attractive and suggestive papers, has taken up this very question, and has narrated cases, if I mistake not, of granular kidney which have seemed to date their origin from prolonged anxiety; and Dr. Broadbent has alluded⁵ to the increase of tension that may be observed in states of nervous excitement in hysteria and other diseases of the brain and spinal cord.

A good deal has sometimes been made of the occurrence of a general arterial disease with hypertrophy of the heart, without renal disease, in young people, but it is very exceptional. More common, but still rare, is the same combination in older people. Of the former class, I cannot say that I have seen a single example, although for twelve years I have been on the look out in our *post mortem* room; of the latter, I can count fourteen in the ten years collated. But I must say that, holding, as I do, the probability of the existence of a general arterio-capillary fibrosis, I am for ever wondering at the small amount of tangible evidence that is to be obtained from the deadhouse. As a matter of practice, a thick sodden appearance of the arteries but rarely points wrongly to chronic renal disease. Some years ago, MM. Bouchard and Charcot published some observations⁶ upon the dependence of cerebral hæmorrhage upon the presence of miliary aneurysms on the cerebral arteries. Heschl, Meynert, Bastian, Douglas Powell, and Charlewood Turner, have since then met with a similar condition. MM. Bouchard and Charcot consider the disease to be a sclerosis of the outer coat of the vessels leading to atrophy of the muscular coat, and thence to weakening of the walls and aneurysm. One cannot but suppose that here is the same change as that described by Sir W. Gull and Dr. Sutton, to the accuracy of whose observations independent testimony is thus afforded. They also contend for the special nature of the disease, although they would confine the sphere of its action to the vessels of the brain; but this lands us in a dilemma, for, on the one hand, it would seem to traverse the observations, too numerous to admit of the least doubt, that renal disease is the common associate of apoplexy (63 cases are given, a large proportion of which must have been, and obviously were, accompanied by renal disease and hypertrophy of the heart); and, on the other, if it is, as it must be, the change with which we have been so much occupied, it cannot be simply local, since so many other observers unite in saying that it is a generalised one, even though they differ as to the nature of the precise change.

But scant time remains to allude to what is perhaps the strongest evidence in favour of the generalised nature of the changes which include chronic Bright's disease. It is referred to by Walshe; Sir William Gull and Dr. Sutton depend much upon it; and it forms the subject of some of Mahomed's latest work in a paper on Chronic Bright's Disease without Albuminuria (*Guy's Hospital Reports*, Series iii, vol. xxv). I may say that I reject such a nomenclature as this. Bright's disease, if it mean anything, means nephritis; and if it be true that it is but a part of a much larger subject, some more expansive title, arterio-capillary fibrosis, for instance, must be found to incorporate it.

It is certainly a remarkable fact in the disease, if, being an affection of one organ, it should frequently present symptoms apparently so remote that it is not difficult to overlook the primary disease altogether. There is no doubt that the urine is for long free from albumen in some of these cases (although I think myself that that feature has been rather strained); and perhaps the only tangible abnormality pointing to the kidney will be the low specific gravity of the fluid. Some die of apoplexy, some of asthma, some of cardiac failure, some of pneumonia. Of 100 cases given by Mahomed,⁷ 74 presented the symptoms of diseases other than renal.

I will also make use of another fact, which seems to me to point in the same direction; it is the great frequency of granular changes in the kidney in the *post mortem* room. There have been as many as seventy cases in one year out of a total of 490, or in a seventh of all the cases, and 463 cases in ten years; a number doubtless under the mark, as the slightest degrees are so common as sometimes to escape attention. This does, I think, tend to confirm the suggestion I have already put forward, that the life-history of the kidney is one of early senility, and that it runs in this respect with baldness, grey hair, and the

atheromatous aorta, any of which may be the symptoms of essential disease, but which are more often milestones; and milestones, happily, with their faces blurred.

I had intended to have taken up, more fully than I can do now, another and somewhat neglected aspect of my subject: the frequency and practical importance of the effects of pulmonary arterial tension. I am, of course, well aware of Dr. George Johnson's work in this⁸ direction also; and some of my hearers must have listened to or read his Lundleian lectures delivered here in 1877. But my own attention was called to it more particularly by a case that came under the care of Dr. Moxon, in Guy's Hospital, two or three years ago, and which for some time was under my own observation. It must suffice to say of it that the only symptom of much obtrusiveness was a peculiar *bruit* in the pulmonary area, which upon the whole we thought not unlikely to be due to an aortic aneurysm, with possibly some communication with the pulmonary artery. It eventually proved to be an enormous dilatation of the pulmonary artery, dependent upon a fibroid state of lung. The preparation is on the table before you. Since then, I have been surprised at the frequency with which dilatation of the pulmonary artery, not of course always in this excess, has come under my notice. Now, all cases of chronic bronchitis and of mitral disease are more or less cases of pulmonary tension, and the indications of its presence in the alteration of the character of the second sound are to be found in every text-book. To such cases I am not alluding, but to a pathological and clinical extension of the subject which on both sides requires development.

Those of us who have been in the way of making numerous inspections will, I think, assent when I say that every now and then a puzzling case of this kind is met with: the symptoms during life have been those of severe bronchitis and emphysema, and yet the bronchial tubes are practically dry, and the emphysema, if it cannot be said not to exist, is, at any rate, not more demonstrably present than the fatty heart which is so often made to satisfy the unenlightened conscience of a coroner's jury. But the pulmonary artery is dilated and perhaps atheromatous. It is difficult to say what the origin of these cases is; I only know that the lung has sometimes seemed practically sound, and I have been in the habit of explaining them by supposing that, if some of us are born with large hearts, others are born with little ones, and some in like manner are provided at the outset with lungs which are inadequate to their requirements. But, however this may be, something has happened which has left the lung comparatively sound, and made dilatation of the pulmonary artery the main disease.

It has often happened to me in the *post mortem* room to have to ask the question—in many cases, alas, without answering it—Which has been the more to blame, hypertrophy or dilatation of the heart and arteries? It is, indeed, impossible to mete out the relative share of each in a given result; but it is quite clear that the relative effects of the two cannot be unimportant. Extensive dilatation, for instance, of any of the cavities of the heart, while on the whole lethal, certainly has some compensatory aspects; while extreme hypertrophy, on the whole conservative and protective, as certainly hurries some lives on to a catastrophe. But, in this instance, observation tends to exalt the importance of dilatation; and I may remind you that there is *post mortem* evidence that, even in so common an ailment as anemia, the pulmonary artery may undergo dilatation (Russell and Bramwell; *Bramwell on Diseases of the Heart*, page 197). I think, then, it is fair to conclude that the pulmonary artery sometimes dilates under certain transient conditions of pulmonary disturbance, and afterwards the dilatation remains permanently as the substantive disease.

I can only add that the clinical importance of these cases is neither small nor uninteresting. There is no need to intrude upon you the well worn discussion of the nature of the hæmic murmur, but you will see that the ready dilatation of the pulmonary artery, if it be a fact, revitalises this question, and gives it fresh prominence and purpose.

This, thus hastily sketched, is the subject, such are the scenes, which occupied one of the hours of Mahomed's short but busy day. I know that they possess far more importance for some minds than for others. Some of us never think in terms of arterial tension at the bedside. With some, it is descent; with some, the wear and tear of life; with some, nervous action; with some, blood; with some, our environment lit by Professor Tyndall's beam that forms the more suggestive pose of the mobile study, whose servants we in common are, but whose masters we reverently all might wish to be. Each of us has his ruling idea, which lights his path and guides his hand in ways innumerable helpful, but unknown to any save himself. Yet, though we must in this sense be negative to lines of thought not obviously in harmony with our own, we can always gauge their value justly by studying that line which best serves us.

⁵ On the Causes and Consequences of Undue Arterial Tension (*BRITISH MEDICAL JOURNAL*, vol. ii, 1883, p. 357).

⁶ Nouvelles Recherches sur la Pathogénie de l'Hémorrhagie Cérébrale (*Archives de Physiologie*, 1868).

⁷ The Clinical Aspects of Chronic Bright's Disease. (*Guy's Hospital Reports*, Series iii, vol. xxiv.)

It was said in my hearing the other day by one who, saying it, made it well worth the saying, that he did not feel altogether satisfied with his life's work. It was not enough for him to have been in the van of scientific medicine: he would have liked to have been able to say, "This is my discovery." In more general way, I have sometimes thought that medicine is less happy than painting or sculpture, which can have all a life's work visibly before it, and point with satisfaction to its numerous creations. There is something in the idea, but it wants in depth. One may be well content to have been in the van; it is a truer evidence of worth than the one discovery. Wherever I go I hear of Addison spoken of by his pupils, not as the discoverer of a disease, but as a master teacher, whose hold still bends them to an almost reverential admiration. I hear of Bright, not so much as a name attaching to a disease, as that of a man whose observations are worth attention, whatever be their subject. I hear of Latham and of Murchison in like manner; we shall hear of those we may not mention in their presence. Such as these influence their fellows by a power quite independent of their additions to our knowledge.

Mahomed's name will not live upon discovery; dying unfortunately so young, it would be but a flimsy conceit of the hour to suppose that it will live in any sense beyond the lives of his own friends and the precincts of his school. Progress is as relentless as death, and, although it is a glorious resurrection, it is none the less a grave. Even the gentle Emerson says: "What care we who sing this or that, it is we at last who sing?" All the more, then, may we dwell upon a name to-day which, could one depict on canvas or in the history of scientific medicine the individual elements in the wave of progress, during the last ten years, whether by the work itself, by the stimulus to thought which that work has proved, or by the *sympathy* of personal contact, would certainly be largely represented.

Only this more. Pardon the personal tribute:

Then notes came pouring through the wicker bars,
Climbed half a rapid arc of song, and stopped.
I turned and passed along;
But Time and Death, Eternity and Change,
Talked with me ever, and the climbing song
Rose in my hearing, beautiful and strange.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE TREATMENT OF ACUTE RHEUMATISM.

Introduction to a Discussion in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By J. S. BRISTOWE, M.D., LL.D., F.R.S.,

Senior Physician to, and Lecturer on Medicine at, St. Thomas's Hospital.

MR. PRESIDENT AND GENTLEMEN,—Acute rheumatism is one of the commonest of diseases; it is one of the most distressful of diseases to those who are its victims; by the damage it inflicts on some of the internal organs, it spoils or shortens the lives of no inconsiderable percentage of the population; and, at any rate until recently, it has appeared to be but little influenced in its course by any kind of remedial treatment. For these reasons, acute rheumatism has ever been a subject of sorrowful and profound interest to medical practitioners; and nothing of greater importance than its curative treatment can well be discussed at a meeting of the British Medical Association.

In opening the conference on this subject on the present occasion, I shall not attempt to treat it exhaustively. I shall not even, in the short time placed at my disposal, pretend to treat it adequately. I shall simply place before the meeting the by no means original views I at present hold in regard to it, which are based partly on writings and researches that are now common property, and partly (but in a far less degree) on my own experience.

Like many others who are here this afternoon, I can in memory traverse a long series of years, and can call to mind many varieties of treatment of acute rheumatism, which, during that period, have been introduced with the flourish of trumpets, have been adopted more or less widely, have been largely regarded as curative, and most of which I have, at one time or another, tested upon my own patients. But, until within the last few years, no medicine that I have employed has seemed to me to have the least influence in shortening the progress of the disease, or in diminishing its liability to complications; and, one by one, I dropped them all, and trusted to careful nursing, to local applications for the relief of pain or inflammation, to medicines administered internally for the purpose of acting on the emunctories or procuring rest or ease, to the treatment of complications as they arose, and to the administration of tonics as soon as the promise of convalescence suggested their employment. In a word, my treatment of acute rheumatism, after a while, accorded in the main with the expectant plan which Sir William Gull and Dr. Sutton brought into prominence some years ago; and I as fully was satisfied with the efficacy of this as I had been with that of other kinds of treatment with more pretentious claims. I accepted the view that acute rheumatism was a disease for which there was no known specific remedy; and that, at any rate so far as treatment is concerned, it had close affinities with the infectious fevers and lobar pneumonia.

I may refer briefly to two or three of the methods of treatment which previously largely prevailed. I recollect that, when I was young in the profession, nitrate of potash, largely diluted and in quantities of an ounce or more daily, was much affected by some of my teachers and senior colleagues, and I had ample opportunities of watching its action. I never saw, as I thought, any benefit whatever from it. A little later, bicarbonate of potash, so much lauded by the late Dr. Fuller, came into general use. This, as is well known, was generally administered in doses of 20 grains or so every two or three hours, with the object of neutralising the excess of acid that was supposed to pervade the system, and of rendering and keeping the urine alkaline. I treated many cases on this plan, and watched them closely; but I was neither satisfied by my own observations, nor convinced by the statistical evidence adduced by Dr. Fuller and others, that the treatment had any real efficacy. The plan of blistering the inflamed joints was introduced into this country by the late Dr. Herbert Davies. He believed that the rheumatic poison abounded in the neighbourhood of the affected parts, and that it was eliminated with the serous fluid discharged from the blistered surfaces. He believed, moreover, that,

SCARLATINIFORM RASH PRODUCED BY INTESTINAL ABSORPTION OF PTOMAINES.—A patient observed by MM. Lépine and Mollière (*Journ. de Méd. et de Chir. Prat.*, 1884) presented at first nothing abnormal, except an artificial anus, the consequence of a strangulated hernia. One day he was suddenly seized with violent delirium, and M. Mollière noticed a considerable dilatation of the pupils. The skin was covered with a scarlatiniform rash, but there was neither fever nor angina. Poisoning by belladonna was at first suspected; but, after a careful examination, M. Lépine came to the conclusion that the symptoms were due to the absorption by the intestine of ptomaine, acting like atropine, and probably similar to that obtained by Zuelzer and Sonnenschein from putrid substances. After a short time, acute conjunctivitis and fever supervened, and the patient died. At the *post mortem* examination, a highly offensive substance was found in the intestine below the artificial anus, so that the possibility of an acute auto-intoxication cannot be disputed.

CHRONIC ALCOHOLISM.—Messrs. Dujardin-Beaumetz and Audigé have communicated to the Institute the result of their researches on chronic alcoholism. From June 1879 to July 1883, 18 pigs were experimented upon, each of them with a different sort of alcohol, such as ethylic and methylic alcohol, alcohol prepared from corn, beet-root, and potatoes (pure and impure), absinthe, and tincture of absinthium. These were given daily with the food, in the dose of one to one and a half grammes of alcohol, two grammes of absinthe, and two centigrammes of the tinctura absinthii for one kilogramme of the weight of the body. The symptoms of intoxication by alcohol were sleepiness and prostration, vomiting of bile and glairy mucus, diarrhoea, and sometimes intestinal hæmorrhage, dyspnoea, tremor, and incomplete paralysis of the hind legs. Some animals which were killed or died during the experiment were examined by Professor Cornil. He found congestion of the digestive tube, sometimes causing hæmorrhage; congestion and inflammation of the liver, but without cirrhosis; congestion of the lungs; and, finally, atheroma of the large blood-vessels, especially the aorta. The animals were not emaciated, but presented numerous extravasations of blood into the subcutaneous and muscular tissues. Impure alcohol had a much more rapid and deleterious influence than rectified alcohol. The symptoms caused by absinthe and tinctura absinthii were excitement, and spasmodic contractions of the muscles and cutaneous hyperæsthesia, but true epilepsy was never noticed.

under its influence, the liability to heart-disease was lessened. For my own part, I could never bring myself to admit that the blister-treatment had any influence over the course of acute rheumatism. But I satisfied myself, over and over again, that blistering relieved the pains in the joints, the inflammation in which it did not cure or even check. My late friend, Dr. Peacock, introduced a formula into St. Thomas's Hospital (probably from Edinburgh), which has been largely employed at St. Thomas's, and has probably done service in other institutions. It comprises colchicum, bicarbonate of potash, iodide of potassium, hyoscyamus, and compound infusion of gentian. It is a kind of blunderbuss, which scatters its shot and hits other objects besides that at which it is aimed. The combination is, I believe, an useful one, especially when employed in cases of joint-affection the nature of which is obscure; for it is calculated to exercise a beneficial influence over gouty and syphilitic joints, and possibly also over joints the subject of non-specific inflammation. But, though I have often used it, and seen it used, in cases of acute rheumatism, I cannot claim any credit for it in the treatment of the genuine disease.

The introduction of salicin, and of its relations salicylic acid and salicylate of soda, has wrought a marvellous change in the aspect of affairs as regards the treatment of acute rheumatism. The discussion which took place before the Medical Society of London three or four years ago, in which many men of eminence and experience took part, proved that at that time the salicyl-treatment of acute rheumatism had come into extensive use in the hospitals of the United Kingdom, and that almost everyone who had employed it largely, and had watched its effects, had been deeply impressed by the manifest beneficial influence it exerted over the phenomena and progress of the disease. I am not, as a rule, very credulous with regard to the direct influence of drugs over diseases, and I have no doubt (though I do not recollect, and have not attempted to ascertain the facts) that it was some time after the introduction of the salicyl-treatment that I was first induced to try it. But I have now employed it for some years, to the exclusion of almost all other remedial agents, and with a growing conviction of its remarkable curative powers. Indeed, I cannot hesitate to declare my belief that we have in salicin and its derivatives antidotes to acute rheumatism, just as in quinine we have an antidote to ague, and in iodine and mercury antidotes to syphilis. I do not mean to say that salicin cures all cases of acute rheumatism, or that it acts with equal rapidity and certainty in all cases that it cures. But neither does quinine invariably cure ague, or mercury syphilis; nor, I may add, does successful vaccination always prevent an early attack of small-pox.

If the influence of the salicyl-treatment of acute rheumatism is so great, as many others, besides myself, are ready to maintain, it ought, no doubt, to be capable of statistical proof. But statistical averages, which have to be deduced from unequal, if not incongruous, units (as is generally the case when statistics are applied to the elucidation of the complex problems involved in the treatment of disease) are confessedly fallacious, and can often, by slight differences in their manipulation, be plausibly adduced in support of opposite contentions. For this reason, among others, I shall not place before you any elaborate statistical details; but I shall, in the first place, record my present beliefs, and, in the second, adduce in support of them a few simple statistics which my former pupil, Dr. Mackenzie, has been good enough to prepare for me from recent records of my own cases, and those of some of my colleagues.

The influence of the salicyl-compounds over the febrile temperature in acute rheumatism is certainly remarkable. In the great majority of cases, where large doses (say 20 grains of salicylic acid or of salicylate of soda) are administered at frequent intervals (say every two hours), so that the patient becomes speedily saturated with the drug, the temperature falls to the normal in the course of a day or two, and, provided the medicine be continued in sufficient doses, remains normal. No doubt there are exceptions (real or apparent) to this rule. The salicylates have certainly not the same influence over the temperature of gonorrhœal rheumatism that they have over that of the idiopathic disease. In some cases where a single joint becomes severely inflamed, or inflamed out of proportion to other joints, a high temperature persists in spite of the salicylate treatment. And, again, in cases attended with serious cardiac or other visceral complications, the salicylates as antipyretics fail in their action.

It has been suggested, and maintained, that, although salicyl-compounds reduce the febrile temperature of acute rheumatism, they have but little effect over the rheumatic process, and that the inflammation of the joints is not actually reduced by it, nor the progress of the disease arrested. That, however, is not the general experience of practical men, and it is certainly not my experience. In the great majority of cases, according to my observation, the influence of the

remedy over the condition of the joints is quite as marvellous as its influence over the temperature. As might, *a priori*, have been supposed, however, the restoration of the joints to health takes a longer time than the reduction of temperature. As a general rule, the pains remit as the temperature falls; but swelling and effusion, and other results of inflammation, subside more slowly, and very often do not wholly disappear until after the lapse of several additional days. But here, again, exceptions are by no means unfrequent. Occasional cases are met with in which, for no apparent reason, the rheumatic inflammation seems only too successfully to resist the assaults of the drug. In cases, already referred to, in which the temperature is little, if at all, influenced by the salicylates: cases in which intense inflammation attacks one joint alone, or disproportionately to other joints; cases of rheumatoid affections associated with, or resulting from, certain specific diseases; and cases of serious visceral complication; again, the salicylates are, so far as I know, unsuccessful.

It is held by the apostles of the salicyl-treatment, that its employment diminishes the tendency to heart-disease. The same consequence has been attributed by their advocates to most kinds of treatment which have been practised with alleged success. This is a subject which it is extremely difficult to investigate statistically; partly because patients never come under treatment at the onset of their malady; partly because a very large proportion of patients (either in consequence of some former attack of rheumatism, or because it has already arisen in the course of their present illness) already present the evidences of heart-disease, when the medical man is called to their assistance: and partly because it is generally difficult or impossible to determine in cases where old heart-disease is present, whether or not a fresh attack of rheumatism is attended with renewal of cardiac inflammation. There is no doubt, I believe, that the tendency to the occurrence of heart-disease is greatest at the beginning of an attack of rheumatic fever, and that this tendency diminishes as the disease goes on. There is no doubt, however, that it may develop at any time during the progress of an acute attack. Of course the effect of medicines cannot be retrospective; but assuming that we have a drug which is competent to arrest the rheumatic process, and that that is administered effectively before the heart has become implicated, it is obvious that the heart must share in the general benefit, and that the liability to heart-disease in such cases must be lessened. If, then, the salicyl-treatment is specific against rheumatism, as I believe it is, it must, *pro tanto*, be specific against the component parts of the disease, and therefore against its cardiac factor.

Again, it has been largely asserted, by those who freely acknowledge the striking influence of the salicyl-compounds over acute rheumatism, that this influence is not so much curative as it is a forcible repression of the disease, which, as soon as the salicyl-treatment is discontinued, breaks out with all its original violence; and, in support of this view, it is pointed out that rheumatic patients thus treated are largely liable to relapses, and that the total duration of their illness is not materially, if at all, curtailed. It must be acknowledged that relapses are not uncommon; but relapses are not uncommon in acute rheumatism under other forms of treatment, or under no treatment at all. Neither are relapses uncommon in other diseases which are acknowledged to be amenable to treatment by specific remedies. How frequent are relapses in ague, in syphilis, in gout, in psoriasis, not only after specific treatment which has been doing good has been discontinued, but even occasionally during its employment! I recollect that, when I was young and enthusiastic, I thought I would cure a young lady who came under my care for her first attack of ague; and I treated her with large doses of quinine for three or four months after all symptoms had subsided; yet, within a week of leaving the treatment off, a recurrence of ague took place. I recollect, too, when the skin-department at St. Thomas's Hospital was under my management, I determined in many cases to prevent, if I could, the recurrence of psoriasis in patients whom I seemed to have cured with arsenic; and I continued the arsenical treatment for months while the patients were apparently well; yet over and over again the psoriasis reappeared, even while a patient was under the full influence of the antidote. The tendency to relapse manifested by rheumatic fever under salicyl-treatment is scarcely, therefore, an argument against the specific influence of the medicine. But the question may be looked at from another side. There has been, and there is, a strong tendency to judge of the effects of the salicylates by their effects upon the temperature; to assume that, when the temperature has become normal, no further benefit can be expected from them, and therefore at once either to discontinue the drugs, or to give them in diminished quantities. This procedure has been determined in no inconsiderable degree by the fact of certain unpleasant symptoms being usually induced by the heroic use of salicylates, which the

medical attendant is generally anxious to mitigate. I have no doubt, indeed, that the relapses (certainly not unfrequently observed in connection with the employment of salicylates) are due mainly to this cause, and that they would cease to a large extent if it only came to be fully recognised that salicylates are efficacious not simply by reducing temperature, but by their curative influence over rheumatism, and that they ought not to be discontinued, or even materially reduced in quantity, as soon as the temperature falls.

The last point on which I shall remark is the question of the injurious influence of salicylates on the patients who are treated by them. That these drugs, given in large repeated doses, cause toxic effects, just as quinine does under similar circumstances, is manifested every day. As a general rule, the patients become deaf, and have noises in their ears; occasionally, delirium supervenes; and occasionally also albumen in small quantities appears in the urine, which possibly may be due to the effects of the medicine; but I have never witnessed any consequence of a really alarming character, and certainly never any permanent mischief. I must acknowledge that I have always diminished the doses if delirium has come on. It is stated that patients become debilitated under the use of the salicylates, and that, moreover, it is necessary to regulate the diet carefully for some time after apparent cure. I confess I am not disposed to acquiesce in these statements. I do not think that any special debility follows the employment of the salicylates; and I never hesitate to treat, in respect to food and stimulants, convalescents from rheumatism just as I treat convalescents from other inflammatory diseases.

I now proceed to quote the statistics prepared for me by Dr. Mackenzie. They illustrate mainly the influence of the salicylates in reducing febrile temperature, in curing the joint-affection, and in shortening the duration of the disease, and confirm the opinions which I have expressed upon these points. It is significant that there is no reference in them to the ill effects of the medicine.

"The following statistics are obtained from the records of 150 cases of acute rheumatism treated with salicylate of soda in St. Thomas's Hospital during the years 1881, 1882, and 1883. Half of the cases were under the care of Dr. Bristowe, the remainder under Dr. Ord and Dr. Stone. The cases are not selected cases to support a particular hypothesis. Every case in which the information required was to be obtained has been included until the above number had been attained.

"The salicylate was administered, as a rule, in doses of 20 grains every two hours, until the temperature became normal. It was then given in like doses every six hours for a few days, and then discontinued if no relapse took place. In all except 8 cases the temperature became normal on the second, third, or fourth day of administration of the salicylate. In a few cases the temperature went up to 100° for a night or two after it had become normal. The exceptional cases were all complicated ones. In 120 of the 150 cases, the temperature once normal remained so. In the other 30, one or more relapses with rise of temperature and swelling of joints occurred.

"The pains and swellings of joints were, as a rule, very much diminished at the same time as the temperature became normal, but did not altogether disappear for a few more days, sometimes ten days after admission.

"In 61 cases there were no complications apparent on admission. In 20 of these, signs of endocarditis subsequently developed, and were present when the patient left the hospital; 11 were cases of first attack, 7 were cases of second, and 2 cases of third, or later attack. In 2 cases where endocarditis was present on admission, pericarditis subsequently developed. The average period a patient remained in the hospital was about three weeks.

"Of the total number of cases, 64 were cases of first attack; 42 of these were admitted within two weeks of the onset; 21 were admitted at a later period of the attack. Of the 42 admitted within the first two weeks, 13, that is 31 per cent., were free from complication; 4, that is 9.5 per cent., had murmurs on admission which subsequently disappeared; 8, that is 19 per cent., developed murmurs during treatment, which persisted; 10, that is 24 per cent., had murmurs all through; 7, that is 16.5 per cent., had pericarditis on admission. Of the 21 admitted later, 2, that is 9.6 per cent., were free; 3, that is 14.4 per cent., developed murmurs; 14, that is 66.4 per cent., had murmurs throughout; 2, that is 9.6 per cent., had pericarditis.

"Thus, in the former class, 40 per cent. emerged without signs of heart-affection, while, in the latter, only 9.6 per cent. escaped.

"There were 45 cases of second attack: 28 of these were admitted within the first two weeks; 8, that is 23.6 per cent., were free throughout; 6, that is 21.4 per cent., developed murmurs; 14, that

is 50 per cent., were admitted with endo- or peri-carditis; 17 were admitted subsequently; 5, that is 29 per cent., were free throughout; one, that is 5.8 per cent., developed murmurs; 11, that is 63.8 per cent., had endo- or peri-carditis on admission.

"There were 41 cases of third or later attack: 28 of these were admitted within the first week; 10, that is 36 per cent., were free throughout; one, that is 3.6 per cent., had a murmur which disappeared; 2, that is 7.1 per cent., developed murmurs; 15, that is 53.3 per cent., had murmurs throughout, or pericarditis; 13 were admitted after the first two weeks; 3, that is 20 per cent., were free; 10, that is 80 per cent., had endo- or peri-carditis on admission."

In considering the action of salicylate of soda and related drugs on acute rheumatism, it is impossible not to speculate, first, on the nature of acute rheumatism, and, second, on the mode in which the medicines act upon the disease. I must acknowledge that the more I think on the matter, the more I feel compelled to adopt that view of the nature of acute rheumatism which Dr. MacLagan has steadily held from the period when it first impelled him to seek in willow-bark an antidote against the disease, and which he maintains with singular ability in his work on *Rheumatism*, published three or four years ago—namely, that it is a disease of a malarious character, dependent on the introduction into the body, and on the breeding therein, of living organisms. He adduces many arguments in favour of this view; such, for example, as that acute rheumatism is mainly a disease of low-lying and damp regions; that it tends to recur (as ague does) in those who have once had it; that, notwithstanding the presence of high fever and great suffering, the joint-affections are rarely intense, and rarely or never lead to serious mischief. But I forget whether he knew, when he wrote his book, of the recent tendency among physiologists to regard all spreading or metastatic inflammations as the consequence of the action of septic organisms, or that there are many such reasons for looking upon acute lobar pneumonia as a septic disease. He had certainly no reason to suspect that tubercle is almost certainly determined by the presence of a special kind of bacillus. These latter considerations furnish strong analogical grounds, in addition, in favour of his views.

How it is that salicyl-compounds cure acute rheumatism I cannot say. I presume, however, it is much in the same way that quinine cures ague, and mercury syphilis. In the latter cases, it is commonly believed that the specific drugs act directly on the virus, and that is the most probable explanation. It is conceivable, however, that in all three cases the specific drug simply destroys or renders inert the poison which the living virus sets free or manufactures; and that, consequently, the disease is rather neutralised than cured. But this view is not more applicable to the relation between rheumatism and the salicyl-compounds, than it is to the relation between the other named diseases and the drugs that exercise specific influence over them.

I shall not discuss my friend Dr. Latham's views of the causation of rheumatism, and his exceedingly ingenious speculations with respect to the action of the salicylates in the beneficial treatment of this disease. I may remark, however, that his view of the pathology of rheumatism and that which I have advocated are opposed to one another, but that his chemical theories of the action of the salicylates do not appear to me to be incompatible with a belief in the malarial nature of the disease. But Dr. Latham is present, and will doubtless put his case clearly and strongly before the meeting.

As an addendum to my address, I shall quote two cases which have been under my care during the time I have been considering the form my address was to assume, and which (curiously, under the circumstances) are examples of the failure of the salicylates to control symptoms apparently due to the rheumatic process.

The first is that of a girl aged 18, who was admitted complaining of pains in the knees and shoulders, coming on, it was said, after a long walk taken three days previously. On admission, the left knee was painful, tender, and much swollen; but there was no evidence beyond her own statement that other joints were affected. She has now been in the hospital nearly three weeks, and the knee is at least as much swollen and inflamed as it was at first; but there have been no recurrence of pain in other joints, no cardiac affection, no rheumatic sweats. Her temperature, which varied, about a week ago went up to 102° and 103°, and even now, as in the beginning, reaches at times 101° or more. Salicylates have been given continuously, and have apparently had temporary influence in diminishing the temperature. But they have not controlled it completely, and they have not reduced the inflammation of the joint. The girl has not had gonorrhœa, or vaginal discharge; and I may add that I have doubted, for the last week or more, whether the case was one of rheumatism at all, and whether it should not rather be regarded as one of accidental inflammation of the knee-joint.

The other case is one of hyperpyrexia in acute rheumatism, and much more interesting. M. B., a woman aged 37, was admitted under my care on the afternoon of July 25th. She had generally had good health, but for three weeks past had been suffering from rheumatism, with pains in most of her joints. She was not apparently very ill. There was but little perspiration, and it presented scarcely any odour. Many sudamina were scattered over the trunk. She complained of pains in all her joints, and most of them (even those of the fingers) were slightly swollen and tender. The ankles and the left knee were chiefly affected. The lungs were healthy. A blowing systolic murmur was observed at the apex of the heart, and some roughness of the first sound over the pulmonic area. The tongue was coated at the sides, but red, dry, and fissured along the centre. Her appetite was poor. The bowels were regular. The urine was of specific gravity 1016, presenting a trace of albumen. It had to be drawn off with the catheter. Pulse 96; temperature 102.2°.

At two o'clock on the afternoon of the 26th, it was noted that she had passed a fairly good night; that she was quite sensible, and that she expressed herself as feeling well, and wanted to get up. But her joints were still somewhat tender and swollen; her tongue was dry and brown; her skin dryish; her pulse 100; and her temperature had risen from 102.2°, on admission, to 104°. There was no change in the condition of the heart. Having regard to the state of the skin and tongue, and to the rising temperature, I feared the coming on of hyperpyrexia, and left directions that the cold bath should be applied if the temperature reached 105°.

At 3.30, the temperature had risen to 105.2°. She was quite sensible, and did not appear to be worse. Tepid sponging was employed, and the surface-temperature was reduced by it to 104.4°. At 4.30, the patient was fidgety, and wanted to throw the bedclothes off. At 6, her temperature had reached 106.4°. She was placed in a cold bath, but at the end of five minutes had to be removed in consequence of faintness. The surface-temperature, however, was reduced to 102.6°. After this, she became delirious; muttered a good deal, and tried to get out of bed. There were also subsultus, and picking at the bedclothes. She passed urine into the bed. At 8, the temperature was 106.6°; the pulse 150, and very feeble; the respirations 51; the teeth were covered with sordes; and the skin was very dry. At 9, a cold bath was again attempted, but she became so violent, that the attempt was abandoned; and half an hour later, tepid sponging was again resorted to; and ten grains of quinine were administered. The sponging was repeated; but the pulse and temperature continued to rise; she became insensible, or nearly so; the convulsive movements, which had spread from her limbs to her muscles of expression, became more marked; and at times there was much groaning. At 12 P.M., the pulse was 174. She died at 1.30 A.M. on the 27th. Her temperature, which had risen then to 111°, was still 111° half an hour later.

She had salicylate of soda in twenty-grain doses every two hours, from the time of admission until her death. The following are the temperatures that were recorded.

Temperature-Chart.

July 25th, 2 P.M.	102.2°	July 26th, 6 P.M.	106.4°
" 6 P.M.	103.4°	" 6.10 P.M.	102.6°
" 8 P.M.	103.4°	"	(after bath)
" 12 P.M.	104.2°	" 8 P.M.	106.6°
July 26th, 4 A.M.	103.4°	" 8.10 P.M.	106.6°
" 8 A.M.	103.4°	"	(after sponging)
" 12 A.M.	104°	" 11 P.M.	108.4°
" 3.30 P.M.	105.2°	" 11.45 P.M.	109°
" 3.40 P.M.	104.4°	"	(after sponging)
(after sponging)		July 27th, 1.30 A.M.	111°

The *post mortem* examination showed nothing of any importance. The mitral valve was somewhat thickened, apparently from slight old disease, but there was no recent cardiac inflammation. The viscera were generally healthy.

ON THE TREATMENT OF ACUTE RHEUMATISM.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By W. R. THOMAS, M.D.,
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Our knowledge of the treatment of acute rheumatism is making rapid strides day by day; but still we frequently meet with cases which are most unsatisfactory to treat, because, I believe, our knowledge is in its infancy. In medicine, we are all apt naturally to follow fashion. Certain remedies are recommended highly, and we are inclined to take it that all cases of rheumatism can be cured by the same remedy. Given a case of acute rheumatism, all we have to do is to give

salicylic acid or bicarbonate of potash, or nitrate of potash, or a certain other remedy at the time recommended, and attend to the ordinary directions given as to diet and hygiene, and the patient gradually, or often rapidly, is sure to improve. That is what we expect. Now I have tried each one of the remedies recommended on a large scale in both hospital and in private practice, and have come to the conclusion, after noticing carefully, and, I think, without prejudice, the effect of each one, that there is no one grand remedy for the disease we call acute rheumatism. The bicarbonate of potash, which has always been a favourite remedy of mine, I have seen act like a charm; so also have I the nitrate of potash; and then again, other cases I have met with where the remedy has entirely failed to have any effect whatever upon the disease. During recent years, I have given, time after time, salicylic acid in large and in small doses, and have been delighted at the immediate good effect, thinking that, at last, we had met with a certain remedy; then again, other cases have occurred where the salicylate of soda has had no appreciable good effect whatever, even when given in large doses, until certain symptoms were produced by the medicine.

I do not think the remedies in these cases are at all at fault. When we prescribe a certain medicine in a certain case, we find that the patient derives immediate and surprising benefit; and then we give the same remedy in another case, which to us appears to be similar, and are surprised at the patient not receiving any benefit whatever. Now, why should this occur? Simply, I believe, because we have separate and distinct varieties of rheumatism, each one of which requires a treatment of its own. In one case, the salicylate will act well; in another, it will not have any effect at all.

In hospital practice, we naturally attribute all the improvement which takes place after admission to the medicine which has been prescribed. A patient is admitted; his temperature may be very high, his pulse very frequent, and the joint-signs may be severe; in two days, he is in a comparative state of comfort. In many of these cases, no doubt, the removal of a patient from a miserable hovel in a back lane, where the surroundings are of the worst kind, to a comfortable bed in a well ventilated ward, where cleanliness is predominant, where warmth, proper food, and constant nursing are supplied, may have much to do with the rapid improvement which has taken place; and I do not think that we are justified in attributing all the improvement which takes place—at all events, during the first few days—to the medicines prescribed.

In practice, I generally find that we have at least three distinct varieties of rheumatism: 1, the sthenic; 2, the asthenic; 3, that variety caused and preceded by other diseases, as gonorrhœa, scarlet fever, etc.

The first kind I have generally found among the well-to-do classes; sometimes among the poorer. The patient, perhaps a commercial traveller or merchant, has always been exceedingly well, and until lately has enjoyed very good health. For some months he has suffered from dyspeptic and hepatic derangements; his urine has generally been very high coloured, and a large amount of sediment has been noticed daily in it. He has complained of frequent headache, backache, and aching of limbs. He is florid, and probably very stout, and has found that he has not been able to go through the same amount of work as he formerly could. Evidently he has eaten and drunk more than his body has been able to use and burn up daily; and the several excreting organs, having had too much work thrown on them for a considerable time, are not now able to perform their functions properly.

I shall not deal with the pathology of rheumatism at all; but in this patient there is a tendency to inflammation of certain tissues, and to the accompanying fever. He now sleeps in a damp bed, or catches cold in some way, and now comes on the attack. These are the cases where salicylic acid, salicylate of soda, and the bicarbonate of potash are beneficial. Of the two, I am inclined to think that I have seen more benefit derived from the salicylate than from the bicarbonate; but I frequently begin by giving the salicylates, and then go on with the potash. Attention to little details we all find in rheumatism, as in all other complaints, of great importance; for instance, covering the whole of the front of the chest with a layer of cotton-wadding has often, I am sure, prevented an attack of pericarditis from coming on, and I have found a night-shirt of very thin wool very useful, as these patients, perspiring much, are very apt to catch cold; in fact, I now recommend all my rheumatic patients to wear it regularly, and many have been very thankful for the advice. With regard to the joints, I have found wrapping the affected bones in cotton-wool all that is, as a rule, necessary; but when pain has been very excruciating, hot fomentations, with solution of belladonna sprinkled on the flannel next to the skin, have given relief. For peri-

carditis, my patients have generally seemed to be relieved by turpentine-stupes, followed by linseed-poultices; but, unless it seem to be severe, I think it is advisable not to take away the cotton-wadding, nor to apply anything else, for I feel sure that the less these patients are exposed the better. If possible, I avoid giving anything to procure sleep, but, when obliged to do so, I find our old friend Dover's powder the best. These patients generally require something to act upon their chylopoietic viscera; and I must say that I find nothing equal to five grains of pilula hydrargyri, followed by haustus albus, which draught has often to be repeated. As to diet, there is nothing better for them than milk; and when the fever begins to subside, we can afford to be more generous.

The asthenic patient is thin, pale, and weak to begin with, from some cause or other; perhaps an overworked and overanxious young man who, in his desire to get on in the world, has always neglected himself, and has taken his meals (and of them but little) irregularly; or a young mother with one or two children, living on little else than tea. These patients have the same local signs and the same fever as the other patient had; but although there is the same tendency to inflammation of certain tissues, and the same fever, the tendency has, I believe, been produced by different causes entirely; and to obviate this tendency, or to remove the cause, we must, I think, adopt a very different mode of general treatment from what we do in the other class. These patients require plenty of support from the beginning, and we cannot give anything better than milk to begin with. Soon this patient will require beef-tea and other foods. As an internal remedy, I think we have none to equal quinine given from the beginning. Occasionally we may have to give other remedies when called for, but quinine is the remedy upon which we have to depend; and later on, I invariably find that the addition of iron to the mixture is beneficial. The same local treatment is required in these cases as in the other. As aperients, colocynth and aloes are preferable to the mercurial and haustus albus.

My object in speaking to-day is to express my candid opinion that we should not treat all cases alike, but first of all should take into consideration the class of patient we have to treat, and then to decide what remedy or treatment to choose—in one case, it may be, potash or salicylate, in another, quinine. Of course, the treatment of rheumatism following other diseases will be different, as such disease will have to be taken into consideration.

Dr. SIDNEY COUPLAND (London) could only add his testimony to the value of salicin and the salicylates in the treatment of acute rheumatism; there could be no question as their superiority over all other remedies in relieving pain and contracting the pyrexia. At the same time, he hesitated to consider them as specific in the same sense as iodide of potassium in syphilis; for there was as much tendency to endocarditis in cases of rheumatic fever, even under the salicylate treatment, as formerly. At least, this was his experience; but he would add that, of late years, he had seen very much less pericarditis and hyperpyrexia in the disease, as compared with ten years ago, a period before the introduction of salicin into medicine. He considered that much of the discredit at first cast upon the drug, and its alleged injurious effects, were due to the fact that at first it was administered too intemperately, with a far larger dose and at more frequent intervals than were at all necessary to produce the relief from pain and the abatement of the pyrexia. Again, the alleged increased liability to relapse was explained by the effects of the drug lulling one into a false security, so that the patient was allowed to get up, or to take solid food, before he had really convalesced. Therefore, he gave the drug in moderate doses, and kept the patient continuously under it for some time after the subsidence of pain and pyrexia. He admitted that there were cases which were rebellious to the action of salicylate of soda, and mentioned a case in point. A suggestive paper on this subject was recently published, in the *Edinburgh Medical Journal*, by Professor Fraser, who showed that such cases were complicated with, and probably dependent on, gonorrhœa.

Dr. LATHAM (Cambridge) had considerable doubt as to the bacillus-theory of rheumatism; for, if there were any truth in it, why in some cases did a profuse bleeding sometimes cure the disease, as if by magic? Why in others did the purgative plan, or the opiate plan, all of which were in vogue fifty or sixty years ago? The theory he maintained had been fully stated in a paper which appeared in the *Lancet* for June 20th and 27th, 1885, and which was, briefly, that the action of cold on a warm-blooded animal produced changes in the circulation and nutrition of the muscular tissue, leading to the breaking up of the constituent molecules of the tissue, and the formation in excess of glycocine (the essential element of uric acid) and lactic acid from the

molecule $\text{CH}_2 \begin{Bmatrix} \text{OH} \\ \text{CN} \end{Bmatrix}$ and the condensation of the latter; that uric acid or its antecedent, acting upon the central nervous system (which had become weakened), caused the changes in the nutrition of the joints and muscles which produced the phenomena of rheumatism.

Salicylic acid in the system seized upon this molecule $\text{CH}_2 \begin{Bmatrix} \text{OH} \\ \text{CN} \end{Bmatrix}$, and passed out of the system as salicyluric acid. It was necessary, therefore, for the successful treatment of rheumatism by this remedy, that sufficient should be given to overwhelm the poison; for, if any trace of the poison were unacted upon, this would still act on the weakened medulla oblongata, and so keep up the irritation of the joints, or, acting upon the root of the vagus, give rise to endocarditis or pneumonia. In conjunction with the remedy, the use of purgatives to eliminate the bile from the intestines, and so carry off a certain amount of glycocine, was of service. The avoidance, too, of animal food was necessary; and also attention to the rules which he had laid down in the paper above mentioned.

Dr. PROSSER JAMES (London) had had several attacks of acute rheumatism, and, as a sequel, soon suffered from osteo-arthritis. Some authorities held there was no connection between the acute and the chronic diseases named. His own case pointed in the other direction. He felt, from his painful personal experience, some of the scepticism expressed by Dr. Bristowe, and perhaps, too, some of his satisfaction, in the use of salicyl-compounds, though not to the exclusion of other treatment. In his first attack, he was treated by alkalies, administered so as to render the urine neutral. This neutrality was maintained for several days. No effect following, the amount was reduced, and opiates were given. The bicarbonate and the nitrate of potash were then pushed as far as thought prudent, and smaller quantities were afterwards only given as occasional doses to serve as correctives. Alkalies employed thus sometimes seemed useful, but did not cure. If only carried to the point of neutralising the urine, and maintaining that condition for a couple of days, alkalies had done all they can, and should give way to other treatment. Opiates were pushed, but only in moderate doses. It was not necessary to increase the dose. He had found that subcutaneous injections of morphia could be continued without inconvenience for several weeks, provided only enough were taken merely to numb the pain. He had submitted to it to this extent for one hundred successive nights, and without any desire to increase the amount or to continue it after the pain became, so to say, endurable. The late Dr. Billing taught that rheumatism was a neurosis, and should be treated by quinine. At his earnest wish, a severe attack was treated in the speaker by quinine. A continual state of cinchonism was maintained for weeks, an average consumption of twenty-seven grains daily being required to effect this. The effect was distinctly and constantly antipyretic. Lessening of the dose was always followed by increase of temperature and rise in rapidity of pulse. As the disease abated, the dose could be reduced without so marked an effect; but every diminution of dose while pyrexia was considerable was at once followed by a rise in the pulse and the thermometer, so that any accidental omission of a pill would leave its record on the charts. Certainly the remedy, pushed to a moderate degree of cinchonism, afforded material and constant relief. Salicyl compounds were not used in the early attacks, not having then been introduced into practice, but they had since been freely taken. Salicin resembled quinine in its action. It was adapted only for acute cases; it should be given at the very outset of the disease, and in such large and so frequent doses as to produce a condition closely resembling cinchonism. In chronic cases, it seemed useless; but, in a severe recent exacerbation, it afforded some relief, checking pulse, temperature, and pain, but it had to be taken in doses of fifteen or twenty grains every two hours to secure this effect, and once in thirty-grain doses. The safety and even the tonic influence of these doses gave it a preference over the other salicyl-compounds. To obtain its good effect, a mild degree of salicylic intoxication must be produced, which in this way could not be distinguished by the sensations from cinchonism.

Dr. W. R. THOMAS (Sheffield) made some remarks, which are published at page 335.

Dr. MARKHAM SKERRITT (Clifton) observed that it was said that there were two sides to every question, and in his experience this was true as regarded the treatment of acute rheumatism. On the one side were those cases (happily by far the most numerous) in which the disease yielded rapidly to treatment; but, on the other, were the instances in which its phenomena were apparently but little influenced by therapeutic measures; and it was these latter cases which rendered statistics especially misleading, inasmuch as one failure would mar the record of many successes. His usual method of treatment was the

administration of salicylate of soda in initial doses of twenty grains every two hours, the amount being gradually lessened as the progress of the case permitted; and he was accustomed to continue the drug for some days after the temperature had become permanently normal. The patient was afterwards put upon a course of iron, commonly combined with quinine. He exhibited two charts illustrating the effects of this treatment in the Bristol General Hospital; in the one were included the numerous cases where the temperature became permanently normal from the second to the fifth day of the treatment, while the other exemplified the less frequent instances in which the fever did not altogether disappear until from the fourteenth day to the thirty-second. Two points brought out by the hospital-records were noteworthy—first, the almost total absence of severe cases; this was a fact in favour of the treatment adopted—and secondly, the want of association between the presence or absence of complications, and the mode of behaviour of the disease under treatment; for example, in the table of favourable cases were many where cardiac lesions existed, whereas amongst the most intractable were instances of freedom from all complications. He was unable to determine the conditions upon which success or failure of treatment depended; except that the result of the salicylic method was likely to be the most striking where the fever was high, whereas the subacute cases more often proved obstinate. With regard to relapses, these were to be expected when the drug was discontinued too soon; and they were best averted by its administration for some days after the temperature became normal. Instances occurred where, under such treatment, the persistence of the characteristic rheumatic sweat, in spite of a normal temperature, indicated that the discontinuance of the remedy would be followed by a return of the phenomena of the fever. In Dr. Skeritt's experience, the result of the treatment of acute rheumatism by salicylates had been on the whole eminently satisfactory; but, in face of the fact that the drug might fail to cut short the disease, to prevent relapses, and to avert complications, and taking into consideration that its power was most strikingly manifested where the temperature was high, he hesitated to regard this remedy as acting as a specific rather than by virtue of its antipyretic properties.

Dr. PAVY (London) said that the treatment of acute rheumatism was one of those subjects upon which the hospital physician might specially feel himself entitled to speak. He had formed a very strong opinion with regard to the salicylate treatment. His experience now contrasted in the strongest possible manner with his experience before the treatment was introduced. Students of the present day had no opportunity of seeing in the wards the disease run its natural course, with all its urgency and severity of symptoms, as they had formerly; when it might be said there was no treatment known that produced any decided impression upon it. To use the salicylate treatment to effect the agent must be given largely. The usual plan at Guy's Hospital was to give twenty grains of salicylate of soda every two hours for the first twenty-four, thirty-six, or forty-eight hours. By this time the pain was generally removed from the joints, and the temperature brought down, and the patient altogether placed in an easy condition. The frequency of the dose might then be reduced to every three hours, and later to every four and six hours. What he considered of the greatest importance was that, notwithstanding the complete subsidence of the disease, the treatment in a case that was severe should be continued for at least twelve or fourteen days. He sometimes met with a certain amount of discontent in having this carried out. The patient often could not be brought to understand the necessity of being kept in bed, and upon the milk and farinaceous diet to which he was restricted for at least the time named, and would press for the restrictions imposed to be removed. His experience led him to conclude that the salicylate treatment, in subduing the symptoms as it did, simply controlled the manifestations of the disease, without absolutely removing or eradicating that which gave rise to the manifestations. Time was required for this to subside; and if, during this time, the treatment, or that which kept the condition under control, were moved, immediately it manifested itself by a return of the symptoms. This was the view that forced itself upon him from what he had seen. It accounted for many of the relapses that occurred, and explained the necessity of keeping the patient under treatment for a definite time, however speedily the disease might appear to have yielded. The treatment did not influence the complications as it did the disease itself. With the disease subdued at once by the treatment, the complications were not likely to arise as under other circumstances; but if a patient were admitted with pericarditis or endocarditis, this was not influenced in any marked manner by the treatment. Hyperpyrexia was not controlled by the treatment; if it were, the management of this grave condition would be much more easy than it was. The more acute and general the case of rheumatism, the better he considered

it adapted for the salicylate treatment. Indeed, in chronic or subacute cases, or where only one or two joints were attacked, he had not found any decided benefit derivable from it. Sometimes the salicylate produced toxic effects, which constituted a barrier to its further administration to the extent required. Directly these toxic effects showed themselves, his plan was to take off the salicylate and administer salicine in a similar dose. This, he found, answered what was wanted. He did not begin with salicine in the first instance, as, rightly or wrongly, he was under the impression that the salicylate was the more powerful antirheumatic agent of the two.

Dr. HARKER (Lancaster) spoke of the treatment of rheumatic fever on general principles, as other diseases of pyrexia were treated, and of the improvement which had taken place in his thirty years of hospital experience. The very first change was that which followed the use of the clinical thermometer. The wrapping up of joints and heaping of bedclothes of linen, and non-porous materials, had long ceased. In his experience, salicylate of soda, though, in his opinion, usually of high value as a reducer of temperature, and above all a destroyer of the septic cause of the disease, was a dangerous remedy, and quinine often took its place with advantage.

Mr. G. PADLEY (Swansea) related a late experience in which the former kind of treatment, as by alkalies, etc., was pursued, without, as usual, satisfactory results, for a short time, followed by salicylate treatment, under which the disease almost at once yielded. Instead of getting credit for it, he only received a scolding for not adopting this treatment before.

ON THE OCCASIONAL LATENCY AND INSIDIOUSNESS OF GRAVE SYMPTOMS IN CONNECTION WITH THE PUERPERAL STATE.

Read in the Section of Obstetric Medicine, at the Annual Meeting of the British Medical Association held in Cardiff.

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WHEN serious disease attacks the puerperal patient, it commonly declares itself within ten days after delivery, and indicates its presence by signs which are either unequivocal, or which at least are sufficiently marked to arrest the attention of the medical man, and to cause him to bestow more than ordinary care upon the symptoms. In reliance on this fact, women who have been delivered in maternity-hospitals are, if no untoward symptoms have appeared, allowed to leave, after ten or fourteen days of convalescence.

But there are cases not unfrequently met with, in which the progress of puerperal disease is much more insidious, and in which the indications of what has been going on in the way of morbidity are not apparent until a much later period.

I have extracted from my notes the record of three or four cases, the details of which were jotted down long ago, but which were written out with more care than others of a like kind which have occurred in my later experience.

CASE 1.—Mrs. J., a young wife about 20 years of age, was delivered of her first child on January 21st, 1868. She had not been well before her confinement, but suffered then from no very definite symptoms. She was of lymphatic temperament, somewhat lethargic, and all the functions of the body were performed in a somewhat sluggish fashion. Her appetite was indifferent, her speech deliberate or slow; and, although she endeavoured to take exercise as a duty, there was no natural tendency to the cultivation of those active habits which, from an insurance point of view, are considered necessary to vigorous health.

When parturition came on, the pains were sluggish, and the labour lasted from early morning to half-past five in the evening; but there was nothing abnormal about it, nor was there any undue loss of blood afterwards. The uterus appeared to contract well enough to prevent hemorrhage, but it remained high in the abdomen, and notwithstanding some manipulation, it continued to feel somewhat flabby and ill-defined in outline for some days afterwards. The patient was very anxious to nurse, and attempted to do so for some days; but the quantity of milk secreted was small, and eventually a wet-nurse had to be procured. She was on the sofa at the end of eleven days, and on the eighteenth day after her confinement was removed to another room on the same floor. There were no special symptoms up to this time, but she lost all appetite, and was listless in manner. She had occasionally an indefinite kind of flying pains about her, and a frequent

sense of nausea, which culminated on the twentieth day in an attack of vomiting.

At the end of the third week, when it was thought she might begin to move about, she was indisposed to put down her feet and attempt to walk, saying she felt as if she had lost all power of walking. About this time, she became impatient of light being admitted to her room, and preferred a darkened apartment. This phase passed.

On the twenty-eighth day, she seemed better, and her monthly nurse left her, her engagement being at an end.

Soon after this, she began to experience sharp pains in the limbs, and one wrist began to swell. Then other joints were affected, and she had indications of a general attack of acute rheumatism. The digestive organs also became thoroughly deranged, and there were repeated slight attacks of sickness with nausea, constipation alternating with diarrhoea, and flushed face with quick breathing. The temperature rose, and the pulse was habitually 120. There were no signs of pelvic inflammation, but eventually the abdomen became excessively tympanitic, and no remedies gave more than temporary relief.

Dr. Playfair kindly took part with me in attendance on the case, when it became a more anxious one, and night as well as day attendance was required. Various consultants were called in, and among others the late Sir J. Y. Simpson was summoned specially from Edinburgh.

All efforts to save the patient proved to be unavailing, and she gradually sank, and died on March 27th, about thirty-eight days after the birth of her child.

CASE II.—Mrs. W. was delivered of her second child on May 25th, 1868. Her confinement was natural, and she made, on the whole, an apparently favourable recovery afterwards. She failed, however, to nurse her baby, and seemed depressed and weak during her convalescence, complaining from time to time of fitting pain in her limbs, and being disposed to be somewhat hysterical.

I took leave of her at the end of the month, thinking her fairly well, but not strong. A few days later, on June 27th, I was asked to see her again. She had been out, and had resumed her household management, but now complained of severe rheumatic pains in her limbs, and she was so mentally depressed as to be quite unfit for her usual duties.

I prescribed some quinine for her, and saw her twice afterwards. Finding her not improving, I urged her to go out of town for change of air. This she did, but got no better, and the subsequent history proved that the seeds of mischief were slowly and insidiously developing in her circulation. She had not been long out of town before one eyeball began to swell, and it became the seat of excessive pain, from which there was no relief night or day. After a time there were evidences of suppuration being established, and eventually the eyeball burst, and entirely collapsed, thus entirely depriving the patient of the sight of one eye. After this she slowly recovered, and had no further indication of purulent infection. This poor patient died in a subsequent labour, as the result of placenta previa.

CASE III.—Mrs. R., aged 23, was delivered of her first child on October 2nd, 1865. The labour was tedious, and the medical man in attendance, after allowing the second stage to go on as long as he thought was compatible with the safety of the patient, summoned me in consultation, and I delivered with forceps. The uterus contracted fairly well after the removal of the placenta, and there was no great hæmorrhage. Two or three days after delivery, it was noticed that the uterus was inordinately large, but there was no tenderness and no fever. At the end of a week the patient had slight rheumatic pains in the limbs and chest. These were attributed to neuralgia, to which she was liable. No other symptoms raising the suspicion of pending mischief were noticed until a fortnight after delivery, when, in attempting to leave her bed, the patient complained of acute pain in the calf of one leg, and had to go to bed again. That evening and afterwards she was feverish and had intermitting and throbbing pain in the back of the leg, with accelerated breathing. I saw her in consultation on October 26th, and found that for two or three days previously she had suffered from slight rigors towards night, and her temperature and pulse were both higher than normal. On examining the calf of the leg, it was found to be the seat of a phlegmonous swelling, and I thought I could detect fluctuation in the centre. The late Mr. Campbell de Morgan made an incision on the 28th, nearly a month after the date of delivery, and a large quantity of pus escaped from a deep seated abscess. After this the patient recovered, and had no further untoward symptoms.

CASE IV.—A. E. T., aged 23, was delivered of her second child on December 12th, 1870. The patient was of lymphatic temperament, and disposed at all times to be inactive in her habits. During the

early part of her pregnancy, she had suffered a severe mental trial in the sudden death of her mother, to whom she was tenderly attached. As the result of this, she had become depressed in spirits, could rarely be induced to take proper exercise, and grew inordinately stout for her years. She went to her full time, and her labour was natural, except that the first stage was tedious, from sluggish and irregular uterine action, and she was not delivered until forty-eight hours from the commencement of the pains. There was no undue loss of blood, and the uterus contracted fairly well, but was somewhat large and flabby. The after-pains were slight; but, three days after delivery, she complained of sharp pain about the right hip, which was relieved by an opiate and a poultice. After this all seemed to go on well, except that it was remarked her feet were habitually very cold, and occasionally there were acute neuralgic pains down the back of the right hip and front of the thigh, for which quinine and an anodyne liniment were prescribed. At this time, frequent examination was made to ascertain if there were any tenderness along the crural vein, or in the calf of the leg, but none was found. There was no rigor, and no indication of feverishness; but, three weeks after the confinement, I noticed, on passing my hand over the hypogastrium, that the womb was larger than usual for the time that had elapsed since delivery. It was not tender, but gave me the impression of being imperfectly involuted.

At the end of the month, the patient began to take her meals in an adjoining room, and to go about as usual, with no other inconvenience than apparent recurring neuralgia, and a tendency to hysteria.

In the middle of the fifth week, when dressed to go to the christening of her child, she became very faint, and was got to bed with difficulty. An attack of vomiting followed, and she was sick the whole day. These symptoms subsided, and she seemed to be progressing favourably, when, about a week later, either in dining out or in going to the theatre, she got her feet wet, and complained all the following day of being ill, and was very cold, although she did not shiver.

On Monday, January 31st, just seven weeks after the birth of her child, she was seized with agonising pain in the right groin and front of the thigh. She became flushed and feverish, and was obviously suffering acutely. On being summoned, I sent her to bed, and, on making an examination, discovered an inflammatory swelling, of the size of half an orange, in the right iliac fossa. The pulse was 130; the temperature 103°. The urine was dark coloured, scanty, and loaded with urates. Two or three days later, there was rheumatic swelling of both ankles, and the muscles of the legs were so painful and sensitive, that the weight of the bedclothes could scarcely be borne. Warm fomentations and sedatives relieved this condition of the lower limbs, and they were beginning to be movable again, when the wrists began to swell and redden, and the extreme sensitiveness was thus transferred to the upper extremities. The two hands were rarely equally affected. There were constant variations in the relative amount of suffering in them, and an apparent sudden metastasis, without obvious cause, in the course of a few hours, from one side to the other. Both hands were wrapped habitually in cotton-wool, and sometimes one could be moved, sometimes the other. This variable condition lasted a week, when, having complained of pain and stiffness in the neck and shoulder the previous day, the patient was seized with a stitch in the right side of the chest, and could not draw a deep breath without crying out. Sir William Jenner, at this stage, saw the patient with me in consultation. Characteristic symptoms of pleurisy set in somewhat rapidly. There were immobility in one side of the chest, dulness on percussion, and absence of respiratory sounds. The temperature was now 105°, the pulse 140, and the aspect of the patient betokened serious illness. The treatment consisted of full and frequent doses of opium or morphia, the strength being supported with bark and small doses of nitro-hydrochloric acid; and sufficient nourishment and stimulant was pressed at stated intervals. The pain in the chest was soothed with large poultices. During the pleuritic attack, the pelvic swelling receded somewhat, and seemed likely to disappear; but as the chest-symptoms improved, which they did in a few days from their onset, the inflammatory tumour again became more prominent, and gave indications of pointing. At this period, the general condition of the patient was grave in the extreme. The temperature was rarely below 104° or 105°; the respiration was laboured and hurried; the countenance indicated great anxiety; the body was often bathed in profuse sweat; and the pulse was so rapid and running in character, as to be uncountable. Sir William Jenner remarked that it was an awful pulse. He had fears that the patient might die suddenly, and Mr. Butt, the family medical attendant, stayed in the house at night, while Sir William Jenner and I made frequent visits during the day. The propriety of opening the abscess, which was obviously forming above the left groin, was frequently debated, and was on the point of being carried out, when spontaneous bursting took

place through the skin. This was on March 27th, and a large quantity of purulent matter escaped. This proved to be the crisis in the patient's condition. From that time onwards, she began to improve: all untoward symptoms gradually subsided; and she went to her country-house convalescent on April 20th.

These cases are examples of insidious and late incubation, of grave mischief in connection with the puerperal state. The form in which the disease manifests itself varies very greatly. Besides those I have given, it may be in the shape of phlegmasia dolens; and I have seen it so attacking not only the veins of the lower limbs, but also the veins of the upper extremities. I saw, in consultation, a patient in the country, who had made an imperfect convalescence after delivery, being supposed to be suffering chiefly from hysteria, and in whom a large purulent deposit formed in the buttock five weeks after the birth of the child. This patient died of exhaustion, the result of the suppurative process. Perhaps the most insidious forms of mischief consequent on the puerperal state are those which may be long deferred in their manifestation, the various forms of thrombosis and embolism. I have seen cases of embolism in the femoral and also in the brachial artery ending fatally, where the only general symptoms were a kind of rheumatic pain in the limbs, and a constitutional disquietude, which, for a time, was attributed to hysteria. It is well known that sudden death may take place during the puerperal month, and, indeed, later than this, from plugging of the pulmonary artery, without any very prominent symptoms to make such a catastrophe impending.

It becomes a most interesting question to determine what causes the difference between the more rapid form of disease, which has received the form of puerperal fever, and which, generally developing itself early in the puerperal state, speedily extinguishes the life of the patient; and the slower and more insidious cases which I have endeavoured to illustrate. If these be due to organic germs of disease in the blood, as is now generally believed, the inquiry suggests itself, are both due to the same poison—the dose in the one case being larger than in the other, or are the germs essentially different in the two cases? Some of the tardier cases have many of the characteristics and affinities of purulent deposits, and it is possible that all the slower and later cases may be due to the growth and development of germs of disease, which differ generically from that which constitutes the essence of rapid puerperal fever.

The researches of the celebrated Pasteur seem to indicate that puerperal fever is due to a bacillus in the blood, which may not be specific, or may be found only in cases of puerperal fever, but which at any rate takes the form of long flexible chaplets of bead-like organisms. The pyogenic germ, on the other hand, is a form of vibrio, which is found in purulent matter, and is less virulent in character. The variety in the organic germ, which has gained entrance into the systemic circulation, may account for the difference of symptoms and effects as observed in patients. We are, however, as yet only on the threshold of these inquiries, and must wait for the further progress of research.

The practical points, so far as our present knowledge goes, are to be able to recognise, at the earliest possible moment, the indications of mischief in these obscure cases, and not to be thrown off our guard by underestimating the importance of symptoms, which, apart from the puerperal state, may be of trifling consequence.

1. Perhaps I may be permitted to dwell on the importance of securing a full and perfect contraction of the uterus after delivery, as a prophylactic measure. In many cases going wrong, it has been observed that the uterus was inordinately large, thus indicating a dilated cavity, in which clots or fluid, which ought to be discharged, are retained, and which may thus become the nidus for the possible development of diseased germs. Further, in an imperfectly contracted uterus, the sinuses or large veins remain full of clot, or of fluid blood, which is more or less apart from the general systemic circulation; and is thus, like the back-water of a stream, stagnant, and ready to become a source of peril. Clots should, therefore, always be carefully removed from the uterus, as they form for some time after delivery; and pressure with other means should be conjoined to promote full contraction.

2. The occurrence of a rigor at any part of the puerperal period should never be disregarded. It is nearly always the forerunner of some less or greater commotion in the system, although the mischief it portends may not be observed until the suspicion excited by its advent has well nigh died out.

3. The presence of rheumatic or obscure pains in the joints or muscles, even if they be flitting and transient, should be taken as indicating a possible contamination of the blood-current; and the case should be watched the more closely, if the patient be depressed in spirits, or if she be prone to be apparently hysterical. If, with these symptoms, there be no evidences of deviation in any special organ, the

heart should especially be watched, with the view of ascertaining if there be indications of deposits in its valve. The sudden appearance of a *bruit* with the heart-sounds may be the precursor of embolism either in the pulmonary, or in the general systemic circulation. The temperature should also be carefully recorded, as it is probable that, in all cases of insidious puerperal disease, the thermometer will indicate some rise of temperature.

4. It should be remembered that patients who are inert in temperament, and who lead inactive lives during pregnancy, are more prone to puerperal ailments than others of more active disposition, and thus require more careful supervision.

5. The treatment of suspected cases should consist of putting the patient in the best possible hygienic conditions, and improving vitality by the administration of quinine and a good but judicious diet.

6. As it is probable that all germs of disease are imported from without, and that those of a less virulent character only find an opportunity of developing themselves in the bodies of women whose vitality is below the normal standard, it may be possible in many cases to prevent disease altogether by improving the health of the patient, and by the proper use of antiseptic precautions both during and after delivery.

The PRESIDENT (Dr. Gervis) said he was sure he was but expressing the feeling of the meeting in offering Dr. Priestley its best thanks for the able and suggestive paper he had read. He would like to add that he had himself seen many cases in which more or less of this latent parametritis had existed for some weeks after labour, and which had been unrecognised as the source of the constitutional symptoms from which the patient was suffering. This parametritis, he (the President) believed, was nearly always, if not always, septic in origin, and was generally one of the earlier symptoms in that sequence which had been described by Dr. Priestley.

Dr. EDIS (London) thought the cases brought forward by Dr. Priestley were very suggestive. There was no doubt that, in the class of cases sketched out in the paper, too much care could not be taken in noting carefully the condition of the patient from day to day as regards pulse, temperature, and general symptoms. These instances of so-called latent mischief were too often overlooked, because the symptoms were slight. The patient should not be allowed to resume her position in the household until the temperature had been normal, and the pulse normal, for at least an appreciable time. Insidious inflammatory mischief, frequently of septic origin, commenced without any well marked definite symptoms, recognised only by slight persistent elevation of temperature, or acceleration of the pulse. Extensive mischief in the pelvis, of the nature of cellulitis, even amounting to abscess, was not unfrequently found on examination, when no actual symptoms had been complained of by the patient. Before ceasing attendance upon a lying-in patient, a careful physical examination should be made, and any indications for exceptional care clearly given.

Dr. GRIGG (London) thanked Dr. Priestley for his able discussion of the cases reported. They were formerly of no uncommon occurrence in his practice, but of late years he had rarely seen them. He regarded these cases as the result of some defect of ventilation, either during the puerperium, or to some defective hygienic conditions prior to delivery. The question had occurred to him, Was this form of blood-poisoning due to a different poison from that which gave rise to the ordinary puerperal septicemia? Since he had been more careful in securing a freer and better system of ventilation, these cases had rarely or ever come under his notice. Was there some germ which sprang into existence under certain conditions—a germ which gave rise to pyæmia? He warned all medical men not to regard lightly hysterical symptoms developing themselves during convalescence, or rheumatoid pains of the joints. They are often the precursors of grave mischief.

Dr. H. P. C. WILSON (Baltimore) said that in obstetrical cases when unpleasant symptoms arose late in the puerperal state—after there was every reason to expect a speedy recovery from delivery—the unpleasant symptoms usually were due to one of two conditions: either more or less pelvic cellulitis, or a relaxed condition of the uterus. When such cases presented themselves, careful examination should be made to see if either of the above conditions existed. If there were any inflammatory condition existing in the circumuterine tissues, treatment should be promptly directed to it, and the secondary symptoms would disappear with the subsidence of the inflammation. Iodine, internally and locally, glycerine, on cotton, applied in the vagina from time to time, and repeated hot-water injections into the vagina, were some of the most useful means for overcoming the pelvic cellulitis.

The relaxed condition of the uterus after labour was the more frequent cause of unpleasant symptoms coming on sometimes after labour, and producing unpleasant and frequently inexplicable symptoms. Attention should be directed to keep the uterus in firm contraction, otherwise there would be a large relaxing surface ready for absorbing any septic matter. Ergot, quinine, hot-water enemata, general nutrition of the body, and cheering and bracing up the general nervous system, were useful.

Dr. CHALMERS (London) had a number of such cases as Dr. Priestley had described, and admitted the accuracy of his description, and the judgment he showed in their treatment and prevention; but he would refer to two points in his paper. Dr. Priestley doubted whether such a thing as autogenous septicaemia occurred, and suggested that both acute and chronic cases were due to some form of bacteria which found their way into the system from without. If one considered the various changes that went on in the system after delivery, the changes in the secretions, the disintegration of the enlarged uterus, and the nature of the lochia, one must conclude that there were noxious elements at hand which, if absorbed into the system, or being in the system, met with an unhealthy state of the blood, were quite sufficient to account for puerperal septicaemia without any bacterial disturbance. For it must be remembered that the lochia in an ordinary case of delivery acted as a strong poison if injected into the blood of animals. Having seen many such cases, he had come to the conclusion that they were, in great measure, due to the state of the mother's health; and so much so, that one might by observation often foretell which of his patients was likely to develop febrile symptoms or to be attacked by septicaemia.

Mr. STEEL (Abergavenny), with reference to the class of cases described by Dr. Priestley, thought it was not necessary to assume specific germs as the cause of the diffused abscesses. Observing that all the cases were marked by imperfect contraction or involution of the uterus, he believed that the secondary abscesses were caused by embolism or absorption of softened clots retained in the uterine veins. The observations of Dance and Cruveilhier, many years ago, showed how the injection of minute quantities of pus or sero-pus into veins caused diffused abscesses in various parts, notably in the joints.

Dr. PRIESTLEY, in reply, thanked the Section for the attention and favour with which his paper had been received. He gathered that his audience were very much in unison with the object of his communication, namely, that it was most important to pay attention to symptoms during the later periods of the puerperal state, which, under other circumstances, might be of little consequence. The President, Drs. Edlis, Grigg, and Wilson of Baltimore, had expressed general concurrence in his remarks; and, in reference to what had fallen from Dr. Chalmers and Mr. Steel, he might say that the tendency of all scientific investigation was to regard every disease, which seemed to be produced by ferments, as owing its origin to germs from without, and that true autogenous cases did not exist. Possibly, the germs were not introduced at the confinement, but might have been lying dormant in the tissues, ready to develop themselves whenever the vitality of the patient was low enough to permit this. Concerning the remark that the patient might have been lost from delay in opening the abscess, he might say that there was not distinct evidence of the formation of pus until just before the bursting.

MEDICAL MAGISTRATE.—Mr. Robert Davies, of Bryndulas Hall, near Abergelge, has been placed on the commission of the peace for Denbighshire.

GREAT WESTERN RAILWAY MEDICAL STAFF.—The annual meeting of the medical staff of the Great Western Railway Provident Society was held recently at Bala, under the presidency of Mr. Bond. After the ordinary business of the staff was transacted, Mr. Humphreys and Mr. Cornish were re-elected Treasurer and Secretary respectively. The report of the staff's committee touching certain points of difference which had arisen between the medical staff and the Provident Society was discussed at length, and adopted. It was mentioned that 37,000 members of the Provident Society had received medical aid and attention. Donations were made to the British Medical Benevolent Fund, to the Benevolent College, and to a widow of a former member of the staff. Next year, the staff will visit Cornwall, a proposal to fix Tregenna Castle, St. Ives, as the place of meeting, being received with favour. After dinner at the White Lion Royal Hotel, and the drinking of the loyal and other toasts, a presentation of a handsome diamond ring was made to Mr. Cornish, surgeon to the Taunton Hospital, for his long and valuable services as secretary to the staff. Excursions were arranged during the week to various parts of the lovely neighbourhood.

THE ACTION OF DIURETICS.

Introduction to a Discussion in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Cardiff.

By E. LONG FOX, M.D., F.R.C.P.,

Consulting Physician to the Bristol Royal Infirmary.

So much good work has been done of late years on the kidney and on renal therapeutics, that I shall be able to introduce the question of the mode of action of diuretics in a very few words. Bowman's investigation of the structure of the kidney formed the first steps to a scientific understanding of the subject; then perhaps Dr. Bright's great discovery; and so later the differentiation of the various kinds of Bright's disease. But as, in all scientific work, the advance of today is seen to have depended on the observations of our predecessors, so even in the therapeutics of the kidney we owe something to those whose knowledge of the renal structure must have been necessarily imperfect. Thus Dr. Withering, in the last century, found that digitalis was most useful in those cases of dropsy in which the pulse was feeble or intermitting, but that it seldom succeeded in men with a tight and cordy pulse.

We know now that the functions of the two portions of the cortical substance of the kidney are different. The function of the Malpighian bodies is mainly filtration, that of the cells of the convoluted tubes secretion, or, at least, excretion, *plus* a certain amount of filtration. This accounts for the observation of Claude Bernard, that the veins of the glomeruli contain blood less dark than that of the veins in general, because here the arterial blood has performed so little work. The activity of the epithelial cells of the glomeruli is determined by the amount of water in the blood. Filtration, then, being the main function of the Malpighian bodies, diuretic effects depend on conditions that render filtration easy.

The amount of urine depends on the difference of pressure between the blood in the Malpighian bodies and the pressure within the uriniferous tubules. These tubules being patent in the normal state, the chief condition for easy filtration is increase of general blood-pressure. This may be induced either by increase of the force or rapidity of the cardiac beat, or by stimulating the vaso-constrictors of arteries that supply regions other than the kidney, as, for instance, by the influence of cold constricting the cutaneous vessels; or the renal arteries may be relaxed, whilst the constriction of other vascular areas persists. The effect of this is increased pressure in the renal capillaries and small veins. Probably this may be the explanation of the diuretic action of the emotion of fear.

Thus, too, section of the renal nerves experimentally induces diuresis, other parts of the nervous system, the spinal cord especially, being normal. The section paralyses the vaso-constrictors of the renal arteries, dilates the vessels, and leads to increased pressure in the arteries of the Malpighian bodies.

Anything that leads to a great fall in the general blood-pressure, such as section of the higher regions of the spinal cord, which affects blood-pressure by leading to general vascular dilatation, diminishes the secretion of urine.

In diabetes insipidus, the *rationale* of the polyuria is vaso-motor paresis affecting the renal vessels. The renal vaso-motor centre in the medulla oblongata is the centre of a reflex arc; the efferent nerve is frequently the vagus, but it may be a filament from injured portions of the encephalon of very various kinds. The nerves of the kidney leave the medulla oblongata by the spinal cord, and the spinal cord by the branches to the upper dorsal ganglia, and thus reach the renal plexus through the splanchnics. Subsidiary centres for nerve-influence on the renal arteries exist in the spinal cord, and in the solar and mesenteric plexuses. Dilatation of the renal vessels must be either from affection of the centre in the medulla oblongata, or from implication of the renal plexus itself. Section of the nerves in any other part of their course tends to diminish the amount of blood in the kidney, because no such section could be made, either of cord or of splanchnics, without involving the vaso-motors of other abdominal viscera, and so filling their vessels with excess of blood, thus keeping back any such excess of blood from the kidney itself. In a few cases on record, dilatation of the renal arteries may have been caused by the pressure of tumours on parts of the splanchnics, or of the solar plexus.

It is by way of increase of general arterial blood-pressure that a large amount of water is one of the best diuretics. In amyloid dis-

ease of the kidney, we see how filtration is favoured by a hydræmic state of blood.

A similar effect is induced by augmenting the force and frequency of the cardiac beat by ammonia, iron, digitalis, strychnia, squill, alcohol in moderate doses, ether, belladonna, convallaria majalis, and broom; whilst chloroform, aconite, opium, Calabar bean, quinine, camphor, and veratrum, may stimulate the heart in small doses, and depress it in larger ones. In many individuals, however, remedies of this class act as cardiac depressants from the first.

Among the excitants of arterial tension, and so secondarily of diuresis, are the bromides, ergot, belladonna, nitrate of potash, digitalis, squill, nuxvomica, and cold to the surface of the body.

If the general arterial pressure remain the same, and diuresis be effected by dilatation of the renal arteries, the vaso-motors of the kidney are either under the influence of some depressing emotion, or the vaso-constrictors of these arteries are rendered paretic by a class of remedies that may be called "local depressants of the renal nerves." Amongst these, Dr. Mitchell Bruce enumerates digitalis and squill in the second stage, spirit of nitrous ether, all volatile oils and resins, such as turpentine, etc., juniper, copaiba, hop, savin, cantharides, camphor, alcohol, belladonna, aconite, the nitrates and nitrites. Of these, alcohol and belladonna only act as nerve-depressants after long continued use, or in large doses.

When suppression of urine occurs in the course of an acute exanthem, such as small-pox, scarlet fever or typhus, or in septicæmia, the cause is a twofold one: first, a loss of general arterial tone; and, secondly, a paretic dilatation of the renal vessels. Both these phenomena may be induced by the paralytic influence of the specific poison on the medulla oblongata. The renal symptoms are seldom amenable to ordinary diuretics. Ergot and strychnia are sometimes useful.

The epithelium of the glomeruli doubtless hinders the passage of the albumen of the blood, but small quantities of albumen exist in normal urine. It is probable that the epithelium of the uriniferous tubules withdraws most of the albumen from the passing fluid.

I may mention a case of partial suppression of urine, that seems due to long continued anxiety and poor health, acting on a very emotional nature. The urine sometimes falls to two ounces a day, and contains albumen. There are no casts, nor any symptom of renal degeneration. The phenomenon depends on a paretic state of renal vessels, plus a deficient arterial tone. Under remedies that improve this tone, the amount of water is increased, and the albumen vanishes, though the symptoms are apt to recur.

The function of the cells of the convoluted tubes is mainly the excretion of solids. The condition of arterial blood-pressure has, therefore, only a very indirect influence on the action of this portion of the kidney. Still, the excretion of water is double; namely, first, from the glomeruli; and, secondly, from the venous plexus round the tubules, along with the urea; and this venous plexus is indirectly influenced by blood-pressure, as it has a direct communication with the renal arteries.

The amount of fluid, however, that is brought to the convoluted tubes has some effect on the amount of solids excreted. The taking fluids in large quantities acts on this portion of the kidney, not so much by way of augmenting the blood-pressure, as by exciting the cells of these tubules to active work, and enabling them to separate the solids from the blood.

This effect is also induced by saline diuretics. These may, *per se*, stimulate the renal cells; but they act much more by taking up watery fluids, carrying them to the kidney, and so, by flooding the tubes through the tube-walls, exciting the cells to the secretion of solids. It has been proved by experiment that secretion may go on by means of the tubules, by injecting the specific potential constituents of the urine, even when the vascular tufts are excluded.

The work of these cells of the tubules is the separation of effete material from the blood. Is this "secretion" in the true sense? Does the kidney, in fact, form urea from constituents brought to it by the blood, or excrete it already formed before its arrival at the kidney?

The separation-theory is certainly the true one in the main. The urea is almost entirely formed in other parts of the body, and only excreted by the renal cells. Uric acid follows the same course; hippuric acid also, as a rule, in the same way; so also with the phosphates, chlorides, etc. But Professor Michael Foster believes that some urea may be formed in the kidney by the transformation of various nitrogenous crystalloid bodies, and that the renal cells may transform benzoic acid into hippuric acid.

Speaking roughly, however, diuretics that stimulate the renal cells do so, by increasing their active power for the separation of effete material brought to them in that condition by the blood.

The salines that influence the activity of the renal cells, and bring with them some of the watery elements of the venous plexus round the tubules, vary in power. Salts of lithia and potash act better than those of soda and ammonia; soda salts better than those of ammonia. Lithia salts combine with a much larger relative proportion of uric acid than the salts of potash or soda. Probably all the potash salts stimulate the renal cells effectually; but the acetate, citrate, nitrate, and tartrate are the best for this purpose.

Many of the substances already mentioned—juniper, copaiba, turpentine, cantharides, the resins, etc.—act not only as local nerve-depressants, but as direct stimulants to the renal cells. Dr. Bruce's list is a long one, and includes juniper, copaiba, oleum terebinthinæ, savin, piper, cubebs, the salicylates, caffeine, uva ursi, pareira, buchu, arnica, aconitum, scoparium, guaiacum, camboge, cantharis, the volatile oils, the oleo-resins, the resins and balsams, jaborandi, lobelia, dulcamara, and alcohol. Of these agents, some stimulate the renal cells without increasing the amount of water, and others do both. The difference depends on whether the drug dilates the renal vessels whilst stimulating the renal cells. Juniper does this, and copaiba to a less degree; and thus diuresis is markedly increased. Many other substances, that stimulate the cells to a greater excretion of solids, may induce no diuresis, and, indeed, may have an opposite effect.

Thus, therefore, combination of diuretic remedies is useful. Dr. Lauder Brunton remarks that digitalis by itself might arrest renal circulation and secretion, and that it should be combined with some drug that dilates the renal vessels, like the nitrite of soda, whilst the blood-pressure remains high. But, in most cases, the union of remedies that cause a full flow from the glomeruli with those that excite the activity of the renal cells, leads to a more complete depuration of the blood; and herein, again, we may give honour to our predecessors, in that they discovered by observation what we now are able to explain physiologically.

Dr. TALFOURD JONES alluded to the statement that some albumen was found in the urine of healthy people as a normal circumstance. He was aware that some observers had said this, but for his own part he did not believe it did so exist, except as a temporary result of particular food or exercise; and, whenever he found albumen in urine in quantities appreciable by the ordinary reactions, then he declined to consider the person passing such urine as perfectly healthy.

Mr. HANCOCKE WATHEN (Clifton) said that the result of some observations made by Dr. Clement Dukes, on the boys at Rugby, was that, after much exercise and food, he found in the great majority of the boys an appreciable quantity of albumen in their urine.

Dr. STOCKMAN (Edinburgh) was inclined to believe that albumen in the form of peptones was habitually found in the urine of certain persons. Observations of his own, extending over a period of several months, had been made, with the result of proving this. With regard to the statement of Dr. Fox, in reference to the formation of urea in the urine, he thought it regarded as settled now that the kidneys merely separated the urea from the urine; and he had in mind the experiments made by Dr. Schroeder, on many organs and tissues of the body, with the result of finding a greater or less quantity of urea everywhere except in the kidneys, where he was unable to detect any, if the precaution were taken to wash out what was present in the vessels.

Dr. R. SHINGLETON SMITH (Clifton) referred to a recent observation on one of his patients who consumed large quantities of peptonised milk, and in whose urine, on testing it for albumen with picric acid, he found a very copious sediment, amounting to one-third of the urine in bulk. Of course, on boiling, this disappeared. It must be remembered that picric acid precipitated peptones, and it was quite possible, now that the peptonised milk was coming into general use, that error might now and then result. This particular patient was taking over three pints of this milk in twenty-four hours, and the amount precipitated was very great. In reference to the subject of diuretics, it appeared to him, from a practical point of view, that digitalis was the one great diuretic, and that when digitalis had been tried without success, there was very little else left to try.

Dr. LONG FOX, in reply, said that he did not wish anyone to go away with the idea that he thought urea was formed in the kidney; nevertheless, eminent authorities were not wanting who took the view that some, at any rate, was so formed. Dr. Michael Foster for example. His own opinion was decidedly that the bulk of the urea was formed apart from the kidney.

ON ATROPHY OF THE THYROID BODY, FOLLOWING PRESSURE ON THE RECURRENT LARYNGEAL NERVE.

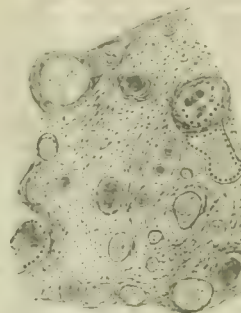
By W. HALE WHITE, M.D.,
Assistant-Physician to Guy's Hospital.

DURING the last winter, I made about 50 *post mortem* examinations, and in many of them looked at the thyroid body, quite irrespectively of the cause of death. The smallest thyroid I found weighed only nine grammes, and was very fibrous in appearance on section. It was taken from the first of the appended cases. Microscopical examination of it showed that it had undergone a very considerable degree of atrophy, there being very few healthy vesicles and much increased fibrous tissue. On looking through the museum at Guy's Hospital, I found one specimen of an aneurysm pressing on the left recurrent laryngeal nerve. It forms the second of the appended cases. Microscopic examination of the thyroid gland showed atrophy even more extreme than in the first case. No specimen of thyroid I have ever examined, and no description of the organ I have met with, lend any countenance to the supposition that the gland could present such an appearance as is here shown, in these two cases, and yet be looked upon as normal. Considering the importance that atrophy of the thyroid body has assumed since the publication of the account of Kocher's patients, in whom myxœdema followed excision of the thyroid, and since Mr. Victor Horsley's experiments, in which it followed in monkeys after excision of that body, I thought it would be quite worth while to publish these two cases of atrophy of the thyroid in patients in whom the recurrent laryngeal nerve was pressed upon, in order that others, who have an opportunity of making *post mortem* examinations in similar cases, may observe whether the thyroid is invariably atrophied. Judging from these two cases, it would seem that that nerve is the trophic nerve of the gland; and had it not been for the great difficulty of obtaining a full vivisection licence, I should have tried to settle the question myself by experiments on animals. It will be noted that the weight, namely, nine grammes in the first case, is less than any of the adult male weights given in Dr. Stephen Mackenzie's tables in the *Medico-Chirurgical Transactions*, vol. lxvii. If subsequent observation should show that one or both recurrent laryngeal nerves are the trophic nerves of the thyroid gland, the relation of myxœdema to cases of aneurysm or tumour in which the recurrent laryngeal nerves are pressed upon will become important. Museum specimens have not aided me much in my attempts to discover whether atrophy of the thyroid is an universal concomitant of pressure on the recurrent laryngeal, for as a rule the thyroid body is not preserved with the aneurysm; still, I think specimen No. 3,186 in the College of Surgeons Museum is instructive, for it will be observed that in it the thyroid is very small; and it is a case in which an aneurysm of the transverse arch pressed on the recurrent laryngeal nerve. The diminutive size of the thyroid cannot be accounted for by preservation in spirits, for that body is attached to specimens No. 3,123 and 3,124, and is in both of them considerably larger than in No. 3,186. The thyroid is small in specimen 3,097, in which the recurrent laryngeal nerve was pressed upon by an aneurysm; but, as it is possible that some may have been cut away to mount the specimen so as to show the arteries to advantage, I refrain from quoting the case in support of those which I here publish.

Anatomy-books are silent on the question as to whether the recurrent laryngeal nerve supplies the thyroid gland, but some dissections I have made show minute branches from the nerve to the gland. Appended are the two cases. I am much indebted to Drs. Wilks and Goodhart for permission to use them.

CASE I.—William E., aged 54, was admitted into Guy's Hospital, under Dr. Goodhart, on February 23rd, 1885. His previous illnesses had been gonorrhœa, chancre, and rheumatism. Fifteen months ago, he was admitted into a country hospital for bronchitis; as his symptoms became obscure, he was removed to London, and admitted into Guy's Hospital. It was then noticed that he had a barking laryngeal cough; less air entered the left chest than the right; the left vocal cord did not move so well as the right. No treatment affected him; the cough became worse; he got some consolidation of the left lung, and gradually sank and died. I made the *post mortem* examination, and the following is a brief abstract of the report. He was a healthy-looking man, fairly nourished. The pleuræ were very adherent; the lungs were congested, with much pus in the smaller tubes. The left crico-arytenoid muscle was atrophied. The size, weight, and muscular substance of the heart were normal; there were recent vegetations on

the mitral and aortic valves. Close to, behind, but not implicating the innominate and left carotid, was an aneurysmal sac, springing from the aorta; it bulged more to the left than the right, pressing on the trachea, the left recurrent laryngeal nerve, and the left bronchus. The whole of the arch of the aorta was much distended and atheromatous. The thyroid body was regular in shape, very small, fibrous-looking, of normal colour, and weighed just over nine grammes. Microscopic sections of the thyroid were prepared in the usual way; the following is a description of the appearances presented; they may be seen on reference to the accompanying sketch. The vesicles were much smaller



Section of Thyroid Body from Case I. Shows the extreme degree of atrophy. Some of the atrophied vesicles contain a little gelatinous material; others some granular matter; most have lost their epithelial lining. There is an increased amount of fibrous tissue, and also a multiplication of nuclei. Hartnack, Oc. 3, Obj. 3.

than natural, being, on the average, only a quarter of their natural size, and often much less. Their contents were broken up into little rounded irregular masses, instead of forming one homogeneous whole; often, too, the vesicles were not completely filled by the jelly-like contents, the composition of which was apparently changed, for, instead of staining of a uniformly light blue tint with logwood, they were often of a brownish colour, and of a granular appearance. In some parts, there seemed to be an engorgement of the lymphatics in the interstices of the gland, possibly owing to the rupture of some of the vesicles. The epithelial lining in some places could not be made out; in others it was much broken up, some of the vesicles being filled with a heterogeneous collection of irregular masses of hyaline contents and broken epithelial cells. There was, undoubtedly, some increase of fibrous tissue between the vesicles; this was evidenced by the increase of fibres and nuclei; several wandering cells might also be seen. This evidence of sclerotic change, as shown by the microscope, tallied with the increased hardness that the gland presented to the touch. Although the shrinking of the vesicle would of itself tend to make the fibrous tissue increased in quantity, still the increase here was much more than could be accounted for by that explanation. The vessels were normal.

CASE II.—James H., aged 45, was admitted, under Dr. Wilks, into Stephen Ward, June 14th, 1881. He had had a chancre, had been in India, and had dysentery. He was admitted with pain between the shoulders and right hemiplegia. The left apex was dull; he had a short cough. There was a systolic *bruit* over the third right costal cartilage, no pulse in the left carotid or left subclavian. The left vocal cord did not move. He gradually sank and died.

At the *post mortem* examination, it was found that there was a very large irregular aneurysmal sac, involving the ascending and transverse part of the arch of the aorta. It had ruptured into the œsophagus, and the stomach was full of blood; it extended high into the neck to within an inch and a half of the thyroid cartilage; it pressed somewhat upon the trachea. The innominate was normal in size; the left carotid was entirely obliterated at its origin in the aorta. Opposite the cricoid cartilage it was full of dark firm *ante mortem* coagulum; above this point it was diminished in calibre. The left subclavian artery was small, but still patent; the aneurysmal part of the aorta was extremely diseased, being covered with grey and yellow patches; the aortic valves were healthy; the coronary valves were not implicated. Both lungs were adherent to the hinder part of the aneurysmal sac; in both the adherent part was in a state of pneumonia, with a central gangrenous cavity. On the right side of the brain was a brownish degenerate patch affecting the optic thalamus, the internal capsule, and a little piece of the lenticular nucleus. The left posterior crico-arytenoid and lateral crico-arytenoid were much wasted; the left recurrent laryngeal nerve was closely adherent to the wall of the aneurysmal sac, and was thus

considerably pressed upon. The testes and lungs were fibrous; there were old scars on the forehead, and a pigmented scar on the right leg. The aneurysm had not pressed directly upon the thyroid gland.

In this case, the weight and appearance of the thyroid were not noticed at the *post mortem* examination, but the trachea, together with the aneurysm, were preserved for the museum. I was well able to cut off a piece of the gland and examine it microscopically. The section showed just the same changes as the first section, but in a much greater degree, for the organ was little else than a mass of ill-formed fibrous tissue. Here and there a few patches of the material which fills the vesicles were to be seen, and in some places collections of irregular masses of the same substance; but in no case was any epithelial lining to the vesicles to be discovered. There were fewer nuclei than in the first specimen; in short, the fibrous change was much further advanced.

NAPIER (NEW ZEALAND) AS A HEALTH-RESORT.

By F. H. LESLIE ALLEN, M.D.

So much has been written on health-resorts, and so many places have been recommended—each supposed to possess some peculiar advantage, and yet each in turn supplanted by another—that it may seem unavoidable to multiply the number from which the medical man has to choose when asked that question frequently put to him by the anxious patient: What is the best climate for me? or, Where shall I spend the winter?

In the present instance, however, I think I need make no apology in bringing under the notice of the profession a climate which has only to be known in order to be appreciated for its peculiar adaptation to pulmonary cases—namely, that of Napier, in New Zealand. Much attention has lately been directed to New Zealand, and many works have been written containing valuable information about this beautiful country; but as a health-resort it has not yet become sufficiently known.

During the last few years, sea-voyages have been much recommended to patients threatened with phthisis, and the voyage to New Zealand possesses great advantages, as it gives the invalid time to gain the full benefit of the sea-air; but it is from the voyage itself that the chief amount of good is expected; and so little is known of the climate of New Zealand, that a stay is not often contemplated; or possibly, on his arrival, the patient may be disappointed with the country, and so may return home without having seen much of it. The reason of this probably is that he has been recommended in a general way to New Zealand, the great variety of the climate of the different parts not being sufficiently known. The islands extend from latitude 34° to latitude 47° S.; so that it is apparent, from a mere glance at their geographical position, how much the climate of the northern and southern extremities must differ; and, taking into account the conformation of the country, and its coast-line, its varied geological formation, and the manner in which parts are sheltered from, or exposed to, the prevailing winds, there are perhaps few countries which present such a diversity of climate as New Zealand.

In my own case, an attack of hæmoptysis and subsequent threatening symptoms rendered it dangerous for me to remain at home, and my medical colleagues, therefore, advised me to go to New Zealand. On arriving at Auckland, I was disappointed on finding its climate moist and relaxing; the heat was oppressive, but not so much from its actual degree, as from the accompanying humidity of the atmosphere; the evenings, on the other hand, were chilly, and the fall in temperature, causing a deposit of moisture, occasioned a feeling of dampness.

After a month's trial of Auckland, I visited Tauranga, a town about 130 miles to the south, in a picturesque neighbourhood, which was highly recommended to me; but in this climate, also, I was disappointed, though it is decidedly superior to Auckland. Eventually, I came to Napier, in Hawke's Bay, 400 miles to the south of Auckland; this locality I had already heard praised by several of the medical men of Auckland, and, from the markedly beneficial effect it soon produced in my case, I found the praise was well deserved. I have had the advantage of travelling for some time in the Mediterranean, and of visiting some of the usual health-resorts, and I have no hesitation in stating that I consider the climate of Napier far superior to anything I have before experienced; it possesses properties not often found combined; it is sedative, and yet tonic; it soothes the irritable bronchi, and yet is sufficiently bracing to exert an invigorating effect on the system; fogs are unknown, and, throughout the winter, there is bright sunshine. The town is built on a peninsula called Seinde

Island, which rises to the height of 200 or 300 feet above the sea-level; the soil is sandy and absorptive, and, as the annual rainfall is not great, the air is peculiarly dry. From the hills, on which the villas of the principal residents are built, the view is charming, and reminds one somewhat of the Bay of Naples; at the foot of the hills, a level sandy beach reaches in a gentle curve for miles, and around each side of the bay, in horseshoe form, stretch ranges of lofty hills. Inland lies a fine alluvial country towards the south, consisting of some of the richest land in New Zealand, green with luxuriant pasture, and studded with trees, principally the weeping willow, the eucalyptus, and various pines.

The town contains from 6,000 to 7,000 inhabitants; there are first-class hotels, and a capital theatre.

The peculiar clearness and invigorating freshness of the climate of Napier have to be experienced in order to be fully appreciated. It is hot for two or three months in the summer, yet, owing to the dryness of the air, the heat is not oppressive; in the winter, the morning and evening air is often sharp, and there may be a slight touch of frost occasionally, but it quite disappears at sunrise, and the days are as bright as in the summer.

The greatest recommendation, however, which I can adduce, is the fact that this part of New Zealand is now considered by a large number of the profession in that country to be the most favourable situation for patients troubled with chronic pulmonary affections, and the local medical men are almost unanimous in thinking the climate one of the finest in the world. I have had reliable testimony on all hands of the curative effects of this climate in disorders of the lungs and air-passages, and could bring forward many cases in proof of the above statements; I trust, however, that these few remarks may be sufficient to direct the attention of the profession to the advantages of Napier as a health-resort, and may, to some extent, serve as a guide to those who may wish to send patients to New Zealand.

OBSTETRIC MEMORANDA.

RUPTURE OF THE UTERUS: RAPID DEATH.

ON May 22nd, at 7 P.M., I was called to attend Mrs. G., who was stated to have been in labour from 5 o'clock, and expected to be confined every minute. This was her ninth child. She was about 44 years of age, a large, anæmic, flabby-looking woman, with weak action of the heart; and she had always suffered badly from *post partum* hæmorrhage. On examination, I found the head in the vagina, almost at the vulva; and, although violent pains occurred every three or four minutes, labour seemed to make little or no advance. Having waited about fifteen minutes, during an unusually severe pain I heard distinctly a "loud snap." The head now receded (but only slightly), and the pains suddenly ceased. After waiting ten minutes, during which there were but two slight pains, I gave a dose of ergotine (hypodermically), and decided on delivering her. With a little difficulty, I introduced my left hand, and succeeded in removing a large still-born child, which had double hare-lip and spina bifida, and appeared to have been about three weeks dead; in fact, it was quite fetid. The delivery of the child was followed by a gush of dark unhealthy looking blood; and, although the uterus contracted firmly, it receded quite far up into the abdominal cavity. The mother seemed strong and well, and made urgent inquiries about the child: how long it was dead, etc. She further stated that, about three weeks previously, she had a bad fright whilst driving through the town, and had never felt life in the child since. The uterus remained firmly contracted, and there was no sign of hæmorrhage externally. In about ten or twelve minutes, the patient began to become anxious and restless, and to toss about her arms; and replied, on being questioned, that there must be something wrong with her heart. The pulse had become very rapid and small, and the anxiety of the patient more marked. I examined the heart: the action was violent and tumultuous; the sounds were hardly discernible one from the other. I gave brandy repeatedly, and kept firm pressure on the uterus; but there was no sign of the placenta being expelled. After waiting for an hour, when collapse seemed imminent, I introduced my left hand, which, to my dismay, went through an enormous rent in the uterus, at the junction of the body with the cervix. Of course, I immediately withdrew my hand, and, getting the uterus firmly pressed down, I removed the placenta with a little trouble. No external hæmorrhage whatever followed; and, notwithstanding large doses of brandy and frequent subcutaneous injections of ether, she sank rapidly, and died at 10.15, about three hours after the rupture occurred.

Carlow.

WILLIAM H. O'MEARA, M.K.Q.C.P.I.

BIPARTITE PLACENTA.

ON August 2nd I removed what can only be termed a "bipartite placenta" from a primipara, after prolonged and severe labour, necessitating the use of the forceps. As the placenta showed no signs of coming away, the hand was introduced into the uterus, and the interior surface found covered with strongly adherent placenta. Beginning close to the os, where only an edge could be found, the whole mass was peeled off entire, and removed with difficulty. On examination, two complete and distinct placentas were found, entirely separated by a clear band of membrane an inch and a half in width. Close to the centre of each the vessels ran a distance of two and a half inches towards each other, along the surface of each placenta, and clear of deciduous membrane only in the last inch, and then united to form an umbilical cord of the usual kind. The appearance of the whole presented a remarkable resemblance to the lungs, and the division of the trachea into the right and left bronchi.

GEORGE ROBERTSON, M.D., 150, Kilburn Park Road, N.W.

NOVEL METHOD OF DELIVERY AT SEA.

THE following case, which came under my care whilst surgeon to a well known line of steamers to the East, may be of interest.

At 11.30 P.M. on April 8th, I was called to Mrs. E., stewardess, aged 38, and found her in labour with her first child. The membranes had broken forty-eight hours previously, and she had been occasionally having strong labour-pains up to an hour before I saw her. On examination, the head was found wedged in the bony outlet; the vagina was hot and dry. Having a good reason for concealing her state, she did not send for help until she found the pains were leaving her, and she felt almost "worn out." She was, in fact, in an extremely exhausted condition, and it was evident she would die if not quickly delivered. The pains had entirely left her, and neither ergot nor friction had the slightest effect on the uterus. Being without midwifery-forceps, my first idea was to perforate, but I found that the child was living. Having acquired a knowledge of the fillet, when a pupil, the following substitute for it occurred to me. From a married lady passenger, who kindly assisted me, I got a piece of steel-hoop, twenty-three inches long and half an inch wide, thin and pliable, covered with coarse calico; its previous use had been in a crinoline or crinolette, or whatever these ungainly and unnatural fashionable excrescences are called. This I made into a loop, covering the ends with a towel to prevent cutting the hand. After considerable difficulty, I got this well over the forehead of the child, and succeeded, with 'twenty minutes' hard traction, in delivering the head, the soft parts offering little or no resistance. The child seemed at first sight to be dead; but perseverance for some time with the usual remedies brought it round. The mother made a good recovery, for the tropics, and her son also did well.

REMARKS.—Of course, the moral of this case is, Never go to sea without midwifery-forceps. Had I had a pair with me, this would have been an ordinary instrumental delivery, just as one would expect a woman of her years to have with the first child. This imperfect description may give an useful hint to surgeons going to sea, or may be the means of one of my country brethren saving a life, if called in at the last moment on a round a long way from home. If so, the object for which it was written will have been attained.

THOS. W. BUCKLEY, M.R.C.S. Eng., etc.

THERAPEUTIC MEMORANDA.

BORO-GLYCERIDE IN SKIN-DISEASES.

AS I do not remember to have seen any recommendation of boro-glyceride in the treatment of skin-diseases, and as I have recently stumbled upon it, and found it a most useful remedy for psoriasis and other scaly forms, and especially in allaying the itching which accompanies many forms of skin-affections, I venture to call the attention of the profession to its use. A small sample of the preparation sent by the manufacturers happened to reach me while I was treating a very chronic and irritable case of psoriasis with little benefit from the usual remedies, and this coincidence led me to the use of the boro-glyceride as a local remedy with very gratifying results, and I have since employed it with success in other cases. The action of the drug is certainly not due to the glycerine alone, as I had already tried that substance without permanent benefit.

I believe that I was the first, or one of the first, to call attention to the use of liquor carbonis detergens as a local remedy for chronic eczema, and I was led to employ it in the same casual manner. While engaged in making some comparative experiments, many years ago, at

the York Hospital, on antiseptics and disinfectants, a sample of the liquor carbonis was sent to me by the manufacturers, and I immediately extended its use to the treatment of eczema, and especially to the chronic eczematous ulcers of the legs common in the out-patient rooms of provincial hospitals.

Many patients object to the use of the liquor carbonis on account of its pungent tarry smell; but no objection of this kind can be advanced against the boro-glyceride, as it is free from scent. It has, however, the drawback of being sticky, like pure glycerine, while it has, on the other hand, the advantage over many other remedies of not being poisonous.

CHARLES ROBERTS, F.R.C.S., Bolton Row, Mayfair.

THE TREATMENT OF NÆVUS BY ETHYLATE OF SODIUM.

FOR some months past ethylate of sodium has been extensively employed by me in the treatment of cases of nævus occurring in children, and up to the present I have every reason to be satisfied with its use. I paint over the nævus two coatings of the ethylate on two consecutive days, taking care to protect the surrounding skin before the application, and in all instances of superficial nævi thus treated, have found them cured on the separation of the scab. Those cases affecting the subcutaneous tissues generally require a second, or even in some cases a third, repetition of the remedy.

It seems to leave less scar than nitric acid, to cause less pain to the child, and, undoubtedly, of all applications, is the one least dreaded by the mother.

SAMUEL WELCH, M.R.C.S.

CHRONIC DIARRHŒA.

IN hospital and private practice, I am sometimes consulted by females of nervous temperament, on account of a chronic diarrhœa of several years' standing, and which has hitherto resisted medical treatment. As many as six or eight stools have been reported as passed daily. When failing to discover organic abdominal disease, the following formula has produced considerable mitigation, and sometimes a perfect relief to the symptoms. I am inclined to think the disorder is a neurosis.

R Acidi nitrici diluti ʒss, liquoris opii sedativi (Battley) ʒi, tincturæ gentianæ ʒss, infusi gentianæ ʒivss, aquam menthæ piperitæ fort. ad ʒviii; one ounce to be taken three times a day.

J. VOSE SOLOMON, Birmingham.

SURGICAL MEMORANDA.

DISLOCATION OF THE METACARPAL BONES.

MR. Morgan's interesting communication has reminded me of a case which was under my care some years ago. A man, aged 77, was kicked by a horse on the back of the left hand with such force as to dislocate the second, third, and fourth metacarpal bones backwards. Reduction was effected, without the aid of chloroform, about two hours after the accident had happened. A good deal of force had to be exerted. There was no tendency after reduction to a return of the dislocation.

As Mr. Morgan says, authorities are mostly silent with regard to dislocation of the metacarpus. In the Museum of the Royal College of Surgeons there is—or was—a specimen of partial dislocation of the fourth metacarpal bone backwards. It seems to have lost its connection with the os unciniforme only, being still articulated with the os magnum.

THOS. F. RAVEN, Broadstairs.

THE LATE DR. ANGUS SMITH.—A large block of granite has been placed over the grave of the late Dr. Angus Smith in the churchyard of St. Paul, Kersal Moor. On the front, which is smooth, is a Celtic cross and the inscription—"Robert Angus Smith, Doct. Philos., LL.D., F.R.S. Born 15th February, 1817. Died 12th May, 1884. 'Whosoever therefore shall humble himself as a little child, the same is greatest in the kingdom of heaven.'—Matt., xviii. 14. 'With Thee is the fountain of light. In Thy light we shall see light.'—Psalm xxxv. 9. Erected by his niece Jessie Knox Smith." The reverse of the granite has been left rough, and has upon it the reference—II Tim., i, 10.

PRESENTATIONS.—The workmen and of Messrs. Bolckow, Vaughan, and Co., Eston Steel Works, have presented to Dr. Geo. C. H. Fulton a handsome case of surgical instruments, in recognition of his services while at Grangetown as assistant to Dr. Glen. He also received an ophthalmoscope from the members of the St. John Ambulance Association class at Grangetown, to which he acted as instructor.

REPORTS

OF
HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

LIVERPOOL ROYAL INFIRMARY.

THREE CASES OF FRACTURE OF THE NECK OF THE SCAPULA, WITH
A FOURTH CLOSELY SIMULATING.

(Under the care of Mr. RUSHTON PARKER.)

CASE I. *Shoulder severely struck: Fracture of Neck of Scapula, and Paralysis of the Limb: Deformity unreduced for a Month: Complete Recovery.*—Nicholas B., aged 55, while engaged on board the Cunard steamship *Batavia* in the Mersey, on January 11th, 1882, was struck down by a box of ashes that swung against him in its passage from the hold to be shot overboard. His left shoulder was disabled, and he was shortly afterwards admitted into a hospital, where he remained twelve days, the injury appearing to have closely resembled one of common dislocation. The patient was afterwards under the care of Dr. S. A. Lucas, who sent him to Mr. Parker on February 9th, 1882, a month after the accident.

On inspection of the bared shoulder, the head of the humerus was evidently displaced inwards, and could be seen plainly beneath the skin; while under the acromion-process the proper fulness of the shoulder was reduced (Fig. 1). The case looked like one of unreduced



Fig. 1.

inward dislocation, which it was at first assumed to be; but, on further examination, and varying the attitude of the limb, it was found that the displaced head of the humerus could be put in and out of its proper position. In the attitude of Fig. 2, the shoulder became nearly, if not quite, normal in fulness and shape; while, on dropping the arm, the shoulder resumed its deformed appearance. He then said that, when in hospital, his shoulder kept slipping out after reduction. Photographs were taken in the attitude of deformity (Fig. 1), and in that of its replacement (Fig. 2). It became certain that one had to do with fracture of the neck of the scapula, but it was feared that non-union would be the inevitable result. However, the limb was placed in the position of greatest rest, and the one most favourable for union, should that fortunately occur. The attitude of Fig. 2 could not be permanently assumed; but one as near to it as practicable, and still attended by maintenance of the proper position of the head of the humerus, was found by slinging the wrist, tied high up to the neck with a triangular bandage, the hand lying on the top of the right shoulder. The elbow was thus brought well forward on the chest, and the shoulder kept its place well back. The position was rather irksome to the patient; but he was urged to submit to it for the sake of union, which was not absolutely despaired of; and he was

asked to attend at the infirmary as an out-patient. In conjunction with the injury to the shoulder, he also suffered from total paralysis of movement in the limb, including drop-wrist. The hand was accordingly fixed straight with the forearm, at the second inspection, by means of a splint of folded newspapers, lying trough-like, tightly bound round the arm and forearm, and fixing the wrist-joint perfectly comfortably. The sling was then tied afresh over this splint, by means of which the muscles of the forearm were maintained evenly balanced, pending their recovery, which was expected to occur during the lapse of the next few weeks. The same balance of the muscles of the arm was sufficiently secured by the slung position of the limb.

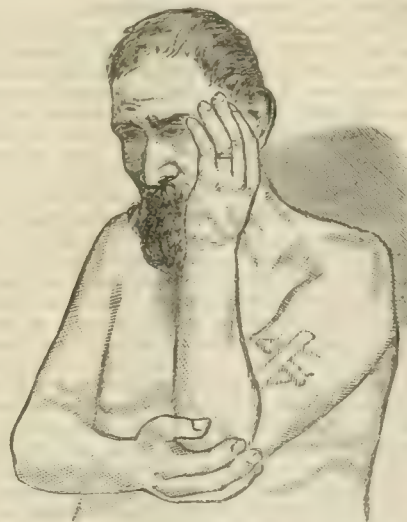


Fig. 2.

He attended twice, or once, each week for inspection and adjustment. At the end of four weeks, slight power had returned in the muscles of the arm and forearm, while the fracture had become united in a position that left the head of the humerus but slightly out of its proper position. In another week, he was permitted to put the arm into his sleeves, and, at the end of the sixth week, he was well, and able to use his arm to a gradually increasing extent, with a steady improvement of power.

CASE II. *Severe Fall on Shoulder: Deformity, simulating Dislocation of Head of Humerus, unreduced for a month: found to be Fracture of Neck of Scapula: Paralysis of Forearm: Gradual Complete Recovery.*—Mrs. A. F., aged 44, weighing fourteen stone, was pitched out of a high conveyance, and fell heavily on her left shoulder at Christmas-time, 1884. She called at a neighbouring hospital, where her shoulder was examined; after which, she went home into Liverpool, and received the care of Dr. D. M. Williams, her medical attendant. Much swelling of the shoulder existed, so the limb was slung, and the injured parts fomented. A month after the accident, Dr. Williams perceived that the shoulder was dislocated, and reduced it several times, but without effect, as the bone each time slipped out again. He therefore advised her to go to the Royal Infirmary. This she did, and was attended by Mr. Dawson, one of the house-surgeons, who also found signs of one of the ordinary dislocations. This he, too, was able to reduce without difficulty, but the normal position was lost almost as soon as it was obtained.

The patient was then examined by Mr. Rushton Parker, who found what appeared to be a dislocation inwards of the head of the left humerus. Chloroform was given, and the patient placed lying on the operating table, with a roller-towel round her chest, looped to an iron post in the room, and stretched tight, to fix the trunk in manipulating the limb. The method of reduction employed was that described and illustrated by Mr. James E. Kelly in the *Dublin Journal of Medical Science* for September, 1882, and consisted in making extension on the dislocated limb by holding its wrist, and interposing the body of the operator between the arm and trunk. The rotation of the operator's body then brings a very great, but nearly harmless, force to bear upon the displaced shoulder, without other mechanical assistance than the stretched roller-towel alluded to, at an expenditure of not much exertion on the surgeon's part. In this way, and in other ways, the shoulder was reduced, but only to slip out again. Repeated perform-

ance of the reducing manœuvres, and critical examination of the parts concerned, however, now showed that there was distinct bony grating, and made it certain that the neck of the scapula was broken, and the dislocation not merely one of the joint.

The special manœuvres for reduction were now abandoned, for the same result could be effected by drawing the limb flexed across the chest, in which position it was fixed by slinging the wrist to the neck, as in Case 1. The success obtained, too, in that case, encouraged the confident hope of union, and led to the adoption of a less irksome position of the limb, which was accordingly slung in a more ordinary fashion, without bringing the hand so far up and across as to approximate it to the opposite shoulder.

Here, too, the forearm was disabled by paralysis; it was fixed straight by means of the newspaper trough-splint, confining the wrist and fingers. Sublimated gauze was placed next to the skin, for the comfort and convenience of the patient, to prevent decomposition of the cutaneous secretions. Much pain and tenderness of the shoulder at first existed, with early disappearance of the former, followed gradually by that of the latter. It was a good many weeks, however, before she could lie on that shoulder when in bed.

In the progress to recovery the shoulder lost its swelling, as well as the fresh cutaneous ecchymosis that resulted from the manipulations employed at the infirmary; eventually it assumed a shape chiefly differing from that of the normal side in partial wasting of the deltoid, and a consequently greater comparative prominence of the head of the humerus. Long before the muscles of the forearm recovered, she had lost all tenderness in the shoulder, could lie on it in any attitude, and could move it freely in abduction and adduction, while wearing the sling. In May, 1885, the wrist was released, and slung without the intervening splint; but after a week, the latter had to be resumed, as the fingers began to be bent, stiff, and tender, without return of voluntary movement. The disablement of the forearm thus continued much longer and more severely than in Case 1, and was probably due to bruising of the axillary nerves at various times in the manipulations required for investigation and reduction. But the union of the tions resulted, as far as could be judged from the return of movement and the disappearance of tenderness, during the second month after injury, as in the first case. She is still (June 21st, 1885) under treatment for the forearm, which rests in the slung position in a newspaper splint. But the use of the fingers has returned, and is gradually increasing, while the shoulder is practically well, though not yet quite fit for use. There is still slight stiffness, evinced on abduction beyond an angle of about 60 degrees, at which the scapula moves with the humerus. When the arm lies close to the side, too, the angle of the scapula is nearer the middle line than that of its fellow, and tilted somewhat, suggesting a slight unevenness or want of accuracy of the union at the seat of fracture. In the former case, it will be noted that the slight deformity was shown in the greater prominence of the head of the humerus. No other treatment beyond that of mechanically enforced rest, as above detailed, has been used in either case.

CASE III. While No. 11 was under treatment, Mr. Parker was told by Mr. H. O. Thomas that he had detected fracture of the neck of the scapula in a gentleman aged 68, who had fallen heavily several feet on to his shoulder in January, 1885. In June, 1885, after the other cases were written, Mr. Parker had occasion to see this same patient in consultation. At the interview, the patient being by this time in a fair way of recovery, it was noticeable that stiffness of the shoulder-movements still remained, when practised beyond a certain range. On abduction, for instance, beyond an angle of about 60 degrees, the scapula moved with the humerus. In addition, the head of the humerus occupied a more forward and inward position than that on the opposite side, indicating, even at this period of recovery, the nature of the injury that had been sustained.

The following case, though not certified by anatomical diagnosis, resembled the others in the principles of treatment employed, and in other ways.

CASE IV. *Shoulder severely Squeezed: Great Ecchymosis: Supposed Fracture of Neck of Scapula.*—Thomas P., aged 24, had his right shoulder squeezed between the buffers of two goods-wagons on February 19th, 1884, and was shortly afterwards admitted, suffering from swelling, pain, and tenderness of the part. No evidence of conspicuous fracture was made out on his admission, and, during the next day or two, the ecchymotic swelling was so great as to very much obscure detailed examination of the bones; but it was clear that the humerus and clavicle had escaped. The limb, however, was totally disabled, and from the forward attitude of the head of the humerus, closely simulating that of the previous cases, fracture of the neck of the scapula seemed not unlikely to have occurred. This impression was

intensified on February 24th, after aspirating about seven ounces of blood from the centre of the ecchymosis on the front of the shoulder, done to relieve the skin, which was red and badly supported here. By this means, the outline of the shoulder became more nearly normal, but showed more distinctly than ever the forward and inward displacement. The suspicion of the actual fracture was thus based almost entirely upon the attitude of the affected shoulder, the disablement of the whole region, and the deep tenderness found in addition to these signs. But crepitus was not elicited by any of the gentle manipulations that were alone employed, nor was it deemed advisable to search for it by either movements or handlings of an energetic character. At the time of aspiration, the wrist was slung to the neck with a folded triangular bandage—a position that gave both relief and freedom to the patient, who, a day or two afterwards, was able to leave his bed. The skin over the liquid portion of the ecchymosis, unsupported, quivering, and eventually reddened by inflammation, fell closely back on the solid soft parts after withdrawal of the blood distending it, remained there closely applied, and acquired improved vitality. The solid portions of the ecchymosis, and the inflammatory induration mixed up with it, disappeared without interruption; while an excoriated patch on the blade of the scapula, where a bulla had existed, gradually healed under boric dressing. Meanwhile, the patient amused himself among his associates without requiring further treatment than maintenance of the quiescence of the limb by the sling. Before three weeks had elapsed, he was made an out-patient, as it was then judged, from the loss of tenderness and the effect of local manipulation, that his injury had fairly consolidated, and that the fracture, if there had been one, was united.

At the end of two months, after weekly inspection, there remained some stiffness of the shoulder-joint, the scapula moving with the arm on abduction of the humerus beyond a slight range, with the muscular wasting that necessarily follows disuse. He was still advised to sling the arm, and abstain from its use until all trace of tenderness had gone, and then only to most gradually resume its employment. At the end of four or five months, he was lost sight of, having recommended to do light work provided for him.

On February 27th, 1885, he came to show himself, having done his usual work in the railway goods-department for some months. The shoulder was much wasted in all the scapular muscles, including the deltoid, which latter muscle seemed almost of normal thickness in its clavicular segment, but much wasted elsewhere. The scapula moved with the humerus, on abduction beyond 45 degrees, indicating still some want of suppleness in the capsule of the shoulder-joint. But there was no pain or tenderness, only weakness of this part. He had not spared himself at work: therefore, in case the atrophy were due chiefly to fatigue and over-use, before proper restoration of strength in the muscles concerned, he was advised to avoid, as much as possible, the elevation of his arms, especially in heavy lifting, and to pay some attention to keeping his elbows near his sides when at work.

GRÉHAUT AND QUINQUAUD ON SUBCUTANEOUS INJECTIONS OF UREA.—It is stated that numerous experiments performed by the authors on dogs and other animals have proved that the subcutaneous injection of a quantity of urea, equal to one-hundredth of the weight of the body, is always followed by death. The animal dies when its blood contains 0.6 per cent. of urea. It is interesting to compare these figures with those found by the same authors in man. In a case of anuria, the blood contained 0.410 per cent. of urea; in retention of urine, 0.278; and in well marked uræmia, 0.215. The presence of a large quantity of urea in the blood did not seem to exert an injurious influence on the contractility of the muscles.

A NEW WAY OF MAKING POST MORTEM EXAMINATIONS.—Professor Welch, of Bellevue (who has been elected to the chair of Pathology in the Medical Department of Johns Hopkins University, of Baltimore), has, an American contemporary says, a way of obviating certain objections made to a *post mortem* examination by external incision. He makes it as follows. Putting his hand into the rectum, he cuts off this, and separates it from its attachment. He then pulls the intestines out through the anus, examines them, and appropriates any pathological specimen he may want. Putting his hand into the anus again, he removes the kidneys, spleen, and heart, and pieces of the liver and lungs. He puts what is not required for museum-purposes back, and sews up the anus inside, and few would know that a *post mortem* examination had been made.

PRESENTATION.—Mr. Thomas Corcoran, medical officer to the Loughborough Medical Aid Association, has been presented with a tea and coffee service, a purse of gold, and an illuminated address, on the occasion of his marriage.

REVIEWS AND NOTICES.

A MANUAL OF DERMATOLOGY. By A. R. ROBINSON, M.B., L.R.C.P. and S. Edin. New York: Appleton and Co. 1885.

ANOTHER substantial book on dermatology, in the shape of an octavo volume of upwards of 600 pages, reaches us from America, affording additional evidence, if that were required, of the zeal and energy of the school of dermatology which has sprung up in New York during the last decade. The author has already earned the reputation of being a sound pathologist, and the memoirs from his pen on dermatological subjects are invariably referred to by European writers, who discuss the questions to which they refer. The part that he has taken in discussions regarding the so-called dysidrosis, and the pathology of psoriasis and sycosis, have marked him out as a writer of force, and as an observer of considerable originality. His name is sufficient to call attention to any work on dermatology of which he is the author.

The book before us is characterised by conciseness, clearness, and, we must also add, occasionally no little dogmatism. It is remarkable for an entire absence of repetition—a feature alone which distinguishes it from many other similar works. This special quality renders the book useful to the general practitioner, who will find the chapters on treatment, clear, precise, and short, but yet embodying the results of extensive reading and considerable experience. There is so much original work in the book, that it is impossible to do more than to indicate a few points which are of special interest from the pathological side.

Dr. ROBINSON considers that two different conditions have been described under the term *milium*, according as a connection with a gland-duct is present or absent. When the formation is superficial, and has no connection with the sebaceous gland, he believes that it is a case of miscarried embryonic epithelium from a hair-follicle, or from the rete. A view that has recently been put forth regarding the nature of *sudamina* makes it interesting to note that Dr. Robinson, who has made this eruption a subject of special investigation, finds that the liquid lies between the lamina in the deeper part of the corneous layer. The vesicle in this case is not caused by a distension of the sweat-duct, but by its obstruction, which causes the sweat to rupture the wall, and collect between the laminae. The contents of the vesicle come from a sweat-gland, and not from the capillary blood-vessels, as is shown by the chemical character of the contents and the invariable presence of a sweat-duct at its base. He describes, for the first time, a form of *sudamina* which appear on the face, especially in women of middle age, the vesicles being rounded or acuminate, and being more deeply seated than *sudamina-vesicles* on the body. They form rapidly after active exercise, as washing, in persons who sweat considerably in the face. They are situated on the nose, forehead, or cheeks, are isolated, and disappear very slowly, without becoming opaque, or leaving evidence of their presence.

Lichen planus is entirely and definitely separated from *lichen ruber* by definition, pathology, effects of treatment, and by two hundred pages of print. *Lichen planus* is defined as "a chronic circumscribed inflammatory affection of the skin, characterised by the formation of discrete or aggregated dull-red patches, roundish or angular, elevated, smooth, shining umbilicated papules generally situated upon the anterior surface of the forearms just above the wrist."

Lichen ruber is defined as "a chronic affection of the skin characterised by the formation of discrete or confluent pin-head, or somewhat larger sized, firm acuminate scaly red papules, having a tendency to invade the whole surface, and thus produce *marasmus* and death."

The chapters on both of these separated diseases are copiously illustrated by valuable woodcuts from preparations made by the author. Arsenic, Dr. Robinson remarks, should not be given in *lichen planus*, as it frequently aggravates the eruption. In *lichen ruber*, on the other hand, he states that "arsenic may be regarded as almost a specific if given in sufficiently large doses, and its use continued long enough."

The anatomy of *herpes zoster* is illustrated by valuable original engravings, which bear out the view very clearly that the disease is a *perineuritis*. "Deep in the subcutaneous tissue," the author remarks, "deeper than the inflammation producing the vesicles reaches, the round-cell infiltration is observed within and around the neurilemma. This cell-infiltration can be observed to follow the course of the nerve-bundles." One of his figures showing this condition represents a drawing made from a section of the deep subcutaneous tissue, the neighbouring tissue surrounding the inflamed nerve being perfectly normal.

Some years ago, Dr. Unna suggested the novel view that the black points of comedones are not due to dirt, but to pigment, a view which Dr. Robinson very briefly disposes of in the negative.

The anatomy of psoriasis is copiously illustrated by the woodcuts which first appeared in Dr. Robinson's original papers, and he shows, with great clearness, that the disease consists in a hyperplasia of the rete and corresponding structure of the hair-follicles. He shows that, in *sclerema neonatorum*, the temperature is not always lowered. He gives his adhesion to the view that, in *molluscum contagiosum*, the diseased process is first observed in the hair-follicles.

On the subject of the treatment of eczema, Dr. Robinson considers that the intensity of the inflammation is the true guide to the local treatment; that the general treatment must depend upon the condition of the health of the patient. In epithelioma, he places more reliance upon caustics than on the knife.

The book will take its place permanently amongst standard works.

SECOND ANNUAL REPORT OF THE HANGCHOW MEDICAL MISSION, IN CONNECTION WITH THE CHURCH MISSIONARY SOCIETY; FOR 1884. Shanghai, American Presbyterian Mission Press, 1885.

Dr. DUNCAN MAIN, in this Report, urges, with good grounds, the claims of his hospital to support and assistance. The mission-hospitals in China are well known to be doing an excellent work, and no institutions are more deserving of cordial support. We find amongst 4,707 out-patients and in-patients treated during 1884, 68 suicides, of which 14 were dead on arrival, 51 were saved, and 3 died after admission.

All mission-reports from China deal with the opium-question. Dr. Main remarks that the treatment of opium-smokers as out-patients by means of pills, containing opium or morphia, is most unsatisfactory. In a few cases, he says, one may be able to cure the patient, but in many cases with the cure of the smoking there is the acquiring of opium-eating, and the latter end is worse than the beginning, for the difficulty of curing opium-eating is greater than that of opium-smoking. He remarks that with a hospital good work can be done. To put a smoker out of temptation's way is all that is necessary to effect a cure. No special medicine is required. "I cut off the opium," he says, "at once, and completely, as I do not believe in the gradual weaning and final knocking-off process. I have never seen any bad results follow this mode of treatment, although patients have been admitted suffering from diarrhoea, dysentery, anaemia, and advanced phthisis. For the first few days the patient suffers from considerable uneasiness about the stomach, vomiting, diarrhoea, etc., but these symptoms soon pass off, and the patient, under simple tonic treatment, makes steady progress towards recovery." "But," as Dr. Main adds, "to cure an opium-smoker is one thing, and to guarantee that he will not return to his degrading vice is quite another thing." It is interesting to learn that Dr. Main has had four students under training, and that, in spite of many difficulties, they passed very creditable examinations.

Subscriptions towards the building-fund of Dr. Main's hospital will be received by E. D. Main, Esq., 30, Howard Street, St. Enoch's Square, Glasgow.

GOUT, AND ITS RELATIONS TO DISEASES OF THE LIVER AND KIDNEYS. By ROBSON ROOSE, M.D., F.R.C.P. Edin. London: H. K. Lewis, 1885.

Gout, like asthma, has always attracted a degree of attention from physicians altogether out of proportion to its frequency in the general population, or to its apparent importance as an element in the death-rate. It has been called the disease of wise men by old-fashioned physicians, who generally, so it is said by those who seek to account for the application of the term, suffered from it themselves. To this may in large part be traced the fascination which the subject has exercised over medical writers; but something must be set down to the apparent simplicity and real complexity of the problems involved. We have recently witnessed a revival of the theory which attributes gout to a disturbance of the nervous centres. Dr. Dyce Duckworth, in an able paper published in this JOURNAL (vol. i, 1881), adopted and extended the theory, supporting it by many weighty arguments. Dr. ROBSON ROOSE, in the well written treatise which is the subject of this notice, sets himself to combat the neurotic theory, as well as that which would attribute the outbreak of gout to the retention of uric acid, owing to renal inadequacy. His contention, if we understand his position aright, is that in gout there is an imperfect transformation of albuminous substances, due to functional disorder of the liver, or to excessive supply of albumen, or to both these factors, that this

leads to the presence of an excessive quantity of urate of soda in the blood. This excess may be eliminated by the kidneys, and no gouty attacks occur, while symptoms of the uric acid diathesis may be present. On the other hand, the kidneys may become irritated by the deposits of urates, and by the necessity of secreting an excessive quantity of uric acid and urates; the consequent nephritis leads to a diminution in the quantity eliminated, and to an increase in the quantity retained in the blood, and a deposit in the joints. These deposits excite the characteristic gouty inflammation. In chronic gout there is increased production of uric acid (as a rule) and defective elimination by the kidneys; the nervous symptoms are attributed to the toxic action of the materials of imperfect metabolism. The admission that a pre-existing defective capacity of the kidneys will promote the development and accelerate the course of gout is an inevitable corollary.

To many readers, Dr. Roose's views will possess less novelty than he would appear to expect, and the almost complete exclusion of the nervous system from any part in the production and distribution of gout introduces fresh difficulties, and diminishes the breadth of view. We can hardly do better than transcribe Sir James Paget's opinion, quoted by Dr. Roose: "Disturbance in the nervous system, in some form and part, may be regarded as a factor in every case of gout. There are reasons enough for thinking that changes in the nervous centres determine the locality of each gouty process, while changes in the relations of the blood and tissues determine its method and effects; and that thus we may explain the symmetries of disease in gout, sometimes bilateral, sometimes antero-posterior, and thus its metastases."

Though the essay is marked by strong views, it is something very much better than a mere polemic; it is one of the clearest and most complete reviews in a small space of existing knowledge with regard to this disease which we remember to have read, and it may be strongly recommended to the study of the young practitioner, who has often, during his student career, had but few opportunities of observing a disease which is of so much importance in a mixed practice. The matter is well arranged, the views of other writers are fully, and, so far as we have observed, correctly given, and the concluding chapter, on Treatment, lays down sound methods, and affords many useful hints.

THE NATURE OF MIND AND HUMAN AUTOMATISM. By MORTON PRINCE, M.D., Physician for Nervous Diseases, Boston Dispensary.

DR. PRINCE, of Boston, cannot refrain from contributing his quota, or rather we ought to say his solution, to the oldest problems of philosophy; he does not, indeed, quite like calling it philosophy, but such he reluctantly admits it to be. "The primary object of this book," he says in his preface, "is to discuss certain problems of mind and matter—particularly the relation of the mind to the brain—simply as questions of psychology and physiology, without regard to the bearing they may have on philosophical doctrines. Still, all such questions lie so deeply at the root of the latter that it is impossible to discuss the one without regarding the effect they have upon the other" (page 4); and, accepting without more ado the unfortunate implication of philosophy, psychology, and physiology one with another, he proceeds forthwith to explain the nature of mind. He briefly notices a hypothesis which, as lately put forward in Mr. Herbert Spencer's language, asserts that the same things which are in one "aspect" mind, are yet, in another and physical "aspect," matter. Mr. Spencer goes on to the very categorical assertion that, though we may have been led to "the belief that mind and nervous action are the subjective and objective forces of the same thing, yet we remain utterly incapable of seeing, and even of imagining, how the two are related." It is these *lacunae* of sight and imagination which Dr. Prince thinks he can help us to fill up, or, as he perhaps would prefer us to say, to prove non-existent. After a brief survey of the brain, and reality, and subjectivity, and consciousness, and other important matters, we are brought face to face with our solution, "a theory," as he says later (page 99), which "at once satisfies all the conditions of the case, and explains the mysteries which have so long hung about the problem:" it is this: "a mental state, and those physical changes which are known in the objective world as neural undulations, are one and the same thing; but the former is the actuality, the latter a mode by which it is presented to the consciousness of a second person, namely, to the non-possessor of it." We have not ventured to print the conclusion in capital letters, as our author does, for we cannot persuade ourselves of the magnitude of the discovery. Mr. A., for example, has a mental state, say anger; this is "the actuality." Mr. B., who fills the arduous part of "second person," and, for what we know, may have been the cause of the anger, receives, "presented to his con-

sciousness," what "are known to the objective world as neural undulations." He also, being a second person, has, we may assume, a "mental state," not impossibly also anger, and might be inclined to use rather shorter phrases for what he has had presented to his consciousness, and even to make a return present to Mr. A. of very similar neural undulations. But, speaking seriously, Dr. Prince has left us in the same difficulty as before, for all that Mr. A. and Mr. B. know of themselves is that they have mental states of anger, or what not; and all that they know, each of the other, is that they have neural undulations; but how, indeed, are they to divine that they "are one and the same thing?" But, further, Dr. Prince has drifted, in fact, into the oldest and most fundamental of the subjects of metaphysical inquiry—the nature of knowledge. The main points were unfolded in the Platonic Dialogues, and thoroughly re-examined by Aristotle, and we have made since then a little progress in comprehending what solutions of the problem are insufficient, thanks mainly to the strong sense of Hume, and the penetration of Kant; but the central fact remains very nearly where it always was, namely, that no one can know more than his own perceptions, or whatever it may please each inquirer to call the phenomena of his own consciousness, and that his inferences from these as to other consciousnesses and an external world, even though they may be universally accepted as a working hypothesis, yet stand on a very different footing from them as regards certainty or truth. Indeed, Dr. Prince himself says, a few pages later, "Consciousness I conceive to be an ultimate, at least as far as its physical processes are concerned, and hence the question as to its further ultimate nature must be an absurdity." But to apprehend these physical processes as Dr. Prince explains them, he seems to have forgotten that he postulated a "second person," who is, in fact, nothing more than a piece of Mr. A.'s consciousness "symbolised," "idealised," "externalised," in the form of Mr. B., watching its own physical processes; and a most unsatisfactory observer too if he claims to have the fresh knowledge needful to explain what is his own self.

The second half of the book is given up mainly to the discussion of a second difficulty of world-old standing—that of free will. It will hardly be necessary to follow our author here, as he confesses that there is much truth in the objections to his hypotheses. And, of course, throughout all these subjects towards which Dr. Prince has found himself impelled, it is far easier to criticise than to create; and we should be very sorry to give an impression that complete success would have been anything short of marvellous and unique. The basis of the work was written eight or nine years ago, when the author was a medical student, and has been only recently enlarged. The learning and the practice of medicine are generally sufficient, without the solution of the universe as a by-play; and what we would chiefly have wished is, that our author could have avoided that overconfidence which is often a treacherous friend to those trained only in the physical sciences.

NOTES ON BOOKS.

On Acne, Acne Rosacea, Lichen, and Prurigo. By TOM ROBINSON, M.D. (London: Henry Kimpton, 1885.)—This little book deals with the subjects named on the title-page in a popular style. Dr. ROBINSON's views on the etiology and pathology of these diseases are of a speculative kind, and can hardly be said to be founded on the results of accurate observation.

The Pharmacopœia of the British Hospital for Diseases of the Skin, London. Third edition. Edited by BALMANNO SQUIRE, M.B. Lond., Senior Surgeon to the Hospital. (London: J. and A. Churchill, 1884.)—*The Pharmacopœia of the British Hospital for Diseases of the Skin* does not contain much that is of interest for others than those who are specially interested in that hospital. The book contains little information which is not to be found in ordinary text-books, whilst the remarks are too brief to be useful to readers who have not an accurate knowledge of skin-diseases.

THE Earl of Derby has been appointed President, and the Bishop of Manchester, Sir Tonman Mosley, Bart., and Mr. R. N. Philips, M.P., have been appointed vice-presidents, of the Manchester Royal Infirmary.

PRESENTATION.—Mr. Thomas Percy Taylor, London, on leaving the Essex and Colchester Hospital, where he has been house surgeon for four-and-a-half years, has been presented with a handsome case of surgical instruments by the matron, nurses, and servants, as a mark of their esteem.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 22nd, 1885.

CULTURE IN THE RANKS OF THE PROFESSION.

THE President of the Association, in his inaugural address at Cardiff, drew attention to a subject on which we have recently more than once spoken—the greater breadth of culture which is beginning to characterise the medical profession; and to a growing belief on the part of the public that a medical man is not the less worthy of confidence because he possesses accomplishments other than those of a mere professional hack. “It is now quite possible,” said Dr. Edwards, “for the physician or surgeon to win his way to high public estimation by acquirements other than those that pertain to purely professional work. But this was not always so. At no very remote period, as some of us can well remember, any accomplishment a medical practitioner might happen to possess outside the range of professional routine was regarded by the public with suspicion and distrust, and held to some extent to disqualify him for the successful practice of his own peculiar art.”

We are glad to believe that some progress has been made in the direction thus indicated; but there can be little doubt of the existence of a strong prejudice, on the part of a large section of the public, that devotion to his profession and skill in the discharge of its onerous duties are the sum total of all the virtues in the medical practitioner. It would be useless to deny that this prejudice rests on a genuine foundation in fact. For the majority of men, the profession of medicine, with its engrossing duties, its scanty leisure, and its ever increasing range of new subjects demanding attention, is found to monopolise all their time and all their intellectual energy. Medicine is an exacting mistress, and will not brook a divided sovereignty. The annals of our profession afford but few instances of medical men who have risen to eminence in literature, or in the departments of science which lie apart from the field of medicine. While the legal and clerical professions have produced poets, historians, and essayists without number, the medical profession has been to a marked degree less fruitful in such products. These facts certainly warrant the inference that medicine is the most exacting and engrossing of the professions, and that the majority of practitioners must be content to aim at excellence in their own peculiar department of activity.

Nevertheless, we would plead for enlarged breadth of culture, when practicable, and especially for a more enlightened public opinion, which would regard any liberal accomplishment as honourable to the medical practitioner, and as no necessary derogation from his profes-

sional standing. The public should remember that there are in every profession a proportion of exceptionally able men, to whom general rules do not apply. One man masters half a dozen languages, while another laboriously fails to acquire one. One man's best energies and industry are barely able to cope with the ordinary requirements of practice, while another masters his profession with ease, and has still a surplus of intellectual energy left, sufficient to win distinction in the highest paths of literature or science. The differences in mental capacity between individuals are far greater than is generally supposed; and are, indeed, almost incalculable. We must not, therefore, tie down our best intellects to rules and standards framed to suit the average. If a medical man possess any accomplishment apart from his profession, let him use it for the good of his fellows, and for his own gratification, and no longer fear a declining prejudice that breadth of culture is incompatible with proficiency in his profession. There are many fields of intellectual activity where medical men are peculiarly fitted to shine. No other men have such opportunities for the observation of human nature under its varying aspects, or are so well fitted to discuss psychological questions, and to save metaphysics from the fog-gery in which it becomes involved when it divorces itself from anatomy and from practical observation. The grand philosophical questions opened up by such topics as heredity, temperaments, etc., should be the almost exclusive domain of the medical profession. While the modern spirit of exact scientific research is in most respects altogether admirable, we are losing something by its contempt of everything which cannot be submitted to precise tests or rigid demonstration. The fortunes of a life, and the course of a disease, are often determined by some subtle hereditary tendency, or individual proclivity, of which anatomy and physiology can take no account.

Again, anthropology, with its far-reaching issues, affords a natural and a delightful field for the superfluous intellectual energy of the medical practitioner. Botany, of which the test of the preliminary examinations ensures at least a smattering, might be again taken up in after years, and pursued with great pleasure and advantage.

When we turn to literature, there are many departments where a medical education might be turned to advantage. We are singularly ill-provided with good medical biographies; and a history of the successive phases and gradual development of medicine is a great desideratum.

We make these suggestions, feeling that there is a real danger of narrowness and exclusiveness in medical life, and that the public, in putting us down as mere professional drudges, have too often taken us simply at our own price. Of the opposite danger—that medical education should become broad at the expense of thoroughness—we need not now speak. Few men need distraction and intellectual variety more than medical men, whose life is often a round of monotonous and frequently depressing routine. Few classes of men seek such distraction less, or are less conscious how much they lose by too exclusive devotion to what must always remain the chief business and the highest pleasure of their life.

DAMP AND DIPHTHERIA.

THE reports of the medical inspectors of the Local Government Board, which are published for general information, are usually practical and useful, and are not seldom interesting. But they appear to us, as we have more than once remarked before, to be largely works of supererogation. Years ago, when there was no local sanitary adminis-

tration worth the name, and no skilled health-officer in a district whose business it was to acquaint himself and to keep his board informed as to the sanitary circumstances of his area, it was, no doubt, necessary that inspectors of the central authority should report exhaustively on the vital statistics and drainage and water-supply and the like of the places they were sent to visit. But, now-a-days, such particulars as these should surely be on record in the several reports of the local medical officer of health. It ought not to be necessary for a medical inspector from Whitehall, when visiting a district on account of an exceptional prevalence of disease, to occupy a great deal of time in setting forth in order every detail of its general health-administration. Probably it is essential for the due elucidation of the etiological problem he is called upon to solve, that he should acquaint himself generally with the state of the drainage, water-supply, scavenging, and other sanitary arrangements; but we confess to seeing some danger of the weakening of the influence of the local health-officer with his authority when the Government inspector deals with these matters in his report, as it were, *de novo*. It is very necessary to emphasise the primary responsibility of the local health-officer for keeping his authority informed as to the actual state of things existing in his district. If he have done his duty in this respect, there is no need for the inspector to obscure the main issue which he is called from the skies to decide, by details which the sanitary authority know well enough, and which are of no importance to anyone else. If he have not done his duty, then the inquiry is taken out of the category of a scientific investigation into the behaviour of disease, and belongs rather to the general sanitary survey which, as we understand, is being steadily pushed on.

We make these observations, not from any desire to detract from the merit of the reports which emanate from the Government Medical Department, but because we feel that the present system is a very wasteful and even obstructive one. We have lately received a batch of six reports from the department, of which all but one refer to outbreaks of diphtheria. The ultimate object had in view when these five inquiries into diphtheria were ordered was, we take it, the acquisition of further knowledge as to the behaviour of that obscure and terrible disease. Now, instead of one inspector with etiological proclivities being isolated for this purpose, with a roving commission to find out what he could as to the various outbreaks, and to report on them so far as was necessary to make their origin and circumstances reasonably clear for future guidance, three different inspectors appear to have been told off, as their services became available, to go down into the country, and see what they could make out of the epidemics. Their reports, now available for general reading, are one and all obscured by a mass of unnecessary detail, which has no relation to the particular problem to be solved, and which serves to divert the attention of any but a very steadfast and determined student of such literature from the real teaching of the outbreaks.

A careful study and comparison of the reports brings, however, to light a point which has often been mooted before, namely, the connection between damp and diphtheria, and the progressive development of that disease from simple sore-throat. Let us take, for instance, the report by Dr. W. J. Simpson on an epidemic at Wellington, Somerset, which is probably the best of the series. Infectious sore-throat was found to have been extraordinarily prevalent at certain brickworks, where there were a number of cold and wet clayey pits, which would be favourable to the development of certain fungi

in the soil. In other houses unconnected with the brickworks were found cold and damp walls and floors, affording an equally favourable soil for the development of such growths. With reference to this dampness, and its connection with the recurrence of infectious sore-throat, the condition of some of the houses where diphtheria occurred is worth notice: (a) a back-to-back house, brick floors always damp, walls covered with fungi, walls in bedroom reeking wet, covered with green moss; (b) surroundings of house flooded, rain coming down inside of walls, clothes required to be stuffed into casement of window to keep rain out, fungi on walls; (c) wet streaming down walls, fungi on them; (d) front room with a stone floor, back room an earth one, both very damp, walls damp; boots, clothes, etc., covered with moulds; house surrounded with ditches. Dr. Simpson examined with the microscope, using a high power, several specimens of these vegetable growths, and in some cases discerned amongst the various moulds numerous bacteria and micrococci. In a special instance, in a house where a death from diphtheria had recently occurred, was found a cut potato, on which various moulds were growing. Examining these microscopically, micrococci were discovered growing in regular form on the potato. They were tested by various reagents, and coloured, to ensure that they were not inorganic bodies, which might have been mistaken for fungi. These interesting facts may perhaps explain the recurrence of diphtheria in particular houses and localities, and that even after long intervals. Seeing that other vegetable growths flourish freely on a damp wall or damp soil, or in polluted water, it is not assuming very much, thinks Dr. Simpson, to suppose that the virus of diphtheria, if it have the power of reproducing itself at all outside the body, may equally flourish under similar conditions, and so may at a later period infect those that live in the house or drink the water.

Another outbreak, at Shaftesbury, is also reported on by Dr. Simpson. Here the first case arose at a house situate outside the town, at the bottom of a deep ravine beside a millpond, the water of which is used for a mill that adjoins and forms part of the house. In flood times, the site on which the house stands is practically an island. The soil is waterlogged, the walls of the ground-floor, and, indeed, of the upper apartments, are wet and covered with moulds, and the woodwork is in a state of rotten decay. It is impossible for the inmates, except it be for a few months in the summer time, to live on the ground-floor. As Dr. Simpson observes, "there could scarcely be a more favourable soil for the growth of the lower forms of vegetable life." Now, for three successive Novembers the family here have suffered from sore-throat. In the autumn of 1882, a flood came on and invaded the lower part of the house, and compelled the inmates to take refuge upstairs. The water soon receded, but the soil was left waterlogged. In about a fortnight's time several of the family suffered from sore-throat. In February, 1883, there was a spring-flood, and about a fortnight later sore-throats affected the family. After the spring-flood of 1883, first one member of the family, then another, was affected with sore-throat, and so on during the year. In the autumn of 1883, the same flooding occurred, with more sore-throats. In the autumn of 1884 there was a recurrence of the sore-throats, but not of the flood. Moreover, on each occasion of the floods, the animals, as well as the people of the mill, were attacked by illness. In September to November, last year, diphtheria became very prevalent in Shaftesbury itself, attacking 102 individuals in 35 families. And this is the description given by Dr. Simpson of the

Shaftesbury houses : "They are built in great measure of green sand-stone, which, being of a porous nature, absorbs moisture, to some extent, from the soil and atmosphere. The consequence of this is, that not only are the walls covered with green vegetation, but even on those recently built, lichen and mosses soon grew abundantly. From want of repairs of the roofs and of the walls, the inside of the houses is very damp."

Certain outbreaks in the Spilsby Rural Sanitary District, reported on by Mr. John Spear, had a very similar origin. At a village called Stickford, the first discoverable case was in an isolated farm-cottage standing beside one of the dykes or "drains" with which the fen-country is everywhere intersected. Manure and sewage nuisances were accumulated around the house, and the water of the dyke was used by the inmates for all purposes. A child belonging to this cottage was attacked with diphtheria on May 31st, and died on June 7th. In the following autumn, the rainfall was excessive; the dykes and drains were unable to remove all the water flowing from the higher land, and, in October especially, the fields in these fen-districts were flooded. On November 13th, a child who lived in a farmhouse, the land about which had been flooded—a house very similar, indeed, in its situation and sanitary circumstances, to the other—sickened with unequivocal diphtheria, and subsequently the father and mother and three of the four remaining children were infected. In the adjoining parish of Friskney, a case of diphtheria occurred in January, 1884, in the person of a servant-maid at a farm-house thus circumstanced. "The land all around had been flooded in the previous autumn, and was still wet and uncleared of rotting vegetation. The house itself was damp, the adjacent farm-yard ill kept, the drainage was defective, and the water-supply—partly from a rain-water tank and from a surface-well—was believed to be bad." An adjacent cottage, occupied by a person who attended upon this girl at the time of her death, lost six of its nine inmates from diphtheria between the 5th and the 14th of February. This cottage had actually been flooded in the previous October. "The lower rooms were still very damp, the house dirty, and the two tiny bed-rooms much overcrowded. Sewage-nuisances existed around the house, and the water-supply consisted of an inadequate collection of rain-water in an underground and leaky cistern."

The two remaining reports of the series are from the pen of Dr. R. D. W. Sweeting, like Dr. Simpson, a temporary helper of the department, and they relate to outbreaks of diphtheria at Cheshunt and Normanton. There are no particulars given as to the condition, as regards dampness or otherwise, of the houses in which the only cases occurred; but Dr. Sweeting's reports serve to confirm the opinion which is steadily gaining ground as to the progressive development of diphtheria. A malady that was known only as a simple sore-throat had the sudden ability, when introduced into a school at Cheshunt, of producing amongst the attendants at that school severe and fatal diphtheria. At Normanton, Dr. Sweeting reports "many cases of throat-illness without exudation occurring as apparent links between true diphtheria-cases. There were also histories of infection from so-called 'cold.'"

This property, which appears to attach, under certain circumstances, to ordinary non-infectious sore-throat, is of the deepest etiological interest, and might profitably be the subject of research by the scientific specialists attached to the medical department. More than one investigator has suggested that the contagia of acute specific

disease belong to the vegetable world; and there is no valid objection to the theory that organisms capable of producing a minor and an uncommunicable disease at certain stages of their growth, may, in other stages, and in the course of their subsequent development, become capable of producing a major disease communicable from person to person, the affair being essentially one of soil. As Dr. Thorne Thorne well observed in a thoughtful paper on the "Origin of Infection," read before the Epidemiological Society seven years ago, and arising directly out of certain experiences as to diphtheria in damp localities, very similar to those above recorded, "this is not at all a question of the development of a living organism out of matter independently of antecedent life, but merely the production, by means of a process of evolution, of that which gives to an already existing organism that property by which it becomes infective, a property which it may perhaps lose directly it is deprived of the circumstances which favoured its development, in much the same way as special characteristics may be artificially developed in higher plant-life, and as easily lost again."

MILITARY TITLES FOR ARMY MEDICAL OFFICERS.

A GREAT many letters have reached us on the above subject—so many that it is impossible for us to find space for half of them. We have, therefore, determined to deal with the question in this place. Some of the letters before us are written in a spirit we cannot commend, but we have every reason to believe that the writers represent the opinions of a small minority of the medical officers in the military service of the State. It is clear to us that the gentlemen to whom we refer have mistaken their profession. They should have gone to Sandhurst or Woolwich Academy, not to Netley. We do not say that they are ashamed of their profession, but we do say that they are either oblivious or ignorant of the fact that the consideration and status afforded to medical officers in the army depends not on their relative military rank, but on the reputation they make for themselves as skilful surgeons and physicians. Failure in the above all-important particulars will never be made up by any purely military titles, however imposing. Putting aside the small class of claimants who seek distinction more as soldiers than as members of the healing art, we recognise the fact that the position of army medical officers is somewhat anomalous. They are now, after a long struggle, entrusted with command over their own men, and in their own hospitals. The duties they have to discharge are in a high degree onerous and responsible; and, in addition to the dangers peculiar to their calling, they share in those of the field, which, in popular opinion, are supposed to be confined entirely to so-called combatant officers.

The enormous mortality among the medical portion of the force lately employed in the Soudan is a painful but honourable illustration of the reality of service-risks to which they are exposed, risks to which high-class insurance-offices are sufficiently awake. If, then, the most modest and reasonable portion of the medical officers of the British and Indian Armies feel that the titles by which they are known do not suffice to impress the public with the composite nature of their position, their duties and responsibilities, we do not think the fact should excite surprise; and, although we do not put forward any scheme by which the injustice can be rectified, we think it is an injustice, and one which should be rectified without awakening the jealousy or wounding the susceptibilities of the purely combatant ranks of the service.

We could wish that honours, "the cheap rewards of nations," were

given to Army Medical Officers with a less grudging hand. Not in the Army only, but in civil life also, it has been observed that the present Chief of the Medical Staff of the Army, who has twice been charged with the great responsibility of fitting out and organising the health-arrangements of two successful expeditions, is still without any public recognition of the admirable manner in which this difficult duty was discharged. This, to say the least of it, is bad policy. Dr. Crawford has no doubt the approval of his own conscience. He knows he has well discharged his arduous duty; this reward the Government and the nation he has served well can neither give nor withhold, and he owes no thanks to men in office for it. If this is true of our strictly so called "Home Rulers," what are we to say of the Government of India? Nothing less than this, that, of all existing governments, the rulers of this great dependency of the Crown have been the most backward and grudging in doing honour to their medical servants, without whose labours it is not too much to say India could not have been held, except at a cost in human life and suffering that England would not have tolerated. Scores—nay, hundreds—of men have gone to their graves unhonoured by the Government they served. "The Exalted Order of the Star of India" was instituted expressly to reward good service; the Companionship has only twice been given to an Indian medical officer; and in the case of the distinguished officer who is the solitary medical Knight Companion, it is certain that, unless the recipient of the honour had served on the staff of His Royal Highness the Prince of Wales, on the occasion of his memorable visit to India, this decoration would never have adorned his breast. On the authority of a member of the then Government of India who was present, we record the following fact. When the first list of members of the Order was submitted to Sir John Lawrence, afterwards Lord Lawrence, and then Viceroy of India, the name of a medical officer of distinction was included in the list. "What!" said this great administrator, "a Doctor!" as he snatched up a pen; and, with a face red with passion, he erased the name. This is the unwise and unworthy spirit that prevails in high places in Calcutta and in the India Office to this day.

TETANUS.

THE course of tetanus is remarkable from the exactness with which it follows, while at the same time it exaggerates and perverts, the normal reflexes of the nervous system. Other well known diseases exhibit the same peculiarity in a different degree. Among these we may note the many forms of convulsion common to childhood, and the allied state of hysteria in the adult. In the former of these there is present, as a rule, a normal spinal cord, which is incited to impulsive and disorderly action by peripheral stimuli; in the latter, probably, along with such stimulation, an irritable cord, the cerebral will-control being in both cases ineffective. The pathology of tetanus in its turn, so far as that is known, exemplifies the further and extreme stages of the double affection. In the progressive inflammation travelling from the seat of injury upwards along the sensory nerves to their apparent origin in the spinal cord, we have suggested to us the plan and reason of its symptomatic action. The tendency of morbid nervous change to advance in the direction of the usual physiological impulses is also impressed in these lesions. Out of this progressive tendency arises the peculiar difficulty experienced in the treatment of tetanus. We have to combat a continual, not an intermittent, stimulus. The intrinsic cause of mischief is almost from the first an inflammation

of the torn or crushed nerve-terminations, which extends after its natural manner along the affected fibres, continually goaded by surface-irritation. Nor is evidence wanting which suggests that the central nerve-structures are apt to be involved, even at a very early period.

An important experiment by Brown-Séquard showed that irritation of an afferent nerve, if severe enough, can produce lesions in the spinal cord. An equal or less degree of irritation, due to superficial injury, especially if continuously active, might naturally be expected to lead to central congestion before the cord itself was reached by the progressive nerve-inflammation of tetanus. This may serve to explain those cases in which the disease is established within a few hours of the receipt of some peripheral shock. So far, the connection between tetanus and any special septic agency cannot be regarded as a necessary one. Cases do undoubtedly follow the bites of wild animals, and are more common in hot and moist than in dry equable climates, and may, therefore, seem to favour the theory of a bacterial origin. Such influence, however, as germs possess is evidently due rather to their general stimulant effect on inflammatory processes, than to any special property.

The rational treatment of tetanus necessarily follows the indications of its pathology. Rest, accordingly, must form its primary object—rest of the irritable nerve-centres in themselves, and in their peripheral relations. External warmth, silence, a darkened room, fluid nourishment administered in small quantities—in a word, the studied exclusion of every cause of nervous shock, however trifling, are part of the long established routine of treatment in such cases. Among drugs, chloral in full doses, and, better still, the subcutaneous injection of morphia, have gained a merited preference. It will be found that, where injections of morphia have to be kept up for a considerable time, the plan of combining it with a minute proportion of sulphate of atropia is of assistance in counteracting the nauseous effect of the former drug. M. Verneuil, in a recent communication made before the Société de Chirurgie de Paris, further reminds us of the fact that these measures should be persevered in for a definite period, notwithstanding temporary remissions of the disease; since, if this precaution be neglected, relapses readily occur.

But, after all, medicine is rather an aid and a palliative than a principle in tetanus. So long as the original morbid change goes on unchecked, the action of drugs, and of all merely general treatment, is met, and is liable to be thwarted, by the constant opposition of unchecked local stimulation. Until this is subdued, there can, of course, be but little hope of recovery. Relief of the central molecular changes must largely depend on timely control of the afferent stimuli. It should not be forgotten, moreover, that any surgical interference, in order to be effectual, must be early resorted to. The amputation of a crushed extremity, the section of nerves, or the removal of their torn endings by a clean cut, will avail nothing if resorted to some days—or even, it may be, hours—after the injury. By that time, the inflammatory action may be well established in the nerve-trunks. No time should, therefore, be lost in arresting the surface-irritation by such operative measures as may be indicated.

It may be well, before leaving this subject, to draw attention to the great value of moist heat alone as a sedative of the irritable nerve-terminations. Besides the various forms of fomentation, medicated or not, we would especially mention the warm water-bath. A limb, if kept immersed for days in warm water, periodically changed, even

without the presence of antiseptic or sedative agents, can hardly fail to lose much of this irritability; and the result, in absence of pain, in sleep thus gained, and in general comfort, must ex-raise the best influence on the centres in the spinal cord which are the foci of the tetanic convulsions. On the other hand, local sedative and disinfectant remedies, it required in any case, can, of course, be as easily administered in this way as in any other.

HYSTERICAL PARALYSIS AND ITS TREATMENT.

In the difficulties which sometimes arise in the diagnosis of hysterical conditions, the physician must often have wished himself a second Ariel, able to watch his Miranda unperceived, upon a desert island. If the solitude were absolute, and if the stern pressure of want of food were called in, some paralyses would disappear, and some appetites would improve. We have learnt of late years a great deal that enables us to classify many nervous diseases upon the basis of a visible and constant organic pathology, and we are constantly anxious to add more to the list, but some important maladies, such as epilepsy, hysteria, and megrim, steadily baffle the microscope; and, what is worse, hysteria sometimes baffles diagnosis. The more trouble is spent upon it, the wider seem the conditions it may include. Hysterical paralyses have been for long troublesome, needing some easy sign of recognition, in place of the long and patient watching which may often prove the only path to diagnosis, unless a rapid guess be hazarded. It was thought at one time that some faith could be prudently put in the indications of the tendon-reflexes; that, if the limb were in a hysterical contraction, it would have no increased tendon-reflex such as generally accompanies contraction due to organic disease; and, again, that if it were slack and powerless, there would not be the same great diminution of tendon-reflex that there is generally in organic paralysis, of cerebral or spinal origin, before a descending degeneration has set in. Tendon-reflexes, it was considered, were out of voluntary control if properly examined, and no tricks could be played with them. But, unfortunately, even though the subject may be unwilling, it seems as if Nature could play tricks with them nevertheless.

MM. P. Marie and Souza-Leite have recently, in the *Revue de Médecine*, from an observation of cases collected at the Salpêtrière, published a group of instances of paralysis which show themselves to be what we should call purely hysterical, by their rapid transference from side to side, or sudden disappearance, and yet in which the tendon-reflexes varied in all ways, sometimes following the general rules of organic paralysis, and sometimes reversing them. However, when we have sufficiently clearly established the ordinary rules of tendon-reflex in organic paralysis, if we find some cases contradicting them, we may justly suspect them to be without organic origin; but we cannot hope to detect all hysterical paralyses by such tests, as many show symptoms in this respect identical with the abnormalities due to organic disease. The first case in which M. Charcot, in 1865, established by the microscope a so-called typical instance of sclerosis of the lateral columns, was thought in life to be entirely hysterical; and, on the other hand, several cases since observed which showed symptoms not to be distinguished from the first, and were presumed to be organic after the same fashion, have been carefully shown to have, after death, no organic abnormalities. The extent to which morbid nervous symptoms may go without a pathology, should serve the useful purpose of keeping us humble in our claims to have ac-

quired the key to all the processes of the nervous system. On the other hand, the possibility that a case which looks hysterical may possibly be organic, or partly organic, cramps treatment by the fear of mistake. To treat a monoplegia of genuine organic origin as hysterical, may look brutal, or even criminal. For there can be no doubt that a strong emotion, or a strong imperative, may do away with some symptoms that seem the exact counterpart of others left untouched, but which are in reality very different from them; and herein arises one of the points of difficulty between the quack or the fanatic and the scientific physician. The first may use methods involving impossible hypotheses, or extravagant sentiment; but he succeeds in calling up the strong emotion, or in assuming, in the patients' eyes, the authority for the strong imperative; and thereby attains his ends much more triumphantly than the physician who will not simulate the emotion he does not feel, or pretend to believe what he knows to be false. There is a great force of emotion that acts in one way at Lourdes, and in another in Exeter Hall, but which may be applied in either case to the relief of discomforts that are none the less real because they are often misnamed. The physician, when science has made his knowledge certain, and his methods of command more varied, may hope to assume an equally effective imperative, or even to find some mental methods that involve no deception.

A GOLD medal has been awarded by the jury of the International Inventions Exhibition to Dr. J. Ward Cousins, of Southsea, for "highly ingenious surgical inventions."

We are informed that Dr. Herringham has been able, by dissection of the plexuses, to localise the motor centres in the enlargements of the spinal cord.

A CRITIC in a contemporary medical paper, which delights in malicious attacks on the Association and the JOURNAL, has, among other inaccurate statements, intimated that the constituency of the British Medical Association in Ireland amounts only to 499, and in Scotland to 340. The actual figures are 785 for Ireland, and 861 for Scotland, not including a considerable number of army medical officers stationed in the two countries, who are members of the Association.

SOCIETY OF APOTHECARIES OF LONDON.

MR. JOHN WALTER CARR, of University College, L.S.A., has been elected to the Medical Scholarship of the Society of Apothecaries of London, of the annual value of £100. The examiners, Dr. Bristowe and Dr. Lionel Beale, report that Mr. James Harry Ernest Brock, L.S.A., of University College, obtained a number of marks nearly equal to those of the successful candidate.

PRIZE AT THE SUSSEX COUNTY HOSPITAL.

WE understand that a prize of £25 has been offered at the Sussex County Hospital to the student who passes the best examination in classics, mathematics, and French or German, on his entrance to the course of hospital practice in October next. We are glad to note that several of the provincial hospitals are moving actively in the direction of preliminary medical education.

ARTISTIC GENEROSITY.

ON August 13th, Madame Adelina Patti took part in a concert at Brecon in aid of the funds of the Brecon Infirmary. We are glad to hear that the substantial result of this generous act will be the addition of three or four hundred pounds to the funds of a deserving charity.

ST. JOHN AMBULANCE ASSOCIATION.

ON Tuesday, previously to the royal yacht *Osborne* leaving Cowes, an interesting ceremony took place on board, the Princess of Wales distributing the medallions and certificates of the St. John Ambulance Association to the officers and men of the yacht who had successfully passed the required examinations. The recipients were introduced into the royal presence by Fleet-Surgeon Henry C. Woods, M.D., R.N. At the conclusion of the ceremony some ambulance-drill was gone through, much resource and knowledge of what is required in case of "first aid" being shown by the pupils, and Her Royal Highness expressed high appreciation of their proficiency.

APPOINTMENT OF SURGEON TO THE METROPOLITAN POLICE.

THE Home Secretary has sanctioned the appointment of Mr. A. O. Mackellar as surgeon to the metropolitan police, in succession to Mr. T. Holmes, who retires after many years' service. Mr. Mackellar is Senior Assistant-Surgeon at St. Thomas's Hospital, Senior Surgeon at the French Hospital, and served on the medical staff during the Franco-German War and the Turko-Servian War. Mr. Holmes brought with him a reputation of the highest order for ability, professional skill, manly independence, and administrative energy. During his whole term of office, he has amply fulfilled the expectations raised, and has maintained an unbroken tradition of laborious industry and trustworthiness. Mr. Mackellar has had a varied experience at home and abroad, which indicates him as peculiarly well fitted to fill the post; and there is every reason for confidence that he will fulfil his duties with ample satisfaction to the public and to the profession.

BRITISH PHARMACOPEIA.

IT is announced by the Registrar of the Medical Council that the official notice of the publication of the new edition of the *British Pharmacopœia* will be inserted in the London, Edinburgh, and Dublin Gazettes on September 1st, 1885, in accordance with the Medical Acts, 21 and 22 Vict., cap. 90, and 25 and 26 Vict., cap. 91, and that copies of the work may thereafter be obtained from either the Medical Council Office (299, Oxford Street, London, W.), or Messrs. Spottiswoode and Co. (54, Gracechurch Street, London, E.C.)

THE VOLUNTEER MEDICAL STAFF-CORPS AT ALDERSHOT.

SINCE the notice of this corps given in our last week's issue, there has been much instruction given, and a great deal of hard work got through. On Thursday, August 13th, the corps was formed up into two companies; No. 1, under Surgeon-Major Norton, joined the northern force; No. 2, under Surgeon Platt, joined the southern force. Each company took part in the great field-day, and in the march past. The work during the day was of a most trying character, but the men got through it creditably, and the march past was executed with precision. On Friday morning, at 6.30, loading and unloading wagons was practised. At 9 A.M., the Regular and Volunteer Medical Staff-Corps paraded and marched to the foot of the Redan Hill, where they pitched a field-hospital, and where pharmacy and surgical wagons were exhibited. Considering the fact that a field-hospital had never been pitched in England before 1882, it was a great advantage that this newly formed corps should have had an opportunity of becoming familiar with the work, and of actually pitching one at so early a period in its career. On Saturday morning, at 6 A.M., the corps marched to the railway-station, where loading and unloading railway-wagons was carefully practised. Before the corps left, Surgeon-General Bendley, C.B., addressed to it a few congratulatory words; and Surgeon-Commandant Cantlie, in the name of the officers, presented Corporal Watts, of the London Hospital, with a beautifully executed silver medal, as a reward for having the best kept tent during the week. In addition to the officers mentioned as at Aldershot for instruction, there were present Surgeon Casson, in command of his company; Surgeons Willett, Sutton, Moberly, and Quartermaster Robertson, all of whom took part in the arduous duties of the week.

MEDICAL REGISTRATION.

WE are asked by Mr. W. J. C. Miller, the Registrar of the General Medical Council, to call the attention of our readers to the following important notices, in order to facilitate medical registration. "1. Every registered practitioner should be careful to send to the Branch Registrar by whom he was originally registered (see the subjoined addresses) immediate notice of any change in his address, in order that such change may be duly inserted in the *Medical Register*; and also to answer at once any letter of inquiry that may have been sent to him in regard thereto. 2. It is important for every registered medical practitioner to remember that, if the above request be not complied with, such practitioner is, by Section 14 of the Medical Act (1858), liable to have his name erased from the *Medical Register*, and, in consequence, by Sections 31 to 37 of the said Act, to lose the right to hold certain appointments, to sign valid certificates, or to recover, in any court of law, charges for professional aid, advice, and visits, and the cost of any medicines, or other medical or surgical appliances, rendered or supplied by him to his patients." We are also asked to call special attention to the following (new) Clause 3, whereby those who have been heretofore erased, and are still off the *Register*, may be induced to obtain restoration in time to appear in the printed *Register* for 1886. "3. Any medical practitioner, whose name has been removed from the *Medical Register* pursuant to the provisions of the above cited Clause 14 of the Medical Act, should, if he desire to be restored to the *Register*, immediately apply to the Branch Registrar by whom he was originally registered. 4. Notice should also be sent to the Branch Registrar of any addition to his qualification that a registered practitioner may wish to have inserted in the *Medical Register*." The following are the names of the Registrars and offices for registration: Mr. W. J. C. Miller, B.A., Medical Council Office, 299, Oxford Street, London, W.; Mr. James Robertson, 4, Lindsay Place (George IV Bridge), Edinburgh; Dr. R. L. Heard, 35, Dawson Street, Dublin.

A BRAVE DEED REWARDED.

THE amount of quiet heroism shown, when occasion arises, by members of the medical profession is little understood, and, as a rule, little regarded outside its ranks. The profession, as a whole, is exposed to the attacks of a large number of wrong-headed persons, who, in the advocacy of their pet-isms, heap a vast amount of undeserved obloquy upon it. We are called heartless and mercenary, and it is proclaimed that our deeds of charity are done in the hope of indirectly reaping some pecuniary reward, and that we take a "fiendish pleasure" in inflicting pain; yet those who know the inner life of hospitals, and the regular routine of general practice, know how much self-denial and how much silent courage are daily displayed. It is well for us, and well for the public, that sometimes a conspicuous act of courage is brought prominently forward, and receives the recognition which it deserves; and it is, therefore, with great pleasure that we note the official announcement, that "the Queen has been graciously pleased to confer the 'Albert Medal of the Second Class' upon Edward Charles Thompson, Esq., M.B., University of Dublin, L.R.C.S.I., and surgeon of the Tyrone County Infirmary, for conspicuous heroism displayed in endeavouring, on April 4th, 1885, to save the life of a child, named Herbert Mitchell, suffering from diphtheria." Dr. Thompson is to be heartily congratulated on the reward which his courageous conduct has deservedly received.

ANTICHOLERA-INOCULATION.

THOSE who have read Dr. Cameron's article in the *Nineteenth Century* and the letters of our special correspondent at Valencia, must have remarked the irreconcilable character of the two. Without discussing the motives by which Dr. Ferran is actuated, or impugning the honesty of the Commissioners of the Barcelona Academy of Medicine, it is still impossible to accept the statements that have been put forward. Dr. Cameron's article would be an admirable piece of forensic pleading. He will probably be answered in the pages of the same review; but, meanwhile, one or two fallacies which run through the

whole of his argument may be pointed out. The questions whether Koch's comma-bacillus is characteristic of cholera, and whether it is the cause of a mere accident of the disease, whether Ferran has completed Koch's discovery, and whether the disease or morbid conditions induced by Ferran's inoculations be cholera, or merely a form of septicaemia, are all questions of relatively minor importance in so far that, even if they should all be answered in the affirmative, the protective power of the inoculations would not be proved. The essential question is whether one attack of genuine cholera confers any degree of immunity against subsequent infection. If it do, then Dr. Ferran has something to go upon. If it do not, then all his cultivations and inoculations are, so far as concerns protection, labour lost. Dr. Cameron's suggestion that something other than modified cholera may have the power of conferring immunity, rests solely on the assumption of the accuracy of the theory maintained by Chauveau of the non-identity of small-pox and cow-pox. Even if the immunity of Ferran's patients were as complete as he and his friends allege, and were not impugned by others of equal authority, this would not prove that it was owing to the inoculation; Dr. Cameron assumes that the inoculated and uninoculated population of Alcira were "under precisely similar conditions, and exposed to precisely similar exciting causes of disease," but he tells us nothing of their social position, ages, sex, water-supplies, or other surroundings. No one, Gebert excepted, has ever maintained that one attack of cholera confers immunity. Those who have seen most of cholera, in visitations extending over several years, have never ventured to assert it; and the United States Commissioners, in their report on the cholera-epidemic in America of 1872-3, distinctly state that so many cases had occurred of persons who had survived one attack dying some months later of another, as to decide the question in the negative. Surgeon-General Murray states that, during the five years he was in charge of the Agra Gaol, among 1,196 cases of cholera, sixty-three were of the second, and three the third time of occurrence. Dr. Cameron arrives at exactly the opposite conclusion; but his reasoning rests on the fallacy of assuming that an average strength of 2,364 prisoners may be treated as might a fixed resident population. Dr. Cameron calculates that one in 2.09 of the whole number was attacked, whereas only one in 13.6 of those who had suffered once and survived were attacked again; and, although nearly half of these died, the mortality of the first attacks being one in 4.16, he, by the same assumption, makes out that their immunity from fatal attacks was 3.05 times greater. The fact is that, so far from these 2,000 representing the same individuals, a vastly greater number passed through the gaol—20,000, if their sentences averaged six months; and the wonder is that, of those who remained in prison long enough—twelve months or more—so many as sixty-eight who had suffered once should do so again; and, since so large a proportion had two attacks during the term of their imprisonment, it is highly probable, could we follow their whole careers, that some had suffered from cholera before their imprisonment, and others did so after their release. Looking at the question impartially, we find it impossible to admit that the theory of an immunity conferred by one attack of the disease has any foundation in experience; and with it the theory of protection by inoculation must obviously stand or fall.

REDUCTION OF SHOP-HOURS.

AFTER so much has been said on the subject of shop-labour, it must be admitted that serious differences of opinion still exist as to the number of hours per week during which this form of service can be safely carried on. The actual working time in factories is limited to from fifty-six to sixty hours; and this arrangement, in our opinion, may well serve as a model of reason in regard to the working time of shop-employees. If we allow ten hours and a half during five days, namely, from nine in the morning, the usual hour of opening, till nine in the evening, allowance having been made for dinner and tea, and stipulate for a sixth working day of six hours and a half, we cannot

be said to neglect in any degree the requirements of trade. Beyond these limits, no act of reform can accommodate itself to those requirements, if it is to benefit materially the health of shop-assistants. The habit of the Jewish tradesmen, which is usually to keep vacant two days out of the seven, while they also exact their conventional holidays, affords proof that the period of work may be shortened to an even greater extent without interference with business. With respect to the half-holiday, it is obvious that, if this could be so contrived as to fall on Saturday, its sanitary value would be considerably enhanced by the rest obtainable on the day following. At present, there are, of course, difficulties which operate against such a desirable arrangement. If, however, the wages of mechanics could be paid on Friday instead of Saturday, while, on the other hand, shop-hours on the latter day were maintained until four in the afternoon, the chief obstacles would be removed. It seems too much to expect that tradesmen should so far forget the individual in the common good, as to come to a general understanding respecting the amount of service which their customers may fairly expect of them, and to allot their time, like their tariffs, accordingly. The great necessities of rest, food, and recreation, on which health itself depends, require that they, or some one for them, should do so. Probably no authority inferior to the Legislature is equal to the task.

FEEDING-BOTTLES AND DIARRHŒA.

THE authorities of Exeter have been justifiably alarmed by the fact of a large increase in the infant-mortality of that city. From the measures which have been taken to check it, the combination of unwholesome housing arrangements with a milk-diet has here apparently, as in other cities, been followed by their baneful sequel, summer-diarrhœa. Much discussion has arisen respecting the etiology of this disorder. Subsoil-water, drain-impurities, bad ventilation, in short, all the producers of a foul and germ-laden atmosphere, have been brought to bar. Fortunately, the medium by which these chiefly act upon the child has not escaped recognition. It has been pretty clearly established that the means of transit for the seeds of disease is in most cases the milk of the feeding-bottle. Among those who rear their children at the breast, and among the well-to-do, whose nursery-management is carefully and cleanly conducted, the severer forms of infantile diarrhœa are uncommon. Among the overcrowded poor, living in close tenements and in basement-rooms, they are both common, and notoriously intractable. In such cases, the cause is almost certainly found to be a bottle, long in use perhaps, imperfectly and irregularly cleansed, and supplied with diluted milk, which, even if sweet when mixed, becomes sour as soon as it enters the acid receptacle. All measures intended to arrest the consequent disease are doomed to failure, unless the greatest care be taken to remedy the primary evil. Where breast-milk cannot be had, though it is of course preferable to any other, the feeding-bottle becomes necessary. Should this be so, two bottles at least ought always to be at hand, in order that each may be used alternately, and may, during the interval of disuse, be thoroughly cleansed, with all its appurtenances, in soda or other alkaline solution, and then left to soak in pure water till again required. It is also necessary that the milk should not lie in the bottle longer than two hours, otherwise putrefactive changes may be looked for. A frequent error with some nurses is to keep the cows' milk, if such be used, through the night, and uncovered, in a bedroom containing not the purest air. In any such case, the milk should be kept outside of the room in a vessel covered with a wet cloth, and if possible surrounded with ice. Another error is to dilute the milk too sparingly with water. It should be remembered that the milk of cows is, in general terms, twice or three times as strong in solid constituents as that of the human breast, and dilution must be sufficient to equalise the difference. It is safest to boil the water before mixing with the milk, and, under certain conditions, especially in hot weather, to boil the latter also. Swiss condensed milk, after holding its place so long in the market, can hardly be

expected to have escaped adulteration. There is little doubt that it varies in quality as in price. We cannot in the circumstances too strongly urge the maxim, doubly true in such a case as this, that to buy the best is the surest economy. We have now entered on a changeable autumn; diarrhoea is already rife; medical aid is no doubt available for its treatment, but, in the case of infants, that treatment must in a large degree consist of the preventive measures we have advocated.

SALE OF ARSENIC.

THE facility with which poisons may be procured is known to be a source of danger to the public. Under the Poisons Act, no one but a druggist may retail poisons, and he may only supply them subject to restrictions which, as regards poisons so supplied, are generally effective. But the law practically puts no check on the sale of poisons in large quantities, and persons who want to procure poison for improper purposes seldom fail to get it. The facts proved at an inquest recently held before the Birmingham coroner are instructive. A packing-case maker, named Thomas Tobin, committed suicide in consequence of losses he had had in betting. He seems first of all to have gone to a druggist's shop to purchase three-pennyworth of arsenic, but the druggist refused to serve him. He then went to a drysalter's, and asked for a pound of arsenic for manufacturing purposes, but, being a stranger, he was not supplied. However, he found a friend who was known at the drysalter's, and got him to go thither with him, and was then supplied with arsenic without any further difficulty. We give the evidence of the two persons through whom he got the arsenic, as it appeared in the *Birmingham Post* of August 10th.

"Charles Wilkins said that he was employed at Messrs. Tubbs and Wilkins, drysalters. He knew the deceased as a casual customer. He was in the habit of passing the shop daily, and witness had noticed him.—The Coroner: What did he come to your shop for? Witness: What he wanted.—Witness, in further examination, said that he would not swear that he had ever seen the deceased inside the shop before Tuesday. He came in then, and said he wanted a pound of arsenic for manufacturing purposes. Witness told him he could not let him have it unless he produced a written order from where he worked. He said he worked at Messrs. Wood's, jewel-case makers, and used the arsenic in his trade. He left the shop, and, after about five minutes' absence, returned with a man named Haddon. Witness knowing the man Haddon, on account of his fetching poisons for his employers, let deceased have the arsenic, which he labelled.—By the Coroner: Deceased did not say that he wanted the arsenic to retail, neither did he give witness a written order for it. He brought a witness instead. Witness thought his firm had conformed to the Poisons Act by knowing the person who came with deceased. Witness did not consider it necessary to have a written order, as he knew the man who came with deceased. He thought they were at liberty to sell poisons wholesale, for manufacturing purposes, to anyone they knew. The arsenic was sold in its natural condition. The sale was not registered in any book, neither did he make any note of it, or take the name and address of the purchaser. Witness noticed nothing excitable or unusual about deceased when he bought the arsenic.—Samuel Haddon, jeweller, deposed to meeting deceased on Tuesday afternoon outside Tubbs and Wilkins's shop. Deceased said he had been in for a pound of arsenic, but they would not let him have it. He said he wanted it to mix up with some gold, and asked witness to go in with him. Knowing that deceased used arsenic in his business, witness went in with him, and told the last witness he might let deceased have the arsenic. Witness was in the habit of fetching poisons from Messrs. Tubbs and Wilkins."

Such evidence has only to be read to be condemned; but, apparently, the witnesses thought they had done nothing wrong, and, no doubt, arsenic could be procured in the same way from other places besides the shop of Messrs. Tubbs and Wilkins. We hope, however, that proceedings will be taken for the purpose of seeing whether it is legal to supply arsenic to persons such as Thomas Tobin. If such proceedings end in a conviction, the case will only show the necessity of making the existing law known, and of enforcing it. But if it should turn out that no offence was committed in supplying Tobin with arsenic, the case will certainly show the necessity of an alteration in

the law, so as to prevent would-be suicides or murderers from obtaining possession of poison wholesale, even though such alteration may interfere with some manufacturing processes.

"ECONOMIES" OF RUSSIAN MEDICAL OFFICERS.

If "Stepniak" is to be believed, the Russian medical officers in the army and navy are guilty of filling their own pockets at the expense of the men to an even greater extent than the combatant officers. This arises from the ease with which those in charge of hospitals can, in collusion with contractors, overlook bad stores, thus effecting what are euphemistically termed "savings" and "economies." In this way, men are left insufficiently provided with covering, their food is bad, and their quinine is cream of tartar, in order that those responsible for their care may pocket the "savings," and out of them may pay the departmental chiefs to whom they owe their appointments more or less handsome sums for their nomination and retention in office.

THALLIN: A NEW ANTIPYRETIC.

PROFESSOR MARAGLIANO, in the *Gazzetta degli Ospitali* (July 5th, 1885), gives an account of this drug, and of his experiments with it. It belongs to the chinoline group; being the hydride of parachinanisol. It was first composed synthetically by Skrapa of Vienna, and its therapeutical properties were investigated by Jaksch. It strongly resembles antipyrin in action. Doses of from 2 to 15 grains cause a fall of temperature, in proportion generally to the height of the febrile condition, and even in healthy persons the temperature is slightly lowered. The action on the circulation is noteworthy; although the cutaneous blood-vessels are markedly dilated, the blood-pressure is almost unaffected, rising slightly for the first hour after the administration of the drug, and falling slightly in the second hour. There is a very slight diminution in pulse and respiration. The dilatation of the vessels immediately precedes the fall of temperature, and is accompanied by profuse perspiration. The quantity of carbonic acid and of urea excreted is considerably lessened, and Professor Maragliano finds that the respiratory capacity of the blood is diminished. Apart from the bitter and unpleasant taste of the drug, it has not been found to produce any ill effects.

INJECTION OF JAPANESE OR INDIAN INK IN THE PREPARATION OF HISTOLOGICAL SPECIMENS.

IN No. 5 of the *Supplement of the Transactions of the Sei-i-Kwai*, Dr. K. Taguchi, assistant-professor of anatomy in the University of Tokio, says that in 1879 he suggested that Japanese or Indian ink might be used for preparing histological specimens. He has made with it many preparations of the vessels of the brain and spinal cord, of the papillæ of the tongue, of the mucous membrane of the bladder, of the skin, of the conjunctiva, of the choroid and iris, etc. In the small intestine, the arrangement of the lymphatics is well shown by it. In the retina, it shows a network of black lines in plane section, elliptical black spots in transverse section, and slender spindle-lines in vertical section. Dr. Taguchi says that the ordinary Japanese (Chinese or Indian) ink is sufficient; there is no danger of its spoiling or of changing colour after a long time. After preparation by slow rubbing on the ink-stone until it does not blot or infiltrate the surrounding surface when dropped on Chinese paper, it may be injected in the ordinary way with a syringe. It penetrates the finest channels in every instance.

CUCAINE IN GYNECOLOGY.

THE French and Italians allege that they have met with brilliant success in the employment of cucaïne for the alleviation of pain in disease of, or operations on, the female pelvic and external organs. Dr. Dujardin-Beaumetz has described a case of vaginismus which followed lingering labour with retained placenta. Dyspareunia lasted for two years, and the vaginismus was not relieved by forcible dilatation of the sphincter vagina under chloroform. The inner sur-

face of the nymphæ and ^{the} ^{main towns} of the vagina were painted four times with a 2 per cent. solution of hydrochlorate of eucaine. After the fourth application, digital examination or the introduction of the speculum caused no pain or muscular contraction; and a cord-like band, that had previously been felt under the vaginal mucous membrane, had disappeared. Dr. Rusconi has used eucaine freely in the gynæcological wards of the Ospitale Maggiore, Milan, generally painting a 2 per cent. solution on the surface of erosions of the cervix before applying nitrate of silver. This greatly alleviated the pain generally caused by caustics. In a case of advanced cancer of the cervix, he applied a plug soaked in three grammes of a solution of 20 centigrammes of hydrochlorate of eucaine in 25 grammes of water. The pain was relieved in a minute, and disappeared in ten, beginning again in an hour and a half. It was found necessary, as might have been expected, to press the plug firmly against the ulcerated surface, in order to produce the full effect. The radiating lancinating pains were much relieved by painting the greater and lesser labia, the vestibule, and the vaginal orifice, with the same solution. These pains, however, soon returned, long before the parts which had been painted had recovered their sensibility. A 3 per cent. alcoholic solution stopped the pain for about a quarter of an hour, but produced a transitory redness over the vaginal mucous membrane, and a burning sensation. The other solution had made the mucous membrane look pale. Dr. Rusconi found that, in some women, eucaine failed to cause the slightest anaesthesia of the vaginal mucous membrane, although the cornea was rapidly affected in the same subjects. His best results with this new drug followed subcutaneous injection in cases of cancer of the uterus, the pains disappearing in six or seven minutes, and not returning for over two hours. By frequent injections, patients that had entirely lost their appetite began to eat heartily. Simultaneous injection of eucaine and morphia produced even better results. The combination of eucaine with atropia was less satisfactory, and seemed to increase the poisonous properties of the latter alkaloid.

SCOTLAND.

LEGACIES amounting to between six and seven thousand pounds have been left for charitable and other purposes by the late Mrs. Masson, of Elm Park, Inverness. The Northern Infirmary and the Inverness Dispensary both benefit, to the extent of £500 and £200 respectively.

THE WEATHER IN SCOTLAND.

THE long-continued drought of last month was followed last week by heavy rains, which in some districts were so excessive as to cause a large amount of damage. Along with this change, the temperature has become colder, and snow is reported to be lying on Ben Nevis to the depth of about six inches.

THE DUNDONALD CHILDREN'S CONVALESCENT HOME.

SOME time ago it was decided to extend and endow the above institution, as the experience gained from it showed that it was really meeting a very decided want, and that it was being largely taken advantage of. It was thought that the funds would be best raised by holding a fancy fair, which has been so successful that the sum of £1,300 was realised. When the expenses have been paid there will be a sufficient surplus available for carrying out the proposed enlargement of the home.

THE BRITISH MEDICAL ASSOCIATION IN SCOTLAND.

THE report of the Aberdeen, Banff, and Kincardine Branch shows a very satisfactory growth of the Association in the North of Scotland. In the address of Professor Ogston, the new President, an interesting account is given of the formation of the present Branch of the British Medical Association, which has grown and flourished greatly during the last thirteen years. Here, as elsewhere, the formation of a Branch

of the Association has added not only directly but indirectly to the scientific and social life of the profession, and it has been found that the Medico-Chirurgical Society of Aberdeen, revived by emulation, has shown more vitality since the formation of the Branch than it had done for many years. On the other hand, the North of Scotland Medical Association, that had been started with the objects, in some respects similar to those of the British Medical Association, of bringing about a concordant union between the various medical bodies, has found its objects more completely and more efficiently carried out by the British Medical Association; and, as a consequence, it is proposed that some considerable changes should now be carried out, of which Dr. Ogston indicates the nature in his address. The Branch will co-operate in joint action with the Medico-Chirurgical Society in the country and annual meetings; and country members will be provided with a place where they will have all the advantages of a respectable club and meeting room at a moderate price, and where they and the town members of the profession will, it is hoped, be able to meet one another and discuss their public and private affairs.

THE ADULTERATION OF ALCOHOL.

THERE can be no doubt that the evils of intemperance are largely intensified by the adulterated and impure compounds which are daily and hourly retailed to the unsuspecting public. Some light is, from time to time, thrown on the devices of the trade, when the facts connected with some of the attempted frauds on the Excise are made known in open court. This is what has happened in a recent trial at Leith, where the large quantity of 544 gallons of spirits was seized, on the ground that, as they were adulterated with methylated spirit, they were liable to forfeiture. The finding of the Court showed that the authorities were justified in the course they followed, and that the spirits were adulterated in the manner charged. The evidence at the trial did not reveal a satisfactory condition of things. It laid bare a bad tone of commercial morality on the part of some of the firms mixed up with the transaction; and it showed that, if there be lax supervision on the part of the Excise, it is easy work to defraud the revenue, even when keeping to the strict letter of the law. Otherwise, it is not easy to explain how, within the short space of three months, one firm, not authorised to deal in the substance, could become the possessor of thousands of gallons of a prohibited article like methylated spirit, which is not supposed to be procurable in a larger quantity than one gallon at a time. It is most desirable that no facilities should exist for utilising this nauseous compound in the spirit-trade; for we fear that it already finds its way too largely into much of what is sold to the poorer classes. Its deleterious effects are seen in those unfortunates who are infatuated enough to employ it as a beverage, undeterred by the naphtha which it contains, and which, at one time, it was thought, would effectually prevent its use as a drink. Another striking feature about this case was the conflict of scientific evidence as to the presence or absence of methylated spirits in the goods under dispute. The samples sent to Somerset House were reported by the Government analysts to contain methylated-alcohol in distinct quantities; while Professor Dittmar, of Glasgow, and Dr. Stevenson Macadam, of Edinburgh, held that there was no trace of that substance in them. The Court, however, preferred to rely on the "vast, varied, and continuous experience of the chemists of Somerset House;" and decided, on these grounds, that their analyses must have weight. It is for the authorities to direct their attention to the disclosures that this fraud has made public, and to see that the interests of the public are in future thoroughly protected by a strict supervision of the statutes regulating the sale of methylated spirits.

IRELAND.

MR. KENNY has been elected medical attendant to Cabra Auxiliary Institution, at a salary of £75 a year.

MR. ELSNER has been appointed surgeon to Major-General Sir Peter Seratchley, Her Majesty's Special Commissioner for the New Guinea Protectorate, and accompanies him on his tour of inspection amongst the islands of the Pacific. The expedition left Sydney on August 1st for a five months' cruise.

CASE OF ENGLISH CHOLERA.

A MAN named William Reid, residing in Wells Street, Dungannon, died, on Monday week, from a severe attack of English cholera. The poor man was only twelve hours ill; and, acting on the advice of the medical officer of health, a "wake" was prohibited, the coffin was packed with chloride of lime, and all precautions taken to prevent infection. The deceased had left Leeds about a fortnight previously to his death, tramped to Liverpool, and thence proceeded to Dungannon.

SOUTH DUBLIN UNION.

MR. ROBINSON, Local Government Board Inspector, states, in his recent half-yearly report, that the female lunatic wards are inconveniently crowded. There were ninety-two women in this building on the day of his visit, although, with the minimum allowance of cubic feet and floor-space to each bed, there is only accommodation for eighty-nine beds. There is also a certain number of this class distributed throughout other parts of the building, owing to the insufficiency of the accommodation in their own department; a very objectionable arrangement, but one which, under existing circumstances, appears to be unavoidable. He hopes, however, that when the children have been removed to their new building, this may possibly allow rearrangement of the classification of the house, by which the guardians will be able to allocate to the lunatic class more suitable and extensive accommodation.

ROYAL UNIVERSITY OF IRELAND.

A MEETING of Convocation was held last week. On the chair being taken, the Clerk of Convocation mentioned that there were only twenty-two members present, and, therefore, there was no house. Dr. Knight observed that the standing orders fixed no number for the formation of a house, and the chairman was also of opinion that they were entitled to proceed with the business on the agenda paper. Dr. Knight was then duly proposed as member of Senate in the vacancy which had occurred, but the clerk stated that Dr. Maguire's name had been nominated at a meeting prior to the last meeting, which nomination never had been withdrawn. Attention was again drawn to the fact that thirty members were not present, and, after considerable discussion, the sense of the meeting was taken as to whether a motion for adjournment should or should not be put to the assembly; and it appearing that a majority were opposed to having the motion for adjournment put, the proceedings terminated without any business having been transacted.

LOCAL GOVERNMENT BOARD FOR IRELAND: ANNUAL REPORT.

From the thirteenth annual report, which has been issued this week, we learn that the average daily number of persons receiving indoor relief during the year amounted to 47,327, being 1,909 fewer than in the preceding year. The outdoor-lists also were decreased by 2,555, the average daily number being 57,829. During the year ended January 17th last the total number of deaths in the various workhouses was 11,238, showing a decrease of 1,167 deaths as compared with the number in the previous year. Of these, fever caused 510, against 594; lung-disease, 1,929, against 2,213; and deaths by small-pox 1, against 11 in the previous year. There were for the twelve months ending September 29th, 1884, 53,105 admitted into workhouses for sickness, being a decrease of 1,971, as compared with the previous year; a decrease of 1,649 in the number admitted who were not sick; and a decrease of 581 in the number suffering from fever or other contagious disease. In the various dispensary districts the medical officers, during the year, attended 417,332 cases at the dispensaries, and

171,221 patients at their own houses, or in a total of 568,553, and vaccinated 102,548 persons. The vital returns show a decrease of 3,523, as compared with the year preceding. Of these 102,548 persons vaccinated, 85,099 were under one year old when vaccinated; 14,346 above one year; while 3,103 were re-vaccinations. During the year small-pox caused only one death in workhouses, being a decrease of 10 as contrasted with the previous return; and the number of cases treated in dispensary districts under the Medical Charities Act was 63 less than those recorded in the previous 12 months. As regards fever, there were 6,430 cases attended by dispensary medical officers, being a decrease of 1,601 as contrasted with 1883; also a decrease in the cases of scarlatina by 44, the numbers being, 3,242 and 3,198 respectively. The medical charities' expenditure amounted to £158,363, under which heading is included the cost of medicines and medical appliances salaries of medical officers and apothecaries, vaccination-fees, and other expenses, showing a decrease of £1,042 over that of the preceding year. The Commissioners have recommended loans amounting to £179,836 to various towns in Ireland, principally for sewerage and water-supply; while the amount of sanitary expenditure in rural sanitary districts amounted in the year ended September 29th, 1884, to £58,844, in comparison with £52,285 in the preceding year.

THE CHOLERA.

THE CHOLERA IN SPAIN.

OUR correspondent in Valencia writes, under date August 14th:

Since my last, I am thankful to inform you that our terrible visitor, cholera, is showing us his heels. To-day's cemetery-report is sixteen burials of all deaths, which is about the average number when this city is in full health; and I may say the same of the various towns and villages of this Province. I regret I cannot say the same of the other Provinces and their towns—Alicante, Granada, Cartagena, Malaga, Seville, and Saragossa. The daily account from all these quarters is both alarming and most heartrending on account of the panic among the well-to-do, their flight leaving the ill-paid, ill-fed, artisans and labourers without work or pay, to say nothing of the abject poor. All these, forming the great majority, are crying aloud to Government and the better classes of their people for help of every kind—food, medical men, medicines, and disinfectants—all of which seem to arrive late. The northern sea-ports of Bilbao, Santander (probably the filthiest in Spain), and the fashionable northern bathing-city San Sebastian, are now receiving a visit from the dire disease; and I feel sure that, if it get a footing in Santander and in San Sebastian, during this crowded season, the havoc will be great, especially in the former. We hear as yet nothing about the west or north-west coast being attacked, Vigo, Corunna, Pontevedra, Hijoz, etc.

This city has felt severely the cholera-shock in every way, and the best proof of that is the suspension of the great annual fair, held here for a fortnight at this time, and the greater annual bull-fight of choice bulls, held on three successive days; but, in exchange for the above, to-morrow there is the festival of the "Virgin of August," when young wild bulls will be slain to propitiate the above deity.

There is still great trouble about the "cordones," "lazarettos," and "fumigaciones," between the Government, who orders all these to be abolished, and the Alcades and people, who seem determined in some places to maintain them. A melancholy and fatal result of forced fumigation occurred on the Granada line, where five gipsies were done to death. The assaulting and insulting of the medical men still goes on in various parts of the country, including the capital and Valladolid; so that the Minister has published a decree ordering a heavy fine to be imposed on any one who insulted them.

There was a great cholera-scare here two days ago, from thirty-five boys and girls, from 14 to 4 years old, being suddenly seized, in three streets near each other, with vomiting and purging, etc. The cause turned out to be that they had all been eating seeds of the castor-oil plant, which they had picked up near a public fountain. It seems that they were thrown there by a disgusted farmer, who had brought them in for sale, and, finding no buyer, he did not care about carrying them back with him. So far, there have been no deaths.

Ferran and his "caldos" are now viewed with dread and terror by all the towns where the Government ordered him to follow up his "preventive cholera-inoculations;" so much so that, as soon as it became

known he was to visit certain towns, the people rose with the Alcaldé and Municipality, and prevented him from entering the towns. So it happened in Denia, which was to be his "centre;" also in San Matero, Oliva, etc.

I hope to be able to give you a clean bill of health from this city in my next.

In finishing the above, I was surprised by the account from a friend that a well-to-do family had started from Morella in the best of health and spirits, to return to their house here (situated in one of the best localities); that four out of the six who constituted the family were smitten with cholera, two dying in three hours, and the other two next day early. This has caused a great sensation.

THE CHOLERA IN TOULON.

It was announced on August 19th that eight cases of suspected cholera, six among the military in garrison, had occurred. All the individuals attacked are reported as weakened by previous disease or dysentery. There has been no death. The inhabitants manifest no alarm.

CHOLERA IN MARSEILLES.

It is reported that the mortality from cholera at Marseilles continues to range between forty and fifty daily. There are now about eighty patients in the special Pharos cholera hospital, but the exact mortality in this and other hospitals is not officially made known.

PRECAUTIONS IN ITALY.

A telegram from the *Times* correspondent at Rome states that notwithstanding the satisfactory sanitary condition of the kingdom, the Ministry of the Interior, in face of the danger of cholera spreading from Marseilles into Italy, has wisely thought it prudent to address a circular to the prefects and syndics containing a series of directions for their guidance, in case the disease should appear in this country. These directions include complete isolation of the patient, of the house in which he was taken ill, and of the persons living in it with him, and in the meantime the municipality are directed to have a fitting place prepared for the isolation of any such patients. During the period of isolation, a rigorous disinfection of the house, and especially of the closets, is to be effected. Following this, economic kitchens will be established, and other means taken to improve the alimentation of the poorer inhabitants. Special washhouses will be organised for the cleansing of the infected clothing. The transport of, and any trade in, rags and old unwashed linen is prohibited, as also the holding of fairs, public markets, and processions.

Healthy communes may, as a precaution against the importation of cholera, establish houses of observation in an isolated locality, destined to receive persons arriving who may be affected with cholera. To that end, they may institute a medical surveillance over all arrivals, but in no circumstances are they either to establish cordons or to require certificates showing where the arrivals come from, or in any way to prevent the free entrance of healthy persons, even when coming from infected districts. As regards these last-named, the local authorities are to send a medical officer to visit them during three days after arrival, in order that any who show symptoms of cholera may be immediately isolated. This marks a great advance on regulations previously in force. Fumigations are officially stated to be openly condemned by science as useless and often dangerous to persons, and are therefore to be discouraged; while disinfection of apparel of a doubtful character, always provided that it can be done in stoves adapted to the purpose, or by other means calculated to guarantee the efficacy of the result, is recommended. The remaining directions prohibit the syndics from decreeing measures of precaution regarding the importation of merchandise into their communes, the transit of railway-trains, and other matters, concerning which the Ministry reserves the right of providing as circumstances may require. The Government, holding all officials responsible for their acts, will not tolerate the adoption of any arbitrary measures.

We understand that in consequence of the increase in cholera in France the Local Government Board has decided to issue an order, under the Public Health Act, prohibiting the importation of rags into England from the infected districts. The order will take effect almost immediately.

The Dutch Government has forbidden the importation into Holland of unwashed bedding, linen, and old clothes, from Spain, Gibraltar, and France.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND ITS MEMBERS.

At a very full meeting of the East Anglian Branch of the British Medical Association, held at Braintree, on August 7th, Mr. ABBOTT read a paper on "The Association of Members of the Royal College of Surgeons." He briefly explained the objects of the Association, and the reforms in connection with the election of members of the Council of the College of Surgeons, which the Association wished to bring about, and concluded by moving, "That this meeting protests against the conduct of the Council of the Royal College of Surgeons of England in refusing all the demands of the Members."

This was seconded by Dr. KELLETT of Halstead.

The PRESIDENT (Dr. Elliston of Ipswich) had not felt very warmly on the subject, except that he thought every Fellow of the College should be allowed at all events to vote on the election of members of the Council. The question was now whether that privilege should be extended to all the Members of the College. He was open to conviction, but he always thought that it would be sufficient if Members who had attained the distinction of Fellows of the College should be allowed to vote by papers instead of being compelled to be present in London. The meeting had now to consider whether that should be advanced a stage further, and every Member should have the privilege now accorded to a Fellow. The more he thought of it, the more he felt that Members should have more power in College matters, as all were interested in the College of Surgeons and the schools of the medical profession. Mr. Abbott seemed to have shown that it was necessary to claim the privileges to which the resolution referred.

Mr. C. B. KEETLEY felt sure that all the Fellows who wished an alteration in the constitution of the College would like the whole of the Members to have as much power in the management of affairs as they themselves had. Of course, he was only speaking for himself. He did not consider that, when he became a Fellow, he became better able to form a reasonable opinion on the matters which came before the College than when he was a plain Member. If the subjects which came before the College were pure surgery, there might be some excuse for keeping matters in the hands of the Fellows; but, as a matter of fact, all the subjects which came before the Council were purely business and general matters, upon which it was not at all impossible for a Member to have as good an opinion as a Fellow. If one were to go through the whole of the differences between Fellows and Members, he thought there could only be one conclusion: that Members had a perfect right to a voice in the management of the College. Lately, the agricultural labourers had been added to the franchise, and the great argument was that they had the right. He would not say whether they were qualified, but surely no one would say that an independent medical man was not able to express an opinion upon the questions which come before the College. He hoped this meeting would support the resolution, or some such resolution as that proposed by Dr. Abbott.

The resolution was carried unanimously.

Gentleman desirous of furthering the aims of the Association were instructed to write to the Honorary Secretary, at the Westminster Dispensary, Rochester Row, Westminster.

COLLECTIVE INVESTIGATION COMMITTEE.

LIST OF RETURNS RECEIVED DURING THE MONTH OF JULY, 1885.

The Committee desires to acknowledge the following list of returns received during the month of July.

- Birmingham and Midland Counties Branch: XIII, P. A. Steedman (2).
- Border Counties Branch: Intemperance, S. Lockie, M.D.
- Cambridge and Huntingdon Branch: X, Professor Humphry, M.D., F.R.S. (18).
- East Anglian Branch: X, C. B. Plowright (3); Dr. Beverley (5); XIII, A. C. Mayo (2); C. B. Plowright.
- Lancashire and Cheshire Branch: Bolton District: XIII, G. R. M. Wright (3); Intemperance, A. Ransome, M.D. Liverpool District: III, W. M. Campbell, M.D.
- Metropolitan Counties Branch: III, W. H. R. Stanley, M.D., Va, G. Saunders, M.D., VIII, W. W. Grosvenor, X, G. Saunders, M.D., M. Davies, M.D., G. Turner (3); R. H. Lloyd, M.D. (4); XIII, M. G. Biggs; W. H. R. Stanley, M.D.; Intemperance, S. A. Hayman, R. H. Lloyd, M.D.
- Midland Counties Branch: Nottingham District: II, H. Handford, M.D.
- South of Ireland Branch: I, T. Gelston Atkins, M.D. (5).
- Shropshire and Mid Wales Branch: X, E. Burd, M.D. (4).
- Southern Branch: XIII, W. V. Lush, M.D.
- South Wales Branch: X, T. G. Herder, J. G. Jones; XIII, R. E. Wormald, H. Lloyd Williams (3).
- South-Eastern Branch: West Kent District: X, E. Ground, M.B.
- South Midland Branch: II, T. B. Unwin, J. Mackenzie, M.D. (2).
- South-Western Branch: XIII, A. G. Salmon, M.B.
- Worcestershire and Herefordshire Branch: III, Hugh R. Ker (2).
- Yorkshire Branch: I, A. Maude.

London.
 ON. Samuel, R., Esq., Llanelli; Savage, G. H., M.D., London; Sawden, F. J.,
 M.D., Hull; Seale, T. W., Esq., Aberdare; Sellers, W. H. J., M.B., Preston;
 SHAPLEY, F., Esq., Sidecup; Sheehy, James, Esq., Ebbw Vale; Sheen, Alfred,
 M.D., Cardiff; Shortland, E., Esq., Westbury; Shuttleworth, G. E., M.D., Lan-
 caster; Sibley, S. W., Esq., London; Simeock, J. B., Esq., Bridgewater; Skeritt,
 E. Markham, M.D., Clifton; Smith, A. J. N., Esq., Sutton; Smith, E. Noble

Esq., London; Smith, J. Greig, M.B., Clifton; Smith, R. Shingleton, M.D., Clifton; Smith, T. M.D., Woodley, Stockport; Snell, Simeon, Esq., Sheffield; Snow, H. M.D., London; Snow, T. V., M.D., Bournemouth; Solomon, J. Vose, Esq., Birmingham; Soper, J. H., Esq., Blaina; Spence, J. B., M.D., Lechfield; Spender, J. K., M.D., Bath; Stainthorpe, T. M.D., Hexham; Steel, S. H., M.B., Abergavenny; Stein, A., M.D., New York; Stephens, Lockhart, Esq., Bristol; Sterling, R., Esq., Stoneyford; Stevenson, G., M.D., Manchester; Stewart, James, Esq., Clifton; Stewart, R. S., M.B., Bridgend; Stockman, R., M.B., Leith; Stockwell, F., Esq., Bruton; Stotham, C., Esq., London; Strahan, J., M.D., Belfast; Strange, A., M.D., Shrewsbury; Strange, W., M.D., Worcester; Stratton, C. R., Esq., Salisbury; Stuart, James, M.D., Balymena; Swete, Horace, M.D., Worcester; Sydney-Turner, A. M., Esq., Gloucester; Sympson, T., Esq., Lincoln.

Tait, Lawson, Esq., Birmingham; Talpade, N. D., M.D., Swansea; Tatham, John, M.D., London; Taylor, C. B., M.D., Nottingham; Taylor, H. C., M.D., Todmorden; Taylor, James, Esq., Chester; Taylor, T. H., Esq., Thornbury; Taylor, William, M.D., Cardiff; Terry, George, Esq., Fram; Thimbleby, J., Esq., Spilsby; Thomas, A. G., M.D., Newport; Thomas, D., M.D., Tstalyfera; Thomas, D. J., Esq., Ogmore; Thomas, J. Davies, M.D., Adelaide, Australia; Thomas, J. T., Esq., Risca; Thomas, W. R., M.D., Sheffield; Tilley, S., Esq., Cranford; Tilton, J. E., Esq., Stonehouse; Tomkins, H., M.D., Manchester; Trebarne, J. L., Esq., Cardiff; Trend, T. W., M.D., Southampton; Treves, F., Esq., London; Tuke, D. Hack, M.D., Hanwell; Turner, F. C., M.D., London; Turner, J. H., Esq., Cardiff; Tyson, W. J., M.D., Folkestone.

Vachell, C. T., M.D., Cardiff; Vachell, H. R., Esq., Cardiff; Vacher, F., Esq., Birkenhead.

Walker, T., M.D., Peterborough; Wall, R. B., Esq., London; Wallace, F., Esq., London; Wallace, S., Esq., Cardiff; Wallace, T., M.D., Cardiff; Walter, W., M.D., Manchester; Ward, J. L. W., Esq., Merthyr; Waters, E., M.D., Chester; Wathen, J. Hancock, M.D., Clifton; Watkins, G., Esq., Chepstow; Watson, G. A., Esq., Cheltenham; Webb, W., M.D., Derby; Webster, A. D., M.D., Edinburgh; Webster, T., Esq., Bristol; Webster, T. J., Esq., Merthyr-Tydfil; Weston, E. F., Esq., Stafford; Wheeler, D., Esq., Chelmsford; Wheelhouse, C. G., Esq., Leeds; White, C. J., M.D., Snodland, Rochester; White, Brigade-Surgeon J. B., London; White, T. Charters, Esq., London; Whitehead, W., Esq., Manchester; Whittington, T. P., Esq., Neath; Wigmore, J., M.D., Twerton-on-Avon; Wilks, Samuel, M.D., F.R.S., London; Williams, C. R., M.B., Ashby-de-la-Zouche; Williams, D. J., Esq., Llanelly; Williams, H. E., Esq., Newport; Williams, J., Esq., Brecon; Williams, M., Esq., Cardiff; Williams, Owen, Esq., Barry Port; Williams, R., Esq., Wrexham; Williams, W., Esq., Tylorstown; Williams, W. E., Esq., Abertillery; Williams, W. J., M.D., Middlesbrough; Willmore, F. W., Esq., Walsall; Wilson, J. S., M.D., Walsall; Wilson, H. C. P., M.D., Baltimore; Winterbotham, W. L., M.D., Bridgwater; Wise, R. S., M.D., Banbury; Woakes, E., M.D., London; Wood, E. S., Esq., Pontypool; Wood, William, M.D., London; Woollett, C. J., Esq., Monmouth; Wrench, E. M., Esq., Barlow; Wright, C. J., Esq., Leeds; Wright, S. H., M.D., Southport; Wright, W., M.D., Shipston-on-Stour; Wylie, A., M.D., London.

Yellowlees, D., M.D., Glasgow.

Zehender, Professor von, Rostock; Ziemssen, C. F. W., M.D., Wiesbaden.

EXCURSIONS.

EXCURSION TO WELLS CATHEDRAL AND GLASTONBURY ABBEY.—About forty ladies and gentlemen left the Taff Vale Railway Station by special train, at 8.40 A.M., on Saturday, August 1st, embarking, on arrival at the Bute Docks, on board the steamer *Sherbro*, for Burnham. The morning was fine, and the passage across the British Channel was enjoyed by all. A special train was waiting to convey the party to Glastonbury, which place was reached at 11.15. The most striking portion of the ruins is the church of St. Mary, commonly known as St. Joseph's Chapel, which is the most perfect of the ecclesiastical ruins of the Abbey; it is, moreover, most interesting as occupying the site of the earliest Christian church in Britain. Adjoining is the monk's churchyard, the spot where it is stated Joseph of Arimathea, with his son Josephus, and King Arthur, were buried. Adjacent to this are the ruins of the great church of SS. Peter and Paul. Other interesting portions of the abbey which well repaid visiting were the crypt, the holy well, the Abbey kitchen, and the holy thorn. The party then proceeded to Wells, which was reached at 1.30 P.M., when luncheon at the Swan Hotel was most welcome. Dr. E. Waters, of Chester, one of the vice-presidents of the Association, occupied the chair, and in the course of a few remarks expressed thanks for the admirable way in which the members of the Association had been treated during their visit to Cardiff, laying particular stress on the way in which the excursions had been so well and completely arranged, and saying that great credit was due to those who had undertaken the duties connected with the same. The party shortly afterwards adjourned to the Cathedral, where they were met by the Very Rev. the Dean of Bath and Wells, and Alexander Clarke, Esq., who kindly acted as guides, and explained the interesting portions of this grand old pile. We would not forget to add that, thanks to the kindness of the Lord Bishop of the Diocese, the palace and grounds were thrown open to the visitors. Tea was partaken of at 5 P.M., after which the party started on the return journey, and Cardiff was safely reached at 10 P.M.

SIR ISAAC LOTHIAN BELL has resolved to present his house and grounds at Washington, Co. Durham, to be used as a convalescent home in connection with the infirmary at Newcastle-upon-Tyne (his native place) or under the superintendence of the corporation.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

The Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of
CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Choreia and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the *JOURNAL* of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the *JOURNAL* of May 9th. Replies are requested on the schedule issued with the *JOURNAL* of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Hastings, on Friday, September 25th. Dr. Cooke will preside. The following communications are promised:—The Chairman, A case of Perforating Ulcer of the Stomach; Mr. W. Grant Jones, A case of Chronic Ulcer of the Stomach. Notice of intended contribution of papers, or cases, should be sent to the honorary secretary, T. JENNER VERRALL, 95, Western Road, Brighton.

ABERDEEN, BANFF, AND KINCARDINE BRANCH: ANNUAL MEETING.

THE annual meeting of the Branch was held in the Young Men's Christian Institute, Aberdeen, on Saturday, July 25th, at 12.30 P.M., Professor OGSTON, the President-elect, in the chair.

Letter of Apology.—A letter from Dr. Keith, of Aboyne, the President, regretting his inability to be present, was communicated.

New Members.—Dr. Stewart, H.M.S. Clyde; Dr. C. Lancaster Faulkner, Rhynie; and Dr. W. Oliphant Walker, Duncricht, were ballotted for and unanimously admitted members of the Branch.

Report of Council.—The Council's report for 1884 was read, and ran as follows. "As regards the main objects of the Branch, the Council have a very favourable report to submit. The membership has been considerably augmented, having risen during the year from 75 to 106. The papers, cases, and exhibits during the session have been possessed of more than average interest, and the meetings generally have been more than successful. The Parliamentary Bills Committee have had very little to do this year; but their vigilant chairman, who is ever on the alert, continues in legislative changes to watch over the interests of the profession. The suggestion of last year's Council's report on the subject of Collective Investigation has borne as yet but little fruit, nor has the whole subject been entered into with any heartiness in the North of Scotland. The country meeting continues to be popular; that of 1885, at Laurencekirk, having an attendance of 34, while 33 took part in the excursion to Den Finella."

Treasurer's Balance-Sheet.—The accounts for the year 1884 were submitted by Dr. HALL, and showed a balance of £10 19s. in favour of the Branch.

President's Address.—Professor OGSTON, the new President, in the absence of the retiring President, delivered an able and eloquent address on the union of the local medical societies. He detailed the origin and formation of the Aberdeen Medico-Chirurgical Society, the oldest in the North of Scotland, and alluded to many of the distinguished men who had belonged to it. He described how, after a lapse of years, the society languished and grew unsuitable to the requirements of the time, and how, when, fourteen years ago, a band of the more energetic members proposed a carefully elaborated scheme of reform, their endeavours were frustrated by the opposition of men who took little interest in the cause of medical science. Then a secession took place, and the seceders founded the present Branch of the British Medical Association, which grew and flourished, doing much good work, and doubling the membership in the space of thirteen years. In its turn, the Medico-Chirurgical Society was revived by emulation, and showed more life than it had done for many years. Another society, the North of Scotland Medical Association, was started with the object of uniting the various medical bodies, but never effected the ends for which it was founded, and should be wound up. The time was now ripe when a more comprehensive union of the medical societies should be effected. For this purpose, great changes were requisite, and these would meet with much opposition from the lovers of inaction, but should be carried through by the younger and more energetic men. The President then proceeded to indicate the changes most necessary, namely: the removal to more central premises; an examination into, and, if necessary, the abolition of, the Widows' Fund; the restriction of the term of holding office; and the extinction of the North of Scotland Medical Association. The Branch of the British Medical Association would hold its meetings in common with the Medico-Chirurgical Society; its town members paying the ordinary subscription to the Medico-Chirurgical Society, and its country members paying a slightly increased subscription; but being admitted, in return, to the privileges of membership of the Medico-Chirurgical Society. The Branch would retain its country and annual meetings, which were much appreciated; but these would be part of the Medico-Chirurgical Society's programme, and carried out by joint office-bearers. Around such a society, all the medical interests of the district would centre and flourish. Country members would be pro-

vided with a place where they could have all the advantages of a respectable club and reading-room at a moderate price, and where they and the town members could meet one another on their public and private affairs. The decision of the matter rests with the young and active amongst us, and it was to them that he ventured to appeal. In 1872, the Branch was created for the promotion of medical science, and the maintenance of the honour and interests of the medical profession. It had now existed for thirteen years, and in this time the number of the members had been doubled. His duty and pleasure would always be to aid in such aims as those for which the Branch was originated, and to contribute, as far as was in his power, to carry them into execution.

On the conclusion of his address, a most cordial vote of thanks was unanimously accorded to the President.

President-elect.—Professor OGSTON proposed Dr. Urquhart as President-elect for the ensuing year, which was unanimously agreed to; and the Honorary Secretaries and Treasurer, Drs. Garden, Mackenzie Booth, and Hall, were re-elected.

Members of Council.—In terms of Rule viii, the following three town and three country members were elected to act, along with the *ex officio* members, on the Council of the Branch for the ensuing year, namely, Dr. Angus Fraser, Macgregor, and Ogilvie Will, Aberdeen; and Dr. Lyon, Peterculter; Dr. George, Keith; and Dr. J. Osbert Wilson, Huntly.

Country Meeting, 1886.—On a recommendation from the Council, it was resolved to hold the next country meeting at Huntly in June, 1886.

Lobby Notice-Cases.—Dr. BOOTH showed, for Dr. Frank Ogston, a very convenient form of notice-case for the lobby, which he had devised and used for some time. This could be hung on a peg in the wall, and consisted of an ornamental wooden box, with a compartment above for printed forms, on which a visit or caller's name could be entered; and a compartment with glass front below, into which the slips when filled in were dropped, to be removed by the medical man on his return home.

A cordial vote of thanks to the Chairman terminated the proceedings.

Hospital Demonstrations.—During the forenoon, after the customary visit to the various wards of the infirmary, special demonstrations were given, by Dr. Angus Fraser, on the latest Tests for Albuminous and Saccharine Urine; by Dr. Garden, on Depressed Fracture of the Cranium; and by Professor Ogston, on the Anatomy and Operative Cure of Club-foot.

Annual Dinner.—After the meeting, the members dined together in the Imperial Hotel, under the presidency of Professor Ogston.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

AN ordinary meeting was held at Hinton's Royal Spa Hotel, Shanklin, on July 30th; DANIEL BEATON, M.D., President, in the chair. There were also present seven members and two visitors.

President-Elect.—The SECRETARY read a letter from Dr. Whitehead, regretting that he could not accept the post of President-elect. Dr. GROVES proposed, and the PRESIDENT seconded, that Mr. Lloyd be the President-elect. Mr. Lloyd at first declined, on account of infirmity; but, on being pressed by the meeting, undertook to consider the matter, and give his decision at the next meeting.

Proposed Discussion on Phthisis.—The HONORARY SECRETARY proposed that Dr. Isambard Owen be asked to open a discussion on Phthisis. This was seconded by Dr. GROVES, and carried.

The Medical Benevolent College.—The HONORARY SECRETARY read a letter from the Organising Secretary of the Medical Benevolent College, stating that the income of the College arising from subscriptions had fallen off very much during the last few years, and asking to make the want of subscriptions known to the members.

Neuroses.—Dr. GROVES read a paper on a Neurosis, which was followed by a discussion, in which Messrs. Lloyd, Platts, Green, the President, and Dr. Prausnitz (Hamburg) took part, and in which the value of Nerve-stretching was discussed. Dr. Prausnitz entered at length into some cases demonstrating the value of this, and also of forcible massage, or manipulation of neurotic limbs.

Perforative Pneumothorax.—Dr. WILLIAMSON read a paper on the Treatment of Perforative Pneumothorax in Phthisis, detailing notes of several cases. A discussion followed, in which Messrs. Lloyd, Neal, Groves, Meeres, and Green took part.

A vote of thanks to Drs. Groves and Williamson was moved by the HONORARY SECRETARY, seconded by Dr. NEAL, and carried unanimously.

Dinner.—The members afterwards dined together, and a pleasant evening was spent.

EXTRAORDINARY GENERAL MEETING OF MEMBERS.

At an extraordinary general meeting, held in the Council Room of Exeter Hall, on Friday, August 14th, 1885, called for the purpose of confirming a special resolution passed at an extraordinary meeting held at Cardiff; present,

Dr. BALTHAZAR FOSTER, President of the Council, in the Chair,

Mr. C. Macnamara, London, Treasurer

Dr. J. O. Adams, London

Mr. J. Wickham Barnes, London

Dr. M. Martin de Bartolomé, Sheffield

Mr. W. Braine, London

Dr. J. S. Bristowe, London

Dr. R. W. Burnet, London

Mr. Walter Burney, Greenwich

Mr. Henry T. Butlin, London

Mr. R. H. S. Carpenter, London

Dr. John B. Caskie, London

Dr. J. Chalmers, London

Dr. Walter Dickson, London

Dr. Alex. Forsyth, Greenwich

Mr. F. J. Gant, London

Mr. H. Gonde, London

Dr. W. C. Grigg, London

Dr. F. de Havilland Hall, London

Mr. H. Nelson Hardy, Dulwich

Dr. Charles J. Hare, London

Mr. Ernest Hart, London

Mr. W. B. Hemming, London

Dr. A. Henry, London

Mr. John P. Hentsch, London

Dr. George Henty, London

Dr. C. Holman, Reigate

Mr. J. Brindley James, London

Mr. A. O. B. Jones, Epsom

Dr. Thos. Ligertwood, London

Dr. W. C. Lucey, Enfield

Dr. Bernard O'Connor, London

Dr. Joseph Rogers, London

Mr. C. H. Rogers-Harrison, London

Dr. H. Cooper Rose, Hampstead

Dr. George P. Rugg, London

Sir Edwin Saunders, London

Dr. Felix Semon, London

Mr. S. W. Sibley, London

Dr. H. Sutherland, London

Dr. James Thompson, London

Mr. J. S. Turner, London

Dr. W. F. Wade, Birmingham

Dr. H. T. Wharton, London

Dr. Dawson Williams, London

Read notice convening the meeting, a copy of which is as follows.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

Notice is hereby given that an Extraordinary General Meeting of members will be held in the Council-Room, Exeter Hall, London, on Friday, August 14th next, at 4 o'clock in the afternoon, for the purpose of confirming the resolution passed at an extraordinary general meeting of members held at the Town Hall, Cardiff, on the 30th instant, namely, that in Articles 13 and 15, the word fifty be altered to one hundred, so as to read as follows:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting, and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

FRANCIS FOWKE, General Secretary.

Cardiff, July 30th, 1885.

It was moved by the PRESIDENT OF THE COUNCIL, seconded by Dr. BARTOLOMÉ (Sheffield),

"That the resolution passed at an extraordinary general meeting of members, held in the Town Hall, Cardiff, on the 30th ultimo, namely, that in articles 13 and 15, the word fifty be altered to one hundred, so as to read as follows:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon receipt of such requisition, the Council shall forthwith proceed to convene a general meeting, and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

be and the same is hereby confirmed."

Mr. NELSON HARDY handed in a written objection, of which the following is a copy.

I object to proceeding with the confirmation of the alteration in Articles of Association now proposed, because, as far as I can understand, the necessary legal formalities have not been complied with. Article 16 requires seven days' notice, specifying the place, the day, and the hour of meeting, and this has not been done.—(Signed) H. NELSON HARDY, London.—August 14th, 1885.

The motion having been put from the chair, the same was declared to be carried, thirty-four voting for the motion and four against.

MEDICAL MAGISTRATE.—Dr. Henry Croly, a well known and highly esteemed practitioner at Rathfarnham, co. Dublin, and one of the examiners in midwifery in the Royal College of Surgeons in Ireland, has been appointed to the Commission of the Peace for the County of Dublin.

QUETTA MEDICAL MISSION.—A medical mission is about to be commenced at Quetta, by the Church Missionary Society, which has appointed Dr. Samuel Walter Sutton to take charge of it. Dr. Sutton is a distinguished graduate of the University of London.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Virulence of Chancrous Bubos.—Dr. Brouardel's Report on the Outbreak of Cholera at Marseilles.—Charges against Medical Men.—Trichinosis.—Cremation.

M. STRAUSS, at a recent meeting of the Biological Society, referred to some statements he made last year (BRITISH MEDICAL JOURNAL, December 27th, 1884) concerning chancrous bubo, in which he affirmed that the pus was not inherently virulent, but only when in contact with chancres. M. Strauss now admits that his assertions were too positive. Researches made in MM. Humbert's, Ducastel's, Mauriac's, and Fournier's wards prove that the pus of buboes is sometimes inherently virulent, but such cases are exceptional. One hundred and twenty inoculations with pus carefully collected from chancres resulted in only six successes. M. Strauss, therefore, observes that this statement that chancrous buboes are never virulent was erroneous; but M. Ricord's law, which states just the contrary, can no longer be admitted.

M. Brouardel has read, before the Académie de Médecine, his report on the cholera at Marseilles. Three months before Asiatic cholera appeared, violent diarrhoea was prevalent. This condition was coincident with the sudden appearance of very hot weather. On August 2nd or 3rd, cholera had positively appeared. No clue could be found to the importation of the malady, but all the districts where it appeared last year were again invaded by it. The same deplorable sanitation exists. The port is the same as described last year. In the houses built on it, seven hundred people are massed together. Every kind of offensive refuse is thrown out on to the ground. All the refuse of the neighbouring houses flows in the courtyard of a school immediately behind the Hôtel de Ville. Private individuals are so persistently and immoderately dirty in their habits, that no measures have been taken to improve their sanitation. At Marseilles, the municipality have very little power to prevent private individuals from soiling the city. M. Brouardel proposed to the Académie de Médecine to vote that the law of 1880 should be rendered complete, and the reform it had in view effected. The vote was carried unanimously.

The case of Dr. Depasse, who is accused of leaving a woman without medical aid during parturition, because her husband could not pay him 250 francs, is creating a great deal of interest. According to the midwife, who commenced the delivery, the presentation was abnormal; therefore an operation was necessary, and the husband of the patient applied at the night-service department for a medical man. Dr. Depasse returned with him, said it was a very serious case, and required 250 francs before commencing the operation. The applicant, M. F., offered 100 francs—£4—all he possessed. Dr. Depasse required £10. The midwife implored him to deliver the woman, but he replied "Go to the hospital." The midwife observed that it was impossible to remove the patient to a hospital. Dr. Depasse answered, that he could not operate until the morning. He resisted all entreaties, and left the house, saying he would return at 8 o'clock, and operate under the conditions already stated. M. F. sought for another medical man. It was 5 o'clock in the morning when he reached Mme. F.'s bedside. After examining her, he said, "It is too late." The poor woman died. At 7 o'clock the same morning, M. F. wrote to the mayor of his *arrondissement*, who directed him to inform the Dean of the Medical Faculty. However, after useless communication, he learned that his complaint must be made to the Procureur de la République. M. Depasse writes to one of the daily papers to exculpate himself. He says the family refused to remove the patient to the hospital. As his night-service was finished, he went away, saying he would return at 7 o'clock. In order to operate, it was necessary to have help, chloroform, and instruments, and the family was unable to meet the necessary expenses. Whenever he could operate single handed he did so, without charging any fees. He trusts to his ten years' of personal devotion to his duties, and medical services given gratis, and frequently supplemented by gifts of money, to exonerate him from the charge of cupidity which the daily papers bring against him. The sensation caused by this painful occurrence has been instrumental in bringing to light other alleged cases of a similar nature.

Three supposed cases of trichinosis have occurred in Paris. A few days ago, three of the porters at the Halles, technically known as *les forts des Halles*, were seized with violent intestinal pains, after eating some

ham; immediate and energetic measures, aided by their robust condition, have now placed them beyond danger, though they are still under treatment. They perceived that the ham was not fresh, but their hunger made it palatable; unfortunately, none of it remained to be examined by experts. The medical men who attended the patients attribute their illness to eating trichinous ham.

The Conseil Municipal have already voted 80,000 francs (£3,200) to help private charity in organising crèches in the districts where they are the most needed. An additional sum of 20,000 francs (£800) is further voted; but the crèches under religious direction are refused participation in the vote; 30,000 francs (£1,200) are now in hand, and it is proposed to devote it to the poorest districts.

The Prefect of Police has issued a decree that the remains of the bodies dissected in the dissecting-rooms of the Paris School of Medicine shall be cremated in the apparatus for the purpose. The Prefect of the Seine, the Director of the Assistance Publique, and the Dean of the Paris Medical Faculty, have been informed of this decision.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Association of German Naturalists and Physicians.—Artificial Diabetes.—Hospital for Scrofulous Children.—Field-Hospitals for Wounded Soldiers.—Typhus Fever at Wiesbaden.—Animal Lymph.

THE fifty-eighth meeting of the Association of German Natural Philosophers and Medical Men sits at Strassburg from September 18th to the 23rd. Foreigners will be welcomed. Tickets, costing 12 marks, will be supplied to anybody desirous of attending, on applying to Herr Quistor Schmidt, Universitätsgebäude, Strassburg. Tickets will be issued at reduced fares by most of the railways in the neighbourhood to those supplied with the necessary card of authorisation to attend the meeting. Speeches will be delivered in honour of the memory of Professors von Frerichs and Henle. Professor Virchow will read a paper on acclimatisation.

Professor J. von Mering, of Strassburg, states (*Central. für die Med. Wiss.*) that, by giving phloridzin to dogs who have been fed on meat for a long time, an intensified secretion of sugar takes place in the urine without any change in the general health. He believes that light will be thrown on several facts connected with diabetes mellitus by his observations, and will read a paper on the subject at the above meeting.

In the valley of Egeri, in the canton of Zug, in Switzerland, a hospital, due to the charity of the inhabitants of Zurich, has been opened, where children suffering from diseases of the spine and scrofula, between the ages of 1 and 6, will be received free of charge. It is situated in a lovely position looking over the lake of the same name.

Seven hundred and ninety-one competitors have sent to the Antwerp Exhibition models to compete for the prize of 5,000 francs and a gold medal, offered by the German Empress for the best field-hospital for nursing wounded soldiers. The Empress herself has exhibited a miniature field-hospital, which is much admired. The adjudication of the prize will take place in September.

It is said that a Committee, composed, amongst others, of Professors von Pettenkofer, von Langenbeck, Seitz, Fresenius, and a sanitary engineer from Carlsruhe, will meet shortly to inquire into the causes of the epidemic of typhus fever at Wiesbaden. The epidemic is on the decline, and was only of a mild character from the beginning.

Animal lymph is to be permanently introduced in the place of human lymph into Saxony, in the course of the current year.

CORRESPONDENCE.

THE RELATIONS OF THE MEDICAL PROFESSION TO PUBLIC MORALITY.

SIR,—It is a matter of hope and thankfulness that the journals of our profession are quick to see and to feel the varying needs of society and of humanity, and to discuss them fruitfully from our special points of view. With an unusual sense of gratefulness I read your admirable article of the 15th instant, on Sexual Ignorance. The subject is one of the utmost delicacy and difficulty, and yet one of keen interest, and of vital and pressing importance. That article, prompted as it was by "recent painful disclosures," which have come upon most

of us with indescribable horror, dealt with the subject in a spirit of sympathetic insight and of sober reasonableness. Some say that the Criminal Amendment Act, and the protection of young women and little girls from outrage, are dearly purchased at the cost of those disclosures. Of this, all honest and kindly men must judge for themselves. Omelettes cannot be made without the breaking of eggs. But, soon after the issue of your next number, a meeting—a great meeting, we are told—will be held in Hyde Park, to give moment and direction to one of the greatest awakenings of the passion of humanity since the days of the crusade against slavery. In this movement, I observe that the purest and most generous men and women of our generation are least apprehensive of the mischief these disclosures may have wrought, and are most joyful to think that the hearts of a vast majority have been roused from a deadly apathy to a new vision of the hideous aspects of unbridled lust, and to a new conviction of the duty of calling us all to a higher standard of sexual morality and honour. The Church of England, from her archbishops downwards, has come bravely to the front, and has thereby planted herself afresh in the affections of our countrymen. I most earnestly hope our own profession will not be behindhand in scorn of the "conspiracy of silence," and, true to the honourable traditions of its past, will labour to prevent the defilement of the temple of the soul, as it labours to prevent other pestilences perhaps scarcely more material. It were foolish to deny that medical men of eminence have been thoughtless enough (I will use no stronger word) to countenance or even to prescribe irregular sexual indulgence to young men; but I dare hope that those who have done this has repented bitterly during the last four weeks. You have, sir, given true and commanding words to us when you say: "It will often be found that there is a prevalent opinion that sexual immorality is to celibates a physical necessity, an attribute of manliness, and even a collateral or prevalent condition of health. This degrading error has been so vigorously denounced by the ablest of modern physiologists, that no one has longer any pretext for entertaining or promulgating it. It has been the source of much evil, however; and wherever such an opinion is met, it must be energetically denounced." (P. 304.)

The secret influence of medical men in raising the tone of society, and especially of men, on the point of sexual honour, is enormous and incalculable; and, for my part, had these disclosures been withheld to the end of my own days, I should have felt that the nation had been betrayed. Now that our eyes are thus rudely opened, even the best of us may feel conscience-stricken; and may our vigilance henceforth prove equal to our opportunities of working for purity, and of teaching the higher laws of the nature of man.—I am, etc.,

Leeds.

T. CLIFFORD ALLBUTT.

LONDON AS A GREAT CENTRE FOR ADVANCED MEDICAL TEACHING.

SIR,—In the United States, the question is often asked, Where shall I go, while abroad, to receive the most advanced medical teaching? At the present time, we have no hesitation in answering that the superior advantages are offered by the schools in which the German language is spoken. This fact carries with it obvious disadvantages, chiefly, perhaps, those which attend an inability to understand the language, and I wish to offer a few suggestions concerning a measure by which they may be overcome.

In short, why should not London be one of the, if not the, great medical centre of the world? Its population, its location, and its prestige fully warrant the assumption that it may be; but it is not—that is, for Americans. We of the States do not think of sending either medical students or recent graduates to London to complete, as it is sometimes called, their education. Why? Simply because London does not possess the facilities which are offered in a large number of continental towns outside of France. Paris was once the medical Mecca, but, not enduring the labour of keeping at the head, she is now in the rear.

I believe, however, that the time has arrived when London may go to the front in offering to the world unsurpassed facilities for acquiring the highest medical education. To-day her biological laboratories, if she has any, are practically unknown. The study of the question, just now foremost, namely, the relation of micro-organisms to disease, is being pursued by only two or three, and by those not in a way which offers much opportunity for either class or hand-to-hand work. Those who have special facilities in this direction very courteously extend, to those who are interested in the subject as workers, the privilege of seeing something of what they have done and are doing; but this does not meet the wants of the earnest student, and he, therefore, goes direct to the place where advantages of the kind he desires can be obtained readily.

I have been stimulated to the writing of this letter by two facts. First, the British Medical Association has just authorised the erection of a new building to meet the requirements of its rapidly growing journal. Why should it not, at the same time, as it has abundance of capital, make provision for, and take under its fostering care and protection, the work of advanced teaching in medicine? The Association has already done highly commendable work through scientific committees and collective investigation; and why should it not avail itself of this additional feature, which would greatly enhance the value of the labour already being performed?

It is easy to understand that, to offer facilities for obtaining a preliminary medical education would conflict with existing interests, and doubtless would damage the Association; but does this hold good concerning the advanced work?

Second, and possibly the most available. The Royal College of Surgeons of England has recently received an endowment which would enable it to adequately meet the question in all its magnificent proportions; and there are reasons, it seems to me, why it might engage in the undertaking with scarcely a doubt of success. The position which it occupies in the midst of, and the relation which it sustains to, the other medical organisations of London, are such as to guarantee that no conflict of interests would arise should it push the enterprise. This body, therefore, has the ability to carry out any projected plan in this direction, however grand.

There are, then, in London two possible sources whence might come what the American student desires in the way of medical education; and a great inducement to avail himself of such advantages, did they exist, is the use of his native language, which would enable him to economise both time and money.

It is true that many of those who desire a course of advanced study also wish to obtain a practical knowledge of the German language, and this knowledge cannot be better obtained, probably, than by spending one or two years in Germany. To off-set this apparent disadvantage to London, however, we think it is not unfair to assume that there is a large percentage of American medical men who would make a knowledge of the German language a secondary consideration, could they secure equal facilities for acquiring scientific knowledge through the English language. Of course, I have no data upon which to base an argument on this point, and the result of the undertaking, so far as patronage is concerned, can be decided only by the test of time. But I believe that the effort is worth the making; that it would succeed, and, if ever, that it should be made without delay.

I do not, while making these suggestions, underestimate the advantages in the States for acquiring a practical and complete medical education; and they are offered with reference to those only who decide that courses of instruction abroad are desirable.—Very truly yours,

WESLEY M. CARPENTER, M.D.,

Instructor in the Laboratory of Biology and Pathology in
the Medical Department of the University
of the City of New York.

New York.

ON THE OPERATIVE CURE OF BLEEDING MYOMA OF THE UTERUS.

SIR,—In reference to the remarks made in the discussion of this subject, published in the JOURNAL of August 15th, will you allow me space to endorse the observations made by Dr. Playfair, and to record my own testimony in this direction? When the Association met at Ryde in 1881, in opening the debate upon removal of the ovaries, I remarked: "In few instances where operative measures are proposed for the mitigation of suffering, or the possibility of cure, do we meet with more signal alleviation or more marked arrest in the progress of the disease than in this operation, performed in suitable cases." (BRITISH MEDICAL JOURNAL, September 3rd, 1881.) Subsequent experience amply justifies this statement, and there is reason to be convinced that in this method we have a powerful aid towards the cure of a class of cases which are often obstinate and difficult to treat in ordinary practice.

It seems to me that for the purpose intended it is immaterial whether the Fallopian tubes be removed with the ovaries, as long as the larger arteries are effectually tied, so as to cut off the blood-supply, and to arrest the superabundant nutrition of the abnormal growths. As a rule, it is easier to include the Fallopian tubes, as they afford a guide to the ovaries, and often, being dilated, tortuous, or adherent, can best be removed along with them.

It is important to bear in mind that all cases of metrorrhagia are not dependent upon the presence of fibroids, and, in my own experience, few fibroids are myomata; those which I have examined contain often very little muscular elements; hence an accurate diagnosis is an

essential preliminary to a serious operation. That operations of this kind are not without risk must be within the knowledge of all who perform them, though the tendency of the discussion was evidently to make light of this responsibility. I have only to quote from a paper read by Mr. Tait before the Midland Medical Society on January 21st of this year, where, in an analysis of 1,000 cases of abdominal section, he tabulates "Removal of appendages for uterine myoma, 99; deaths, 7."

Bleeding fibroids often take an erratic course, and sometimes cease to give trouble, nor do they often cause death, if left alone. It is therefore a matter of great moment to estimate their result upon the patient's health and strength, and the capability of relief by ordinary means, before submitting them to a grave operation, with an obvious mortality of no small extent.—Yours truly,

Birmingham.

EDWARD MALINS, M.D.

TREATMENT OF UTERINE MYOMA BY REMOVAL OF THE APPENDAGES.

SIR,—Will you allow me to make a brief allusion to one point in your leading article on this subject? It is to the effect that, unless all the ovarian tissue on both sides be removed, the operation is almost certain to fail in its object. Your expression on this matter is based upon a statement which has, so far, never yet received any confirmation, and made by a surgeon who has not, so far as I can learn, ever performed any of these operations. Will you allow me to say that I have preferred, in several cases, from a desire not to subject my patient to increased risk, to leave one or both ovaries entire in such operations without removing any part of them, and yet menstruation has been completely and immediately arrested? More than that, I have a most interesting case, which I am about to publish in detail, where a myoma grew after removal of both ovaries and one tube, most profuse menorrhagia accompanying its growth. In this case, there could be no doubt whatever of the complete and perfect removal of both ovaries. Removal of the remaining tube in a second operation promises to completely cure the patient.—I am, sir, yours, etc.,

Birmingham.

LAWSON TAIT.

THE ANNUAL MEETING OF THE ASSOCIATION.

SIR,—May I raise two or three questions relative to the management of the annual meeting? Many of us are rather ashamed of ourselves for not paying more attention to the Sections. I am, for one. But is there not a cause for our want of attention?

The difficulty of hearing the authors of papers is a very frequent cause. To remedy this difficulty, I would suggest that everyone should speak from a rostrum, and that, if he cannot then read his paper audibly and intelligibly, some one should be appointed to read it for him. It is terribly tedious to sit trying to hear what people say for three hours, and to fail in the end.

And, finally, with regard to discussions, upon subjects chosen by the Sectional officers, can nothing be done to obviate the following? In one of the Sections a subject was decided on; Mr. X. was announced to introduce it, Messrs. A. B. C. and D., E. F. and G. to take part in the discussion. Mr. X. read his paper; Mr. A. declined to discuss it. Mr. B. read another paper; Mr. C. was absent. Mr. D. said the papers had taken a different course from what he had expected; therefore he would say nothing. Mr. E. read a paper which no one could suppose had anything, except in name, to do with Mr. X.'s paper; Mr. F. could not be heard; and Mr. G. could be heard, but had come in late, and did not know what had been said before. The president then closed what was announced as a "discussion," and members had waited about all the afternoon for very little. Cannot future officers of sections remedy this?

Allow me to conclude by saying that no meeting at which I have had the pleasure of being present has ever been pleasanter, and more to be remembered than the meeting at Cardiff.—I am, sir, yours faithfully,
Sheffield.

ARTHUR JACKSON.

Dr. W. OSLER of Philadelphia will preside over the next annual meeting of the Canada Medical Association.

THE will of Sir William Mure Muir, K.C.B., M.D., Director-General Army Medical Department, Honorary Physician to Her Majesty, has been proved, the personality being upwards of £3,000.

DR. JOSEF REINSBERG has been appointed extraordinary Professor of Forensic Medicine (to lecture in Bohemian) in the University of Prague.

NAVAL AND MILITARY MEDICAL SERVICES.

AN UNITED SERVICES MEDICAL JOURNAL.

Sir,—I hope you can grant me space to draw attention to the great need that exists for a special monthly journal devoted to the various subjects which come before army and navy medical officers. Every day new developments are taking place in these specialisms of our profession, but we still remain without any definite journal where record can be kept, and discussion invited on an infinite number of questions of the highest importance.

While oculists, lunacy physicians, obstetricians, and others have their special journals, army and navy medical men, themselves distinctly specialists, are without any recognised mouth-piece, and are trusting to hole-and-corner opportunities of publishing their ideas. You yourself know very well that, however inclined you are to give publication to military special papers, the space at your disposal is absolutely too small for even ordinary matter, let alone special articles interesting mainly to the classes before referred to.

I think England is the only country where these special services are without some defined journal, and we have not even a Red Cross journal published in the country, although nearly every other European nation has such a publication.

Within the Army itself we are entirely handicapped by the absence of such a journal as I propose, and are, in this way, quite behind the other special corps. Take the Royal Artillery; they have their special paper published monthly. In it they, in the very freest way, discuss their organisation and their needs. The whole question of their *personel* and *materiel* is discussed in the very freest and fullest manner, of course in proper language; but there is no limit to the freeness of scope they are allowed. Their *personel*, their guns, their horses, their powder, their projectiles, are freely dealt with by generals and colonels, as well as by subalterns.

The Engineers have their own special paper, and in it are to be found papers dealing in the freest way with their organisation and work.

At the United Service Institution an officer may read a paper dealing openly with the food, the clothing, the housing, the arming, the drill, and the organisation of the services. Lord Northbrook, speaking there as the official First Lord of the Admiralty, said the authorities were willing that officers should freely discuss all such questions, provided it were done in suitable language. This is a statesmanlike answer, for without such fair discussion progress cannot possibly come. We, a true body of specialists, have really no opening given us for any such papers. You can hardly grant us space; the *Lancet* replies in the same manner.

Why should we not help ourselves? The country gives to the Royal Artillery a paid officer to edit their journal. The country grants the Royal Engineers a like concession. Probably, we also could receive a grant in aid from the State.

The field open to us is very wide. No body of medical men see so much of the world as we do. All medicine, all surgery, are open to us; but, in addition, hygiene is forced upon us in a most marked way. Hospital-organisation, the whole question of nursing, field-routine, are all ours; yet to-day I do not know where to turn to get a paper before the world. We remain silent, although no man can speak to any army medical men without seeing how many good ideas are floating about unfixed in any printed form.

You would not, I am sure, oppose such a journal. It is entirely to your interest to let us have a free scope for our ideas, and it is entirely the interest of the State to permit the same freedom. It is always painful to have to tell foreign medical men that we alone in Europe remain silent on our own especial work. We want, above all things, decentralisation of thought, and fair just scope for the ventilation of new ideas. Some pessimists say we should be perpetually filling the paper with grievances about dress, and pay, and rank. I do not think so at all, although I fully recognise that grievances must find their way to the surface, and must be remedied to secure any real efficiency. But, far beyond these really wretched questions, lies an enormous field for discussion and ventilation of ideas. Even from the private soldier of the Medical Staff Corps can come ideas of real value in the pursuit of efficiency. What we need is a special store-house for such ideas, and a special record of work doing and done.

A monthly journal would, doubtless, suffice. An editor in London would be needed; and the body of army and navy and volunteer medical men, and Red Cross workers, would form the constituency.

Your opinion on this point, either for or against, would be of much value; and I feel you can only say God-speed to such an idea.—I am, etc.,

GEORGE J. H. EVATT, M.D.,

Woolwich.

Surgeon-Major, Medical Staff.

EXAMINATION OF SURGEONS-MAJOR FOR PROMOTION.

A good deal of what appears to us unnecessary anxiety is caused to surgeons-major who have undergone examination for promotion, by being kept in ignorance of the result. It is difficult to see any good reason for this practice. The Civil Service Commissioners invariably acquaint the candidates who appear before their examiners with the result of the examination. We are sure the Director-General is not aware of the useless anxiety and vexation this reticence on the part of his office causes to those who have presented themselves for examinations, and we are sure Dr. Crawford, on being informed that the case is such as we have represented it, will issue instructions to have this grievance, for such it is, removed.

THE INDIAN MEDICAL SERVICE.

Sir,—I trust you will be good enough to allow me space in your columns to invite attention to what I venture to consider an act of injustice on the part of Government towards the officers of the Indian Medical Service.

On February 6th, 1885, an India army circular was published, granting revised rates of pay for the officers of the Indian Medical Service, in the following terms.

"Under instructions from His Majesty's Government, the Governor General in Council is pleased to notify that in future an officer of the Indian Medical Service, when holding no specific appointment, will be allowed the rates of pay drawn by officers of the Army Medical Department.

"When holding any appointment, permanent or acting, he will draw either the consolidated pay fixed for that appointment, or unemployed pay (to be designated in future "grade pay") with full or half staff salary or charge-allowance under existing rules, provided that the total be not less than the grade-pay laid down in Article 301, *Army Regulations, India*, vol. i, Part I."

This order came as a welcome, although not unreasonable, concession, removing, as it did, the grievance of unemployed pay, and placing officers of the service who had entered since November 7th, 1865, on the same footing as their brethren, whose commissions bore a prior date. At the same time it abolished a ground of invidious comparison with the sister department.

The dream has, however, been a short lived one, at least as regards a large portion of the members of the service. On May 20th, 1885, another army circular was issued, effecting a so-called "correction," and substituting the words "a surgeon," for the words "an officer," in the former document.

Thus, at one fell swoop, all those medical officers who had served the Indian Government for upwards of 12 years, were deprived of advantages which, for three months and a half, they were led to believe had been secured to them.

Up to the present I have understood that to any benefits conferred by warrants or other competent authority issued subsequent to their entering the service, and that orders cancelling such benefits affected only those who obtained commissions after their publication.

With the above precedent, this security is done away with. The limit of so-called corrections may become as vague as the Afghan frontier.

A few weeks ago the Under Secretary of State for India informed the House that the Government of India had been referred to for a statement of future possible financial retrenchments. Can this be the result of the reference? Under the cloak of correction, are the shears being applied to a defenceless department?

—Yours etc.,

India.

SURGEON-MAJOR.

* * After some consideration, we have given space to this letter. There is a *prima facie* aspect of injustice on the part of the Government of India in this matter. We have always insisted strongly against the system of doing and undoing, of giving with the right hand and taking away with the left, from which medical officers at home and in India have suffered so much. We are clearly of opinion that governments, in the long run, lose more than they gain by playing fast and loose with their servants in matters touching their pay and allowances.

NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty during the past week:—T. H. KNOTT, Fleet-Surgeon, to the *Hecla*; G. A. CAMPBELL, Fleet-Surgeon, to the *Malabar*; CHARLES AITKEN, Surgeon and Agent at St. Mawes and St. Anthony; J. S. DOBBYNS, M.D., Fleet-Surgeon, to the *Rupert*; GEORGE CURTIS, Fleet-Surgeon, to the *Devastation*; M. O'C. SWINER, Surgeon, to the *Rupert*; W. G. JACK, Surgeon, to the *Devastation*.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON HECTOR FERGUSON has accepted retired pay, with the rank of Deputy Surgeon-General. He entered the service July 30th, 1855; became Surgeon, January 18th, 1869; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, May 21st, 1881. He was in the Egyptian war of 1882, and has the medal and bronze star for that campaign.

Dr. H. MACARTNEY, C.M.G., English Secretary to the Chinese Legation in London, who has just been appointed a Knight Commander of St. Michael and St. George, served with the 99th Foot through the Chinese campaign of 1860, and also took part in the operations against the Taipings in the following year. He left the service in 1862, to join that of the Chinese Government.

Surgeon-Major J. H. C. WHIPPLE, M.D., Grenadier Guards, who was recently transferred from the Coldstreams, has now gone on as Assistant-Surgeon of the rank of Brigade-Surgeon. Dr. Whipple's commission as Assistant-Surgeon dates from September 30th, 1864, and he became Surgeon, March 1st, 1873. He served with the 2nd Battalion of the Coldstreams in the Egyptian campaign in 1882, and was present in the actions at Sel-el-Mahuta, and Tel-el-Kebir. He has the medal and clasp, and Egyptian bronze star.

Surgeon-Major A. F. PEARSON, M.B., who is serving in the Bombay Presidency, has leave of absence to Poona, till October 2nd, on private affairs.

Surgeon-Major W. J. WILSON, late in command of No. 1 Bearer-Company Suakin Expeditionary Force, has been appointed to the medical charge of the Station Hospital at Portsmouth.

INDIAN MEDICAL SERVICE.

SURGEON C. G. W. LODELL, Bombay Establishment, is appointed to the medical charge of the 20th Native Infantry at Thull Chotiali, in the place of Surgeon-Major De Tatham, who has been transferred to the Civil Department.

Surgeon D. PRAIN, Bengal Establishment, has passed the examination for the lower standard in Hindustani.

Surgeon-Major J. BENNETT, M.D., Bengal Establishment, Civil Surgeon of Rawul Pindee, is appointed Medical Officer to the Maharajah of Putiala, in succession to Surgeon-Major A. Sken, M.B., deceased.

Surgeon-Major H. HYDE, Madras Establishment, Civil Surgeon of Tinnevely, is appointed to act as Civil Surgeon of Trichinopoly, during the absence of Surgeon-Major Nanney, or till further orders.

Surgeon T. J. H. WILKINS, Madras Establishment, is directed to act as Civil Surgeon and Superintendent of the gaol at Bellary, during the absence of Surgeon-Major Archdall, on leave to Europe.

Messrs. F. J. DRURY, H. J. DYSON, F. A. ROGERS, and E. R. W. C. CARROLL, have been admitted to the Indian Medical Service.

The services of Surgeon S. LITTLE, M.D., Bengal Establishment, Medical Officer of the Punjab Northern State Railway, are placed at the disposal of the Government of Bengal.

The services of Surgeon D. St. J. D. GRANT, Bengal Establishment, which were placed at the disposal of the Chief Commissioner of Assam for employment with the North-Eastern Frontier Service Party during the cold season of 1884-85, are replaced at the disposal of the Military Department.

The undermentioned have been granted leave of absence for the periods specified: Surgeon-Major J. KELLY, M.D., Bengal Establishment, Medical Officer to the 15th Native Infantry, in extension for six months on medical certificate; Surgeon-Major J. SCULLY, Bengal Establishment, Officiating Assay Master, Calcutta Mint, for 182 days, on medical certificate; Surgeon T. MOLONEY, M.D., Bengal Establishment, Medical Officer to the 3rd Sikh Infantry, for one year, on medical certificate; Surgeon A. M. CROFTS, Bengal Establishment, for four months on private affairs; Surgeon-Major R. C. CHANDRA, Bengal Establishment, Professor of Materia Medica and Clinical Medicine at the Medical College at Calcutta, and Medical Inspector of Emigrants, for one year, on medical certificate; Surgeon D. W. D. COMBES, Bengal Establishment, Civil Surgeon of Jessore, for six months in extension of his present furlough; Surgeon A. G. E. NEWLAND, Madras Establishment, till October 15th, to Madras, on private affairs.

Surgeon-Major J. G. FRENCH, M.D., F.R.C.S. Lond., died at Ballygar, Galway, on the 28th ultimo, in his forty-seventh year. He entered the service on October 1st, 1860, and attained the rank of Surgeon, October 1st, 1872, and of Surgeon-Major, July 1st, 1873. Dr. French served with the Bhootan Expedition in 1864-65, and was engaged at the recapture of Dewangiri (medal with clasp).

Surgeon T. W. BEALE died at Morar, in Bengal, on June 17th last, at the age of 28. He entered the service on March 6th, 1880, and has been serving in Bengal during the last four years.

Surgeon-Major William MACRAE, M.B., Madras Establishment, died at Yercand, in the Shevaroy Hills, on the 11th ultimo, aged 44. He entered the service April 1st, 1867, and became Surgeon-Major twelve years thereafter. Mr. Macrae was Secretary and Statistical Officer to the Surgeon-General, Madras, to which he was appointed December 1st, 1884. He had no war record.

Surgeon-Major E. M. ROSS, Madras Establishment, died at Secunderabad on June 2nd last, in the 49th year of his age. He ranked as Assistant-Surgeon from February 10th, 1859, and as Surgeon-Major from February 10th, 1871. He was without war experience.

Surgeon-Major J. P. NASH, M.D., Madras Establishment, died at his residence, 41, Portsdown Road, Maida Vale, on August 17th, aged 56. Dr. Nash entered the service June 20th, 1854, and attained the rank of Surgeon-Major, June 20th, 1866. He retired on January 31st, 1878.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Deputy Surgeon-General G. L. Hinde	Suakin	—
Brigade-Surgeon H. Ferguson	Colchester	—
" J. Warren	Suakin	—
" W. Tanner	Suakin	Dover.
" A. Allan, M.D.	Suakin	Portsmouth.
Surgeon-Major G. C. Gribbon	Suakin	Egypt.
" J. B. Hamilton, M.D.	Suakin	Dublin.
" S. E. Maunsell	Bengal	Woolwich.
" C. H. Y. Godwin	—	Netley.
" W. J. Wilson, M.D.	Suakin	Portsmouth.
" F. Ferguson, M.D.	Egypt	—
" J. A. Shaw, M.D.	Suakin	—
" J. Fleming, M.D.	Suakin	—
" G. J. H. Evatt, M.D.	Suakin	Woolwich.
" A. W. Bate, M.D.	Suakin	Dublin.
" T. W. Patterson	Suakin	Aldershot.
" W. F. Burnett	Egypt	Dover.
" E. F. Boulton	Suakin	—
" T. J. P. Holmes, M.B.	—	Devonport.
" T. Kingston, M.D.	Suakin	—
" J. J. Crean	Suakin	—
" J. A. M'Cracken, M.D.	Egypt	Dublin.
" W. J. Fawcett, M.B.	Suakin	—
" A. H. Anthonisz, M.B.	Suakin	—
" P. R. Gabbett	Egypt	—
" R. W. O'Donnell	Egypt	Curragh.
" W. B. Slaughter	Bombay	—
" J. H. C. Whipple, M.D.	Coldstream Guards	Grenadier Guards
Surgeon J. Prendergast	Netley	Dublin.
" W. S. Pratt, M.B.	Egypt	—
" R. Smith, M.B.	Suakin	Colchester.
" J. Hoysted	Suakin	Colchester.
" P. A. Hayes	Suakin	—
" P. B. Tuthill, M.D.	Egypt	—
" U. J. Bourke	Suakin	—

	From	To
Surgeon J. L. Peyton, M.B.	Suakin	Camp Diggle
" W. W. Kenny, M.B.	Suakin	Mullingar.
" W. Keays	Suakin	Dublin.
" J. I. Routh	Suakin	Canterbury.
" H. L. Donovan, M.D.	Suakin	Netley.
" A. A. Lyle	Dover	Singapore.
" W. P. Feltham	Barbadoes.	—
" K. S. Wallis	Egypt	—
" M. D. O'Connell	Cork	Templemore.
" J. J. Falvey	Egypt	—
" A. Peterkin, M.B.	C. of Good Hope	Netley.
" W. S. Lecky, M.B.	Egypt	Devonport.
" J. R. Dodd, M.B.	Hong Kong	—
" A. P. Hart, M.B.	Penang	—
" H. J. Barnes	Chatham	Bermuda.
" R. H. S. Sawyer	—	Enniskillen.
" L. W. Swabey	Suakin	—
" R. Haselden	Egypt	—
" W. Rowney, M.D.	Suakin	Egypt.
" A. S. Rose, M.B.	Egypt	Netley.
" J. Osborne	Suakin	—
" J. H. Johnston, M.B.	Suakin	—
" W. G. Birrell, M.B.	Suakin	—
" C. R. Thiele, M.B.	—	Netley.
" F. T. Wilkinson	Bermuda	—
" W. H. P. Lewis	Egypt	—
" F. J. Jencken, M.B.	Egypt	—
" C. E. Faunce	Egypt	—
" M. O'D. Braddell, M.B.	Egypt	—
" R. H. Clement	Egypt	—
" W. C. Beevor	Suakin	York.
" G. B. Russell, M.B.	Suakin	Egypt.
" N. Manders	Suakin	Chatham.
" L. R. Colledge	Suakin	Barbadoes.
" S. F. Freyer, M.D.	Suakin	Egypt.
" C. Birt	Suakin	York.
" C. J. Holmes, M.D.	Suakin	—
" J. Maher	Suakin	Netley.
" W. Turner	—	—
" S. Hickson, M.B.	—	Dublin.
" H. J. Fletcher, M.B.	—	Sheffield.
" S. H. Lindeman	—	Shorncliffe.
" E. Davis	—	Canterbury.
" S. Powell, M.B.	—	York.
" F. W. C. Jones, M.B.	—	Preston.
" J. Meek, M.D.	—	Dublin.
" A. E. Morris, M.D.	—	Portsmouth.
" E. Cornack, M.B.	—	Dublin.
" C. O'Donel, M.D.	—	Portsmouth.
" W. A. Carte, M.B.	—	Coldstream Gds.
" A. O. Fitzgerald	—	Dublin.
" F. D. Elderton	—	Dublin.
" E. N. Sheldrake	—	Woolwich.
" R. E. Molesworth	—	Devonport.
" J. W. F. Long	—	Dublin.
" C. L. Josling	—	Dover.
" J. F. Bateson, M.B.	—	York.
" W. T. Swan, M.B.	—	Woolwich.
" J. Bulfin, M.B.	—	Portsmouth.
" R. L. R. Macleod, M.B.	—	Edinburgh.
" J. H. Curtis	—	Dublin.
" G. G. Adams	—	Devonport.
" J. M. F. Shine, M.D.	—	Dublin.
" W. B. Day, M.B.	—	Dublin.
" D. R. Hamilton, M.B.	—	Edinburgh.
" R. G. Thompson, M.D.	—	Dublin.
" C. T. Blackwell	—	Dublin.
" R. I. Power	—	Dublin.
" C. R. Kilkelly, M.B.	—	Dublin.
" W. H. Bean	—	Colchester.
" N. C. Ferguson, M.B.	—	Dublin.
" S. R. Wills	—	Colchester.
" M. L. Hearn	—	Dublin.
" S. L. Deeble	—	Portsmouth.
" R. H. Hall, M.D.	—	Aldershot.
" W. H. Bennett, M.B.	—	Aldershot.
" J. H. Greenaway	—	Aldershot.
" R. G. Hanley, M.B.	—	Aldershot.
" W. H. Bell	—	Aldershot.
" G. Cree	—	Aldershot.
" S. C. Philson	—	Aldershot.
" J. M. Nicolls, M.B.	—	Aldershot.
" F. W. H. D. Harris	—	Aldershot.
Quartermaster G. W. M. Johnston	Suakin	Chatham.
" T. Thompson	Suakin	Aldershot.
" C. Johnson	Suakin	Shorncliffe.
" W. M'Kay	Suakin	Curragh Dist.
" F. Tighe	Suakin	Southern Dist.
" J. Horn	Suakin	—
" G. Towers	—	N.B. District.
" T. Connor	Suakin	Egypt.
" S. Warren	Southern District	Western District

COMMA-BACILLUS IN OLD CHEESE.—Dr. Dencke, assistant in the Groningen Hygienic Institute, is said by the Dutch papers to have discovered the comma-bacillus in an old cheese, and to have proved by cultivation that it is identical with Koch's comma-bacillus, but that its effect upon the body of an animal inoculated by it is less powerful than Koch's.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETHICS OF CLUBS.

SIR,—A. and B. are two personal friends, practising in the same town. An outlying parochial appointment becomes vacant; B. applies for and gets it. B., thereupon, starts dispensaries in the different villages; in one of these, A. has a club of sixty members, which he has held for six years. Some of the members of this club, for convenience sake (for they expressly state, not for want of confidence in A.), write to B., asking him if they dislodge A. as their medical attendant, to take the appointment. This, be it understood, before they have given A. any intimation of their intention to make any change. What ought B.'s answer to be to the club-members? An answer to this will oblige.—Yours truly,

A. D. C.

* The right of the members of a "club" to change or discard their medical officer is unquestionable; but, like other rights, it is limited by the legitimate claims of others; and, *a priori*, a club medical officer is justly entitled to expect that he shall not, without good cause, and without reasonable courtesy and explanation, be superseded, which principle should, in our opinion, govern the case in question. We would therefore counsel "B." not to accept the proffered appointment, unless, indeed, he be desirous of severing (which would doubtless follow) the "two personal friends practising in the same town," and whose present mutual good relations should be regarded as far more valuable than the petty addition likely to accrue to his income from the pittance generally doled out by the members of clubs to their "doctor."

RESPONSIBILITY IN RESPECT OF CLUB-PATIENTS.

SIR,—Would you favour me with an opinion, through the medium of the BRITISH MEDICAL JOURNAL, respecting the questions herewith enclosed?

1. A farm-labourer, member of a sick-club, while at plough, sustains a fracture from the kick of one of his master's horses. Is the employer liable for the cost of medical attendance, or is he able to avoid it owing to the man being in a club?

2. Another club-member is asked by a gentleman to hold his horse. The horse suddenly starts, and knocks the man down; a fracture is the result. Is the gentleman liable for the expense of medical attendance?

3. Another club-member is mowing, and, while sharpening his scythe, cuts himself severely, requiring prompt medical attendance. Is the employer responsible for the attendance?—Yours faithfully,

ÆQUITAS.

* There is nothing in any of the above cases that would make the employer legally responsible for the expense of medical attendance, if obtained by or at the direction of the injured persons. If, however, medical assistance were called in by the employer, or with his authority, he could be held liable for the cost.

AN ETHICAL QUESTION.

SIR,—Kindly inform me, in the next issue of the JOURNAL, whether a medical man practising homœopathy should call on those medical men in the neighbourhood who practise homœopathy, they being duly qualified, and oblige—Truly yours,

JUVENIS, B.M.A.

* It is not necessary to call, as a medical man, on the practitioners of homœopathy.

CLUB RULES.

SIR,—I beg to request information, through the columns of your JOURNAL, as to what steps I should take to redress a grievance of mine which would be acknowledged, on all hands, as deserving the sympathy of the profession. A "Friend in Need Benefit Society," in order to secure the monopoly of practice for an unqualified medical man in the district in which I have commenced practice, have passed a rule, "the notice (of illness) must be signed by a medical practitioner having official connection with some colliery in the district." Now, it so happens that this unqualified man has official connection with collieries, and I have not. There are more than 700 members of this society, and a large proportion of them come under my treatment. Since the operation of this rule in June last, my patients have been denied the benefits of the club, and I have suffered a pecuniary loss, as they are compelled to go to the unqualified man. I need hardly state that, notwithstanding several protests, this rule is carried out under the screw of the thumb. The workmen are not willing to move in the matter, as they are afraid of losing work. The Registrar of Friendly Societies, who endorses this rule, informs me that he has no power to interfere. Under the circumstances I am compelled to request, through your JOURNAL, to know what steps I should take to remove this unwarrantable bar to my practice as a registered medical man.—Yours obediently,

A MEMBER.

CONTRACTS WITH PATIENTS.

SIR,—I should feel obliged if any of your readers would inform me, if it is at all an usual thing in London to accept a fixed annual sum for medical attendance on a family; and if so, what should be the charge to a family consisting of husband and wife, two young children, and four servants. Rent of house, £80 a year, and a very short distance from that of medical man in London, with of course possible confinements, and severe accidents, as fractures, etc., not to be included.—Yours truly,

MEM. BRIT. MED. ASSOC.

B. v. A.—The agreement seems similar to many on which actions have been brought successfully. On the facts, as stated, we see no reason to prevent your suing for damages and an injunction. The case is, however, one for a legal opinion.

MEDICAL MAGISTRATE.—Mr. James White, Surgeon, has been placed on the Commission of the Peace for the Borough of Wigan.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE COMMISSIONERS IN LUNACY AND DR. THOMAS SAYER.

ONE of the most uncalled for and cruel prosecutions ever instituted, under the Lunacy Laws, on which it has been our lot to comment, came on for hearing before the stipendiary magistrate, at Marylebone, on Thursday, the 14th instant. It would appear that, about the middle of March, 1884, Dr. Sayer, one of the district medical officers of St. Pancras, visited, by order of the relieving officer, one John Carmichael, residing at 3, Euston Square. The result of his visit was to convince him that the man was of unsound mind. Subsequently, the relieving officer brought to Dr. Sayer a printed form of lunacy-certificate, but unwittingly, one that was made out for the St. Pancras Workhouse, instead of one for the district. Dr. Sayer filled in the certificate, accurately describing that he had visited the man at 3, Euston Square, but neglected to draw his pen through the printed line St. Pancras Workhouse. The certificate having been counter-signed by a magistrate, and the insanity being undoubted, Carmichael was sent to an asylum. On his discharge, he applied to the Commissioners in Lunacy for a copy of the certificate directing his removal to an asylum, and, discovering therefrom that Dr. Sayers had omitted to erase the words St. Pancras Workhouse, at once wrote to that gentleman, demanding, under a threat of legal proceedings, compensation for his incarceration in a lunatic asylum. Foiled in that, he instigated the Commissioners in Lunacy to take out a summons against this gentleman, which they did, under the provisions of the 16 and 17 Vic., cap. 96, sec. 13.

The counsel who appeared, said that the only fault the Commissioners had to find with the certificate was, that it was faulty in the two particulars mentioned in the summons, which were that he had described that he had seen the man in St. Pancras Workhouse, whereas had only seen him at 3, Euston Square; and from that they had ordered that a public inquiry should be made into the matter. Mr. Clayton, the solicitor for the defence, said that he was willing at once to admit that a technical omission had been made in the certificate. The wrong form had been supplied, and the words in question should have been struck out.

This defence, the only possible one, was suggested by us, when the summons was first shown us, and our advice sought. Some formal evidence was then given, after which the magistrate said he should adjourn the summons, with the expression of opinion that the defendant did not make the omission wilfully; whereupon the counsel for the prosecution said that the Commissioners did not desire to keep the charge hanging over the defendant's head, and, after what the magistrate had said, he would withdraw the summons, which he accordingly did.

Apart from the cruel absurdity of this procedure, we would like to ask how it happened that a certificate, which contained on the face of it a written and printed statement, that Carmichael had been seen in two places at once, to wit, St. Pancras Workhouse and 3, Euston Square, should have escaped the notice of the Commissioners in Lunacy, or rather of the official of the Commission whose duty it was to look over the certificate, eighteen months ago. Surely, if it were necessary to vindicate the law in such a ridiculous form, it should have been done several months since; as it is, a respectable member of our profession, has been harassed and worried for several days, and exposed to the indignity of being dragged to a police-court, his name branded before the public, and that too at some considerable pecuniary outlay, simply through the fault of some official on the Commission who ought to have discovered the clerical error. Of this we are convinced, Earl Shaftesbury cannot have advised the prosecution.

THE BOARD OF GUARDIANS OF THE Kells UNION AND DR. RINGWOOD.

THE *Irish Times*, of the 3rd and 7th instant, publishes at great length a report of the proceedings of the Board of Guardians of the Kells Union, county Meath. It would appear that, for some time past, the condition of the Kells Workhouse and Fever Hospital has been in a very unsatisfactory condition, not only as regards its unsanitary state, but also from the fact that sickness has prevailed to a very considerable extent. This will be understood when we state that, from the information we have been enabled to obtain, continual complaints have been made by the medical officer, Dr. Ringwood, as to the state of the drains, the full cesspools, etc., of the Workhouse and Fever Hospital.

This statement was fiercely denied, but was, on examination, found to be borne out, and the guardians were compelled to put affairs in better order. That such neglect should eventuate in an outbreak of disease was nothing more than might have been expected; and, accordingly, we find that among the victims are the master's wife, who died of puerperal fever; the matron; the master's mother, who was invalidated by fever from attending to her duty for several weeks, but eventually recovered; the schoolmistress, who succumbed to fever; and nine of the inmates. The children in the girls' school were ill, and all in the boys' school, but two; the predominant form of affection being relapsing fever. This outbreak of fever, and the increased outlay necessary for its repression, appears to have exercised the mind of this board considerably; and, some time ago, a committee was appointed to inquire into the question of expenditure in this union, and to bring up a report thereon. At the meeting of the board on August 2nd, this report was read. It is a very long production, and touches generally upon the question of the increase in out-door and in in-door relief. The former in no way affects the matter under consideration. As regards the increase in in-door relief, a laboured effort is made to show that such increase is due to the extravagance of the medical officer; and, to do this, the committee not only overlooks the great amount of sickness which existed in the establishment, but absolutely denies that any such sickness had taken place. Finally, the report ends with the recommendation, "that Dr. Ringwood be called on to resign his office, seeing that he does not possess the confidence of the guardians." The report having been duly moved and seconded, Mr. Barnes, one of the board, moved, as an amendment, that the report be rejected, alleging, as his reasons, "that there was one part of the report which was contradictory, a second which was misleading, and a third which was absolutely untrue." "He might go further, and object on the ground of irrelevance." "The committee had been appointed to inquire into the increased expenditure of the union, whereas the end of the report degenerated into a personal attack on the medical officer." Mr. Barnes then went through the specific charges against Dr. Ringwood, and showed that they had been most improperly strained against him; that, in fact, he had been made the scapegoat for the sins of omission which the majority of the board had permitted; that sickness (the outcome of obstructiveness and neglect) to a great amount had existed in the Workhouse and the Fever Hospital; and that the additional outlay on in-door relief had been its natural result. He, therefore, objected to the adoption of the report. The amendment was seconded by Mr. Hamilton, who, as a member of the committee, said that he had attended all the meetings, and observed the way in which the inquiry was conducted; and that it appeared to him that, with a few honourable exceptions, the whole aim and object of the committee was to throw all the blame on the medical officer. The Chairman then put the amendment, which was negatived by a majority of ten, eleven voting for and twenty-one against it. This resolution of the majority has been since submitted to the Local Government Board, with what result we shall hereafter record.

COST OF PATIENTS IN THE KELLS UNION.

SIR,—The fact that the average weekly cost of patients in the Kells Union Hospitals, during the period referred to in the JOURNAL of August 8th, exceeded that of most other adjacent unions, is easily understood, when I inform you that at that time there were about one hundred cases of relapsing fever under treatment in the Kells Union Hospitals, while the other unions mentioned were practically free from all fever.—I remain, dear sir, yours faithfully,
JOHN RINGWOOD,
Medical Officer Kells Union, Co. Meath, Ireland.

A FRIEND INDEED.

At a recent meeting of the Camberwell Board of Guardians, the medical and relieving officers applied for extra remuneration in consequence of the very large addition to their duties from an epidemic of small-pox which had prevailed in the parish, 750 cases having passed under observation. On the motion of the Reverend A. Drew, it was proposed "that a grant of similar amount to that given to the medical officers and relieving officers in 1881 be now made for extra services during the late small-pox epidemic."

This having been duly seconded, Dr. Serjeant, a medical guardian, "denied that there had been any epidemic of small-pox during the last fourteen months. As a private practitioner, he had had half a dozen cases during that period, and he did not consider that that was an abnormal state of things. If the guardians established this as a precedent, they would have the officers making similar applications if a few cases of scarlet fever occurred."

After this singular appeal, it is not to be wondered at that the motion was negatived. We are pleased, however, to observe that Mr. Massey has given notice of his intention to move to rescind the

resolution of the Board at their next meeting, in which motion we trust he may prove successful.

THE HEALTH OF SINGAPORE.

IN the medical report for the Colony of Singapore for 1884, issued by Dr. Rowell, the principal civil medical officer, we observe the statement that the only cases of cholera, or choleraic diarrhoea, referred to, took place in the Rochore district during December, and immediately followed the unusually heavy rain-fall which took place on the 8th of that month. Those seized occupied huts situated on the edge of the Kallany river, the water from which had been used for drinking purposes. Strict orders were issued forbidding the inhabitants to drink from this source, and town water was supplied to them. This measure had the effect of arresting the disease at once. He remarks that it is a fact beyond dispute, that the cases of cholera which occur in the town do so, almost always in a locality where town water has been found impossible or difficult to be procured. He points out how necessary it is that the municipality should exert themselves to procure a supply of good water. In the diseases grouped as constitutional, beri-beri takes a prominent position; for, out of 3776 patients admitted for various constitutional diseases and 560 deaths, there were 666 cases of beri-beri with 219 deaths.

POLLUTION OF THE MOSELE BROOK, TOTTENHAM.

SIR,—May I ask the assistance of the JOURNAL, to get a very dangerous nuisance abolished. It is caused by the pollution of the Mosele brook by sewage matter. This brook runs through Hornsey and Tottenham, and bounds on two sides the Noel Park Estate of the Artisans, Labourers, and General Dwellings Company. The Tottenham sanitary authorities are quite apathetic in the matter. The Local Government Board, to whom I have repeatedly applied, merely advise Tottenham; and the Artisans, Labourers, and General Dwellings Company disclaim all responsibility in the matter, though their managing director, in a letter to me, describes the state of the brook as "a public danger and a scandal." I have pointed out to them that, by advertising as sanitary dwellings which they know are situated on the bank of an open sewer, they render themselves morally responsible for every death on their estate caused by that sewer, yet they still continue the deception every day, and maintain that they are in no way answerable.

During the late hot weather the stench has been so intolerable that, in crowded dwellings, doors and windows have been necessarily kept closed. Typhoid fever, diphtheria, choleraic diarrhoea, and other forms of sewage-poisoning are continually occurring, and the vicinity of the brook would prove a very suitable hot-bed for cholera. Little children play in the bed of the stream, and even drink the water.

I feel sure that the only effectual way of dealing with the matter is to convert the entire length of the brook in the inhabited districts through which it runs, but Tottenham Local Board and the Artisans, Labourers, and General Dwellings Company, are merely discussing the advisability of inverting it (that is, cementing the bed of the stream), and tracing the sources of pollution.—I am, etc.,

VERE G. WEBB, L.K.Q.C.P.I.,
Member British Medical Association.

THE HEALTH OF HASTINGS.

SIR,—When I held the office of medical officer of health to this borough, it was an easy matter for me to reply to numerous leading members of our profession, who wished information as to the sanitary condition of some particular localities, and also the absence or otherwise of infectious diseases here. Now things are changed, our authorities having appointed, on my resignation, one who professes to practise what is called homeopathy (whatever that may be), and who is consequently unapproachable by letter or otherwise. Being unable myself to give reliable information, will you kindly insert this letter in your next issue, with the intimation that anything relating to local sanitary matters will be at once readily answered by our town-clerk, or by the sanitary inspector, and oblige, your obedient servant,
CHARLES ASHENDEN, M.R.C.S.

Hastings.

HEALTH OF ENGLISH TOWNS.

DURING the week ending the 1st instant, 5,567 births and 3,602 deaths were registered in the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 3,966,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 19.5 in each of the two preceding weeks, rose to 21.1. The rates in the several towns, ranged in order from the lowest, were as follow: Plymouth, 11.7; Oldham, 13.2; Wolverhampton, 13.2; Brighton, 15.0; Bradford, 15.6; Hull, 16.2; Norwich, 17.2; Birmingham, 17.6; Bolton, 18.0; Derby, 18.0; Portsmouth, 18.6; Bristol, 18.9; Huddersfield, 19.1; Sunderland, 19.2; Sheffield, 19.5; Birkenhead, 20.2; Halifax, 20.9; Cardiff, 21.0; Liverpool, 21.4; London, 22.4; Salford, 22.5; Blackburn, 22.7; Leeds, 23.5; Preston, 24.4; Newcastle-upon-Tyne, 25.2; Manchester, 25.7; and Leicester, 30.3. In the 27 provincial towns, the death-rate averaged 20.0 per 1,000, and was 2.4 below the rate recorded in London. The 3,602 deaths registered during the week in the 28 towns included 547 which resulted from diarrhoeal diseases, 132 from measles, 95 from whooping-cough, 47 from scarlet fever, 32 from diphtheria, 32 from "fever" (principally enteric), and 10 from small-pox; in all, 895 deaths were referred to these principal zymotic diseases, against 684 and 735 in the two preceding weeks. The zymotic death-rate was equal to 5.2 per 1,000. The zymotic rate in London was equal to 6.7, of which 4.4 was due to diarrhoea; while in the 27 provincial towns it did not exceed 4.0 per 1,000 (of which 2.2 was due to diarrhoea), and ranged from 0.0 in Halifax and Hull, to 6.3 in Leeds, 7.4 in Salford, and 12.3 in Leicester. The deaths referred to diarrhoea, which had steadily increased from 31 to 409 in the eight preceding weeks, further rose to 547, but were considerably below those recorded in the corresponding period of last year; this disease caused the highest death-rates in Sunderland, Salford, Leeds, and Leicester. The fatal cases of measles, which had been 143 and 125 in the two

previous weeks, were 132, and caused the highest proportional fatality in Newcastle-upon-Tyne, Manchester, and Salford. The 95 deaths from whooping cough, showed a further decline from recent weekly numbers, and were most prevalent in Blackburn, Preston, and Birkenhead. The fatal cases of scarlet fever, which had increased from 29 to 37 in the four preceding weeks, further rose to 47, and caused the highest death-rates in Sunderland, Preston, and Leicester. The 32 deaths from diphtheria also showed a further increase upon recent weekly numbers, and included 23 in London, and two in Liverpool. The 32 fatal cases of "fever" exceeded by seven the number in the previous week; this disease showed the greatest proportional prevalence in Birkenhead. The 10 deaths from small-pox were all recorded in London, they were exclusive, however, of six deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside Registration London). The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the eight preceding weeks from 1,389 to 648, further fell to 614, a lower number than in any week since the beginning of November last; the admissions, which had been 101 and 118 in the two previous weeks, declined to 69. The death-rate from diseases of the respiratory organs in London was equal to 2.2 per 1,000, and was below the average. The causes of 86, or 2.4 per cent., of the 3,602 deaths registered during the week in these 28 towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 762 births and 430 deaths were registered during the week ending the 1st instant. The annual rate of mortality, which had been 18.1 and 19.7 per 1,000 in the two preceding weeks, declined to 17.6, and was 3.5 per 1,000 below the average rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 8.7 in Aberdeen, 13.3 in Perth, 14.1 in Greenock, 14.9 in Edinburgh, 15.0 in Paisley, 16.0 in Leith, 20.4 in Dundee, and 21.3 in Glasgow. The 430 deaths registered during the week in these towns included 43 which were referred to diarrhoea, seven to whooping-cough, five to scarlet fever, three to measles, three to diphtheria, three to "fever", and not one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 54 and 69 in the two preceding weeks. These 64 deaths were equal to an annual rate of 2.6 per 1,000, which was but one half the average zymotic rate for the same period in the large English towns. The highest zymotic death-rates in the Scotch towns were recorded in Greenock, Perth, and Glasgow. The deaths from diarrhoea, which had steadily increased in the five preceding weeks from 6 to 29, further rose to 43, and corresponded with the number returned in the corresponding week of last year; 22 occurred in Glasgow, eight in Edinburgh, and five in Dundee. The fatal cases of whooping-cough, which had been 22 and 17 in the two previous weeks, further declined to seven, and included five in Glasgow. The three deaths referred to "fever" were five less than the number in the previous week, and included two in Edinburgh. The five cases of scarlet fever showed a slight increase; three occurred in Glasgow. Of the three deaths from diphtheria, two were returned in Glasgow, and one in Greenock. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.3 per 1,000, against 2.2 in London. As many as 48, or 11.2 per cent., of the 430 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending August 1st, the number of deaths registered in the 16 principal town-districts of Ireland was 364. The average annual death-rate represented by these deaths was 23.0 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Arranagh, 20.7; Belfast, 26.6; Cork, 14.9; Drogheda, 21.1; Dublin, 23.6; Dundalk, 30.6; Galway, 16.8; Kilkenny, 8.5; Limerick, 33.7; Lisburn, 14.5; Londonderry, 26.7; Lurgan, 15.4; Newry, 3.5; Sligo, 14.4; Waterford, 4.6; Wexford, 4.3. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 2.5 per 1,000, the rates varying from 0.0 in Cork, Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, and Sligo, to 10.3 in Lurgan; the three deaths from all causes registered in the last-named district comprising two from diarrhoea. In the Dublin registration-district the deaths registered during the week amounted to 168. Nineteen deaths from zymotic diseases were registered; they comprised three from measles, four from scarlet fever (scarlatina), two from whooping-cough, two from cerebro-spinal fever, two from enteric fever, two from diarrhoea, two from erysipelas, etc. Eighteen deaths from diseases of the respiratory system were registered; they comprised 13 from bronchitis, and four from pneumonia or inflammation of the lungs. The deaths of 21 children (including 15 infants under one year old) were ascribed to convulsions. Twelve deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and six by diseases of the circulatory system. Phthisis or pulmonary consumption caused 30 deaths, mesenteric disease five, and cancer three. Three accidental deaths were registered. In 30 instances, there was "no medical attendant" during the last illness.

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending July 4th, that the annual death-rate recently averaged 29.9 per 1,000 in the three principal Indian cities; it was 25.2 in Calcutta, 26.9 in Bombay, and 35.8 in Madras. Cholera caused 27 deaths in Calcutta and 10 in Bombay, both numbers showing a decline from those returned in previous weeks; "fever" caused the largest proportional mortality in Bombay. According to the then most recently received weekly returns, the average annual death-rate per 1,000 persons estimated to be living in twenty of the largest European cities was 24.8, and was no less than 6.8 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 26.9, showing an increase upon the rate in the previous week; the 478 deaths included 10 from typhoid fever, nine from scarlet-fever, and eight from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 22.1, and ranged from 18.4 in Copenhagen to 25.9 in Stockholm; the 55 deaths in Christiania included seven from diphtheria and croup, and four from scarlet-fever, and four deaths from diphtheria and croup occurred in Stockholm. In Paris, the death-rate was equal to 20.7, showing a further decline from the rates in recent weeks; 38 deaths resulted from diphtheria and croup, 26 from measles, and 13 from typhoid fever. The 149 deaths in Brussels included 2 from "fever", and were equal to a rate of 18.1. Two of the 29 deaths in Geneva resulted from typhus, the death-rate being 21.2. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 21.6, the highest rate being 22.4 in the Hague; the

deaths in Amsterdam included three from measles and three from scarlet-fever. The Registrar-General's table includes eight German and Austrian cities in which the death-rate averaged 28.7, and ranged from 22.0 and 23.3 in Hamburg and Dresden, to 30.9 in Buda-Pesth, and 36.0 in Prague. Diphtheria showed the greatest mortality in Hamburg, Dresden, and Berlin; small-pox caused 23 deaths in Vienna. The death-rate was equal to 21.7 in Rome and 20.5 in Venice; small-pox caused four, and typhoid fever two deaths in Venice, and the 135 deaths in Rome included four from measles and two from diphtheria. In four of the largest American cities, the mean recorded death-rate did not exceed 20.7, and the rates ranged from 16.7 in Baltimore to 23.9 in New York. Diphtheria and scarlet-fever showed more or less fatal prevalence in each of these four American cities.

It appears, from statistics published in the Registrar-General's return for the week ending the 11th instant, that the annual death-rate recently averaged 28.7 per 1,000 in the three principal Indian cities; it was equal to 22.6 in Calcutta, 27.8 in Bombay, and 31.8 in Madras. Cholera caused 27 deaths in Calcutta, and measles 19 in Bombay; while fever-mortality showed the largest excess in Madras and Bombay. According to the weekly returns, the annual death-rate per 1,000 persons estimated to be living in 20 of the largest European cities averaged 26.0, and was no less than 8.3 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was equal to 26.4, and showed a considerable decline from the rates prevailing in recent weeks; the 461 deaths included 14 from "fever", and 12 from measles. In two other northern cities—Copenhagen and Christiania—the death-rate did not exceed 19.9 and 22.3, respectively; the 55 deaths in Christiania, however, included nine from diphtheria and croup, and three from scarlet fever. In Paris, the death-rate further declined to 19.7; 38 deaths resulted from measles, and 12 from typhoid fever. The 166 deaths in Brussels, of which five were attributed to croup, gave a death-rate of 20.0. In Geneva, the rate did not exceed 16.1, but one of the 22 deaths was referred to typhus. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was so low as 17.7, and but few deaths resulted from zymotic diseases; the highest rate in these towns was 19.2 in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 33.3, and ranged from 24.0 and 25.0 in Hamburg and Dresden, to 34.5 in Buda-Pesth, and 34.9 in Prague. Small-pox caused 35 deaths both in Vienna and in Buda-Pesth; and diphtheria caused excessive mortality in Hamburg and Berlin. The death-rate averaged 26.1 in three of the principal Italian cities, and ranged from 22.0 in Venice to 27.3 in Turin; small-pox caused four deaths both in Rome and Turin; whooping-cough five in Turin; and typhoid fever two in Venice. No returns have recently been received either from Madrid or Lisbon. The 168 deaths in Alexandria were equal to a rate of 37.8, and included eight from whooping-cough, and four from typhoid fever. In four of the largest American cities, the mean recorded death-rate did not exceed 20.5, the several rates ranging from 18.0 in Baltimore to 22.8 in New York. Small-pox caused three deaths in New York, and typhoid fever eight in Philadelphia; diphtheria and scarlet fever showed more or less fatal prevalence in each of these American cities.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LINCOLN.—The annual report of Dr. Harrison for 1884 is very meagre. The death-rate is given as 19.3 per 1,000, and the birth-rate as 35.2 per 1,000. Seven deaths were registered from continued fevers, and 7 from scarlet fever. Measles caused 27 deaths, chiefly in the first quarter of the year. Of 62 deaths from diarrhoea, 51 were in infants under one year of age. Two cases of small-pox were admitted into the City Hospital during the year—one an unvaccinated youth, who had the disease in its most virulent form; the other vaccinated, in whom the disease was very mild. Dr. Harrison very properly calls attention to the necessity for organising a more effectual scavenging of the city before the hot weather sets in.

WATFORD.—The need for the provision of a suitable hospital for infectious diseases is the matter which Dr. Brett most prominently urges upon the sanitary authority in his annual report for 1884. In doing so, he seems to assume a somewhat despairing tone, and adds that he "will not repeat the reasons for such a hospital, but will only point out that this year showed the necessity for one. A place should be provided before an epidemic occurs." As regards the five cases of diphtheria which occurred, school-influence was suspected by Dr. Brett, and he repeats the truism that "managers of schools cannot be too particular in excluding cases of an infectious nature." The water-supply of the town appears to be abundant and of the best quality, if certain faults in its distribution be remedied; but the ventilation and flushing of the sewers seem to need the sanitary authority's further attention. During the year, many courts and yards have been much improved, but with regard to the houses, there would seem to be still much need for improvement, some of them being scarcely fit for human habitation. The general death-rate was 17.8 per 1,000. Zymotic diseases caused 22 deaths (including 14 from diarrhoea), giving a rate of 1.6 per 1,000, as compared with 1.13 in 1883 and 2.08 in 1882.

DR. HENRY TOMKINS, who for some years past has been medical superintendent of the fever hospital attached to the Manchester Royal Infirmary, has been selected, from among thirty-one candidates, as medical officer of health to the borough of Leicester.

THE Ulverston guardians have increased the salary of Mr. Edward Hall, the medical officer of the Dalton District, from £40 to £50 per annum.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Preliminary Scientific (M.B.) Examination, 1885. Pass-list. Entire Examination.

First Division.—G. T. C. Barber, Queen's and Mason Colleges, Birmingham; S. H. Bates, University College; *A. Bousfield, King's College; *C. R. Box, St. Thomas's Hospital; A. N. Boycott, St. Thomas's Hospital; *H. Caiger, University College and Birkbeck Institution; *J. A. Codd, Pembroke House, Lytham, and private study; W. M. Davidson, St. George's Hospital; F. M. Dickinson, Clapham High School, and Bedford College, London; *T. A. Dukes, Epsom College; G. W. S. Farmer, University College; J. H. Green, Owens College; E. G. Hall, University College, Bristol; R. T. Hewlett, King's College; *G. J. Hill, Normal School of Science, and Birkbeck Institution; H. H. Horden, University College; C. McG. Kitching, Guy's Hospital; A. C. Lankester, St. Thomas's Hospital; A. W. W. Lea, Owens College; *R. Leigh, University College, Liverpool; *J. J. Macgregor, St. Bartholomew's Hospital; A. Manknell, Yorkshire College, Leeds; G. C. March, Owens College, and Giggleswick Grammar School; E. P. Paton, St. Bartholomew's Hospital; J. E. Platt, Owens College, and private study; H. J. M. Playfair, King's College; C. H. Powers, University College, and St. Mary's Hospital; H. Ramsden, Owens College; J. S. Richards, Guy's Hospital; J. Robertson, Guy's Hospital; H. S. Sandifer, King's College; A. Sheppard, University College, London, and Mason College, Birmingham; M. L. Sprigg, University College, and private tuition; M. D. Sturge, Mason College, Birmingham; R. E. Williams, Guy's Hospital.

Second Division.—A. Ashton, Owens College; R. C. Bailey, private tuition; A. B. Batley, Yorkshire College, and St. Thomas's Hospital; E. M. T. Berthon, University College, and London School of Medicine for Women; S. V. J. Brock, University College; F. Calder, University College, and Medical School, Bristol; H. A. Caley, University College; D. Cannan, University of Glasgow, and St. Bartholomew's Hospital; *L. V. Cargill, King's College and School; R. H. Carlisle, University College, Liverpool; B. Charles, University College; A. Clark, University College, and Middlesex Hospital; W. A. Clark, St. Bartholomew's Hospital; J. T. Clarke, St. Thomas's Hospital; A. T. Collum, Epsom College; F. S. Colton, University College; V. A. L. E. Corbould, Epsom College; A. Corner, Epsom College; H. Distin, King's College; E. M. Dobinson, Guy's Hospital; P. W. Dove, St. Bartholomew's Hospital, and private study; *E. R. C. Earle, University College; W. McA. Eccles, University College and School; P. C. Evans, University College; E. D. Fitzgerald, St. Bartholomew's Hospital, and private tuition; C. J. Girling, Guy's Hospital; J. G. Gornall, The Leys School, Cambridge; F. Grange, Charing Cross and St. Thomas's Hospitals; J. W. G. Grant, St. Thomas's Hospital; J. Green, Owens College; J. Harvey, University College, Liverpool, and private study; *J. S. Hicks, London Hospital; L. E. Hill, University College, and private study; T. W. Hinds, Cranbrook Grammar School, and University College; J. A. Home, Marlborough College, and St. Bartholomew's Hospital; *E. W. Hore, University College; *W. J. How, University College, and private study; E. V. Hugo, St. Bartholomew's Hospital; *C. I. Kirton, Chatham House, Ramsgate, London Hospital, and private study; H. B. Kitchen, University College; M. A. McC. Knight, University College, and University of Adelaide; H. L. Lack, Belle Vue House, Eaton, and private tuition; F. Lewis, Epsom College, and St. Mary's Hospital; T. Lissaman, University College, and St. Bartholomew's Hospital; A. McLaren, University College, and private tuition; S. F. Mawson, Owens College; C. C. Moxon, Yorkshire College, Leeds; H. A. de B. Nelson, University College; S. Nicklin, Queen's and Mason Colleges, Birmingham; W. Nuttall, Owens College; F. L. Orr, University College; H. B. Osburn, King's College, and St. Thomas's Hospital; C. R. Palmer, University College, Liverpool; G. S. Pasmore, University College; R. S. Pearson, Owens College; E. L. N. Pridmore, University College; G. L. Rolleston, Marlborough and University Colleges; H. Roscoe, Owens College; *G. A. Simmons, University College, and private study and tuition; J. H. Sykes, Huddersfield and Owens Colleges; A. E. Tebb, Guy's Hospital; *B. P. Viret, St. Bartholomew's Hospital, and St. Paul's School; W. B. Warde, St. Bartholomew's Hospital; E. E. Ware, St. Thomas's Hospital, and private tuition; J. A. Waring, University College; G. Watson, Anderson's College, and Royal Infirmary, Glasgow; *S. Williams, University College, Cardiff; A. F. H. Wray, St. Bartholomew's Hospital; J. Young, University College.

Honours Candidates recommended for a Pass.—J. M. Gill, Nonconformist Grammar School, and Guy's Hospital; O. V. Pisan, private study; *T. F. Ricketts, Guy's Hospital, and University College; J. W. Roberts, University College, Liverpool, and private study.

Two Subjects of the Examination.—H. M. Bowman (C., B.), St. Bartholomew's Hospital; J. R. Buckley (C., B.), Owens College, and The Leys, Cambridge; G. Eiam (C., B.), University College, and private study; J. Fawcett (C., B.), Dulwich College; A. E. F. Hughes (C., P.), St. Thomas's Hospital, and King's College; T. H. Ionides (C., P.), University College, and private tuition; E. C. Lomas (C., B.), Owens College; A. W. Lyons (C., B.), King's College; A. E. Madge (C., B.), University College, and St. Bartholomew's Hospital; H. F. Mantell (C., P.), University College; W. Penberthy (C., B.), London Hospital; J. J. Perkins (C., B.), Owens College; A. G. Reid (C., B.), Dalhousie and Edinburgh Universities; W. H. T. Storrs (C., B.), King's College.

One Subject of the Examination.—A. M. Benson (Z.), private tuition; W. J. Best (P.), Cavendish College, and London Hospital; F. G. Bushnell (C.), St. Paul's School, and University College; C. S. De Segundo (B.), St. Bartholomew's Hospital; P. R. Dodwell (Z.), University College; D. Drew (C.), University College, and private study; H. A. Edmonds (Z.), Guy's Hospital; W. C. Ellis (C.), St. Thomas's Hospital, and private study and tuition; G. D. Freer (P.), private study; W. B. Morton (C.), Richmond School, Yorkshire, and University College; E. H. Robinson (P.), Owens College; H. A. Thorne (B.), University College; G. C. Trask (C.), Somerset College, Bath, and private tuition.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

† The subjects taken up by these candidates are indicated by initials after the name—C. = Chemistry; P. = Physics; B. = Biology; Z. = Zoology.

[N.B.—The names of candidates who have obtained Honours do not appear in the foregoing list.]

Examinations for Honours (Intermediate Science and Preliminary Scientific M.B. conjointly). Inorganic Chemistry.

First Class.—R. W. Stewart, *Int. Sc.* (disqualified by age for the Exhibition), University College, Aberystwith; *C. A. Kent, *Prel. Sci.* (Exhibition), Epsom College; *G. E. Blanch, *Prel. Sci.*, Christ Church, Oxford; W. J. Elliott, *Int. Sc.*, High School, Newcastle-under-Lyme.

Second Class.—M. L. Dutta, *Int. Sc.*, University College; A. Thomas, *Prel. Sci.*, University College, Aberystwith; *H. Horrocks, *Prel. Sci.*, Owens College; J. Charles, *Int. Sc.*, Mason College, Birmingham; *W. A. Savage, *Prel. Sci.*, University and King's Colleges; *E. A. Aston, *Prel. Sci.*, Normal School of Science, and Bedford College; *F. H. Edgeworth, *Prel. Sci.*, Caius College, Cambridge; W. K. Hughes, *Prel. Sci.*, St. Bartholomew's Hospital, and Trinity College, Melbourne.

Third Class.—T. L. Pennell, *Prel. Sci.*, University College; A. L. Stern, *Int. Sc.*, Mason College, and King Edward's High School, Birmingham.

Experimental Physics.

First Class.—J. H. Hume-Rothery, *Int. Sc.* ("Neil Arnott" Exhibition and Medal), Owens College, and private study.

Second Class.—R. W. Stewart, *Int. Sc.*, University College, Aberystwith; R. P. Baker, *Int. Sc.*, Balliol College, Oxford.

Third Class.—M. L. Dutta, *Int. Sc.*, University College; G. E. Blanch, *Prel. Sci.*, Christ Church, Oxford.

Botany.

First Class.—W. B. Bottomley, *Prel. Sci.*, St. Mary's Hospital, and University College.

Second Class.—J. Charles, *Int. Sc.*, Mason College, Birmingham; *H. M. Wilson, *Prel. Sci.*, Bedford and University Colleges, and private tuition; *C. A. Kent, *Prel. Sci.*, Epsom College; *F. H. Edgeworth, *Prel. Sci.*, Caius College, Cambridge.

Third Class.—F. W. Hall, *Prel. Sci.*, Guy's Hospital, and University College; S. G. Toller, *Prel. Sci.*, Guy's Hospital.

Zoology.

First Class.—C. R. Stevens, *Prel. Sci.* (Exhibition), University College; *D. Brown, *Prel. Sci.*, University College, and private tuition.

Second Class.—*T. L. Pennell, *Prel. Sci.*, University College; S. B. Mitra, *Prel. Sci.*, University College; *W. A. Savage, *Prel. Sci.*, University and King's Colleges.

Third Class.—G. F. Blacker, *Prel. Sci.*, University College.

** Obtained the number of marks qualifying for the Exhibition.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the July sittings of the joint board, held in Glasgow, the following candidates passed the first examination for the triple qualification.

H. H. Addenbrooke, W. Armour, W. R. Boyle, J. H. Brice, J. Cantley, M. Casey, H. Chadwick, W. G. Dick, C. Doherty, G. H. Douthwaite, M. H. Eames, C. A. Fergus, D. H. Hamilton, H. L. Homer, A. E. Huband, C. B. Humphreys, S. Hunter, L. P. Jackson, J. R. Jones, J. C. Jones, E. R. Kavanagh, W. S. Kidd, J. McCartney, M. McLaughlin, W. Magee, H. B. Maunsell, P. O'Gorman, R. W. Roberts, J. Rogerson, E. Ryan, G. H. Walker, W. Williams, G. T. Woods.

The following students have passed the second professional examinations.

R. Ambler, D. Buchanan, E. Brooks, E. Clarkson, E. H. Corder, J. Gordon, E. Gray, A. H. Hoffman, J. Hoyle, J. O. Jones, J. Kennedy, W. H. Large, W. McGibbon, A. D. McLean, A. J. McLean, J. A. H. Mogg, R. D. Prichard, G. T. Woods.

The following gentlemen passed the final examination for the triple qualification, and were admitted L.R.C.P.Ed., L.R.C.S.Ed., and L.F.P.S.Glasgow.

A. Alexander, Berwick; H. W. Bryant, Edinburgh; E. Clarkson, Darlington; W. W. Clegg, Leeds; J. B. Donaldson, Edinburgh; M. M. Gandevia, India; T. J. G. Garrett, Manchester; W. Macgibbon, Edinburgh; A. R. Oust, Blackheath; H. N. Rademeyer, South Africa; D. Sturrock, Edinburgh; J. T. Winter, Manchester.

The following were admitted L.R.C.P.Ed. and L.F.P.S.Glasgow. G. C. Bezbaroa, Glasgow; R. Kerr, Glasgow.

UNIVERSITY OF GLASGOW.—The following degrees have been conferred in the Faculty of Medicine.

Doctors of Medicine, with the Titles of their Theses.—W. F. Gibb, M.B., Scotland: General Paralysis of the Insane. J. Glaister, M.B., Scotland: An Inquiry into the Necessity for Legislative Reform in Scotland in regard to Uncertified Deaths. E. F. S. Green, M.B., Newfoundland: Report of Two Cases of Cerebral Tumour, with an Inquiry into the Value of the Symptoms as to Diagnosis. J. C. Herberston, M.B., Scotland: Typhoid Fever, with Five Consecutive Cases. *J. Y. Mackay, M.B., Scotland: The Origin and Development of the Larger Arteries. P. Maclean, M.B., Scotland: Cases of Epilepsy, with Remarks. D. Macleod, M.B., Scotland: Alcohol; its Effects. †W. Macvie, M.B., Scotland: Atrophic Infantile Paralysis. J. Parker, M.B., Scotland: The Testicle: its Arrestment in its Migration through the Inguinal Canal: the Diseases it is subject to in that Situation; and the Method suggested for its Restoration to its Natural Situation. (* Highly commended for thesis; † Commended for thesis.)

Bachelors of Medicine and Masters in Surgery.—A. S. Alexander, England; S. P. Alexander, Scotland; J. Allan, Scotland; W. C. Allan, Scotland; S. J. Baird, Ireland; A. M. Bankier, England; G. G. Banerman, Scotland; C. W. Bell, Scotland; H. D. Browne, Wales; H. D. Buchanan, England; J. Buchanan, Scotland; W. Buchanan, Scotland; W. Butchart, M.A., Scotland; J. W. Cameron, Scotland; W. D. Campbell, England; Q.

Chalmers, Scotland; W. W. Christie, Scotland; G. M. Connor, Scotland; C. Court, Scotland; B. S. Cowen, Isle of Man; D. K. Cross, Scotland; D. Currie, Scotland; W. Downie, M.A., Scotland; J. K. Duff, M.A., Singapore; J. Dunlop, M.A., Scotland; H. S. H. Foster, Ireland; J. R. Gibson, Scotland; R. C. Gilroy, Scotland; J. Graham, Scotland; W. L. Gray, England; A. Hamilton, Scotland; H. Hickin, England; J. Hogg, Scotland; W. J. Holme, England; J. Horne, Scotland; J. Hughes, Wales; W. Huntly, M.A., Scotland; D. G. Johnston, Scotland; W. Kirkland, Scotland; J. B. Laing, Scotland; G. Marshall, Scotland; J. Marshall, Scotland; J. G. Marshall, Scotland; A. E. Miller, Wales; R. A. Miller, Scotland; T. Mitchell, Scotland; D. C. Muir, Scotland; W. C. C. Muir, Scotland; J. A. Munro, Scotland; J. I. McArthur, Scotland; J. R. R. McCrindle, Jamaica; J. A. MacDonald, Scotland; A. McKean, Scotland; C. A. Mackenzie, Scotland; J. A. Mackie, England; J. Mackie, Scotland; J. N. Maclean, Scotland; J. A. Macquarie, Scotland; C. Mactaggart, M.A., Scotland; H. J. Neilson, Scotland; J. F. Orr, Scotland; J. Parker, Scotland; W. W. Robertson, Scotland; A. Richmond, Scotland; J. Ritchie, Scotland; J. A. Robertson, M.A., Tasmania; J. A. Robertson, Australia; D. Roxburgh, Scotland; P. N. Roy, India; T. Rutherford, B.A., England; W. Sandeman, England; J. Scanlan, Scotland; W. M. Semple, Scotland; W. Spright, Scotland; J. C. A. Smith, Scotland; G. Spratt, Scotland; D. H. Storer, Scotland; C. D. Temple, Scotland; R. Wallace, Scotland; J. Wands, Scotland; J. Watson, Portugal; W. Watson, Scotland; C. Whish, Scotland; A. Wilson, Scotland; J. C. Wright, Scotland; J. S. Wright, Scotland; R. R. Young, Scotland.

The following gentlemen were named as entitled to High Commendation and to Commendation, on account of distinguished merit at the various examinations for the degrees of M.B. and C.M. *High Commendation*: *A. Wilson, A. S. Alexander, J. R. R. McCrindle. *Commendation*: S. P. Alexander, W. M. Huntly, M.A., W. L. Gray, C. Mactaggart, M.A., B. S. Cowen, J. Dunlop, M.A., J. Scanlan, J. C. Wilson, J. S. Wright. (*Mr. Wilson gained the Brunton Memorial Prize of £10, awarded to the most distinguished medical graduate of the year 1885.)

SOCIETY OF APOTHECARIES OF LONDON.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, August 13th, 1885.

Tebb, William Scott, M.R.C.S., Albert Road, Regent's Park.

On the same day, the following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, namely,

Hill, Alfred William, Adelaide, South Australia.
Pugh, John Williamson, Llanon, Cardiganshire.

MEDICAL VACANCIES.

The following vacancies are announced.

BRISTOL GENERAL HOSPITAL.—Physicians' Assistant. Salary, £50 per annum. Applications by September 9th.

CUTLER BOULTER PROVIDENT DISPENSARY, Oxford.—Dispenser. Salary, £100 per annum. Applications to the Town Clerk, Oxford, by August 25th.

EARLSWOOD ASYLUM FOR IMBILES, Redhill, Surrey.—Assistant Medical Officer. Salary, £150 per annum. Applications to the Secretary, 36, King William Street, London, Bridge, marked Assistant Medical Officer, by August 22nd.

FROME UNION.—Medical Officer and Public Vaccinator. Salary, £77 per annum. Applications by August 24th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by September 2nd.

IRON-WORKS AND COLLIERY DISTRICT, Victoria, near Ebbw Vale, Monmouthshire.—Surgeon. Salary, £550 per annum. Applications to W. Dayson, Secretary, Doctors' Fund Committee, Ebbw Vale, Mon.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Third Assistant Medical Officer. Salary, £120 per annum. Applications by August 25th.

LEEDS FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Surgeon. Salary, £200 per annum. Applications to C. H. Wilson, 9, Elmwood Green, Camp Road, Leeds, by September 1st.

LEEDS GENERAL INFIRMARY.—Honorary Obstetric Physician. Applications to the Treasurer, and marked "private," by September 5th.

LEEDS GENERAL INFIRMARY.—Resident Obstetric Officer. Salary, £100 per annum. Applications to Mr. Blair by September 10th.

MANCHESTER ROYAL INFIRMARY, MONSIEUR FEVER HOSPITAL.—Assistant Medical Officer. Salary, £50 per annum. Applications to the Chairman of the Medical Board.

MASON SCIENCE COLLEGE, Birmingham.—Demonstrator in Physiology. Applications by August 20th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Physician. Applications by August 31st.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications to H. W. Holder.

SHIPSTON ON STOUR UNION.—Medical Officer. Salary, £58 per annum. Applications by August 25th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon and Secretary. Applications to F. Milnes Blumer.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

ST. MARK'S OPHTHALMIC HOSPITAL, Lincoln Place, Dublin.—Resident Surgeon. Salary, 50 guineas per annum. Applications by August 29th.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician. Applications by September 2nd.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications by September 5th.

MEDICAL APPOINTMENTS.

CHEETHAM-STRODE, Reginald, M.B., C.M.Ed., appointed House-Surgeon to the County Hospital, Huntingdon.

GORDON, W. S., B.A., M.B., appointed Resident Medical Officer to the District Lunatic Asylum, Mullingar.

MATTHEY, Arthur, M.R.C.S., L.R.C.P., late Junior House-Surgeon, Royal South Ham Infirmary, appointed House Surgeon to the Croydon General Hospital.

ROPE, H. J., F.R.C.S., appointed Medical Officer to Shrewsbury School, vice E. Andrew, M.D., resigned.

TAIT, Lawson, F.R.C.S., appointed Consulting Surgeon to the Samaritan Hospital for Women, at Nottingham.

WEBB, J. Eustace, M.B., C.M., appointed Junior House-Surgeon to the Western General Dispensary, Marylebone Road.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

STATHERS.—On August 19th, at Stokenchurch, Oxon, the wife of G. Nicholson Stathers, of a son—stillborn.

DEATHS.

McBRIDE.—On July 31st, at his residence, Gifford, Co. Down, Dr. McBride, aged 66 years. Friends will please accept this intimation.

NELL.—On August 18th, at 33, Windsor Terrace, Penarth, Glamorganshire, Emily Selina, wife of R. F. Nell, M.R.C.S., and daughter of D. Williams, Esq., formerly Collector H.M. Customs, Cardiff, aged 35.

WALKER.—At 47, Northumberland Street, Edinburgh, on August 16th, William Walker, F.R.C.S., Surgeon-Oculist to the Queen in Scotland, aged 71. Friends will kindly accept this (the only) intimation.

IDENTIFYING THE DEAD.—The police-authorities are, it is stated, about to take some further steps towards procuring the identification of the many unclaimed bodies which are continually being found in the rivers and canals and in the streets of London and its suburbs. The course adopted hitherto has been to issue a written description of the body and have it posted up outside some of the police-stations, but instead of this, or in addition thereto, it is proposed to photograph each unclaimed body prior to decomposition setting in, and have the likeness circulated, and placed in a frame outside each station. The police of the K division have set the example, and the first photograph of a dead man ever displayed at Bow police-court was recently placed on the black board for identification.

BEQUESTS AND DONATIONS.—The Sussex County Hospital, Brighton, has received £1,000 under the will of Mrs. Willoby.—The Royal Albert Hospital for Idiots and Imbeciles of the Northern Counties, Lancaster, has received £500 under the will of Mr. Joseph Nutter, of Halifax.—Mrs. Elizabeth Douglas, of Elm Bank House, Castlenau, Barnes, has bequeathed £200 each to the Central London Ophthalmic Hospital, the Royal Sea-Bathing Infirmary at Margate, the West London Hospital, and the Hospital for Consumption and Diseases of the Chest, and £100 to the Royal London Orthopaedic Hospital.—The Gateshead Dispensary has received £200 under the will of Mr. John Eden, of Beamish Park.—Mr. George Sturge has given £200, additional, to the Charing Cross Hospital, and £50 to the Surgical Aid Society.—The General Hospital, Birmingham, has received £100 under the will of Mr. John W. Perkins.—The Leicester Infirmary has received £100 from the Committee of the Old Leicester Race Meeting.—Dr. Protheroe Smith has given £100 to the special fund of the Hospital for Women.—The Corporation of the City of Dublin have given £50 to the Public Orthopaedic Hospital.

CUCUINE IN LARYNGEAL TUMOURS.—At a recent meeting of the Russian Medical Society, Dr. N. P. Simanovsky made a communication concerning the favourable results obtained by him by the use of cucaine in laryngoscopic practice. Particularly striking results were met with in the excision of laryngeal tumours. In two out of six of these cases, cucaine was not employed, and in each a period of about two months was requisite to prepare the patient for the operation. In the other four cases where cucaine was employed, the operation was performed on the second visit of the patient to the ambulatorium. Afterwards, Dr. Simanovsky exhibited several instruments used in laryngoscopic practice, amongst others one invented by himself and designed for removing laryngeal tumours.

A CONVALESCENT institution and holiday resort for Jewish children was lately opened at Wijk aan Zee, in Holland.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY ...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 1; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 2; Throat, Th., 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

UBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CASE OF DR. BRADLEY.

SIR,—I have received the following additional subscriptions towards the Bradley Fund.

	£	s.	d.
Mr. Eric Erichsen, 6, Cavendish Place	5	5	0
Dr. Dyson, Sheffield	2	2	0
Dr. William Richardson, Deputy Inspector-General R. N. ..	2	2	0
Mr. C. N. Macnamara, 13, Grosvenor Street, W. ..	2	2	0
Dr. Clifford Alibutt, Leeds	2	2	0
Mr. John Hall, Sheffield	2	2	0
Dr. Van Vestratt, Birmingham	1	1	0
Dr. Martin, Sheffield	1	1	0
Mr. Henry Steare, Saffron Walden	1	0	0
Mr. J. F. Parr, Sheffield	1	1	0
Dr. R. E. Burgess, Kettering	1	1	0
Mr. J. F. Churchill, Chesham	1	1	0
Mr. Matthew Leach, Sheffield	1	1	0
Mr. W. H. Booth, Sheffield	0	10	6
Dr. J. Swain Scriven, Belper	1	1	0
Dr. Robertson Mutch, Nottingham	1	1	0
Dr. Samuel Mitchell, Wadsley, Sheffield	1	1	0
Dr. G. P. Hadley, Birmingham	1	1	0
Dr. Johnston, Tow Law, Darlington	1	1	0
Mr. John Baines, Summer Hill, Birmingham	1	0	0
Dr. W. H. Higgins, Leicester	1	0	0
Mr. Henry Heywood, Dulwich, S.E.	1	0	0
Mr. William Dale James, Sheffield	0	10	6
Dr. Henry Denne, Edgbaston, Birmingham	0	10	0
Mr. W. Maxwell Burman, Wath	0	10	0

Also, would you kindly correct two mistakes in the list which appeared in your issue of August 15th. Dr. Balthazar Foster's subscription should have been £2 2s., and Dr. Francis Mc Laughlin should have been Dr. Thomas Mc Laughlin.—I remain, yours faithfully,
RICHARD JEFFREYS.
Eastwood House, Chesterfield.

AN APPEAL.

SIR,—I inclose a further list of the subscriptions sent in answer to my appeal on behalf of the widow and her two daughters, and am thankful to say that I have already received more than the amount for which I asked, so that no further contributions are required.

As usually happens in genuine cases, the worst was not told until the feelings were unlocked by the arrival of unexpected relief. These poor ladies "have often known what it is to eat dry bread for three days, and not much of that." The piano has been restored, and all immediate necessities provided for; other arrangements will be made on my return to town. I trust that any inaccuracies in the list which may occur in consequence of my being away on holiday, will be excused.—I remain, your obedient servant,
W. H. BROADBENT.

List of additional sums received:

	£	s.	d.		£	s.	d.
C. E. C., M.D.P.	1	0	0	A Friend from Yorkshire ..	1	1	0
Surgeon-Major Roe	1	1	0	J. F. Churchill, Esq.	1	1	0
Dr. Duckwell	2	2	0	S. G. Stoman, Esq.	1	1	0
Mrs. Ritchie	7	0	0	Sir William Gull	3	0	0
Dr. E. Jackson	1	0	0	Dr. Atkinson	0	10	0
J. S. Bartrum, Esq.	2	0	0	R. E. Burges, Esq.	0	10	6
A. E. Cumberbatch, Esq. ..	5	0	0	Sir George Burrows	1	1	0
John Terry, Esq.	2	2	0	F. Le Gros Clark, Esq. ..	2	2	0
Dr. S. Thomson	0	10	0	T. Corbett, Esq.	1	1	0
Mrs. Jelly, Valencia, Spain ..	2	0	0	Dr. Bowles	5	0	0
C. H. O. (Bristol)	2	0	0	A Friend, per Dr. Bowles ..	2	0	0
Dr. Maxwell	1	0	0				

ERRATUM.

IN the list of Doctors of Medicine of the University of Edinburgh published in the JOURNAL of August 15th, in line 7 from the end of the list (page 322, column 1 for "E. H. England," read "E. H. Warner, England."

DR. PHILIP S. FENTON (Bakewell).—A copy of the recent handbill of the Brooklyn Board of Health has been forwarded to you by post. For the publications of the National Health Society, application should be made to the Secretary, at 44, Berners Street, London, W.

HEMOPHYTIS MORE FREQUENT DURING THE NIGHT.

SIR,—Dr. Wilks, in his interesting Address on Medicine, at the Cardiff meeting, enunciates the above axiom. Like everything he says, it is founded on facts.

During the past year or two I have been called to three fatal cases of hæmoptysis, each of which occurred in the night, and during repose, and in one of these a prior and very severe attack of hæmoptysis had likewise taken place in the night, as I can personally verify. In these days of "collective investigation," I think it but right to record these facts.—Yours truly,
Buckingham.

W. L'HEUREUX BLENKARNE.

SIR,—Will you kindly inform me if the medical men of the reign of Queen Elizabeth were any badge to show their calling?—Yours truly,
G. E. P. N.

THE PREVENTION OF CONSUMPTION.

SIR,—My experience, during a practice of over six years in the outer Hebrides, quite corroborates Mr. D. McLeod's rejoinder to Dr. Ross Fraser, with reference to a certain immunity from consumption being enjoyed by the crofter population of the Hebrides. I have indeed found the percentage of consumptives much higher than in any district of the mainland with which I am acquainted. The cause is not far to seek. The Hebridean crofter is usually half crofter and half fisherman, so that, in the prosecution of the latter calling, particularly lobster-fishing, he is exposed to the frequent storms and Atlantic gales which always prevail during the winter months; the consequence is that he is frequently drenched to the skin, and often that he allows his clothes to dry on his back. What constitution could undergo this with impunity?

Allow me to draw attention to the peculiar fact that those who migrate to the large towns and centres of industry in the south are prone to sickness, though, in their native islands, they had enjoyed the best of health up to the time of their departure; and if overtaken by any illness, the percentage that succumb to lung-disease is unusually large.—I am, sir, faithfully yours,
Harris, Outer Hebrides, N.B. JAMES STUART, L.R.C.P., L.R.C.S.E.

THE TREATMENT OF CHOLERA: A SUGGESTION.

SIR,—Perhaps the chief pathognomonic symptom of cholera Asiatica is the thickening of the blood, owing to the excessive loss of its aqueous parts, evidenced by its effects on the various organs of the body.

All your readers are aware of the intimate connection betwixt the skin and the intestinal tract, and treatment directed to the former for the relief of the latter has long been advocated.

Niemeyer, in his *Text-Book of Practical Medicine* (revised edition, translated by Humphrey and Hackley: H. K. Lewis, 1874) says, with reference to the disease in question: "The symptomatic treatment which, in the first epidemics, consisted in attempts to elevate the fallen temperature by vapour-baths, and by having the patients drink hot teas during the algid stage, but not allowing them a drop of cold water; and, in attempting to draw blood from all cases of cholera-asphyxia, was certainly incorrect. Depression of the temperature of the body is a late occurrence in the series of symptoms induced by the cholera-infection; warm tea, which is more readily vomited than any other drink, is not nearly so well borne as small quantities of cold water; venesection cannot raise the depressed action of the heart, on which the venous congestion depends. The symptomatic treatment of cholera requires, first of all, attention to the intestinal disease, the onset of the acute catarrh, and extensive transudation of serum from the intestinal capillaries, the source of all the other symptoms and of the danger. The second symptomatic indication is to replace the water lost from the blood. If we succeeded in making a cholera-patient sweat while the transudation into the intestines continued, we should injure him by the increased abstraction of water. Lastly, the third indication, which we must bear in mind from the first, is to combat the threatening paralysis of the heart."

After speaking of the value of opium, he proceeds: "If, on the other hand, in spite of the repeated doses of opium, the diarrhoea continues and goes worse, if the patient collapses visibly, if his skin grows cool, and the dejections lose their colour, I regard the continuation of opium as contra-indicated, while, in such cases, I have had the best results from cold compresses frequently applied to the abdomen, and from the administration of calomel (1 grain every hour). In regard to the speedily favourable effect of this treatment, especially of the application of cold compresses to the abdomen, on most patients, in regard to its favourable influence on the entire disease, and the principles which induced me to employ it, I refer to my brochure *Die Symptomatische Behandlung der Cholera* (Magdeburg, 1848), and would only mention that, in 1854, when Pfeuffer was commissioned to instruct the Bavarian physicians in the treatment of cholera, he recommended my method as being the most successful, according to his experience. . . . The second indication, to replace the loss of water from the blood by supplying water, is best attained by giving the patient small portions of ice-water, or small pieces of ice to swallow at short intervals."

My attention had not been specially drawn to the above remarks of Professor Niemeyer, nor was I aware of his views, when it occurred to me that we possess in the application of cold, as in the refrigerating chamber, a very powerful therapeutic agent, the operation of which appears to be well deserving of extended trial in the treatment of cholera.

"External cold diminishes, and heat increases, the metabolic activity of the cold-blooded animals; but in warm-blooded animals, within certain limits, cold increases and heat diminishes the bodily metabolism, as shown by the increased or diminished consumption of oxygen and production of carbonic acid as the temperature falls or rises" (Professor Latham on the Action of Salicylic Acid in Rheumatism, *Lancet*, June 27th, 1885).

We can readily conceive the powerful effect on the system of the application of external cold, through the medium of the vaso-motor and general nervous systems. Of this, too, we are certain, that heat, an elevated general temperature of the atmosphere, is a powerful factor, of an adverse nature, in cholera and many other diseases, especially when it is combined with miasma; and we know that cholera-epidemics usually decrease in virulence with a decided fall in the temperature, and disappear in cold weather, or in polar latitudes. May we not then reasonably infer that, in the application of cold, we have a powerful agent, whose assistance has indeed already been successfully sought and obtained, to a greater or less extent, in the treatment of cholera, and which invites our further inquiry and attention?

In the practical application of this therapeutic agent, should its further trial warrant its extended use in general practice, and especially so as to meet the emergencies of a cholera-epidemic, should it unfortunately occur, some difficulty may be experienced. Already, however, the practical application of science in the processes of refrigeration for the preservation and transportation of our animal food-supplies from abroad, "dead meat," and the various known and applied processes for the manufacture of ice, may permit the construction of refrigerating chambers, in suitable places, for the immediate reception and treatment of cases of cholera; whilst the adaptation of the same to portable apparatus, for use in rural districts, would very probably follow as a matter of course.

The immediate difficulty appears to be in the testing of the suggestion for treatment herewith broached; but where the supply of ice is plentiful, as we may presume it is in our large towns, and as it certainly is in the large cities of the American continent and elsewhere, some modification of the refrigerating chamber may be extemporised; and, when occasion but too sadly requires, the fuller influence of the general rather than the topical application of a therapeutic agent of great power may be practically put to the test.—I am, sir, yours faithfully,

JOHN WARD, M.D., ex-M.O.H., etc.

Sutton Coldfield, Birmingham.

D. C. W. asks by what means he can become informed of any vacant appointments, or assistantships, etc., in San Francisco.

EARTH-CLOSETS.

SIR,—Although I am not able to bring forward examples of villages where the dry-earth system has been in use for some time, I know several houses where the system is employed, and in my own home in the country it has been used for many years. There is no practical difficulty in carrying this system out, where there is a garden, and a man to attend to it. Every morning, the pails containing the soiled earth are emptied, and the soil dug into whatever part of the garden the gardener may be at work upon.

I may add that all slops, bath-water, and water from the kitchen, pass out over the open gully over a flush tank, and thence to a reservoir-tank, and the water is then used for garden-purposes.

By these means all drains within the house are done away with, and there can be no fear of poisoned air or contaminated drinking water. I enclose my card, and shall be happy to give your correspondent any further information on the subject.—Your obedient servant,

S. W. S.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.

SIR,—Little, if any, of the correspondence in the *JOURNAL* relating to this subject has escaped my notice; for, of necessity, a practitioner feels deeply interested in what is so important to him in the round of his professional work. To my mind, Leishman's is the book of books on midwifery, from the concise, clear, and practical way in which he deals with every question relating to it. Mr. Blienkarne states, in his letter of July 11th, that he wishes to elicit the experience of obstetricians on this subject.

I was very much pleased with his way of approaching the subject, for we must all confess to the power of theory on our minds, against the more reliable facts of practical experience. I also agree with the letter of that gentleman, in the *JOURNAL* of May 31st, 1884, as to "hour-glass contraction," etc. Not long ago I heard of a student being rejected at his examination in surgery, because he used the term "extraction," instead of "expulsion," with reference to the termination of the third stage; now we hear, on every hand, the term "expression" of the placenta, which, after all, is a combination of the other two. Professor Stadfeldt, of Copenhagen, after describing three methods of managing this stage of labour (the expectant, Credé's, and the Dublin methods), gives the weight of his opinion in favour of the Dublin method, which is "firm pressure on the fundus uteri immediately after the birth of the child, modifying it somewhat so as to meet Credé's method, and helping the placenta from the vagina with two fingers. Now, I have attended over 200 midwifery-cases, and I never had a single case of *post partum* hemorrhage, with the exception of the following. Last year I was called on to attend a woman, whom I found, on arrival, in the hands of a country midwife. The child had been born three hours, the cord was torn away from the placenta, by attempts at removal. The woman was pulseless, and hemorrhage was still going on. I gave the woman some brandy, and a full dose of ergot, and, without losing a moment, I placed my left hand on the uterus, which I found had not contracted in the slightest, and, with my right, removed the placenta, and was proceeding to inject a solution of sesquichloride of iron, when the poor woman breathed her last, only a few minutes after my arrival. I do not say that this would not have occurred had I been there in time; but I give it, as it is my only experience of *post partum* hemorrhage.

As to my method of managing this most critical part of obstetric practice, I endeavour to have everything ready that is necessary at such a time. When the child is born, I immediately place two ligatures on the umbilical cord; and cut between; then at once I gently grasp the uterus with the left hand, and if I do not entirely express the placenta from the uterus, I partially do so, and at the same time stimulate it to contraction. Whilst this is being done, with the right hand I make slight but steady traction on the cord; then, without waiting for any immediate result, I place a soft pad on the uterus, and draw the binder firmly across and secure it. I then pass my hand along the cord to its insertion, where I take hold of the placenta, and commence, by a very gradual process, to rotate it slightly, and at the same time assist the act of expulsion. I almost invariably bring it away by the end of twenty minutes.

In attending "cases" with other medical men, I have never admired the tedious expectant method, or that half operative method practised by many, nor do I believe in the danger of conveying anything septic by the hand, or the fear of leaving some membrane, shreds, etc., behind. None of these sequelae have made their appearance in the past, and we must close our eyes to all theoretical illusions.—Yours faithfully,

JAS. L. NEVIN.

Ballymony, County Antrim.

EUCUINE IN DIGITAL TENOTOMY.

SIR,—I see Mr. Noble Smith has performed a little operation which I tried to perform on myself a few months ago. I injected a few drops of a four per cent solution of eucaine beneath the skin, near to the band which joins the tendons of the middle and ring fingers, and introduced a tenotomy-knife through the skin, about one-third of an inch on the distal side, and pushed it beneath the band. When I turned the knife, I found I had put it through one of the veins on the back of the hand, as the blood rushed out freely. I could only get the band partially severed, as I had made no provision for catching the blood, and did not want to soil the sofa over which I was standing. There was not the slightest pain while using the knife, only a numbness, and a peculiar feeling as if that part of my hand were made of cheese. There was a slight swelling on the band for a few weeks afterwards.

M.B., C.M.

MIDSHIPMEN.

SIR,—In reply to your correspondent, "M.B., M.A.," he will find full particulars as to the entry, examination, etc., of cadets and midshipmen of the Royal Navy, at page 503 of the quarterly *Navy List*, which can be obtained through any bookseller.—I remain, sir, yours truly,

FLEET-SURGEON.

SIR,—The *Navy List* for July will answer most of "M.B., M.A.'s" questions better than I can. A nomination should be asked for of one of the Lords of the Admiralty, or of an admiral or captain on the Active List, and it will not be very difficult if the applicant can urge any claim, in the past or present, upon the service. "M.B." should write to the Admiralty in the first instance.

The cost for eight years should average about £150 a year, more or less, according to the expenses of outfit, etc.

If "M.B., M.A." will write to me, I will send him a prospectus of a good school.—Yours obediently,

FRED. SIMMS.

6, Mandeville Place, W.

HYOSCYAMIN.

SIR,—I will feel obliged to any member of the British Medical Association who will kindly give me some information in answer to the following questions about hyoscyamin.

1. What is the maximum average and minimum dose given to a strong adult man or woman, and what is the best way to administer the drug?
2. How often in the day should the drug be administered?
3. What are the symptoms when an overdose is given, and how soon can they be recognised?
4. In case of an overdose what is the proper treatment, and is there any antidote?
5. What is the cost of the drug, and is there any drug cheaper and equally efficacious?—I remain, yours faithfully,

E. E. MOORE, M.D.

* * * The ordinary dose of hyoscyamin is from $\frac{1}{16}$ to $\frac{1}{4}$ grain. It is best given hypodermically in the form of Burroughs and Wellcome's compressed tablets. A full account of its physiological action will be found in Wood's *Therapeutics*. For treatment of toxic symptoms, see Murrell's *What to Do in Cases of Poisoning*.

PORTABLE OR POCKET FILTERS.

SIR,—Will you kindly permit me to ask some of your readers, who know, which is the best make of pocket filters? By best, I mean such points as effectiveness in discharging the work for which a filter is used, length of time so effective, rapidity of action, general portability, etc. I think it is now universally allowed that carbon blocks soon become not only non-effective, but positively dangerous, unless heated to redness every few days, so as to destroy the low forms of life which the charcoal has actually favoured. What about the manganoous carbon filter? Is it true that its action actually improves after being in use for some time? If so, one desideratum at least, is fulfilled. Then, there is the magnetic filter. I presume pocket-filters are to be had in all these various makes. What kind were in use by our soldiers in the Abyssinian campaign, and what was the report concerning them?

With cholera as a possibility on Britain's wave-beat shores, I trust my questions will not be deemed unimportant.—Faithfully yours,
J. FARRAR, M.D.

AD VESALIUM.

THE following lines were written on the next page to a pen and ink drawing from a beautiful lithograph called "Vesalius dissecting." The celebrated Andrew Vesalius secretly pursuing the study of anatomy in his chamber, fearing the persecution of the Inquisition." The figure of Vesalius in the picture is full of dignity; he stands surrounded by scientific implements, with one hand on the arm of his subject, which he is just about to commence dissecting; with the other, he is taking up a scalpel from a side-table. While doing this, he is gazing with great reverence and love on a figure of the crucified Saviour, which is attached to the wall.

"Thou, grand old master, fine and patient soul!
Old Time hath veiled thy name in records hoary.
Still, while the ceaseless round of years shall roll,
Will grateful science venerate thy story.
Thine was an age when learning stood aghast;
When mind and soul were under prohibition;
Angelic love from earth was fleeting fast,
Scared by the torments of the Inquisition.
Detested cruelty, in Hell designed,
Heedless of Mercy's gentle intercession,
Which strove to intercept the march of mind,
Heaven's glorious gift to sinful earth—progression—
Progression towards the infinite and good,
Nature by gradual steps to God ascending;
The intellect receiving purer food,
And men with angels blending.
I see thee stand, erect, yet reverently,
Noble thy mien, and resolute thy 'haviour—
The careful hand unflinching, and thine eye
Fixed on the likeness of thy dying Saviour.
Surely my friends who on this picture look,
Whilst lightning-thought to former days is winging,
Among the chequered pages of the book
May find a moral clinging.
Oh! think that Providence has placed us here,
Not for ourselves alone to toil and labour;
Like just Vesalius, in our humble sphere
We'll not forget our 'duty towards our neighbour.'
While journeying along the tedious way,
We almost chide the bitter world's compelling;
Let's turn our spirit-eyes within, and pray
That Christ be in us dwelling.
In cheerful work, in kindly faith and love—
Though of this world—we hope to gain a better
Making our guide God's record from above—
Act in the spirit, nor neglect the letter.
So, having walked in 'golden charity,'
When we are casting off our earthly leaven,
We'll pray with humble trusting hearts that we
May join the good Vesalius in Heaven."

Written by the late Henry Folkard, M.R.C.S., M.R.C.P. Lond., formerly student and anatomical prizeman at St. George's Hospital.

DEATH FROM REFLEX IRRITATION OF THE INTESTINE.

SIR,—Dr. Wilson's communication, "A Failure of Justice," which appeared in the JOURNAL of the 15th instant, is of very considerable interest from a pathological point of view, although it is to be regretted that details of the child's illness are wanting. The subject of possible death from reflex irritation of the intestine is rather an obscure one, but it seems to me that the death of Dr. Wilson's patient may have some analogy with a phenomenon which occurs in certain cases of typhoid fever, and to which Dieulafoy has called attention (Dieulafoy, *De la Mort Subite dans la Fièvre Typhoïde*. Paris, 1867). A patient, usually in the third or fourth week of his fever, and apparently progressing towards convalescence, is suddenly seized with fatal syncope, and dies in a few moments, after some convulsive movements, while *post mortem* examination shows nothing to account for such a death. Hayem, indeed, has suggested that it is due to degeneration of the cardiac muscular fibres; but histological examination has, in many cases, disproved this.

Dieulafoy's explanation is, that a reflex irritation started from the ulcerated intestine causes a sudden paralysis of the nervous centres in the medulla, and he discusses the question at some length in his *Pathologie Interne*, tome 2, Paris, 1884. That this terrible accident is not very uncommon in typhoid fever may be judged from the fact that Dieulafoy has collected nearly eighty such cases, published by various writers. He believes, indeed, that it is almost as common as some better known complications, such as perforation of the intestine, or peritonitis.—I am, sir, your obedient servant,

WILLIAM A. FITZGERALD, M.D., F.R.C.S.I.

ENLARGED INGUINAL GLANDS.

MR. L. W. COCKBURN (Dawlish) advises "A Member" to try the oleate of mercury (20 per cent), as recommended by Mr. John Marshall, and to combine it with one-tenth of a grain of sulphide of calcium internally, three times a day.

ALOPECIA AREATA AND RINGWORM.

SIR,—May I be allowed to make a few remarks on the present controversy on some of the vegetable parasitic diseases of the skin?

1. Do we ever see "absolutely bald, shining patches of skin" in true ringworm? After close upon 10 years' constant study, clinically and microscopically, of some hundreds of cases of this class, I must say I never saw one.

2. I constantly see one or more of the same class, namely, alopecia parasitica and true ringworm of the body in the same individual. Can like causes produce different results in the same individual? I maintain not.

3. There can be no shadow of a doubt that true alopecia parasitica is contagious. I have notes of numbers of cases that show this fact.

4. We certainly occasionally see cases of true ringworm occur on the adult scalp; I can record cases.

5. I agree with Drs. Liveing and Alder Smith that cases of alopecia areata as seen in which no parasitic history can be got at, nor will the microscope reveal the parasite. These cases, no doubt, are due to an atrophic condition of the hair-bulbs, a perverted nutrition or innervation. I can call to mind a case in which a gentleman consulted me, whose hair fell out in bald circumscribed patches after putting his head out of a railway-carriage window for a prolonged time without his hat.

6. These several diseases are distinct and separate, and one variety of their class does not merge into another. We have, therefore, 1, alopecia areata simplex; 2, alopecia parasitica; 3, alopecia syphilitica; 4, alopecia cicatricosa, all manifesting much the same character, but differing in clinical history.—I am, sir, yours faithfully,
JAMES STARTIN.

SHOULD OLD ULCERS BE HEALED?

SIR,—Will any of your readers give the views now generally held by the profession on the supposed dangers of healing chronic ulcers on the legs, especially in the aged?

I have never seen any ill effects, but rather improved health and vigour, in proportion to the amount of pain, sleeplessness, disappointment, disgust, and depression formerly experienced for months and years; but I hear of medical men echoing the popular prejudices that if such a sore be healed up, "it would break out elsewhere," "it would be a bad day for him," etc.

I find Dr. Druitt quoting the views of Sir E. Home, that such should not be healed if (1) they be evidently affected by gout; (2) if they habitually occur whenever the constitution is disordered; (3) if the patient be very infirm or old; and he adds those cases that occur in stout women at the critical period of life, on which exceptions he very sensibly observes that, with certain safeguards which he names, "ulcers of the leg may always be healed, if possible."

With the aid of Martin's bandages and other modern appliances, in conjunction with medicinal and hygienic treatment, it is always "possible." Would some observant, experienced brethren say whether they think it is always "desirable," and greatly oblige,
JACOBUS.

CHRONIC ATONY OF BLADDER.

SIR,—In answer to the inquiry of "Old Member," as to the treatment of chronic atony of the bladder, I would recommend him to pass an electric current each day for a period of five minutes, from a Stohrer's battery, from the sacrum to the pubis, and along the perineum, and to try the following mixture at the same time, with the cold sitz bath; or, better still, sea bathing every morning. R. Tinct. ferri perchloridi ʒi; liquor strychnia, P.B. ʒss; liquor ergotæ, P.B. ʒii; syrupi limonis ʒi; aquam ad ʒviii. One ounce to be taken twice daily.

I have lately had a gentleman under my care, who had lost all power over his bladder, and had to be relieved two or three times each day by the catheter. He is now perfectly well, with full power over the organ, although he is 78 years of age. The above treatment in his case was most successful.—I am, etc.,
J. P. DONOVAN, F.R.C.S.I.
Kingstown.

REMOVAL OF THE TESTICLES.

SIR,—With reference to the inquiry of "F.R.C.S." concerning the removal of the testicles and subsequent sexual desire or power, I remember a case in which both testicles were torn completely away, and the perineal urethra so much injured, that micturition took place through the wound. It was many weeks before the parts healed, and the man left the hospital-ward. He returned, however, in 10 days, suffering from gonorrhœa, and stated that he had neither lost sexual desire or power.
Z.

SIR,—In answer to "F.R.C.S.," I quite agree with him that removal of the testicles would be most unjustifiable. I have found in many cases that the administration of iodide of potassium in large doses, and abstinence from all alcoholic stimulant, taking in its place lime-juice and water, has been followed with marked benefit. This treatment may be augmented by the application of a line of blistering fluid along the whole length of the ventral surface of the penis if thought necessary. Should this fail, removal of one testicle might be justifiable, and would probably be attended with beneficial results, but the removal of both would probably be followed by life-long regret by the patient, although, perhaps, wished for at the present time.—I am, etc.,
Maddox Street, W.
S. OSBORN, F.R.C.S.

SIR,—Your correspondent, "F.R.C.S.," would not, in my opinion, be justified in removing the young man's testicles, unless the disease should be fraught with the gravest danger to life. Will he please to say what these "eccentric sexual troubles" are, and what remedies he has used?—Yours truly,
T. Y. B.

HOME FOR A PARALYTIC.

SIR,—May I ask if, through the medium of your paper, you could advise me where an elderly gentleman, who is suffering from paralysis down one side, could be received and properly tended. A sum of £25 per annum could be paid, but I doubt if much more would be forthcoming.—I am, sir, faithfully yours,
Havant, Hants.
A. STEWART NORMAN.

J. C. P.—Beware of specialists in such a case; consult a well-reputed practitioner of the district.

ACCIDENTAL VACCINATION.

SIR,—I notice, in the BRITISH MEDICAL JOURNAL of July 11th, a note of Mr. G. N. Stathers, of accidental vaccination. Curiously, I had a similar case at the beginning of July. A woman, whose baby I had vaccinated a fortnight before, came to me with two distinct vaccine-vesicles over the left malar bone. She was quite unable to account for them. I had proposed to revaccinate her from her baby, and she had refused.

I intend, if the scars cause much disfigurement, to tattoo them with cochineal, unless any member can suggest a better plan.—I am, sir, yours obediently,
Hampton Court.
HERBERT W. SEAGER.

THE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

SIR.—Looking over the late controversies as to the degree of M.D. of the University of London, I find that one serious grievance has not been removed; and that is the fixing of the age for the first M.B. examination at nineteen years. This appears to me to be quite unnecessary and very vexatious.

A student passes his matriculation after he is 16 years old. He passes the preliminary scientific examination afterwards, which generally occupies a year's study. He then cannot go up for his first M.B. examination till he is 19 years old. His birthday may be unfortunately a week after the date of the examination; yet he must wait a whole year. Such an unfortunate interference in the middle of his course is most detrimental to him. His fellow-students who happen to be a week older can go up; he must separate himself for a year from all the men of his own year, and go back to his preliminary studies, as much as if he had been rejected at his examination. Now, what argument can be used to justify this? He cannot become qualified, and rightly, till he is 21. Why not abolish all restrictions of age between the matriculation and the final M.B.? As the student is bound to study two years after his preliminary scientific, therefore it can only act vexatiously to specify age.—Your obedient servant, M.D.

P. W. MACDONALD.—When we are able to fix a date, we shall be happy to do so; at present, this is not possible.

POPULAR HEALTH-LECTURES.

SIR,—I shall be very much obliged if some one will be kind enough to inform me where I can obtain, "upon hire," diagrams to illustrate a popular lecture upon sanitation or an allied subject. I do not require the usual physiological charts used for ambulance work.—Faithfully yours, P. PROSSER WHITE.

22, King Street, Wigan.

* Apply to the Secretary of the National Health Society, Berners Street, London.

A FAILURE OF JUSTICE.

SIR,—I would not have troubled you with reference to Mr. Wilson's letter in the JOURNAL of August 15th were it not that a somewhat similar case occurred in my own practice in the same county seven years ago, showing how fiscal matters are attended to in some districts. A patient of mine, about 60 years of age, had been suffering for a number of years from prolapsus uteri, for which she wore a ring pessary. Otherwise, she was fairly healthy. There was certainly nothing in her condition that led me to anticipate sudden death. While I was from home, she became suddenly ill, complaining of severe pain (abdominal pain, I think), and was seen by my *locum tenens*, a graduate of Edinburgh University. He failed to discover the cause of the symptoms, and she died in an hour or so after his visit. He told the police-constable who had been communicated with, that he could not certify the cause of death unless he had a *post mortem* examination of the body. No more was done till after my return, and about a fortnight after the body had been interred, when the Procurator-Fiscal came and made some inquiries of the relatives, but neither I nor my *locum tenens* was asked for an opinion, and there the matter rested. I understand that the Procurator Fiscal, who is not a medical man, gave as his opinion that the cause of death was heart-disease. How he came to that conclusion, or how he accounted for the abdominal pain, I am not aware.

So far as I know, there was in this case no suspicion of foul play, but it seems to me, if not a failure of justice, very like laxity on the part of the protectors of public safety when a sudden death occurs that the Procurator-Fiscal should allow the body to be buried a fortnight before making inquiries, and even then should totally ignore the medical man who saw the case.—Yours truly, M.D.

THE MEDICAL DIRECTORY.

SIR,—Allow me to suggest that every member of the profession who is connected with a telephonic exchange, should insert in the directory-circular (received to-day) his telephone-number and the name of the centre with which he is connected. The entry might appear in the alphabetical list thus: "Smith, John, Rodney Street, Liverpool. (Telephone, Liverpool, 2,341.)", and the letter T might be placed in the "Local List" after the name of each telephone-subscriber.

Now that there are trunk telephone-wires connecting nearly all our large towns (in this district), it is important that the name of the telephone-centre be given as well as the subscriber's number, so there may be no doubt as to who is "called" when a convalescent patient, on a visit at Southport, goes into a telephone "call-office" there, and wishes to consult his home medical attendant at Oldham, 60 miles distant by wire.—Yours, etc., SOUTHPORT, No. 69.

HAY-FEVER AND HEMOPTYSIS.

SIR,—Since reading, in the JOURNAL of July 26th, Dr. C. Baber's remarks and suggestions (for which I tender my thanks), I have seen and closely questioned my patient respecting her attack. She still maintains that, after a very prolonged fit of sneezing, she perceived a sensation of warmth at the middle of the chest, with a feeling of dulness and suffocation, and that she coughed up blood with frothy mucus. She is also positive that, as long as the bleeding continued, she never sneezed. She is a little better; she is using bismuth as a snuff; and when I can overcome her nervousness, I shall examine the nostrils by the reflected light of a laryngoscope-lamp. I forgot to mention in my first statement of this case that this lady's mother has been for years a martyr to every form of neuralgia, and has suffered severely from this same troublesome affection, but, to my knowledge she has never had hæmoptysis.—Yours truly, V. POULAIN, M.D.

HOME FOR AN EPILEPTIC CHILD.

MR. H. D. PALMER (Nayland, Colchester) writes: If "Epilepsy" will write to Mr. Turner, the honorary secretary of the Essex Hall Asylum for Idiots, he will get all information respecting cases of the kind mentioned. The home has been largely increased, and a special part built for private cases to meet the wants of those parents who cannot afford to place the case in a private family.

MANGANESE DIOXIDE FOR CHLOROSIS.

SIR.—Will some correspondent kindly give me any information about manganese dioxide for chlorosis. I have a patient who has suffered for some time past from that disease. I have treated her with nearly every preparation of iron, and several other remedies besides, but all to no avail. I have heard of black manganese dioxide being given for that disease. I have looked out for it in several books on therapeutics, but they never mentioned it. I should feel favoured if some correspondent would let me know if there be a refined description for internal use, and what dose should be given.—Yours faithfully, ANXIOUS.

SCHOOL FOR THE BLIND.

SIR,—I should be very much obliged if you, or any of your readers, could inform me, through the medium of the JOURNAL, of any schools in which partially blind children are educated. I have a patient, a little boy, who is myopic, and has congenital absence of the iris, and who is, in consequence, practically blind. He would be taken at the Normal College for the Blind, but the expense would be too great, I fear.—I am, sir, yours truly, X. Y. Z.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. A. Harris-Bickford, Camberne; Mr. Arthur Jackson, Sheffield; Dr. W. A. Fitzgerald, London; Dr. Macnab, Obbe, Harris, N.B.; Dr. E. Casey, Windsor; Mr. H. Harlock, Brecon; Mr. James Bowdedge, Peckham; Dr. Donovan, Carriek-on-Shannon; Dr. E. Payot Thurstan, Tunbridge Wells; Dr. J. Rogers, London; Messrs. Russell and Everett, London; Messrs. John Peck and Co., Wigan; Mr. Hugh Taylor, Coltshall, Norfolk; Dr. T. Clifford Allbutt, Leeds; Dr. Mowat, Edinburgh; Mr. Thomas Blair, Leeds; Dr. E. H. Warner, Winchester; Mr. E. Stanley Wood, Pontypool; Dr. C. H. Mastin, Mobile; Mr. W. P. White, Wigan; Dr. T. Oliver, Newcastle-on-Tyne; Mr. W. J. H. Johnston, Eskbank, Midlothian; Dr. T. Jones, Brecon; Mr. S. R. Lovett, London; Dr. C. W.; The Secretary of the Bristol General Hospital; Mr. E. S. Bishop, Manchester; Dr. H. Smith, London; Mr. A. Stedman, Leatherhead; Dr. Macdonald, Liverpool; Mr. A. Matthey, Southampton; Mr. T. J. Verrall, Brighton; Mr. A. E. Y. Hughes, Everton; Dr. Sidney Coupland, London; Mr. J. W. Sharp, Birkenhead; Mr. G. P. Bate, London; Dr. G. P. Rugg, London; Mr. J. V. Solomon, Birmingham; Mr. W. L. Cullen, Hawick; Mr. S. W. Cockburn, Dawlish; Dr. Turle, North Finchley; Miss Edith Lupton, Bradford; Mr. Lawson Tait, Birmingham; Mr. E. G. Pack, Pitlochry, Perth; Messrs. Forder and Co., Wolverhampton; Mr. W. Dayson, Ebbw Vale; Mr. H. G. D. Wharry, London; Dr. F. Simms, London; Dr. W. C. Wicks, Newcastle-on-Tyne; Mr. C. H. Newby, London; Mr. R. E. Power, Portsea; Mr. Robert Rentoul, Liverpool; Our Valencia Correspondent; Messrs. Woollams and Co., London; Mr. Edward Gloster, Middlesbrough; Dr. C. R. Vachell, Cardiff; Mr. Eustace Webb, Windsor; Mr. E. E. Tarleton, Ashton-under-Hill; Dr. B. G. Morison, London; Mr. J. L. Nevin, Ballymoney; Messrs. Mayer and Meltzer, London; Mr. C. H. Phillips, Hanley; Surgeon-Major R. Fringle, London; Mr. Robert Johnson, London; Mr. W. E. Stanford, Engcobo, Cape Colony; Dr. J. B. Woolby, Engcobo, Cape Colony; Messrs. Banner Bros., London; Messrs. Evans, Lescher, and Webb, London; Our Berlin Correspondent; A. B. C.; Dr. Mackay, Greenock; Dr. Willoughby, London; Mr. Charles Williams, Port Isaac; Messrs. J. Weiss and Son, London; Mr. A. Williams, Oxford; Dr. Trimmer, Gamlingay; Dr. Croly, Rathfarnham; Dr. Jaeger's Sanitary Woollen System Co.; Mr. E. H. Grove, Torquay; Mr. J. Munday, Cardiff; Mr. A. G. Southcomb, London; Mr. Alfred Devonald, Llangennech; Our Aberdeen Correspondent; Our Dublin Correspondent; Mr. Cantlie, London; Mr. J. S. Muir, Selkirk; Mr. George Byrne, Chorlton-cum-Hardy, Manchester; Mr. Ernst Jahneke, London; Dr. Edward Malins, Birmingham; Mr. Allman Powell, Worcester; Mr. H. Whittaker, Wellington; Mr. George Eastes, London; Mr. M. A. Algie, Port Patrick; Mr. Charles Ashenden, Hastings; Messrs. Allen and Hanburys, London; Dr. J. P. Price, Reading; Our Paris Correspondent; Our Edinburgh Correspondent; Dr. J. Irving, Prince Albert, Cape of Good Hope; Dr. Churton, Leeds; Dr. John Phillips, London; Dr. Broadbent, London, etc.

BOOKS, ETC., RECEIVED.

Chronic Pulmonary Phthisis. By Hermann Weber, M.D. London: Smith, Elder, and Co. 1885.
The Saline Waters of Leamington Chemically, Therapeutically, and Clinically Considered, with Observations on the Climate of Leamington. By Francis W. Smith, M.D. Second Edition. London: H. K. Lewis. 1885.
The Influence of the Sympathetic. By E. Long Fox, M.D., F.R.C.P. With Illustrations. London: Smith, Elder, and Co. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ASIATIC CHOLERA: ITS PREVENTION AND TREATMENT.

Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By R. PRINGLE, M.D., Surgeon-Major,
Late Sanitary Department H.M.S. Bengal Army.

In presence of the appalling epidemic of cholera now raging in Spain—which during the past four days, that is, from July 19th to the 22nd, has attacked 9,347 persons, and proved fatal in 3,633 cases, while, in the preceding week, 11,000 cases were recorded, and 4,970 deaths—in the presence of an epidemic like this, not confined to a few populous cities like Naples, Marseilles, and Toulon, as it was in 1884, but extended over twelve populous provinces, the subject of preventive measures from a calamity such as has fallen on Spain is one of the most important matters which can be discussed before the Public Medicine Section of an Association such as the British Medical. In doing so I shall strive, as far as possible, to avoid all that relates to theories, and confine myself to facts; these being the result of the practical experience and personal observation of thirty years' service in India, during which time I have been personally connected, as sanitary officer of the district, with the greatest cholera outbreaks, or rather epidemics, of modern times, even in that home of cholera, namely, the one at Puri or Juggernaut, in the Bay of Bengal, in 1856, and the Khoomb, or great twelfth year festivals at Hurdwar, on the Ganges, at the foot of the Himalayas, in 1867 and 1879. I shall, therefore, strictly confine my remarks to the following heads, namely (a) preventive measures as affecting the locality; (b) measures during an outbreak.

A. Preventive Measures as affecting the Locality.—The measures usually had recourse to to prevent the cholera-influence in the persons of the subjects of the disease from entering a locality may be divided into two, namely, the effect of sanitary cordons, and quarantine. Disinfection of travellers and their baggage, etc., by fumigation and other means, is manifestly so futile, and, withal, sometimes so dangerous to persons in delicate health, that I need not take up time in alluding to it.

As regards sanitary cordons, whatever they may be in theory, they are useless in practice; and, though it is generally supposed that they are not allowed in India, I can speak from the experience of one of the largest military circles in that country, namely, the Meerut circle, in which Hurdwar is situated, that they have been in practice, more or less, for the past twenty years; and, as was to be expected, cannot be credited with any good results as regards preventing the disease from gaining admittance into a cantonment or city; since, even supposing the cholera-influence to be disseminated by human intercourse alone, nothing is more easy to evade, in an open country, with a venal population, than a sanitary cordon. Hundreds of poor pilgrims, in 1879, in the flight from Hurdwar, to avoid the endless annoyances and petty impositions of these sanitary cordons, sold their jewellery to purchase railway-tickets to convey them beyond the reach of these local oppressions; and all this, be it remembered, takes place where, if we are to accept the Government reports on the sanitary measures and precautions regarding cholera, sanitary cordons are unheard of, a practical proof that the reports of the Government of India on cholera must be accepted with caution and reserve.

A cowkeeper, at Mussoorie, evaded the cordon, and went to the plains for a cow, which he brought back with him; and, though only a few hours in the village, where cholera was present, he was seized with the disease on his return to Mussoorie, and died; but the disease, as noted hereafter, never spread. Isolation or quarantine on land is equally useless in practice.

As regards preventive measures in the matter of communication by road or rail, when the panic-stricken population are flying from a "choleraised" locality, I would recommend the careful inspection of the travellers and passengers at the chief halting and changing

stations, with special arrangements for the comfortable and judicious treatment of all true and suspicious cases of cholera, and the detachment, or, at all events, the strict closure of all carriages from which cholera-cases have been taken out, till they can be thoroughly disinfected and cleansed.

Quarantine, however, with reference to sea-ports, is quite a different preventive measure; and it would be as unreasonable, if nothing more serious, to admit a ship into harbour with cases of true cholera on board, and then permit passengers and crew to land and disperse, as it would be to detain the ship in an open roadstead for a period of time out of all proportion to that which may be called the period of choleraic incubation.

This naturally brings me to this most important subject, on which opinions differ very widely, which need hardly be a cause of wonder when we consider how very rarely all the conditions necessary to form an independent and reliable opinion on the subject are available. During the past twenty years, however, I think I have had opportunities of forming an opinion on the subject in a locality where all the necessary conditions were available, and shall now give them in detail, leaving it with the Section, in the discussion which will follow, to decide whether my data justify the conclusions arrived at. In the case of a peculiar (owing to its chief export being iron and coal) seaport like Cardiff, this period of quarantine isolation, as a preventive measure, is of the greatest importance.

In the absence of any evidence, such as that supplied in the train of symptoms witnessed in the operation of small-pox inoculation, or cow-pox inoculation, or vaccination, it is impossible at present to fix upon any precise period for the incubation of cholera. The experiments on the subject of cholera-inoculation in Spain being still *sub judice*, I refrain from any allusion to them.

The first step therefore in an inquiry like this, is to find a locality where cholera is unknown, either as an endemic or as an epidemic disease. In proof of the non-endemic qualification of this place, it will be absolutely necessary to prove that every case of cholera met with has been imported, either in the stage of incubation, or in that of characteristic cholera. The non-endemic qualification of this locality must rest on an equally sound basis, viz., the fact that not even one isolated case of the disease has occurred, traceable to the cholera influence, resulting from these imported cases. Such a place having been found, the next step in the inquiry will be to ascertain if it be possible to fix the limit within which the external symptoms of the disease would manifest themselves, supposing them not to be present at the time of arrival in this locality from a "choleraised" district; or in other words, to fix, if possible, any limit as the period beyond which an individual may be considered free from having the disease latent in the system, in the stage of incubation, and thus to have passed, without any constitutional disturbance, through a locality sufficiently "choleraised" to render the mere passage through it, owing to what, for want of a better term, I may describe as a special constitutional susceptibility to the disease, fatal in many cases to other travellers. My answer to the first point is, that the civil sanatorium of Mussoorie, in the Himalayas, in the north-west provinces of India, and the adjoining military convalescent depot of Landour, furnish instances of localities which, to my certain knowledge, during a continuous observation of twenty years, have never furnished one single case of either endemic or epidemic cholera. Every case of the disease, whether among Europeans or natives, met with at Mussoorie or Landour—and they have been neither few nor slight—which I have attended during these twenty years, or which have been reported to me as sanitary officer of the district, has been imported; and not one single case of the disease has occurred among the residents of either of these stations, apart (as in the fatal case of the Mussoorie cowkeeper alluded to) from their exposing themselves to the cholera influence in the plains, if only for a few hours, followed by a rapid return to Mussoorie. This locality having been thus found, and the cases traced to exposure to the cholera-influence in the plains below, the question can now be asked, What was the limit, if any, after which an individual, who, on his arrival in these localities, was free from any external symptoms of the disease, might be considered to have passed unaffected with the disease during his journey through the "choleraised" districts to Mussoorie or Landour? During the first ten years of my observations, I was under the impression that 72 hours was the limit; but the experience of another ten years has satisfied me that this limit was never sufficiently approximated to be laid down as such, and that 48 hours would cover the possibility of the disease lying dormant in the system. Most of the patients, however, who, though free from the disease on arrival, suffered from it afterwards, did so within thirty hours of this event; but in these cases it is possible that some portion of the stage of incubation may have been passed on the journey to Mussoorie, as, except in the exact period

fixed by practical inoculation, it is impossible to lay down any precise time as that from which to date the stage of incubation.

In all matters connected with quarantine, this fixing, if possible, of the period of choleraic incubation is of the most vital importance, as on it must rest the decision when a ship, for instance, with cases of cholera on board, may be said to be free from the possibility of individuals with the disease in the stage of incubation being landed. I therefore feel that no apology is necessary for these details, nor yet for a statement of the circumstances under which these conclusions have been arrived at; and I would, therefore, add that they are not drawn from the experience acquired by the personal observation of a few cases of the disease arriving from, or passing through, localities but slightly "choleraised," but are the result of the knowledge gained in an almost annual visitation of cholera for twenty years, including the cholera-influences nursed up and disseminated from the twelfth year festivals of Hurdwar in 1867 and 1879.

In the preventive measures, therefore, which I would recommend in the case of a seaport like that connected with the town of Cardiff, first, I would urge the great importance of independent medical inspection of all ships arriving from what I may term "choleraised ports;" secondly, that cases of cholera should (if able to be moved) be placed in a hospital-ship, moored in a selected locality with special reference to the prevailing wind, and there comfortably and suitably treated; and suspicious cases should be kept under observation. As regards the remainder of the passengers and crew, if cases of cholera were present in the ship on her arrival off the port, then the passengers and crew not under treatment or observation should be taken to a quarantine-ship; and, if no cases of cholera appeared among them within forty-eight hours, they should be permitted to land and disperse. All the arrangements necessary for the treatment, observation, and temporary isolation of the passengers and crew should be so carried out, as regards comfort, attention, and sanitation, that those subjected to them should see that they are designed for their comfort and the protection of the public health, and not, as they too frequently are made to appear, as a punishment for some fault, instead of as the unavoidable consequences of a misfortune. Money judiciously laid out under this head is well spent. The fear of the discomforts of isolation leads to its evasion, either by concealment of the disease, or by the adoption of some other mode of escaping from the consequences of it. The ship, when the crew and passengers are removed, should be disinfected. The treatment of these cases of cholera, and of those under observation, should be carried on by the medical officer of health, or one specially deputed for this purpose; who, if possible, should possess some practical knowledge of cholera, not so much for the treatment of it, as for the diagnosis of the disease, as I am quite satisfied that there is such a symptom as a "cholera-look," and some even go the length of a cholera-odour.

The detention above recommended would be quite unnecessary even in the instance of ships on which cases of cholera had occurred during the voyage, if there had been no fresh cases within forty-eight hours of arrival off the port.

The preventive measures relating to the locality should, in my opinion, be based on the following coincidence, which has been constantly recorded, and is almost invariably observable in cholera-epidemics in India, and which may be described as the behaviour of "the cholera-influence."

This cholera-influence, whether it advanced with what is termed the main body of the epidemic, as it did by the road from Juggernaut in 1856, or appeared to precede it by human intercourse, moving more rapidly, as, for instance, by express or ordinary train, as was seen from Hurdwar, in a less marked degree in 1867, but infinitely more so by the increased and expedited railway-communication of 1879, invariably exhibited itself in, comparatively speaking, very few of the villages or towns visited by the dispersing pilgrims, whether by road or rail, in comparison with the vast numbers through which these cholera-stricken pilgrims must have passed on foot, or it may be even halted in for a day after leaving the railway. This, I feel, points to the necessary concurrence of some local conditions with this cholera-influence, as the true causes of the extensive local cholera-epidemics; and therefore the sheet-anchor for the prevention of cholera-epidemics in a locality is proper sanitation. Every effort may, and in many cases will, fail to keep out the disease; but the triumph of sanitation, at which all preventive measures should aim, will be to limit the outbreak to the imported cases; for, though every locality may not enjoy the remarkable local immunity from endemic or epidemic cholera, to which Mussooree and Landour, in the Himalayas, can lay claim, every locality, in these days of sanitation, should enjoy an exemption from the unsanitary spots, to which it is to be feared these appalling outbursts of cholera in certain places

in Spain are now due. I am convinced that, if attention were more paid to local sanitation, with the view of preventing the disease from obtaining a footing, and not so entirely devoted to the efforts to keep it out by sanitary cordons and quarantine, we should hear less of these melancholy tales of panic and death. Local sanitation therefore, both as regards the locality and its inhabitants, is the preventive measure against cholera of any practical value.

By sanitation with reference to the locality, I mean the systematic search for, and removal of, all those conditions, either local or personal, which tend to produce, by means of the air breathed, or water or food taken, derangement of the bowels producing diarrhoea, or the specific local condition interfering with the biliary secretion, which too frequently results in dysentery.

By sanitation locally, with regard to the inhabitants, I mean the allaying of that alarm which too often ends in panic, and which is the most fertile exciting cause of liability to a choleraic seizure. This should in reality be more easily attained than the sanitation of the locality, as it is entirely due to the idea that cholera is both infectious and contagious, when, in the strict sense of the term, it is most certainly neither. Before I proceed further, I think it most necessary to point out clearly that local sanitation will fail to produce its full and characteristic beneficial results, if delayed till the epidemic is near at hand. Unheeded warnings bring their own punishment, and Spain now suffers from the neglect of July, 1884. True, sanitation is now thought of and attempted, but too late; the pestilence is in their midst, has succeeded in securing a good footing, and has found a population ready, by the consequences of want of sanitation and panic, for its fatal grasp; it is thus we hear of the appalling mortality given by the correspondents of the JOURNAL of this Association in Spain. When the inhabitants of a locality see measures taken to secure a high state of sanitation, their confidence is secured, and their moral courage to successfully meet the pestilence is both roused and established. There is one point, however, to which I would draw special attention; and that is the fact that it is possible to have a locality which neither time, money, nor energy can place in a sanitary condition, such as would hold out a hope of contending successfully, under certain conditions of overcrowding, with an outbreak of cholera. Such a locality is Hurdwar, in the North-West Provinces of India; and yet annually, at the worst season of the year for cholera-epidemics, namely, April, and every twelfth year to an appallingly increased extent, the collection of pilgrims is encouraged by the Government of India in every possible way, even though cholera be visibly in their midst, as it was in 1867 and 1879. Here, when the cholera has burst out from overcrowding, etc., into a full flame, the gathering breaks up, and the dispersing thousands are indiscriminately huddled like sheep into trains, and scattered all over India, with results that everyone can expect and understand. Now, though there may not be such a locality, or many of them, in this country, yet one such place may, directly or indirectly, cause as much misery as was traceable to the Hurdwar Fair of 1879. If such places exist anywhere in or near large towns or cities in this country, let them be now put into a sanitary condition; or if this, as at Hurdwar, be impossible, let them be either emptied of their occupants, or let arrangements be made for their improved housing and living. The cholera-visitations of the past will tell where these unsanitary spots are to be found, and now is the time to remove them. If cholera once finds them out, and gets a good footing in them, we shall then learn, when it is too late, the danger of allowing "sanitation to slide."

I am aware that the Government of India, as represented by their late sanitary adviser, from arguments based on cholera-statistics, consider that these dispersing cholera-stricken pilgrims did not spread the disease from Hurdwar in April 1879, because these said cholera-statistics proved that the cholera-influence was before them, if only in the occasional isolated cases of cholera registered in many towns and cities before these dispersing pilgrims could arrive in them. This appears to me very much like saying that if, in a large stackyard, a fire be smouldering in one, it may be an isolated stack, and a boy carelessly throws lighted matches among the other stacks, and they, from their inflammable, hence susceptible nature, become ignited, and half the stackyard be burnt down, these lighted matches cannot be blamed for the conflagration, as there is evidence to prove that a fire had been smouldering for some time in one of the stacks.

No amount of cholera or any other sanitary statistics will convince me, after the opportunities I have had of personally inquiring into the subject locally at the time, and, subsequently, by means of the village mortuary-registers in the villages themselves, that the collection of the hundreds of thousands of pilgrims at Hurdwar in April, 1879, and then, when cholera had burst out among them, their dispersion, without the faintest attempt at method or proper supervision,

by fast through trains, in direct opposition to my earnest request, which I pointed out to the authorities at the time—I repeat, nothing will convince me that this is the harmless proceeding which the author of “Cholera; What can the State do to prevent it?” speaking, I presume, as the head of the Sanitary Department in India for the Government of India, as lately as November, 1884, would have the world suppose it to be. The only explanation I can think of, or excuse which I can offer for such conclusions is, that the author was writing entirely from a theoretical knowledge, based solely on statistics, having neither local nor practical experience of the subject, except, indeed, for a few days at the end of March, 1879, which should have warned him of the probability of 1879 repeating the sad experiences of 1867, which it did in a tenfold degree almost to the exact dates.

B. Measures during an Outbreak.—These may be summed up in redoubled exertions in carrying out all those sanitary requirements necessary to maintain the health of the population, by the removal of all those causes likely to assist in the spread of the epidemic by producing a state of the system favourable to the reception of the cholera influence. The most systematic efforts should be made to search out and treat cases of the disease in specially located cholera-hospitals. The buildings from which cases of cholera have been taken should be disinfected, and measures taken to prevent their reoccupation before this can be safely done. The measures carried out in India, among the troops attacked with cholera, are so obviously unsuitable for a civil population in Europe, that I need only allude to them briefly in passing. They consist in flying from the locality which has proved to be “choleraised” to another, where it is hoped this influence has not arrived, or is not present; and if the latter should be found to be the case by fresh seizures taking place, then the detachment moves again, until a spot is found where exemption is gained. As these moves, which the soldiers call “cholera-dodging,” generally take place at the end of the hot weather, or the beginning or middle of the rains, the discomforts which the poor creatures have to undergo are very considerable. No method seems to be adopted in the direction the move is made as regards the prevailing wind, nor yet, if one can judge by the last published accounts, whether the cholera-camp, as it is called, may not be completely isolated by flooded rivers, etc. In short, the measures adopted when the epidemic breaks out in a cantonment in India, can be summed up in one word, “bolt.” This may seem too strong language; but let any one ride round the Meerut cantonment, and see the cholera-cemeteries within a radius of six miles, and the record of deaths in the station-cemetery, and I am sure he will wonder that something else has not been thought of to meet this terrible scourge, and will turn with positive relief to the suggestion of special cholera-hospitals. To be of real benefit, the patients must not be carried too far to these hospitals, and they must not be on too large a scale. When the disease has gained admission into a locality, it must be remembered that what is called “summer diarrhoea,” due frequently to overindulgence in fruit, or biliary derangement, owing to the heat of the weather, though it may not be of much importance when the cholera-influence is absent, is an actual source of danger when it is present; and carefully organised measures should be taken to treat these cases, and, if possible, remove the originating causes. The Mahapurshad, or holy food of Juggernaut, chiefly composed of melons in various stages of decomposition, the eating of which was a religious necessity to a pilgrim, too often produced a train of symptoms most favourable for the development of the cholera-influence, when no wonder the mortality was appalling. The abundance of fruit in Cashmere often works up the cholera-influence, if present, to an alarming outbreak; and when an early rise in some rivers, the sandy beds of which are devoted to the growth of melons, throws a vast quantity of this fruit into the market, ripe and unripe, with a population considerably underfed, if the cholera-influence be anywhere near, it soon finds a favouring soil, and an unaccountable (!) outbreak of cholera is reported. All this points to the necessity of careful inspection of the meat, fish, vegetable, and fruit markets, and the removal and destruction of all meat, fish, vegetables, and fruit unfit for food, either from overripeness or from incipient decay. The fact of unusual diarrhoea, or fevers with typhoid symptoms, in any locality, should lead to an inquiry into the water-supply, and, above all, into that most unsanitary of all sanitary requirements, the placing of the one cistern for all purposes, including drinking-water, over the one water-closet, the water-fittings of which are, as I have seen, often so defective as to waste water, so that the closet is kept without water, except what is thrown down by the occupant of the house when the odour becomes unbearable. I will only suppose a case of cholera occurring in a house with these sanitary arrangements, and leave it

to others to complete the picture, when the hard worked breadwinner comes in in the evening, done up with his day's work, and is subjected to the effects of these unsanitary conditions, when physically lowered by exhaustion and hunger, and thus peculiarly susceptible to any noxious influence. The hill sanatorium in the Himalayas most liable to cholera, and which suffers the most from the disease, is Murree, a station also noted and dreaded for the frequency and fatality of its outbreaks of typhoid fever, due, without doubt, to the impurity of the water-supply and the saturation of the soil for many years with injurious substances.

Another most fertile cause of the cholera-influence lighting up an epidemic, when it has gained admission, or has been lying dormant, is overcrowding. At Juggernaut in 1856, and at Hurdwar in 1867 and 1879, when this condition was at its height, on the day of the festival, then cholera burst out like a long pent-up fire, only waiting for the presence of something peculiarly inflammable, which this overcrowding seemed to supply. At Hurdwar, the fair broke up, no doubt, next day, and the poor pilgrims dispersed, but it was too late. All laws of sanitation were grossly violated at Hurdwar in 1879, with almost the entire police, magisterial, and medical staff of the district looking helplessly on, and then, when the mischief was done, they left, and the official report says, Hurdwar resumed its usual appearance. I can only say, Who saw this, to write it? What happened to the resident population of Hurdwar, Kunkul, and Jwalapore, when this cholera-influence had been nursed to such an extent? And, be it remembered, it is on such cholera-statistics that conclusions regarding the spread of the epidemic are founded. There is ample evidence to prove that an epidemic was lighted up, such as the residents of Hurdwar and the adjoining towns of Kunkul and Jwalapore will never forget. Sanitation was carried on, or, to speak more correctly, was attempted, to such an extent, that the priests of the sacred shrine allude to that twelfth-year festival as the one in which the “Bungee” or sweeper, that is, the lowest caste, triumphed over the “Brahmin,” or highest caste, or, to put it in English, sanitation to them was made to appear of more importance than religion; and yet there never was an instance in which sanitation so utterly failed to be of the least practical benefit as in Hurdwar on April 12th, 1879. In drawing prominent attention to this subject, I do so because the Government of India violated every rule of sanitation by a neglect, which actually amounted to an ignoring of the melancholy experiences of 1867, and wasted time, energy, and money in attempting to place in a sanitary condition a locality where, under the circumstances of a twelfth-year festival, it was simply impossible to effect even improvement.

From this intensely “choleraised” centre, the outcome of the gathering of literally hundreds of thousands of pilgrims, with cholera proved to be in their midst, resulted what was known among the troops returning from the last Afghan war as “the march of death”—another proof of the penalty demanded for the violation of all sanitary laws and regulations. In the hope that this may be a warning to all authorities not to attempt impossibilities with sanitation in certain localities, and under certain conditions, I enter into these details; as the result of my practical observation and experience is, that no soil, so to speak, seems so favourable for the development into a sudden and violent outbreak of the cholera-influence as that resulting from overcrowding.

What the Government of India may do in the twelfth-year festival of 1891, I cannot tell, as much depends on the theoretical or practical views of a single individual—namely, its sanitary adviser; but I do know that twelve years will not obliterate the memories of 1879, and the horrors of that flight from Hurdwar. There was, however, one preventive measure against these outbreaks of the cholera-influence, due to overcrowding, to which I drew the attention of the authorities; namely, the construction of a railway to Hurdwar, which, by making it possible, as at Muttra, for the pilgrims to visit the “sacred steps” at Hurdwar all the year round, would reduce the number at the twelfth-year festivals. This line of railway has been sanctioned, and indeed is being now constructed, but, with a persistence in their belief which is inexplicable, this tide of pilgrims will be brought direct into Saharanpur, the most unsuitable station in the North-Western provinces for this junction, instead of to the station of Nagul, nine miles distant, where, in the event of cholera appearing among the pilgrims, special arrangements could be made, as I suggested in 1879, and the railway-authorities were then prepared to carry out.

As regards the treatment: nursing is the sheet-anchor in cholera, and should be persevered with in the stage of collapse, till death has, without doubt, claimed its victim. I saw a soldier who had been put into the stretcher with the pick-axe and spade, to be buried, when the

column halted on its march from Saharanpur to Chuekrata, in 1879, and who was found sitting up when his comrades came to bury him. I knew a Bengal civilian, now serving the Government, who heard the door shut, and the order given for his coffin; and dead-houses could, I fear, tell more sad tales than the one I know. Let everything connected with the treatment of cholera be done quietly, brightly, and courageously, remembering that nothing gives the poor sufferer courage like the exhibition of it.

As to medicinal treatment, I have tried all and every kind, even the celebrated treatment by the injection of tincture of quassia, as recommended by Honingberger, which he offered to sell to the Government for £10,000, and which, I believe, would have been paid had it succeeded; but it, like most other modes of treatment, only exhibited our ignorance, both of the disease and its treatment. After seeing the sad results of the alcoholic stimulant treatment, and of that by opium, I have come to the conclusion that the action of alcohol on the circulation in the brain interferes with the natural power of rallying from the stage of collapse, and that narcotics, if absorbed at all, only tend to deepen and to lengthen into the sleep of death the stage of collapse. Carbonate of ammonia in full and continuous doses, with sulphuric and nitric ether in camphor mixture, administered in the way alcoholic stimulants are given, combined with hot frictions and sinapisms, to restore, if possible, the capillary circulation, have proved, in my experience and practice, the most successful line of treatment, and one which cannot be charged with interfering with the natural efforts towards recovery¹; for in India I have seen, on the road-sides leading to Juggernaut, numbers who have recovered, and have started to continue their journey, without either treatment or care of any kind whatever, after having been left by their companions as dead, or to die. Iced drinks, in my opinion, should never be given, for the body is cold enough from the specific action of the cholera-influence on the system; and when thirst, a constant symptom, is complained of, water at the temperature of the air should be given; and, for the violent retching and ineffectual attempts to vomit, copious draughts of tepid water. All the patients who have recovered, when questioned, alluded gratefully to the quenching of the thirst, and it seems hard to suppose that this is not an indication of the natural line of treatment.

The measure of measures when the disease is present in a locality, is to allay the fear caused by the too generally accepted belief that cholera, like small-pox, is both infectious and contagious. Let this belief be once thoroughly shaken, and we shall then have the most powerful agent possible to aid in nursing the cases of the disease. The only possible source of danger to nurses or attendants arises from the risk of over-work, and consequent exhaustion, and the possibility of thus suffering from diarrhoea or dysentery; in which state of health they should neither nurse nor attend on cases of cholera, as I am convinced, from what I have seen and heard, that, if nurses or attendants be seized with the disease while carrying on their duties, it will be found in most cases to be due to this; and this circumstance should be judiciously communicated to all whose duties require them to attend on cases of cholera.

From all my experience, I am quite satisfied that cholera is neither contagious nor infectious in the sense in which these terms are applied to diseases such as small-pox and other eruptive fevers generally; and if the dejecta of a cholera-patient contained a germ as readily admissible into the system, and followed as certainly by the characteristic symptoms met with in the case of the inserted small-pox virus, when the person has not been protected by a previous attack of small-pox or cow-pox, then, if I may judge from the experience acquired by the universality of small-pox where inoculation or vaccination is unknown, India, or most certainly Bengal, would have been repeatedly decimated by the cholera-epidemics in which I have been during the past thirty years. Wherein, therefore, it may be asked, lies this difference? In the hope of allaying alarm, the only theory in which I shall indulge shall be one to try to point out this difference. In the case of small-pox virus it recognises no local interference, so to speak, that I know of, in the way of its dissemination. Bring an unprotected individual within the influence of the infection or contagion, and the person will suffer from small-pox, with a certainty that must be seen in India to be believed. The exposure may take place anywhere, on the shores of the Bay of Bengal, or as I know, 16,000 feet above sea-level in the Himalayas, and the effect will be the same. With cholera it is different, as I shall try to show. In small-pox, all that is necessary is susceptibility, with the presence of the variola virus; neither the season of the year, nor the unsanitary condition of the

locality, nor yet any atmospheric conditions, seem to have anything to do with the attack, or to be at all necessary.

With the cholera-influence three conditions seem to be necessary for the development of a case of characteristic Asiatic cholera: 1, the individual susceptibility at the time; 2, the effects of local unsanitary conditions, including overcrowding; 3, the concurrence of certain atmospheric conditions. Without the first two the third is innocuous; without the third, the first two are equally so; and without the first, as in my own case, till June, 1867, the last two, throughout the epidemics of Juggernaut in 1856, and Hurdwar in April, 1867, were innocuous.

Take the case of Alicante, in Spain, in July, 1884. The first two were undoubtedly present, but not the true cholera-influence (though there were a few isolated or sporadic cases); the necessary concurrence of some specific atmospheric conditions was absent, and no outbreak was developed. In July, 1885, all three seemed to be present, and the appalling epidemic now raging is the result. The aim, therefore, of preventive measures should be to remove the first two conditions by improving the health of the population, and the sanitation of the locality; so that, if the cholera-influence which accompanies cases of the disease, or that due to atmospheric media or conditions, find its way into a locality, an outbreak is rendered most improbable, because the first two conditions are not present. I repeat, if cholera were as contagious or infectious as small-pox, for instance, it is simply impossible to suppose I could have gone through the epidemics in which I have been without having had even a symptom of the disease in any of them; and, as my own case is instructive on this point, I shall give it.

From 1854 to 1867, I had been present, as sanitary officer of the district, at the great cholera-epidemics of Juggernaut in 1856 and Hurdwar in April, 1867; and yet it was not under either of these concentrated cholera-influences that I was seized with the disease, but in June, 1867, when residing in Calcutta for a few days, on my way to England, I suffered from a rapid but severe attack of cholera, though when, where, and how I got the disease, I cannot tell. I was apparently in good health; but the weather was very warm, and I had had a trying journey from Mussooree in the Himalayas. Knowing, I had not been near a case of the disease, and had never even heard of it being near. A brother officer living near suffered from cholera at the same time, and the attack proved rapidly fatal. The only predisposing cause in my case that I can think of was overfatigue, as I was otherwise quite well.

With reference to the disposal of the cholera-discharges and soiled clothes, until it can be incontestably shown, by proofs other than those derived from experiments on the lower animals, some of whom (dogs) have lived for weeks on cholera-corpses, as I have daily seen at Juggernaut, that the dejecta of cholera are innocuous under all and any conditions of human life, in the present mystery which hangs over the disease, all discharges and soiled clothes should be subjected, as a preventive measure of great importance, to such treatment as will prevent their possibly becoming hereafter sources of cholera-influence. That the dejecta of cholera-patients are the vehicles which contain the cholera-influence, in whatever form it may assume, I have not a doubt; and, even supposing the human system may not be the soil in which this influence is multiplied and subsequently disseminated, yet I am not in the least prepared to say that these dejecta, or even the blood of a cholera-patient, are innocuous as means of spreading the disease, simply because of the negative results of the experiments with these substances in the lower animals; because, I repeat, I have seen at Juggernaut every beast (including the village dog) and bird of prey, from the hyena and vulture downwards, feeding with perfect impunity, as far as I could see for weeks, on cholera-corpses; and this not in one year, but in many. Among cows, there is a disease called by the natives "cow-cholera," which I have seen, and very fatal it is; but this is clearly due to the tank or pond water the cows were in the habit of drinking, some of which I examined at the time, and found to be utterly unfit for any animal to drink, from its semiputrid condition; and this, though the weather was cold, and there was no cholera anywhere. This "cow-cholera" resembles that which, when it occurs among human beings, district sanitary medical officers in India are frequently called to inquire into and report upon, owing to its being returned in the mortuary registers as a sudden and unaccountable outbreak of cholera in a certain village. A personal visit soon shows this outbreak to be due to an unparapetted well, or one with cracked masonry sides, or rat-holes, or the roots of the banyan-tree; in heavy rain this is converted into a cesspool, thus producing a localised outbreak of diarrhoea closely resembling cholera, not only in its symptoms, but also in the rapidity and number of the fatal cases. I have seen cows on the sands of Juggernaut chewing

¹ Cholera Stimulant Mixture.—Carbonate of ammonia, ten grains; sulphuric ether, twenty drops; nitric ether, thirty drops; camphor mixture, one ounce. Dose for an adult, half an ounce to one ounce; proportionate doses for children.

the limbs of cholera-corpses, and the soiled rags lying about, to excite the flow of saliva, where there was not even a dry stick, much less a blade of grass, to chew for this purpose; and, though they looked miserably starved creatures, yet I did not find their carcasses lying about the outskirts of the town.

To conclude, therefore, from the negative results alluded to before, that the dejecta of cholera, in our present state of ignorance regarding this awful scourge, are, under every or even any condition, innocuous to the human being, is, in my opinion, as unwarrantable a conclusion as it is a dangerous assertion.

In conclusion, I would draw attention to the bad effects of concealment of the disease by pointing to the fact that, but for the concealment by Church and State of the cases of cholera in Marseilles in October, 1833, steps might then have been taken which possibly might have spared Marseilles, Toulon, and Naples the awful visitations of the pestilence which they experienced in 1884, and that from which Spain is now suffering.

It is a remarkable coincidence, and one pregnant with the most important consequences to the continent of Europe, that there was a time in 1884, in the height of summer, when the true cholera-influence in Alicante, in Spain, was apparently not present, and the outbreak was thus limited to a few isolated and sporadic cases; and yet, at the same time in 1885, without any change in the sanitation of the locality that is known of, or apparently in the public health, or in the mode of living of the population inhabiting it, an epidemic of cholera is lighted up, and assumes the proportions it has done to-day (July 25th, 1885), namely, over 2,500 cases, and nearly 1,000 deaths. Here, in my opinion, lie either conditions or an influence, or both, as yet unknown, of equal importance to humanity as the discovery of the comma-bacillus; and he who can solve this mystery will be a benefactor to his species second only to Jenner. The case of Marseilles in October, 1883, and May, 1884, is not a parallel one; the cold weather months lowered, if they did not check for the time, the vital energy of the cholera-influence, or modified the atmospheric conditions, so that, till favourable weather came to develop the combined or separate action of this influence or these conditions, an epidemic was improbable, if not impossible. When that weather came, an alarming outbreak rapidly resulted. We are not unprepared to be told of the circumstance of the recrudescence of the cholera-influence in the Delta of the Ganges, after apparently having died out, or passed away to the north-west; but, for a town and province in Spain, on the shores of the Mediterranean, to be the locality of a similar recrudescence of this fatal scourge, appears to me a subject of the most vital importance to the welfare of the whole continent of Europe. This is accepted as a melancholy and unpreventable fact in Lower Bengal, but all must hope that a preventable or removable cause may be discovered for the recrudescence of the pestilence which is now ravaging Spain, and, alas, slowly spreading.

CHOLERA AND OTHER ZYMOTIC DISEASES IN THEIR RELATIONSHIP TO SANITATION PRACTICALLY ILLUSTRATED.

*Road in the Section of Public Medicine at the Annual Meeting of the
British Medical Association in Cardiff.*

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THERE are several reasons which combine at the present time to make the subject of the relationship of sanitation to cholera and other zymotic diseases of especial interest. Last year, the heart of all Europe was wrung by the accounts of the distress, desolation, and death which fell like a pall on the fairest portions of three kingdoms, near to our own country in point of distance, and nearer still in ties of commerce and intercourse.

The quick and subtle spread of the disease from town to town, and from province to province, caused as much alarm in the public mind as did its deadly ravages in any particular locality, where its baneful germs found congenial ground to multiply. In many directions there were indications of panic, and it was thought that at any moment the disease might be carried to our shores, and that here, in our midst, might be found a re-enactment of those terrible scenes, the descriptions of which had so moved the public. Even bold men grew grave, and asked, in anxious tones, how far we were prepared to cope with a foe, which spread like a whirlwind, and numbered its victims by thousands and tens of thousands. The inquiry was not an unnatural

one, for those who have not had occasion to mark particularly the great strides in sanitation which the last thirty years have witnessed, and who do not know with any precision the strong bulwarks which these improvements constitute against inroads of epidemic disease. This year again the anxiety has been renewed, and, as we meet in Cardiff, a port which, owing to its intimate shipping connection with the Spanish ports, is of course proportionately liable to the introduction of the epidemic, it may not be considered inappropriate for me, instead of entering into any lengthened exposition of the etiology of various zymotic diseases, to explain the practical lessons in sanitation which are, I think, to be learnt from certain previous outbreaks of cholera and zymotic diseases which have come under my observation during the time I have had the privilege of advising the authorities of this town.

I shall deal mainly with cholera. It is not necessary for me on this occasion to enter into the history of the discoveries of those who have made patient and painstaking investigation into the nature of contagia, nor to apportion the exact relative pre-eminence of such men as Schwann, Spencer Wells, Burdon Sanderson, William Budd, Pasteur, Klein, Koch, and others. It will suffice to accept what they have contributed to establish the germ-theory. Leaving to future determination the question as to whether the cholera-germ is the comma-shaped microbe of Koch, or the bacillus of the French Commission, we can take the common ground of agreement that it is an organism, specific in its character, as are the germs of other infectious diseases. One attribute pertaining to these germs or organisms, and one that constitutes an important factor for the consideration of the sanitarian, in his action necessary to be taken for the prevention of infectious diseases, is that they retain the principle of a vitality in a latent state, for an indefinite period, taking on activity only when exposed to the influence of favouring circumstances. A most remarkable instance of this is the outbreak of cholera last year in Toulon.

When this epidemic first occurred, its source of introduction was involved in much mystery. It was at first explained that it was probably due to a captain of a British ship, who, having cholera on board, concealed the fact by falsifying his log. But on a commission being instituted for the purpose of further inquiry, the attention of the commission was directed to an old hulk, named the *Montebello*, that had been used in the Crimea, for the conveyance of troops, where cholera was known to have decimated the French army; this vessel subsequently returned home with some stores, consisting of old cart-ridge-pouches and shakoes; these had remained undisturbed in the hold ever since. The first two cases of cholera were two sailors who had charge of these stores, and were seized a few hours after having displaced some of them. Hence the origin of this terrible outbreak. With these preliminary remarks, let me now turn to the consideration of the epidemic in Cardiff, to which I have referred.

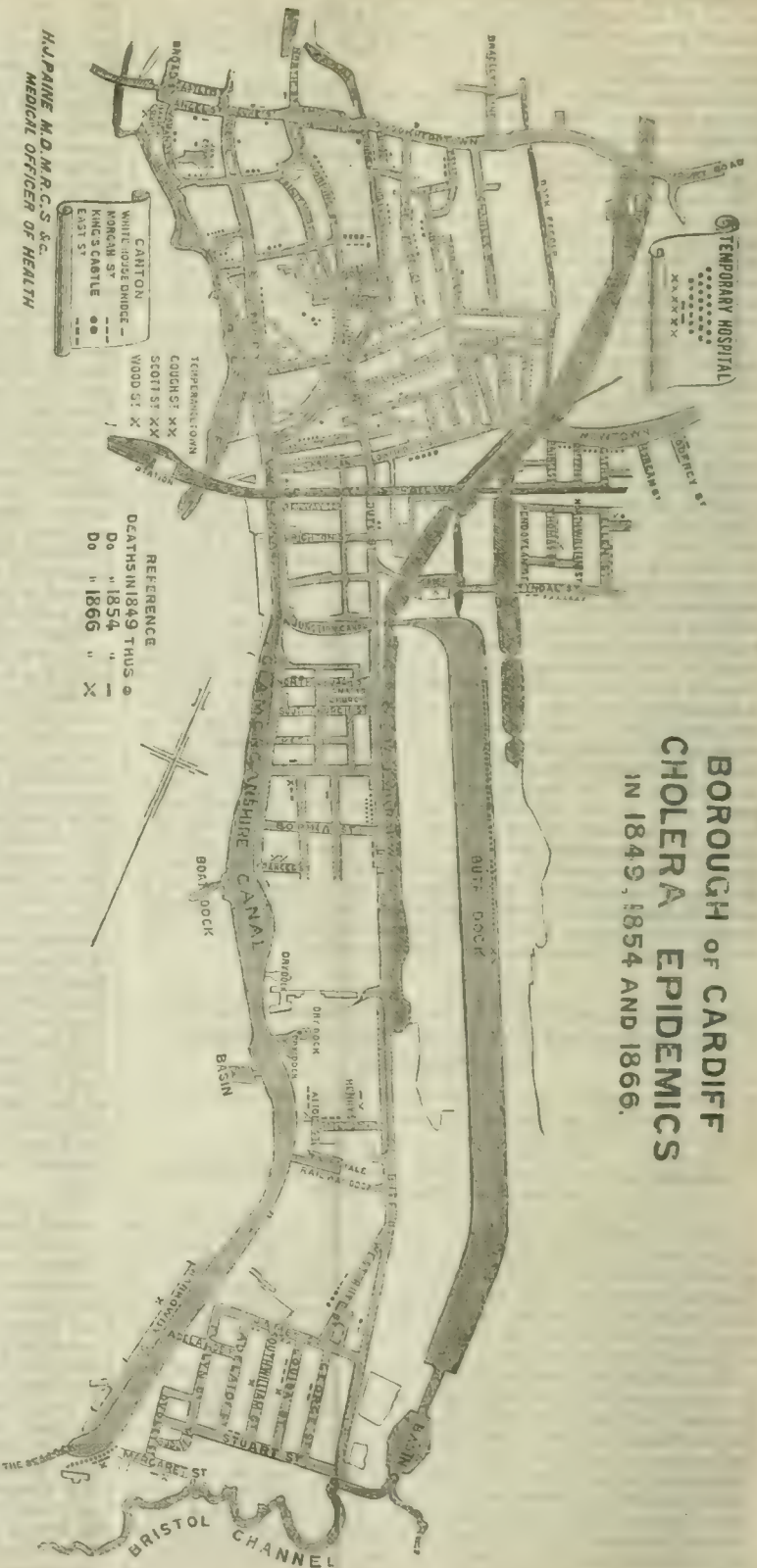
Owing to the combination of the distress in Ireland with the progress of large constructive works in Cardiff, the period of 1846-7 witnessed a large influx of the poorer Irish into the town. Many of these came from Clonakilty and Skibbereen, where typhus fever in a malignant form had been raging; and as some of these poor creatures arrived with the disease upon them, and others brought with them its seed, the immigration caused an outbreak of such magnitude in this town, that 322 cases of typhus, and 93 of dysentery, the latter being sequelæ of the former, were treated in their own homes. Besides these, 186 were received into a temporary hospital, utilised for this purpose. The total mortality from this epidemic was 142; and the severity of the epidemic eventuated in an inquiry as to the sanitary condition of the town.

The results were in accord with the doctrines shadowed forth in our present knowledge as to the causes directly or collaterally influencing epidemic diseases, and may be summarised as follows.

The district at this time comprised an area of 1,756 acres, and a population of 16,693. The town of Cardiff was built on a nearly dead flat, its inclination being from north to south. The oldest part of the town is but slightly raised above the general level, the highest point being the Town Hall. Here it is only ten feet above the level while the general surface of the flat is about two feet below the spring-tide level, and eight feet above the level of high-water neaps.

The geological conformation may be thus described. The lower or southern half of the town is built on a thick alluvial clay-deposit, which is about 35 feet in thickness on the foreshore, gradually thinning until it reaches a transverse line drawn from Pengam Bridge to the Ely Common, where the road crosses the Great Western Railway, at which line it practically ceases. The northern half of the town is built on a light bed of porous gravel, varying in thickness from 6 to 8 feet; and below this is a marl that is impervious to water, so that the subsoil-water is here held up; and this portion of the district was

BOROUGH of CARDIFF CHOLERA EPIDEMICS IN 1849, 1854 AND 1866.



formerly always more or less waterlogged, and during heavy rains the cellars of houses would be flooded. The roadways of the streets were for the most part unmetalled; stagnant water would be constantly found in them. No provision was made for the removal of house-rubbish, and this would be thrown into the open areas before the houses, mixing with mud and stagnant water, and exposed to the hot rays of the sun during the summer months; this would readily undergo putrefactive fermentation, and become very offensive.

There were three or four water-courses for carrying off surface water and slops; but their in-linen-fall was so slight that they were little better than stagnant ditches. Excremental matters were received into cesspits. The water-supply was obtained from shallow wells; and this, owing to the absence of drainage, was polluted by the liquid excrements of the cesspits protruding through the subsoil, so that the wells were really but receptacles for this contamination. This lamentable state of things was due to the limited powers and more limited means of the then authority.

The average mortality of seven years ending 1848 exceeded 30 per 1,000 of the population. The total deaths were 2,532, so that the total deaths of the population seven years exceeded the births by 100. The yearly increase of population was due to the immigration of strangers seeking employment here, rather than to the natural productive powers of the place.

It was at this time (1849), and when the town was in this condition, that the first cholera visitation occurred in Cardiff. The epidemic, on this occasion, may be considered to have been introduced from inland. It had prevailed with some degree of intensity in Edinburgh, and many of the Scotch towns, during the latter months of 1848 and the spring of 1849, and subsequently slowly advanced southward. During the first week of May, some

deaths from cholera had been registered in the city of Gloucester, and at Rhymney, in Monmouthshire.

In the latter part of that month, a death from cholera was reported in Caroline Street, Cardiff, and within a few days the disease spread throughout the contiguous streets; these streets being built on part of the district where the gravel joined the clay deposit, and where the subsoil was waterlogged, and the water-supply, as I have just stated, polluted by the infiltration of the liquid contents of the cesspits attached to every house. A reference to the accompanying cartoon-map, on which the fatal cases of that visitation are noted by a round dot, will show that the epidemic was most fatal in Lane David Street, Stanley Street, Mary Ann Street, Little Frederick Street, and Millicent Street.

All the houses in these streets, with the exception of Millicent Street, were occupied by the families of Irish labourers, were overcrowded, filthy to a degree, and ill-ventilated. It was in these houses, and amongst these people, that the typhus epidemic had just previously been very fatal. Cholera was for some time almost exclusively confined to these streets; and it is most noteworthy that, when afterwards it spread westward, it still observed the same geological topography. The other parts of the town suffered but little, excepting one small subdistrict, where some houses were built closely adjacent to the sea-lock, at the commencement of the Glamorganshire Canal. The water from this canal had been let out for the purpose of clearing away the mud that had been depositing for years, and at this time nearly blocked up the water-way; when this mud was thrown on the side of the canal, near to these houses, the exhalations were most offensive, and it was attributed the severity of the disease in this locality.

The total number of deaths in Cardiff from this epidemic were 351, out of a

population of 16,693, or at a death-rate slightly exceeding 21 per 1,000.

To mitigate the severity of the disease, the following measures were adopted. A temporary hospital was erected for the reception of cases of cholera that could not be treated in their own homes; a house-to-house visitation was instituted to detect cases of sickness in the earliest stages; depôts were established in various parts of the town, where all suffering from premonitory symptoms could obtain medicines free of charge; the town was divided into sections, each section being allotted to the nearest medical man, whose duty it was to attend to all applications made to him; a fund was raised to provide articles of clothing, food, stimulants, and all necessities, to those who were unable to procure these; and disinfectants were freely distributed. Soon after the cessation of this epidemic, the borough was placed under the provisions of the Health of Towns Act, 1848. Immediate steps were taken for the purpose of carrying out a complete system of drainage, and obtaining an efficient water-supply. Alleys and courts were put in a satisfactory state; unfinished streets were paved; the roadways were metalled; owners of houses and other properties were required to remedy any sanitary defects; and inspectors of nuisances were appointed to prevent overcrowding, enforce cleanliness, the abatement of nuisances in or around houses, and to discharge all other duties under the instruction of the officer of health.

During the year 1853, considerable anxiety was evinced respecting the possibility of another outbreak of cholera in this country. This anxiety was intensified in Cardiff, in consequence of a man being found in the streets suffering from choleraic symptoms. He had arrived a few hours previously from Bristol, and was removed into a building attached to the Union Workhouse. Here he ultimately recovered; but the man in charge of the building was taken ill, and died in two or three days, as did also the nurse, while other inmates suffered from diarrhœa; but there were no further deaths. Closely adjacent to the building, at this time, was a very offensive ditch, containing stagnant water; this nuisance was abated, and the epidemic passed away. I paid great attention to the excreta. They always contained ordinary fecal matter, and there was an absence of the rice-water dejecta.

In March, 1854, after an interval of four months, some deaths were registered as suffering from sporadic cholera and choleraic diarrhœa; three were adults and five were infants; but no further cases of a diarrhœal character were reported. At the latter end of July, however, my attention was called to a foreign seaman in a seamen's boarding-house, No. 49, Millicent Street. I found him to be suffering from malignant cholera, and he died in a few hours. The source of the disease was traced to a foreign vessel. Two days later, cholera broke out in Millicent Street, and it is important to note how closely to the house of the first case. Two deaths were registered in No. 49, five in No. 48, two in No. 47, one in No. 44, one in No. 55, one in No. 24, and one in No. 31—making a total of thirteen within seventeen days. This circumstance induced me to believe that the infection was given off from the excreta; and I determined to reverse the procedure I had adopted in regard to the location of the patients during the epidemic of 1849. The temporary hospital was still in existence, and, when called to an infected house, I removed the convalescent to this building, where they remained a few days on probation, to satisfy myself they were free from infection; after this they were discharged. I procured a nurse to take charge of the sick patient, and, when the case terminated, I took possession of the house, and had it thoroughly disinfected, and well fumigated with sulphurous or chlorine gas, before re-occupation. The success of this action was most marked; no second case was recorded in the same family thus managed. Although I made a most careful inquiry into the history of each fresh case coming under my observation, I had no reason to believe the disease was communicated by those who had been removed from an infected house.

The effect of this procedure is shown on the cartoon, and by the tables which I have prepared. The small linear marks (—) denote the deaths from this visitation; and it will be observed that, while the gross mortality was greatly reduced, there was a corresponding relative decrease in each street where the disease made its appearance.

There is another cause which greatly contributed to this. I prohibited the use of the well-water by the occupiers of houses in contiguous streets—Love Lane, David Street, Stanley Street, Mary Ann Street, and Little Frederick Street—having obtained permission from the representatives of Lord Bute to have water from the Feeder stream connected with his docks; the result being that, while in 1849 there were sixty-six deaths registered in these streets, in 1854 there were only six. I should add that the symptoms of each individual case, coming under my care, were as severe and as rapid in their course as in the

epidemic of 1849; but the mortality was considerably reduced, as, on this occasion, in face of the increased population, the deaths fell to 172.

The next epidemic took place in 1866, on which occasion it was again introduced from seaboard. For some time, the epidemic was confined to the shipping, and to those whose occupations were connected with it; afterwards, cases occurred sparsely scattered throughout the town, but the total mortality was only 44. The number of deaths at this visitation, and their locality, are shown by the small crosses (+) on the cartoon.

There was one particular circumstance, during this epidemic, which illustrated the influence of polluted water. I was called to some cases of cholera in North Morgan Street, Canton; these were in a block of nine houses. These houses were supplied with water, not from the public waterworks, but from a pump attached to No. 1; eight of the houses had this supply. In these, three of the inmates died from cholera; seven others were attacked with the disease, but recovered. It is very notable that, while cases occurred in each of the eight houses, the occupier of the ninth house obtained water from the public supply in Wellington Street, and no one in this house suffered from the disease.

I had this water analysed, with the following result.

	Grains in Imperial Gallon
Carbonate of lime and magnesia	24.54
Sulphate of lime and magnesia...	36.60
Chloride of sodium	27.18
Iron alumina	0.22
Silica	0.30
Organic matters and loss	3.09
Total	91.83

Last year, great fears were again entertained of the introduction of this disease from Toulon, Marseilles, and other Mediterranean ports. With these ports there is a constant communication, and Cardiff, from this circumstance, was exposed to the possible danger of infection. The measures adopted to guard against this were these. A steamer was employed to intercept all vessels arriving here from these ports. Instructions were given to all pilots, on boarding a vessel, to cause the yellow flag to be hoisted. It was the duty of the officer on board the quarantine-boat, when the signal was given, to visit the vessel and put the cholera-questions. The captain had to reply to these and affix his signature, signifying that the information was correct, and any falsification rendered him liable to severe penalties. In the event of the information being unsatisfactory, the vessel was required to proceed to the mooring-station, and was there detained until visited by the medical officer. On his visit, if there were any cases of sickness on board of a choleraic character, the patient was removed to a temporary hospital erected on the island of the Flat Holms, and the remainder of the crew carefully inspected. All infected vessels underwent thorough disinfection before being admitted into port, care being taken to discharge the bilge-water. Four infected vessels arrived in the roads, from which three cases of cholera were removed to, and treated, in the hospital, one only proving fatal.

The experience of Cardiff may, therefore, be taken to prove that by increased sanitation, cholera is robbed of its chief terror. In the outbreak of 1849, there were all the unsanitary conditions of soil, drainage, polluted waters, and general circumstances, which could contribute to the spread of the epidemic, and we see that then it was limited mainly to the area in which it thrived with such fatal vigour. In 1854, the second outbreak came before there was improvement in the drainage or water-supply, and again we find the same area to be the centre from which it spread, modified, however, by the change in the location of patients, and by the prohibition of the use of polluted water. In 1866, again, it visited the town in as virulent a form as before, but was met and checked at once by the improved sanitation and water-supply; while the only striking incident of the epidemic was one isolated case which demonstrated the enormous power for evil which polluted water possesses. The lessons are the same as those to be learned in other places and countries, but here they are, however, perhaps more sharply inculcated. Foul water, running kennels, noxious cesspools, open drains, stagnant pools, and all noxious abominations which, in former times, abounded, are the conditions under which zymotic germs live and thrive and multiply; and cholera is a powerful enemy to be dreaded. Change these conditions, give pure water, good drains, and healthy arrangements, and its power is gone.

Having detailed the history of these three epidemics, and the measures taken to arrest their prevalence, I now pass on to the sanitary operations that have been conducted by the local authorities of

His town since it was placed under the provisions of the Health of Towns Act of 1848, and to illustrate the success that has attended these.

For the purpose of doing this, I shall divide the period into four decades. The Act came into operation in Cardiff in 1850; the town was then in the condition I have described. Immediately steps were taken to carry out an efficient system of drainage. Up to the present time, £107,000 has been expended in the construction of the sewerage works.

A supply of water was obtained from the watershed of the northern range of hills, about seven miles from the town. This water-supply was first undertaken by a private company, but has now passed into the hands of the local authorities, who have already expended £230,000 in that direction. Independent of these, upwards of £150,000 has been expended in the construction of streets, and other public works, making a total of nearly £500,000. An efficient staff of sanitary inspectors has been appointed, whose duty it is to detect all sanitary defects, prevent overcrowding and such like evils, to detect any faulty sewer-arrangements in or near dwellings, and to do other such like duties under the instruction of the medical officer.

TABLE A.—*Street-List of Cholera for the Years 1849, 1854, and 1866.*

Streets.	1849	1854	1866	Streets.	1849	1854	1866
Angel ..	1	3	—	Mary Ann ..	13	—	—
Alice ..	—	1	1	Millicent ..	18	16	—
Bridge ..	5	5	1	Mill Lane ..	11	2	—
Bute ..	12	3	—	Margaret ..	—	1	1
Bute Docks ..	33	15	2	Maria ..	—	1	—
Bute Terrace ..	5	—	—	Morgan ..	—	3	—
Bute Town ..	1	—	—	New Inn Court ..	3	—	—
Baker's Row ..	2	1	—	New Wharfe ..	1	—	—
Blue Anchor ..	—	2	—	Newtown ..	9	—	—
Canal ..	3	2	—	Nelson ..	—	1	—
Canal Bank ..	3	2	—	Noah ..	—	1	—
Carpenter's Arms ..	2	—	—	North ..	—	1	—
Caroline ..	4	1	—	North Church ..	—	2	—
Charlotte ..	5	4	—	Old Gas Yard ..	1	1	—
Church ..	3	—	—	Old Workhouse ..	24	—	—
St. Colman Row ..	1	—	—	Old Barracks ..	—	1	—
Crookherbtown ..	1	—	—	Plymouth ..	1	—	—
Cross ..	1	—	—	Paradise Place ..	—	2	—
Christina ..	—	1	—	Patrick ..	—	3	—
Crichton ..	—	4	—	Peel ..	—	2	—
Dalton's Court ..	1	2	—	Perth Place ..	—	1	—
David ..	16	—	—	Quay ..	3	—	1
Dry Dock ..	2	—	—	Rising Sun Court ..	1	—	—
Duke ..	1	1	—	Rodney ..	2	1	—
Davis ..	—	—	1	Rowes Square ..	3	1	—
Evan's Court ..	1	3	—	Ruperra ..	3	2	—
East ..	—	3	—	Rothsay Terrace ..	1	1	—
Ellen ..	—	7	—	Rosemary ..	—	—	1
Frederick ..	4	3	1	Rosemary Cottage ..	1	—	—
Frederica ..	—	2	1	Refuge ..	—	2	—
Friends Place ..	—	1	—	Sea Lock ..	12	3	1
Francis ..	—	—	2	St. Mary ..	3	4	—
Gainers Court ..	—	1	—	Stanley ..	19	—	—
George ..	—	2	—	Sophia ..	—	1	—
Godfrey ..	—	2	—	Stuart ..	—	2	—
Gough ..	—	—	2	Scot ..	—	—	2
Gas Court ..	3	—	—	South William ..	—	—	1
Glass House Court ..	3	—	—	Tabernacle Court ..	3	—	—
Golate ..	2	—	—	Thomas ..	—	3	1
Gower's Court ..	1	—	—	Three Cranes ..	1	—	—
Green Garden ..	1	—	—	Tredegar ..	1	1	—
Hayes ..	4	5	—	Tunnel ..	2	—	—
High ..	1	—	—	Tyndall ..	—	2	7
Hills Terrace ..	4	1	—	Union Building ..	5	2	—
Honfray ..	1	—	2	Union ..	3	—	—
Henry ..	—	1	1	Upper Bute ..	2	—	1
Harrowby ..	—	—	1	Union Workhouse ..	—	—	6
Harris Court ..	—	—	1	Vachells Court ..	2	—	—
Herbert ..	—	—	1	Waterloo Building ..	6	—	—
John ..	5	3	1	Wharton ..	3	—	—
Jones Court ..	1	—	—	Whitmore Lane ..	13	2	1
James ..	—	3	2	Womanby ..	2	—	—
King's Castle ..	2	—	—	Working ..	5	3	—
Kingstone Court ..	12	—	—	West Bute ..	—	2	—
Landore Court ..	5	2	—	West Church ..	—	1	—
Lewis ..	4	—	—	White House Bridge ..	—	1	—
Little Frederick ..	19	—	—	Winstone Court ..	—	1	—
Love Lane ..	8	2	—	William ..	—	2	—
Louisa ..	—	3	1	Wood ..	—	—	1
				Total ..	351	172	44

Table B gives the yearly mortality: the deaths from all causes, with death-rate; and the deaths from the zymotic diseases, with death-rate.

It should be noted that, up to the end of the first decennial period, the excess of deaths over births that were noted in 1849 had increased, as up to this time, as will be seen by Table C, a total of 5,771 deaths and 5,516 births, showing in the 10 years the excess of deaths over

births to be 255; the death-rate from all causes gave a mean of 32.6 per 1,000; the deaths from the chief zymotic diseases 9.8.

TABLE B.

Year.	Popula- tion.	Deaths from all Causes.	Death- rate.	Mean of 10 years.	Zymotic Deaths.	Death- rate.	Mean of 10 years.
1846	13,385	324	24.2	—	51	3.7	—
1846	14,212	321	22.5	—	50	3.5	—
1847	15,039	484	32.1	—	133	8.8	—
1848	15,866	579	36.4	—	186	11.7	—
1849	16,693	864	51.7	—	483	28.9	—
1850 ¹	17,520	485	27.6	—	116	6.6	—
1851	18,351	525	28.6	—	81	4.4	—
1852	19,721	620	31.4	—	175	8.8	—
1853	21,091	644	30.5	—	129	6.1	—
1854	22,461	925	41.1	32.6	353	15.7	9.8
1855 ²	23,831	641	26.8	—	65	2.7	—
1856	25,201	772	30.6	—	136	5.3	—
1857 ³	26,571	883	33.2	—	234	8.8	—
1858	27,941	753	26.9	—	128	4.5	—
1859	29,311	826	28.1	—	212	7.2	—
1860	30,681	662	21.5	—	95	3.0	—
1861	32,054	897	26.1	—	160	3.1	—
1862	32,082	695	21.1	—	132	4.0	—
1863	33,550	862	24.7	—	268	7.9	—
1864	34,298	232	26.1	26.5	250	7.2	5.4
1865	35,046	867	24.7	—	161	4.5	—
1866	35,794	882	24.5	—	192	5.3	—
1867	36,543	873	23.8	—	116	3.1	—
1868	37,290	843	22.6	—	109	2.9	—
1869	38,038	1005	26.4	—	156	4.1	—
1870	38,786	903	23.2	—	133	3.4	—
1871	39,536	891	22.5	—	158	3.9	—
1872	41,183	916	20.7	—	234	5.2	—
1873	48,830	905	20.3	—	103	2.1	—
1874	53,477	885	16.5	22.5	154	2.8	3.7
1875	58,124	1547	26.6	—	294	4.9	—
1876	62,772	1455	23.1	—	339	5.4	—
1877	67,420	1475	21.8	—	256	3.7	—
1878	73,251	1468	18.5	—	197	2.5	—
1879	80,836	1428	17.5	—	137	1.6	—
1880	83,427	1634	19.5	—	306	3.6	—
1881	86,015	1556	18.0	—	164	1.9	—
1882	88,603	1724	19.4	—	293	3.3	—
1883	91,204	1807	19.8	—	253	2.7	—
1884	93,468	2250	24.0	20.8	476	5.0	3.

¹ Sanitary inspection of lodging houses.

² 1855, first portion of present system of drainage used.

³ 1857, first main of present water-supply used.

In 1855, the first section of the system of drainage came into operation; and in 1857, the first main of water-supply was laid on, and thus afforded to the public the use of pure water. Action was then taken to close all private wells, so that practically at the present time none exist. At the end of this decennial period, the death-rate had fallen to 26.5, the rate of zymotic diseases to 5.4.

The mean of the ten following years gives a death-rate from all causes of 22.5; that from the zymotic disease being 3.7. But the most remarkable illustration is that afforded on the termination of the last decade; here the death-rate from all causes was reduced to 20.8; the deaths from the zymotic diseases to 3.4 per 1,000.

The estimated value of these sanitary operations can be arrived at by contrasting the death-rate of the first ten years, when it was 32.6 per 1,000, with that of the last ten years, when it was only 20.8, the difference being 12 per 1,000.

Assuming that the mean of population of 1875-84 was 75,012, the working out of the equation of 12 per 1,000 on each year, would give 800, or a total of 8,000 on the ten years; so that, at the end of this decade, 8,000 persons were living, who would have been dead if the same condition of the town had existed as in 1845-54.

Apart from viewing it as a work of humanity and civilisation, the pecuniary advantages may be estimated by the following induction. Dr. Farr estimates the value of a male life saved to the productive industry of the kingdom to be £300, and that of a female to be £150; dividing the 8,000 equally, 4,000 would have to be valued at £300 each, and 4,000 at £150 each; this would give a money-value in lives saved equal to £1,800,000.

We have now to deduct from the £500,000 expended in sanitary operations, £230,000 as the cost of the water-supply, because this expenditure yields a profitable dividend. The cost of the expenditure on the town, therefore, will be about £257,000. The money-value of lives saved by this expenditure gives a return of 70 per cent. *per annum*, not taking into consideration the saving of loss on account of sickness; each life saved probably represents twenty cases of sickness, and thus prevents a further loss to the labour-supply.

TABLE C.

Year.	Population.	Births.	Deaths.	Excess of Deaths over Births.	Excess of Births over Deaths.
1845	13,385	320	324	4	—
1846	14,212	381	321	—	60
1847	15,039	381	484	153	—
1848	15,866	428	579	151	—
1849	16,693	466	864	398	—
1850 ¹	17,520	504	485	—	19
1851	18,351	575	525	—	50
1852	19,721	696	620	—	76
1853	21,091	865	644	—	221
1854	22,461	950	925	—	25
1855 ²	23,831	1079	641	—	438
1856	25,201	1227	772	—	455
1857 ³	26,571	1367	883	—	484
1858	27,941	1356	753	—	603
1859	29,311	1336	826	—	510
1860	30,681	1246	662	—	584
1861	32,054	1223	837	—	386
1862	32,802	1268	695	—	573
1863	33,550	1302	862	—	440
1864	34,298	1399	932	—	467
1865	35,046	1382	867	—	515
1866	35,794	1331	882	—	449
1867	36,543	1397	873	—	524
1868	37,290	1387	843	—	544
1869	38,038	1414	1005	—	409
1870	38,786	1406	903	—	503
1871	39,536	1391	891	—	500
1872	44,183	1358	916	—	442
1873	48,830	1430	995	—	435
1874	53,477	1550	885	—	665
1875	58,124	2716	1547	—	1169
1876	62,772	2707	1455	—	1252
1877	67,420	2772	1475	—	1297
1878	78,251	2795	1468	—	1327
1879	80,839	2969	1428	—	1541
1880	83,427	2893	1634	—	1259
1881	86,015	3145	1556	—	1589
1882	88,603	3399	1724	—	1675
1883	91,204	3526	1807	—	1719
1884	93,468	3920	2250	—	1670

¹ Sanitary inspection of lodging houses.² 1855, first portion of present system of drainage used.³ 1857, first main of present water-supply used.

Dr. EDWARD BALLARD (London) said that it was very refreshing to hear two papers containing nothing about the cholera-bacillus. He was glad to find that Dr. Pringle in his paper had pursued a line of thought which had been followed out for years before there was any talk of cholera-germs. The paper was thoroughly practical. It was necessary to look for the elements of cholera in local conditions—in personal and domestic filth, entering by the lungs, mouth, etc. These were the means by which cholera spread universally.

Mr. DYKE (Merthyr-Tydfil) said that the experience of the cholera-epidemics of 1832, 1849, 1854, and 1866 supported the views of Dr. Pringle and Dr. Paine. Cholera had its source in filth; if this were removed, cholera ceased. That was the way in which he had acted in Merthyr; and the teachings of previous experience more strongly pressed the importance of cleanliness as abolishing the disposition to cholera. He agreed with the authors of the papers in almost every point.

Mr. JOHNSON MARTIN (Bolton) referred to the occurrence of cholera at two contiguous villages; one situated on a gravelly soil, and the other dependent for its water-supply on a brook which received drainage. The experience of Bristol was followed. Nurses were trained to attend to the sick, carrying out disinfection, etc.; small hospitals were formed, and patients removed from the houses. He insisted on the value of sulphate of iron as a disinfectant.

Mr. DAVIES (Swansea) spoke of the untiring and zealous efforts of Dr. Paine, and said Cardiff ought to be very grateful that his exertions had been crowned with such success. Dr. Pringle's paper noted a defect in the present system of inspection of homeward-bound ships. There was at present no power to deal with persons on board infected ships who were not actually ill. He thought power ought to be given to detain these for forty-eight hours or three days to guard against the possibility of danger.

Dr. C. R. DRYSDALE (London) said that there was good reason to conclude, from the evidence at present before the profession, that cholera-poison was as specific as that of small-pox, measles, or scarlet fever. Hence the belief that this disease might be caused by eating indigestible food, or taking a cathartic, was unproved. The contagion of cholera was taken in by the lungs by inhalation from the sick, or

from excretions of the sick, or most frequently diluted excretions contained in drinking-water were the source of the contagion. Just as Dr. Bancroft, in 1812, showed that continued fevers were not caused by overcrowding and filth, unless germs of these diseases were present, so did Dr. William Budd and Dr. Snow show that Asiatic cholera was a special disease, always brought to Europe from Hindoostan, where it was endemic. In one case, cited by Dr. Budd, the spread of the disease was traced to the gaseous emanations of a workhouse-privy. In another well known case, the Golden Square epidemic of 1854, no fewer than 500 deaths took place in about ten days. It was not necessary to await unanimity as to the nature of the *contagium vivum* before pronouncing decisively that cholera was a zymotic disease. This poison was absorbed, and then followed a period of incubation, varying from one to three or four days, before the intestinal symptoms appeared. Cholera was a blood-poison, and acted on the nerve-centres like the fevers. Its action resembled that of asphyxiating substances, and this accounted for the collapse, the cramps, and the cyanosis of the patients. There was much evidence to show that Koch had discovered the germ which was the cause of the disease; and Mr. Macnamara, in Quain's *Dictionary of Medicine*, had described a case where water became contaminated with fresh cholera-dejections, and a small quantity of this water was swallowed by nineteen persons, of whom five were seized with cholera within thirty-six hours after drinking it. The epidemic of the British fleet in 1854, and that in East London in 1866, were clearly due to contaminated water-supplies. In the East Indies, from 1826 to 1844, on an average 35 men were seized with cholera yearly per 1,000; but in 1865 pure water-supplies were insisted on, and since then there were not more than 2 cases *per annum* per 1,000 in the British troops stationed in India. Attendants on cholera-patients were far oftener attacked than was generally supposed. In the epidemic of 1866, in the Punjab, 700 men who attended on the sick took cholera. India was, since railways were made in that country, never free from cholera in some part, and there had been epidemics of it there in 1869, 1872, 1875, 1879, and 1881. The cause of this disease being, then, patent, its prevention must depend on that knowledge. Personal attendants on the sick should carefully disinfect the clothing and evacuations. The dejections should not be allowed to flow into the sewers, otherwise they might communicate the disease to houses along the line of the sewer. They should be disposed of by disinfectants, and buried in the earth. The purity of the water-supply was of chief importance, and it was a valuable plan to flood all sewers in cholera-times with carbolic acid solutions, or other disinfectants, as shown by Dr. William Budd, at whose suggestion the sewers of Bristol were so treated, with the best results. It seemed that, owing to such a plan, cholera in 1866, although it broke out in twenty-six parts of Bristol, never spread to more than three or four individuals in each locality. The treatment of the disease suggested by the pathology was simply to give some slight aperient at the outset, to clear out the intestines; and after this to keep the patient quiet, and enable the system, if possible, to free itself of the disease by catharsis. No opium should be given to check this, which was, indeed, the effort of the system to free itself from the poison. Lastly, quarantine, to the limited extent now made use of in England, could never be objected to by anyone who understood the pathology of the disease. To admit a cargo of rags coming from a cholera-district, would indeed be a dereliction of duty in the authorities responsible for the health of a place, and to admit a vessel with cholera on board into the docks would be folly.

Surgeon-General CORNISH (Madras) had no intention of doing more than to listen to the papers read; but, as the question of the causation of cholera came up in the discussion, he would remark that his long experience in India had not led him to any practical conclusion. He regarded the germ-theory of cholera as still unproved. He laid special stress upon the practical fact that, both in India and in England, sanitary measures, improved water-supply, drainage, and better housing, had enormously improved public health, and diminished the liability to cholera. If we persisted in these practical measures of meeting epidemics, we could afford to wait for the results of inquiry as to the intimate nature of the disease.

Mr. LLOYD-ROBERTS (Denbigh) said that, in all diseases, filth acted as a debilitating cause, and prepared the ground, as it were, for the reception of the poison of disease. This, in the case of cholera, had been most lucidly shown by Dr. Paine in the chart presented. He instanced the spread of cholera through the pollution of drinking-water by sewage. There was no doubt that water did carry specific poisons by its pollution, and this was an evidence of it. Dr. Ballard had congratulated Dr. Pringle and Dr. Paine upon not having advanced the bacillus-theory of cholera. But, if cholera were not of bacillary origin, would Dr. Ballard explain what it was, and how it was propa-

gated, if not by the germ described by Koch? Sanitation removed predisposing causes, and so gave protection, providing no nidus in which the cholera-germ might grow; but it did not remove the poison.

Dr. BALLARD said there might be a cholera-germ; but this was a very difficult question, and there was no proof that cholera was produced by the introduction of a germ. Dr. Cunningham had shown that in India cholera did not spread as other infectious diseases did. When cholera broke out in India, the plan adopted was to move the troops. In the face of the Indian experience, it was very difficult to place cholera in the same class with fevers, or other diseases known to be contagious. There was a strong distinction between them; the public should know this, and should not be afraid of removing cases of cholera.

Mr. D. DAVIES (Bristol), President of the Section, said that the cause of cholera was destructible by chemicals. His first experience of the disease was in the Bristol workhouse, where, in a few days, 146 persons died. Above and beyond sanitation, there was something portable in water which communicated the disease. Cleanliness and cholera might go together. If cholera was brought into a town or district capable of spreading it, it would make its ravages felt. This was proved by his experience of the epidemics in Bristol in 1849 and 1866. He gave up the germ-theory altogether, but the use of quantities of sulphate of iron in the main drains of Bristol during the epidemic showed that the disease was, as he had said, portable, but that it could be destroyed by the use of chemicals.

Dr. A. J. MACARTHUR (Edinburgh) said that cholera was very much dependent for its existence on local conditions, more particularly on the state of the water-supply. He gave as an illustration that, in the epidemic of 1866, while St. Morrance, although under the same sanitary condition with respect to want of drainage as the neighbouring town of Pittenweem, escaped a visitation of cholera, Pittenweem suffered severely: the only difference in outward condition being that the water-supply of St. Morrance came from a loch in the neighbourhood, whereas Pittenweem was supplied with water from wells which were much contaminated.

Mr. F. M. CORNER (London) recited the preparations made last year in Poplar, to arrest cholera. Precisely the same lines were followed as those of Dr. Budd and Mr. Davies at Bristol, in 1866. They included skilled nurses, instructed specially at once to take charge of cases; to isolate others; and, where necessary, to take into their home-hospital cases requiring removal; the systematic disinfection of drains, and of all inlets from the house and surroundings; and attention to early diarrhoea. He referred to the experience of the Post-office in 1866 in preventing both diarrhoea and cholera by simple astringent remedies, including sulphuric acid lemonade as a pleasant summer draught.

Dr. PAINE said that Dr. Pringle's paper was a most valuable contribution, and should be printed and sent to the Cholera Congress in Rome. There was such a thing as cholera among monkeys. In one district, cholera was due to the consumption of drinking-water containing a mass of infusoria. He did not like the use of the term germ as indicating the origin of the disease, he would rather call it cholera-influence. He could understand contagion.

Surgeon-Major PRINGLE had had thirty years' service in India, and had had cholera without knowing how he got it. Local and personal influences were most important in the causation of the disease. With regard to the dejecta, the burial, and the use of Moule's earth-closets had been advocated; but Pasteur had stated that worms carried the disease-matter to the surface. It would be better to cremate the dejecta. The isolation of crews of vessels attacked by cholera was of the greatest importance. He hoped that Dr. Paine's paper would be made public, if only to show that we were prepared to spend much in amending the conditions known to be important in the propagation of the disease.

BEQUESTS AND DONATIONS.—Mr. Robert Bownas Mackie, M.P. for Wakefield, has bequeathed £1,000 to the Clayton Hospital and Wakefield General Dispensary.—Dr. William J. Smith, of Weymouth, has bequeathed £500 to the Royal Hospital there, to which he was consulting physician.—Miss Lucy Eliza Lucy, of Brighton, has bequeathed £500 to the Royal Free Hospital.—The Portsmouth Hospital has received £250 from the Flower Show Committee.—Miss Mary Ann Edwards has bequeathed £100 to the Jonny Lind Infirmary, Norwich, and £50 to the Norfolk and Norwich Eye Infirmary.—Mr. Henry Waring has bequeathed £100 to the Eastern Counties Asylum for Idiots, Colchester, and Mr. Thomas Lucas has given £52 10s. to the enlargement fund.

ON THE RESULTS OF THE INTERNATIONAL SANITARY CONFERENCE ON CHOLERA LATELY HELD AT ROME.

*Read in the Section of Public Medicine at the Annual Meeting of the
British Medical Association in Cardiff.*

By LAUCHLAN AITKEN, M.D., Rome.

To sanitary reformers in this country, the proposals which the Technical Committee of the International Sanitary Conference on Cholera, lately held at Rome, determined to submit to the plenary meeting of the representatives of the different Governments, must have been most disappointing. Not only were the delegates of Great Britain, the United States, and India left in a hopeless minority, but even the few recommendations adopted, which might have been supposed to show an inclination for more enlightened methods of dealing with the cholera question, have aroused such alarm among the more irreconcilable members, that two Governments at least—those of Turkey and Greece—have already intimated that they are totally unacceptable, and will never be sanctioned by them, although there has been no discussion of these resolutions by the conjoined diplomatic and scientific representatives. There can be no doubt that many other equally obstructive states will thus be encouraged to express their dissent from the views of the majority of the experts, and will decline to accept any change of the systems they at present enforce to protect themselves; and, as there is no chance of our Government accepting the most important of the recommendations made by the majority of the technical delegates, for exactly the opposite reason, that they are not liberal enough, it is not very hazardous to predict that the reassembling of the Conference this autumn is highly problematical. Nothing, indeed, could be gained at present by further meetings, as it has already been only too clearly shown that the ideas of those nations which have made the greatest sanitary progress are incomprehensible to the representatives of many of the smaller states, whose views of the origin and spread of the cholera-poison inexorably lead them to the most rigid enforcement of the strictest quarantine-regulations; and, from their standpoint, that is the only logical conclusion. Most of these smaller states have not even tried to institute any sanitary administration; and, where they possess the rudiments of such a service, the health-officers themselves are not educated to believe in the value of local sanitation.

It is useless to try to impress on such men that they must free their subsoil from pollution by a thorough system of drainage; must keep their water-supply and the air of their cities and villages uncontaminated by the products of the decomposition of organic matter; and must house their teeming populations somewhat better than their pigs, when their one notion is that typhoid fever and cholera spread exactly in the same way as scarlatina or small-pox. The views of the two schools are so hopelessly divergent, that many years must pass before we can expect any general concurrence in our belief that a thoroughly practical and well considered system of national hygiene, efficiently carried out, is the one method by which such diseases as typhoid fever, diphtheria, and cholera can be banished from our midst, or, when accidentally introduced, be confined within the most modest limits. There are, it is true, not a few signs that many of the representatives of the more intelligent Continental nations are willing to admit that, in theory, we are right, whilst they unhesitatingly vote for the maintenance of the restrictive system, simply because they are convinced that the local conditions prevailing amongst them cannot possibly be so improved within reasonable limits of time, as to warrant any trust in such a change as protective for the present generation.

To the opinions of such men many an earnest sanitary reformer must reluctantly assent, as a thorough knowledge of the sanitary state, not of country districts only, but of most of the large cities and towns of continental Europe, must carry with it the unpleasant conviction that a quarter of a century is no exaggerated time to ask before their inhabitants could afford implicitly to trust to the improved local conditions which would result from the effectual application of the best directed remedial measures. It is, therefore, perfectly in keeping with a theoretical acceptance of a more enlightened system, that the word quarantine has disappeared from the report of the proceedings of the conference-experts, although its substance is retained under the better sounding terms, observation and isolation, and that the recommendations for the prevention of the spread of cholera by land emphasise the importance of local sanitation at all times and everywhere, urge the establishment in each country of a properly organised medi-

cal sanitary service, and particularly call attention to the necessity for the constant intercommunication, without intermediaries, of the health-officers of the different nations to guard the great thorough routes by which the disease is imported.

These are all steps in the right direction, even if they are but the timid ones of men who are only beginning to coincide in views whose comprehension their early education and the local conditions around them have hitherto entirely prevented. It is, too, an advance that some of the delegates, who are supposed at least to understand the elements of hygiene, were ashamed to repeat before a body of scientists the untenable arguments in defence of land-quarantine and sanitary cordons which they used, only too successfully, a year ago in exciting their panic-stricken and ignorant fellow-citizens to demand from their respective governments the imposition of these cruel and useless measures; and, although it is evident, from what is going on in Spain at this moment, that some courage is required to draw a logical conclusion, even after withdrawal from an indefensible position, it seems certain that none of the more advanced nations are again likely to put these methods in force. Amongst such nations, too, we have probably heard the last of the intolerable and dangerous fumigations with the fumes of chlorine and sulphur, not in quarantine-grounds and at railway and other stations alone, but even in carriages and steamboat-cabins, which were held to be properly disinfected only when such fumes were strong enough to well-nigh suffocate unfortunate travellers, to be actually injurious to those with weak lungs, and to be irritating to all. Even in minor matters, it is a gain to have an authoritative opinion expressed that it is simply throwing away money, and needlessly annoying many susceptible persons, to adopt any methods of disinfection for letters, newspapers, and postal packages from cholera-infected districts. The Committee, too, probably acted rightly in disregarding many crotchets, when drawing up a simple set of rules for the use of cheap, well known, and transportable disinfectants; a result for which we may be grateful, although it might have been quite as readily attained by a less formidable machinery than that of an international congress. These are probably all the advantages obtained from the meetings of the technical representatives, with the exception of the slight mitigation of the restrictive measures applied, at present, to pilgrimages to Mecca from India and other infected countries. It was agreed that ships from infected or suspected ports are not at once to be sent into quarantine, simply because they are pilgrim-vessels bound to Jeddah, but are to have free *pratique* when their surgeons can show that they have complied with all the sanitary regulations required at the ports of embarkation and during the voyage, and are able to present clean bills of health for confirmation of the rigorous inspection by the health-officers at certain appointed sanitary stations.

Turning, however, from these somewhat unsubstantial signs of progress, it is not likely that any grave objection would be taken by the profession in this country to the measures of prevention recommended at suspected, or really infected, ports of departure. We can afford to smile, no doubt, at the somewhat childish confidence placed by the French and other delegates in the paternal form of government alone, which compels them to insist on the nomination, or at the least on the ratification of the appointments, of surgeons to large packet-boats being in official hands. But, by whomsoever carried out, the value of the strictest enforcement of proper rules to prevent the introduction of cholera, through any recognised channel, into passenger, troop, or pilgrim ships, will be universally admitted; nor can any amount of care for the real isolation of the sick, and for the disinfection of their effects, or of the cabins they have occupied, be looked on as superfluous, should the precautions taken at the ports of embarkation have proved unavailing, and should cases have appeared on the voyage. Some differences of opinion must exist as to the best methods of procedure, but none as to the expediency of prophylactic measures. It is, however, preposterous to believe that the British Government will ever consent to such a proposal as that of the compulsory inspection of all vessels from suspected or infected ports which are about to pass through the Suez Canal, and to the imposition, on the verdict of health-officers appointed under some kind of indefinite international agreement, of a quarantine which they have long held to be useless at any point of the Red Sea coast. The intolerable interference with trading interests of such a system would be no evil in comparison to the cruelty entailed on thousands of men, women, and children, by landing them in one of the worst climates of the world, and amidst local conditions which would insure the spread of any communicable disease that might have appeared among them; whilst experience shows that the danger disappears in exact ratio to the rapidity with which the infected ship passes to the cooler breezes of the Mediterranean and the Atlantic. And even if an infected ship

should reach our shores, the profession is confident in their power to stamp out the disease without cruelty to passengers or crew. As this proposal for inspection, observation, and isolation of suspected cases in the Red Sea is, unquestionably, the leading feature of the Technical Committee's report, it must be clear that no agreement based on the acceptance of such a project is possible, and our Government cannot too carefully avoid any entangling engagements. Many years must pass before any practical advantages can be expected from further international sanitary conferences. In the meantime, we must console ourselves, as best we may, with the hope that a more perfect comprehension of the system on which we rely for protection may lead to more energetic and better directed efforts on the part of continental nations for the improvement of the sanitary conditions under which they live.

THE OPERATIVE TREATMENT OF INTESTINAL OBSTRUCTION.

Introduction to a Discussion in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By FREDERICK TREVES, F.R.C.S.,

Hunterian Professor at the Royal College of Surgeons of England; Surgeon to, and Lecturer on Anatomy at, the London Hospital.

IN the history of the science of surgery, it is not difficult to find instances where the progress of surgical therapeutics has been hampered by a nomenclature; and, were such instances not forthcoming, the present subject would at least afford an excellent example. By conventional usage, intestinal obstruction is spoken of as if it were a clearly distinguished ailment, possessed of unvarying characters, and a precise individuality. It is, in reality, a generic term, and one that embraces many conditions. At the most, it expresses a prevailing feature common to many different anatomical states. It is the product of clinical, and not of pathological, knowledge. It is the surviving relic of the old term "ileus," a term that was applied to a certain combination of symptoms, at a time when the anatomical basis of those symptoms was without form and void.

It is now known that the "ileus" of the ancients may depend upon a great variety of anatomical causes, separated from one another, in many instances, by the most diverse characters. Operative surgery obviously can concern itself solely with anatomical data. A symptom is beyond the reach of the surgeon's knife. I venture to think, therefore, that any discussion as to the operative treatment of intestinal obstruction must be founded upon our pathological knowledge of the disease, and must start from that stand-point. "Intestinal obstruction" is hardly a translatable term. It has different meanings to different minds. It is impossible to discuss under one heading the treatment of a collection of symptoms that, although alike, may depend upon such different conditions as a fibrous stricture of the bowel on the one hand, and an impacted calculus on the other. It would be as reasonable to consider retention of urine as a distinct and isolated malady, without recognising that it may depend upon a stricture of the urethra in one case, and an impacted calculus in another.

The operative treatment of intestinal obstruction is most conveniently considered under three heads: (1) the treatment of acute obstruction; (2) the treatment of chronic obstruction; and (3) the treatment of chronic cases that have become acute. Time, however, will not permit a full consideration of the subject; and I think it will be better, therefore, in the present instance, to deal solely with one phase of the affection, and to limit the discussion to the acute form, since it presents the most urgent claims to the surgeon's attention.

The fairly defined collection of symptoms that make up the condition clinically known as acute obstruction may, for our present purpose, be ascribed to three anatomical conditions: (1) to the hernial strangulation of the bowel; (2) to volvulus of the sigmoid flexure; and (3) to acute invagination.

1. *Hernia-like Strangulation of the Bowel.*—Under this former heading, many structural causes of obstruction may be placed. The following are the most common; strangulation by peritoneal bands of all kinds; strangulation by omental ligaments or cords; strangulation by Meckel's diverticulum, or by an adherent appendix or Fallopian tube; and, lastly, strangulation through slits and apertures. With the last named would be included internal herniæ. In their precise anatomy, these various forms may be, and, indeed, are, often very unlike one another. The lack of resemblance, however, is no more pronounced than is the difference between an adherent appendix and an adherent diverticulum, or between these

structures and a cord-like adhesion, or an omental band. In every instance, a knuckle or loop of bowel is held and kept in bondage until it is strangulated. The mechanism of the obstruction is in all main points identical with that of strangulated external hernia; the general pathology is the same, and, with some minor modifications, the symptoms are the same. For these reasons, I have ventured to class all these forms of occlusion under the one heading of "hernia-like strangulation of the bowel." I do not know by what means the condition of the intestine in these cases could be distinguished from that met with in strangulated hernia; and it is also well to note that the segment of the intestinal canal that is usually involved in rupture is identical with that that is most frequently implicated in the internal form of occlusion. The varieties of intestinal obstruction that are classed under the above general heading are comparatively common, and, indeed, they form together no less than one-fourth of all known varieties of intestinal occlusion, both acute and chronic.

The treatment I would venture to propose is the following. The patient should be placed in bed and kept absolutely at rest. Some relief to the abdominal pain may be given by warm applications to the belly. The primary object in the general management of the patient should be to secure complete physiological rest to the alimentary canal. Physiological activity means increased peristalsis, increased pain, vomiting, and collapse, increased engorgement of the bowel, and an aggravation of the condition of the damaged part. No food of any kind should be administered; the dryness of the mouth and intense thirst may be relieved by sucking ice, or, in instances where this is not well borne, by sipping hot tea. Perfect rest may be brought to the disturbed intestine by means of opium. Some surgeons prefer belladonna; but it appears to me that a hypodermic injection of morphia acts with greater readiness and certainty, and brings about a more complete paralysis of the gut. It must be borne in mind, however, that, by the use of opium, the symptoms are masked, and the administration of that drug should be directed cautiously before the diagnosis has been established. It is as well to have the colon emptied—when occupied by faeces—by means of an enema; and, when once the bowel is stilled by opium, thirst may be relieved by copious enemata of lukewarm water, without producing increased intestinal disturbance. So far for the preliminary routine treatment.

The next step should be an attempt at the relief of the obstruction by laparotomy. I would venture to urge that laparotomy should be performed, when possible, within the first twenty-four hours, provided, of course, that the diagnosis be in its main points clear. The arguments that may be urged in favour of an early interference are these. The course of the malady is rapid; its average duration is six days; its termination is fatal. The final issue appears to depend not so much upon the age and state of the patient, or the immediate cause of the obstruction, as upon the amount of bowel involved and the rigour of the strangulation. It is to the speedy relief of the dying intestine that all the surgeon's attention should be directed. With regard to the question of spontaneous cure, it is certainly not impossible, but I have been unable to find any recorded case or any museum specimen that affords an instance of it. Patients who have died of acute obstruction of the kind now under discussion, have had previous attacks of acute occlusion, in no way differing—except in duration and mode of ending—from the final fatal attack. It would be fair to assume—and it is only an assumption—that the previous attacks were of the same pathological character as the final one, but that they ended in spontaneous cure. Certain specimens also point to the possibility of relief by means of gangrene of the obstructing band or diverticulum, and also by the formation of a protected perforation, with the subsequent development of an artificial anus. It must be evident, however, that these meagre data form no excuse for delay. Laparotomy is, in itself, not a serious undertaking; its high mortality in the present class of cases depends, I venture to believe, upon the fact that the operation is usually undertaken too late. It is regarded as a last resource, whereas it should be the first, since it is the only resource. When once the diagnosis of a strangulated hernia has been established, and taxis has failed, no surgeon, I imagine, is disposed to temporise. The condition of the bowel in these cases is identical with that found in strangulated rupture, and the therapeutic principles that apply to the one should apply to the other. It seems to be tampering with life to waste time over the administration of metallic mercury, and enemata of tobacco and the like. To thrust an aspirator into the abdomen, as some advise, is a stab in the dark, an empirical proceeding that leaves everything to chance. Massage, or abdominal taxis, has its advocates, but the procedure is, at the best, a blind one. The manipulation of the abdomen may, by a rare combination of circumstances, reduce the snared loop, but it is as likely to aggravate its condition, and to pro-

duce a perforation in a segment of intestine that is approaching gangrene, and that needs the tenderest handling.

Even if the diagnosis be ill founded, the laparotomy merely resolves itself into an exploratory incision. Such incision adds but a fractional part to the sum total of the risk to life involved; it displays a course of action, and even if it be found to be of no avail, it is questionable whether, in many cases, it hastens the inevitable ending. The use of laparotomy in other than acute intestinal diseases for purely diagnostic purposes has been clearly established, and has been accredited with a position of considerable and undoubted value.

With regard to the performance of the operation, I take it that the incision should be made in the linea alba below the umbilicus, that it should be large enough to admit the entire hand at once, and that it should be made under antiseptic precautions. With regard to the latter point, it does appear to me—speaking only from my own experience—that much of the success of these operations depends upon the observance of the strictest Listerian methods, including the use of the spray throughout the whole of the operation. It is well also that the incision should be a clean cut, and that the use of that uncouth weapon, the steel director, should be discarded. When the abdomen has been opened, the carbolised hand should be cautiously introduced, any protrusion of intestine being prevented by means of a flat warm sponge. One hand should be directed towards the caecum, and if that part of the colon be found empty and flaccid, it may be assumed that the obstruction is in the small intestine. It is well next to search for the seat of trouble in the right iliac region, about which it is most commonly placed. If the affected loop be not readily discovered, I would strongly advocate Mr. Hulke's plan of feeling for the collapsed coils below the obstruction. These coils are most commonly hanging in the pelvis, and by passing them through the fingers the constriction may be reached without much loss of time. It is needless to point out the difficulty of finding the point required by simply passing the small intestine in review inch by inch. Such a procedure is as likely to direct the surgeon's fingers to the pylorus as to the obstructed loop. The method also of straightening the mesentery, so as to make out its right and left sides, is of much value in preventing the error first named. I think that the practice of allowing the intestinal loops to protrude, and of then examining them in detail, is open to serious objections, apart from the fact of its being quite unnecessary. The procedure is, however, advocated by some surgeons of considerable note. I am in the habit, as soon as the abdomen is opened, of placing a large warm carbolised sponge deep in the pelvic cavity. It is removed just before the operation is completed, and its use certainly economises time and saves much manipulation of the pelvic viscera and intestines by sponging.

Should the bowels protrude, and any difficulty exist in their proper reduction, I would point out that the puncture of the engorged intestine, above the obstruction, for the purpose of relieving distension, is by no means either a simple or a harmless, or even a useful addition to the operation. The closures of these punctures in instances where the bowel is much distended, paralysed, and hyperæmic, is, I venture to think, often not so certain as is sometimes supposed.

When the obstruction has been found, small bands may be torn across, while larger ones may be divided between two catgut ligatures. An appendix, or a diverticulum, should be excised close to its base, and the opening, so made, closed by Lembert's suture, in such a manner as to bring the serous surfaces into contact. Any persisting slit or aperture may be closed by a few points of catgut, so as to prevent any further trouble at the same spot. The involved bowel, if in good condition, that is to say, if still of good colour, smooth surface, elastic and resisting may be returned free into the abdomen; but if it have lost its elasticity, be of dull surface, or visibly gangrenous, I am of opinion that it should be resected, and an artificial anus established.

I think that in these cases the immediate suture of the divided bowel after resection is to be condemned, and that all the recorded cases, so far as at present known, are in favour of the establishment of a temporary artificial anus. In the first place, the suturing of the bowel after the excision would greatly prolong the operation, and the condition of the patients upon whom these operations are performed is usually not such as would encourage prolonged narcosis. In the second place it is the obstruction to the bowel that clamours for relief, and not the mere circumstance that a segment of intestine is gangrenous. It must be remembered that the bowel above the obstruction is greatly distended, and, if the intestine be sutured and returned, that distension will remain but imperfectly relieved. The bowel at the suture line will be entirely paralysed, and will itself form a cause for an abiding obstruction. In the third place, it is difficult to precisely define the limits of the gangrenous action; and even if those limits be widely trespassed in the resection operation,

there is still the circumstance that the state of the bowel above the occlusion is exceedingly unfavourable for the kind of healing process that the operation demands. Lastly, there is the mechanical difficulty of uniting the large and distended tube of bowel above the constriction with the shrunken and collapsed segment that exists below it.

On these grounds I think, therefore, that strong claims may be founded in favour of a delayed union of the parts separated by the excision.

The abdominal wound is closed in the usual way: and, unless any peritonitis exist, I take it that no drainage-tube is required. If, however, peritonitis should have been established, and especially if it have led to much effusion, I would suggest that the whole abdominal cavity should be freely washed out with a weak carbolised solution, at a temperature of 98°, and that the peritoneal sac should be drained.

One point remains, and it is not perhaps a very important one. It is usual—with many surgeons at least—to have the abdomen supported by a broad bandage or binder for a considerable period after any operation involving an opening of the belly. The object, I take it, of this support is to prevent any yielding of the parietes at the seat of the wound, and to protect the patient from the possibility of some degree of ventral rupture. In stout women with pendulous abdomen this practice may be of value, but in patients of ordinary build its adoption appears to me to be a little against reason. If the abdominal parietes yield when the patient has left her bed, and is up and about, such condition may fairly be ascribed to structural weakness of those parietes. It may also not be unfair to assume that, if the abdominal wall were to become strengthened, such protrusion would not occur. Now I take it that a musculo-aponeurotic structure, like the anterior abdominal wall, is only to be strengthened by exercise: and the use of the bandage not only greatly limits such exercise, but causes the responsibility of supporting the viscera to be thrown upon the fabric, and not upon the abdominal muscles. No man would endeavour to strengthen a weakened arm by holding it in a sling. I have been in the habit, in all cases in which I have opened the abdomen for any cause, of keeping the patients in the recumbent position for—on the average three weeks,—and then of allowing them to move about without any kind of artificial support to the abdomen. So far, I have never seen anything but a dense firm cicatrix as a result of this practice.

With regard to the prognosis that has been given as pertaining to the present form of obstruction, it must be noted that certain cases have been recorded where symptoms of an acute character existed, and where a recovery followed, after a non-operative mode of treatment. Some of these cases may be examples of spontaneous cure. It would perhaps be not unfair to surmise that others may have been the subjects of an imperfect diagnosis, while the remainder may have belonged to certain rare forms of acute strangulation that can hardly be clinically distinguished from the hernia-like obstruction just dealt with. Among these forms may be named strangulation over a band, acute kinking of the small intestine, some cases of volvulus of the lesser bowel, and of occlusion by the presence of an external tumour, or by a foreign substance inside the intestine. These forms are all quite rare, but may all be the subjects of spontaneous relief. It will perhaps be allowed, however, that a laparotomy in such cases would not be a serious complication, and would render recovery somewhat more definite and certain.

2. Acute Volvulus of the Sigmoid Flexure.—Volvulus of any part of the intestinal canal other than the sigmoid flexure being comparatively rare, and chronic volvulus being still more uncommon, it will be convenient, under the heading of volvulus, to limit all observations to the acute twisting of the sigmoid flexure. This species of volvulus forms one-fortieth part of all varieties of intestinal obstruction. Its diagnosis is not obscure, and there is indeed little difficulty in differentiating it from all other forms of acute occlusion, save that due to the kinking of the loaded sigmoid flexure above some stricture at the commencement of the rectum. So far as I can ascertain, there would appear to be no prospect of spontaneous recovery in these cases when once the twist has become complete. The average duration of life in 20 cases that I collected was six days, and the usual cause of death would appear to be peritonitis, which is apt to set in somewhat early in the case.

I have pointed out, in my Hunterian Lectures at the Royal College of Surgeons, that the arrangement of the normal sigmoid flexure is liable to considerable variation. The condition of the gut that is necessary for the production of a volvulus is the following: The loop must be of considerable length, the meso-colon must be long and narrow, and the two extremities of the sigmoid or omega loop must be brought as close together as possible. It is about this 'neck' of the loop that the twist takes place, and the prognosis does not seem to be

affected by the particular direction of the volvulus. The anatomical condition just named may be congenital, or it may be brought about by some contracting peritonitis involving the sigmoid meso-colon, although, without doubt, the commonest cause of the peculiar arrangement of the loop is chronic constipation. It may be necessary to point out that volvulus is much more frequently met with in males than in females, and that the bulk of the cases fall between the ages of 40 and 60.

The treatment of volvulus of the sigmoid flexure involves many points of serious difficulty. I take it that, in the first instance, the treatment by rest and starvation would be insisted on as a matter of routine. Opium would be administered, and it may be as well to empty the rectum by an enema. With regard to more active interference, I believe that all attempts at relief by means of enemata or rectal tubes are likely to prove not only quite useless, but actually harmful. If the precise relation of the parts be borne in mind, it will be perceived that a forcible injection into the rectum will tend to tighten rather than to relax the twist. In one subject, who had died of an unrelieved volvulus, I found that, when the twist had been nearly reduced on the *post mortem* table, it could be made to reappear by injecting water into the rectum.

Simple laparotomy, it must be confessed, is not a very promising procedure in these cases. In the first place, the distended coil often reaches to the ribs, or even to the diaphragm, and by no ordinary incision could the great loop be dealt with. Through such an incision, however, a volvulus may be reduced with success, as shown by a case reported by Mr. H. Clark (*Lancet*, 1883). If the abdomen be opened, I would suggest that the gut be reduced in size by a puncture with a capillary trocar, and then that attempts be made to replace the distorted flexure. This procedure may succeed, and it is possible that the surgeon may convince himself that the probability of a return of the volvulus would not be very considerable. In actual practice, however, I anticipate that the trocar will not sufficiently empty the loop to render it easy to be handled; and that, after the reduction, the operator will have reasons to believe that, if no further steps be taken, a return of the twist will be exceedingly probable.

In any future case, therefore, that may come under my notice, I intend to adopt the following operation: to perform a laparotomy in the middle line, to puncture the gut, and attempt its reduction; if this fail, or the result appear unsatisfactory, to evacuate the involved gut through an opening in the summit of the flexure, to unfold the volvulus, and to establish an artificial anus, using the opening just alluded to for that purpose. By this method, the volvulus could be relieved in a very short space of time, and without much handling; and the distended colon above the twist could empty itself through the artificial anus. Inasmuch as this artificial opening would be at the summit of the sigmoid flexure, a return of the volvulus would be impossible. The flexure would be permanently retained in good position by means of the adhesions that would form about the fecal fistula. In process of time, the artificial anus may be closed by one or other of the operations adopted for that purpose. It may be unnecessary to point out that there is no anatomical difficulty in establishing an artificial anus leading to the sigmoid flexure through the middle line of the abdomen. The operation just alluded to is little more than a simple colotomy, since the manipulation of the bowel antecedent to the opening of the colon need not be prolonged. One thing is certain: that these cases of acute obstruction demand very prompt treatment. The rapidity with which peritonitis sets in, in the present form of occlusion, is very striking; and there is, moreover, great risk of the involved loop passing into a state of gangrene. A left lumbar colotomy in these examples of volvulus would certainly relieve the obstruction: but it would probably effect no change in the volvulus, and there would be great likelihood that the artificial anus established would have to be a permanent one.

3. Acute Intussusception.—The chief point of interest in connection with this form of obstruction is concerned in the question of the frequency of spontaneous relief: and the matter that presents itself most prominently to the surgeon's notice, relates to the reliance that is to be placed upon the prospect of such relief. This form of obstruction is quite common, and forms, indeed, no less than one-third of all known varieties of the affection, excluding hernia and obstructions due to congenital defects. The acute cases are defined as those that, if they follow an uninterrupted course, end in death within seven days. These form about 50 per cent. of the whole number of invagination cases. It is well also to bear in mind that the enteric and the ileo-colic forms are most usually acute, and that 50 per cent. of all the examples of the disease are met with in patients under 10 years of age. Spontaneous cure may be met with under two circumstances. In the first place, the invagination may reduce itself before

the period has been reached when, from structural changes, it has become irreducible; and secondly, spontaneous cure may occur after the invagination has become irreducible, either by the formation of a fecal fistula above the obstruction—a form of relief that is very rare—or by the elimination of the gangrenous intussusceptum.

The method of relief named in the first category is certainly not unfrequent. Most surgeons must have met with instances of acute invagination that have become cured without elimination of the intussusceptum, and with no more elaborate treatment than that comprised by rest, starvation, and the use of opium or belladonna. It is to be regretted that statistics are not forthcoming to show with what frequency this termination of the case may be expected.

To enter at once into the treatment of acute invagination; I imagine that general approval will sanction the immediate use of opium or belladonna, together with practical starvation and perfect rest. By these measures, the peristaltic movements are stilled, the irregular muscular action in the bowel that has provoked the malady is arrested, and the prospect of spontaneous reduction is greatly favoured.

Presuming that no benefit attends this mode of treatment at the end of twelve hours, it will be expedient to attempt reduction by means of insufflation or forcible enemata. Considerable success has attended these measures. By far the best instrument for the purpose—whether either water or air be used—is the admirable insufflator invented by Mr. Lund. I think that, in children under 10 years of age, the injection should be cautiously administered while the child is under the influence of an anæsthetic; but in patients above that age, it is perhaps safer to carry out this treatment without chloroform. There is no doubt that, in adults, the best guide to the amount of force to be used is the patient's own sensation. In any instance, the colon should be distended gradually. When the bowel is fully distended, the air or water should be retained for at least twenty minutes. The injection may be accompanied by gentle kneading of the intussusception-tumour, when such exists. I think that it is a matter of primary importance that the bowel should have been rendered quite quiescent by means of opium or belladonna, before the attempt at reduction by injection is commenced. I cannot understand upon what mechanical principles inversion and shaking of the patient are recommended in these cases. Before such a method were adopted, the exact position and extent of the invagination would have to be most accurately diagnosed.

It is obvious that these measures will have no effect when once the invagination has become irreducible. It is to be regretted that, at present, little is known of the precise circumstances under which such irreducibility takes place. It is known that the invagination may become fixed within a few hours of its formation, and it is needless to remark that adhesions play comparatively a small part in causing an acute invagination to become irreducible. Should the measures so far advocated fail after a patient trial, I would strongly urge that a laparotomy be at once performed. If enemata fail early in the case, they are not likely to succeed at a later period, and every hour that elapses renders the prospect of gangrene more immediate.

Against laparotomy in these cases many objections have been urged. In the first place, it is pointed out that an acute attack may become a chronic one. This is true, but the occurrence is very rare. By far the greater majority of the patients do not live long enough to enter upon the chronic stage. Moreover, chronic invagination is exceedingly fatal, and out of 59 recorded cases, taken without any selection, I find that there were no fewer than 51 deaths.

A far more important objection, however, depends upon the frequent occurrence of spontaneous cure, at a period when the patient is *in extremis*, and the case desperate. Temporising is constantly being urged upon this ground. One case of spontaneous cure is an argument against a score of proposed operations. An examination of the matter shows that little dependence is to be placed upon this mode of ending. "Elimination of the gut by gangrene occurs in about 24 per cent. of all cases, but when it has occurred it by no means follows that the patient recovers. In fact, no less than 40 per cent. of the subjects of spontaneous elimination die of the immediate results of the process of separation. Moreover, during the first year of life, spontaneous elimination occurs in only 2 per cent. of the cases, and between the ages of 2 and 5 in only 6 per cent.; and, when it is remembered that more than 50 per cent. of the total number of examples of intussusception occur in children under 10, it will be seen that elimination by gangrene offers no very extensive prospects of spontaneous relief. It is true that the older the patient the more chance has he of a recovery by this means; but it unfortunately happens that the older the patient the higher is the mortality after the occurrence of the elimination, so that the chance of cure becomes remarkably

slight" (*Intestinal Obstruction*). In favour of the operation, it must be pointed out that the affection is very acute, that the general mortality of the disease is 70 per cent., and that 80 per cent. of the patients die before the seventh day. I would venture to urge that in these acute cases, laparotomy should be performed at least within the first 48 hours, and if possible, within the first 24 hours; provided, of course, that all other measures have failed.

When the abdomen has been opened, the invagination should be reduced if possible. The reduction is best effected by squeezing the intussusception with one hand while gentle traction is brought to bear upon the gut entering the invagination with the other. Should the mass be found to be irreducible, or in a condition that threatens gangrene, the whole of the involved bowel should be resected, and a temporary artificial anus established. It appears to me that there is little to recommend the operation of enterotomy for this class of case. This procedure is certainly readily performed, but it is of the nature of a cut in the dark. It will relieve the obstruction symptoms, it is true, but it will leave the invagination untouched, and leave it possibly to pass on into a state of gangrene, or a condition that may lead to diffuse peritonitis.

THE OPERATIVE TREATMENT OF ACUTE INTESTINAL OBSTRUCTION.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

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IN regard to the general principles which ought to guide us in the operative treatment of intestinal obstruction, I am in full and hearty accord with Mr. Treves. I think the time has come when laparotomy for this malady may no longer have to struggle against the ban of being considered as a forlorn hope, but may be elevated to the dignity of a plan of treatment. In many cases, it ought to be the first and only plan of treatment. Medicinal treatment too often is aimed, not at the disease, but at the diagnosis. We even look to medicinal treatment to clear up the diagnosis: forgetting that, while drugs are obscuring our vision, the disease is killing our patient. We must not forget that a patient with acute intestinal obstruction is as gravely ill as if he were bleeding from a large artery, and that, though the disease is not so palpable, and perhaps not so rapidly fatal, it is one requiring an attention just as close and continuous, and a treatment perhaps even more decided and skilful.

On these broad principles, so well put before us by Mr. Treves, I have nothing new to say. I desire to occupy the time at my disposal by specially considering two points in the operative proceeding on which I am at variance with Mr. Treves, as well as with other surgeons.

The first point refers to the usual method of finding the cause of obstruction; the second to the treatment of the bowel after the obstructing cause has been removed. I may state them as propositions.

1. The best guide to the seat of obstruction is not manual exploration, but visual examination, assisted, if necessary, by extrusion of bowel.

11. No case of operation for intestinal obstruction is properly concluded until overdistended bowels are relieved of their contents.

1. You are all familiar with the rules laid down for our guidance in seeking for the site of intestinal obstruction. We are to explore the common sites—the cæcum, the promontory of the sacrum, or the umbilicus. We are to seek for collapsed bowel, and follow it up till we come to dilated bowel. And this we are to do with the hand inserted into the abdominal cavity through the opening we have made.

Let us suppose that the cæcum is distended: we expect that the obstruction is in the colon below it, and we are told to follow up the colon till we meet with it. The incision is in the middle line, below the umbilicus. The abdomen is distended, its walls are tense, and the transverse colon is probably pushed high up under the ribs. Through this opening, therefore, we must insert the hand, push it up over the distended coils, perhaps as far as the elbow, and isolate and diagnose the condition of the colon through its course. Easy as this looks upon paper, I would consider it in practice as one of the most difficult undertakings in surgery. If those of you who have not tried it in practice will try it several times in the *post mortem* room, I think you will agree with me.

Looking for the constriction by exploring in other ways is only a

little less difficult. If the hand, on insertion, were not met and surrounded by a bewildering labyrinth of dilated bowel that will stick to the skin, and will not give up following it; if the ordinary sites of obstruction were open to vision or to touch; if the intestinal walls were only a little more definitely palpable, and a good deal less dilated, then exploration would easily and surely lead us to the obstructing cause. But the conditions are all against the exploring hand, and I am in favour of another method.

The abdomen being opened, the presenting bowel is keenly observed. The most dilated portion of bowel rises nearest the surface, and the chances are strongly in favour of its being near the abdominal opening. Move the coils upwards and downwards, to the right and to the left, and fix upon the most dilated or the most congested portion. Use this portion as a guide, running the forefinger along one side of its mesentery; it will probably guide us to the seat of constriction. If this most dilated piece of gut be with difficulty detained inside the cavity, let it escape; it wants further treatment; and if we have not already discovered the obstructing cause, its escape and the manner in which it comes out will help us to find the cause. At the site of obstruction, and near it, the bowel is fixed, and this portion will not readily be extruded; at this end of the loop, we expect to find the cause. We may even coax out one end of the loop, for, as we do so, increasing congestion and distension will tell us that we come nearer and nearer to the obstruction; till, in a comparatively short time, we are certain to reach it.

I may say at once that, even if we can diagnose obstructions in the colon, through the ordinary laparotomy-incision, we cannot treat them by this incision. Obstruction in the colon is nearly always diagnosed as such before operation, and is treated by colotomy, lumbar or inguinal. As far as I know, median laparotomy has, in the large majority of cases, had to be supplemented by either a transverse or a lumbar incision, where removal of a growth or relief of an obstruction in the colon has been attempted by operation. It is, therefore, something only a little less than a surgical catastrophe if we perform median laparotomy for obstruction in the colon. This somewhat diminishes the value of our discovery of a dilated cæcum in such cases.

I would, therefore, substitute the finger for the hand, and supplement both by the sight; I would, in the first instance at least, ignore the cæcum; I would permit the bowel to extrude if it were much distended; I would even encourage it to do so, if I had not at once discovered the seat of obstruction, and if its extrusion were any help to me in this discovery; and I would go through all this before I inserted my hand to grope for the cause.

I cannot understand the universal condemnation of extrusion of the gut in these cases. Surely it is a remnant of the pre-abdominal era of surgery, when exposure of the peritoneum was considered as a calamity, and extrusion of the bowel as almost certain death. We handle the bowel freely enough in other abdominal cases. We strip it from adhesions, tear it and stitch it up; cleanse it of inflammatory and extravasated material, and handle it in every conceivable way without harm. Why should the simple escape of it from the abdominal cavity alarm us so in intestinal obstruction? If we protect it properly with flat carbolised sponges, it will come to no harm; if we decide to return it intact, we can do so readily enough after emptying it by compression between the hands, and so forcing its contents into the general abdominal cavity. But, in most cases, I think we ought to empty it before returning it; and this brings me to the next proposition.

II. No operation for intestinal obstruction is completed that leaves the abdominal cavity full of overdistended bowels. In every case where intestinal distension is a feature of obstruction, I believe that the intestines ought to be relieved of their contents; or, if this cannot be done with sufficient ease or rapidity, that an artificial anus ought to be made, and closed after the dangerous symptoms have passed.

When we have found and removed the primary cause of obstruction, we are apt to believe that we have done as much as our art tells us we can do for the cure of the patient. I believe this is very far from being the case. Large quantities of fluid lying in intestines paralysed from overdistension and inflammation may be a cause of obstruction, as efficient and as dangerous as strangulation by a band. The condition is, in fact, similar to or almost identical with that found in the class of obstruction known as physiological, and is, as being complicated with a laparotomy, even more dangerous.

Some aid to our understanding of the physics of this condition may be got from simple experiments in the *post mortem* room. If, before the abdomen is fully opened, it be sought to fill the intestines with fluid through an opening in the duodenum, it will be found that a very considerable amount of pressure is required to do so; that in most cases

the abdomen will be fully distended before the fluid has passed halfway down the ileum; and that, if the abdomen be fully opened, and the intestines permitted to extrude, many ruptures of their peritoneal covering will have taken place before the fluid escapes from the anus. If, now, the mesentery be cut through at its root, and the bowels laid on the table open at both ends and free to empty themselves, only a little fluid will escape, and the mass of fluid will remain imprisoned. The cause of this is easily seen to be the acute flexures of the bowels, brought about partly by their being confined inside a closed cavity, and partly by their attachment to the mesentery. These acute flexures of the intestinal tube upon itself, forcing in the mesenteric side as a sort of valve, cause an obstruction to the lumen, which, repeated over three or four bends, is practically insuperable by the forces at command. And these forces are of the feeblest. An overdistended bowel, like an overdistended bladder, is already half paralysed; and if to this be superadded the paralysis arising from inflammation, we can appreciate the weakness of the force which has overcome the by no means inconsiderable obstacle. The small amount of good that follows tapping a distended bowel with a fine trocar is thus explained; the gut is emptied down to the first or second flexure, and that is all. We may reasonably conclude, therefore, that the presence of an excess of intestinal contents is in itself a cause of obstruction.

Various approved modes of treatment lend support to this view. I would refer to the high value which for centuries was placed upon emetics in the treatment of this complaint, by the most skilled practitioners. Quite recently Kussmaul, by an emesis which is purely mechanical, and not medicinal, has revived this treatment with a gratifying measure of success. By repeated applications of the stomach-pump, he empties the loaded intestines of their gas and fluids, always to the relief of the symptoms, and not unfrequently to the cure of the disease. Vomiting always relieves the patient, and, if this theory be right, ought to be encouraged. It is one of the evils of opium that it diminishes the contractility of the intestinal fibre, prevents vomiting, and permits this deleterious accumulation of fluid and gas in the intestines. If opium is less dangerous than croton-oil, I am by no means certain that sulphate of zinc is not less harmful than either.

In support of my thesis, I would place most weight on the acknowledged value and increasing reputation of Nélaton's operation of enterotomy, or enterostomy, as it might be called. It is a fact of extraordinary significance, that mere drainage of the intestinal contents in any and every form of intestinal obstruction should be frequently successful in saving life, and even in curing the disease. For almost every form of obstruction, enterotomy is applicable; and in nearly every form it has had success. The obstruction may not have been relieved, the strangulation may not have been reduced; all that is done is to give the intestinal contents free exit at any point that may be convenient; and this alone may save the patient's life. Kussmaul's treatment goes to show that discharge of intestinal contents by the upper extremity of the bowel is beneficial. Nélaton's operation has with much greater frequency shown that discharge through a low opening is beneficial. If to these practical facts we add the theoretical considerations I have advanced, it seems to me that a strong case is made out in favour of relief of overdistended bowels. If this can be satisfactorily done by incision and immediate suturing, all the better; if not, I think it is our duty to establish for a short time an artificial anus.

Upon the details of the operation itself, the time at my disposal does not permit me to speak. Though, as operator or as chief assistant, I have been concerned in only nine cases of laparotomy for acute intestinal obstruction, I have seen enough to make me certain that the operation is one of the most delicate and difficult in the whole range of surgery; that it demands a combination of dexterity in manipulation, of sensitiveness in touch, of rapidity and decision in thought and action, such as accurate knowledge and practical culture alone can give. In the future, an increasing number of these cases will be handed over to us by physicians; it behoves us, as surgeons, by every means in our power to prove ourselves worthy of the trust.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The monthly meeting of this association was held at the offices, King Street, Manchester; Dr. Fox presiding. It was stated that the Manchester and Salford Sanitary Association were desirous of the co-operation of the association in the work of securing some means for the greater isolation of cholera-cases, should any occur in the district. A resolution in favour of co-operation was passed, and the president, vice-president, and secretary were appointed a committee to confer with the Manchester and Salford Sanitary Association on the matter. A paper was read by Dr. Adams, of Runcorn, on "Notes on Water-Supply and Storage for Rural Districts."

THE TREATMENT OF INTESTINAL OBSTRUCTION.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By A. W. MAYO ROBSON, F.R.C.S.,

Honorary Surgeon to the Leeds General Infirmary; Lecturer on Operative Surgery at the Yorkshire College.

IN the treatment of cases of intestinal obstruction, diagnosis is the first essential, for where a correct one is made, the lines of treatment are now pretty well defined. But exact diagnosis is often impossible; and I take it, that the purpose of this discussion is to elicit opinions as to what should be done in cases of intestinal obstruction where one cannot define the cause. Most causes may be arranged in one of two great classes: (a) cases of obstruction as a rule chronic, the obstruction being the prominent symptom, acute troubles only coming on at a later period, or earlier, if hastened by meddlesome treatment; (b) acute cases, which may be roughly divided into three classes: (1) those of internal strangulation, including intussusception, volvulus, bands, etc.; (2) enteritis, or other cases of purely functional obstruction; and (3) cases of perforation attended by acute peritonitis.

The *post mortem* records of our large hospitals show us that in many cases surgical interference might have failed, whilst in others they prove that a timely laparotomy would have revealed a cause curable by further operation. As examples of the former, Dr. Churton mentioned several cases at the Leeds and West Riding Medico-Chirurgical Society, where he had found, after death from abdominal obstruction, purulent peritonitis due to perforation of the bowel, or the same condition due to inflammation commencing in the region of the cecum. As examples of the latter, I could mention several cases, but one will perhaps suffice. I had operated upon a strangulated inguinal hernia, removing some adherent omentum, and ligaturing the neck of the sac; the wound healed by first intention, and the man apparently recovered without a bad symptom; but three weeks afterwards, during my absence from home, he was seized suddenly with signs of acute intestinal obstruction, and when help was called in he was moribund, dying 24 hours after the commencement of vomiting. The necropsy revealed a large loop of bowel acutely strangled by a band of omentum, attached near the internal abdominal ring.

Dr. Griffith, the resident medical officer of the Leeds General Infirmary, has been kind enough to look through the *post mortem* records for the last five years, and to analyse the cases for me. He finds that, out of 20 cases of death with symptoms of intestinal obstruction, two were from peritonitis, due to perforation in one case, and to spreading of inflammation from the cecum in another; in the latter, an exploratory operation had been done, but it revealed no means of giving relief; one from old pelvic cellulitis and stricture, in which colotomy was done; three from bands of inflammatory origin, in all of which laparotomy had been done at a very late, and almost hopeless, stage; two were cases of simple stricture—one had been colotomised; eight cases of malignant stricture; in one, laparotomy had been performed, and in three, colotomy; one was a case of volvulus, for which colotomy had been done; one of intussusception, for which laparotomy had been performed; one a case of polypus of the intestine, which caused death by obstruction; one of obstruction due to pressure of an uterine fibroid, in which case laparotomy was performed.

This record is a very interesting one, which, to my mind, clearly proves that many of the cases might have been cured by early operation, and that scarcely one could have been treated successfully by medical treatment alone. Clinical experience also affords us great help in arriving at conclusions.

The following cases have come under my own observation within the last three years. 1. Intussusception in a child cured by rectal inflation. 2. Intussusception in a man aged 40; operation refused; death in 14 days from gangrene of bowel. 3. Intussusception in a woman aged 33; laparotomy, after symptoms of obstruction for seven days, and nearly four feet of gangrenous bowel removed; death from shock. 4. Acute symptoms supervening on chronic obstruction in an old lady; exact diagnosis not made until patient was etherised and the hand introduced into the rectum, when a cancer was found high up the bowel, completely blocking it; colotomy gave relief, and the patient lived for nearly four months. 5. Acute symptoms supervening on chronic, in a middle-aged woman; no distinct tumour was felt, but obstruction thought to be in the sigmoid flexure, pain having been felt there for some months; a colotomy incision was made in the left loin; the descending colon was found to be empty, but, as the small intestine was distended, a coil was brought to the surface, opened, and carefully fixed there; recovery ensued, and the patient was living six months afterwards. 7. Laparotomy for subacute symptoms of intestinal

obstruction, becoming acute on the sixth day; a questionable band was torn through by the finger; the small intestine was opened, and fixed to the surface; death occurred from shock in twenty-four hours. 8. Acute symptoms of obstruction supervening on chronic, in boy aged 15; abdomen distended with ascitic fluid, and other signs of chronic peritonitis, with very much distended transverse colon; aspiration of abdomen performed; relief of obstruction and gradual recovery of patient. Thus, out of eight cases, six were operated on, four recovering; and out of the six, four had laparotomy done, two recovering.

Mr. Pridgin Teale, in a discussion on this subject at the Leeds and West Riding Medico-Chirurgical Society, referred to 21 cases of intestinal obstruction which he had seen within a few years. Of these, in ten, an operation was not advised, and these all recovered; in three an operation was advised, but declined; these all died. In four, colotomy was performed with one recovery. In four, laparotomy was done with one partial recovery, the patient having recurrence of obstruction 14 days after operation; but, in all the cases operated on, death must have ensued if no operation had been performed.

Dr. Churton mentioned, at the same time, five cases which had lately been seen by him. In two, no operation was performed, on account of diffuse peritonitis; in both, death rapidly ensued. In three, laparotomy was performed, and of these cases one recovered. The case was operated upon by Mr. McGill, who divided a constricting band, the recovery being uninterrupted.

The conclusions at which I have at present arrived, based on my own experience, on *post mortem* records, on recorded cases, and on the cases mentioned in this paper, are these.

1. In chronic cases—that is, where obstruction is the prominent symptom—medical treatment, such as injection, belladonna, massage, galvanism, etc., will often relieve or cure; or colotomy or laparotomy, or some other operation, will be so plainly indicated as to leave no doubt as to what should be done.

2. In acute symptoms supervening on chronic, medical treatment—for example, starvation, rest, and opium—may still often bring about a cure; but laparotomy, as a means of diagnosis, and possibly of treatment, may be demanded.

3. In initially acute cases, delay is often as dangerous as it would be to wait for an external hernia to reduce itself by its own efforts.

I believe that laparotomy (which in itself is not a dangerous operation) should be performed early—(a) as a means of making a diagnosis; (b) as a means of removing the cause of strangulation if such be discovered; (c) as a means of giving relief, if no cause can be found, by opening the bowel above the point of obstruction and carefully suturing it to the surface.

CASE OF INTESTINAL OBSTRUCTION CAUSED BY THE VERMIFORM APPENDIX: ABDOMINAL SECTION: RECOVERY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By R. N. PUGHE, B.S. Lond., F.R.C.S. Eng.,
Surgeon to the Liverpool Infirmary for Children.

CHARLES B., aged 6, was admitted into the Liverpool Infirmary for Children, under the care of Dr. Greves, on July 10th, 1884, with the following history. He had frequently suffered from attacks of constipation, which lasted sometimes a week, and on one occasion for a fortnight, notwithstanding the persistent use of purgatives and the employment of enemata; the bowels were eventually relieved after a large dose of castor-oil. The constipation was absolute, the pain severe, and he vomited everything (these facts were not known when the patient was first admitted).

With these exceptions, he had always been a strong and healthy child. He remained well up to July 5th. On the morning of that day he was perfectly well, and evacuated his bowels as usual; the next evening (the 6th), he woke up crying, and complaining of great pain in his abdomen, and nothing would make him go to sleep again. His father administered powders and castor-oil without producing an effect; he, moreover, vomited everything he took. A medical man was called in, who, after administering some medicine, which was also without effect, advised his parents to take him to the Infirmary for Children, where he was admitted on the fourth day after the onset of acute symptoms. On admission, his condition was briefly as follows.

The patient was a strong, well nourished lad; he had a depressed and anxious expression; he was dull and heavy, and apparently unable to fully comprehend what was said to him. He was very restless, and threw

his arms about impatiently. He lay on his back, with his legs drawn up; complained of great pain in his stomach, and kept his hand on the right side of his abdomen, which was slightly distended, but everywhere resonant. On careful palpation, an indistinct feeling of resistance was perceptible to the right of, and below, the umbilicus. This region was painful and tender to the touch, but resonant; no distinct tumour could be felt. (This feeling of ill defined resistance to palpation became less perceptible on putting the patient under chloroform.) The rest of the abdomen, though slightly distended, presented no signs of peritonitis. The tongue was brown, and somewhat dry; he had great thirst; he vomited everything immediately. The vomited matter smelt sour; it was bilious, but not stercoraceous. Pulse 136, small and wiry. Respirations 24, entirely thoracic. Urine very acid; no albumen, no indican. The late Dr. Hoggan, who saw him in the out-patient department, ordered a copious enema of olive-oil to be administered immediately, but this was instantly returned without bringing away any faeces. He ordered also milk and beef-tea, hot turpentine-fomentations, ice, etc., and admitted him into one of Dr. Greves's beds.

Dr. Greves saw the patient the following morning. He was then pretty much in the condition above described. He had passed a very restless night; he vomited everything, even a little iced water. The milk was stopped; beef-tea, filtered, with a little Brand's essence dissolved in it, was ordered to be given, iced, in small spoonfuls at the time; a pill of one quarter of a grain of opium and one-third of a grain of extract of belladonna, to be given every four hours; glycerine and belladonna to be applied to the abdomen, and hot fomentations. The foot of the bed was raised considerably, to favour the gravitation of the fluid in the intestines towards the thorax. He said the pain was most severe at the umbilicus; he had passed only eight ounces of urine in the twenty-four hours. Dr. Greves visited him again the same evening. He reports (*Liverpool Medico-Chirurgical Journal*, January, 1885): "He was, if anything, a little worse. I examined him carefully under chloroform, manipulated gently, and found the resistant area in the right side more distinct. No tumour could be felt. This rendered the possibility of the case being one of intussusception unlikely. The absolute constipation, and the absence of any great straining or mucous discharge from the bowels, also pointed against intussusception. In fact, the history and symptoms pointed towards some form of intestinal stangulation rather than intussusception. Nothing could be made out by rectal examination. Taking into consideration the fact that actual stoppage had now existed five days, during which the patient had vomited everything, and the vomit was now quite bilious, I did not think myself justified in making any attempt to reduce the strangulation by abdominal taxis, as recommended by Mr. Jonathan Hutchinson, or in using enemata, or any other mechanical procedure, in case the bowel might be on the verge of ulceration, or even sloughing, at the site of strangulation. I therefore made up my mind that exploratory operative interference was not only justifiable, but even imperative, and I at once called my colleagues together in consultation—Mr. Pughe, Dr. Davidson, and Mr. Hamilton. They agreed with me as to the probable nature of the case, and also as to the advisability of operative interference at once."

I accordingly performed abdominal section under strict antiseptic precautions, at 11 P.M. Every precaution was taken to prevent collapse. The operating-room was thoroughly warmed, and draughts carefully excluded. After the patient had been placed under the influence of chloroform, he was covered as far as possible with warm blankets, and the abdomen kept covered with cloths wrung out of hot water slightly carbolicised; so also was every portion of the intestine as soon as it presented itself in the wound, to prevent the intestines from being chilled or otherwise injured.

An incision was made along the linea alba from about an inch above the umbilicus, and skirting it nearly to the pubes (a sufficient opening being made for the introduction of the hand if necessary). The structures were divided in the usual way, any bleeding vessels being stopped by torsion. The peritoneum having been reached, an opening was made with a scalpel sufficient to introduce the finger, which being used as a director, the peritoneum was opened to the full extent of the wound. The omentum having been lifted up, a dilated and deeply congested loop of strangulated intestine soon came into view. This proved to be a part of the small intestine just above the caecum, appearing to be from nine to twelve inches long. The loop was sharply constricted, close to the attachment of the mesentery to the spine, by a thick cord-like band, about three-eighths of an inch in diameter, through which the small intestine had passed, and so became strangulated. The peritoneum covering the loop had lost most of its gloss, but there was no actual deposit of lymph on it. The whole loop was of a deeply red colour, greatly congested, and extremely dilated. The

constricting band was found to start from the caecum, and, after passing downward, then forwards and upwards, and finally backwards and downwards, it terminated somewhere near its origin, where it seemed firmly fixed. It was covered by peritoneum, and was evidently an abnormal vermiform appendix. When divided, it was found to be hollow, thus proving our supposition as to its nature to be correct. The ring grasped the included bowel so tightly that an aneurysm-needle, armed with thick green (sulphurous chromic) gut, could scarcely be passed beneath it. However, it was ligatured in two places, about three-quarters of an inch apart, and divided. The cut ends at once sprang apart to the extent of about two inches, and the strangulation was relieved. The rest of the intestines were healthy; and, as there was no other abnormality to be seen, the extruded bowels were carefully replaced in the abdominal cavity, the omentum spread over them, and the wound stitched. Five strong silver sutures were used, passing through the whole thickness of the abdominal wall (peritoneum included), with intervening ones of green gut. No drainage was used. The operation was performed under the spray, and the wound dressed with a large oakum-pad surrounding the whole abdomen, with gauze and mackintosh dressing.

During the time that the intestines were handled, the pulse became so feeble and rapid that it could not be counted at the wrist; after the intestines were replaced, it again became steady and strong. The breathing remained good, and there was no tendency to collapse, either during or after the operation. The operation lasted about half an hour. After recovering from the influence of the chloroform, he became very restless and excited; but, after a subcutaneous injection of morphia, he slept almost continuously for about six hours, waking up occasionally for his nourishment. He took a fair amount of filtered beef-tea in small quantities, and brandy during the night.

The next morning, he said he felt quite easy; he had had no vomiting or pain since the operation. The expression of the face quite easy. The tongue was already cleaner and moister. Temperature 99° Fahr.; pulse 120. Respirations regular, no longer laboured or purely thoracic. He was fed on brandy, three ounces of filtered beef-tea, three ounces of Brand's essence, one tin in 24 hours; he had ice to suck, and was kept slightly under the influence of morphia for a few days.

From the time he was operated upon, the boy made steady and uninterrupted recovery, with the exception of a transient attack of jaundice. His temperature, taken every four hours, only rose once to 99°. This was several days after his admission, and was due apparently to mental excitement at the anticipation of seeing his mother for the first time since his admission to the hospital. All abdominal tenderness soon subsided. On the fifth day after operation, the dressing was removed for the first time. The wound was found to be healed by first intention, with the exception of about half an inch superficially at the upper part of the incision, where one of the wire sutures had given way; here was a small granulating surface. The only discharge on the dressing was a little serum from this spot. Most of the sutures were removed. His bowels acted spontaneously five days and a half after the operation, when he passed a fair sized formed motion; and shortly afterwards he had two or three loose stools the same day.

The wound was dressed twice afterwards, at intervals of three or four days; the last time with laced strapping to support the abdomen, a small pad of oakum, and a flannel roller. The last stitch was removed the ninth day after the operation, and he was allowed to take solid food—fish, milk-pudding, etc.—for the first time. His bowels acted spontaneously every third day or so, without any pain or discomfort; and he never vomited once after the operation. He was kept under observation a week or two longer at the hospital, and then went home, perfectly well in every respect, and has remained so ever since.

I think, gentlemen, that it cannot be questioned that, in this case, timely operative interference was the means of saving the patient's life. The constricting band was too firm and tight, and the included loop too congested and dilated, for us to expect spontaneous recovery. The case was also one in which early operation was not only justifiable, but imperative. Had it been left for a day or two longer, we should, no doubt, have met a very different state of affairs. The intestines would probably have been matted together by inflammatory exudation; and there would have been, perhaps, sloughing of the part included, perforation, septic peritonitis, or other morbid change. I consider it also fortunate that the still usual methods of treatment for intestinal obstruction had not been resorted to in this case—namely, repeated enemata, inflation, taxis, etc. These measures would have simply increased the injury to the bowel, and intensified the symptoms, without affording any relief. Had the case been left to nature, or treated "medically" altogether, the chances of recovery would have been very

remote, if not impossible. Anyhow, we could not have expected to witness the speedy recovery we did in this case.

When I first saw the case with Dr. Greves, I coincided with him in his opinion as to the probable nature of the case; for the symptoms—namely, the sudden and complete constipation, the persistent and intense vomiting, the purely thoracic breathing, severe pain localised to the right and below the umbilicus, brown dry tongue, etc.—were those of acute strangulated hernia (that is, signs of severe injury inflicted upon the intestine, rather than mere mechanical obstruction to the passage of its contents), without the external tumour. There was a distinct intumescence to the right and below the umbilicus, which seemed to denote the probable seat of the strangulation. The swelling had, however, none of the sausage-like character found in intussusception, but was softer and less distinct, especially under chloroform. The absence of straining, and of the passage of glairy or bloody mucus *per anum*, also served to exclude intussusception.

The case is important and interesting from many points of view. Not only were the signs typical of a case of acute intestinal strangulation, but they seemed to be localised to the right iliac fossa. No doubt, cases of strangulation caused by an abnormal vermiform appendix are extremely rare; but, as Mr. Bryant has pointed out, the causes of obstruction are more frequently found about the cæcum than elsewhere, and this region should be first examined after opening the abdomen.

Another interesting and satisfactory feature in this case was the rapid recovery after the operation, and the absence of collapse, fever, or other untoward symptom. This goes far to prove that the danger in these cases lies not in the operation itself, but in the disease for which it is undertaken, and especially to its being undertaken too late, abdominal section being looked upon as a last resource in these cases, instead of being done early, as soon as the strangulation has been fairly diagnosed, and a fair trial given to milder measures. The relief afforded by the operation in this case was immediate and complete. Previous medical and dietetic treatment having failed to afford the slightest relief, the case further proves that the operation is not only justifiable, but imperative in urgent cases, if it can be performed early, even when the specific cause has not been made out as a means of completing or correcting the diagnosis, with a view, should any active cause be found, of removing it if possible.

I would also draw special attention to the after-treatment in this case. No milk or solids were allowed till the bowels were moved spontaneously on the sixth day. Till then the patient was fed on filtered beef-teen, with a little Brand's essence, or Valentine's extract, dissolved in it, in frequent small doses iced. He was also kept under the influence of morphia for a few days, to ensure repose.

Dr. A. EDDOWES (Market Drayton), said as the discussion had narrowed down to practically the methods of operation, he had less to say than he had intended. He related a case, in which, after failing to reduce a strangulated femoral hernia under chloroform, he was prevailed upon to delay operation till next morning. He consented to delay, because, under manipulation, the loop of gut could be felt to contract, showing that it still (though down several hours) was possessed of great vitality. He ordered small doses of opium, to be often repeated, if necessary. Next morning, subcutaneous reduction had taken place. This case was a great warning to those who might not think it very necessary to suture gut carefully, when an artificial anus was formed for gangrenous bowel in cases of hernia. He had heard it said by an experienced and able surgeon, that it was of little consequence what was done with the gangrenous portion in hernia-cases. He also gave a case proving the great importance of the history of the attack. In the case of a boy with hernia, the testis was descending in the right groin; a portion of cæcum had followed it. The condition of this case was such that the history was the only real help to diagnosis. The pain had begun during a violent muscular effort.

Dr. WARD COUSINS (Southsea) said that acuteness of symptoms was often associated with chronic obstructive disease. The symptoms were often latent or were manifested very obscurely, while the actual transition between chronic obstruction and complete occlusion was extremely sudden, and, as Mr. Greig Smith mentioned, depended upon slight variation in the condition of the distended portion of the bowel; and these were soon followed by paralysis of the muscular coat, and then by inflammation and infiltration. In this way, he thought, chronic obstruction led at length to occlusion. Again, distention and paralysis of the bowel in cases of fecal accumulation were the essential causes of the obstruction. Whenever cases of obstruction recovered spontaneously, they were simple cases of this kind, and he did not believe in the asserted success of medical treatment. Drugs could not overcome mechanical obstacles. Fortunate changes occurred in the dilated bowel,

and peristaltic power returned. It was a delusion to hope that any sort of mechanical occlusion could be removed in any other way than by surgical means. Fæcal accumulations had been cured by simple enterorrhaphy; and this operation could only succeed when this condition was the primary disorder; of course when it was secondary disease in cases of obstruction, it was always a very dangerous complication. The dilatation and paralysis of the intestine was not situated immediately behind the stricture in chronic cases. In disease of the sigmoid flexure, for example, the colon and cæcum were distended. He thought in many cases the evacuation of the accumulation, and the immediate relief of the paralysed part by this method, was far more likely to succeed than opening the colon in the usual way. He had known colotomy fail to relieve in stricture and obstruction of the lower bowel in consequence of dilatation and paralysis of the cæcum. He therefore advocated evacuation of the distended gut and stitching it to the skin whenever possible, rather than the mere formation of an artificial anus in the loin.

ENTERORRHAPHY; WITH A DESCRIPTION OF A NEW FORM OF SUTURE.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By E. STANMORE BISHOP, F.R.C.S.Eng.,
Surgeon to the Ardwick and Ancoats Hospital, Manchester.

I HAD intended to review all the different methods of enterorrhaphy in use up to the present time, in order to explain why I have had the temerity to add another to their list, and, if possible, to justify my action. But the time allowed is far too short, and I must content myself with mentioning briefly the following points.

Sutures of the intestine may be divided roughly into two great classes; 1, those devised before the discovery of, or in spite of; 2, those devised after, and in accordance with, the main laws which govern the behaviour of the intestine after suture. These laws may be taken to be the following:

1. The serous coat alone has the power of pouring out the plastic lymph which is the permanent means of union, and it is the two serous or outer surfaces which must be united. If authority be required for this, I mention the names of Travers, Jobert, and Spencer Wells; the words of the latter as to the necessity of uniting the peritoneum, although not used with reference to the bowel, are of equal force with regard to it.

2. A suture of the intestine acts upon it as a ligature does upon an artery; the inner and middle walls are cut through, and the thread holds by the outer. In inflammation, all three coats become equally divided (see Jobert and Larrey²).

3. All sutures, unless absorbed *in situ*, tend to make their way into the lumen of the gut (Travers, Benj. Bell, Dupuytren³).

Of the first set of sutures, those of Heister, Reybard, John Bell, Le Dran, Garengeot, Larrey, Henroz, and several more, may be taken as examples. In these, mucous membranes were brought together, the edges of all three were approximated, or the outer serous membrane of one end was applied to the inner mucous membrane of the other.

Of the latter, Lembert, Czerny, Gely, Vesien, and Gussenbauer, may be considered representative. In all these, care is taken to apply the serous membranes of either end together. More or less attention is paid to the tendency of a suture towards the interior of the gut. The former list need not detain us. The latter requires more careful consideration.

I do not here attempt to describe the processes in detail, and am obliged, by the shortness of time allowed, to premise that you are familiar with them. Allowing that all these latter sutures are in conformity with the main laws, there are certain considerations which, I think, would weigh with any surgeon when called upon to make his choice of one or other of them.

1. The coats of the intestine, when divided, retract unequally, the mucous coat least, the serous next, the muscular most of all; nor can the amount of retraction of the muscular coat be absolutely judged, whilst the patient is under the influence of chloroform. It is only when, the bowel reduced, the abdominal wall sewn up, and the patient

¹ Travers, *An Inquiry into the Processes of Nature in Repairing Injuries of the Intestines*, 1812, p. 128. Jobert, *Maladies du Canal Intestinal*, vol. i, p. 86. Spencer Wells, *Ovarian and Uterine Tumours*, 1882, p. 198.

² Jobert, *loc. cit.*, p. 74.

³ Travers, *loc. cit.*, p. 132. B. Bell, *System of Surgery*, third edition, 1757, vol. v, p. 277. Dupuytren, *Méd. Oper.*, Nouv. Edit., Paris: 1822, vol. ii, p. 138.

recovered from his state of insensibility—in a word, when the future behaviour of the bowel is out of our hands—that the maximum of such retractile force will be reached. I am speaking, of course, of cases in which the section has been made by the surgeon himself whilst the patient is anaesthetised.

2. The presence of a suture is a necessary evil, but still an evil, simply as a foreign body; for, whilst aseptic sutures may be trusted not to produce suppurative peritonitis, plastic peritonitis is certain to be caused by them. This is, indeed, intended by their use, but is not wanted beyond the actual line of contact between the ends. Absorbable sutures are, of course, less so than those made of other materials; but catgut is so apt to curl, and is altogether so awkward to work with, that, if a more amenable material can be used in such a way as to produce as good a result, it is much more pleasant to use it; and ease in such matters means rapidly, and corresponding safety to the patient. Moreover, Baum (*Berlin. Klin. Woch.*, 1881, No. 20, p. 299) says that, in the cases collected by him, Dittel, Schedé, and Hagedorn used catgut; and although all were ultimately healed, there was not a single true closure of the gut. Billroth, Kocher, Czerny, and Baum have employed carbolised silk, and have produced definite union. Non-absorbable materials, then, are irritating, and the part in which their irritation is most dangerous is the peritoneal surface of the gut. Of the whole line of the thread, the knot must naturally be the worst. Moreover, when the threads ulcerate through, as they will if adhesion beyond them be not absolute, the openings so made may form avenues by which fecal matters may reach the peritoneal cavity.

3. Since it is convenient, if not necessary, that the sutures should pass away from the part sutured after their temporary purpose is served, a suture which simply penetrates the serous membrane alone will find more difficulty in reaching its destination than one which embraces the entire wall.

4. A continuous suture is only firm so long as each part of it remains so; if, therefore, in one part, the suture have ulcerated through, adhesion behind being complete, the firm pressure exercised upon the remainder of the bowel-wall is decreased by so much; and should adhesion be insufficient at any other point, the contents of the bowel may escape at that point, and the whole purpose of the suture be defeated; moreover, the presence of the long thread, no part of which can be carried away until the whole is loose, with part of it free in the midst of putrefactive matter in the intestinal lumen, must create constant risk of septic material being conveyed to those parts of the wall from which it is not yet free.

5. All internal supports which are intended to pass down the bowel are objectionable, as exposing the patient to the risk of secondary obstruction from their presence.

6. As the serous coat must be turned in, it follows as a matter of course that a valvular fold must be left, which may or may not disappear, but which, whilst it remains, is a disadvantage, from the obstacle which it presents to the course of fecal matters. Any suture which will assist in its removal is, *pro tanto*, preferable to those which do not.

If, now, you turn to the sutures in the second list, you will perceive that Lambert, Czerny, Jobert, Breidenbach, and Gussenbauer have a suture which holds the ends together only at points, so that any force tending to draw these apart would convert the straight line originally made by their approximation into a crenate one, "so that each stitch becomes the extremity of an aperture, the area of which is determined by the distance of the stitches." Travers (*loc. cit.*), Lembert, Jobert, Dupuytren, and Gussenbauer leave the suture lying upon the peritoneal surface of the gut, and the knot outside. Lembert and Bouisson (whose method is objectionable for many other reasons) do not attempt to penetrate the entire wall. Gely, Vesien, Blatin, and Dupuytren use a continuous suture; Baudens and Denans use an internal support, which may become the cause of a secondary internal obstruction. Only the last two methods have any action upon the valvular fold.

Thus, against each method there are certain objections, and it has been my endeavour to point out a way of producing union which should, as far as possible, unite the advantages and evade the drawbacks of all. Permit me to describe it.

The intestine being secured on each side of the portion on which it is intended to operate, by the clamp I had the honour of showing in Liverpool in 1883, and which I find invaluable, the portion to be removed is cut away with scissors, along with a triangular piece of the mesentery; and the mesenteric vessels are ligatured. This is carefully done over a flat carbolised sponge; the ends left are then thoroughly cleansed and approximated; and, a fresh sponge having been placed beneath, the mesentery is brought together by a few catgut sutures. A small round straight needle (Bartlett's No. 12) is then threaded

with fine Chinese twist or silk. The needle is placed exactly in the centre of the thread, which, when double, should be about eighty centimètres long. Then, with dressing-forceps, the lower edge of each side is seized, and the needle passed through the base of the fold thus formed, from right to left, as near to the mesentery as possible; the double thread is then drawn through, until six centimètres remain on the right side. One of the threads on the left side is then cut six centimètres long. The needle is then passed from left to right through the same fold, at a distance of twenty millimètres from the first puncture. Two free ends and a loop remain on the left side; two free ends, and two connected with the needle, on the right. By gently drawing upon the loop, one of each of the last two pairs are seen to move; these are then drawn up so as to bury the loop in the mucous membrane on the left side, and are knotted with a reef-knot on the right; the two ends are then cut off close to the knot. The free thread left in the first puncture is now drawn under the free extremities of the upper bars of the clamp, so as to be out of the way, and is reserved for the latter part of the operation. The needle is now carried back again from right to left through the base of the fold, and a similar loop is thus formed, this time on the right, and knotted on the left. In this way, as the suture progresses, a series of loops, consisting each of a single thread tied alternately on the right and left sides, is formed; the threads passing through the same punctures as those of their neighbours on each side. It is thus rendered impossible that any part of the intestinal circumference shall be left unguarded, except the minute openings made by the needle and filled by the threads. As everyone knows, the mucous membrane swells so easily on injury, that it may safely be trusted to prevent any extravasation at these points. Besides, as the stitch is made, it draws in the serous membrane; so that, when finished, the threads are really inside the remade lumen of the intestine. Moreover, the knots are all inside.

I prefer, when half the circumference of the bowel is united—having finished the floor, so to speak—to take a fresh needle and thread, and, tying one end to one of the free ends of the first thread, which, it will be remembered, was left behind, to commence again from the mesenteric border, and begin the roof from that point, so always working towards oneself. On drawing up the loop which this forms, care must be taken to bring the knot in its centre directly opposite the middle of the portion of wall included.

On finishing the floor, too, a free thread will always be left. This is taken advantage of in finishing the entire suture, for the last loop is made by tying together the two free ends on one side. The loop thus formed is then drawn up on the other side, folding in the serous coats of both sides; and, the knot being made, the two threads left are cut off close, the bowel becoming absolutely closed.

Now, theoretically, this appeared to me a more perfect stitch than any of those of which I could find an account, inasmuch as it absolutely commanded every portion of the wall of the intestine; it was an interrupted one, with knots inside, and loops so placed that they might, with the greatest ease, when loose, drop into the lumen of the gut. At the same time, it perfectly approximated the serous surfaces, and appeared likely, by an *écraseur*-like action, to remove the internal fold, which was necessarily made at the time of the suture, as soon as its purpose was served.

But theory and practice are not always the same; and, after gaining some manipulative skill upon pieces of dead intestine, I was confronted, in any attempt to go further, by the restrictions placed upon us by the antivivisectionists. To try this stitch upon a dog or rabbit in England would be a crime, although it was the only way of being certain that it would succeed if used upon a human being; to try it upon a man, however, in his direst extremity, and when he had confided every hope to life to one's knowledge and skill, would be no crime.

But, until I had some preliminary experience of the conduct of such a stitch upon a living animal, I most absolutely declined to attempt it upon a patient; therefore, I took the only other course possible, and went over to Paris, where I could experiment in safety. And here I wish to express my sincere thanks and great indebtedness to the French surgeons, especially to Dr. Aigre of Boulogne, Dr. Poirier, Prosecutor to the Faculty of Paris, and Professor Bochefontaine of the Hôtel-Dieu, Paris, who, whilst condoling with me upon the absurd necessity which had forced me to leave England at very great inconvenience to myself, went considerably out of their way to provide me with a laboratory.

These experiments were perfectly successful. The animals passed normal stools within four days, and there were never any signs of peritonitis.

One animal, a dog, died on the fifteenth day from pneumonia, due to a tracheotomy performed in order to obviate spasm of the glottis

during curarisation. The bowel has been removed; and is here to be seen. I think anyone who examines this specimen will agree that the apposition has been perfect, the threads being entirely enclosed within the lumen of the gut; and that, from the outside, it is at first difficult to locate the suture. Inside, all the stages through which such a suture passes are well shown. At one point, the ridge formed by the sutured edges and the sutures still in position; at another, the sutures working their way loose; and further on, no sign of ridge or suture, but a plain mucous surface, with no trace of the previous division. Six inches of ileum were excised in this case.

Another animal, a rabbit, I have had sent over from Paris. It is in splendid health, having done the journey from Paris to Manchester, and another from Manchester to Cardiff, without any ill effects. The portion of bowel excised was from the ascending colon.

As the animal is here to answer for itself, of course we have no bowel to show; but if the President and those present would like to inspect, I have no wish to hinder, and may simply remark that I had an idea of keeping it alive as long as possible, to see if any symptom of contraction at the point sutured would present itself. It has now, however, been living since June 6th (fifty-two days, nearly eight weeks), and no such symptom has been apparent. It is in the hands of this meeting to decide.

In conclusion, I would quote the words of Armand Desprès, practically summing up this inquiry.

"The healing of intestinal wounds by suture is rapid when the suture does not produce peritonitis. But it should be understood that it is not the suture which is the cause of the peritonitis; it is rather the default of union by the suture which is the true origin, because of the escape of faecal matters. With this belief, we ought to choose those sutures which assure the most exactly the union of the wound." (*Nouv. Dict. de Méd. et de Chir.*, vol. xix, p. 245.)

CLINICAL MEMORANDA.

A SECOND CASE OF PLEURAL EFFUSION CONTAINING NUMEROUS CRYSTALS OF CHOLESTERINE.

GEORGE J., aged 31, a labourer, only 5 feet 2 inches in height, but of square and sturdy build, with deep chest and strong limbs, dark brown hair, grey eyes, of quick and active manner, was admitted into the Leeds Infirmary on May 7th, 1885. He complained of some cough and expectoration, frequent chilliness, and slight debility. On examination by the resident medical officer, Dr. Griffith, the usual signs of pleural effusion were found on the left side, and thirty-four ounces of fluid were withdrawn by aspiration. This fluid was of a cream-colour, was faintly alkaline, specific gravity 1021; it had a greasy appearance in thin layers. It contained a comparatively small number of granular leucocytes, many of them apparently undergoing degeneration; and a very large number of sharply defined crystals of cholesteroline. He had already given the following history. Two years ago, he was in another hospital, with "consolidation of the lung," for eleven weeks. He was blistered under the left shoulder-blade. On leaving the hospital, he went to work; but he had ever since been subject to colds, accompanied by cough; and, though he did not admit that he had lost strength, yet he had not been quite so well during these two years. His present illness began three weeks ago, with slight shivering and chills. In two days, pain in the left side compelled him to leave his work; but he resumed in a day or two, and remained at work until his admission. In reply to further questions, he stated that, ever since his illness two years ago, he could not run uphill, nor, indeed, at all, without getting very short of breath.

Upon this, I came to the conclusion that the source of the cholesteroline-crystals in this case was similar to that actually found in the case read by me at the Clinical Society three years ago; namely, that there existed at the lower part of the pleural sac a layer of cells, the product of a former inflammation, undergoing fatty degeneration. I was at first inclined to treat the case by making an incision and scraping the pleura with some blunt instrument of wood or horn; but, after one or two aspirations, the fluid became so much altered in appearance and quality as to make me hesitate to advise this, especially as the man's health remained exceedingly good. The second aspiration was done on May 28th, fifty-seven ounces being drawn off; the third on July 11th, thirty-two ounces of clear fluid, containing few crystals of cholesteroline, being then withdrawn; the fourth on August 3rd, when nineteen ounces were obtained, and in this specimen it was not easy to find crystals. He has now left the town in search of work, which, he insists, he is quite able to do. Certainly

no one would suppose from his appearance that there was anything the matter with him; he is, however, still somewhat short of breath after any great exertion. During the first month of treatment, his temperature was slightly high, sometimes 100° at night, and 99° in the morning; but during his last stay in the infirmary—July 25th to August 5th, it was normal or below—about 98°. But, in spite of this and other improvements in his condition, it is probable that in a few weeks he will be obliged to apply for admission into some other hospital. T. CHURTON, M.D., Physician to the Leeds Infirmary.

OBSTETRIC MEMORANDA.

PUERPERAL CONVULSIONS SUCCESSFULLY TREATED BY HYPODERMIC INJECTION OF MORPHIA.

ON June 19th last, I was called upon to see Mrs. S., aged 20, living in this neighbourhood, who was on my books, and expected her first confinement at the end of July. Her face and hands were swollen and cedematous. I at once tested the urine, and found it loaded with albumen. After informing her friends of her critical state, I gave compound jalap powder, and a digitalis mixture, seeing her daily. On the night of June 21st, I was urgently sent for, and found her recovering from a severe fit of eclampsia. I then used cold lotion to the head, dry-cupped the loins, and gave James's powder, the bowels having been well relieved. In the early morning, I was called upon, and was informed that she was in another violent fit. On immediately proceeding to her residence, I found an eight months' still-born child (a girl) in the bed, and the mother unconscious. I removed the placenta, which was in the vagina. Soon after she recovered consciousness, she had another bad seizure. After a time, I left her sleeping comfortably; but, on calling soon again, I learned that she had had another fit. While in the room, she had another violent attack; and, although kept partially under chloroform, and ice to the head, the attacks went from bad to worse. At length, I determined to use the hypodermic injection of morphia (a quarter of a grain), and its effect was wonderful; the fits ceased, and she became for the first time collected, and remained so. As a precaution, the injection was repeated in about five hours (at bedtime); and, when I called next day, she was quite cheerful; no return of fits. I attended her till July 27th, giving digitalis and perchloride of iron. The albumen very slowly disappeared, and she left for the country convalescent on July 27th.

ROBERT FAIR FRAZER, L.R.C.O.P., L.R.C.S.I., *med. flav.*
Lavender Hill, S.W.

THERAPEUTIC MEMORANDA.

USE OF CUCAINE IN THE REMOVAL OF EPITHELIOMA OF THE LIP.

A SHORT time ago, I had occasion to remove a small epitheliomatous growth from the lip of a healthy and hearty-looking man, aged 60. As the patient objected to taking either chloroform or ether, I injected into the substance of the lip near the growth a little more than a sixth of a grain of cucaine, having previously painted the mucous membrane in the neighbourhood with a five per cent. solution of the drug. After waiting about six minutes, I found the mucous surface almost anæsthetic, and the skin around the ulcer and growth far less sensitive than it was before injection. The growth was quickly removed, and sutures inserted, without the slightest flinching on the part of the patient, who afterwards stated that he could feel the skin being cut and the needles inserted, but that the pain was not very sharp. Half-an-hour after the completion of the operation, the patient complained of a burning sensation in the incision and needle-punctures, thus shewing, I presume, that the effect of the drug was passing away. The case did well. In any similar operation in the future, I shall inject a greater quantity of the drug, with the hope of causing even less pain than was produced during the above operation.

JOHN A. P. PRICE, M.D. Oxon. M.B. Lond., Reading.

BEQUESTS AND DONATIONS.—Mr. John Whitmore of Leamington, has bequeathed £3,000 to the Guest Hospital, Dudley; £500 to the Queen's Hospital, Birmingham; and £500 to the Midland Counties Hospital for Incurables at Leamington.—The annual report of the Huddersfield Infirmary acknowledges the receipt of £1,000 from Mr. Joseph Crossland, and £100 under the will of Mr. J. C. Laycock, and £100 under that of Mrs. Sarah Allen.—The Wolverhampton Eye Infirmary has received £250 under the will of Mr. T. J. Porry.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

STATION HOSPITAL, ALLAHABAD.

ENTERIC FEVER ASSOCIATED WITH RECENT SYPHILIS: DEATH:
ABSENCE OF LEFT KIDNEY AND URETER.

[Reported by Dr. G. S. DAVIES, Brigade-Surgeon, M.S.]

GUNNER W. L., Royal Artillery, aged 24, by trade a joiner, enlisted in England in September, 1884, arrived in India in March, 1885; he was a fairly healthy and well nourished man.

On April 11th, he was admitted suffering from gonorrhoea, and was discharged to duty on May 25th. On June 17th, he was again admitted, under the charge of Surgeon-Major Macpherson, suffering from a small venereal ulcer. A day or two after admission febrile symptoms appeared, and these developed themselves into enteric fever.

The sore having healed up, the patient was discharged, and, at the same time, readmitted under the head of enteric fever on June 26th. The "enteric" symptoms were not severe; the stools were characteristic. A high temperature was maintained all through the illness, ranging from 103° Fahr. to 105° Fahr., and the pulse was proportionally rapid; at the same time, there was considerable nervous tremor.

The patient was invariably in good spirits, and when asked how he felt, replied "Much better," or "All right again." Some time before death he became very deaf, and was not perfectly conscious. Sensation became more blunted; he passed his excretions in bed, became comatose, and on July 6th quietly expired.

About ten days before death, an eruption appeared over the trunk and thighs, looking like a hybrid between the usual "enteric" spots and the primary eruption in syphilis. The spots were pretty equally distributed, about one inch apart; they disappeared under pressure, but were otherwise permanent. At the same time, it was observed that there was multiple enlargement of the inguinal glands in both groins. There were also purpuric streaks on both sides of the abdomen. Perspiration was frequently profuse over the head and neck, but over the remainder of the body it was rarely visible. There was no prickly heat. From the condition of the skin and inguinal glands, it was inferred that the gonorrhoea was really due to urethral chancre, and that the enteric symptoms were associated with those of recent syphilis.

At the examination, eight and a half hours after death, the body was found to be considerably emaciated. Rigor mortis was very slight, and the skin was fairly clean, showing very little trace of the eruption. The inguinal glands were hypertrophied, and there was considerable sigillation at dependent parts of body. The meninges were apparently healthy. There was more than the usual amount of cerebro-spinal fluid, and the lateral ventricles were full of liquid. The substance of the brain was softer than normal. The lungs were very dark and congested throughout, but fairly crepitant. There were recent adhesions between the right pulmonary and costal pleurae at the apex. The lung, at the same place, was slightly indurated. The pericardium contained some clear liquid. The heart was small, pale, and soft; the valves were competent. All the cavities were perfectly free from blood and clots. The liver was of average size, rather paler than usual. The pancreas was normal. The spleen was somewhat enlarged and very friable. The right kidney was very much hypertrophied; it weighed ten ounces; it was well formed, apparently healthy, and the relative proportion between the cortical and the tubular substance was normal. The pelvis was very large, and the ureter was in keeping with the size of the kidney. On search being made for a left kidney, not a trace of one could be found, and no better success followed the search for an ureter. On examining the interior of the bladder, it was discovered there was no opening for a left ureter behind the trigone. The orifice for the right ureter was in its proper place. The bladder, in other respects, was apparently healthy. The stomach was rather attenuated, but otherwise healthy. The intestines, as far as to within a foot of the caecal end of the ileum, were healthy. The remainder of the ileum showed several characteristic ulcers, involving Peyer's patches and solitary glands. There were a good many ulcers in the caecum and ascending colon, involving the solitary glands; several of

these had only the peritoneal coat left. The remainder of the colon was normal.

The blood throughout the body was perfectly liquid, and showed no tendency whatever to coagulate. The colour was a dark brownish red, and did not brighten on exposure to the air.

LIVERPOOL EYE AND EAR INFIRMARY.

A CASE OF SYMPATHETIC OPHTHALMITIS OCCURRING FORTY-SEVEN
YEARS AFTER INJURY.

(Under the care of Mr. CHARLES G. LEE.)

[Reported by Mr. JAMES ROSE, Assistant-Surgeon to the Infirmary, and Ophthalmic Surgeon to the Bootle Borough Hospital.]

THE following case may prove of interest in connection with some points raised during the recent discussion in the Ophthalmological Society.

S. Y., aged 53, married, presented herself on July 4th, complaining that the sight of the right eye had been gradually failing during the previous six months.

When six years old, she was injured in the left eye by a blow with a stone, and the eye, since then, had been sightless. The right eye remained perfect till six months before admission, when the sight began to fail, this failure being accompanied by pain in the eye and temple. It progressed steadily and uninterruptedly up to the time of admission. She did not remember having at any time suffered from the destroyed eye; but, on being questioned closely, admitted that, during the last last six months, this eye "had watered rather more than before." There was no history of syphilis, and no suspicion of gouty or rheumatic tendencies; indeed, she seemed to have enjoyed all her life extremely good health, and to have worked hard, mostly indoors, but occasionally "in the fields."

The left socket contained a small hard button, the remains of the globe, which manifested no tenderness on firm pressure, but was partially concealed by swollen conjunctiva. The right eye presented a considerable degree of conjunctival injection, and a quite distinct, though slightly marked, circumcorneal zone of vascularity, without, however, any tenderness or photophobia. Tension was normal: vision = $\frac{2}{3}$, and Jäger 16. The cornea, iris, and aqueous humour were clear; the pupil was fixed midway between contraction and full dilatation, and immovable to strong atropine solution, but fairly regular in outline. There was a dense white opacity occupying the posterior layers of the lens, or corresponding to the posterior layer of the lens-capsule, and this prevented any illumination of the fundus. The patient was admitted, and ordered atropine drops three times daily, and the eye shaded.

July 8th. There was no change in the right eye. The stump on the left side was enucleated, and found to be about the size and shape of a horsebean, and to contain a comparatively large bony deposit. The atropine drops were continued in the right eye.

July 11th. There was no change in the right pupil, but the conjunctival and circumcorneal injection had quite disappeared.

REMARKS.—In this case the injured globe remained innocuous for forty-seven years, and only began to give rise to sympathetic mischief within the last six months; and this, in all probability, only made its appearance when the bony shell in the shrinking globe became sufficiently developed to cause irritation in the soft tissues gradually contracting around it. That the case was one of sympathetic ophthalmitis of a chronic character there seems no reason to doubt, as, in the first place, there was no other assignable cause for the mischief in the right eye; and, in the second place, this mischief was still in active progress when the patient was admitted, and only disappeared on the removal of the shrinking globe. This case would seem rather to favour one of the theories referred to by Mr. Hutchinson under Class II, which attributes the disease to "a progressive neuritis, advancing from one eye to the other along the optic or ciliary nerves, or their sheaths, or their lymph-spaces."

NEWCASTLE-UPON-TYNE INFIRMARY.

CONGENITAL HYDROCELE: RADICAL CURE.

(Under the care of Dr. ARNISON.)

(Reported by Mr. ARTHUR GREEN, Clinical Clerk.)

J. H., aged 26, a grocer, was admitted on May 1st, 1885, on account of a swelling in the inguino-scrotal region. His general health was good, and his habits were temperate. He had had syphilis, "fever and ague," and rheumatism. He first noticed a swelling two years earlier, after a blow. He had been tapped three times, and had had iodine injected once. On examination, he was found to have a congenital hydrocele, and also an encysted hydrocele of the testis.

May 19th. Dr. Arnison cut down on the cord under the spray. The

sac of the hydrocele was carefully isolated, ligatured in two places, and divided between the ligatures. The upper portion was twisted until it was felt to drag. Sutures were passed through the pillars of the ring, and through the upper twisted portion of the sac. The superficial wound was then sutured, and Listerian dressing applied.

Several small abscesses formed near the wound and about the scrotum. The tunica vaginalis became distended, and was twice tapped. The abdominal ring was, however, quite occluded; there was no impulse on coughing, the wound healed, and the cure was complete.

REMARKS.—This method of operating is that suggested by Mr. Fagan, of Belfast, at the annual meeting of the British Medical Association in 1884, for the treatment of congenital hernia, applied to the treatment of congenital hydrocele.

REVIEWS AND NOTICES.

SCHOOL-HYGIENE AND DISEASES INCIDENTAL TO SCHOOL-LIFE. By ROBERT FARQUHARSON, M.P., M.D. Edin., F.R.C.P. Lond., LL.D. Aberdeen. London: Smith, Elder, and Co. 1885.

THE most striking characteristic of this book is the strong common sense with which it is written. The author is not only well able to examine his subject from a scientific standpoint, but knows the world and its ways, the grievances of *paterfamilias*, and the prejudices and customs of boys. The author is a great enemy of "fads," a great believer in the English public school system, and a great advocate for pushing elementary education to its legitimate limits, as becomes an M.P. for a Scotch county and an ex-medical officer of a great public school. The first four chapters of the book discuss school-buildings, diet, work, and play; the last two deal with the duties of the medical officer and the diseases he has most often to combat.

With regard to buildings, Dr. FARQUHARSON prefers the system by which boys live in separate houses, from thirty to fifty in each, to the hotel-system, which assembles all the boys under one roof. In dormitories, he advises a cubic space of 800 to 1,000 feet, with artificial ventilation, and large windows for airing the room during the day; in class-rooms, a cubic space of 400 to 500 cubic feet, with good ventilation, and an efficient apparatus for warming otherwise than by hot air. His remarks on illumination are forcible, and he takes the opportunity of pointing out the pertinacity of the Education Department, which continues to recommend the "most injurious arrangement of all." The drainage and water-supply are next discussed; and the necessity of keeping a strict watch on the builder and plumber, and, alas! also sometimes on the architect, is insisted on.

"The great secret of success in life is to be a good animal," writes Mr. Herbert Spencer; and, taking these words for his text, Dr. Farquharson sketches the influence of a proper adjustment of diet to work and play, in chapters which may be earnestly commended to the study of parents; for the masters of the better class of schools are already, we may hope, more or less fully alive to the importance of the subject. After a short summary of the facts of dietetics, he refers to some of the "fads and fancies about the feeding of children," such as that they must eat up every scrap of the portion of food assigned to them, irrespective of appetite; that it is morally wrong to refuse to eat fat, or dishes that are unpalatable, but supposed to be "wholesome;" that sugar is injurious to health, and destroys the teeth; that a boy should not drink during dinner; that alcohol is strengthening; and so on. All the remarks on diet are thoroughly sound, judicious, and practical.

On the important question of "Overpressure," Dr. Farquharson expresses views which are in consonance with those frequently held in these columns. The overpressure which has existed has been due, not to the high standard set up, but to the underfeeding and ill-health of a certain varying proportion of the children. In Scotland, with its thrifty people and national diet of milk and porridge, overpressure is unknown; while in London, and some other large towns, where children too often breakfast on a small piece of white bread and a little weak tea, and perhaps dine with Duke Humphry, an appreciable amount of overpressure exists; innutritious food enters the stomach, impure air enters the lung, and, as a necessary consequence, the brain suffers from the impoverished blood with which it is supplied. Dr. Farquharson truly says that, under such circumstances, "unless the teacher has some little knowledge of physiology, and has more than the usual average share of observation and common sense, serious injustice may be done." As a remedy, he recommends systematic medical inspection of schools and school-children, and suggests that this duty might be entrusted to medical officers of health. If this suggestion were carried out, it would be an additional argument for combined districts,

and for making medical officers of health directly responsible to a central authority.

The chapter on "the duties of the school-doctor" gives a short outline of his special duties, and points out the errors of judgment, or faults of conduct, which most easily beset him. In the concluding chapter, the diseases most commonly met with in school are shortly reviewed. The observations on the early symptoms of scarlet fever, measles, small-pox, and mumps, will strike most readers as exceedingly valuable and suggestive. The inability to arrive at a positive diagnosis until after the illness has lasted, perhaps, several days, is not only a cause of some annoyance to both physician and patient, but also a very real source of danger to the community; and we cannot better close our notice of this useful book than by transcribing Dr. Farquharson's remarks on this head. "We would venture," he says, "to impress on school-doctors and general practitioners what good service they can render by studying very carefully the earlier symptoms of infectious diseases, for at present our knowledge on the subject is rather crude and elementary. . . . Were we in a position to give a definite diagnosis in every case of the kind before the rash appears, and the contagious properties of the disorder became fully developed, we might reasonably hope some day to stamp out this class of disorders altogether, and relieve humanity of much expense, inconvenience, and danger."

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION, Vol. ii Philadelphia. 1885.

ONE of the first attractions of this volume is a handsome and striking likeness of the late Dr. Gross, who was the founder of the Association, and whose name is intimately connected with the progress of American surgery. The first contribution is from his pen, and is of great practical interest. The object of the author was to ascertain by experiments upon animals the process employed by nature in repairing Wounds of the Intestine; and secondly—and more particularly—to determine, if possible, the best methods of treatment. Upwards of seventy experiments were performed, and the conclusion arrived at is that simple incised wounds, if properly treated, unite by first intention. When the suture was carried through the mucous membrane, the healing was more tardy; and if the edges were allowed to gape, the union was mainly effected by the serous coat. Wounds of any kind being left to themselves, the subjects of them either perish from their effects, or, if they recover, their safety is due to the adhesions formed with surrounding parts. In answer to the question, "Should all wounds of the bowel, however small, be sutured?" he concludes, after careful experimental inquiry, that they should; and the interrupted suture with waxed silk is preferred by him to any other means. The paper contains other questions of diagnosis and general treatment, which are practical, and only too short.

Two papers on Anæsthetics follow, and we are not surprised to find either preferred to other agents, upon the grounds of fair experimental observations made upon other animals as well as man.

Dr. Conner contributes an interesting paper on Traumatic Cephalocele, by which term he indicates the occurrence of cerebro-spinal effusion under the dura mater, consequent on simple fracture of the vault. Mr. Clement Lucas has drawn attention to these cases in the *Gray's Hospital Reports* (1880-81), and suggested that the origin of the fluid is not possibly subarachnoid space, but rather from the ventricular cavity; and Dr. Conner favours this view, though his two cases afford no proof, inasmuch as they recovered. This condition has hitherto been noticed only in young subjects, and the treatment adopted is gradual removal by aspiration, but only when severe pressure-symptoms have manifested themselves.

Trephining for Cerebral Abscess and for Traumatic Epilepsy is considered by Drs. Fenger, Lee, Nancrede, Byrd, and Briggs in various papers; and in the discussions which are printed, as well as in the papers themselves, some curious and valuable cases are given, which show that American surgeons are not wanting in boldness. Given that cerebral abscess can be diagnosed—and this is the really difficult question—the authors naturally advocate its treatment upon rational grounds; and given that epilepsy has followed injury to the skull, the authors and speakers advocate the relief of pressure by trephining or elevation. Some of the cases narrated are very instructive, and it is by cases well detailed that we can gain help in the diagnosis and treatment of these difficult disorders.

Dr. Martin gives a paper on the Pathology of Prostatic Calculi, and an account of some remarkable cases; and here again the remarks in the discussion which followed show that the experience of American surgeons is large, and of practical value to surgery. Suprapubic lithotomy finds an advocate in Dr. Tremaine, who operated upon a boy 3½ years old, where a calculus was larger than he thought ad-

visible to remove by the perinæum or to crush. It measured 2½ by 1½ inches. The patient recovered without a bad symptom. A second case is recorded of a man aged 50, in whom the stone could not be grasped by a lithotrite, and this patient recovered without any drawback. This operation was said by some of the speakers to be that which in the future would be selected in the somewhat rare cases where crushing could not be effected. But is perineal lithotomy in children likely to be displaced by either of these? The suprapubic operation has been strongly advocated lately by Professor Guyon and his followers for tumours of the bladder; but even here the results are not favourable enough to carry conviction, and we do not look forward sanguinely to the operation becoming a great favourite with surgeons, though it will always remain available for certain classes of cases.

Dr. Coleman contributes a paper on the Treatment of Stricture of the Urethra by what he terms the multiple wedge, which he effects in what seems a rather rough way. First, he passed a filiform bougie or a small whalebone-guide through the stricture; tied it in five days, when a second filiform bougie was introduced by the side of the first; a third was added on the fifteenth, a fourth and fifth on the twenty-fifth day, and a sixth on the twenty-eighth day. As the patient had cystitis originally, it is hardly a matter of surprise that, when the bougies were removed with difficulty, three inches of the distal end were covered with a phosphatic concretion. About half of this broke off into the bladder, but came away in a week. But the author is honest in telling his tale, and recognises what a little experience and foresight might have guarded him against. Upon this case, which occurred five years before, without, "as far as he knew," any return of the stricture, he claims for the treatment that it is safe, certain, and gives greater immunity against a return of the disease than any other treatment he knows.

There are two papers by Drs. Thompson and McCann, on the Surgery of the Extremities after Railway-Injuries; and inasmuch as no fewer than 470 persons were killed and 2,009 injured in one year on the United States railroads, from accidents to trains, not including the much larger class of accidents to employees in yards, etc., nor those to "tramps and track-walkers," the field for such surgery must be large. The principle adopted in operation is to leave as much of the limb as possible; long amputations of the leg, rarely removing parts of a finger unless absolutely necessary, and Listerian dressing.

A carefully prepared paper by Dr. Senn, on Experimental Researches on Cicatrization in Blood-vessels after Ligature, ends with a strong feeling in favour of antiseptic precautions, and the use of catgut ligatures. He shows that the clot is never organised, and that the real obliteration occurs from epitheloid and connective tissue proliferation. A point of practical importance urged by Dr. Senn (and by Dr. Tiffany in a paper on ligature of the common femoral artery) is the free opening of the sheath of the vessel without, of course, compromising the integrity of the vascular tunics.

Dr. Gross again appears a contributor on the Treatment of Stricture of the Oesophagus by Operation, which will well repay careful perusal. It is a careful and impartial criticism on the different operations adopted for its relief.

The Philosophy of Manipulation in the Reduction of Hip and Shoulder Dislocations is the subject of a paper by Dr. Moses Gunn, and is well illustrated by woodcuts of the different kinds of displacement. The general rule here urged, and with force and judgment, and which scientific surgeons recognise, is that, for easy reduction, the limbs should be placed in as nearly as possible the same position as that which characterises it at its instant of escape. American surgeons have proved very practical, and the remarks of the various speakers after this paper are well worthy of careful attention.

Extirpation of the entire Tongue for cancerous affections is exhaustively treated by Dr. Norris, who gives a tabular statement of recorded cases; and there are other papers on Trifacial Neuralgia, Degeneration of Ulcers, Neoplasms from a practical point of view, etc.

In closing these remarks on the *Transactions of the American Surgical Association*, we cannot but congratulate the Association on its good work in its short existence, and look forward to an useful future. The field of American surgery is peculiarly large, and the workers in it have already done much to advance the science they are pursuing. They have lost a grand leader in Dr. Gross; but this Association will, we trust and believe, continue his work, and contribute by patient and original research to the honour of American surgery.

We are pleased with the introduction of a report of the discussions after the various papers; for in this way many who have not the time or taste for contributing their experiences have the means of recording facts and opinions which may prove of value to surgical literature. Could not this be done more often in the transactions of some of our own societies? We think it might with advantage.

A PHARMACOPŒIA FOR THE TREATMENT OF DISEASES OF THE LARYNX, PHARYNX, AND NASAL PASSAGES. By GEORGE MOREWOOD LEFFERTS, A.M., M.D. Second Edition, revised and enlarged.

THOUGH evidently modelled on the well known Pharmacopœia of the Throat Hospital, this formulary has an independent value as bearing the personal imprimatur of a specialist of great experience. The practitioner will find here a whole arsenal of topical remedies for the throat and nose, and clear directions are given, not only as to the best mode of applying the various sprays, inhalations, insufflations, caustics, etc., but as to the indications for their use. Dr. LEFFERTS testifies strongly against the intranasal employment of chloride of sodium, and utterly reprobates the douche. The medical man who feels at a loss by being deprived of those sheet-anchors of nasal therapeutics will, on referring to Dr. Lefferts, have only the difficulty of an abundant choice to contend with in selecting efficient substitutes. We note that our author pins his faith more on sprays than on powders or lotions; the gargle he looks upon chiefly as a placebo. The illustrations are numerous; in particular, so many varieties of compressed air apparatus are figured as to give some pages the appearance of a catalogue of the "Inventories." The book is neatly got up, and well printed, though Priscian has been a little scratched here and there; for example, *folia (passim)*, *gargarismaz*, *boraci*. For the removal of these defects, a Latin dictionary and grammar may be confidently recommended when a third edition of this useful little work is called for.

25th JUNE 1885

RINGWORM: ITS DIAGNOSIS AND TREATMENT. By ALDER SMITH, M.B. Lond., F.R.C.S. Third Edition. London: K. Lewis. 1885.

WE welcome, with pleasure, another edition of Mr. ALDER SMITH'S useful work on ringworm. It is unnecessary to repeat the words of commendation which we have used in noticing the previous editions. In this new issue Mr. Smith has incorporated all that is new relating to the treatment of ringworm which has appeared in medical literature since the previous edition was published, whilst his directions for treatment are modified as further experience has shown to be necessary. In this edition we observe that Mr. Smith states that it must always be remembered that there is a possibility of bald places being left after the application of croton oil, and wisely urges the view that simple remedies will generally, with patience, be successful in eradicating ringworm in young children, and that with them strong irritants should not be employed.

BEQUESTS AND DONATIONS.—Mr. Thomas Emsley, of Burley-in-Wharfedale, has bequeathed £1,000 to the Leeds General Infirmary, £1,000 to the Bradford Infirmary, £1,000 to the Ilkley Convalescent Home, £1,000 to the Harrogate Bath Hospital, £500 to the Leeds Public Dispensary, £500 to the Leeds Hospital for Women and Children, £500 to the Cookridge Convalescent Home, and £500 to the Coatham Convalescent Home.—Mr. James Alexander, formerly of Great Winchester Street and Porchester Terrace, but latterly of Hampstead, has bequeathed £1,000 to the Royal Hospital for Incurables at Putney, £200 to the Hospital for Women, £100 to the National Hospital for the Paralyzed and Epileptic, £100 to the Surgical Aid Society, and £100 to the Samaritan Free Hospital for Women and Children.—"M. F." and "G. L." have given £1,000 to the British Home for Incurables for endowing two pensions of £20 a year each, in memoriam.—Mr. Henry Samuel Cooper, of West Kensington Gardens, has bequeathed £100 to the West London Hospital, £50 to the Hospital for Women, £50 to the East London Hospital for Children and Dispensary for Women, £50 to the Lock Hospital, and £50 to the Chelsea Hospital for Women.—Mr. Thomas Garth has bequeathed £200 to the Boston Provident Dispensary.—The York County Hospital has received £100 under the will of Mr. F. A. Argles, of Eversley, and £100 under that of Mr. R. J. Wiley, of Harrogate.—University College Hospital has received £100 from the United Friendly Societies, being one-half of the proceeds of their demonstration on Sunday, May 17th.

CUCAINE IN DYSMENORRŒA.—Dr. Edward Williams reports in the *New England Medical Monthly* the successful use of hydrochlorate of cucaine in painful menstruation. He wet a small piece of cotton with a solution of the drug, and inserted it into the vagina, allowing it to rest against the os. In about half an hour the pain ceased, and did not return again, the menses appearing in about three hours after the application was made. The editor reports a similar case with similar results. He applied a four per cent. solution directly to the os, and about two inches around it, with a camel's hair brush.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 29th, 1885.

THE DISCUSSION ON CHOLERA.

THE interest in the discussion of the etiology and treatment of cholera cannot flag so long as a severe epidemic is present in Europe; and the papers read in the Section of Public Medicine at the annual meeting of the Association will well repay careful study, because they are thoroughly practical. Dr. Pringle possesses special Indian experiences, and Dr. Paine has had an unrivalled opportunity of observing the issue of the struggle with cholera in an important British seaport town. There is, happily, no conflict of opinion on any essential point, and for once Indian and British experience are found arriving at identical conclusions. It is well established, and indeed admitted on all hands, that cholera requires certain special conditions for its development; and it has been shown by the history of many towns, and by none better than by Cardiff, that, if certain of these conditions be removed, cholera does not become epidemic when introduced. Dr. Pringle has provisionally classed these conditions under three heads—individual susceptibility, local want of sanitation, and certain atmospheric conditions. How far the third element is important, it is difficult to say, and objections may be urged against the prominent part assigned to it. It will, however, serve to draw attention to the fact that there is a *tertium quid* over and above the influence of individual susceptibility or of local unsanitary conditions, which may have been in existence for generations without the development of cholera. There is much which is mysterious in cholera; but this one point is clear, that, by the removal of these local unsanitary conditions, and by the proper management of imported cases, towns and districts may be effectually defended from its epidemics.

The history of Cardiff, as sketched by Dr. Paine, is a striking example of this. In 1849, a severe epidemic of typhus fever raged in certain parts of the town; over 500 cases occurred, and 142 deaths resulted. In consequence of this outbreak, the inhabitants became alive to the fearful condition of the town; the surface-water stagnated in open ditches, the soil was riddled with cesspools, the water-supply was pumped from shallow surface-wells, and the subsoil of a great part of the town was waterlogged. In the following year, Cardiff was placed under the provisions of the Health of Towns Act; but, before anything could be done, cholera broke out in the locality previously attacked by typhus fever, and carried off 351 victims, which was equivalent to a mortality of 21 per 1,000. A second epidemic began in 1854, but was held in check by the measures taken—isolation of

the sick until convalescence was established, disinfection of the house, and the substitution of good water for that obtained from the wells; only 172 deaths occurred. In 1866, cholera again obtained entrance into the port, but never established itself in the town, only forty-four deaths occurring. In the interval between 1849 and 1866, the whole sanitary conditions of the town had been completely changed for the better. An efficient system of drainage had been carried out, and first brought into use in 1855. The cesspools had been gradually abolished, and the open sewers and stagnant ditches done away with. A supply of good water had been obtained in 1857 from the watershed of the northern range of hills, and all the surface-wells closed. A staff of sanitary inspectors had been appointed to detect defects in sewers or water-supply, and to prevent overcrowding and other sanitary evils. The beneficial influence of these changes is clearly shown by the decrease in the death-rate of the town. The general death-rate for the ten years 1845-54 was 32.6; the zymotic death-rate was 9.8. For the ten years 1875-84, the general death-rate was 20.8, and the zymotic rate 3.4; that is to say, the general death-rate has fallen nearly 12 per 1,000, and the zymotic death-rate is little more than a third of what it was. The history of Cardiff not only clearly proves the value of local sanitary improvement, but teaches us once more that such improvements must be steadily and systematically carried on over a term of years; and that, when cholera is already raging, it is too late to hope to do more than limit ravages, which might have been almost entirely prevented had the necessary changes in sewerage and water-supply been carried out when there was leisure.

Two lines of defence against cholera yet remain for consideration—the exclusion of the disease from our ports, and the management of the earliest isolated cases. Dr. Pringle holds, and most people will be disposed to agree with him, that “the dejecta of cholera-patients are the vehicles which contain the cholera-influence;” whether the human system is the soil in which this “cholera-influence” becomes multiplied and disseminated is, for the purposes of the present argument, a point of no moment. If it be admitted that in some way, it matters not how mysterious or how common-place, a patient suffering from cholera is a source of danger to the community, and may be the starting-point of an epidemic—and so much it is almost impossible to deny—then every means must be taken to prevent emanations from his body from contaminating water, or soil, or air, and money spent with this object is well laid out. Therefore it is that the town of Cardiff maintains a steamer to intercept all vessels arriving from the Mediterranean ports, and to require any ship in which suspicious cases have occurred to proceed to the mooring-station, there to be inspected by the Medical Officer of Health, who would order the removal of sick persons on board to a temporary hospital on an island. At this point, it becomes of great importance to establish the period of incubation; it may be assumed that this varies somewhat in different individuals; but the valuable evidence brought forward by Dr. Pringle clearly points to a period of two, or, at most, three days, and Dr. Paine's facts bear this out.

In dealing with a town or district which is exposed to an epidemic, two points must be looked to: complete isolation and proper nursing of the sick, including the destruction of dejecta, and careful attention to personal hygiene. Evidently, cholera cannot strike any individual, unless he have some individual susceptibility to the disease; and such a susceptibility may undoubtedly be produced, not only by panic, and agencies which lower the general health, but also in a special way by

unripe or rotten fruit, or other improper foods, which disturb the alimentary canal, and tend to produce diarrhoea. Herein lies the great importance of the treatment of premonitory diarrhoea; both on theoretical and practical grounds, whether we accept or reject Dr. Koch's theory, the duty of medical men, and of local sanitary authorities, is obvious. When cholera is about, it may be impossible to decide whether an attack of diarrhoea is simple, or the first symptom of cholera; but we know that, if not checked, the condition of intestine which accompanies diarrhoea favours the development of cholera in the individual.

The whole matter may be shortly summed up. Cholera can only exist when several conditions conspire to favour its spread; we seek, therefore, to exclude the disease from the ports of the country, and to remove the local unsanitary conditions, which not only directly favour the spread of the disease, but, by their continuous injurious effect on the health of the population, tend to produce a condition of susceptibility in the individual. In a well considered scheme for dealing with cholera, there is no place for a quarantine-system; all experience proves it to be useless, and the peculiar characters of the disease render it specially ineffectual and injurious when applied to cholera. It is hopeless, according to Dr. Aitken, of Rome, to attempt to convince the health-officers of some European countries that the mode of spread of cholera and typhoid fever is not identical with that of scarlet fever, or of small-pox; and, for the present, equally hopeless to expect even the recommendation of the Technical Committee of the International Sanitary Conference at Rome to be generally accepted. Turkey, the obstructive, will protest, Greece will object, and Spain, though she endeavours to do without sanitary cordons and land-quarantine, will insist upon sending ships into quarantine for indefinite periods. The reason, says Dr. Aitken, why the representatives of even the more enlightened nations will not go further than they did lately at Rome, is, that they know that the sanitary condition of their towns is execrable, and that improvements require time. This country began the work of sanitary reform full a quarter of a century before the other maritime Powers of Europe; and, with the confidence born of success and experience, we have reduced our precautionary methods to a practical working system. Our only course is to see that there are no gaps in our defences where the enemy can slip in; to persevere patiently in well-doing; and to trust to time to justify our honesty of purpose and clearness of vision.

THE BRADSHAW LECTURE.

THOUGH Dr. Goodhart was constrained by friendship to choose, whether he would or no, Morbid Arterial Tension as the subject of his Bradshaw Lecture, published last week, it does not betray any want of spontaneous interest. The late Dr. Mahomed, who had been appointed to deliver the lecture this year, had given years of diligent study to the elucidation of the nature and causes of high tension by means of the sphygmograph, an instrument into the construction of which he had introduced several improvements. He showed that an abnormally high arterial tension preceded any evidence of disease of the kidney, and drew the conclusion that this was the cause of the albuminuria, and not that the disease of the kidney was the cause of the high arterial tension. His work undoubtedly much strengthened the position of those who held that the disease was really of a more wide-spread nature. Dr. Goodhart, though clearly holding this view,

delights to raise objections, to put them in the most forcible light, and then to leave the question to the judgment of the reader. If we are willing to accept the views of Sir William Gull and Dr. Sutton, in the main, and to admit that the condition of the kidney may probably be in reality a form of senile degeneration, we are compelled to ask whether it is a degeneration due to an inherent congenital weakness of the kidney, and arterial system, or to some primary blood-change. The latter was the view put forward by Dr. Walshe, and held, to some extent by Dr. Bright himself, who attributed the hypertrophy of the heart to the increased resistance encountered in the passage of impure blood through the tissues. The whole question at issue here is as to the mechanism by which the blood becomes impure. Is it by failure of the kidney—by renal inadequacy—or is it a change in the blood either primary in that fluid, or secondary to some toxic agent introduced from without or manufactured within the body? We are thus landed very far indeed from the theory of an arterio-capillary fibrosis of a degenerative nature. One of the most interesting passages in Dr. Goodhart's lecture was that in which he dealt with the occurrence of hypertrophy of the heart in large white kidney. He was able, from a further examination of the records of Guy's Hospital, to confirm Dr. Galabin's statement that the heart and arteries are hypertrophied in a large proportion of the cases of chronic parenchymatous nephritis. According to his figures, hypertrophy of the heart was present in about 56 per cent. of the cases of parenchymatous nephritis, and in about 66 per cent. of the cases of granular kidney. Statistics of this kind, though not without value, are somewhat vitiated by two considerations—by the difficulty of determining whether a heart is hypertrophied, and by the necessity, therefore, of laying down a hard and fast rule as to weight; and by the further important consideration that it is impossible to separate the one form of disease arbitrarily from the other. We would have liked to hear a somewhat more distinct enunciation of Dr. Goodhart's own views on this and several other subjects touched on in the lecture, which is eminently suggestive, rather than conclusive.

One question of some novelty and great practical importance was lightly touched on—namely, the rate at which the heart can hypertrophy. The point is of interest, not only with regard to Bright's disease and its exact relation to renal disease, but also with regard to the influence of sudden increase in the amount of muscular work done, as in certain athletic exercises, in producing permanent hypertrophy of the heart. Dr. Goodhart's thoughtful discussion of the influence on the heart of the rate at which the disease in the kidney advances, will be read with profit by every practical physician. The argument, if not novel, is at least strikingly put, and may be found to throw a good deal of light on the significance of cardiac hypertrophy in Bright's disease. Here, again, we feel inclined to complain that Dr. Goodhart has not spoken out more clearly as to the bearing of these facts on the theory of an arterio-capillary fibrosis.

Upon another point, however, he is more explicit, and his explanation of the concurrence of muscular hypertrophy and hyaloid degeneration in the arteries, and of the preponderance, sometimes of the one and sometimes of the other, is philosophical, and probably thoroughly sound, being borne out by many accepted facts. He did not fail to pay a well deserved tribute to the work of two other Fellows of the College of Physicians, who have helped largely towards the better understanding of Bright's disease; but the views of both Dr. George Johnson and Dr. Dickinson are too well known to demand any further

discussion in this place. Neither need we follow Dr. Goodhart in his remarks on the occurrence of morbid tension in the pulmonary artery, and dilatation of that vessel; the subject is still in a very nebulous state. There is some evidence that, even in simple anæmia, the pulmonary artery undergoes dilatation—a fact which is not only interesting in itself, as perhaps accounting, as has been suggested, for the characteristic murmur of anæmia; but also as necessarily leading us to ask, with Dr. Goodhart, whether the pulmonary artery may not dilate under certain transient pulmonary disturbances, and subsequently fail to recover its former tone and calibre, the dilatation remaining as a permanent affection, not without influence on the health and comfort of the patient.

In taking leave of the subject, we may congratulate Dr. Goodhart on having so well discharged a difficult task. His able and suggestive lecture will long afford food for thought and discussion; and will, we hope, be followed by other like valuable contributions to the same subject from his graphic pen.

It is stated by a Russian newspaper that diarrhoea and dysentery are now very prevalent in Khiva.

A HOSPITAL for girls suffering from incurable diseases is about to be established in St. Petersburg, with funds bequeathed for the purpose by a Russian lady who has lately died in Geneva.

THE *Russkaya Meditsina* states that the number of candidates for the Military Medical Academy in St. Petersburg is so large this year, that there will not be room for nearly all. Preference will be given to those from the St. Petersburg gymnasia.

FIRE IN A HOSPITAL.

A FIRE broke out at Westholme Hospital for Infectious Diseases, belonging to the Oldham Corporation, on Monday evening. Though the hospital is a wooden structure, the fire was quickly subdued; and, in consequence, little damage was done. There were eleven patients in the hospital at the time, but their removal was not necessary.

DEATH OF A MEDICAL MAN FROM DIPHTHERIA.

THE medical officer of the hospital at Nikolaiev, Dr. S. Stratiyevski, has just died of diphtheria, which he contracted from a child, while painting its throat. The patient coughed some of the diphtheritic material in his face. He was only ill for three days. The municipal authorities will provide funds for bringing up the doctor's children.

HYDROPHOBIA AND STRAY DOGS.

THERE appears to be especially good reason why the Police-Commissioners should exercise to the full extent their powers for the control, and, if necessary, the destruction, of stray dogs. A fatal case of hydrophobia was the subject of an inquest in Holloway last week. The deceased had been bitten a month ago by a mongrel cur, whose owner could not be found. At Dunstable, another animal has lately been shot, after making havoc among sheep and dogs, and biting a boy. In a former article, we have shown why the stray dog, as being hungrier and more weak than another, is, therefore, more likely to be attacked by the germ of rabies. Experience also shows that the dog that is mad wanders as if by a restless instinct; the more need, therefore, for the control to which we have referred. Some would go further, and advise that the mere fact of a bite inflicted on the person should seal the doom of the biting animal. This is going too far. It should be remembered that, with the death of the dog, all proof of madness or the contrary is obliterated, and thus the best means of reassuring the person attacked of his safety in a case where rabies does not exist is removed. This loss of evidence is of some consequence to nervous

people. Of course, where madness, that is, hydrophobia, is certain or where dogs have been bitten by one of their kind known to be mad, there is no alternative but destruction. Death is then a wise and provident measure, but the need for its infliction should in any such case be fairly apparent. A frothy or watery mouth; a wild, bright, bloodshot eye, and, in a late stage, more or less paralysis of the lower jaw and hinder extremities, are among the most reliable signs of hydrophobia in dogs. Avoidance of water is not in them so reliable a symptom as in man; on the contrary, they often make for water, and swallow it freely.

INFECTIOUS PERITONITIS IN VIRGINS.

DR. SNYERS has described, in the *Annales de la Société Méd.-Chirurg. de Liège (Journal de Méd. et de Chir. Prat., 1884)*, two interesting cases, which seem to show that the virus of erysipelas can cause, in women who have never had intercourse, an acute form of peritonitis, similar to that observed in puerperal cases. A young woman (a virgin), aged 18, was suddenly seized with symptoms of acute peritonitis five weeks after a servant in the house had been taken ill with erysipelas of the face; death ensued in thirty-six hours. Shortly afterwards, the brother of the young woman had an attack of erysipelas on the arm; this did not cause much anxiety at the time; but, a fortnight later, the second sister, aged 20 (also a virgin), was seized with the same symptoms as the first, and died in less than two days. At the *post mortem* examination, Dr. Firket failed to discover any local cause by which the origin of the inflammation might be explained. The spleen was much swollen, and the blood had the same appearance as in cases of infectious diseases.

MEDICATED SWEETMEATS.

THE painful circumstances attending the accidental death of Mr. Henry Jacobson, a fortnight ago, may lead others besides ourselves to question the advantage of administering poisons such as morphia, even in minute doses, in the form of sweetmeats. The disagreeable after-effects are not obviated by this method of compounding, as this cannot interfere with the well known cumulative action of the drug. Neither can it be said that morphia is a remedy so nauseous that its taste may not easily be endured when it is given in mixture as a means of cure. There is, on the other hand, this danger in its use as a pharmaceutical lozenge, that the purchaser, finding his medicine in a form apparently harmless, is apt to disregard rules of dosage. Further, by this practice, a drug more dangerous than almost any other for certain states of body is placed, without adequate caution or proviso, in the way of persons who probably know nothing about the discomfort they are treating, save the fact of its existence.

ASYLUM-HORRORS IN QUEBEC.

It is with surprise and pain that we read Dr. Hack Tuke's report (*Canada Medical and Surgical Journal*, October, 1884) on the public asylums of the Province of Quebec. Dr. Tuke, when visiting Canada with the British Association, took the opportunity to go over all the asylums of Ontario and Quebec. The condition of the patients at Longue Pointe and at Beaufort, the Quebec public asylums, is deplorable in the extreme. The unfortunate wretches were crowded together; a large number of them were strapped in restraint-chairs, or were manacled in various ways, ordinary iron-handcuffs such as are used for prisoners being employed in many instances. Nor was severe mechanical restraint dispensed with, even when seclusion was resorted to. Manacled lunatics were found in miserable cells, to which light and air were admitted only by two small apertures, one over the door, and one in the door; and these could at any time be fastened up by the attendant. To make amends, however, when the aperture in the bolted door was open, the "patient" could thrust his head through, and listen to the jabbering of others in exactly the same position as himself. The reason usually given for the mechanical restraint was that the patient would tear his clothes if free. That this is a quite

sufficient reason is shown by the fact that the asylum-authorities undertake, by contract with the Government, to board, lodge, and clothe each lunatic for £20 a year at Montreal, and for less than £30 a year at Quebec. And how far this reason is carried may be gathered from one of the many cases mentioned. "When the bolts of the door of the first cell which I saw opened were drawn back, and the padlock removed, a man was seen crouching on a straw-mattress rolled up in the corner of the room, a loose cloth at his feet, and he stark naked, rigorously restrained by handcuffs and belt. On being spoken to, he rose up, dazzled with the light, and looking pale and thin. The reason assigned for his seclusion and his manacles was the usual one, namely, 'he would tear his clothes if free.'" It is with great reluctance that Dr. Tuke feels obliged to assume the thankless office of critical visitor towards kind and courteous hosts. The interests of humanity, however, stand before every other consideration. It is satisfactory to know that the earnest alienist receives the support and approval of the medical profession in Canada; and the hope may be indulged in, that future visitors to Quebec will find the insane there treated as humanely as they now are in the well ordered asylums of Ontario.

BACTERIOTHERAPY: A NEW METHOD OF TREATMENT.

PROFESSOR ARNALDO CANTANI has turned to account the hostility existing between various microbes: and, in the first case where the experiment has been tried, the *Bacillus tuberculosis* has been killed by causing the patient to inhale the *Bacterium termo*. The harmlessness of the *Bacterium termo* to healthy animals was first ascertained by giving it in various ways—by inhalation, injection, and by the stomach—to cats, dogs, and other animals. The case is briefly as follows. A woman, aged 42, with a large tubercular cavity in the upper lobe of the left lung, was admitted to hospital on April 26th of the present year. Under quinine, cod-liver oil, and other restorative treatment, the patient was rapidly losing ground. The evening temperature was between 100° and 101° Fahr. The expectoration was copious, purulent, and contained elastic fibres and abundance of tubercle-bacilli. Animals inoculated with the sputum became tuberculous. The body-weight of the patient steadily fell. On May 4th, all other treatment was stopped, and daily inhalations of the *Bacterium termo* were commenced; a rich culture in gelatine, diluted with meat-broth, being pulverised by means of an ordinary spray-producer. The expectation diminished rapidly until it disappeared altogether. The tubercle-bacilli became fewer by degrees, being replaced by the *Bacterium termo*; and, on June 1st, the bacillus had entirely disappeared, and it did not again return. Animals inoculated with the sputum no longer became tuberculous. Meantime, the patient was gaining flesh, and improving in every way. Professor Cantani speculates on the possibility of finding, for every pathogenic microbe, a non-pathogenic hostile one. However, he very wisely does not lay great stress on a single case, nor does he pretend that the *Bacterium termo* is the best microbe to oppose to the *Bacillus tuberculosis*. Outside the body, the bacterium does not always kill the bacillus; and the two microbes are found together spontaneously in tubercular cavities. In the case recorded, however, the conditions are different from those in which the bacillus has withstood the bacterium. The bacterium was given in large quantities, and in a vehicle that was perhaps more favourable to the bacterium than to the bacillus.

SUDDEN DEATH DUE TO RUPTURE OF SUPPURATING BRONCHIAL GLANDS.

A SOMEWHAT uncommon cause of sudden death has recently been the subject of a coroner's inquest, and of some very unjust charges against the medical man in attendance. A little girl, aged 12, was taken to consult Mr. G. A. Tait, who found that respiration was difficult and prolonged, and that the child was feverish. Believing that he had to do with a case of ordinary laryngitis, he gave a dose of ipecacuanha, and, when summoned almost immediately afterwards to attend

the child at home, he did not do so, supposing that the mother had been alarmed by the commencement of vomiting. Unfortunately, the child was suffering from tubercular disease of the bronchial glands; the glands had suppurated and broken down, finally opening into the trachea, and causing death in a very short time. Though a rare event, a certain number of cases of this kind, are on record; in some, a large piece of caseous material has become suddenly detached and impacted in the trachea, causing death in a few moments. The difficulty of diagnosis is exceedingly great, and has rarely been surmounted; the history is of great importance, but, in persons belonging to the class to which this little girl belonged, it is very difficult to obtain, and not very trustworthy. The condition is one which, both from the clinical and pathological point of view, would well repay further investigation.

THE SANITARY CONDITION OF WORKSHOPS.

THE Amalgamated Society of Engineers has been making an inquiry by means of a printed list of questions circulated among mechanics, through the agency of the branch secretaries of the Society. Five thousand forms were sent out, asking particulars with regard to water-supply, cleanliness, water-closets, and cases of sickness traceable to sanitary defects. Unfortunately, only 126 replies were, according to a statement in the *Pall Mall Gazette*, from which we quote, received from England, nine from Scotland, and one from Ireland. The returns, so far as they go, appear to show that the arrangements are tolerably good in only a small proportion of the shops, and these are situated chiefly in Leeds, Sheffield, Nottingham, or in Government establishments. The water-supply is often scanty, and of doubtful purity: privies are often few in number, badly constructed, and erected over open middens, which are emptied only once or twice a year; the worst kind of closet, however, is not connected with the open midden, noisome and unhealthy as that is. Sunk cesspools are infinitely worse when the water-supply is obtained from wells in the immediate neighbourhood; upon this most important point, no information has been afforded. It is gratifying, and rather surprising, to learn that, in one large workshop, earth-closets for 600 men have been found to work well: and, if this system could be extended, it would be more wholesome and less wasteful than any other, as ashes can be used as the deodoriser. Where this is not possible, good latrines, with an automatic flushing chamber, are the best arrangement, and can generally be erected at a small cost. The replies, incomplete as they are, may be of use in calling the attention of medical officers of health and sanitary inspectors to the matter; they could even be able to prove whether the replies fairly represent the average condition, a point which must at present remain in some doubt.

LICENCES TO PRACTISE MEDICINE IN JAPAN.

THE *Supplement to the Transactions of the Sei-i-Kwai* for May, 1885, contains a copy of the regulations for the examination of candidates for licences to practise medicine. The Minister for Home Affairs is to hold examinations twice yearly, six months' notice of the time and place being given. At the time of the examination, he is to appoint an examining committee selected from hospital physicians, or from physicians and chemists of known medical knowledge; a dentist may also be appointed in the case of examinations for licences in dentistry. A manager is to be appointed to superintend the examinations. The examinations for the licence to practise medicine are divided into two parts, unless the candidate can take the whole examination at once. For the licence in dentistry, there is but one examination; the subjects being Dental Anatomy and Physiology, Dental Pathology and Practice, Dental Medicine, Dental Mechanics, and a practical examination. The subjects of the two examinations for the licence to practise medicine are: first, Physics, Chemistry, Anatomy, and Physiology; second, Theory and Practice of Surgery and of Medicine, *Materia Medica*, Ophthalmology, Obstetrics, and Clinical Observation. A

course of study of not less than a year and a half's duration must be pursued before the first examination, and an additional course of like duration before the candidate can be admitted to the final examination. The answers to the questions are to be given in writing; but, under certain circumstances, they may be given orally. Candidates who pass are to receive a certificate, attested by the manager and the examining committee. Rejected candidates are not admitted until after a lapse of at least six months. The fees are, for the primary examination, three *yen* (about 11 shillings); for the final examination, five *yen*; and for the examination for licence in dentistry, five *yen*. The fees are not to be refunded in case of inability to attend or complete the examinations.

MEDICINE AND PHARMACY IN BELGIUM.

THE second edition of the *Belgian Pharmacopœia* has now been published, and a Royal decree promulgated concerning pharmaceutical chemists and medical men. Amongst the various provisions, we note that "it is forbidden to medical practitioners, when they are not authorised to keep a drug-depôt, to interfere in any way, direct or indirect, with the preparation and sending out of medicines, with the single exception of those employed in the treatment of venereal affections, provided always that they have been prepared by a pharmaceutical chemist, and have affixed to them a special ticket, with which it is obligatory to furnish the customer." Practitioners who are authorised to supply medicines to their patients are forbidden to keep an open shop, and their medicines must be bought from a pharmaceutical chemist. On the other hand, chemists are not allowed to treat diseases in any way whatever, nor to prescribe or to administer medicines. They are not permitted to have more than one shop, and they are compelled to keep certain medicines and apparatus always at hand, and in good condition.

HYSTERIA IN MALES.

AT a recent meeting of the balneological section of the Gesellschaft für Heilkunde, Berlin, Dr. Joseph, of Landeck, read a paper upon this subject, describing two cases. An apprentice in a house of business, "of good family," had an attack of acute rheumatism when 18 years of age. Convalescence was protracted, and followed by great distension of the stomach, hicough, and general clonic spasms of the voluntary muscles, forcing the trunk suddenly into all manners of attitudes, and causing obstruction to deglutition, etc. After treatment at a hydropathic establishment, all these symptoms disappeared, but were followed by ptosis and right motor hemiplegia, with hyperæsthesia on both sides of the body. The convulsions returned after the paralytic symptoms had abated. Dr. Joseph then examined the patient, who appeared to be robust, muscular, and ruddy complexioned. He stared suspiciously at bystanders, and was very excitable. He walked slowly, and with the aid of a stick, dragging the right foot. Percussion of the thorax caused opisthotonus; the six lower dorsal vertebrae were especially sensitive. The appetite had become very good, and globus was frequent. The bowels remained constipated for days or even weeks. No history of sexual abuse of any kind could be traced. After ten weeks of hydropathic treatment, he left Landeck apparently cured. It was found that the patient's grandfather, who had recently died, aged 78, had suffered for fifty years from hysterical fits, precisely similar to those observed in young women. The second case was that of a robust horse-dealer, aged 38, who had a flourishing business in Prussian Poland. He had served for three years in a German cuirassier regiment, and was father of a large family. Four years before consulting Dr. Joseph, he caught cold, and aphonia followed. A little later, clavus was complained of, and then he began to have convulsive attacks, without loss of consciousness, but with loss of power of speech. These attacks were often followed by vomiting. Then, when he applied to Dr. Joseph, he became subject to globus, hoarseness without objective laryngeal symptoms, and great mental irritability. The physician witnessed a fit. The patient, a very tall, strong man, lay stretched out in bed, with clonic convulsions of all his extremities;

he was quite conscious, but could not speak. There was constant hyperæsthesia over the interscapular region, the lower cervical and upper dorsal vertebrae, but not in the iliac region. The patient was relieved by hydropathic treatment. There was no family history of hysteria or epilepsy.

DUSTBINS.

A LECTURE on "Dustbins and Cholera" was delivered recently at the Royal Aquarium, by Mr. William Warner, R.E., of Nottingham, who divided his subject into the four branches—first, the description of house-refuse; secondly, the dustbins into which the refuse was cast; thirdly, the vehicles used for collecting it; and, fourthly, the various methods used to dispose of house-refuse. Under the first head, he said that not only vegetable matter, which could be burned in the kitchen-fire, but all kinds of offal and dead animals, were thrown into the dustbins; but whatever the dustbins contained should be removed by the dustmen. They often refused to do so, as not being compelled by the Public Health Act. By being kept, such refuse became decomposed and injurious to the neighbourhood. He said there was no doubt that cholera and similar diseases had been aggravated, and many lives sacrificed, by the dangerous elements of the dustbin. In 1883, a memorandum was sent to the sanitary authorities from the Local Government Board, in which it was stated that measures of cleanliness before the breaking out of cholera were of far more importance than the removal or disinfection of filth afterwards. Dustbins formed of brick or wood should be entirely abolished, and a round iron or steel receptacle used, with handles on the sides, and about the size used by dustmen; while a systematic collection twice a week should be carried out. No one should be allowed to harbour dust; and every time the receptacle was emptied, it should be sprinkled with disinfectants. With regard to the vehicles used, he condemned the system of emptying the refuse into the top of the carts, causing great unpleasantness to passers-by. He suggested low-bodied carts, to be filled without ladders. At a very small cost, he said, such carts could be made with low bodies and wooden doors on the top, thus keeping the dust from flying about. He exhibited a model of such a cart. As to the disposal of the refuse, he advocated burning. Destructors erected at Leeds, Derby, Bolton, Ealing, and other places, not only consumed such refuse without smell, but at a small cost for labour; and the steam generated might be used. The waste heat was utilised in many towns to drive mortar and manure mills, and for various other purposes. He referred to the many uses to which the heat generated by the burning of the refuse could be devoted, and pointed out how the cost of erecting destructors in all large towns might be minimised. A resolution was then carried to the effect that it was desirable that house-refuse from dustbins should be cremated, when it could not be disposed of by ready and more economical processes, as a preventive to disease.

CASE OF POSTERIOR DICHOTOMY.

THE Indian papers relate the following remarkable case of monstrosity, described, as might be expected, in popular language. "A lad, hailing from Lucknow, a Rajoot Hindoo, aged 13 years, exhibiting himself in Sudder Bazaar, presents an extraordinary spectacle, having one head attached to two bodies. Each trunk is alive to the touch, and still more marvellous is it that each set of limbs work together in unison, performing the same office at the same time; this is the same with the organs of each trunk. The lad gathers up the front limbs, and carries them along in moving about. His mental faculties seem intact, and, notwithstanding the tediousness of sitting long hours in heated apartments, he is cheerful. An enterprising Parsee gentleman has advanced the lad's father a thousand rupees in expectation of the success of the exhibition in Poona. In Bombay, several thousand rupees were collected." This case appears to be an example of what teratologists term posterior dichotomy. "Posterior" is here employed in conformity with the relations of the trunk and extremities in the

lower mammalia, "inferior" being more correct in the case of man. The variety of posterior dichotomy, in this case, would be "schizorhachis," the less complete form, where the posterior part of the axis is dichotomous, being "dipygus;" and the more complete, where the dichotomy extends to the cranium, being "schizocotis." A report of the Sudder Bazaar case, drawn up by a competent anatomist, would be of great interest, the condition of monstrosity being more extreme than in the Siamese twins or in Millie-Christine; though there is no reason why a monster with two trunks should not live, provided that there be no visceral malformation incompatible with life.

FRUIT-STONES IN THE INTESTINE.

PROFESSOR FÜRBRINGER has recently published, in the Viennese medical papers, the case of a woman of the working classes, 49 years old, and subject to dementia, who showed signs of pain and irritation in the region of the anus. Scanty watery stools passed involuntarily for a week, accompanied by severe dyspepsia and emaciation. On examination, the integuments around the anus were found to be sodden and covered with a sanious discharge, there were also inflamed piles. On introduction of the finger into the rectum, 98 plum-stones were removed; they were imbedded in the depressions between large, partly gangrenous, bleeding masses of congested mucous membrane. Pieces of pack-thread, apple-peel, plum-stalks, and large masses of rags were also extracted from the bowel; the rags were covered with very thick clear mucus. The mucous membrane of the rectum was deeply injected, and ulcerated in parts. Two days later, 137 plum-stones, with masses of feces, were brought away; and, after the administration of cold enemata and castor-oil, vast quantities of fecal matter were voided from the anus. The symptoms of proctitis rapidly disappeared. It was found that the foreign bodies had not been introduced through the anus; the patient had been seen, shortly before her illness, to enter a cottage for the purpose of begging, and to steal, from a heap of fruit collected for the manufacture of jam, a quantity of plums, which she at once swallowed entire. At other times, she was detected swallowing eatable or uneatable substances, to appease the pangs of hunger.

MEMORIAL OF SIR MOSES MONTEFIORE.

It is proposed to establish, at the Chelsea Hospital for Women, a memorial of the late eminent Jewish philanthropist, Sir Moses Montefiore, in the form of a "Montefiore Ward," and a "Montefiore Bed." The estimated cost of the former is £500; and of the latter £1,000; and an endeavour is being made to raise the full amount of £1,500 by subscriptions. The proposal has, it is stated, been approved by the leaders of the Jewish community and other influential persons. The reasons assigned for the establishment of the memorial are, first, that the Chelsea Hospital is the only one of the kind where Jewish women can observe the special rites of their faith; and secondly, that Sir Moses Montefiore was one of the first governors of the hospital.

A MEDICAL DRAMA.

"SISTER GRACE," a new play, by Mr. Scott Battams, was produced for the first time in the provinces on August 8th, at the New Theatre, Devonport. The play, which is founded on some incidents of hospital life, was originally produced at a *matinée* given last year at the Avenue Theatre, by Mr. Meriscord, in aid of the funds of the East London Hospital for Children, where Mr. Scott Battams is the resident medical officer. "Sister Grace" achieved in Devonport, as in London, a distinct success, and we may commend it to the notice of these kind-hearted persons who get up entertainments for the benefit of hospitals or their inmates.

WEIGHT AS AN INDICATION OF THE CHARACTER OF RISKS FOR LIFE-INSURANCE.

DR. JOEL SEAVERN, in the *Boston Medical and Surgical Journal* for October, 1884, presents an analysis of the 974 deaths of men that have occurred within 1868-1884, in "a beneficiary organisation" (a

paraphrase, we presume, from the title of his paper, for life-insurance), with special reference to the bearing upon the prospect of life of the weight of the individual when he presents himself for insurance. Among the 974 deaths, 138 men were, on admission, 15 per cent. or more below the standard regarded as normal, and which is about the same as that accepted by British life-insurance companies; 122 of the total deaths were found to have been 15 per cent. or more above the normal weight. Phthisis occurred only in the first class; cerebro-spinal disease, including apoplexy, though found in the first class, prevailed to a much greater extent in the second. The conclusions which Dr. Seaverns draws from his investigation are, that heavy weights are better subjects for life-insurance than light weights; that we must be more careful in estimating other disabilities affecting light than heavy weights; and that we may with safety admit heavier weights than those usually regarded as being within the normal weights. We willingly concede that the weight of the individual is an element of consideration in determining his eligibility for life-insurance; but we should be very sorry to advocate it as in any way serving as a substitute for other and more careful modes of inquiry into the antecedents and health of the candidate. We have no knowledge of the procedure adopted for determining the eligibility of the candidates of Dr. Seaverns' "beneficiary organisation," which rejoices in the name of the Royal Arcanum; but we cannot but be struck by the fact, that the average duration of life of the 138 underweighted men was only thirty-one months after insurance, whereas that of the 122 overweighted men was not more than twenty-seven months. This is scarcely to be regarded as a confirmation of the author's preference for heavy weights; while it suggests the absence of some of those precautions considered universally necessary to determine the eligibility of candidates for life-insurance.

DEATH OF DR. J. R. WARDELL.

WE regret to have to record the death of Dr. J. R. Wardell, of Tunbridge Wells, which took place on August 21st, at Brighton, where he had gone for the benefit of his health. Dr. Wardell had suffered from impaired health for the last two years, but he has happily lived to see published in a complete form his valuable *Contributions to the Pathology and Practice of Medicine*.

LUMBAR NEPHRECTOMY.

MR. CLEMENT LUCAS's case of nephrectomy mentioned in the *BRITISH MEDICAL JOURNAL* of July 25th, healed without suppuration or rise of temperature. She was taken out of doors on the fifteenth day, and was able to leave the hospital perfectly convalescent within a month of the operation.

ARTIFICIAL REARING OF NEW-BORN BABES.

At a recent meeting of the Académie de Médecine, M. Tarnier showed two infants that had been artificially reared in his service at the Maternity Hospital. The *couvresse*, or hatching-machine, is kept at a temperature of 30° and 39° Centigrade (93° and 98° Fahr.). The more the birth is premature, the higher is the degree of temperature maintained. Since last October, M. Tarnier has fed these artificially reared infants by a method known as *gavage*. An India-rubber bougie, with a glass capsule fitted on to it, is introduced into the infant's stomach; the milk is then poured down, and the bougie is withdrawn the moment the food reaches the stomach, in order to prevent regurgitation. After testing different forms of food, Mr. Tarnier believes human milk to be the best, but a very small quantity is sufficient; otherwise, the babes have acute oedema, resulting from over nutrition. The two children shown at the meeting of the Académie were born at the sixth month; one weighed 1,020 grammes at time of birth; its weight afterwards fell to 850 grammes, and subsequently reached 955. It was artificially fed every hour with at first eight grammes of human milk; the fourth day after birth, 16 grammes were given to it, and shortly afterwards it was made to suckle at the

breast. It was six weeks old when exhibited, and in excellent health. The second example was two months old, and weighed 1,500 grammes.

REINFORCEMENT OF HEREDITARY TENDENCIES.

M. RENAN has been talking, with his usual eloquence and felicity, in praise of ignorance. "A race," he said, "gives its flower when it emerges from oblivion. The brilliant intellectual developments proceed from a vast foundation of unconsciousness, I would almost say from vast reservoirs of ignorance." Would not M. Renan have been nearer the truth if he had altogether refrained from saying it? Has he not fallen into the common error of supposing that a want of knowledge of letters, or a deficient power of expression, constitutes ignorance? On the other hand, is there not much truth in his main contention, that his genius, of which with characteristic self-confidence he makes no doubt, is the outcome of long obscure lines of peasants and sailors, whose intellectual sobriety laid the foundations of his own mind and life? The faculty of observation trained by generation after generation of tillers of the soil, or toilers of the sea, is transmitted to some fortunate individual who possesses likewise the power of expression. Genius, and much more, therefore, talent, are for M. Renan, no exceptions to the general laws of inheritance. Yet, they are often supposed to be discredited by quoting cases of genius or remarkable talent, suddenly appearing in families not previously distinguished. Such facts have been taken up with great glee in certain quarters in order to add weight to deductions unfavourable to the truth of the laws of heredity, founded on a curious misconception of the significance of a calculation made by a correspondent of *Nature*. This ingenious gentleman has been at the pains to calculate how many ancestors every individual in this country has had since the Norman Conquest, and arrives at the conclusion that "one is descended from no fewer than sixteen million ancestors;" four grand-parents, eight great-grand-parents, and so on. It has been assumed by some, surely very thoughtless persons, that this is equivalent to saying that in the pedigree of each individual there have been sixteen million true crosses. There are no figures in existence, or obtainable, to show the amount and degree of intermarriage in the general population; but there can be no question that it is now very considerable, and was in former times very much greater. In many isolated districts, intermarrying among the indigenous population has been almost invariable until recent times, and is even now the rule rather than the exception; in Scotland, where pedigrees have been preserved for many generations, even by the peasant class, consanguinity can be traced and is recognised between families which in England would be assumed to be entirely unrelated. The same thing is true to an even more striking degree with the peerage; pedigrees have been carefully preserved, and intermarriage has been the rule, that is to say, intermarriage in the same class. Taking the grandparents on the second remove, a man would have at the sixth remove sixty-four ancestors, but there must be very few peers of a creation dating to the beginning of the last century who are derived from sixty-four ancestors in the sixth remove, for the reason that intermarriage would almost certainly come into play; this would be still more constantly the case in the isolated populations mentioned above. In the hereditary transmission of characteristics, there are always two forces in operation which we may call dilution and reinforcement. It is a matter of every-day observation that a tendency may be strengthened or weakened by crossing, and it is upon this fact that breeders of special strains of dogs, cattle, or horses rely in great part, the only other influence at their disposal being alteration in food, habitation, or other environment of the young. Exactly the same holds goods with the human species. For instance, a man with an hereditary tendency to gout may marry a woman with the same tendency, and their son by his manner of living may develop gout at an early age; that is to say, the tendency in the father, reinforced by marriage, and again reinforced by habit, develops in the son with great rapidity; on the other hand a man with the gouty tendency may

marry a woman free from that tendency, and, thereby, dilute its force. There are, of course, well known facts which militate against this view, but they are generally held, we believe, to be exceptions to the rule. In the case of gout, phthisis, and some other diseases, the exceptions are probably more apparent than real; of the general truth of the law there can be no question.

SIR THOMAS CRAWFORD, K.C.B.

THE announcement contained in the *Gazette* of the 25th instant, that the long and eminent services of the present Director-General of the Army Medical Staff have been recognised by an honorary distinction, will be a matter of general congratulation, not only among the medical officers of the army, but by the medical profession throughout the kingdom, who have fully appreciated the ability with which Sir Thomas Crawford has directed the important department now committed to his care. Sir Thomas Crawford, who was recently made an honorary LL.D. at the centenary celebration of the University of Edinburgh, took his medical degree there forty years ago, and has been throughout almost the whole of this period connected with the Army Medical Service. He went to India in 1848, rendered good service in the second Burmese war, and, on his return to this country after six years' service, was selected for promotion, and appointed surgeon to the 18th (Royal Irish) Regiment, with which he went through the Crimean war. In 1857, he went with his regiment to India, and served in Central India during the mutiny. He was mentioned in orders by Sir Hugh Rose, and after reaching home was appointed to a post in the office of the Director-General, which led to his being given the charge of the medical branch, under Sir James Gibson. As soon as he had attained the requisite seniority he was confirmed in the rank of Deputy Surgeon-General, and ordered to India. He was given the medical charge of the large camp assembled in the Punjab in 1872, and in consequence of his reports on the sanitary condition of the troops important improvements were carried out. He returned home in 1877 as Surgeon-General, and was appointed Principal Medical Officer in Ireland. Subsequently forgoing his claim to serve at home, he returned to India, and served as Surgeon-General of Madras, and subsequently of Bombay. During his tenure of this office the amalgamation of the two administrative medical services was carried out, and he became Principal Medical Officer to Her Majesty's Forces in India. While serving there he was offered the appointment of Director-General at home, but, owing to the desire of the Indian Government to retain his services, he did not take over the duties of this appointment, in succession to Sir William Muir, until a year later. The great ability and success with which he has conducted the work of the department through a very trying and anxious period has been frequently recognised in these columns. To him belongs a very large share of the praise which the medical arrangement of the recent campaign has received both from public opinion and in official despatches.

THE HABITUAL DRUNKARDS ACT.

THE Inspector of Retreats under the Habitual Drunkards Act, 1879, has just presented his fifth annual report, for the year 1884, to the Secretary of State. There were four such retreats licensed under the Act, one for men, one for women, and the other two for both sexes. A fifth was licensed at Wansford in the course of the year. Altogether there is room for 62 licensed patients; and private patients may be taken as well. There were 72 patients admitted during the year, 62 of whom were discharged. Mr. H. V. Hoffman, the inspector, who paid 27 visits in 1884, thinks that as a rule the retreats have worked well, though some of the licensees have faults to find with the Act. The licensee of the Dalrymple retreat, which is assigned to men alone, has compiled a tabular statement of 49 cases of inebriety, 25 of which are given in the present report. This statement, which is of high interest, gives as many details of each case as could be compressed in so small a space, and affords an opportunity for comparison. Thus, after notice

ing the age—which varies between 25 and 53—and the residence of each patient, we find that the whole 25 were in religion Protestants; that the education was in every case at least fairly good (in four cases marked "College"); that 13 were married, 1 a widower, and the rest single, their occupations all denote the position of a gentleman. Under the heading of family history, it is shown that in 8 cases uncles had been described as inebriates; in 4 other cases grandfathers had been given to drink, while in only 2 cases are fathers mentioned as being of drinking habits. Of the 25 cases referred to, whiskey, or whiskey and brandy, was the liquor most in demand, it being the favourite drink of male patients. Eight patients had a craving for "spirits," but only one for gin alone. Facts are also given showing whether his drinking habits are periodical or regular, how frequent the periods, how long the patient has been addicted; whether his ordinary habits are social or solitary. With regard to the causes of this idleness, business or financial loss or temptation are assigned in 7 cases, domestic loss or trouble in 6 others, "sociability" in 4 cases, and want of employment in 3 other cases. It would be well if all the cases were tabulated in the same careful manner as this, which is the work of Mr. R. W. Branthwaite, of Dalrymple House, Rickmanworth.

SYMPATHY WITH DR. CROSSKEY.

ON Tuesday last, in compliance with a requisition signed by more than 130 inhabitants of Lewes, and presented to the Mayor of that town, a public meeting was held in the County Hall, in order "to afford an opportunity to offer the congratulations of the townspeople generally to Alderman W. F. Crosskey, M.D., on the result of the recent law-suit (Hillman *versus* Crosskey), and to take steps to mark their sympathy in a practical manner." There were more than five hundred persons present. The chair was taken by the ex-mayor, at the request of the mayor. A resolution nearly in the terms of the requisition was proposed by Mr. E. C. Currey, seconded by Dr. Smythe, supported by the Reverend Lord S. G. Osborne, and carried unanimously; and a committee was formed for the purpose of giving effect to it. Several subscriptions were announced as having been promised. The speakers, in the course of their remarks, expressed deep sympathy with the plaintiff, Mr. Hillman, on account of his illness, but hoped that Dr. Crosskey would not be subjected to the annoyance of further legal proceedings.

SCOTLAND.

THE Iron and Steel Institute hold their autumn meeting in Glasgow on September 1st and four following days. Several papers of scientific interest are promised.

THE Aberdeen University Court, at its last meeting, has again decided to petition against the Universities (Scotland) Bill on the financial proposals it contains, and the scheme for extramural teaching.

FATAL POISONING CASE AT GREENOCK.

AN unfortunate occurrence is reported from Greenock, where death followed on the administration of what was regarded as an ordinary laxative dose of the compound liquorice-powder. Immediately on its administration, violent pains were experienced in the stomach, and, although medical aid was obtained, the woman died in twenty minutes from the time of taking the medicine. The matter is being investigated by the authorities, but the opinion of the medical man called in was that the ingredients of the powder were largely those of *nux vomica*.

NEW PAROCHIAL ASYLUM.

THE new lunatic asylum for the pauper-inmates of the parish of Old Monkland has now been completed, and, having met with the sanction and approval of the Lunacy Commissioners, was formally opened on the 25th instant. It has accommodation for forty inmates, and its

wards, which are most commodious and comfortable, have been constructed on the most approved principles, so that the healthy surroundings of the patients have been in no way sacrificed to the necessary facilities for supervision and inspection which this class of patients require. It is satisfactory to note that the means necessary for the healthful treatment of the inmates has been in this and other respects kept so steadily in view.

THE HEALTH OF GLASGOW.

DR. RUSSELL's report on the health of Glasgow during the fortnight ending August 15th gives the mortality as 25 per 1,000, which is the same as the corresponding fortnight of last year, but is an increase over the preceding fortnight, when it was 23. The chief feature of the present report is the sudden increase in the deaths from diarrhoeal diseases, which have risen from 35 to 75. These numbers are not beyond the usual experience of warm summers; and, on analysing them, it is brought out that as many as 64 of the deaths were under 5 years, and that the average age of those dying was scarcely 9 months, showing, as usual, that it is on the younger members of the population that the effects of the warm weather make themselves most felt. We observe that a report is shortly promised from the Health-Committee on the condition of the river, and it is to be hoped that it will clearly indicate how the suggestions embodied in Dr. Wallace's recent report may be most effectually carried out, with a view of stopping the large amount of preventable pollution which he has shown to exist.

REPORT ON LOCH KATRINE WATER.

PROFESSOR MILL's monthly report on the quality of Loch Katrine water from samples taken on the 17th instant, shows that, during the present month, the suspended matter is considerably greater than usual, and that the organic carbon and nitrogen are exceptionally high. The following are the results returned in parts per 100,000: Total solid impurity, 2.90; organic carbon, .274; organic nitrogen, .038; nitric nitrogen, .006; ammonia, .000; total combined nitrogen, .044; hardness, .95; chlorine, .70.

THE TEMPORARY MARINE-STATION AT MILLPORT.

THE end of this month sees the conclusion of the zoological work that has been carried on for the last few weeks at the temporary marine-station at Millport. Some time must elapse before the results that have been obtained can be systematised and published, but everything points to an effort being made to establish a permanent laboratory in the locality, as it seems in every way admirably adapted for the different lines of investigation that are being followed up. Some of the permanent staff of the Granton Marine Station have been working at Millport, and they have been joined by several other naturalists, who were glad to avail themselves of the opportunity thus offered them of studying the fauna and botanical products of the Firth of Clyde under more than usually favourable circumstances. The success attending this temporary station at Millport should lead to the establishment of similar ones on other parts of the coast during suitable periods of the year.

IRELAND.

DR. HEARN, dispensary medical officer of Rathmines district, has had his salary increased by £25 per annum.

ROYAL UNIVERSITY OF IRELAND.

A MEETING of the graduates of the Royal University was held last week for the purpose of nominating a Candidate to represent the Convocation on the Senate of the University. Mr. Farrelly said that the meeting had been convened on twenty-four hours' notice, and moved that it shall be dissolved without expressing any opinion as to the vacancy. Finally, the meeting was adjourned for a week.

VACCINATION.

DURING the year ending March 31st last, 3,371 applications were received at the vaccine department, Local Government Board for Ireland, from medical officers of workhouses and dispensaries, and other public institutions, from military medical officers stationed in Ireland, and from private practitioners, for lymph; and 19,511 points, and 1,749 tubes charged with lymph were distributed. During the same period, 1,851 vaccinations were performed at the stations in Sackville Street and York Street, Dublin.

RECENT INQUIRY AT MITCHELSTOWN.

At a recent meeting of the Mitchelstown Board of Guardians, the decision of the Local Government Board in the matter of the sworn inquiry against Dr. Donovan was received. The charges were that Dr. Donovan was guilty of neglect in the case of a man named Robert Barry and his three children, all of whom died of typhoid fever, by not attending as often as he should have done. The Local Government Board were of opinion that the evidence exonerated Dr. Donovan, but considered that the medical officer should have made an effort to remove the family to hospital. The propriety of taking such a step does not appear to have suggested itself to him, and from his evidence it would seem that he was not aware of the provisions of Section 141 of the Public Health Act respecting the compulsory removal of cases of infectious disease to hospital. We must add that Dr. Donovan paid for stimulants out of his own pocket, and when one of the children died, and when no one could be got to coffin the body, he placed it in the coffin himself. From the evidence received the inquiry was totally unnecessary, and Dr. Donovan ought to have been awarded praise instead of blame for his unselfish conduct.

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CONSULTATION FEES FOR POOR-LAW MEDICAL OFFICERS.

At a meeting of the Rathdrum Guardians last week a discussion took place relative to the payment of poor-law medical officers for services rendered in cases where they had been called in for consultation by the dispensary medical officers of the Union. Some weeks since the guardians passed a resolution at one of their meetings reducing the consultation fee of two guineas to one guinea; and in consequence the reduced fee was paid in three or four instances. Without exception all those who received the guinea returned it to the clerk of the union, and the matter now came under discussion consequent on their refusal to accept the fee offered as sufficient. One of the guardians asked was any scale of fees fixed by the Local Government Board, and was answered in the negative by the clerk, who added that the action of the guardians was simply intended to put a stop to the practice of one doctor calling in another without the intervention of the relieving officer, who was the proper person to call in additional assistance.

THE GERMAN VACCINATION COMMISSION.

INTRODUCTORY REMARKS.

THE conclusions arrived at by the German Vaccination Commission, which held its sittings at the Imperial Health-Office in Berlin, October 30th to November 5th, 1884, were presented to the Bundesrath in January last by Herr von Boetticher, the representative of the Imperial Chancellor. These conclusions were accompanied by the protocol or verbatim report of the proceedings of the Commission, and a memorandum on the necessity of introducing calf-lymph into general use in place of humanised lymph; further, by tables, with explanatory text, showing the effect upon the mortality from small-pox of the compulsory vaccination law of 1874, vaccination-statistics, and other documents.

Before going any further, it should be explained that in 1874 a fresh vaccination law came into force in Germany, making revaccination compulsory; the twelfth year of age being selected as being a convenient age, before the children left school. This is the case in no other country in Europe. Primary vaccination during the first

year after birth had, of course, already been compulsory for a very long time. The results of this enforced revaccination are so striking, as exhibited in the diagrams contained in the report of the Commission, that it is very desirable to give them all the publicity possible. With this object, the more important of them are reproduced in the following pages.

The Vaccination Commission numbered eighteen persons, being composed of medical delegates from different parts of the empire, together with several medical officials holding important posts. Herr Köhler presided; Dr. Koch, of bacillary celebrity, represented the Imperial Board of Health; Dr. Grossheim, the Army; Dr. Eulenberg, the Educational and Medical Office, etc. That the vaccination question might be fairly discussed, three opponents of compulsory vaccination were placed on the Commission—namely, Drs. Boesing, Weber and Betz.

The objects of the Commission were:—

a. To define the present physiological and pathological position of the vaccination question as a whole;

b. To ascertain the precautions necessary for the safety of the individual vaccinated, and to draw up rules for the introduction into general use of calf-lymph in place of humanised lymph.

The charts and statistics prepared in the Imperial Board of Health Office for the use of the Commission were founded exclusively on the returns of the deaths from small-pox, except in the army tables, where the number of cases also is given. In the view of Dr. Koch, no other statistical material than the mortality from small-pox can be relied upon: questions as to the vaccinated or unvaccinated condition of the patient leaving too much room for error.

STATISTICS.

In order to learn the effect of the compulsory law of 1874, we may compare together statistically:

i. The deaths from small-pox in a country possessing such law (in Germany alone is revaccination compulsory as well as primary vaccination), with the deaths from small-pox in the same country before this law came into force:

ii. The small-pox mortality of Germany since 1874, with the small-pox mortality in other countries where revaccination is not compulsory;

iii. The small-pox mortality of the large cities of Germany with that in other large (foreign) cities.

iv. The number of small-pox cases in an army where revaccination is thoroughly carried out, and which enjoys the relative protection afforded by a well-vaccinated community, with the number in an army inefficiently vaccinated, and surrounded by an imperfectly vaccinated community.

PRUSSIA.—Up to 1870, the mortality from small-pox was fairly steady, but was temporarily increased by an epidemic outbreak every 10 or 12 years. The average yearly mortality in the interval between the epidemics was about 15 to 20 per 100,000 of population, but during the epidemic periods it reached to between 40 and 60 yearly for about two years.

In 1871-72 the great small-pox epidemic broke out, in connection with the Franco-Prussian war, the deaths being 243 and 262 per 100,000 for these years respectively.

In 1873-74 the mortality sank very low, viz., to 35.6 and 9.5 respectively, as is usually the case after severe epidemics.

In 1874, the law making revaccination compulsory came into force.

From 1875 onwards the influence of this law is apparent. Whilst, without the law, the small-pox mortality would soon have reached its usual figures again, it now fell to, and has persistently remained at, a lower figure than any since the beginning of this century. Thus, while up to 1873, the mortality from small-pox per 100,000 of population, had only on six occasions in 57 years been as low as 10, or near it—(once as low as 7.3, in 1856)—and was usually 15 to 20 yearly, nearer the latter than the former, it sank the very next year after the Vaccination Law of 1874 to 3.6.

In 1876, it was...	3.1 per 100,000
" 1877, " ...	0.3 "
" 1878, " ...	0.7 "
" 1879, " ...	1.2 "
" 1880, " ...	2.6 "
" 1881, " ...	3.6 "
" 1882, " ...	3.6 "

That this diminution was really a consequence of compulsory vaccination, and not merely an after-effect of the epidemic of 1871-72, the following comparative statistics show.

AUSTRIA.—Previously to 1871, the small-pox mortality behaved much like that of Prussia, but was higher on the whole.

In 1872-73-74, the last great epidemic gave mortalities of 190, 323.3, and 178 respectively, per 100,000 of the population. This epidemic was more fatal and lasted longer than the Prussian epidemic. Afterwards, the mortality fell, as in Prussia, to lower figures. In 1875, it was 57.7; in 1876, 39.2. Here the influence of the previous epidemic ceased, and the mortality rose at once to its old figures, and even higher. Thus,

In 1877, it was	...	...	...	...	53.7	per 100,000
„ 1878 „	...	...	...	...	60.6	„
„ 1879 „	...	...	...	...	50.8	„
„ 1880 „	...	...	...	...	64.3	„
„ 1881 „	...	...	...	...	82.6	„

This rise was not merely temporary, for in 1880 and 1881 small-pox prevailed as much as it used to before the great epidemic of 1872. Authentic figures are wanting for the last two years, and cannot therefore be given.

Comparison of the small-pox mortalities in Austria and Prussia, respectively, since 1874, shows that the remarkable and persistent decline in the latter country can only be due to the vaccination-law, for all other conditions remain the same as before in the two countries.

*Small-pox mortality per 100,000 of the population in a number of German cities, contrasted with that of other cities, from 1870 to 1883. N.B.—Revaccination compulsory in the former only (since 1874).—*Both German and other cities suffered severely from the small-pox epidemic in the beginning of the last decade. But, whilst in all cities outside Germany the small-pox mortality, after a temporary decline, has again risen to considerable heights, in all the German cities (as in Germany as a whole), it has persistently remained extremely low.

Hardly a better illustration of the effect of the vaccination law of 1874 can be afforded than the comparison of the small-pox mortality of such cities as Breslau and Vienna, Dresden and Prague, Berlin and London, etc. (See diagrams on page 411.)

Small-pox cases and deaths in the German, Austrian, and French armies, per 100,000, from 1867 to 1883.—Like the general population of the countries in question, the armies suffered greatly from the

severe epidemic of 1870-1871. As to the French army, reliable statistics are wanting, but it is certain that its losses were very great.

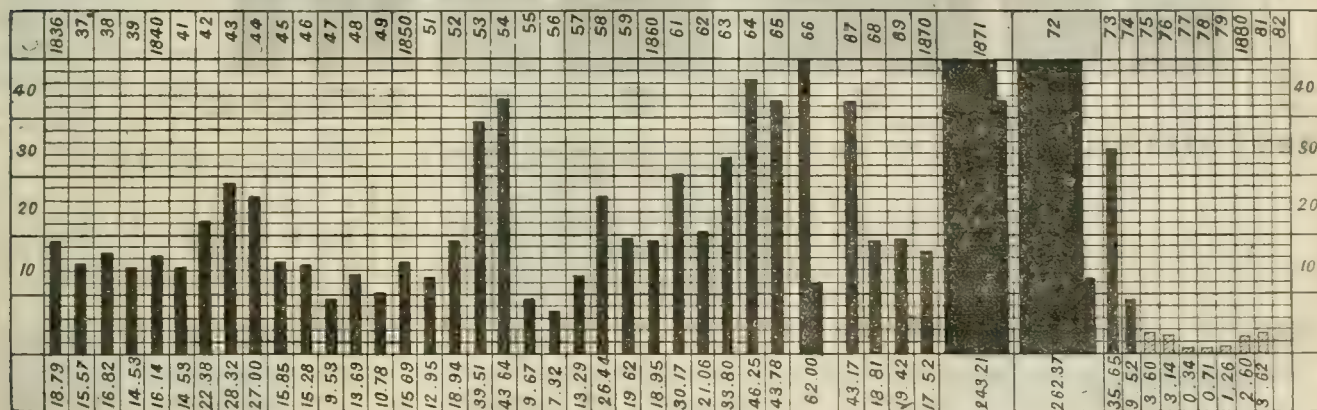
During the Franco-Prussian war, the German army suffered by far the least of the two armies, though coming into contact in France with a population amongst which small-pox was rife.

The war in itself, with its fatigues and deprivations, could not have caused the great increase of small-pox mortality, for the Austrian army suffered even more severely in the same epidemic. The only difference as regards small-pox between the three armies consisted in this, that the Austrian and French armies were scantily revaccinated, and resided amongst an imperfectly vaccinated population, whilst the German army enjoyed the advantage of efficient revaccination, and the relative protection of a community almost free from small-pox.

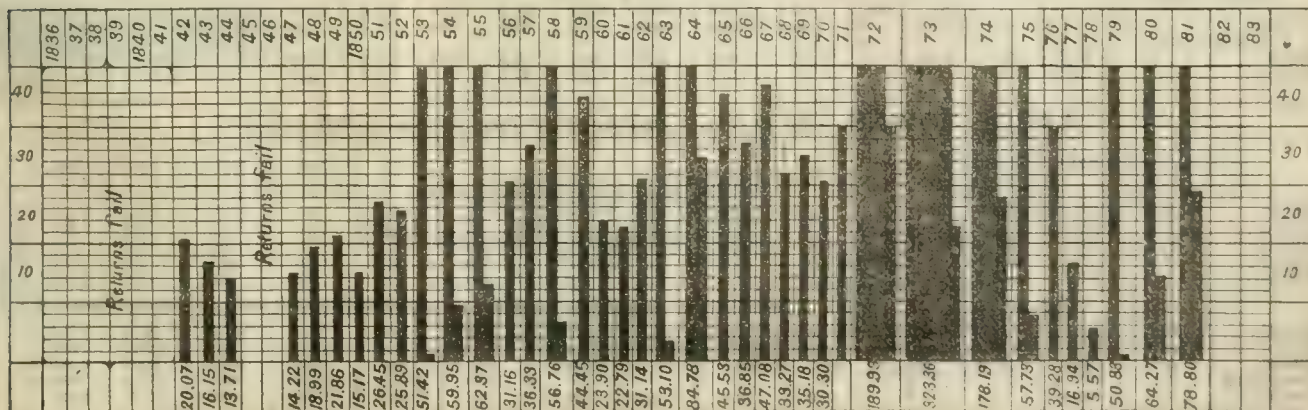
The harmful influences of a community affected by small-pox, and the relative protection afforded by a community free from this disease, are at once apparent from an inspection of the table of small-pox cases in the German army (see page 410); for it must be admitted that revaccination had already been practised in the German army for several decades, with a fair degree of carefulness. In spite of this, however, the small-pox cases were more numerous from 1867 to 1869 inclusive, than after the general vaccination law of 1874. No other explanation can be given for this than that, just as during the war, small-pox in the army increased considerably in consequence of its being brought into contact with much small-pox in France, so the same result must often have occurred before at home, when there was more small-pox amongst the civil population.

It is worthy of remark that not a single case of death from small-pox has occurred in the German army since 1874, whilst both the Austrian and French armies still show a very high small-pox mortality. No other reason than the influence of a system of vaccination and re-vaccination, rigidly carried out, can be made to account for the striking difference between the amount of small-pox in the German army and that in the two armies above mentioned.

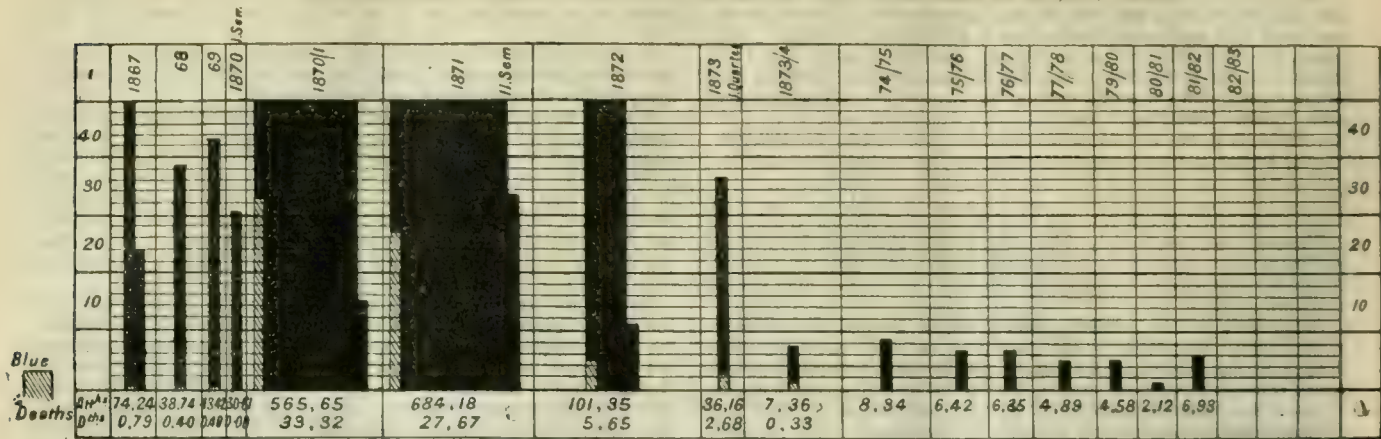
PRUSSIA.—DEATHS FROM SMALL-POX PER 100,000 OF THE POPULATION.



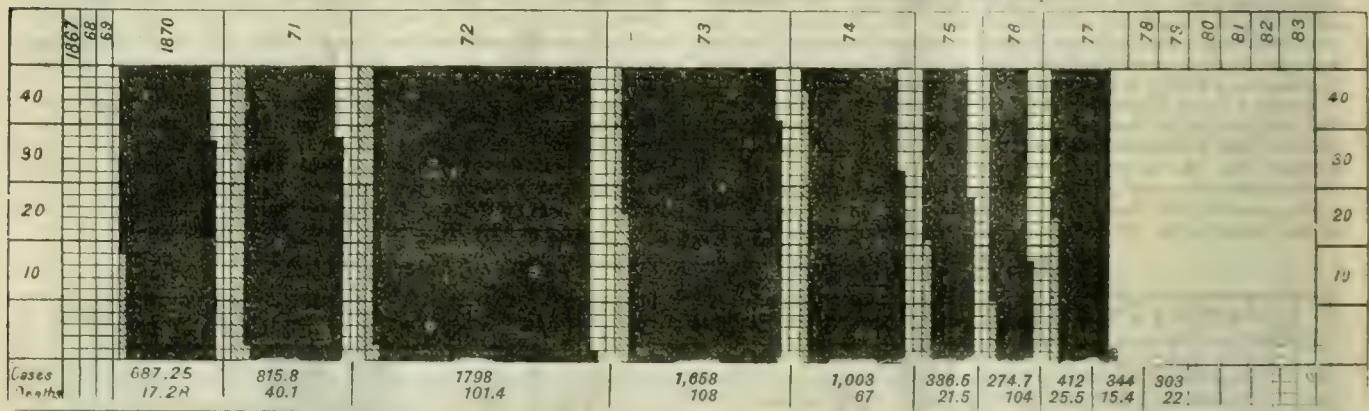
AUSTRIA.—DEATHS FROM SMALL-POX PER 100,000 OF THE POPULATION.



PRUSSIAN ARMY.—SMALL-POX CASES AND DEATHS PER 100,000.



AUSTRIAN ARMY.—SMALL-POX CASES AND DEATHS PER 100,000.



ARMY STATISTICS.—SMALL-POX CASES & DEATHS PER 100,000. GERMAN, AUSTRIAN, & FRENCH ARMIES.

	1867.	1868.	1869.	1870. 1st Half.	1870-71.	1871. 2nd Half.	1872.	1873. 1st Quarter.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
German Army.																		
Cases	74.2	38.7	43.4	30.6	565.6	684.1	161.3	36.1	7.3	8.3	6.4	6.3	4.8	4.5	2.1	6.9	4.5	2.2
Deaths	0.7	0.4	0.4	0.0	33.3	27.6	5.6	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

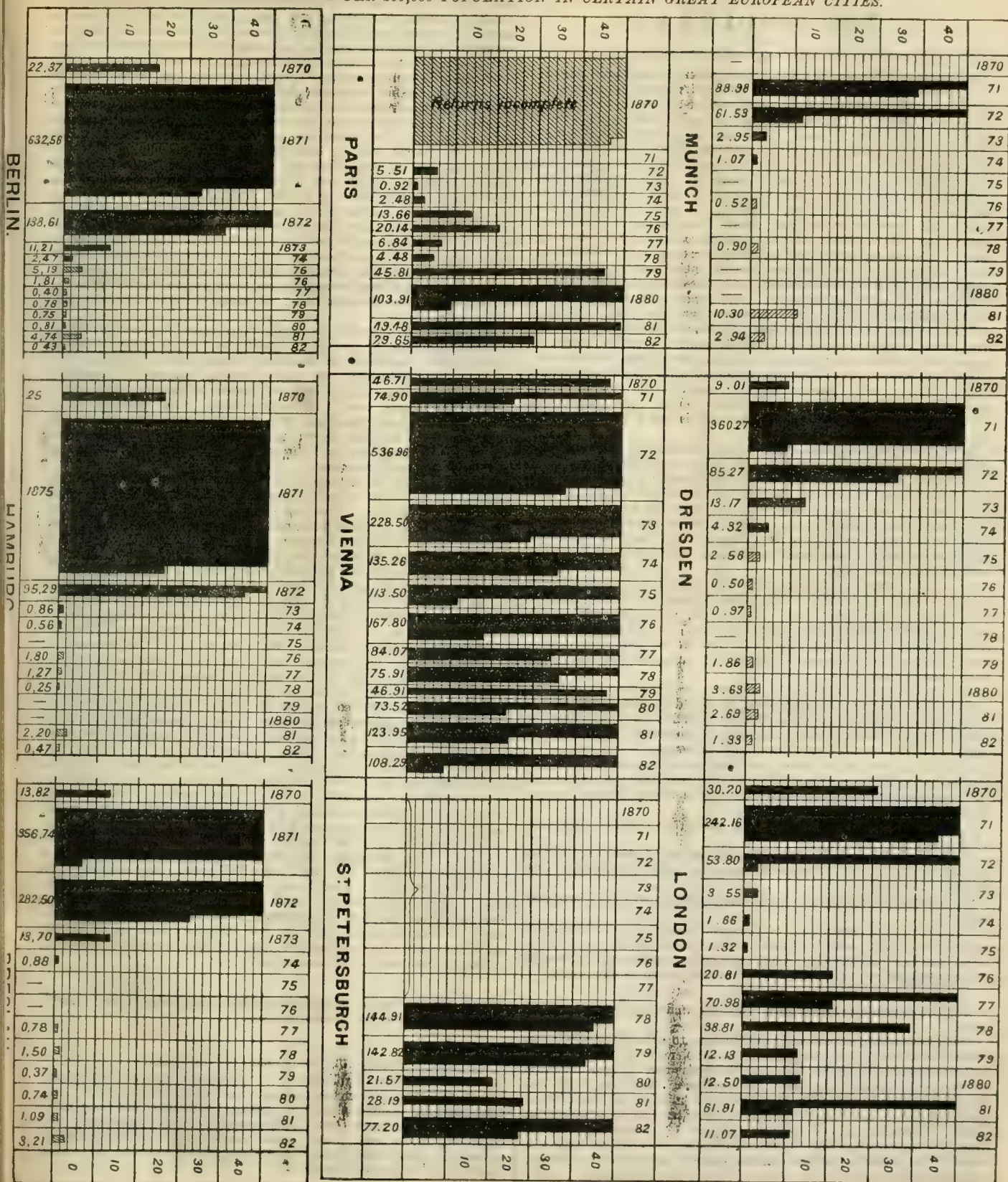
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
Austrian Army.																
Cases	—	—	—	687.2	815.8	1798.0	1658.0	1008.0	856.5	274.7	412.0	344.0	308.0	—	—	—
Deaths	—	—	—	17.2	40.1	101.4	108.0	67.0	21.5	10.4	25.5	15.4	22.7	—	—	—
French Army.																
Cases	281.1	682.9	372.7	?	?	60.0	27.5	39.7	141.8	280.0	222.0	213.0	115.6	153.6	111.2	—
Deaths	18.2	42.8	22.7	?	?	10.7	4.0	3.8	17.8	28.2	19.6	20.1	8.9	14.9	7.9	—

LARGE TOWNS.—SMALL-POX MORTALITY PER 100,000 POPULATION.

	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Berlin	22.3	632.5	138.6	11.2	2.4	5.1	1.8	0.4	0.7	0.7	0.8	4.7	0.4	0.3
Hamburg ..	25.0	107.5	95.2	0.8	0.5	0.0	1.8	1.2	0.2	0.0	0.0	2.2	0.4	0.0
Breslau ...	18.8	356.7	282.5	18.7	0.8	0.0	0.0	0.7	1.5	0.3	0.7	1.1	3.2	3.3
Munich ...	0.0	88.9	61.5	2.9	1.0	0.0	0.5	0.0	0.9	0.0	0.0	10.3	2.9	0.0
Dresden ...	9.0	360.2	85.2	13.1	4.3	2.5	0.5	0.9	0.0	1.8	3.6	2.6	1.8	0.8
London ...	30.2	242.1	53.8	3.5	1.6	1.3	20.8	70.9	38.8	12.1	12.5	61.9	11.0	3.4
Paris	546.2	?	5.5	0.9	2.4	13.6	20.1	6.8	4.4	45.8	108.9	49.4	29.6	20.4
Vienna ...	46.7	74.9	536.9	228.5	135.2	113.5	167.8	84.0	75.9	46.9	73.5	123.9	108.2	9.6
Petersburg	?	?	?	?	?	?	?	?	144.9	142.9	21.5	28.1	77.2	46.7
Prague	?	15.2	?	?	30.0	10.9	78.4	395.7	86.8	84.3	290.1	64.0	57.4	224.8

New Vaccination Law, 1874.

DEATHS FROM SMALL-POX PER 100,000 POPULATION IN CERTAIN GREAT EUROPEAN CITIES.



THE CHOLERA.

THE CHOLERA IN SPAIN: DR. FERRAN'S INOCULATIONS.

THE cholera still appears to rage with frightful virulence over the devoted Peninsula, and at present seems to be at its worst, simultaneously at the northern and southern points—Granada in the south, and Navarre in the north, being the scenes of dreadful suffering. According to the latest returns, nearly 5,000 cases daily occur in the country, with about 1,400 deaths out of the above number; the above figures are pretty correct, as, although there is a great deal of concealment of disease, on the one hand, in order to escape the hated quarantine, yet, on the other hand, a great many cases are set down as cholera which are merely choleraic diarrhoea. Madrid, the most populous city in Spain, still shows an extraordinary small development of the disease, considering that it made its first appearance there about ten weeks since; this can be safely attributed to its excellent water-supply, which comes pure into the city from the neighbouring Guadarama range, as also to its elevated situation on a barren and sandy plateau. But little has been heard latterly of Dr. Ferran and his experiments; and, though faith in him has been somewhat rudely shaken of late, still it is but fair to add he has still his devoted adherents. We have, on a former occasion, described at some length his system of inoculation, as witnessed by one of our correspondents in Valencia; and it is interesting to add the text of a card which Dr. Ferran hands to each of his clients. On the face of the card is the number in the register, and the name of the individual who has been operated on (Metodo Ferrán). On the back of the card is the following notice, contained in nine paragraphs:

1. As inoculation against cholera is confirmed by laboratory experiments, we cannot present it in any other way to the public.
 2. This operation has been founded on scientific principles, which led the eminent Pasteur to discover inoculation for carbuncle, etc.; these being proved experiments, are now admitted as positive facts.
 3. Inoculation against cholera, like all other precautions, cannot absolutely prevent attacks of this disease; in a case in which the attack takes place, it will probably be light. Neither can inoculation absolutely prevent death.
 4. It is probable that the immunity due to anti-cholera inoculation is not of unlimited duration. The same happens with other lymph; for example, that of small-pox. In any case, the anticholera lymph will preserve its efficacy for a length of time, that experiments have not yet practically determined. It is further necessary that inoculated persons should present themselves for re-inoculation before the expiration of ten days.
 5. Since the anticholera lymph requires a certain time in order to secure safety to the person inoculated, it should be understood that a fresh cholera attack occurring within the first five days after inoculation is beyond the protective influence of the lymph, the efficacy of which cannot be assured until this time has passed.
 6. The existence of a cholera epidemic is no argument whatever against inoculation; on the contrary, it is more than ever important, just as in the same way with the vaccine of cow-pox during the epidemics of small-pox.
 7. The anticholera lymph can never prove the cause of an attack of cholera.
 8. None of the so called preservatives against cholera, up to the present discovery, offer to scientific men the same guarantee as preventive inoculation.
 9. Persons in a position to prove their poverty will be inoculated gratis.
- The above is a translation of the card handed by Dr. Ferran to each of his clients; and, as it sets forth as concisely as possible his own views in a popular form for the use of the unscientific portion of his countrymen, we reproduce it for the information of our readers.

Our correspondent writes from Valencia, under date August 21st, 1885.

With heartfelt gratitude and thankfulness to Almighty God, I can announce the complete disappearance of cholera from this city, and likewise from the greater number of the towns and villages that were so severely stricken throughout the province. Only one death has been recorded since August 17th; and the number of deaths from ordinary causes are lower than they have been since I have been here. Yesterday only 8 died, and to-day 12, from every cause. One can traverse the city in every direction without perceiving a whiff of the odours of chloride of lime, phenic acid, or sulphur-fumes, with which the air has been saturated for the last two months; and a

great improvement has been effected by flushing and disinfecting the sewers, rendering the city as free from stenches as any city can be kept; and there is not the slightest reason why it should not be permanently so, seeing we have a large supply of water from the river Turia, which is conveyed in enclosed canals in all directions. The only reasons I can assign for Valencia not being one of the cleanest and most beautiful cities are, first, the apathy of Government in reference to this matter, and secondly, that neither the engineers nor architects understand about the ventilation and trapping of drains and sewers, and give themselves no trouble about water-contamination. The houses here are built in flats, each one having its water-closet, and all emptying into one drain. There is one well for the whole building, opening into a small "patio" or yard, where the drain enters the main sewer, so that contamination by filtration cannot be avoided. The water is drawn out of the well from each flat by means of rope and pulley fastened outside the kitchen-window. The well-water is not generally used for drinking or cooking, but for every other purpose. I have often found the well-water in patients' houses foul and stinking. The drinking-water is provided by Government, and so much is allowed to each house, according to rental. It is the filtered water from the river Turia, taken some distance from the city, and is pretty good.

According to the official *Gazeta* there are thirty-two provinces infected with cholera, and the mortality from these is from 1,800 to 2,000 daily; but there are seventeen others which, although not officially declared invaded, are known to be so. August 7th seems to have been the date of the highest number of attacks and deaths; 7,000 of the former, and 2,195 of the latter. The provinces most severely afflicted are Teruel and Granada. To-day's paper telegraphs that there are in the latter 5,000 cholera-patients, and "that the dead are carried to the country and thrown out of the carts in the same way as if they were earth or stones."

There is a very incomprehensible feature in connection with this epidemic of cholera in Spain. I know not whether it has been observed in India or elsewhere. Numbers of families will flee from a smitten district to one that is free, and remain there till the disease has left it entirely, when they again return to their homes; but there, after a very short time, they are the first to be struck down, forming a new or rather secondary focus of infection for the whole town.

I gave you, in my last, an example of a family coming from Morella to this city, and this week the same thing has been repeated on a large scale in the town of Utiel, three hours from here, with a population of about 8,000. Six weeks ago, Utiel was severely attacked, and people of all classes fled for refuge in every direction; when not a case of the disease had occurred for many days, people began to return to their homes. The first party of twenty or thirty that returned were all down with cholera within thirty-six hours. The people kept on returning and falling sick, until it became so serious that the Alcalde published an order forbidding persons and families who were returning to Utiel to enter the town. I have known many cases of the same kind occurring here and in other towns and villages. I am delighted to find that my prophecy of cholera being permanent here and in the South of Spain till the hot weather was over has proved erroneous. In two other epidemics in which I have been, it was so. The weather, also, has been remarkable for the last two and a half months. The barometer has not varied more than one-tenth from thirty inches. During the same period, there has been daily a light shower, with a fresh breeze from the east. The maximum temperature since last week has been 83° Fahr.; minimum, 76° (black bulb, 112° noon; evaporation, 4° to 7°). We have not had a single day of the blighting enervating land-wind, called here "poniente," and in the South of Spain and in the East of Africa "levante," a prostrating blast, generally lasting three days. We have been exempt from this; this may have tended to cut short the disease, in combination with the use of water externally, and more attention to hygiene in general.

THE King of Spain visited the hospitals of Madrid on Tuesday, and distributed alms to the cholera patients.

EXTENT OF THE MORTALITY IN SPAIN.

THE official statistics published up to the present time, and embracing the whole epidemic from its commencement down to the 26th instant, show the total number of cases of cholera as 197,547, and the total number of deaths as 75,403. This is equivalent to a mortality of a little over 38 per cent.; the disease would appear to be gradually growing less fatal through the area involved, and the number of persons attacked are still very large.

THE EPIDEMIC IN FRANCE.

WITHIN the twenty-four hours ending Wednesday morning, there are reported to have been ten deaths from cholera at Toulon. Wednesday's telegrams state that the decrease in the number of deaths from cholera at Marseilles continues. Out of a total of sixty-three deaths on Wednesday, there were only twenty-seven from cholera. The same day's record of the Pharo Hospital gives thirteen admissions, nine discharged as cured, and nine deaths, leaving eighty-five still under treatment.

ROME.

SINGLE isolated cases of a suspicious character are reported to have occurred at Bologna, Borgetaro, Voltri, and Bagna-Cavallo, but not such as afford grounds for apprehension. Otherwise, the public health reports are most satisfactory.

QUARANTINE AT TURKISH PORTS.

THE Board of Trade have received, through the Secretary of State for Foreign Affairs, a dispatch from Her Majesty's Consul-General at Constantinople, reporting that the Ottoman Health Administration has increased to twelve full days the quarantine on vessels from any port of Spain and the Mediterranean coast of France. Such vessels will undergo a severe medical inspection when passing the Dardanelles.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of
CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Hastings, on Friday, September 25th. Dr. Cooke will preside. The following communications are promised:—The Chairman, A case of Perforating Ulcer of the Stomach; Mr. W. Grant Jones, A case of Chronic Ulcer of the Stomach. Notice of intended contribution of papers, or cases, should be sent to the honorary secretary, T. JENNER VERBALL, 95, Western Road, Brighton.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Kidney-Lesion in Diabetes.—Chromidrosis.—Delme on Hysteria, Anorexia, Uremia, and Boulimia.—Bouchard on the Etiology of Cholera.—A Medical Trial.—Cholera Rumours.

M. STRAUSS has observed in the kidneys of diabetic patients a lesion which never varies in character. In the boundary zone, the epithelial cells of the looped tubules of Henle are infiltrated with glycogen; this, although frequently met with in kidneys of diabetic patients, is not constant. Erlich has described this condition; Armani and Erbstein examined the kidneys of diabetic patients, and described hyaloid degeneration of the tubes of Henle. This lesion and the one described by Erlich—infiltration of glycogen—are easily mistaken one for the other; if, whilst making the preparation, the glycogen be prevented from dissolving in the water, the cellular infiltration is easily detected; but if this precaution be not taken, the observer believes in the presence of hyaloid degeneration. M. Strauss rendered animals diabetic by pricking the fourth ventricle, or by injecting glucose under the skin, but their kidneys did not present the lesion above described.

M. Féréol described, at a recent meeting of the Académie de Médecine, a case of chromidrosis. Last year (see BRITISH MEDICAL JOURNAL, March 7th) M. Leroy de Méricourt also read notes to the Society of an example of this affection, disbelieved by many medical and scientific men; and M. Féréol has carefully studied and examined the patient, a young girl, who is the subject of this present communication, and declares this instance of chromidrosis to be authentic. Last year, she had a series of hystero-epileptic attacks, incurable sickness, and intense ovarian pains. These symptoms disappeared two months ago, and the patient went to Dr. Féréol to thank him; he was then struck by the blueness of her eyelids, which became more and more marked whilst she talked; when the under surface of her eyelids was rubbed hard, this tint disappeared, and the linen presented a slightly bluish colour. The colour re-appeared if it were mentioned to her, but unaccompanied

by sweating or effusion; granulations were not detected. Chromidrosis was also observed in the armpits, and in front of the sternum, but disappeared from these regions to become localised in the eyelids. The blue coloration was clearly limited by the edge of the eyelid; microscopic examination revealed all the characteristics described by Ordonez. M. Sabourin also studied the case, and believed that the cells of the horny layer of the epidermis were infiltrated with coloured granulations. M. Féréal finished his communication by drawing attention to the absence of sudoral or sebaceous effusion in this case.

At a recent meeting of the Société Médicale des Hôpitaux, M. Debove read a memoir entitled "Hysteria, Anorexia, Uremia, and Boulimia." He states that anorexia is frequent among hysterical patients. Incomplete anorexia provokes dyspepsia, when serious disturbance results from faulty nutrition; this condition can be cured by suggesting (*par suggestion*). M. Debove has also provoked anorexia and boulimia by suggestion. He mentioned the cases of two patients, who had fasted fifteen days without inconvenience. They drank, but did not eat. One of the patients, during the fifteen days' fast, lost three kilogrammes and 200 grammes of her weight, and the other seven kilogrammes. A man, who was induced to fast by adopting the same system, lost fifteen pounds. The urea contained in the urine of the fasting hysterical women was estimated: that of the woman who lost two kilogrammes and 200 grammes contained 7.49 grammes, normally it contained 17.65; that of the patient who lost seven kilogrammes contained 6.9 grammes, instead of 21.13 grammes, its normal proportion. Among the patients who continued to drink, the quantity of the urine was not considerably diminished; but when it was suggested to them not to drink, it fell to twenty-five grammes, and the next morning to seven grammes. Hysterical vomiting has been considered as a result of anuria; but M. Debove believes it is more likely to be the cause, inasmuch as both the liquid and the solid contents of the stomach are expelled.

At the Congress for the Advancement of Science held at Grenoble, M. Bouchard read an interesting paper on cholera, in which he made the following statements. He has observed in all cholera patients a modification of the secretions, both in quantity and in character. M. Bouchard administered naphthaline to forty cholera patients; afterwards the urine was violet during emission. The substance which produces this coloration is soluble in ether, a proof that it is elaborated abnormally by the liver. In healthy subjects, M. Bouchard has never observed this phenomenon. He has met with it in two patients suffering from acute yellow hepatic atrophy. He has often met with contraction of the pupil; frequently it resembled a dot. This contraction lessens and increases. When cholera patients are anuric, the pupil reaches its maximum of contraction, and dilates when urinary secretion is re-established, disappearing again when it ceases. There is a connection between myosis and anuria, but this symptom is not an indication of cholera, but of uremia; in all cases of uræmic intoxication, M. Bouchard has observed it. Convinced that every method hitherto adopted to combat cholera is unsatisfactory, M. Bouchard has studied the rational treatment of cholera based on its mode of development. It is believed that the morbid agent is present in the intestines, and secretes there its poison; therefore, if the intestines were free from microbes, the malady should be arrested. M. Bouchard administered naphthaline and iodoform to his cholera patients in sufficient quantities to assure an antiseptic condition of the intestines (one gramme of iodoform, and five grammes of naphthaline in a weak solution). The result was a mortality of 66 per cent. M. Chantemesse, his house-surgeon, has made experiments, which demonstrate that the substances used destroy the comma-bacillus. Some of the patients thus treated survived. M. Bouchard continued the antiseptic treatment after recovery, but, in some instances, there was a subsequent attack. His typhoid patients were also treated to ensure an antiseptic condition of the intestines; nevertheless, two of them contracted cholera. M. Bouchard does not believe that the comma-bacillus secretes the cholera-virus, or it would be found in the cultivation-fluid, where it would accumulate, not being constantly absorbed or destroyed by the action of organic substances; artificial bacillus cultivations are not toxic. M. Bouchard has made numerous experiments which convince him of this fact. The urine of cholera patients is toxic; it possesses a toxic property shared by normal urine, also by many examples of morbid urine. It provokes contraction of the pupil, increased temperature, difficult respiration, muscular weakness, diuresis, narcosis, finally death, if a sufficient quantity of urine be injected. In addition to these properties, the urine of cholera patients has one peculiar to itself. Injected into the veins of a rabbit it provokes cyanosis, especially evident on the inner surface of the ear, cramps, rigidity of the limbs, increased temperature, which persists. The injection of choleraic urine also

produces diarrhoea. At the necropsy, the intestines contain a substance free from bile, and resembling, both in aspect and histologically, *la purée cholérique*. There is only one dissimilarity; the turbid fluid, which consists principally of desquamated epithelium, does not contain any comma-bacilli; acute albuminuria also immediately sets in, and is followed by anuria. Death happens in from four to twelve hours. Injection of normal urine causes death, but then death follows immediately.

M. Labbé in 1881, performed ovariectomy on a lady. He stated his fee to be 1,500 francs (£60), in consideration of his patient not being rich. The lady did not survive the operation. In 1883, M. Labbé held the husband and nephews of the deceased, who were her residuary legatees, responsible for the debt. They refused to pay, and urged that they had never been in treaty with M. Labbé, and therefore were not responsible for the debt. M. Liouville, a barrister on M. Labbé's side, maintained that the fee was very moderate, and could not be reduced. On the other side, it was maintained that the operation was performed in a *maison de santé*, and against the husband's wish; that neither Mme. G. nor her nephews were able to acquit themselves of such a debt. A letter of Mme. G.'s, acknowledging the debt, induced the tribunal to decide in favour of M. Labbé's claim, and to direct the defendants to pay it.

News arrives that the Russian troops on the Afghan frontier suffer severely from cholera and dysentery. It is believed that cholera at Hai-Phong was imported from Formosa by a battalion of African infantry. At Manilla, all animals from Hong Kong and Macao are submitted to a quarantine. Cholera has appeared at Gibraltar, but not at present severely.

CAIRO.

[FROM OUR OWN CORRESPONDENT.]

The Head of the Egyptian Sanitary Service.—Notification of Infectious Diseases.—Small-pox.—Eagerness for Study of Pathology.—A Dangerous Midwife.—The Weather.

July 28th, 1885.

THERE is now an Englishman virtually and in name at the head of the Egyptian Sanitary Service. Ismail Pasha Yousay, the late Director, never felt any great attraction to the work of the Sanitary Department, knowing that his previous training had not specially fitted him for it; and he was only prevailed on with difficulty to accept the post temporarily. Accordingly, a few weeks ago, he intimated to the Council of Ministers that Surgeon-Major Greene had now been long enough in office to become acquainted with the routine work; that he was a medical man, and knew sanitation, of which Ismail Pasha was ignorant; and that therefore he, Ismail Pasha, wished to retire on pension, and leave Surgeon-Major Greene untrammelled as Director of the Department, so saving the Egyptian Government several hundreds a year. The Ministry at first chose to look upon this step as a resignation on the part of Ismail Pasha, and began to look out for a native to succeed him. But further consideration of the question, especially of its financial aspect, has induced them to follow Ismail Pasha's lead, and they have intimated that, for the present at any rate, no successor will be appointed. Surgeon-Major Greene will not, however, have everything his own way, for there is still the Sanitary Council to be consulted with, and the Minister of the Interior has lately shown a disposition to put a larger part of the administrative work in the hands of the Council.

A form for the notification of infectious diseases is being drawn up, giving the names of the diseases which it is desired shall be notified. Copies will be sent to the Consuls, who, it is hoped, will not treat this more developed system with the same neglect they showed to the first less defined request for a general notification of infectious and contagious diseases, but will distribute them among the medical men of their respective nationalities. Only the English and German Consuls responded to the previous request of this nature.

The small-pox epidemic abated considerably, and the Camp Hospital was to have been closed very shortly, but the last week there has been a slight recrudescence. There is a prevalence of small-pox all over the country, and the sanitary medical officers, who ought to be at their posts vaccinating the people, are nearly all away at the Mou-direh (principal) towns, examining recruits for the army. Obviously this is not as it should be. The Army Medical Department has a considerable staff of medical men, including several Englishmen, and if they be not sufficient for this work others should be appointed; but under no circumstances should they be allowed to depute their duties to the sanitary medical officers, and so take the latter away from their proper and more important functions.

Egyptian medical men, at times, evince a remarkable eagerness for the study of pathology. A poor man recently died in a village in Lower Egypt, from a compound fracture of the skull. The resident sanitary medical officer inspected the body, and stated that it would be necessary to perform a necropsy to ascertain the cause of death. The friends of the departed had a strong objection to this course, but not until they promised to pay the medical man £2, did he agree to relinquish his intentions. The uncharitable people of the village were of opinion that the medical man had no sincere wish or intention to perform necropsy, but announced the obligation of doing so in order to extort money.

An European medical man, in Cairo, who was called into a well-to-do house to attend a case of puerperal fever, observed that the hands of the midwife were covered with deep cracks of a syphilitic appearance, and filled up with dirt. The same lady had attended two other labours, in which severe septic fever ensued. As she is a Greek subject, it is hopeless to expect that she will be suspended from practising.

This is an exceptionally warm and damp summer. The average maximum temperature has been 95° in the shade for a month past; average minimum 73°. Clouds have been seen almost daily.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Corporation Grant to the Royal Infirmary.—Apprehended Water-Famine in Liverpool.—The New Home for Incurables.—Kensington Fields.—New Cottage Hospital at Wallasey.—Poisoning by Laburnum Pods.—Accident to Dr. John Bligh.

THE City Council have agreed to apply for Parliamentary powers to grant to the trustees of the Royal Infirmary the sum of £15,000 out of the capital personal estate of the Corporation, to be specifically applied towards the expense of acquiring the requisite land, and towards the expense of re-building the infirmary. Great satisfaction is felt that this matter is at last settled, although a much smaller sum than that asked for (£65,000) has been obtained. As I have already informed you, it is proposed to rebuild the infirmary, partly on its present site, and partly on a new piece of land lying between Pembroke Place and the old hospital buildings. At different times several proposals to erect the new hospital on a new site altogether have been made, but the infirmary authorities have strenuously opposed all such projects, feeling satisfied that the immediate neighbourhood of the University College and the Medical School is the most suitable place for it.

For some weeks past we have been apprehensive of having a water-famine here. The present supply comes from Rivington, the new works at Vyrnwy not being yet completed. The rainfall at Rivington since March of last year has been lower than during any similar period; and it is calculated that in October of this year the reservoirs will be completely exhausted, unless the demands upon them are reduced, or a heavier rainfall takes place. Great exertions, therefore, are being made in all directions to check waste. The reservoirs have been thoroughly examined, and all leakage seen to; the water in the city is shut off for a certain number of hours each day; all persons wilfully wasting water are prosecuted; and sea-water is being used for watering the streets. This last will alone effect a very considerable saving, for the quantity of water used daily for the streets amounts to more than one million gallons. Nothing more can be done at present; and we can only hope that we shall be mercifully preserved from cholera or other epidemic. The recent rainfall has improved the state of matters slightly, but hardly to an appreciable extent. Proposals for obtaining a temporary supply of water from other sources are under consideration, so that we may have something to fall back upon in case the Rivington supply fails. The last report of the amount of water in the Rivington reservoirs shows an alarming state of affairs. During the past fortnight, the volume of water has decreased by eighty-nine million gallons, and there are 1,274 million gallons less water now than at the corresponding period of last year. Altogether, there are now only 730 million gallons in the reservoirs. In consequence of this condition of things, the hours of supply are to be further shortened, and the water is to be turned off between the hours of 10 A.M. and 2 P.M.

A magnificent building has recently been erected by Mrs. Charles Turner at the south end, for the accommodation of male incurables; but great disappointment is felt that certain conditions which the donor has seen fit to impose render the institution practically useless. These conditions are, that all inmates are to pay at least seven shillings a week, and that they must be members of the Church of

England. The exclusive nature of these conditions is proved by the fact that at the present time there are only three or four patients in the new Home, which has accommodation for 100. It is hoped that Mrs. Turner may be induced to have her institution conducted on more liberal principles, in which case it will prove of incalculable benefit to the city. There is only one other similar establishment in Liverpool, and that is for female incurables only.

Kensington Fields are at last to be utilised by the Corporation, and the plan adopted appears a sensible one. The estate, which comprises fifty-two acres of land, is to be laid out in building-plots, with the exception of eleven acres, which are to be converted into a recreation-ground. The streets are to be of unusual width, and each house is to have 20 per cent. more area than that required by the building law.

The foundation-stone of a new cottage hospital for Wallasey was laid on the 1st of this month by the Bishop of Chester. The site selected is an admirable one, on the top of the hill close to Wallasey Church. Dr. Bell, who has been long connected with the old hospital, has been the prime mover in the matter.

There have been several cases here lately of poisoning by laburnum-pods, which children have gathered and eaten in the parks. Fortunately, none of the cases have proved fatal.

I am glad to say that Dr. John Bligh, who met with an alarming accident a few weeks ago, in consequence of a wheel coming off his brougham and the horse taking fright, is nearly well again. Dr. Costine has been placed on the commission of the peace for the city.

CORRESPONDENCE.

TREATMENT OF UTERINE MYOMA BY REMOVAL OF THE APPENDAGES.

Sir,—Will you allow me to say a few words on the questions raised by the letter of Dr. Malins, particularly upon the resuscitation of an opinion I had long thought dead, to the effect that this operation is successful by "the large arteries being effectually tied so as to cut off the blood-supply?" This, I presume, refers to the arteries which supply the uterus with blood. These, as every student of anatomy knows, are from two sources, the lower and by far the larger being the uterine branch of the internal iliac; the other being a branch of the spermatic artery, which is given off to the fundus as that vessel passes towards the ovary and Fallopian tube, and is a mere thread. This branch is indeed so small, that in the living body I have never been able to see or feel it, and in no operation that I have ever performed has it shown itself to be of the slightest importance. The uterine branch of the internal iliac, on the contrary, becomes of enormous size in cases of myoma, and can nearly always be felt in the vagina, beating with stronger force than the radial does at the wrist. In fact, this large vessel beating in the vagina is one of the pathognomonic signs of uterine myoma, as I have repeatedly pointed out. I have never found it in any other form of tumour, and have rarely failed to find it in this. It is perfectly clear from these facts that, when the uterus is increasing in size by the growth of myoma, the chief vascular supply is from these two vessels. To tie the uterine branch of the internal iliac, or in any way to include it in a ligature with the pelvis filled up with a myomatous growth, would, I venture to say, be absolutely beyond the powers of the human hands, as it lies close to the roof of the vagina. The statement, therefore, that it is the cutting off the vascular supply, and not the removal of the appendages, which secures the brilliant results for this operation, has no foundation in fact. In all the operations which I have performed, I have never seen or felt an artery of the slightest size of importance in the course of the uterine branch of the spermatic artery; and, from the peculiar method in which I tie the pedicle, I think it very unlikely that I often include this vessel in the ligature, if, indeed, I ever do; and the absolute insignificance of its size—that of a mere representative structure—precludes the possibility of there being any reality in this explanation of the results of the operation. If any further proof of this were wanted, a slight inspection of a preparation now in the College of Surgeons' Museum would suffice. It was prepared at the suggestion of Sir Spencer Wells, and was exhibited by that surgeon at the International Medical Congress in London in 1881. It completely proves that the ligature, as applied in the operation for the removal of the appendages, could not by any possibility be made to include the vessel which gives the main supply of blood to the uterus. Besides all this, there are the arguments against the explanation which I am now combating, that magnificent results in the arrest of hæmorrhage and menstruation, and the diminution of the growth of the tumour, have been obtained by snipping

out pieces of the Fallopian tubes, by dividing them, by stripping them out of their attachments, without tying any vessel at all, and even by simply tying them, though results obtained in these ways are by no means as constant as when the tube is itself removed. Upon many of these points I propose to say a good deal by-and-bye, but my work at present is confined to about two points treated of in my paper; in the first place, that the operation has been in my hands so successful as to have now hardly any mortality at all; and, in the second place, that, when its primary success has been achieved, its secondary results are brilliant.

Another point in Dr. Malins' letter is the use of the word "fibroma" as applied to myoma. Here his experience is altogether at variance with my own. I have examined microscopically a very large number of these growths, and in none have I ever been able to discover the presence of any tissue, save the familiar fusiform muscle-fibre, with its characteristic rod-shaped nucleus. I have never seen a fibroid tumour of the uterus, and I very much doubt if there be such a thing.

Dr. Malins is in error if he imagines that there was any tendency on the part of anyone who spoke to make light of the responsibility in undertaking these operations. In inexperienced hands, the mortality is heavy. The mortality of my own practice gave terrible results in the early stage of the work; and, had these results been maintained, they would speedily have put an end to the whole thing. In fact, if Dr. Malins will read the paper which you were kind enough to publish, he will find the following sentence: "Adverse critics have been delighted to rake up my early cases, in which the mortality was nearly 25 per cent.; but I need not say that, as I originated this proceeding, I had to bear the burden of the blunders inseparable from ignorance, blunders which have helped me not only to mend my own ways, but also to mend the ways of those who came after me, and who have forgotten to credit me with the better results which my misfortunes provided for them."

The 7 per cent. to which Dr. Malins draws attention is not the mortality of the operation, as I have pointed out, but the mortality of inexperience, because three of the seven deaths occurred in my first seven cases. Analysing the whole of my practice in these operations, and in order to show what a terrible thing the want of experience really is, I break up my cases into four sequent groups, not referring them to number, or size of tumours, but simply in relation to the occurrence of deaths, and this is the result:—

Cases.	Deaths.	Mortality per Cent.
7	3	43
14	2	14
50	2	4
58	0	0

I have protested for years against the condemnation of operations on account of high mortality merely, without any inquiry into its meaning. It would be perfectly possible, even at the present day, to condemn the removal of ovarian cystomata by taking the statistics of its performance in large hospitals by men unaccustomed to the work, or by taking the results of the operations of a large number of men, each doing only two or three cases a year.—I am, etc.,

Birmingham.

LAWSON TAIT.

TO NEW MEDICAL STUDENTS.

SIR,—As the Council of the Royal College of Surgeons has postponed the consideration of the report of the committee appointed to inquire as to the desirability of the London colleges applying for a charter giving them the power of conferring degrees in medicine and surgery on persons holding their diplomas, it is necessary that the *alumni* of the colleges who are interested in the matter should follow Mr. Gubb's suggestion, and take concerted action to impress the Council with the belief that they are really in earnest.

I would further urge upon all students the necessity for their bestirring themselves in demanding this tardy act of justice. London students are, as a rule, ignorant of the serious way in which they are handicapped, and find out their position only when they enter on practice. Men who can obtain degrees after often little more than a three years' course, and after examinations, conducted by the professors of their own schools, in Scotland and Ireland, are given appointments as physicians in English hospitals and asylums, while English students are debarred. It was the case not long ago, if it is not so still, that a M.D. of the Queen's University, who obtained the M.D. degree then without taking the Bachelor's degree (for there was none), was eligible for a staff-appointment at the Royal Bethlem Hospital, while a M.B. of the University of London was not.

All freshmen who are contemplating entering at London hospitals

this next October should decline to do so, unless the authorities will first guarantee them the prospect of obtaining a degree on as reasonable terms as, and with no greater expenditure of time and brains than, a degree could be obtained for in Scotland. Failing this, I would advise a man to go to Cambridge as an unattached student, where, if he be willing, in order to avoid expense, he can forego the most valuable part of an university training. If not, and if he be content with that unknown quantity, "the academic influences" of a Scotch or Irish university, let him submit to his fate, pocket his national pride as an Englishman, proceed to one of these universities, and take his degree. You know, sir, that he could then sign himself "M.D." to his heart's content, even though practising as a general practitioner; and he need never name the university after the magic letters. He could further join your correspondent "M.B. and C.M. Edin., M.R.C.S. Eng." (BRITISH MEDICAL JOURNAL, vol. ii, 1885, p. 324) in declaiming against "robbery" by the London colleges. This correspondent does not appear to see that the graduates of the University of London have just as much ground for charging himself and the University of Edinburgh with "robbing" them; for he naively tells us that "the London University curriculum took too many years and too much money for my age and slender purse." He might well have added too much hard work. Therefore he went to Edinburgh to get what he could not, unfortunately, get on the same terms in England.

English students are not ashamed of the term "surgeon." Indeed, when they have obtained mere justice in this question of degrees, I doubt not that English surgeons, when they can no longer be twitted with subjection to the lack of academic influences, will take a pride in their connection with the powerful corporation in Lincoln's Inn Fields.

It is a point worthy of note that, in the honours list of the University of Edinburgh, all the prize-winners—with the single exception of him of the "James Scott Scholarship,"—all hailed from "south of the Tweed." The mental capacity of the English, even when measured by Scotch standards, cannot, therefore, be so very far inferior.

Serious ailments require strong remedies; and, if London students can only be induced to take combined action, they will soon be placed in a position that cannot be disparaged by the Scotch and Irish doctors practising in the English towns in which they may fix their lots.

I trust that the London University, whether it become a teaching university or not, will not be induced to lower its standard one iota. To do so would be a great injustice to all the present medical graduates; and, after the lapse of a generation, the university would cease to hold the pre-eminence it now does. It is evident, however, that few men can do the reading and give the time required for the London University curriculum. The only alternative, then, is the "M.D. Angl." degree, to be conferred by the colleges; all persons holding the M.R.C.S. and L.R.C.P. to receive the degree of M.B. and M.Ch. There is no need to follow the lead of Durham, and to style the surgical degree M.S., especially as the letters now signify the Army "Medical Staff." The M.D. should be conferred on persons holding the M.R.C.P.—Yours faithfully,

SHIRLEY DEAKIN, Surgeon I.M.S.

THE COLLEGES AND MEDICAL TITLES.

SIR,—Will you allow me through your valuable JOURNAL to thank the numerous gentlemen who have kindly volunteered their assistance in the matter of petitioning the Colleges with the view of strengthening their hands when they apply for the means of granting the title of "Dr." to holders of the double London qualification. The number of letters received was so great that I am obliged to ask for a little time before replying to them all.—I am, sir, your obedient servant,

Westminster Hospital, S.W.

ALFRED S. GUBB.

SHORTENING THE ROUND LIGAMENTS.

SIR,—Dr. William A. Duncan, in the concluding sentence of a short letter of his, which appeared in the JOURNAL of July 18th, says: "I think, however, I have shown that the operation" (of shortening the round ligament) "is one of decided risk; and that it does not, in all cases, either fulfil the intentions of the operator, or satisfy the expectations of the patient." What is the evidence upon which he justifies these conclusions? In the first place, as regards risk, let us take his personal experience. He has operated four times without experiencing any difficulty, and the convalescence of each patient was satisfactory—in three eminently so. Let Dr. Duncan speak of the operation as *hofsindit*, and he will quite agree with me. But he has heard of cases where deaths have occurred. I think I have heard of all these cases, and,

compared with the successful cases of which I also have heard, the mortality does not equal two per cent. Such a mortality amongst operators, all of whom are inexperienced (for is not the operation a new one?), is, to my mind, decided evidence of its great safety; and I have no hesitation in declaring to my patients that the operation is devoid of danger, beyond those risks to which every wound renders us liable. Where peritonitis, etc., supervene, structures have been meddled with that should not be meddled with; and I have warned inexperienced operators, again and again, of the harm that might be done by incautious handling or teasing of the structures in the region of the inguinal canal. The time has not yet arrived for estimating whether the operation has any real mortality or not, and cannot arrive until the facility for its proper performance has been more generally acquired. When those who have had unsuccessful cases think right to publish the details, it will be time enough to criticise them; and one cannot help thinking that, if Dr. Duncan had had any operative trouble with his patients, we would not have heard so readily about them, or have had such a trumpet-call to the unsuccessful to appear in court.

In the second place, "the operation does not, in all cases, fulfil the intentions of the operator." In proof of this statement, his "patients (all of whom were the subjects of acute retroflexion, with a prolapsed tender ovary in Douglas's pouch) felt relieved while lying in bed with a pessary;" but some time after, Dr. Duncan "found, on removing the pessaries, that the uteri were again returning to their previous abnormal positions."

Now, it will be a great benefit to medical science if Dr. Duncan take an early opportunity of describing to us, in detail, the grounds upon which he expected that the operation of shortening the round ligaments would be of permanent value in many of these cases. Except in one patient, I cannot recollect that I ever performed the operation in such cases. In that case, the ovary could be felt, but was not tender, and it was pulled up by the round ligament, and remained in position, as well as the uterus, while the patient was under observation. I am sure I never recommended the operation. If Dr. Duncan, then, will kindly give me the information just referred to, I will afterwards endeavour to explain where and why our views of the scope of the operation differ, and to give my reasons why these operations of his were to a large extent doomed to failure. I am not surprised that his experience does not accord with mine; and that, in these cases, whatever expectations he had raised in the patients' minds were not satisfied.

Anxiously awaiting a reply, to which, for the benefit of Dr. Duncan and the profession at large, I shall give my best attention, in the hope that thereby the aim and nature of the operation may in future be better understood,—I remain, sir, yours faithfully,
Liverpool.

W. ALEXANDER.

THE COMMISSIONERS OF LUNACY AND DR. SAYER.

SIR,—Referring to the comments in your issue of the 22nd instant upon the prosecution, by the Commissioners in Lunacy, of Dr. Sayer, I am directed to point out that some of them are founded upon a misreading of the medical certificate, which it is desirable to correct. The actual words of that document, so far as material, were these.

"I, on the fifteenth day of March, 1884, at St. Pancras Workhouse, in the county of Middlesex, personally examined John Carmichael, carpenter, an inmate of the said workhouse, late of 3, Euston Square, N.W."

These words are precise, and free from ambiguity. They contain statements—1, that Carmichael was examined at St. Pancras Workhouse; 2, that he was an inmate of that workhouse; and, 3, that he was "late" of 3, Euston Square, and there is not "on the face of the certificate," as you assert, anything at all resembling "a written and printed statement that Carmichael was seen in two places at once."

The language of the certificate is clear and consistent throughout, and not even the close examination made in this office could, by any possibility, have discovered that the place where Carmichael actually was examined was wrongly stated.—I am, sir, your obedient servant,

THOMAS MARTIN (for the Secretary).

Office of Commissioners in Lunacy, 19, Whitehall Place, S.W.

STAINING BACTERIA IN SECTIONS.

SIR,—In your issue of July 11th, Dr. Workman asks "of those who have worked at the subject, the best way of staining the comma-bacillus of Koch in sections of the intestine." He further adds: "The only persons, as far as I at present recollect, on the continent who state in their writings that they have been successful are Drs.

Koch and Van Ermengen." I must refer Dr. Workman to the recent work, entitled *Les Bacilleries* by Cornil and Babes (pp. 488 and 669), and to Remarks upon the Comma-Bacillus of Koch, by myself, in the *Lancet* of June 13th.

In the JOURNAL of July 18th, Dr. Workman describes what he apparently considers to be an entirely new idea, namely, the combination of Orth's method with the method of Gram. Some months ago, while staining sections containing the bacillus of anthrax by the method of Gram, Professor Johnne was kind enough to demonstrate to me the method of Orth. It at once occurred to me that, instead of employing eosin as a contrast-stain, or the picrocarminate of ammonia (which had been recommended to me by Dr. Babes as an after-stain in such preparations, on account of the selective action of the carmine upon the nuclei), the method of Orth would serve as a very good contrast-stain, with the additional advantage of staining the nuclei. The method I employed was to stain the sections in the usual way by the method of Gram, and then after-stain by transferring the sections to Orth's solution. After two or three minutes, they were washed in acidulated alcohol, and transferred to a concentrated alcoholic solution of picric acid. After three or four minutes in the picric acid, the sections were cleared up in clove-oil, and mounted in xylol-balsam. I also stained sections of the liver of a mouse which had been inoculated with anthrax, by immersing them for a minute or two in a concentrated aqueous solution of gentian-violet, washing in absolute alcohol, and after-staining with Orth's solution. This afforded a very rapid means of studying the bacteria in their relation to the tissues. I demonstrated all these preparations to Professor Johnne; but, as he thought that these methods had been combined before, no further notice of the matter was taken, except that we have continued to occasionally employ this combination ever since.

Dr. Workman's idea of employing "Orth" first and "Gram" afterwards, seems to me putting the cart before the horse. I must also venture to correct a statement of Dr. Workman's, which may be somewhat misleading to a young bacteriologist. He asserts that, in Gram's method, the sections, when "plunged in the iodine and iodide solution.....become quite black." In my experience, and that of most workers with Gram's method, the sections become dark brown, looking, in fact, not unlike an unrolled tea-leaf. The same brown coloration occurs when cover-glass preparations are stained by the same method.—I remain, etc.,

EDGAR M. CROOKSHANK, M.B. (Lond.).

Laboratory of Professor Johnne, Dresden.

NAVAL AND MILITARY MEDICAL SERVICES.

THE SOUDAN CAMPAIGN.

A SUPPLEMENT to the *London Gazette* was issued on Tuesday last, containing despatches from Lord Wolseley and Sir Gerald Graham relative to the recent operations on the Nile and near Suakin. "The Medical Department," Lord Wolseley says, "was administered with ability by Deputy Surgeon-General O'Nial. I have never seen the sick and wounded better cared for. The arrangements were good, and the medical officers worked with untiring zeal and great devotion to their duties. At Suakin, Deputy Surgeons-General Barnett and Hinde directed all medical matters with great credit to themselves and to their department. Both there and on the Nile, the work done by the nursing sisters was highly appreciated by doctors and patients."

Among those of whom special mention is made are the following officers of the Medical Staff: Deputy Surgeon-General J. O'Nial, C.B.; Deputy Surgeon-General S. A. Lithgow, M.D.; Deputy Surgeon-General O. Barnett (since dead); Deputy Surgeon-General G. L. Hinde; Surgeon-Major E. C. Markey; Surgeon-Major G. C. Gribbon; Surgeon-Major R. Waters, M.D.; Surgeon-Major G. E. Will; Surgeon-Major C. H. Harvey, M.D.; Surgeon-Major T. F. O'Dwyer, M.D.; Surgeon-Major F. Ferguson, M.D.; Surgeon-Major B. B. Connolly; Surgeon W. S. Pratt, M.B.; Surgeon T. J. Gailwey, M.D.; Surgeon W. H. Briggs; Surgeon J. Magill; Surgeon W. B. Allin; Surgeon H. L. Donovan, M.D.

Sir Gerald Graham selects for mention Brigade-Surgeons J. H. Thornton, M.B., and J. C. Morice, of the Bengal Establishment, and afterwards adds: "The new organisation was most complete, and its working thoroughly efficient; and the same may be said of the medical arrangements of the Indian Contingent. My acknowledgments are due to Deputy Surgeon-General Barnett, Principal Medical Officer, Deputy Surgeon-General Hinde, Brigade-Surgeon Warren, Brigade-Surgeon Tanner, and to Surgeons Shaw, Fleming, and Evatt. The

nursing sisters, among whom may be mentioned Sisters Ireland, Norman, King, and Burleigh, rendered excellent service, and were unremitting in their care and attention to the sick and wounded."

After the despatches comes the list of honours granted for the campaign. Dr. Thomas Crawford, Director-General of the Army Medical Department, is made a Knight Commander of the Bath; and Deputy Surgeon-General S. A. Lithgow, M.D., Deputy Surgeon-General G. L. Hinde, and Brigade-Surgeon J. H. Thornton, M.B., of the Bengal Establishment, are nominated Companions of the same Order.

The following promotions are also made:—To be Surgeons-General: Deputy Surgeon-General John O'Neil, C.B.; Deputy Surgeon-General Oliver Barnett, C.E.I. (since deceased). To be Brigade-Surgeons: Surgeon-Major Robert Waters, M.D.; Surgeon-Major George Elmsly Will; Surgeon-Major Charles Hamilton Harvey, M.D. To be Surgeons-Major: Surgeon Thomas Joseph Gallwey, M.D.; Surgeon William Simson Pratt, M.B.; Surgeon William Hamilton Briggs; Surgeon William Briggs Allin, M.B.

NAVAL MEDICAL DEPARTMENT.—At the competition for commissions in the Medical Service of the Royal Navy, held on August 10th and following days, in the Hall of the University of London, Burlington Gardens, the undermentioned gentlemen were the successful candidates.

Home, W. E.	3200	Moore, J.	2260
Fitch, R. A.	2890	Mansfield, C. J.	2100
Beatty, H. B.	2710	Hickson, R.	2060
Spry, W.	2700	Shuttleworth, H. P.	2005
Maitland, P. E.	2380	Lowney, J.	2000
Symonds, G. H. H.	2360	Trevor-Roper, G. D.	1980
Winkler, W. J.	2320	Fisher, O. S.	1960
Walsh, J. J.	2275	Fogerty, J. S.	1900

ARMY MEDICAL STAFF.—The following is a list of candidates who were successful for appointments as Surgeons in the Medical Staff of Her Majesty's Army at the Competitive Examination in London on the 10th and following days of August, 1885.

Yarr, M. T.	2980	Cox, R. H.	2350
Mills, B. L.	2880	Kennedy, A.	2350
Mumby, L. P.	2880	Gordon-Dill, R. C.	2345
Melville, C. H.	2870	Skerrett, F. T.	2340
Wilson, J. B.	2810	Ramsay, H. M.	2300
Rayner, H.	2765	Stokes, W. B.	2280
Renny, C. A.	2707	Buchanan, J. B.	2270
Genge, R. E.	2680	Simpson, D.	2270
Kearney, J.	2680	Looker, E. H.	2215
Thiele, H.	2679	Rose, J.	2182
Saw, F. A.	2625	Lavie, T. G.	2180
Cardew, G. S.	2590	Adamson, H. M.	2160
Cocks, H.	2510	Corkery, J. H.	2120
Lee, W. J.	2500	Squire, W. P.	2120
Hennessy, F. W.	2475	Grooke, W. R.	2110
Kendall, H. W. M.	2440	Walsh, C. L.	2110
Black, J. G.	2430	Brown, H. H.	2100
Elkington, H. P. G.	2400	Hayman, S. J. W.	2080
Hall, F. W. G.	2380	Hayes, J. P. S.	2070
Tate, G. S.	2380	O'Donnell, J. N.	2070

INDIAN MEDICAL SERVICE.—The following candidates for Her Majesty's Indian Medical Service were successful at the Competitive Examination held at Burlington House on August 11th, 1885. Twenty-two candidates competed for eight appointments; twenty-one were reported qualified.

Woolbert, H. R.	3208	Cadell, J. M.	2827
Baker, G. H.	3005	Younan, A. C.	2825
Grainger, T.	2915	Adie, J. R.	2822
Edwards, A. R.	2830	Alcock, A. W.	2760

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON S. B. ROE, M.B., C.B., has been promoted to be Deputy Surgeon-General, *vice* O. Barrett, C.I.E., deceased. He entered the service August 4th, 1855; became Surgeon, December 22nd, 1869; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, July 1st, 1881. Mr. Roe served in the Crimea in 1855, and in Central India in 1858-59. He was engaged in the Afghan war in 1879-80, and was at the action at Ali Kheyl, in the operations round Cabul and at Sherpore, in the march from Cabul under Sir Frederick Roberts, and at the battle of Candahar. He was twice mentioned in despatches, and received the medal with two clasps, and the bronze star for the celebrated march to Candahar. He was also in the Boer war in 1881, in May of which year he was nominated a Companion of the Bath. He is the Principal Medical Officer to the South-Eastern District, to which he was appointed in March last.

BRIGADE-SURGEON E. G. M'DOWELL, C.B., has been appointed Principal Medical Officer at Woolwich, with the local and honorary rank of Deputy Surgeon-General, *vice* S. B. Roe, M.B., C.B. He joined the Army Medical Service, November 6th, 1855; became Surgeon, September 3rd, 1870; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, August 4th, 1881. Mr. M'Dowell served with the 44th Regiment in the campaign of 1860 in North China, including the action of Sihho, storm and capture of the Taku Forts (medal with clasp). He was in the Egyptian war of 1882 (medal, 3rd class of the Medjidie, and Khedive's Star); and in the Soudan Expedition under Sir Gerald Graham in 1884 as Principal Medical Officer, and was present in the engagements at El Teb and Tenai (twice mentioned in despatches, C.B., and two clasps).

SURGEON-MAJOR J. A. SHAW, M.D., has been granted retired pay with the hono-

rary rank of Brigade-Surgeon. His commissions are dated: Assistant-Surgeon, September 30th, 1863; Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He was in the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir. At the beginning of the present year, he went to Suakin, whence he has recently returned.

ACTING SURGEON G. O. EDWARDS-KER has resigned his commission in the 1st Suffolk Volunteers.

SURGEON JOHN BLACKBURN, of the 2nd Volunteer Battalion of the York and Lancaster Regiment (late the 8th West Yorkshire Volunteers), has been granted the honorary rank of Surgeon-Major.

SURGEON EDWARD CHAFFERS has resigned his commission, which dates from July 26th, 1877, in the 3rd Volunteer Battalion of the Duke of Wellington's West Riding Regiment (late the 9th West Yorkshire Volunteers).

SURGEON AND ARMY SURGEON-MAJOR A. T. NORTON, from the 12th Middlesex (Civil Service) Volunteers, has been appointed Surgeon to the Volunteer Medical Staff Corps.

ACTING SURGEON F. L. STEPHENSON, from the 3rd Volunteer Battalion of the Queen's Own Royal West Kent Regiment (otherwise the 4th Kent Volunteers), has also been appointed Surgeon to the Volunteer Medical Staff Corps.

The Secretary of State for War has sanctioned the payment of a gratuity of six months' pay to Surgeon J. MACILL, M.D., Coldstream Guards, in consideration of the wound he received in action at Abu Klea on January 17th, when he was in charge of the Guards Division of the Camel Corps. It has been stated that this officer, after being struck, actually removed the bullet from the wound himself during the progress of the action.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR W. H. ROBERTS, M.D., Madras Establishment, has been promoted to be Brigade-Surgeon, *vice* J. Ross, M.B., who has retired. Dr. Roberts entered the service, July 23rd, 1858, and attained the rank of Surgeon-Major, July 23rd, 1870. He has no war record.

SURGEON-MAJOR R. E. PEARSE, Madras Establishment, has also been promoted to be Brigade-Surgeon, *vice* W. Farquhar, promoted. He entered the service, February 10th, 1859, ranking as Surgeon-Major twelve years therefrom. He was in the China war in 1860-61, and was engaged at the action at Sihho and at the capture of the Taku Forts (medal).

DEPUTY SURGEON-GENERAL W. FARQUHAR, Madras Establishment, appointed to the administrative medical charge of Her Majesty's Forces in the Western District, Madras, in the place of Deputy Surgeon-General Henderson, who has been transferred.

BRIGADE-SURGEON W. R. RICE, M.D., Bengal Establishment, has returned from privilege leave, and assumed charge of the civil surgery of Jubbulpore and its collateral charges from Surgeon-Major R. Temple Wright, M.D.

SURGEON R. SNORE, M.D., Bengal Establishment, is appointed to the officiating medical charge of the 10th Cavalry at Multan, *vice* Surgeon A. M. Crofts, granted leave.

SURGEON-MAJOR J. F. P. MCCONNELL, M.B., Bengal Establishment, civil surgeon, 24-Pergunnahs, is appointed to act as Professor of Materia Medica and Clinical Medicine, Medical College, Calcutta, during the absence, on furlough, of Dr. R. C. Chandra; Dr. R. McConnell is also appointed to act as Medical Inspector of Emigrants, "Inland and Colonial Emigration," from date on which he took charge of those duties.

SURGEON-MAJOR H. B. PRIVES, Bengal Establishment, civil surgeon of Burdwan, is appointed to act as civil surgeon of the 24-Pergunnahs, during the absence, on deputation, of Surgeon-Major J. F. P. McConnell.

SURGEON D. PRAIS, Bengal Establishment, whose services have been temporarily placed by the Government of India at the disposal of the Government of Bengal, is appointed to act as curator of the Herbarium attached to the Royal Botanical Garden, Calcutta, during the absence, on furlough, of Mr. L. J. K. Braco.

The services of Surgeon E. G. RUSSELL, M.B., Madras Establishment, are permanently placed at the disposal of the Government of Bengal.

SURGEON-MAJOR A. S. REID, Bengal Establishment, is appointed to the medical charge of the 2nd Bengal Cavalry, at Sangor, *vice* P. Parsons, who has retired.

SURGEON-MAJOR R. REID, Bengal Establishment, is appointed to the medical charge of the 3rd Bengal Infantry, *vice* Surgeon-Major A. S. Reid.

SURGEON J. M. MACLAREN, Bengal Establishment, is appointed to the officiating medical charge of the 17th Native Infantry, in the place of Surgeon G. A. Emerson, who has been appointed to the charge of No. 1 Field Hospital Indian Contingent Suakin.

SURGEON S. BORAH, M.B., Bengal Establishment, civil surgeon, Naga Hills, having successfully passed an examination in the Angami Naga language, held at Kohima on June 16th, according to the tests laid down in the Departmental Examination Rules of 1884, is presented with the authorised reward of Rs. 1,000.

SURGEON D. ELCUM, Acting-Secretary to the Surgeon-General with the Government of Madras, is appointed Zillah Surgeon and Superintendent of the gaol at Bernampore, but is to continue to officiate as Civil Surgeon of Tinnevely, during the employment of Surgeon-Major Hyde on other duty.

SURGEON C. M. THOMSON, M.B., is appointed to act as Secretary to the Surgeon-General with the Government of Madras.

The undermentioned gentlemen have been granted leave of absence for the periods specified:—Surgeon G. S. A. RANKING, M.D., Bengal Establishment, to Bombay on private affairs till January 31st, 1886; Surgeon D. B. SPENCER, Bengal Establishment, in India, for four months on medical certificate; Surgeon J. ARMSTRONG, Bengal Establishment, Officiating Civil Surgeon of Booldundshur, privilege leave for three months; Surgeon-Major L. C. NANNBY, Madras Establishment, Civil Surgeon at Trichinopoly, for one year on medical certificate.

THE MEDICAL STAFF AND RELATIVE RANK AND TITLE.

Sir,—*Aprors* of Surgeon-Major Evatt's very interesting paper on the medical organisation of the Swiss army, and of the letters of your correspondents relating to relative rank in the medical staff, I would commend the following paragraph from the *Army and Navy Gazette* of February 21st to your notice. "Last night's *Gazette* gave to the officers of the Commissariat and Ordnance Staff the honorary army-rank of their present relative rank. Apart from the personal question, the concession will be a most important aid to these officers in the discharge of their public duties. It is a graceful acknowledgment of the work the members of the two departments are called upon to perform side by side with their combatant brethren in arms, and it will be hailed by the latter as settling their position once for all as officers of the army. In fact, we believe it will do more than anything else to make the military machine work on active service."

The *Army and Navy Gazette* is the exponent of the opinions of a large section of the army, and weight must therefore be given to its statements, from which it will be seen that the officers of the Commissariat and Ordnance Staff "have had their positions settled once for all as officers of the army." Why? Because they have been granted honorary rank; the inference being that, up to the grant of this rank, their position was inferior to that of other officers. It is but tardy justice to them, and they are honourably entitled to it; for, as the paragraph above quoted plainly infers, they were previously not regarded as officers of the army. Now what bearing has the above on the position of the medical staff? With the exception of the Veterinary Department, the Medical Staff is now the only body of officers bearing Her Majesty's commission who have none but relative rank.

The *Army and Navy Gazette*, which is certainly consistent, will not allow them to have even any connection with the army; for, in a recent issue, it proceeds as follows:—"Medical Staff, which, by the way, we see referred to everywhere as the Army Medical Staff, a title certainly not justified by the Warrant." This is quite true, and the *Gazette* in this matter reflects the opinion of the entire service; for, as we stand at present, from a military point of view, we are simply ignored.

Everyone who has any experience in the service knows that rank in the army means respect therein. The former the Medical Staff has not, and, as a consequence, the latter it does not get. But is this justice? Is it fair to a service which has ever shown itself ready at the call of duty to shed its blood and to face pestilence in every quarter of the globe, side by side with the officers of the other branches of the service?

It is the fashion to state that the medical staff is so well paid, that it affords an attraction sufficient to override every other consideration; but, even if this were true—may, if the present pay were doubled, it would not allay the feelings of discontent which are aroused by the slights which are cast on our profession, to which we first of all owe allegiance; for it is well known that we are so treated because we are "only doctors." Doctors we are, and doctors we are proud to remain; but should we on this account be depressed below the level of every other body of men holding Her Majesty's commission? But are we so well paid? A few facts will show. The subaltern who goes to Sandhurst at the same time as his brother or schoolmate goes to medicine, is probably a captain by the time the latter has gained his diplomas and passed out of Netley; and his English pay is better than that of his brother the surgeon, though the latter has been spending money and labour in acquiring an expensive profession which he brings with him to Government, whilst the former has been all this time receiving a salary from Government for learning his. The time now comes when they both find themselves in India. The captain draws Rs. 417, plus Rs. 30 per month command-allowance. The surgeon draws Rs. 317 8 per month, or more than £130 per annum less; and this he continues to do for six years, by which time his brother is probably a major, drawing more than double his pay. Also a young veterinary surgeon (and remember all young surgeons find themselves on foreign service during their first year) in India draws Rs. 400 per month, with Rs. 60 per month horse-allowance, and after five years' service an additional Rs. 100 per month, or a total of Rs. 560 per month; whilst the surgeon of the Medical Service draws at the same time Rs. 335 12 2, or £225 per annum less than a veterinary surgeon of equal standing.

The hardship of the bearing of relative rank was very forcibly pointed out by you some time ago, in referring to the retirement of a very distinguished member of the department, namely, Mr. Manby, who, though covered with medals, including the Victoria Cross, and having seen more service than many general officers, retires, after more than 30 years' service in almost every part of the world, as plain "Mr." Comment is needless. With the formation of the Medical Staff Corps, there ought to have been no difficulty about the question of honorary rank; indeed, some of the quartermasters of the corps have it. It is nonsense to say that we would run the risk of being mistaken. When I see Captain Browne, R.E., I know he is an engineer by profession; and when I see Captain Jones, R.A., I know he is a gunner; and when, as for the future, I shall see Captain Robinson, O.S., I shall know he belongs to the Ordnance Staff; and if I saw Major Smith, M.S., I should know he was a surgeon-major of the medical staff, and so would everyone else. So much for this objection. It is not thought necessary to write Engineer-Major Brown or Artillery-Major Jones, etc.; it is inferred.

The BRITISH MEDICAL JOURNAL has consistently advocated what it considered to be our just claims, and we owe to its support many of the privileges which we possess, and we trust it will bring to the notice of the proper authorities the facts above mentioned, and which at present greatly agitate the department.—I am, etc., M.B., M.A.

SIR,—It seems to me that your editorial note appended to the letter on this subject in the number of the JOURNAL for June 6th, 1885, is of extreme importance. I take it to be the definite verdict of your JOURNAL, as the mouthpiece of important English civil medical opinion, that the struggle for military status within the national armies carried on by the various European medical corps has been a legitimate effort, and in no sense inimical to the interests of medicine as a profession.

The long fight of the Italian medical men who came to aid in the unification of Italy has been settled in the only way possible, namely, by recognising the equality of the medical corps as a military corps, and granting to its officers military status.

The army medical men of Switzerland, Holland, and America, have at various times won the same victory, and it would be strange were we to condemn them as untrue to medicine because they fought this hard fight with feudalism, and won in the combat.

I have been thrown lately into intimate relations with a representative Italian military officer, who was completely cognisant of the status of army medical men in the various European services. Himself a military officer, holding a high staff appointment, he spoke in the warmest praise of the medical corps of his own army, but said, "Remember, they are military officers the same as I am myself." He considered the relative rank existing in several European armies as a mere sham, and that officers contented with so ill defined a status must have but a poor idea of their own value as a body.

It has always seemed to me that we might just as well accuse Sir James Paget of being untrue to the interests of surgery because he accepted a baronetcy, as to say that an army medical officer was a traitor to medicine because he accepted defined status in the military family. Let us fancy that Sir James Paget was rewarded with the relative rank of a baronet, do you think the baronets of England would accept him as an equal? I should say certainly they would not. Let us,

then, imagine the continual mistakes everyone would make if Sir James had no defined title to show that he had the rank, and we can faintly grasp the misunderstandings that occur in every army where relative rank exists.

Some persons imagine that if this rank were given to army medical officers, everyone would hasten to use the military title in preference to the medical one. I question this. Take a familiar example. Dr. Billings, of the American service, is a lieutenant-colonel in the United States army. He is everywhere known as Dr. Billings, but within the army, and for official purposes, and as a definite mark of his status, he is a lieutenant-colonel. Your important note on this subject is, to my mind, a distinct landmark in medico-military history.—Yours, etc.,

DEFINITION.

SIR,—As I think it is of great importance, in the interest of our profession, that a clear idea should be formed on the question of our military rank, it would be very advisable that the subject should be thoroughly ventilated; the crude ideas on this point, held by medical men, seem to justify the proverbial divergence of medical opinion; and indeed it must be very difficult for a civilian to appreciate the feeling with which the matter is regarded in the service. Among military men, rank is the basis by which all other things are measured, and this, of course, involves the social status of all in the army, departmental, or otherwise. Now, it may be thought that a military surgeon has little ground for complaint on this head, as his relative rank is certainly high enough; too much so indeed, it is thought in the case of juniors by the late warrant; but this raises the question of the value of relative rank; the social status conferred thereby, whether viewed in respect to the position the department holds among the other branches of the service, or the general public, being, in my opinion, almost nil. The grades, or appointments, to which a medical officer is promoted, do not, in a social point of view, by any means correspond to increase of military rank; thus, a military surgeon, even on retirement (it may be), wounded, and profusely decorated after years of campaigning, continues still to be Mr. or Dr., though he may have the relative rank of a colonel, or major-general. You would not address a man as deputy surgeon-general, no more than you would call a man assistant adjutant-general. I do not in the slightest degree wish to hide or sink the professional in the military; on the contrary, I should like our professional position to be distinguished as much as possible, by our dress, and title; still I fail to see how a man's military status in his profession should be recognisable by his title, unless he adopt those universally known as degrees of military rank. It may at first sight appear strange that a Dr. should be also a captain, major, or colonel, though I imagine not more so than that a paymaster or commissariat officer should be so called; and, indeed, considering our very close connection with the combatant officer, especially notable in our exposure to the privations, danger, and mortality of a campaign, equally with them, I cannot think that our claim to real or titular rank is unjustified. Without it, our position as a department in the service will always be considered subordinate. Lord Dalhousie, when Governor-General of India, in a minute on the Indian Medical Service, written in 1856, writes:—"The absurdity of regarding a medical officer as a non-combatant is, I believe abandoned," and "the medical officer in respect of real rank, dress, honour, and promotion, should be placed on an equal footing with his brother officers." If rank be compared to the guinea stamp, surely relative rank must be the impression of a faint die, which is so faint as to be imperceptible, and illegible; it therefore will not pass current, and as such is looked upon with suspicion. The assumption of military titles by military surgeons, would of course, like most changes, be liable to considerable misapprehension; especially by that spurious conservative class who consider that everything that is is best; but it surely is not unreasonable that a military surgeon should wish his position in the service, being his real rank, to be known by his ordinary title. In fact, that his guinea should be stamped; the gold, indeed, may be the same, but without the stamp the relative value is worthless, it simply is not usable, and is, moreover, liable to be mistaken for base coin; therefore I am not afraid to confess that I should wish to have the right to sign myself

MAJOR ROYAL SURGEONS.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CAMBERWELL GUARDIANS.

SIR,—I claim the right to reply to the paragraph in the JOURNAL of August 22nd, entitled "A Friend Indeed."

The gratuity asked by the officers for small-pox attendance over a period of fifteen months. The figures produced yielded an average of two visits per week for each medical officer, and these not to treat but simply to diagnose the disease.

The "epidemic" spoken of averaged one case per day for every 100,000 of our population. The work done by each officer was perfectly within the terms of his contract. Altogether, the case for the gratuity was so feebly put that failure was inevitable, and the motion of the Rev. A. Drew received three votes, both medical guardians present voting with the large majority.

You are rightly informed that the case is to be re-heard, and again it will be judged upon its merits.—Your obedient servant,

D. M. SERJEANT.

HEALTH OF ENGLISH TOWNS.

IN the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,031 births and 3,715 deaths were registered during the week ending August 8th. The annual rate of mortality, which, in the two preceding weeks, had been 19.5 and 21.1 per 1,000, further rose during the week to 21.8. The rates in the several towns, ranged in order from the lowest, were as follow:—

diarrhoea, 11 from whooping-cough, 9 from scarlet fever, 3 from diphtheria, 3 from "fever," 2 from measles, and not one from small-pox. These 81 deaths were equal to an annual rate of 3.3 per 1,000, which was 0.8 below the average zymotic death-rate during the same week in the twenty-eight large English towns. The highest zymotic death-rates during the week in the Scotch towns were recorded in Edinburgh, Paisley, and Glasgow. The deaths from diarrhoea, which had increased in the six preceding weeks from 20 to 64, declined to 53, but slightly exceeded the number recorded in the corresponding period of last year; 34 occurred in Glasgow, and 7 in Edinburgh. The 11 fatal cases of whooping-cough showed a considerable decline from the high number in the previous week, and included 8 in Glasgow, and 2 in Paisley. The 9 deaths from scarlet fever showed a further slight increase upon recent weekly numbers, and were all recorded in Glasgow. The 3 fatal cases of diphtheria were 7 less than the number in the preceding week. Of the 3 deaths from "fever," 2 occurred in Edinburgh; and of the 2 fatal cases of measles, 1 was recorded in Greenock, and 1 in Paisley. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 2.1 per 1,000, and corresponded with the rate for the same period in London. The causes of 67, or 14.0 per cent., of the 478 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending August 8th, the number of deaths registered in the 16 principal town-districts of Ireland was 371. The average annual death-rate represented by the deaths registered was 22.4 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 20.7; Belfast, 29.0; Cork, 26.6; Drogheda, 16.9; Dublin, 19.5; Dundalk, 21.8; Galway, 20.2; Kilkenny, 12.7; Limerick, 22.9; Lisburn, 29.0; Londonderry, 8.9; Lurgan, 15.4; Newry, 14.0; Sligo, 28.9; Waterford, 16.2; Wexford, 25.7. The deaths from the principal zymotic diseases were equal to an annual rate of 3.6 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Kilkenny, Drogheda, Wexford, Lurgan, and Armagh, to 14.5 in Lisburn; the six deaths from all causes registered in the last named district comprising two from measles, and one from diarrhoea. The 122 deaths registered in Belfast comprised 12 from measles, one from scarlatina, six from whooping-cough, one from simple continued fever, and five from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 134. Twenty-one deaths from zymotic diseases were registered; they comprised two from measles, four from scarlet fever (scarlatina), one from typhus, two from whooping-cough, one from cerebro-spinal fever, two from enteric fever, eight from diarrhoea, etc. There were 17 deaths from diseases of the respiratory system registered; they comprised ten from bronchitis, and five from pneumonia. The deaths of 15 children under five years of age (including 11 infants under one year old) were ascribed to convulsions. Three deaths were caused by apoplexy, one by epilepsy, seven by other diseases of the brain and nervous system (exclusive of convulsions), and ten by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 22 deaths, mesenteric disease six, and cancer two. One case of manslaughter and one of suicide were registered. In one instance the cause of death was "uncertified," and in 14 other cases there was "no medical attendant."

In the week ending August 15th, the number of deaths registered in the sixteen principal town-districts of Ireland was 355. The average annual death-rate represented by the deaths registered was 21.4 per 1,000. The deaths registered in each of the towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 0.0; Belfast, 26.9; Cork, 19.5; Drogheda, 0.0; Dublin, 22.8; Dundalk, 13.1; Galway, 16.8; Kilkenny, 4.2; Limerick, 29.7; Lisburn, 19.3; Londonderry, 14.3; Lurgan, 10.3; Newry, 14.0; Sligo, 19.2; Waterford, 11.6; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.3 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, Sligo, Lisburn, and Armagh, to 6.4 in Belfast; the 113 deaths from all causes registered in the last-named district comprising 5 from measles, 2 from scarlatina, 1 from typhus, 5 from whooping-cough, and 14 from diarrhoea. Among the 30 deaths in Cork were 1 from scarlatina, 2 from whooping-cough, and 2 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 155. Twenty-two deaths from zymotic diseases were registered in Dublin; they comprised 4 from measles, 2 from scarlet fever, 3 from typhus, 3 from cerebro-spinal fever, 4 from simple continued and ill defined fever, 5 from diarrhoea, etc. Nineteen deaths from diseases of the respiratory system (including 10 from bronchitis and 7 from pneumonia) were registered. The deaths of 14 children (including 10 infants under 1 year old) were ascribed to convulsions. Two deaths were caused by apoplexy, 6 by other diseases of the brain and nervous system (exclusive of convulsions), and 10 by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 20 deaths, mesenteric disease 8, and cancer 2. Three accidental deaths were registered. In 4 instances the cause of death was "uncertified," and in 29 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending the 18th July, that the annual death-rate recently averaged 25.5 per 1,000 in the three principal Indian cities; it was equal to 22.1 in Calcutta, 22.8 in Bombay, and 30.2 in Madras. Cholera caused 16 deaths in Calcutta, and measles 17 deaths in Bombay; "fever mortality" showed an excess in each of these Indian cities. According to the most recently received weekly returns, the annual rate per 1,000 persons estimated to be living in 21 of the largest European cities averaged 25.9 per 1,000, and was as much as 6.3 above the mean rate in the 28 large English towns. The death-rate in St. Petersburg was equal to 27.7, showing a further decline from the rates recorded in the two preceding weeks; the 493 deaths included 14 from "fever," 11 from measles, and 11 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 19.6 per 1,000; it was 16.7 in Copenhagen, 17.5 in Christiania, and 23.9 in Stockholm. In Copenhagen, four deaths resulted from diphtheria, and scarlet fever caused two deaths in Stockholm and two in Christiania. The rate of mortality in Paris was equal to 19.6 per 1,000, showing a slight further decline from the rates recorded in recent weeks; 27 deaths were referred to typhoid fever, 25 to measles, and 20 to diphtheria and croup. In Brussels the death-rate was 19.9, and the deaths included two from typhoid fever. The 24 deaths in Geneva included three from typhus and typhoid fever, and corresponded to a rate of 17.5. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.5, the highest being 21.4 in Amsterdam, where four deaths resulted from scarlet fever and two from measles. The

Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 31.2, and ranged from 24.5 in Dresden and 24.7 in Hamburg to 35.6 and 41.2 in Prague and Breslau. Small-pox caused 16 deaths in Vienna, and four in Buda Pesth; and diphtheria was fatally prevalent in Berlin and Hamburg. In three of the largest Italian cities, the death-rate averaged 23.9, and was equal to 21.5 in Rome, 25.1 in Turin, and 26.3 in Venice. Small-pox caused four deaths in Venice, and three in Rome; and three deaths were referred to scarlet fever in Turin. No returns appear to have been received either from Madrid or Lisbon. In the four principal American cities, the recorded death-rate averaged 24.5, and ranged from 22.6 in Philadelphia to 25.5 in New York. Diphtheria caused 29 deaths in New York, and nine in Brooklyn; and scarlet fever was somewhat fatally prevalent in New York, Brooklyn, and Philadelphia.

It appears, from statistics published in the Registrar-General's return for the week ending July 25th, that the death-rate recently averaged 26.6 per 1,000 in the three principal Indian cities; it was equal to 17.3 in Calcutta, 26.5 in Bombay, and 31.9 in Madras. Cholera caused 10 deaths in Calcutta, and measles 19 in Bombay; while the mortality from "fever" was excessive in each of the three Indian cities. According to the most recently received weekly returns, the average annual death-rate per 1,000 persons estimated to be living in 21 of the largest European cities was equal to 27.2, and exceeded by as much as 7.7 per 1,000, the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 29.3, and showed a further increase upon the rates in recent weeks; the 522 deaths included 12 from typhus and typhoid fever, and 126 from diarrhoeal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 19.8, and was equal to 17.3 in Copenhagen, 18.7 in Stockholm, and 26.4 in Christiania; scarlet fever caused five deaths in Christiania, and three in Stockholm; and 14 deaths were referred to diphtheria and croup in Christiania. In Paris the death-rate was 20.3, against 19.7 and 19.6 in the two preceding weeks, and was slightly below the rate recorded last week in London; the 875 deaths, included 38 from typhoid fever, 23 from measles, and 80 from infantile diarrhoea. The 191 deaths in Brussels, of which 41 resulted from diarrhoeal diseases, were equal to a rate of 23.4. In Geneva the 22 deaths gave a rate of 16.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 22.2, the highest rate being 22.9 in Amsterdam, where four deaths from scarlet fever and four from measles were recorded. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 32.5, and ranged from 21.1 and 25.5 in Dresden and Hamburg, to 38.9 in Prague, and 45.9 in Breslau. The excessive fatality of diarrhoeal diseases caused high death-rates in most of these cities; no fewer than 342 deaths were referred to diarrhoea in Berlin, 79 in Breslau, 69 in Vienna, and 58 in Munich. Small-pox caused 21 deaths in Vienna, and diphtheria 31 in Berlin. In three principal Italian cities the rate of mortality averaged 24.3, and ranged from 21.8 in Rome, to 26.8 in Venice; four deaths were referred to small-pox in Turin, and two in Venice, and measles caused seven deaths in Rome. No returns appear to have been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities the recorded death-rate averaged 24.3, and ranged from 20.6 in Baltimore, to 26.1 in New York. Diarrhoeal diseases showed fatal prevalence in each of the American cities, especially in Brooklyn; diphtheria caused 29 deaths in New York, and 10 in Philadelphia.

It appears from statistics published in the Registrar-General's return for the week ending August 1st, that the annual death-rate recently averaged 25.8 per 1,000 in the three principal Indian cities; it was 18.0 in Calcutta, and 23.5 in Bombay. Cholera and small-pox each caused four deaths in Calcutta, and measles 10 in Bombay; "fever" fatality was exceptionally small in Calcutta. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in 22 of the largest European cities averaged 28.3, and was no less than 6.5 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was equal to 31.8, showing a considerable increase upon the rate in the previous week, owing mainly to the fact that the 565 deaths included 158 from diarrhoea, nine from diphtheria, and eight from typhoid fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 18.8, although diarrhoeal diseases showed an increased fatality; the 47 deaths in Christiania included seven from diphtheria and croup. In Paris, the death-rate was equal to 22.4, showing an increase upon the declining rates in recent weeks; the deaths included 112 from infantile diarrhoea, 36 from typhoid fever, and 24 from diphtheria and croup. The 150 deaths in Brussels included 26 from diarrhoea, but gave a death-rate of but 17.9. The rate in Geneva did not exceed 17.5. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate was 19.5, the several rates ranging from 17.2 in Rotterdam to 20.7 in Amsterdam; very few deaths resulted from zymotic diseases. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 34.5, and ranged from 24.9 and 29.0 in Vienna and Hamburg, to 38.1 in Munich, 39.8 in Berlin and 47.3 in Breslau. The cause of these excessive death-rates was the high rate of mortality from diarrhoeal diseases, to which were referred 405 of the 977 deaths in Berlin, 101 of the 270 deaths in Breslau, and 65 of the 179 deaths in Munich. Small-pox caused 12 deaths in Vienna, and three in Buda-Pesth. The death-rate was equal to 25.4 in Rome, and 27.0 in Turin. Small-pox caused four deaths in Rome, and typhoid fever six in Turin, while measles showed fatal prevalence in both these cities. No returns appear to have been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the mean recorded death-rate was 31.0, showing a further increase upon the rates in recent weeks; the rate ranged from 26.2 in Philadelphia to 37.4 in Brooklyn. The excess of mortality in these American cities was entirely due to the great fatality of diarrhoeal diseases, these caused 212 of 809 deaths in New York, 201 of 477 deaths in Brooklyn, 104 of 476 deaths in Philadelphia, and 84 of 247 deaths in Baltimore.

It appears from statistics published in the Registrar-General's return for the week ending August 8th, that the annual death-rate recently averaged 26.6 per 1,000 in the three principal Indian cities; it was 23.3 in Calcutta, 24.4 in Bombay, and 33.2 in Madras. Cholera caused 16 deaths in Calcutta, and six in Bombay, and fever showed the greatest mortality in Bombay. According to the most recently received weekly returns, the annual death-rate per 1,000 averaged 27.9, and was no less than 6.1 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 28.6, and showed a further increase upon the rates in previous weeks; the 509 deaths included 156 from diarrhoeal diseases, and 10 from "fever." In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged only 20.1, ranging from 13.4 in Christiania to 25.9 in Stockholm; diarrhoea caused 18 deaths in Stockholm, and five of the 33 deaths in Christiania were referred to diphtheria, croup, and scarlet fever. In Paris, the death-rate was equal to 22.1, was slightly lower than the rate in the previous week, and almost identical with the rate in London; diarrhoea caused

145, and typhoid fever 42 deaths. The 154 deaths in Brussels included 91 from diarrhoea, but gave a rate not exceeding 13.2. Only 13 deaths were reported in Geneva, equal to a rate of 13.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate did not exceed 10.9; scarlet fever caused 4 deaths in Amsterdam, and whooping-cough five in the Hague. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 84.5, and ranged from 24.2 and 24.4 in Hamburg and Vienna, to 83.7 in Buda-Pesth, 34.3 in Munich, and 41.2 in Berlin. The main cause of the high death-rates in these German cities was the excessive mortality from diarrhoeal diseases; 616, or more than half the deaths in Berlin, and 102 of the 242 deaths in Breslau, were referred to this cause. Small-pox caused 16 deaths in Vienna, and diphtheria showed fatal prevalence in Berlin, Hamburg, and Dresden. The death-rate was equal to 24.0 in Rome, and 30.7 in Venice; small-pox caused five deaths in Venice, and diarrhoea and measles were somewhat fatally prevalent in both these Italian cities. No returns have recently been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the mean recorded death-rate was 34.5, owing to the excessive mortality from diarrhoea in each of these cities; the rates ranged from 27.1 in Baltimore, to 45.9 in Brooklyn. In Brooklyn, 256 of the 585 deaths were referred to diarrhoeal diseases; diphtheria showed more or less fatal prevalence in each of these American cities.

It appears, from statistics published in the Registrar-General's return for the week ending August 16th, that the annual death-rate recently averaged 29.3 per 1,000 in the three principal Indian cities; it was 23.4 in Bombay, 24.2 in Calcutta, and 41.7 in Madras. Cholera caused 22 deaths in Calcutta, and 10 in Bombay; in Madras, the 321 deaths included 80 from "fever," and 64 from diarrhoeal diseases. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-one of the largest European cities averaged 27.5, and was no less than 7.0 above the mean rate during the week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was 27.8, and somewhat lower than in the previous week; the 495 deaths included 156 from diarrhoeal diseases, 11 from measles, and 10 from typhoid fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 21.1, ranging from 20.3 in Copenhagen to 21.9 in Christiania; diarrhoeal diseases caused 25 deaths in Stockholm, 16 in Christiania, and 9 in Copenhagen. In Paris, the death-rate was equal to 20.5, showing a decline from the rates in recent weeks, but exceeding the rate in London by 1.7; the deaths included 161 from diarrhoeal diseases, 33 from typhoid fever, and 23 from diphtheria and croup. The 170 deaths in Brussels, of which 28 resulted from diarrhoeal diseases, gave a rate of 21.8. The rate in Geneva was equal to 24.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.4, the rates ranging from 18.7 in Rotterdam to 22.8 in the Hague; no increase of mortality from diarrhoeal diseases is reported, and the mortality from zymotic diseases is exceptionally low. The Registrar-General's table includes eight German and Austrian cities (the usual return from Vienna not having come to hand), in which the death-rate averaged no less than 34.4, and ranged from 22.5 in Hamburg and 26.1 in Dresden, to 38.6 in Munich and 38.9 in Berlin. These high rates were mainly due to the remarkable mortality from diarrhoeal diseases, especially in Berlin, Munich, Breslau, and Buda-Pesth; diphtheria showed fatal prevalence in Berlin, Hamburg, and Trieste. The death-rate averaged 23.7 in three of the principal Italian cities; it was equal to 21.1 in Turin, 23.2 in Rome, and 31.5 in Venice. Small-pox caused 5 deaths in Rome and 4 in Venice; the high rate in the latter city was due to excessive mortality from diarrhoeal diseases. In four of the largest American cities, the mean death-rate averaged 39.0, the rate ranging from 38.2 in Philadelphia to 40.6 in Baltimore; diarrhoeal mortality was excessive in each of these cities, and typhoid fever caused 14 deaths in Philadelphia.

It appears from statistics published in the Registrar-General's return for the week ending August 22nd, that the annual death-rate recently averaged 28.5 per 1,000 in the three principal Indian cities; it was 23.8 in Bombay, 25.1 in Calcutta, and 36.6 in Madras. Cholera caused 20 deaths in Calcutta and 12 in Bombay, and 55 deaths were attributed to diarrhoeal diseases in Madras. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-one of the largest European cities averaged 24.0, and exceeded by 5.2 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 26.8, and showed decline from that prevailing in previous weeks; the 477 deaths included 144 from diarrhoeal diseases, 8 from diphtheria, and 7 from "fever." In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 19.9, ranging from 17.7 in Stockholm to 24.0 in Christiania; diarrhoeal diseases showed considerable prevalence in each of these three cities, and diphtheria and croup caused 11 of the 59 deaths in Christiania. In Paris, the death-rate was equal to 20.6, and was almost identical with the rate in the previous week; the deaths included 150 from diarrhoeal diseases, 37 from typhoid fever, and 30 from diphtheria and croup. The 163 deaths in Brussels included 43 from diarrhoea, and were equal to a rate of 22.1. The rate in Geneva did not exceed 18.2. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was only 18.6, the lowest rate being 12.6 in Rotterdam, the highest 25.1 in the Hague; the mortality from zymotic diseases was very slight in these Dutch cities. The Registrar-General's table includes eight German and Austrian cities in which the death-rate averaged 29.3, and ranged from 23.3 and 24.8 in Hamburg and Vienna, to 31.6 in Buda-Pesth, and 35.8 in Munich; small-pox caused 15 deaths in Vienna, 4 in Buda-Pesth, and 2 in Prague; the fatal cases of diarrhoeal disease, although showing a considerable general decline, were again markedly excessive in Berlin, Munich, Buda-Pesth, Hamburg, and Breslau. In three of the largest Italian cities, the mean death-rate was 24.9, the rate being equal to 22.3 in Turin, 25.1 in Rome, and 31.8 in Venice; small-pox caused 7 deaths in Rome and 3 in Venice, and diarrhoeal diseases caused considerable mortality in Rome and in Venice. In four of the largest American cities, the mean recorded death-rate was as high as 37.0; the rate ranged from 27.7 in Baltimore to 42.1 in New York. Diarrhoeal mortality showed a marked excess in New York and Brooklyn; typhoid fever caused 10 deaths in Philadelphia and 5 in Baltimore.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

HANLEY.—A year's sanitary work in a rapidly growing town, whose population has increased from 30,000 in 1861, to over 50,000 in 1884, might be expected to afford some wholesome lessons. Dr. Walker, however, contents himself in his annual report for the past year with statistical statements, which show that the general death-rate of the borough from all causes was 21.0 per 1,000, including a rate of mortality from zymotic diseases of 3.6 per 1,000. Comparing

the various figures for 1884 with those for the previous year, the medical officer of health finds "a decline under almost all the headings, except the zymotic class, in which the deaths showed a slight increase." The figures given would seem to indicate plenty of scope for sanitary work in the borough, and would scarcely justify apathy on the part of a sanitary authority. No doubt the medical officer of health has given his authority good advice from time to time during the year, but he has not recorded it in his annual report.

WALSALL.—Neither the medical officer of health's annual report for 1883, nor that of the deputy medical officer of health for the past year, affords much information as to the sanitary condition of the borough, and, in each instance, a record of disease-prevalence forms the bulk of the report. The death-rate has been perceptibly increasing during the past few years. Whereas, in 1881, it was 17.08, and, in 1882, 18.4, it had risen in 1883 to 20.03, and in 1884 was 21.14 per 1,000. This increase has been chiefly owing to diseases of the zymotic class, which in 1884 gave a rate of 4.03 per 1,000. Scarlet fever and diarrhoea have been especially fatal during each of the last two years, whilst enteric fever caused 25 deaths during 1884. In speaking of scarlet fever, and of the difficulty in dealing with it, the health-officer animadverted upon the carelessness of parents, and indicates how children in an infectious state are allowed to roam uncontrolled about the streets until irreparable mischief is done to their companions, and the disease propagated far and wide. He is strongly of opinion that half the ill directed cunning which parents display in concealing this malady would decrease, not inconsiderably, the mortality-returns if it were employed in securing the assistance which the authority provides. Infant-mortality ranges high in Walsall. Of the 1,318 deaths at all ages registered during 1884, no fewer than 403 were of children under 1 year; while of children over 1 and under 7, 297 died; giving a total of 700 children who died before reaching the age of 7, considerably more than half of the total number of deaths. "This lamentable state of things," says Dr. Wood, "points to a want of knowledge on the part of mothers in bringing up and feeding their children, and only in proportion as such knowledge is diffused will any amelioration take place."

GLOUCESTER.—Mr. Wilton, being alive to the possibility of cholera invading our shores at some weak spot, during the summer, is especially anxious that his district should be, as far as possible, prepared to resist the spread of the disease in the event of its appearance. He therefore, in his report for the past year, lays plainly before his sanitary authority the defects in their sanitary arrangements which should without delay, and can without difficulty, be remedied. He recommends that every house in the district should be connected with the city water-system; that a flushing box, provided with water from the city mains, should be secured for every water-closet; and that every house should be connected, by means of drains, with the city sewers. It would seem that 1,441 houses in Gloucester derive their sole supply of water from pumps and surface-wells. These Mr. Wilton does not hesitate to condemn; he says he has examined the water from hundreds of wells, and he does not think he has found a dozen in the city free from old or fresh contamination. This is a serious statement, but happily the remedy is ready at hand. Special consideration has been given by the medical officer of health to the means of isolating cases of infectious disease in the district. The hospital in the Stroud Road was altered, during the year, by the Town Council at some expense, but the result is not altogether satisfactory. The building is considered to be insufficient and inefficient by the medical officer of health, who does not seem to have been properly consulted in the matter; and this opinion, as to the inadequacy of the accommodation, has been entirely borne out by the Government inspectors who recently visited the district. The recommendation of these latter experts is, that an efficient hospital should be provided for the joint use of the urban, the port, and the rural districts of Gloucester. Various ways of carrying this proposal out are before the Town Council, and it is to be hoped that the advice given will be adopted, and put into practice without further delay. The fact that Gloucester has an appreciable continental trade by sea, makes the sanitary defences of that port a matter of more than mere local importance.

The will of Mr. Robert Ellis, surgeon, formerly of Chelsea, but latterly of Westward Ho! has been proved, the valuation of the personality amounting to above £33,000.

VACCINATION.—Mr. Charles Ashenden, medical officer and public vaccinator for the first district and workhouse of the Hastings union, has received for the seventh time, from the Local Government Board, a gratuity for the efficient manner in which he has personally carried out his duties in the latter office.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE EXCHANGE OF CONSULTING FOR GENERAL PRACTICE.

M.D., &c.—The lucrative, and, comparatively speaking, easy class of practice, conjoined to "the status of a consulting and family physician, coveted by" our correspondent, is, even under the most favourable circumstances, difficult to acquire, and falls to the lot of few, and rarely, we fear (however worthy of the position) to general practitioners who have devoted the better part of their life to mining, club, and like practice. In relinquishing the mining and other appointments, together with the more important obstetric practice, it would, in our opinion, under the circumstances, have been well for "M.D." to court, tentatively at least, to such patients the necessity he felt, after twenty-five years' hard work, and consequent intention, to retire from the more laborious duties of the profession, and confine himself to the less exhausting ones of a consulting and private family practice; and such expressed intention would doubtless have soon been made known to others, and the desired publicity obtained. We need scarcely add that any public, in contradistinction to private, notification of his wished for class of practice, would not only be unethical and directly opposed to the rules and practice of the faculty, but calculated to effectually thwart his ambition. The only practical suggestion that presents itself to our mind on the subject, is for our correspondent to avail himself of any favourable opportunity that offers in the course of conversation with discreet and judicious-tongued friends, to incidentally and cautiously allude to the object he had in view in resigning his late appointments, and thus, so to speak, to "set the ball rolling." To attain the coveted position, however, he must enjoy the confidence and good will of the district practitioners alike with that of the public; and the matter will be facilitated if he have already carefully cultivated the professional ground. At the same time, we apprehend that his retention and active pursuit of private family practice will more or less clash with that of the local general practitioners, and, so far, militate against the attainment of the object of his desire, namely, "the status and practice of a consulting and family physician."

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Intermediate Examination in Medicine. Examination for Honours. Anatomy.

First Class.—H. P. Dean, B.Sc. (Exhibition and Gold Medal), University College; F. H. Taylor (Gold Medal), London Hospital. *Second Class.*—A. A. Kanthack, B.A., University College, Liverpool; *P. Ashworth, B.Sc., Owens College, and *A. H. Tubby, Guy's Hospital; *M. P. Ledward, Owens College, and *G. E. Smith, Guy's Hospital. *Third Class.*—C. W. Jecks, University College; J. O. Tunstall, University College; G. E. Rennie, B.A. Sidney, University College.

Materia Medica and Pharmaceutical Chemistry.

First Class.—G. E. Rennie (Exhibition and Gold Medal), University College; **B. H. Starling, Guy's Hospital; **A. A. Kanthack, University College, Liverpool; P. Ashworth, Owens College; T. Fisher, Guy's Hospital. *Second Class.*—E. O. Ashe, London Hospital; *C. P. Crouch, St. Bartholomew's Hospital, and *A. H. Tubby, Guy's Hospital. *Third Class.*—M. P. Ledward, Owens College; W. S. Colman, University of Edinburgh and University College; G. H. O'Reilly, King's College; I. M. Macdonald, London School of Medicine for Women; C. C. B. Burt, Westminster Hospital.

Organic Chemistry.

First Class.—E. H. Starling (Exhibition and Gold Medal), Guy's Hospital; **H. P. Dean, University College. *Second Class.*—J. Wilkie, St. Bartholomew's Hospital, and *W. G. Williams, St. Bartholomew's Hospital; *W. P. May, B.Sc., University College, and *A. Scott, Guy's Hospital. *Third Class.*—J. O. Tunstall, University College; W. S. Colman, University of Edinburgh and University College; J. L. Roberts, B.A., B.Sc., Guy's Hospital.

Physiology and Histology.

First Class.—E. H. Starling (Exhibition and Gold Medal), Guy's Hospital; P. Ashworth (Gold Medal), Owens College; A. A. Kanthack, University College, Liverpool; B. Melland, Owens College; J. L. Roberts, Guy's Hospital; J. Wilkie, St. Bartholomew's Hospital. *Second Class.*—C. W. Jecks, University College; F. H. Taylor, London Hospital; H. E. L. Canney, University College; G. E. Rennie, University College; G. Black, Guy's Hospital; W. S. Colman, University of Edinburgh and University College. *Third Class.*—W. P. May, University College; W. G. Williams, St. Bartholomew's Hospital.

The * denotes equality of merit; ** obtained the number of marks qualifying for a Medal.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, August 20th, 1885.

Ives, William Robert Yeates, Portswood, Southampton.
West, William Paynter, Turnpike Lane, Hornsey, N.

On the same day, the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,

Bate, John Frederick, University College.

MEDICAL VACANCIES.

The following vacancies are announced.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by September 22nd.

BRISTOL GENERAL HOSPITAL.—Physicians' Assistant. Salary, £50 per annum. Applications by September 9th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by September 15th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by September 2nd.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary, £75 per annum. Applications by September 26th.

HOSPITAL HOME FOR PAYING PATIENTS.—Resident Medical Officer. Salary, £100 per annum. Applications to M. S. Mountfield, Bouchurch, I.W.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, near Canterbury.—Second Assistant Medical Officer. Salary, £120 per annum. Applications by September 10th.

LEEDS FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Surgeon. Salary, £200 per annum. Applications to C. H. Wilson, 9, Elmwood Green, Camp Road, Leeds, by September 1st.

LEEDS GENERAL INFIRMARY.—Honorary Obstetric Physician. Applications to the Treasurer, and marked "private," by September 5th.

LEEDS GENERAL INFIRMARY.—Resident Obstetric Officer. Salary, £100 per annum. Applications to Mr. Blair by September 10th.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum. Applications to the Chairman of the Board by September 12th.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street.—Assistant Dental Surgeon. Applications by September 29th.

NEWPORT INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by September 12th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Physician. Applications by August 31st.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum. Applications to Mr. R. F. Easterby, Fishergate, Preston, by September 11th.

RADCLIFFE INFIRMARY, Oxford.—Resident House-Surgeon. Salary, £80 per annum. Applications by September 12th.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

ST. GEORGE'S-IN-THE-EAST PARISH.—Infirmary and Workhouse Medical Officer. Salary, £300 per annum. Applications by September 2nd.

ST. MARK'S OPHTHALMIC HOSPITAL, Lincoln Place, Dublin.—Resident Surgeon. Salary, 50 guineas per annum. Applications by August 29th.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician. Applications by September 2nd.

UNIVERSITY OF ABERDEEN.—Examiners in Medicine. Applications to the Secretary, R. Walker, University Court.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications by September 5th.

MEDICAL APPOINTMENTS.

JEFFERISS, Walter, R. S., M.D., C.M. Edin., L.R.C.P. Edin., and L.R.C.S. Edin., appointed Medical Officer of Rochester and District Friendly Societies' Association.

MAJOR, Herbert C., M.D., appointed an Honorary Medical Officer to the Bradford Fever Hospital.

OWEN, D. C. Lloyd, F.R.C.S.L., appointed Consulting Ophthalmic Surgeon to the Children's Hospital, Birmingham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

FERGUSON.—At 5, Charlotte Street, Perth, on August 22nd, the wife of James Ferguson, M.B., C.M., of a daughter.

GREATHEAD.—At Graham's Town, South Africa, on July 15th, the wife of J. B. Greathead, Esq., M.B. Edin., M.R.C.S. Eng., of a son.

DEATH.

SWANSON.—At Lawrence House, York, on the 24th instant, Harold Garth, youngest son of George I. Swanson, M.D., aged 9 months.

BEQUESTS AND DONATIONS.—Mr. Thomas Emsley, of Burley, Yorkshire, has bequeathed £1,000 each to the Bradford Infirmary, the Ilkley Convalescent Home, the Harrogate Bath Hospital, and the Leeds General Infirmary; £500 each to the Coatham Convalescent Home, the Leeds Public Dispensary, the Leeds Hospital for Women and Children, and the Cambridge Convalescent Hospital; and £250 to the Leeds House of Recovery.—The Royal Alexandra Hospital for Sick Children, Brighton, has received £2,000 under the will of Mr. Henry Ovey.—The Great Northern Central Hospital has received £500 under the will of Mr. William Bennett, of Albert Street, Regent's Park.—The Sussex County Hospital, Brighton, has received £450 under the will of Miss Sarah Hannah Huskisson.—Mr. James Benham, of Wigmore Street, Cavendish Square, has bequeathed £100 to University College Hospital, and £100 to the Hospital for Sick Children, Great Ormond Street.—Mr. E. C. Baring has given £52 10s., and the Baroness Burdett-Coutts £25, to the Hospital for Women.

VACCINATION.—Mr. Wm. Budd, Public Vaccinator for the city of Exeter, has received the Government award for vaccination (second time).

ETYMOLOGY OF DOCTOR.

SIR.—"Philologist's" reasoning is too remarkable to be passed over without reply. He maintains that, because the English translators of the Bible give "Doctor" as the equivalent of *διδάσκαλος* "it is therefore evident that the prefix 'Doctor' existed before universities were instituted," etc.

This is quite an illogical conclusion. It merely shows that the English translators chose a word which was Latin, no doubt, but one which was well understood by the laity to mean a learned man, to express the Greek *διδάσκαλος*.

For long before our English Bible, almost the only "men of learning" at all were "university doctors," and the terms were much more interchangeable than they now are. There being no Sanhedrin nor Synagogue in England at the time, it was impossible for the translators to convey by one well understood word the exact equivalent of *διδάσκαλος* that they did very well in translating it "Doctor," without at all implying that the Jewish *διδάσκαλοι* were university graduates like themselves.

I have an early English Bible in which we are told that our first parents "made themselves breeches." Would "Philologist" accept this as logical proof that small-clothes were an antediluvian invention? Again, in alluding to a certain charter, "Philologist" writes, "doctores et medicis are in apposition, and, therefore, mean the same thing." By no means. Certain "Doctors" (of Divinity) might have been mentioned as "our Chaplains," but it would by no means follow that all chaplains were doctors, and the terms synonymous.

The fact is that the passage quoted clearly shows that the words "Doctor" and "Medicus" are not considered synonymous, but distinct.

How the word "Doctor" came to be popularised, admits of a very different explanation to that of "Philologist." No doubt, the university trained medical men were in old times, as now, styled "Doctor," but they were few and far between, as compared to the illiterate "leeches" of the same epoch. It was clearly to the advantage of the latter to pretend to the title and dignity of the former, and hence the word became vulgarised. I do not question that now-a-days it may, by common usage, be correct to say "Mr. Smith is a doctor," just as we say "Mrs. Brown is a lady;" but that is no reason for the one styling himself "Doctor" Smith, nor for the other styling herself "Lady" Brown.—I am, sir, yours, etc., M.D.

THE TITLE OF DOCTOR.

SIR.—In the JOURNAL of August 15th, a correspondent on the above subject complains of a great injustice he is about to suffer by the Colleges conferring on those who obtain their conjoint diploma the title of Doctor. For the life of me, I cannot see how he can suffer, inasmuch as if he can demonstrate his superior qualities and skill, he may rest assured his patient will not go to any other.

His tone seems that of a disappointed man, as certainly he was doomed to be if he thought the mere fact of writing M.D. after his name was a sufficient guarantee of success. Patients don't ask to see your degree or diploma; they ask your skill. Your correspondent speaks as if the Colleges were casting away their diplomas to all comers without money, without study.

As regards time, the Colleges demand the same as the Universities, and, as to money, I believe an average student can get through the Universities as cheap as the College, when we take into consideration the numerous prizes, etc., offered at the Universities. If you add to this the fact that college students devote their four years to professional work, and of their being examined by strangers, not by their own professors, to whom four years' good conduct cannot be lost sight of, we see who has the most right to be called Doctor from a practical point of view.

Those silly few who are clamouring for M.D. should go over to America, where they will get it for a few pounds, and without residence. It is time this silly discussion should end, as to me it seems fighting for a shadow, and no good can come out of it, but indeed will have a tendency to create a feeling of doubt and uncertainty in the minds of the public as to who is the doctor and who is the quack.—Yours faithfully, A PHYSICIAN AND SURGEON.

SIR.—I think your correspondent, "M.B. and C.M. Edin.," etc., is quite right in his remarks anent the title of M.D. Everybody supposes that he who possesses the degree of M.D. is head and shoulders above his fellow practitioner as regards learning and ability. This depends where and how the degree is obtained.

Perhaps you would allow me to note that for such practitioner as "M.R.C.S. and L.R.C.P." (who, a few weeks ago, wrote in your columns to the effect that he was debarred from taking the degree of M.D. at Durham, on account of the Latin required), the University of St. Andrew's grants the degree of M.D. to any registered practitioner, providing the candidate is of a certain standing, of a certain age, and can produce certain certificates. He must be over 40 years of age. The certificates are from three medical men, who must certify as to professional standing. The Calendar of St. Andrew's gives all the information required.—Yours truly, H. WHITTAKER.

THE TEACHING OF DIETETICS.

SIR.—I find the following statement reported in the BRITISH MEDICAL JOURNAL of August 1st as having been made by Dr. Roberts of Manchester, in his address in the Therapeutical Section at the annual meeting of the British Medical Association. "So far as I know, there is no systematic teaching of dietetics, even on the most limited scale, afforded to the student at any of our medical schools."

Dr. Roberts must be unaware that at one Scotch University at least—I refer to the University of Edinburgh—the subject of dietetics is thoroughly and systematically treated of by two distinct professors, namely, the professors of physiology and therapeutics. In the first instance, in the class of physiology, the diet in health is discussed in detail; in the second instance, in the class of therapeutics, the professor of that subject gives a most elaborate series of lectures, quite sufficient for anyone in practice, in regard to the diet in health and also in sickness; and I have a distinct recollection of having heard most of the important points which Dr. Roberts mentions treated of in that course.—I remain, yours truly, ROBERT BOWES, M.D. Edin.

71, Union Street West, Oldham.

A REMEDY FOR HAY-FEVER.

SIR.—Dr. J. Alfred Masters would overcome the difficulty he encounters in mixing borax and alum in solution, by using the following prescription in the form of powder, and puffing a small quantity into the nostrils by means of an insufflator, which can be procured of any instrument maker, or by one of Dr. Horace Dobell's tubes. R. Acidi boracici pulv. ʒss; sodie salicylati ℥i; eucali hydrochlor. gr. ii. I have also found the above quite capable of preventing coryza if used at the onset of an attack, namely, the sneezing stage.—Yours truly, JNO. PHILPOTS, L.R.C.P. and S. Ed., Parkstone.

THE CONTAGIOUSNESS OF DYSENTERY.

SIR.—Dysentery, in the opinion of most of the text-book writers, and I can call to mind Bristowe and Charteris, is regarded as a non-infectious and a non-contagious disease; but the case below related points most conclusively, in my opinion, to the latter at least of these characteristics.

While filling the post of surgeon on the steam-ship *Haytian*, the vessel being at anchor in the roads at Galveston, I was consulted by one of the cotton-screwers, who was commencing with a well marked attack of dysentery, and who informed me that several of the gang were incapacitated, suffering from the same complaint on shore.

It is the custom during the loading of the ship to have the closets of the officers and engineers locked, to prevent a general usage; but on this occasion, some bales of cotton being piled up against the doors of the privies forward, the lock of the engineers' place was forced during the night, and the closet used by someone suffering from sanguinary dejecta. This fact was reported to me by the chief engineer, who came to me a day or so later, complaining of incessant diarrhoea with bloody stools. A few hours afterwards, two of the officers were likewise suffering from dysentery, and a couple of sailors who had used the closets on the night in question were also on the list.

I was at a loss to account for the officers' attack; but an elucidation was soon forthcoming, for, on examining the respective closets, which were contiguous, I discovered that the wells of both opened into a common drain-pipe, after the manner of the letter Y; and that, during the hurry of loading, the usual matutinal flushing had been neglected, and a primary cause of dysentery allowed to accumulate, and infect both.

Until the contingent from the shore arrived, there had been no cases, even of diarrhoea; and, as we were too far in the roads for any of the men to leave the ship to indulge in anything on shore, I can but regard the attack as one of undoubted contagion.—I am, etc., AUSTIN E. Y. HUGHES, L.R.C.P. Ed. 110, Robson Street, Everton.

CLIMATE OF SOUTHERN CALIFORNIA.

A. AMBROSE, M.D., is referred to the BRITISH MEDICAL JOURNAL for January 25th, 1882; February 14th, 1885, page 361; February 21st, 1885, page 419; March 21st, 1885, page 631.

"A BRITON AND SCOTSMAN."—Your letter raises an historical question which is beyond the scope of our columns. We agree with your remarks, however, and regret the inadvertence which elicited them.

THE PREVENTION OF CONSUMPTION.

SIR.—With respect to the question recently raised in your columns regarding the prevention of consumption, it would appear that the subject of its non-prevalence, or great rarity, in the Hebrides and north-west coast of Scotland, is in a great measure overlooked; but from a long and intimate acquaintance of the conditions and social circumstances of the people of those districts, having practised extensively amongst them for now over a quarter of a century, and having made it a special subject of inquiry, I am in a position to affirm dispassionately that the disease—tubercular consumption—is very rare indeed, and that when it does occur, it is to be attributed to causes different from any hereditary predisposition. My views are embodied in a pamphlet on the subject as far back as 1869, published by Oliver and Boyd, of Edinburgh, which additional observation and experience amongst the inhabitants have tended largely to confirm.—I am, etc., JOHN McNAB, M.D., F.R.C.S.E.

SIR.—I quite agree with Dr. Macleod, of Hawick. I, too, know the West of Scotland well, and have a personal knowledge of the diseases prevalent there and in the Hebrides; and I must emphatically affirm, as the result of my experience, that the alleged immunity from scrofula and consumption in the Hebrides is a myth; and I have frequently given expression, in a public manner, to the statement. I have always regarded this delusion as one of the very numerous instances in medical science in which ingenious theories are woven around "false facts." It is a great pity that three-fourths of the medical profession never think of exercising their own judgment in the most important matters, but defer to the dogmatism of prominent individuals in a manner which would be gratifying in ecclesiastical matters, to the most infallible of churches. We have recently had propounded for us a most ingenious theory of the manner in which salicin cures rheumatism. Does it really cure rheumatism? I have long had grave doubts on this point, and a recent personal experience confirms my unbelief.—I am, etc., D. CAMPELL BLACK, M.D. Glasgow.

ARTIFICIAL RESPIRATION IN SUNSTROKE.

SIR.—I treated a case of sunstroke, in the end of March last at Snakin, by employing artificial respiration (Silvester's method), when, after the usual treatment was employed, I could not detect the least sign of breathing, though the heart was acting strong and well at first. The patient regained consciousness in about ten minutes and recovered.

The success of the mode of treatment employed in this case throws a light on the pathology of the state of the lungs seen in some cases of death from sunstroke.

In a case of passive congestion of the lungs in enteric fever, I caused the patient to inspire deeply six or eight times every half hour for several days, and also attended to the posture of the patient; the result was recovery.—Yours truly, H. L. D.

MORTALITY AFTER CHILDBIRTH.

SIR.—In 1874, I sent statistics of the above, my experience for the previous ten years. I now enclose you the results of another decade, which may be of interest to those who have lately engaged a portion of your JOURNAL on the same subject.

From 1864 to 1874, I attended 2,800 cases, and from 1874 to 1884, 1,783 cases; and the following is the mortality in the total 4,083. Deaths from all causes, signified as follows, 28; namely, puerperal fever, 6; peritonitis, 4; mania, 1; cholera (1866), 1; hæmorrhage, 5; pyæmia, 2; carditis, 3; bronchitis, 1; embolism, 1; ruptured uterus, 1; syncope, 3. In these 4,083 cases, there were footings, 8; arm, 5; shoulder, 6; placenta prævia, 8; breech, 26; face, 12; funis and head, 5; funis and hand, 1; hand and face, 1; hydrocephaloid, 2; and twins in 39 cases. Post partum hæmorrhage, 42. Interference required as follows: turning, 28; forceps, 90; craniotomy, 8; and loop, 18.—I remain, sir, your obedient servant, CHARLES ASHENDEN, M.R.C.S. Hastings.

THE CASE OF DR. BRADLEY.

SIR,—I enclose a further list of subscriptions, which perhaps you will kindly publish in the next issue of your JOURNAL.—I remain, yours faithfully,
Eastwood House, Chesterfield.

RICHARD JEFFREYS.

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Sir James Paget, Bart.	5	5	0
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Dr. Macnaughton Jones, 141, Harley Street, W.	2	2	0
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Dr. Felix Semon, 59, Welbeck Street, W.	2	2	0
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Mr. Charles Evans, Bakewell	0	5	0
Mr. F. J. Burman, Wath-upon-Dearne	0	2	6

MEDICAL CALIGRAPHY.

SIR,—Having lived 88 years in this country, and having no reason to complain of my eyesight, assisted by glasses, I can find no other reason for the increasing difficulty I have in reading the letters or prescriptions penned by many of our best men than the deterioration of their handwriting. It is sometimes all guess-work one has to do. Somewhat more care is taken in penning the time of an appointment. I am quite aware of the scarcity of time under which our best men are labouring, but humble people like myself are also labouring frequently under the same scarcity, and in private life, such scrawls as one has often to decipher, and which take immensely more time to read than they took to write, would be considered impolite. Oh, for the good old round hand!—I am, sir, yours obediently,
AUGUSTUS HESS, M.D.

EXTRACTS OF MEAT.

BARON LIEBIG gave to Liebig's Extract of Meat Company (Limited), in 1865, the exclusive use of his name, upon the most distinct engagement, by that company, that all their extract should be submitted to the strictest control and analysis. No sooner was the success of this company an undeniable fact, than small competitors came forward, who at once tried to offer their extracts under the name of "Liebig's Extract of Meat." Law-suits ensued, and in France the judge emphatically stated that a man's right to dispose of his name was absolute and sacred. In this country, on the contrary, it was declared that Baron Liebig had no right to give to the company the exclusive use of his name. The consequences in France are, that no rival extract of meat can be called "Liebig's," and the public are protected against buying articles other than the original and genuine extract. In this country, on the other hand, many extracts are offered as "Liebig's," though utterly repudiated by Baron Liebig.—Globe.

TREATMENT OF FRECKLES.

A. B. C.—A solution of perchloride of mercury, made by dissolving twelve grains of the perchloride in two ounces of rectified spirit, and six ounces of distilled water, is recommended as useful in the treatment of freckles. The solution is dabbed on daily after washing and at bedtime.

PRACTICE IN CALIFORNIA.

SIR,—In reply to your correspondent, "D.C.W.," in the JOURNAL of August 15th, I would say that assistantships are practically not obtainable in the States, and so are appointments for other than home men. The only way to do in San Francisco is to start a practice himself, and unless he have the M.D. degree, he had better stay at home.—Yours, etc.,
A YANKEE M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Maxwell, Woolwich; Mr. D. M. Sergeant, London; Mr. Major Greenwood, jun., Dalston; Mr. F. O'Reilly, Trim, co. Meath; Mr. H. Norris, South Petherton; Mr. S. B. Mason, Pontypool; Messrs. A. Essinger and Co., London; Dr. Long, Ludlow; Dr. W. C. Begley, Hammersmith; Dr. Chalmers, London; Miss Masterman, Clifton; Dr. R. Rentoul, Liverpool; Mr. A. Devonald, Llangennech; Dr. H. R. Bigelow, Berlin; Mr. Wm. Williams, Llanfair; Mr. T. H. Thomas, Cardiff; Mr. J. A. Godley, London; Mr. H. G. Armstrong, Crowthorne; Mr. R. F. Frazer, London; Messrs. Down, Brothers, London; Mr. J. S. Cave, Gosport; Mr. W. Budd, Exeter; Dr. W. R. Huggard, Geneva; The Secretary of the Morrell's Sanitary Appliance Company; X. Y. Z.; Mr. W. T. Parks, London; Dr. Street, Westgate-on-Sea; Dr. Pardon, Belfast; Mr. J. E. Nott, Uppermill, near Oldham; Dr. Thin, London; Mr. W. E. C. Nourse, Exeter; Mr. J. D. Mortimer, Portsmouth; Dr. Egan, Dublin; Our Valencia Correspondent; Mr. R. Clement Lucas, London; Dr. C. D. G. Hailes, Clifton; Dr. G. H. R. Dabbs, Shanklin; Mr. R. Jeffreys, Chesterfield; Our Liverpool Correspondent; Mr. Lawson Tait, Birmingham; Mr. Collier, Hammersmith; Mr. George Meadows, Hastings; Our Glasgow Correspondent; Our Edinburgh Correspondent; Dr. E. G. Morison, London; Mr. P. H. Emerson, Southwell; Dr. Hack Tuke, Hanwell; Dr. Prosser James, London; Mr. James Startin, London; Messrs. Mottershead and Co., Manchester; Mr. F. W. Dorat, Stratford-on-Avon; Messrs. J. H. Peck and Co., Wigan; The Director-General of the Naval Medical Department; Mr. J. Bland, London; Mr. S. Hamill, Burnham, Westgate; Mr. T. J. Henning, Newry, Ireland; Mr. J. Purley, London; The Director-General of the Army Medical Department; Messrs. Southall, Brothers, and Barclay, Birmingham; Mr. George Eastes, London; Mr. D. C. Lloyd Owen, Birmingham; Mr. C. R. Williams, Ashby-de-la-Zouch; Mr. E. Prideaux, Wellington, Somerset; Medicus; Mr. E. Duke, Freshwater; Dr. J. Strahan, Belfast; Mr. A. S. Gubb, London; Dr. Fourness Simmons, London; Messrs. Batley and Watts, London; Dr. E. Casey, Windsor; Dr. Styrup, Shrewsbury; Mr. G. W. Steeves, Liverpool; Mr. E. H. Monks, Wigan; Mr. G. Birt, Stourbridge; Mr. S. H. Steel, Abergavenny; Mr. A. A. Hayes, Cheltenham; Dr. R. Crean, Manchester; Mr. W. Hasgood, Wimborne; Dr. J. Tatham, Salford; Mr. N. W. Davis, Bridgen; W. H.; Our Paris Correspondent; Mr. De Vere Hunt, Bolton; Messrs. Corbyn and Stacey, London; Sir William Smart, London; Mr. A. Kidd, Ballymena; Messrs. Morrell, Manchester; Dr. T. S. Dowse, London; Dr. R. Pringle, Blackheath; Mr. T. S. Bourne, Kenilworth; Mr. R. J. Griffith, London; Mr. G. P. Atkinson, Pontefract; Dr. P. Blackall, Grays, Essex; Mr. R. S. Wallace, Manchester; Mr. W. E. Home, Edinburgh; Dr. Sutherland, London; Mr. H. A. Rogers, London; Mr. J. H. White, Manchester; Dr. J. Braxton Hicks, London; Mr. Vere G. Webb, Wood Green; Mr. F. Ramsden, Leicester; Mr. G. de G. Griffith, London; Mr. L. F. Simson Maberly, Dublin; Dr. P. Cowen, London; Mr. Charles Williams, Norwich; Our Manchester Correspondent; The Board of the Chelsea Hospital for Women; Dr. Shingleton Smith, Clifton; Mr. L. Humphry, Cambridge, etc.

BOOKS, ETC., RECEIVED.

Old Age and Change Incidental to It. By G. Murray Humphry, M.D., F.R.S. Cambridge: Macmillan and Bowes. 1885.
A Text-Book of Medical Physics. By J. C. Draper, M.D. London: J. and A. Churchill. 1885.
A Schoolmaster's Retrospect; or, Eighteen Years and a Half in an Irish School. By Maurice C. Hime, M.A., LL.D. London: Simpkin, Marshall, and Co. Dublin: Sullivan Brothers. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON GANGRENE OF THE LUNG.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By SIDNEY COUPLAND, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

THE subject of pulmonary gangrene is one which does not often come prominently before the notice of the profession—at least, in a comprehensive form. This may be due, in part, to the comparative rarity of the lesion, and the numerous ways in which it may be brought about; and in part, also, to the mostly fatal course that it runs. The cause of this fatality lies in the length of time that is occupied in the separation and evacuation of the sphacelated mass, during which process the patient is exposed to the risks of septicæmia, and of secondary lobular pneumonia. The attempts that are now being made to hasten the process of separation, by surgical intervention, require that we should reconsider the subject, especially in the light of treatment. In the following paper, I shall endeavour to collate a few facts bearing on the subject; but it is impossible for me to do more than merely touch upon some of its leading features. I shall first relate a case, which, though unsuccessful in its issue, is not without instruction; then describe some of the conditions leading to gangrene or associated with it; and, lastly, refer to what has been done in the way of treatment by incision and drainage.

CASE.—Rose B., 13 years of age, an ill-developed, strumous child, was admitted into the Middlesex Hospital on May 18th, 1885, for the treatment of some ulceration of the toes. She was placed in the surgical ward, but, in a few days, there arose symptoms of grave import, with increase of temperature, and I was asked to see the case. There were physical signs of recent pericarditis, and double basic pleurisy; that on the left side being accompanied by some effusion. The child was then transferred to my ward.

Very meagre were the facts as to her previous health. All that could be gathered amounted to this; namely, that she had been ailing since Christmas, with cough and pain in the chest, and had lost much flesh. In consequence of this, she had been sent home to London from a boarding-school at Ealing. Her father died at 34, of consumption; but her mother and the rest of the children, five in number, were living and well.

The following notes by my clinical assistant, Mr. Nicholson, describe the condition of the patient when admitted into the medical ward. She was a brown-haired, thin, strumous girl, suffering from a dry cough, pain on the left side of the chest, and fever. Temperature 101.6°; pulse 132; respirations 24. The tongue was moist, slightly coated brown on the dorsum. The chest was flattened, the ribs prominent, movements very limited. Over the whole chest hyperæsthesia rendered examination difficult; but it was made out that there was normal resonance over both fronts, except on the right side, which was dull from the nipple downwards. Behind, there was dullness over the lower two-thirds of the right back, but resonance over the left side. On auscultation, there were puerile breathing in front; fine dry crackling *râles*, probably pleuritic, at the left base; weak breathing at the right base, where vocal resonance was increased and pectoriloquous. The area of cardiac dullness was normal; and the apex-beat was in the usual position. Over the whole præcordia could be heard dry leathery friction, diminished by holding the breath, but not abolished thereby. The first sound of the heart at the apex was roughened; it almost amounted to a murmur; the second sound was loud and accentuated. The abdomen was tympanitic; the hepatic area merged above in the dullness at the right base, and extended an inch below the costal arch; in the middle line, an inch and a half below the xiphoid cartilage. The splenic area was normal. The child's appetite was good, and she slept well. On the sides of the second, third, and fourth toes of the right foot were small soft ulcers, and another on the back of the heel. The skin was hot and dry.

The diagnosis was double pleurisy and pericarditis, probably

tubercular in nature. A quinine-mixture and port-wine were prescribed.

For the next few days, no notable change occurred. The signs of some effusion at the right base became more evident; the pyrexia was continuous and irregular.

On the 25th, the cough became more harassing, and, for the first time, the breath had a fetid odour, but as yet there was no expectoration. The chest was again examined. No pericardial friction was now audible. The lower half of the right side of the chest was dull; and, although no difference could be detected in the vocal fremitus between the two sides, there were very evident ægophony and pectoriloquy audible over the dull area. Furthermore, the breath-sound on this region had a markedly bronchial character. The evening temperature was 103.4°.

On the 26th, the fetor of the breath became more marked, and the cough more troublesome, with scanty expectoration of offensive brownish mucoid fluid. There was a marked hectic flush on the cheeks. At a spot below the right nipple, there was amphoric breathing. The urine contained a trace of albumen. Inhalations of carbolic acid were prescribed.

On the 27th, the child had become more emaciated, and had lost her appetite. The odour of the breath persisted; it was worst in the early morning. Again, over an area of about two square inches below the right nipple, the breathing had a cavernous character, and the modification of vocal resonance was extremely evident. Similar auscultatory signs were detected behind, just below the angle of the scapula. The ulcers on the foot were healing. There was no diarrhoea, the bowels being opened regularly every day.

On the 28th, the sputa, still very fetid, contained a streak of blood. Pain was complained of over the right side of the chest, which was very tender. In the eighth space behind, cavernous breathing was more manifest, plainer than in front; it was accompanied by gurgling *râles*.

Looking to the condition of the patient, and to the evidence of excavation being in progress in the lower lobe of the right lung, and the probability that this was due to gangrene, and desirous, if possible, to expedite the separation of the slough, as well as to avert the lethal tendency, I asked Mr. Lawson to make an exploratory puncture into the lung opposite the point where the cavernous breath-sound was most intense. Accordingly, this was done under chloroform by the aspirator, in the ninth space in the posterior axillary line. About an ounce of clear serum was withdrawn, manifestly from the pleural sac; no blood, but a quantity of air, escaped; and subcutaneous emphysema rapidly occurred around the puncture. It was not thought advisable to repeat the puncture then; but next day, the surgical emphysema having disappeared, and the physical signs being unaltered, whilst the patient's general condition was materially worse, I decided to once more invoke the surgeon's aid, selecting as the seat for puncture a spot posterior to the former one. In Mr. Lawson's absence, Mr. Gould performed the operation. Chloroform being administered, he inserted a trocar and cannula into the eighth interspace, in a line with the angle of the scapula, and drew off a small quantity of blood-stained serum. The instrument was then partially withdrawn, and the puncture was repeated more than once in varying directions, until the occurrence of a distinctly fetid odour at the mouth of the cannula proved that the seat of gangrene had been reached. A larger trocar was now inserted by the side of the smaller one, which was used as a guide, to the depth of three or four inches. At first, no air escaped from the second cannula, but, after a time, some odour was perceived coming from it; and it was left in, the smaller cannula being withdrawn. This instrument showed, by the black discoloration of its middle two-thirds, that it had been in contact with putrid material. Signs of pneumothorax appeared over the right front of the chest immediately after the operation. Charpie and a gauze bandage were applied. No relief followed, although, next day, the dressings were soaked with fetid discharge; but the fetor of the breath continued, and, during the day, the child became collapsed, and almost pulseless. She died the following morning (31st).

It seemed, then, as if the operation had not only failed in its object, but that it had, by setting up pneumothorax, materially hastened the otherwise inevitable termination. The *post mortem* examination fully cleared up this point, and showed that pneumothorax would probably have occurred if no puncture of the lung had been attempted. It also demonstrated the fallacious interpretation of the physical signs that there was a single large gangrenous cavity to be dealt with.

For the following account of the *post mortem* examination, I am indebted to Dr. J. K. Fowler, Pathologist to the Middlesex Hospital.

The right side of the chest was of a greenish tint, from decomposition. An opening existed in the right eighth interspace, in the posterior scapular line, admitting the little finger; it led into the pleural sac, and thence into the lower lobe of the right lung. The pleural cavity contained air and gangrenous lymph, the sac being subdivided by a line of adhesion commencing at the level of the third rib posteriorly, and sloping thence downwards to the lower border of the fourth interspace anteriorly. Above this, the pleural layers were acutely inflamed, and completely infiltrated with milium granulations. The lower lobe of the lung was partially collapsed. On the left side, both visceral and parietal pleura were similarly thickly beset with milium granulations throughout. A gangrenous abscess, situated at the tracheal bifurcation, had replaced a bronchial gland in that situation. The walls of the abscess were discoloured and sloughing, and were closely contiguous to the lower division of the main bronchus, into which the contents of the abscess had been evacuated by an ulcerated opening. A small sinus also led downwards, to terminate by a minute valve-like aperture in the anterior wall of the œsophagus. The upper lobe of the right lung was congested, but otherwise normal. The middle and lower lobes were in great part destroyed by areas of gangrene, of black colour and fetid odour, arranged along the lines of the bronchial ramifications, forming thus numberless sloughing centres, separated here and there by fairly normal tissue; but the regions not destroyed by gangrene presented some recent milium granulations, and a caseous nodule. The track of the cannula in the lung formed a ragged gangrenous cavity, about two inches long. Besides the pulmonary fistula thereby formed, there were two other points where the pleura was completely necrosed and ulcerated, one in the middle lobe, and one in the lower. The left lung contained milium granulations scattered through both lobes, and a caseous nodule in the anterior margin of the lower lobe. The pericardial layers were universally adherent, but could readily be separated, displaying a thick coating of fine milium granulations beneath a deposit of recent lymph. The heart was normal as to its valves and cavities, its tissue being soft and pale. The liver was congested; the spleen presented large, caseous, tubercular nodules on its surface and within its substance; the kidneys also contained a few granulations. There was no fluid in the peritoneal sac; but the membrane contained abundant tubercular granulations, which, in the upper part, formed a diffuse deposit; they also abounded in the mesentery. The mesenteric glands were enlarged and caseous.

I may point out that the pathological conditions here, although unusual, are not quite unique. Dr. Gee, in a paper on the chronic pneumonia which attends disease of the tracheal and bronchial glands (*St. Bartholomew's Hospital Reports*), relates four cases, in three of which the adjoining bronchus was perforated. In two of these the perforation opened into a sloughy cavity left by destruction of the glands, and there was gangrenous pneumonia of the lower part of the lung on the same side as the perforation, a condition precisely similar to my case. Another case is given by Kohts, in his article in Gerhardt's *Handbuch der Kinderkrankheiten*.

Again, the association of gangrene with tuberculosis was present in one of Dr. Gee's cases; in another, the bronchial gland-disease is described as being "non-strumous," and no tubercle was found in the lungs or elsewhere. Billiet and Barthez give statistics to the effect that, of twenty-six cases of pulmonary gangrene in children, exactly thirteen were in non-tubercular subjects. This shows, at any rate, that the conditions are not mutually exclusive. *A priori*, one would conceive that the enfeebled vitality of the tuberculous would favour the development of gangrene.

In my case, as in Dr. Gee's, it is quite plain that the destructive pneumonia was directly due to the inhalation of putrefactive material from the bronchial abscess, the contents of which had putrefied because of the communication which had been formed with the air through the bronchus; and in this mode of development, such cases accord with the vast majority of the cases of pulmonary gangrene. For the main cause of this event is the introduction into the lung of putrefactive germs, not in the ordinary tide of atmospheric air, but mainly through the medium of gross particles of decomposing substance.

It may be said, and justly, that the resort to surgical intervention in this case was hardly warranted. I am willing to admit that I was misled by the physical signs to believe that we had to deal with a single cavity, and not a lung honeycombed with areas of gangrene, such as showed themselves here; whilst, at the same time, the condition of the child was very grave. The original diagnosis of tuberculosis proved to be correct, and it was with no object but that of averting speedy death that the operation was invited. It was a final attempt to relieve the child of the pain, the troublesome cough with the fetid

expectoration, and with no real hope of permanent good, that it was advised.

The occurrence of this case, with its peculiar circumstances, led me to inquire somewhat into the morbid anatomy and etiology of gangrene of the lung, so as to determine the conditions which may offer the best prospect of successful surgical interference. I have been compelled to restrict my inquiry within comparatively narrow limits, and cannot, therefore, regard the present communication as by any means exhaustive of the subject.

Examining the *post mortem* records of the Middlesex Hospital for the ten years 1875-85 (*vide Table*), I find thirty-eight cases of pulmonary gangrene which passed on to the stage of excavation, in cases where a more or less extensive sloughing of lung-tissue had taken place, with the formation of one or more cavities. I have excluded lobular suppuration and bronchiectasis from the category, except where the latter has led to a gangrenous condition. Of these thirty-eight cases:

14	were associated with acute croupous pneumonia.
6	" " chronic pneumonia.
2	" " bronchiectasis and chronic pleurisy.
3	" " pulmonary embolism.
1	" " pulmonary thrombosis. ¹
4	" " cancer of the tongue.
3	" " cancer of the œsophagus.
2	" " cancer at the root of the lung.
1	" " thoracic aneurysm.
1	" " cerebral hemiplegia.
1	" " suppurating bronchial glands and tuberculosis.

The relationship between gangrene of the lung and acute lobar pneumonia has hardly as yet received satisfactory explanation. Laennec considered that the surrounding inflammatory change was purely secondary; and there is no doubt much truth in this view as regards many cases. But there yet remain a fair proportion where there seems no room for questioning the fact that acute pneumonia has terminated in gangrene. Of the fourteen cases mentioned as associated with acute pneumonia, not more than eight could fairly be considered as directly dependent on the latter. In the rest, the limitation of the pneumonic areas, the distribution of the gangrenous foci, point to the hepatisation being secondary to the gangrene. As the same time, no adequate cause for the occurrence of the gangrene can be assigned.

That some cases of pneumonia occurring in debilitated subjects, or in those who are the victims of depraved nutrition, may eventuate in gangrene, cannot be denied. Thus, in six of these cases, there was an admitted history of alcoholic excess, three cases were complicated with granular kidney, and one occurred in a diabetic; but what is the precise determining factor of the gangrenous process in these cases, I am unable to say. One can, of course, assume that, in all these subjects, as in those where no underlying cachexia is present, there may be such an extension of the inflammatory process as to involve the nutrient vessels of the organ, presumably the bronchial arteries; but we have no actual demonstration of this fact, and I cannot help suspecting that in most, if not all such cases, there has been admitted into the lung some special irritant or septic material which has initiated the virulent type of gangrenous inflammation. The rarity with which gangrene occurs as a sequel of acute pneumonia, is well illustrated by the returns furnished last year to the Collective Investigation Committee of this Association. Out of the 1,065 cases so returned, gangrene resulted in only two, both being old subjects, and one a drunkard.

In a certain number of cases, however, the connection between pneumonia and gangrene is more evident. I refer to those cases of lobar inflammation which, instead of resolving, pass into a condition of induration, where the pulmonary tissue becomes converted into a dense more or less vascularised tissue; or portions and tracts of the inflamed lobe may remain so consolidated. Six of the cases from these records (Nos. 15 to 20) are associated with this condition of chronic pneumonia, and amongst them also there is the same liability to occurrence in the intemperate, and in subjects of chronic Bright's disease. One of the cases appeared to be strictly a syphilitic pneumonia, and another might equally find a place in a category shortly to be mentioned, namely, that of the entrance of foreign bodies into the lung. It was a case where a fish-bone had been taken into the lung some months previously, and had literally excited a traumatic pneumonia and gangrene!

¹ Pulmonary thrombosis occurred in other cases, but in only one could it be considered as in any way causally related to the gangrene! In most cases, the thrombosis was clearly secondary.

TABLE OF FATAL CASES OF GANGRENE OF THE LUNG (compiled from the *Post Mortem* Records of the Middlesex Hospital, 1875-85).

I.—Associated with Acute Pneumonia.

No.	Sex.	Age.	Date of Admission.	Date of Death.	Duration of Fatal Illness.	Seat of Gangrene.	Condition of Rest of Lung.	Associated Diseases.	Previous Health, Habits, etc.
1	M.	41	Feb. 11, 1875	Feb. 17, 1875	10 days	Right lower lobe	Grey hepatisation of whole right lung	None	A free drinker
2	M.	41	Oct. 27, 1875	Oct. 28, 1875	1 month	Right upper lobe	Hepatisation of right upper and lower lobe; lobular pneumonia of left lung posteriorly	—	—
3	M.	32	June 1, 1876	June 15, 1876	?	three cavities	Hepatisation around the cavities	Pulmonary thrombosis	—
4	M.	43	May 9, 1876	July 30, 1876	3 mths.	Left lower lobe	Hepatisation of whole of left lung; lobular pneumonia of right middle lobe	Small abscess in left upper lobe	A free drinker
5	M.	47	Dec. 16, 1876	Jan. 2, 1877	10 weeks	" "	Hepatisation around the gangrene	Empyema (left); granular kidneys	—
6	F.	26	Nov. 14, 1877	Nov. 18, 1877	2 "	Right upper lobe (upper two-thirds)	Hepatisation of rest of right upper lobe	Diabetes mellitus	—
7	M.	50	Dec. 17, 1877	Dec. 19, 1877	—	" " (posteriorly)	Hepatisation of lower half of right upper lobe	—	—
8	M.	34	April 9, 1877	April 19, 1877	4 weeks	" "	Hepatisation of right upper and lower, and of left lower lobes	—	—
9	M.	31	Feb. 27, 1878	Mar. 6, 1878	10 days	" " (apex)	Posterior and upper half of right upper lobe, solid	—	A free drinker
10	F.	47	Oct. 25, 1879	Nov. 4, 1879	3 weeks	Right lower lobe (posterior half)	Hepatisation of rest of lobe and part of upper	—	Rheumatic fever 8 years before
11	M.	42	May 10, 1880	May 16, 1880	?	Right upper lobe (lower and posterior part)	Hepatisation of rest of lobe and part of middle	Granular kidneys	A free drinker
12	M.	56	Jan. 25, 1883	Feb. 14, 1883	1 month	Right lower lobe (above and posteriorly; left upper lobe (near apex)	Hepatisation around gangrenous cavities	—	—
13	M.	33	May 23, 1883	June 9, 1883	—	Left lower lobe (great part)	Hepatisation of rest of lobes	—	—
14	M.	38	May 14, 1884	May 14, 1884	—	Right upper lobe (central)	Hepatisation around gangrene	Syphilis; granular kidneys	—

II.—Associated with Chronic (Lobar) Pneumonia.

15	M.	34	Aug. 3, 1875	Aug. 19, 1875	2 mths.	Right upper lobe (whole)	Bronchopneumonia (suppuration) of right lower lobe	Right pleuritic effusion; granular kidneys	A free drinker
16	M.	33	Oct. 27, 1875	Nov. 2, 1875	5 mths.	Right upper lobe (? phthisical vomica), also gangrenous abscess in right lower lobe perforating pleura	Basic empyema (right); caseous nodules in both lungs	—	—
17	M.	32	Jan. 29, 1878	April 4, 1878	—	Several foci in right upper and left lower lobes	Chronic induration of right lower lobe	Syphilis; necrosis of palate and sphenoid bones	—
18	M.	41	Oct. 23, 1878	Nov. 6, 1878	2 mths.	Right lower and contiguous part of upper lobe	Chronic induration of lower lobe and part of upper	Granular kidneys	A free drinker
19	M.	40	Dec. 30, 1878	Jan. 4, 1879	6 weeks	Left lower lobe	Red induration of rest of left lower lobe	—	—
20	M.	52	Nov. 6, 1884	Jan. 18, 1885	4 mths.	Right upper lobe	Chronic inflammation around	Pyopneumothorax following operation	—

III.—Associated with Bronchiectasis.

No.	Sex.	Age.	Date of Admission.	Date of Death.	Seat of Gangrene.	Condition of Rest of Lung.	Associated Morbid Conditions, etc.
21	M.	52	Dec. 30, 1874	Feb. 12, 1875	Right upper lobe	General bronchiectasis; chronic pleurisy	Recent pleurisy over right lower lobe.
22	M.	46	Feb. 11, 1884	May 8, 1884	Right upper lobe (three cavities) and right lower lobe (one cavity)	Hepatisation around gangrene; emphysema	—

IV.—Associated with Pulmonary Embolism and Thrombosis.

23	F.	33	Sept. 17, 1885	Sept. 25, 1875	Left lower lobe	Hepatisation of rest of lobe	Pleurisy (left); suppurating ovarian cysts.
24	F.	—	—	July 6, 1878	Right lower lobe (central)	—	Cancer of uterus.
25	M.	45	Nov. 16, 1881	Nov. 23, 1881	Right lower lobe	Hepatisation of right lower and part of upper lobe; also part of left lower lobe	Phthisical vomica at left apex; septicæmia following epididymitis.
26	M.	56	Aug. 24, 1878	Sept. 26, 1878	Right upper lobe	Hepatisation of lower half of right upper lobe	Pulmonary thrombosis; stricture of pyæus (persistent vomiting for six weeks).

V.—Associated with Cancer of Tongue and Esophagus.

27	M.	49	Feb. 18, 1878	Nov. 22, 1878	Left lower lobe and part of upper	Hepatisation of left lower lobe	Cancer of tongue and floor of mouth.
28	F.	43	Sept. 24, 1879	Sept. 29, 1879	Left lower lobe	No other change	Cancer of tongue.
29	M.	62	Feb. 10, 1881	Mar. 20, 1881	Right lower lobe (four large cavities)	Miliary nodules in left lower lobe	Cancer of tongue; thrombi in pulmonary artery.
30	M.	53	May 5, 1883	July 6, 1882	Right upper lobe (whole of)	No other change	Cancer of tongue.
31	M.	73	Jan. 31, 1876	Mar. 12, 1876	Right lower lobe	—	Cancer of esophagus, ulcerating into lung.
32	M.	44	—	May 13, 1878	Right upper lobe (large cavity)	Surrounding hepatisation; patches in lower lobe	Cancer of esophagus, compressing rt. bronchus.
33	M.	55	July 7, 1882	July 15, 1882	Right upper lobe (two cavities)	Gangrenous foci in lower lobe	Cancer of esophagus, ulcerating into lung; add

VI.—Associated with Cancer at Root of Lung.

34	M.	52	Jan. 12, 1877	May 24, 1877	Left lower lobe (large cavity) and diffuse gangrene of right lower lobe	Pulmonary thrombosis	Mediastinal cancer (secondary to intestine) invading lung, and ulcerating right bronchus.
35	M.	60	May 9, 1881	June 26, 1881	Right lower lobe (almost whole)	Cancer invading middle lobe	Obliteration of pulmonary artery; pyopneumothorax.

VII.—Associated with Thoracic Aneurysm.

36	M.	60	Jan. 20, 1875	Feb. 20, 1875	Right middle lobe	Hepatisation of part of upper and lower lobes	Aneurysm of ascending aorta adherent to root of lung.
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VIII.—Associated with Hemiplegia.

37	M.	53	Jan. 6, 1885	Mar. 17, 1885	Right lower lobe	Bronchopneumonia in left lower lobe	Empyema; cerebral hæmorrhage (Jan. 6th) and left hemiplegia.
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IX.—Associated with Bronchial "Phthisis" and Acute Tuberculosis.

38	F.	13	May 18, 1885	May 31, 1885	Right lower lobe (diffuse lobular)	Miliary tubercle	Tuberculosis of lungs, pleura, pericardium, peritoneum, and kidneys.
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Of these twenty cases in which there was more or less hepatisation or chronic induration of the rest of the gangrenous lobe, or of the remaining lobes of the lung, eighteen were males, a preponderance of one sex which has before been noted, but seldom in such a striking manner.

The seat of the gangrenous cavity or cavities was in the right upper lobe in no fewer than eleven cases; and there was no single instance of the left upper lobe being implicated. In three cases, the gangrene was in the right lower lobe, in four in the left lower lobe. In two cases, gangrenous foci were found in both lungs; namely, in the right lower lobe and left upper lobe in one, and in the converse lobes in the other.

The condition of the overlying pleura is important, especially in view of the practicability of puncture in such cases. The pleural sac was obliterated by firm adhesions over the affected lobe in six of the cases associated with acute pneumonia, and in all those in which the pneumonia had become chronic. But in one of the latter, the line of adhesion was not completely continuous with the limits of the gangrenous cavity; and the puncture which was made in this case resulted in a pyo-pneumothorax. In four of the acute cases, there was more or less abundant lymph in the pleura covering the affected lobe; and in two there was empyema, apart from any perforation of the pleura. Lastly, in two cases there was very slight, or hardly any, concomitant pleurisy.

Both these cases were very acute, and I may briefly mention them as undoubted examples of gangrene supervening on acute inflammation.

CASE I.—Caroline C. (No. 6 in Table), aged 26, married, childless, was admitted into the Middlesex Hospital under my care on August 21st, 1877, suffering from diabetes, the symptoms of which dated from six months previously. She was passing from 160 to 240 ounces of urine daily, of specific gravity 1040, and containing a large amount of sugar. Her condition improved under treatment and restricted diet, and the amount of sugar in the urine diminished, although it never disappeared. There were no pulmonary symptoms until her discharge on November 2nd. She had not been out of the hospital a week before she returned, complaining of cough and shortness of breath. The cough was accompanied by expectoration. She was re-admitted on November 14th, looking very ill. The cough had become very troublesome, especially in the morning. The sputa were of a brownish colour, nummular, and free from odour. There was impaired resonance in the left infraclavicular region, where the breath-sounds were harsh, and where occasionally metallic *râles* were audible with inspiration. There was also dulness in the scapular regions, especially the left, where also liquid metallic *râles* were audible; but there was no cavernous breathing. The temperature was 101.8°, and never rose above that level. On the 17th, she died, the only notable change being an increase in the number of *râles* at the left apex. The upper lobe of the left lung showed a loculated cavity, with discoloured sloughing walls occupying the upper two-thirds of the lobe, and bounded only by pleura, except below, where the tissue was hepatised. A cretified nodule occurred in the pleura covering the upper lobe of the right lung, which was extremely engorged.

CASE II.—John B. (No. 9), aged 31, was admitted, under the care of Dr. Greenhow, on February 27th, 1878. He was in domestic service, and drank freely of beer, and his only previous illness had been a mild attack of rheumatism three years before. He was admitted about the third day of his illness, which commenced with rigors. The physical signs pointed to pneumonia of the apex of the right lung, and the progress of the case was very severe. It was marked by delirium and high fever; the temperature on March 3rd reaching to 108°; pulse 156. Cold baths were given, and had to be repeated several times, but he died on March 6th. We found that the posterior part of the right upper lobe, over an area of the size of the palm, and reaching nearly to the apex, was in a state of gangrene, blackish and offensive; but there was no hepatisation in other parts. The spleen was soft, and the liver fatty.

In another class of cases, gangrene of the lung can be traced more clearly to blocking of the pulmonary vessels; but it is noteworthy that such local arrest of the circulation does not necessarily lead to gangrene, although it may often be productive of that form of necrosis known as the hæmorrhagic infarction. These infarcts, common in cardiac disease, do not, as a rule, break down by gangrenous softening, in spite of the access of air to their vicinity. The ultimate issue of pulmonary infarcts is mostly caseation and shrinking of the necrosed part.

The following two cases of gangrene are referable to such local arrest of the circulation, although, it must be admitted, it is not quite beyond the bounds of probability that the destruction may have been due to the entrance of foreign matter into the lung.

CASE III.—A man (No. 26), aged 56, worn out and emaciated with stricture of pylorus and secondary acute gastritis, died, after some weeks of persistent vomiting. In him, the lower half of the right upper lobe was found hepatised, and to contain a gangrenous cavity. A branch of the pulmonary artery going to this region was thrombosed. The thrombosis may have depended upon his enfeebled state, and have determined the supervention of gangrene. Yet, had he been less prostrated by disease, thrombosis alone could hardly have accounted for the gangrene. He was also the subject of granular kidney.

CASE IV.—The other case occurred recently, under my care. A man, aged 53, was admitted in a comatose condition, completely hemiplegic (left), following an attack of cerebral hæmorrhage. In spite of the extent and severity of the lesion—it was found eventually to have involved destruction of the greater part of the right centrum ovale and contiguous ganglia, but just stopping short of rupture into the lateral ventricle—the man survived for ten weeks. There was not the slightest return of power to the paralysed side, and secondary spinal degeneration had commenced before his death, which was due to gangrene of the lower lobe of the right lung. There was an empyema established in connection with the pulmonary condition, which, it may be noted, was on the non-paralysed half of the body. The case, therefore, cannot be quoted as an instance of interference or arrest of nutrition of the lung from damaged nerve-tracts; and, presumably, the gangrene was determined by enfeebled circulation. Yet, even here, it is by no means proved that the essential cause of the destruction of lung was not the inhalation of foul materials, or the accumulation of bronchial secretion. The presence of foci of broncho-pneumonia in the lower lobe of the opposite lung seem to favour one or other of these alternative hypotheses.

Although it cannot be admitted that the mere obliteration of branches of the pulmonary artery does, as a rule, suffice to produce pulmonary gangrene, the matter is different when the obstructing material is of septic nature. The ordinary metastatic pyæmic abscess is brought about by the virulent inflammation set up in the territory supplied by an artery plugged with a septic embolus, and containing, therefore, septic micro-organisms. But, in some cases, instead of an abscess, localised gangrene results, presumably from some more intensely acting virus than that which suffices to produce the ordinary pyæmic abscess. For example, in children, one cause of such embolic gangrene is caries of the temporal bone, and consecutive thrombosis of the lateral sinus. Frequently, such cases fall under the ordinary category of pyæmia; but, occasionally, the issue is gangrene of the lung. Such was the case shortly to be mentioned, where the gangrenous "abscess" was successfully incised (Cayley and Gould). Kolts gives details of a similar case, and says that it is comparatively common for pulmonary gangrene to ensue on carious otorrhæa (Gerhardt's *Handbuch der Kinderkrankheiten*, vol. iii, p. 837). Although the commonly received notion is, that the condition of the lung is brought about through embolism, the same writer quotes Volkmann's opinion that the gangrene is due to direct inhalation of putrid pus escaping from the ear to the air-passage by way of the Eustachian tube. Among the series of cases I am analysing, I find three which are distinctly referable to septic embolism.

One (No. 23) was the case of a young woman under the care of the late Dr. Hall Davis for suppurating ovarian cysts. She died with pneumonia of the lower lobe of the left lung, which had passed into a condition of diffuse gangrene. In spite of the absence of a circumscribed character, it is difficult to admit that there was not a direct connection between the ovarian disease and the pulmonary; a connection which one must ascribe to metastasis—in other words, embolism. Another case (No. 24) was one of circumscribed gangrene in the midst of pneumonic consolidation of the lower lobe of the left lung, associated with cancer of the uterus. The third (No. 25) is the most striking. A man, 45 years old, was attacked with gonorrhœal epididymitis. The sudden subsidence of this inflammation was followed by symptoms of pneumonia; and, on the patient's death nine days afterwards, a wedge-shaped gangrenous cavity was found to occupy the posterior part of the lower lobe of the right lung, the whole of which lobe, together with the lower third of the upper lobe, was consolidated. There was also commencing pericarditis, and the spleen was large and soft; whilst a few drops of pus were lodged in the epididymis. No other interpretation of such a case is possible than that of septic absorption, which produced a true metastatic septic pneumonia and gangrene.

When we have excluded from the list all those cases of pulmonary gangrene which may fairly be attributed to antecedent pneumonia, to thrombosis or septic embolism, we have by no means exhausted the whole etiological category; for, although we are practically reduced to cases where putrescent material gains direct entrance into the lung by

inhalation, we find that this may be brought about under a great variety of circumstances. Indeed, I am not sure but that a closer scrutiny of many a case of so-called pneumonic gangrene may show it to be owing to the entrance into the lung by inhalation of putrefactive germs; and that, as I have before stated, there may be more truth than we are inclined to admit in Laennec's original view of the relation between the gangrenous focus and the concomitant pneumonia.²

The putrefactive material so inhaled may be found in (1) retained bronchial secretion, (2) morbid extrapulmonary products, and (3) foreign matter introduced from without. Without attempting to exhaust the lists, I may briefly cite a few instances of each of these.

1. The retention and decomposition of purulent secretion is best exemplified in cases of bronchiectasis; and in some cases, clinically, the symptoms of gangrene, including the penetrating and offensive odour, are simulated, without gangrene having actually occurred. Sometimes, however, this is the final outcome of bronchial dilatation. In one case (No. 21), a man aged 52, there was a gangrenous cavity at the apex of the right lung; the parenchyma was tough and fibrous, firmly adherent to the chest-wall, and pervaded by bronchiectases. In another case (No. 22), the subject was a man aged 46, with general bronchiectasis and marked emphysema. There were no fewer than four gangrenous cavities in the left lung, one in the upper lobe, of the size of a Tangerine orange, with two smaller ones contiguous to it; whilst at the upper and posterior part of the lower lobe there was a wedge-shaped area in process of gangrene. From the position and character of these several foci, there could be little doubt as to their origin. Each of them was surrounded by a zone of secondary pneumonic consolidation. The "destructive pneumonia" that ensues upon compression of the root of the lung, seen in its best marked forms in cases of aneurysm of the thoracic aorta, is of a similar nature. As the late Dr. Pearson Irvine demonstrated before the Pathological Society, the changes commence in an emphysematous condition, and result in bronchial dilatation, in retention of secretion, and its putrefaction, and finally in the disintegration of the lung at several points corresponding to the bronchial ramifications. These changes are strictly related to the initial compression of the bronchus itself, and cannot be attributed to nutritional disorder from involvement of nerve-plexuses in the compression; for they are also produced by the occlusion of bronchi from other causes—for example, invasion by cancer. No. 34 in the Table is the case of a man aged 52, who died with a right pyo-pneumothorax. This was found to be due to a pulmonary fistula in the right lower lobe, which was riddled with cavities, the main bronchus being invaded by malignant growth arising in the mediastinal glands. The lower lobe of the opposite lung was almost wholly converted into a gangrenous cavity, which had probably a similar origin. The case was the more remarkable, in that the thoracic glands were infected secondarily to intestinal cancer, which, in the above indirect manner, had resulted in pyopneumothorax. Again, a man aged 60 (No. 35), who died with a fetid empyema at the right base, presented almost entire gangrenous destruction of the lower lobe of the lung on this side. In this case, a cause for the gangrene existed in the presence of mediastinal cancer, which had penetrated the root of the lung and occluded the bronchi. It should be added that in each of these cases the pulmonary artery was also compressed and occluded; so that two factors favouring the tissue-disorganisation existed.

2. There is a large group of cases where the exciting cause of the pulmonary gangrene is the inhalation of putrid discharges from sloughing surfaces. Especially is this to be seen in cases of malignant ulceration about the mouth, pharynx, or air-passages. Surgeons are only too well aware of the comparative frequency with which cases of so-called "septic pneumonia" ensue upon cancer of the tongue. This is mostly a broncho-pneumonia excited by the inhalation of the purulent and sometimes putrid discharges, and it often leads to the suppuration of the pneumonic areas. Occasionally, the lung-disintegration is more widely spread, forming large gangrenous cavities. I have notes of four such cases. In one (No. 27) there was a sloughy cavity of the size of the fist, seated immediately beneath the pleura, at the back of the lung, partly in the lower and partly in the upper lobe. The rest of the lower lobe was consolidated with reddish-grey hepatisation. In another case (No. 28) there was a gangrenous cavity of the size of a hen's egg, at the base of the left lower lobe. It had set up an empyema. In a third case (No. 29) four similar cavities existed in the posterior and lower part of the right lower lobe, and there was incipient gangrene of the middle lobe. There were thrombi in the branches of the pul-

² At the present time, when evidence is accumulating in favour of acute lobar pneumonia being due to the presence of a specific microbe (Friedlander's *Pneumococcus*) there is less ground for opposing the doctrine above stated. Nevertheless, I should not be prepared to admit that every case of pulmonary gangrene can be explained in this way.

monary artery supplying these regions, but the existence of cancerous ulceration at the base of the tongue sufficed to explain the occurrence of the gangrene, to which the thrombosis was obviously secondary. Some fine softening granulations, resembling miliary tubercle, were scattered in the upper part of the lower lobe of the left lung. From their situation and limited distribution, they were probably caused by cancerous infection; especially as no tubercle was found elsewhere in the body. The fourth case (No. 30) was one in which the right half of the tongue had been destroyed by cancer, and the upper lobe of the right lung was completely excavated into a gangrenous sac.

Another and similar cause of pulmonary gangrene is ulceration into the trachea or bronchus of cancer of the oesophagus. In one case (No. 31) an old man presented no lung-symptoms during life, but it was found that the malignant ulceration which involved the lower third of the gullet had destroyed its walls at one part and penetrated the lower lobe of the right lung, which was in a state of gangrene. In another case (No. 32) the cancerous disease was seated in the middle third of the oesophagus, and had invaded the right bronchus, with the result that the lower third of that upper lobe was replaced by a gangrenous cavity surrounded by consolidated tissue, patches of lobular pneumonia occurring in the other lobes of the lung. A third case (No. 33) was similar, except that, instead of a single cavity, there were several gangrenous foci in the upper and lower lobes of the lung, those in the former communicating with the ulcerated bronchus.

Finally, there are cases of the class illustrated by the one detailed at the commencement of the paper. In that case, the source of the putrefaction material was an abscess arising in a tuberculous bronchial gland, the contents of which abscess had become putrescent, probably from the communication established with the external air. That case was further remarkable for the diffused and lobular distribution of the gangrene, due probably to the products being inhaled into the bronchi, already dilated by the chronic pressure exerted on the main bronchus by the caseous gland.

3. The result of the accidental inhalation of a foreign body into the lung is, frequently, ulceration of the bronchus in which it becomes impacted, and finally gangrene of the portion of lung supplied by that bronchus. Undoubtedly, the nature of the foreign body materially affects the issue, which will be hastened if there be introduced at the same time some putrefactive products, or if the body be of a jagged and uneven form, so as to inflict extensive injury on the bronchial mucous membrane. In either case the ultimate event is gangrene, due in the main to the action of putrescent material. It often happens that a considerable interval of time elapses after the first and urgent symptoms due to the impaction of the substance have passed away, and the patient remains in a condition of comparative comfort. For this reason, the real cause of the gangrene that eventually supervenes may be overlooked by the patient, who has almost forgotten the circumstance, or, at any rate, does not deem it of sufficient importance to communicate to the medical man. In such a case, one is liable to regard the pneumonia that is associated with the gangrene as the primary cause of the latter. One of the cases included in the Table was of this class (No. 20). The patient, a month or two before his admission into hospital, under the care of Dr. Cayley, with symptoms of gangrene of the lung, had, when eating a fish-dinner at the Health Exhibition, been nearly choked by a fish-bone. A condition of chronic pneumonia was set up, with gangrene of the posterior part of the upper lobe of the right lung. A more fortunate result attended a case under my care eighteen months ago, which I quote as a good illustration of the manner in which the real cause of such destructive lung-disease may be overlooked.

CASE v.—William C., aged 17, a sugar boiler, an occupation necessitating much exposure to changes of temperature, was admitted into the Middlesex Hospital on November 19th, 1883, with symptoms of chest-disease. He said that for three weeks past he had been suffering from loss of appetite, some sickness, profuse sweating, and a cough at night, and he attributed his illness to having caught cold by being wet through. There was no history of any family tendency to phthisis, and he had hitherto enjoyed good health, except that he had had rheumatic fever in childhood. During the present illness he had lost flesh, and had kept to his bed as much as possible. His aspect was depressed, and he complained of feeling very weak, and of a pain in the right side. The temperature was 102.6°, pulse 80, respiration 28. There was slight working of the *ale nasi*. The right side did not expand on inspiration; the vocal fremitus was abolished over the lower half of the right back, and in the lower third of the axilla, where the percussion note was dull. There were feeble breathing, and diminished vocal resonance over the same area. A grating systolic murmur was audible at the cardiac apex. The diagnosis was pleurisy over the lower lobe of the right lung, especially involving the dia-

phragm, and the appearance of pleuritic friction the following day confirmed this idea.

In the course of two days the pyrexia abated, and the pain was much relieved, but not entirely absent. He continued to have a cough, occasionally severe and paroxysmal, and to remain depressed. On November 27th the friction was still audible, and he still had occasional attacks of catching pain with cough; but, as in other respects he improved somewhat, he was allowed to leave the hospital on December 7th. He returned, however, on February 12th, 1884, stating that, two weeks before, he had "renewed his cold," and that, in consequence, his previous symptoms had returned in an aggravated form. He now had high fever, much sweating, and a paroxysmal cough, accompanied by offensive expectoration. Temperature, 102.8°.

On examination, there were immobility of the right side of the chest; dulness over the lower half, that is, from the level of the fifth rib at the nipple-line, in the front, axilla, and back; diminished vocal fremitus and breath-sound. There were coarse moist subcrepitant *râles* at the posterior base, and some clicking *râles* at the right apex. It was surmised that he was the subject of severe chronic pneumonia and bronchiectasis of the right lower lobe, the result of pleurisy; and the apical *râles* suggested the formation of tubercle. For ten days his state continued with but little variation, when, on February 22nd, he coughed up a cubic piece of bone, about half an inch in diameter, an event which altered the whole complexion of the case, and led to further inquiries. He then recalled the following circumstance. About a fortnight before he was first admitted (in November), when suffering from a "cold," but not at that time having any cough, he was taking some soup, which contained portions of meat and bone. He inadvertently swallowed a piece of bone, which nearly "choked" him, exciting severe coughing and distress for about a quarter of an hour. The bone was not coughed up, although the breathing became easy; it seemed as if the bone had "slipped further down," and for some days he thought he felt it in the chest, from pain referred to the mid-sternum. It was a week later that he first experienced the pleuritic stitch, and shortly afterwards sought admission. From the time that the portion of bone was expectorated the lad rapidly improved; the sweatings ceased, and soon the expectoration also, first losing its fetid character. Distinct evidence of a cavity in amphoric breath-sound and bronchophony appeared immediately after the event; but gradually these signs diminished, there remaining, however, dulness over the lower lobe of the lung, and permanent diminution in its expansibility. He was discharged convalescent on April 3rd.

There are many such cases on record, and in some the symptoms have been mistaken for those of phthisis, until recovery has occurred from the spontaneous evacuation of the offending body, or death has ensued from the severity of the lung-disorganisation. The substance inhaled and impacted may have been a fruit-stone, a piece of bone, a tooth, a button, a portion of pencil, a head of grass, and, indeed, the catalogue could be almost indefinitely extended. A memorable instance is a case recorded by Dr. Magrath (*Lancet*, 1880), where a head of grass was inhaled into the right bronchus, and where eventually death ensued (twelve weeks after the accident), with gangrene of the right lower lobe, and caries of the spine, due to the penetration of an abscess through the diaphragm. Similarly, food-particles, or vomited matter, may be inhaled, setting up broncho-pneumonia, which may become suppurative and gangrenous if the material taken in undergo, as it often does, putrefaction, or if it be originally in a putrescent state. This form of broncho-pneumonia is one of the dangers of fecal vomiting, and the liability to its occurrence forms an argument in favour of the washing out of the stomach in cases of intestinal obstruction, and in pyloric stricture. No doubt, also, the alleged frequency of gangrenous pneumonia in lunatics, and in people who have been immersed in water, may be explained by the entrance into the lungs, of food in the one case, and suspended organic matter in the other.

In view of the great preponderance of fatal cases of this disease, the question naturally arises, whether any good results can be expected from a more direct method of treatment than that usually followed. That a small minority of cases of pulmonary gangrene recover under a strictly expectant line of treatment may be granted, for such a favourable issue is known to all. The treatment is directed to diminish or arrest the putrefactive changes, by means of antiseptic inhalations, first employed, I believe, by Skoda; and to support the patient's vitality by means of the free administration of restoratives and stimulants, in the hope that the slough will become detached and evacuated before his strength is exhausted. During this time, the patient is exposed not only to the dangers of septicæmia, but to the chance that secondary septic broncho-pneumonia will be set up by the inhalation of the sloughing products into the unaffected portion of lung, or into the

opposite lung. It frequently happens that this latter source of danger is added to the already present one of the gangrene, as *post mortem* examination proves. If, then, by surgical intervention, a gangrenous cavity can be safely drained, not only will there be relief given from the very intense bronchial irritation that is so marked a feature of these cases, due to the passage over the mucous membrane of the foul products of the gangrenous cavity, but the graver risks above stated will be obviated. It is plain, then, that such relief is desirable. Whether it be practicable is another question, to be decided only by experience. Already we possess a certain amount of such experience, which I will briefly summarise.

The first recorded case of incision of the lung for the purpose of evacuating a gangrenous cavity is that read before the Clinical Society by Dr. Cayley, in March, 1879 (*Clinical Society's Transactions*, vol. xii, p. 136). The patient, a man 40 years of age (Case No. 19 in appended Table), was temperate, and of good health up to a year previously, when he began to lose flesh. For five weeks, he had suffered from a cough, with expectoration, which shortly became fetid; and, on admission, he had the aspect of one in the last stage of phthisis. Physical examination revealed evidence of consolidation of the left lower lobe, but the distinctive signs of a cavity were wanting. The character and amount of the sputa, however, pointed to the existence of a cavity; and the patient's very critical state, coupled with the distressing frequent cough and horribly fetid expectoration, determined Dr. Cayley to have the lung incised. Mr. Lawson made an exploratory puncture through the ninth interspace in the line of the angle of the scapula, and withdrew some gangrenous pus. A free incision was then made in the same direction, until a cavity was reached; about five or six ounces of highly fetid pus and shreds of gangrenous tissue escaped, and a drainage-tube was inserted. Although the patient ceased to expectorate, and experienced much relief from this bold measure, he died exhausted at the end of six days. The affected lobe was found to be in a condition of chronic pneumonia (red induration), with a large irregular gangrenous cavity seated at a depth of an inch and a half from the surface of the lung. The advanced state of the disease, and the extent of the cavity, were sufficient to exclude any hope that the treatment could have succeeded.

In the following year (1880), Dr. Solomon C. Smith, of Halifax, recorded a case of gangrene of the lung treated by incision (*Lancet*, 1880, vol. i, p. 86). The patient was 60 years of age, and had been attacked with acute pneumonia on the right side, two weeks before the occasion of his suddenly expectorating a large quantity of fetid fluid, followed by a state of collapse. Six days later, the signs of a cavity became manifest, and it was resolved to attempt its evacuation. An aspirator-needle was first inserted into the cavity near the angle of the scapula, and the opening enlarged by means of the knife and dressing-forceps, the cannula being used as a director. A drainage-tube was finally inserted. Much highly offensive discharge escaped from the opening, and great relief was given by the consequent diminution of the expectoration. The patient died nine days after the operation. No *post mortem* examination was obtained. Dr. Smith appends some instructive comments to the record, and concludes "that, although many observations are required before the indications for the operation of incision in gangrene of the lung can be definitely laid down, it is probable that the following will be found a fair tentative proposition: That when (1) the opening through the bronchi seems to be inefficient as an exit for the fluid, or the passage of the gangrenous ichor seems to be setting up irritation in the bronchial mucous membrane; (2) the patient appearing to sink rather than to rally; and (3) auscultatory evidence of a cavity can be heard, an incision with a view to drainage is justifiable."

At the German Medical Congress, held at Wiesbaden in 1883, a discussion on pulmonary surgery was opened by Dr. Mosler, who is one of the pioneers in this direction. He advocates making the puncture with the thermo-cautery for the evacuation of impacted foreign bodies which have led to abscess or gangrene. When a student at Giessen, he saw a case in Wernher's clinic of a man who was attacked with a cough after swallowing a tooth. He had pain in the right side of the chest; there was dulness over the right lower lobe; there were frequent rigors, fetid expectoration, dyspnoea, high fever, sweating, and diarrhoea. On the twenty-third day of his symptoms, and only twenty-four hours before death, the offending tooth was expectorated; and it was found, *post mortem*, to have caused ulceration of the right bronchus, putrid bronchitis, and gangrenous abscess. Mosler says that the idea of surgical interference was not then entertained; but if a similar case were to occur to him now he would resort to it. He would even in acute gangrene endeavour to remove, by scraping, all the sloughing tissue. He relates a case of incision of the lung in gangrene of the upper lobe complicating bronchiectasis. The incision was made

in the third interspace, a portion of rib being excised, and the thickened pleura penetrated by Paquelin's cautery. A quantity of offensive fluid escaped from the cavity, which he was able to explore digitally, and from the walls of which he detached shreds of gangrenous tissue. On probing, he found that this cavity led into another seated in the posterior part of the lobe; and this also was laid open by an incision in the back, below the angle of the scapula. A stout drainage-tube was passed right through the lung, between the two incisions, and acted as a most effective drain. But the patient was carried off by laryngitis and bronchitis, attributed by Dr. Mosler to the irritant action of the salicylic acid used to irrigate the cavities. The boldness of the operation, and the completeness with which it had been effected, add to the regret at the result. Mosler says that Edward Bull, of Christiania, has cured a gangrenous cavity by operation; but I have not been able to find the record.

A thoroughly successful case of drainage of a gangrenous cavity was discussed at the Royal Medical and Chirurgical Society last year. This was a child twelve years of age, under Dr. Cayley's care at the Middlesex Hospital, who was attacked with pulmonary abscess following caries of the temporal bone, due to scarlet fever. Mr. Gould had previously trephined the mastoid process with relief, when signs of pleurisy, and then of localised gangrene, at the base of the right lung, occurred; namely, hectic flush, fetid expectoration, absolute dullness to the level of the angle of the scapula, bronchial breathing and coarse, almost bubbling crepitation. The child passed into a very critical condition, and it was determined to attempt the evacuation of the gangrenous abscess. Mr. Gould performed the operation, first introducing an aspiratory trocar and cannula through the eighth interspace, about an inch external to the angle of the rib, in a direction upwards and inwards. On withdrawing the trocar, a few drops of fetid pus escaped, and air passed in and out with the respiratory movements. A large trocar and cannula were then introduced close to and parallel with the first, which was then withdrawn. No pus or air escaped on removing the trocar, showing that the cavity had not been entered. A drainage-tube was introduced through the cannula, which was then withdrawn. During the next forty-eight hours fetid pus and some shreds of lung tissue escaped; all expectoration ceased, and the child made an excellent recovery, some slight retraction of the chest-wall taking place. (*Medico-Chirurgical Transactions*, vol. lxvii, p. 269.)

In the debate which followed on the reading of this paper, Mr. Godlee mentioned a case under the care of Dr. Bastian, at University College Hospital, where he had opened a small pulmonary cavity attributed to disintegration of a pneumonia; and Dr. Kingston Fowler gave full details of a case in which excavation of the right lower lobe followed the accidental entrance of a molar tooth which had been extracted by the elevator. The cavity was successfully dealt with by Mr. Marshall, but the tooth was not discharged. The operation gave great relief.

That pulmonary cavities may be laid open and drained, without, in many cases, incurring much risk, has been amply demonstrated of late years. Most of the operations have been of a palliative rather than a curative character, dealing with basic bronchiectatic cavities or phthisical vomices. Of such, I do not desire now to speak. The operation of tapping a chronic pulmonary cavity is simplified by the almost invariable circumstance of a thickened and adherent pleura; and if the physician can be sure of his diagnosis of the presence of a cavity, the surgeon has few difficulties to encounter in reaching it. It is, however, in cases of pulmonary gangrene that we should look for more permanent and satisfactory results of such operative interference, were it not that it is precisely in these cases that most difficulties are present. It is impossible to determine by the prevailing methods of physical examination the extent or depth of a gangrenous focus, or even whether it has reached the stage of excavation, that is, of demarcation and detachment of the slough, or to be certain that one is dealing with a small circumscribed area of gangrene rather than a diffuse necrosis, limited only by the natural boundaries of the implicated lobe. Nor can we determine the very important question of the presence or absence of pleural adhesions. The case with which this paper opened bears out these discouraging reflections. In another case (No. 20) the diagnosis of the seat of a circumscribed gangrenous cavity was correct, but the introduction of the trocar was followed by pneumothorax. After death, it was found that the artificial opening had been made into the lung just along the line where the pleural layers ceased to be adherent. Had the opening been half-an-inch higher, it would have escaped the pleural sac. The absence of adhesions is, *ceteris paribus*, more probable in the case of acute than in that of chronic gangrene; but the risk of inducing pyopneumothorax must be balanced against the almost inevitably fatal issue of the case if not treated surgically. Should the

pleura be opened, the case would have to be dealt with as one of *fatid empyema*, and measures be taken to drain the pleural sac. At the same time, in acute cases one would be guided rather by the general condition of the patient, before advising operation, knowing that recovery under expectant treatment sometimes occurs. Where gangrene of the lung complicates malignant disease, or thoracic aneurysm, it is futile to think of surgical measures. But in chronic cases, not so complicated, not only are pleural adhesions probably present, but the sloughing mass is likely to be circumscribed. It is in such cases, and especially in those where the gangrenous process has been set up by the presence of a foreign body in the bronchus, that one may look for the most satisfactory results; when indeed, a recourse to surgical interference appears to be not only justified, but to be the only rational line of treatment. At present, the subject is too novel to allow any definite rules to be formulated; but enough facts have already been gathered to point to a line of successful treatment of one of the most distressing, and, hitherto, one of the most hopeless of diseases.

[Since the above was written, my attention has been drawn to a full abstract of Dr. Bull's paper, which appeared in the *London Medical Record* (1882, pp. 90 and 91), the original occurring in the *Nordiskt Medicin. Arkiv*, Band xlii, Haft 3. In that paper, Dr. Bull discussed the whole subject of pulmonary surgery, and gave details of two cases, one of circumscribed gangrene, successfully treated by incision, the other of pulmonary abscess following pneumonia, which caused death by rupturing into the bronchi. The former is evidently the case alluded to by Dr. Mosler.

The patient was a female servant, aged 23, who suffered from putrid bronchitis in November, 1880, and shortly after presented rigors of consolidation of the anterior part of the left upper lobe. She was admitted into hospital on December 30th, and on January 2nd, 1881. Some limited tenderness appeared in the fourth intercostal space outside the left nipple. Pleural effusion followed, and, on its subsidence, signs of a gangrenous cavity developed in the region of the tenderness. A puncture at this place gave exit to sanguineo-purulent offensive fluid, whilst a puncture below the angle of the scapula yielded clear serum, probably from the pleura. It was surmised that adhesions separated the gangrenous area from the pleuritic effusion. The region of the anterior puncture became inflamed, with much oedema of the chest-wall and neck. An abscess in the chest-wall resulted, and was laid open over the fourth, and part of the third and fifth interspace. An incision was made into the lung at this spot, the cavity washed out with carbolic solution, and a drainage-tube inserted. Some hæmoptysis occurred the same evening; but the condition improved, the sputa diminished, becoming inodorous. Although the hæmoptysis recurred with pyrexia, and signs of infiltration of the posterior part of the lung, the patient was convalescent by the middle of February. Dr. Bull advocates operative interference in all cases of lung-cavity under certain circumstances, and thinks it especially indicated in the case of limited gangrenous foci and pulmonary abscess. He admits the difficulty of determining the presence of adhesions, which, in acute cases, are probably absent; but even in the latter case the chest may be opened, and the case treated as an empyema.³

Dr. BYROM BRAMWELL (Edinburgh) said that he had met with quite an unusual number of cases of gangrene of the lung during the past twelve months. Most of these cases had been associated with acute croupous pneumonia—which disease, as, indeed, other septic conditions, such as ulcerative endocarditis, had been unusually prevalent in Edinburgh; but, in two or three cases, there was no evidence of previous lung-disease. In some cases of this kind, Dr. Bramwell had been much impressed with the probability that the gangrene was directly communicated from person to person. Attempts at cultivation had failed, as would, *a priori*, have been expected in such a condition as this, in which a putrefactive cavity communicated with the external atmosphere.

³ See also a case recorded by Dr. Drinkwater (*London Medical Record*, 1884, p. 191). In this case, physical signs of a large cavity remained about two years after date of operation.

THE YELLOW SPOT.—Dr. Maher, of Sydney, in the *Australasian Medical Gazette*, suggests a more easy, and, in some other respects, a more satisfactory method of demonstrating one's own yellow spot, and the shadows of the fine retinal vessels surrounding the fovea centralis, than the widely known one of Purkiner. It consists in holding a strong lens about its own focal distance from the eye, while regarding a strong light in a darkened room. The lens is then moved shortly and rapidly, either backwards and forwards, or laterally. The fovea centralis appears as a light yellow patch, studded with dark granules. The vessels appear as dark cords against the yellow light.

A NEW METHOD OF TREATING TINEA TONSURANS.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By A. J. HARRISON, M.B.Lond.,

Physician to the Bristol General Hospital; Lecturer on Forensic Medicine at the Bristol Medical School.

For years I have been dissatisfied with the treatment of tinea tonsurans, but in this respect I am by no means solitary. The very long list of remedies which have been proposed from time to time, and used, I suppose, is a good proof of the dissatisfaction. One may formulate efficacy of treatment, by stating that the efficiency of treatment of any complaint is in an inverse ratio to the number of remedies propounded. Judged by this standard, the cure of tinea tonsurans is not easily attained.

A few years ago, I was asked to take charge more especially of the skin-department of our General Hospital at Bristol, and cases of tinea came very frequently under my care. I used to think over the various plans of treatment, and felt that all that could be said of them was, that they were very imperfect and unsatisfactory. Reflection brought me to the conclusion that the difficulty of treatment was a purely physical one; namely, the almost seeming impossibility of bringing any active parasiticide into contact with the tinea fungus—the epiphyton or trichophyton tonsurans, whose conidia revel and run rampant in the secure nidus of the hair and hair-bulbs—a soil so congenial that it seems to be in some cases ever fertile and fertilising.

Keeping this point in view, I made a large number of experiments with a variety of drugs—some of them so-called remedies—upon hairs, chiefly human and equine. I will not burden this meeting, nor waste precious time, by going into details; but I may mention that I steeped hairs in acetic acid and water, in spirits of turpentine, in chloroform, in sulphocarbonate of soda, bisulphide of carbon, glycerine of carbolic acid, solution of iodide of potassium, etc., keeping the hairs in the liquids for weeks and weeks—some of them for months—but they underwent no important change.

Knowing that hairs and most chitinous matters are acted upon by the caustic alkalies, I next tried these, and, of course, speedily ascertained that hairs were freely soluble in them. I have complete solutions of hairs in liquor potassæ and liquor sodæ. But these alkalies, although they will dissolve the hairs, are not competent to destroy the activity of the conidia of the ringworm-fungus; and the next step was to make the potash-solution (I took this for preference) convey a conidia-destroying agent.

I made another series of experiments on hairs, and also upon the common mould or fungus—the penicillium. I cultivated the fungus on damp corks, and then treated these corks with various applications. Wiping away a portion of the propagated fungus very carefully, and taking sketches of the denuded portions and the remaining fungus-covered parts, I applied to the denuded surfaces the following solutions: to some, liquor potassæ; to others, liquor potassæ containing some iodide of potassium; to others, glycerine of carbolic acid; to others, solution of bichloride of mercury; and to the remaining corks two solutions, the first containing liquor potassæ and iodide of potassium, and then a second solution containing perchloride of mercury dissolved in spirits of nitric ether. The important outcome of these experiments was this: namely, that, where the last two solutions had been applied, no fungus-growth occurred again on the surface of the corks, even when months had elapsed; the soil, in short, had become uncongential.

I next made experiments upon pieces of soft wood, and upon hairs pressed firmly between two pieces of leather, to ascertain the penetrating powers of different solutions; or rather, I was working this out alongside with the last mentioned series of experiments—for to be effective, remedies must, according to my theory, reach the roots of the hair. I came to the conclusion that with liquor potassæ containing iodide of potassium in solution, and then afterwards applying mercuric chloride dissolved in spirits of nitre, I obtained the best results. I used spirits of nitre, because this forms a very thin and mobile liquid. These results seemed to show that the most powerful combination of remedies was first of all the application of liquor potassæ containing in every ounce half a drachm of iodide of potassium; and, secondly, a vitification of perchloride of mercury in spirits of sweet nitre, in the proportions, in the hope thus to an ounce.

before his strength is on the human subject, first of all, in cases of posed not only to the in mild head-cases, and I found these very secondary septic broncho-p. This success proved very little. I was of the sloughing products into those chronic cases of tinea tonsurans

which at the first sight do not look perhaps very bad. There seems to be no great amount of inflammation of the scalp, but the hair is short and broken in places, almost wanting in others, and what hair there is looks rough, uneven, and unhealthy; the scalp itself is roughened and somewhat scaly here and there; but otherwise, to a non-professional eye, the head does not look really very bad—not nearly so bad as a case of moderately severe eczema.

Examine some of the short hairs under the microscope, and you have no difficulty in finding the conidia in abundance, splitting up, twisting, and bursting the hair-fibres. These are the cases which, in my experience, are tests of patience and perseverance, if you are to cure them; and these cases, I am sorry to say, are not unfrequently found in our national and board-schools—nay, even in our public and private schools—and pass often for scurfy heads, or mild cases of alopecia arising from debility and ill-health. These cases often go on uncured for years, the fungus finding an ever-fertile soil; and I suppose this long-continuing fertility accounts, in some measure, for the difficulty of curing them, as most fungi wear out the soil, and then die out.

CASE I.—On the 28th of March last year (1884) I admitted such a case (A. C.) into the hospital, and commenced the treatment at once. She was naturally a healthy child, nine years old, rather pale, with clear complexion, and brownish-black hair. Nearly the whole of the head was affected; but here and there she had fairly good masses of hair. These latter, at first, were not cut much shorter. For the first few days No. 1 solution, containing iodide of potassium in liquor potassæ, was applied. Pledgets of lint were dipped in the solution and applied to the head, about one-third of the head being operated upon at a time. I may here remark that, by applying this solution carefully, I very seldom find the potash-solution irritate much. If it do, as has happened, a weaker mixture can be tried. Then No. 2 solution, containing three grains of mercuric chloride in each ounce of spirits of nitre, was used; and so on, until the whole of the head had been operated upon several times with the two solutions. The scalp and the lower parts of the hair were turned of a yellowish tinge. At the end of a week, hairs were examined microscopically.

April 8th.—Conidia were found in abundance. Glycerine of carbolic acid was applied to the parts not being immediately operated upon, and as the child was looking paler than when she came in, most likely from the confinement in hospital, she was ordered to take some syrup of the phosphate of iron. The hair was now cut shorter, nearly close to the head, and this plan I now always adopt. I do not care about shaving the head, as I consider that a little hair is beneficial in allowing the solutions better scope for their action and re-action to take place. The treatment, such as I have indicated, with the two solutions, was now persevered with; the conidia became more difficult to detect microscopically, and on May 17th, 1884, or fifty days after admission, she was discharged, apparently cured. She continued to attend as an out-patient for a long time, and I could never find any conidia. The hair grew naturally again, and everything looked well; but towards the end of September the hair began to come off in bald patches, especially at the back of the head, but no evidence of fungus existed. Stimulating applications soon put this all right. I have noticed this falling off of the hair in many cases of tinea, and I do not associate it with my or any treatment. The complaint must weaken the hair-bulbs; and the great point is, not to permit the hair to grow long for some considerable time—use the scissors frequently. From time to time I have seen her. My last note is that on June 30th last “her head showed a luxuriant growth of hair, which was as healthy-looking as possible.”

CASE II.—On April 24th, 1884, W. D., aged 11, was brought to my house suffering from extensive ringworm of the scalp. She had been under active treatment for a long time, but still the complaint had not yielded. The hairs, as in the last case were full of conidia; in short, the case was very similar. As the hair was fairly short, I applied No. 1 solution at once to the head; and, after a few minutes, No. 2 solution to the same part. This mode I adopted merely to instruct the aunt of the child, and ordered the glycerine of carbolic acid to be rubbed into the hair on the other parts generally, to prevent, as far as possible, any lateral extension from a diseased patch, which occurs most frequently unquestionably from surface-contiguity. The treatment was continued for two months, and she then went away into South Wales, near Swansea, for change of air; and, when next I saw her, on July 16th, the hair, though kept short by my advice, was healthy-looking, and free from conidia.

I might easily multiply cases, but there is no object in doing this. I may be allowed to allude to another series of cases for a moment. These occurred in three members of one family—three girls—all fair complexion and reddish hair, their ages being 2, 3½, and 7 years

respectively; and they had been affected three, two, and one months, in the same order, the head alone showing the disease in the first—a rather severe case—the neck and head in the second, and the third showing a slight patch or two on the head. An active and intelligent clinical clerk of mine (Mr. J. Webb) took the cases in hand, and speedily cured them.

To summarise, I may state that I have treated about thirty cases in all, and with very good results; and, in addition, I have satisfactory statements from a few friends to whom I have confided my method.

The great feature which I contend for in my plan is that, by softening the hairs with liquor potassæ, the iodide of potassium is conveyed to the very hair-roots and bulbs, the spots where the conidia flourish and germinate in profuse abundance, and hitherto in comparative security. There, whilst the hairs are in a softened condition, the mercury-solution can penetrate, and then, coming into contact with the iodide deeply down, an important chemical action is set up, and biniodide of mercury is formed, just where it is most especially wanted.

I do not wish to say that this plan is the best that can be devised, but I do think—and I wish to say so with all due modesty and moderation—that it is the best with which I am acquainted at present. I am still hopeful that I may improve its application.¹ Anyhow, I trust that I may remove, in some measure, an obloquy upon our profession, and effect the cure of any case of ringworm of the head, however severe, in six weeks.

Mr. MALCOLM MORRIS (London) said that he thought it was unwise to lay stress on new remedies, as the older ones were capable of curing the disease if the right remedy were selected for each stage of the disease. He denied strongly the value of constitutional remedies, and stated that local treatment was alone required. This he classed under three heads: 1, mechanical removal; 2, direct destruction of the fungus; 3, destruction by inflammation. He then described briefly each method of treatment, and mentioned several experiments he had made with various solutions and ointments.

Dr. PAYNE (London) said that Dr. Harrison's treatment seemed to be founded on rational principles, and promised very well. Dr. Payne agreed with Mr. Malcolm Morris that the most important point was how to bring the parasiticide substance into immediate contact with the parasite. For this purpose, no doubt, alcohol and similar liquids were very efficacious, but the utility of fatty matters in this respect had been underrated. It was known that medicinal substances combined with fat were absorbed by the skin, although not absorbed, or much less readily, when dissolved in water or other media. The probability was that substances, such as mercury and sulphur, were not absorbed in the form in which they were applied, but entered into some combination with albuminates, and in that form entered the body. While, however, the nature of the vehicle used was a matter of great importance, certain substances acted well in several different media; for example, boracic acid, which was efficacious both in alcohol and also in ointment. Epilation had perhaps been too much neglected lately, but the secret of success in that treatment was that some parasiticide substance should be applied at the moment the hair was pulled out, so that it might enter the still gaping orifice left by extracting the hair. Dr. Payne certainly intended to try Dr. Harrison's method.

Dr. HARRISON, in reply to Mr. Morris, explained that he attached no importance to constitutional treatment in tinea tonsurans; that, according to his plan, a child, weak and unhealthy to almost any degree, ought to be cured of ringworm of the scalp without the administration of any internal remedies. Dr. Harrison's plan, first of all softened the hairs and hair-bulbs, where the conidia were deeply seated, with liquor potassæ; and he made the liquor potassæ convey some potassic iodide, which afterwards was acted upon by the second solution, containing the mercuric chloride; and then, at the very spot where it was wanted, the best parasiticide known, namely, the biniodide of mercury, is formed.

¹ A step in this direction has, I hope—for I shall only be too glad to accept and adopt any improvement—been recently indicated to me. I have described my second application as containing mercuric chloride dissolved in spirits of nitrous ether, and I rather prided myself on this combination. A friend of mine—Professor Shennstone, of Clifton College—has advised me that I should probably do better by not using the ether solution, as it has a tendency to reduce the biniodide, or mercuric iodide, into the mercurous iodide; therefore, I would recommend any gentleman who is disposed to give my method a trial, to use an aqueous solution of the mercuric chloride.

PUZZLING CONDITIONS OF THE HEART AND OTHER ORGANS DEPENDENT ON NEURASTHENIA.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By J. STRAHAN, M.D., M.Ch.,

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My attention has, for some years, been directed to some curious symptoms connected with various organs. These symptoms, often indicating serious organic disease, are sometimes very puzzling in diagnosis when occurring as purely neurasthenic phenomena. By neurasthenia, I mean a condition of prostration of the whole or some of the nervous centres, owing to deficient nutrition, in which there is no gross lesion, visible to the eye or by the microscope, of any part of the brain or spinal cord. It even occurs without general anæmia, or any very evident disorder of any vital function. It proceeds from excessive functional activity of some part of the nervous system; especially as connected with the exercise of the reproductive function, or of the emotional or the intellectual faculties. An investigation of the different organs reveals nothing; the kidneys, heart, lungs, etc., are normal; no affection which can be named may be discovered, yet the disease is real.

Medical literature is somewhat barren on this subject. There is no mention of it in our text-books, except in that of Flint and in Quain's *Dictionary*. In the latter, there is an article on spinal neurasthenia by Dr. Bastian, and one by Dr. Brown-Séquard on spinal irritation, which I look on as mere phases of a more general neurosis. Even works on diseases of the nervous system have, as a rule, the same omission. There is an article on spinal neurasthenia, by Dr. W. H. Erb, of Heidelberg, in *Ziemssen's Cyclopaedia*; also one in the *Maladies du Système Nerveux* (Paris, 1879), by Dr. J. Grasset of Montpellier, and one in *Diseases of the Nervous System*, by Rosenthal of Vienna. Dr. Althaus, in the third edition of his work on Electricity, has a short chapter on spinal exhaustion (myelasthenia); he has also written a monograph on Failure of Brain-Power, which disease, in its functional aspect, would correspond with the cerebral form of neurasthenia, or cerebraesthesia, as it has been called, by the union of a Latin and a Greek word, which is more euphonious than encephalasthenia, which would be the form if entirely derived from the Greek. Handfield Jones touches on some of the symptoms, in his *Functional Nervous Diseases*, under the name of cerebral paresis. But the late Dr. Beard, of New York, was the first to collect the varied symptoms into an intelligible whole.

The subject is of growing importance, as, no doubt, the disease is becoming more common, and occurring alone, or complicating many every day complaints. One in every ten of the patients is said to be a medical man. Many of these despair of being able to continue their work, as they have visions of all sorts of organic nerve-lesions before their eyes, from cerebral softening and spinal paraplegia, to locomotor ataxy and insanity. The disease is therefore of immense importance in its moral and social, as well as in its pathological and purely medical aspects. Every medical man is familiar with these cases, although he may have no name for the disease. Neurasthenics complain of languor, want of buoyancy, mental depression, general weakness, loss of all brightness and energy in pursuit of either business or pleasure. There seems to be a permanent fatigue of all or several of the nervous centres established, so that nutrition can never overtake expenditure of nerve-force. The patient is usually wakeful during the night, and is as fatigued in the morning as he should be at night. He may, under mental excitement, be able to exert body or mind as of old, but he is jaded and worn out when the excitement passes. An inquiry will usually show that the mind has been for a long time worried or overworked, or both. Long continued anxiety, overexertion combined with worry, in short, anything which makes undue call on the nervous energy, will cause neurasthenia. Irregular meals, irregular sleep and rest, want of recreation and holidays, competition in the race of life, all contribute to the production of this affection. Bad habits, such as errors of diet, sexual errors or vices, immoderate smoking, and anything beyond extreme moderation in the use of alcohol, prove very efficient auxiliaries in the causation. I venture to express the opinion that we have excellent examples of general neurasthenia, acute and chronic, in such familiar cases as the so-called spermatorrhœa, chloralism, bromism

alcoholism, meconism (opio-mania), caffeinism, and the nerve-prostration due to many such drugs. Of course I refer to the purely nervous symptoms, and not to any material lesions caused by the poison used. A drunkard can have the most extreme nerve-prostration, after a few days' drinking, irrespectively of a possible cirrhotic liver, stomach, or kidney, or fatty heart; and a man may be very greatly exhausted, and find all his faculties and energy slipping from him, owing to sexual excess, without the least local lesion, and even without being conscious of excess.

In speaking of the heart and vessels, I shall leave out all the paroxysmal and usually transient functional disorders, as they are described in our text-books. I shall first take visible pulsations of arteries as a puzzling condition, when functional. Since Corrigan first described the pulse of marked aortic regurgitation, the visible, locomotor, or water-hammer pulse has been considered almost a pathognomonic sign of this disease. This it is far from being, as it occurs in fibroid degeneration of arteries, great arterial relaxation, and high arterial tension. Mere excitement in the nervous, especially women, often produces visible carotid pulsation. Visible pulsation is also well marked in pericarditis accompanied by carditis, or pericardial effusion, conditions generally associated with marked arterial relaxation. But this pulsation from relaxed arteries rarely extends, in the case of the carotid, more than halfway up the neck, while that due to aortic regurgitation extends to the lobe of the ear, and perhaps to the facial and temporal arteries. Visible pulsation with very tortuous arteries, especially the brachial, points more to fibroid degeneration of the vessels. But tortuosity may be produced by high tension without degeneration, when it has lasted some time. Tortuosity is not seen in high tension accompanying acute Bright's disease. Some affections of the nervous system give rise to increased arterial tension, as also do gout, jaundice, lead-poisoning, the use of ergot, and tannic and gallic acids; but in neurasthenia, I believe, the condition is almost always want of tone, and sometimes great arterial relaxation. The extensive and complex nervous supply of the heart; the motor apparatus—rhythmically discharging motor ganglia situated in the substance of the heart; the exciters of activity—branches from the cervical sympathetic, and also from the spinal cord, irritation of which increases the movements of the heart; the regulator-apparatus, the vagus—irritation of which may arrest the heart in diastole; the depressor nerve of Ludwig, which acts by dilating the vessels—such a supply must make the heart, and indeed the whole arterial tree, very susceptible to any change in the nervous force. We cannot, then, wonder that in neurasthenia the heart is nearly always disordered in some way. The action is rendered morbidly rapid or slow through reflex irritation from the brain, through uncontrolled emotion, from the stomach or intestines through any irritation there,¹ and especially through irritation from the prostatic urethra. This is true of the whole vascular system, of course not so plainly. The vessels down to the capillaries are liable to morbid relaxation or contraction, by reflex action, through irritation anywhere. So we find local hyperæmia and anæmia here and there as the result of faulty innervation. From not clearly understanding this fact, we have a great deal of medical literature concerning supposed cerebral and spinal congestion and anæmia as the causes of symptoms, where they are only secondarily so, if not mere effects of the real cause. Erb admits the congestive and anæmic theories to be incorrect, and says: "It seems most natural to recur to fine disturbances of nutrition in the cord, such as we are still obliged to assume in so many diseases of the nervous system." In many neurotic families of my acquaintance, several members have had constantly for years visible pulsations of all the superficial arteries. I am acquainted with a gentleman who has had, for at least seven years, a well marked visible and locomotor pulse in all the superficial arteries. Yet there are no signs of cardiac enlargement, or of hypertrophy, no increased impulse, no murmur, no hardness or atheroma of the vessels; he never had rheumatism, syphilis, or scarlatina. The cardiac impulse is faint, but at the proper place; and there are no other signs of heart-disease. The symptom is always present, but varies in intensity, becoming much more prominent when the nervous system is depressed from any cause. In diagnosing such a case from organic disease, besides the above negative points, we should remember that visible pulsation is a sign of advanced aortic disease (Fothergill), so that there should be a good deal of cardiac enlargement, even if there should be no murmur. Visible pulsation shows that the stage of danger has arrived in regurgitation; and Dr. Broadbent tells us that the cardiac second sound (whether there is a murmur or not) is always lost in the neck

before the stage of danger is reached. In neurasthenia the physician can, in fact, make nothing of the pulse, as it is liable, by the mere excitement of an examination, to run up to 110 or more; to become irregular, or vibratile, or even intermittent; so that, if the physician depended on it, he might believe almost what he pleased about the heart and circulation. In exceptional cases, the pulse is very slow—forty or less—or the rate may alternate between very slow and very fast.

I shall now mention some puzzling conditions of the brain. In neurasthenia, insomnia is nearly always present, more or less, and, during treatment, forms a very good criterion of improvement or the reverse. Some go to sleep, but wake in a few hours, to remain tossing restlessly the remainder of the night. Others cannot get asleep for hours, but, when once off, remain so till morning. Others remain asleep through the night, but dream so badly that they awake as tired as when they lay down. Another almost constant feature of these cases is that the mind is intensely active in a hundred directions during the sleepless hours, from an undue mobility and want of inhibitory power in the brain. This condition is seen advanced to a further stage in states bordering on delirium tremens, and in that disease; but there you have hallucinations and incoherency added, a still further stage of irritation and loss of control. Another not uncommon feature of the sleep of neurasthenics consists in spasmodic movements, just on dropping off to sleep, often recurring again and again, and rendering the patient afraid to sleep for fear of having a fit. These spasmodic movements may be of an arm or leg only, or the whole body may start from the bed, or may feel as if suddenly falling through space. These movements are often attributed by the medical attendant to *petit mal*, and by the patient to a tendency to apoplexy, epilepsy, or paralysis, and so increase the evil by causing still deeper mental depression. They may be caused by a passing congestion of exhausted nerve-centres, but seem to depend on the loss of inhibitory power already alluded to. The neurasthenic is frequently troubled with mental irritability and morbid fears, which are very puzzling. There is associated with the irritability inability to concentrate thought or attention on tasks which, in the healthy state, were executed with pleasure or even enthusiasm, in place of the distress and misery attending mental effort during neurasthenia. The mind constantly wanders from the matter in hand, and tends to continual reverie. The person remains absorbed in a kind of dream, forgetful of the work to which he knows and feels he should be giving his energies. Connected with this loss of mental control is what has been called "heterophemy," that is, saying one thing and meaning another. This symptom is often attributed to commencing softening, to the great annoyance and discouragement of the patient. Morbid fear is well seen in the nerve-prostration caused by alcoholism, acute or chronic; where a man fancies his affairs are going to the dogs, and there is a continual dread of impending calamity. This is one cause of loss of sleep, and is one of the heaviest items in the bill that has to be paid for vicious indulgence. It is also one cause of suicide after a debauch. Fear is a part of man's nature, and a necessity to self-preservation; the difference, in this respect, between health and disease being one of degree. Morbid fear implies a debility, an incompetency, an inadequacy of mental force, as compared with the usual state of the individual. From lack of force in the exhausted brain, the man is unable to look others in the face, as he would in health. He is often incapable of undertaking any responsibility. Charles Lamb has well described this state in his *Confessions of a Drunkard*, where he tells how he was completely incapable of dealing with men in any way (anthropophobia), could not transact the simplest business, indeed, could hardly appear in public, owing to a consciously groundless fear of his fellow-men. These morbid fears sometimes take a particular direction. The result is a crop of new terms. Thus we have astraphobia, fear of lightning; topophobia, or fear of places, subdivided into agoraphobia, or fear of large open places, and claustrophobia, a term applied by Professor Ball, of Paris, to fear of close narrow places. Anthropophobia, already alluded to, a fear of seeing, encountering, or mingling with men, has a variety of gynephobia, fear of women, usually due to sexual exhaustion. There are also monophobia, fear of being alone; panthophobia, fear of everything; and pathophobia, the fear of diseases, one form of hypochondriasis. These morbid fears, of whatever kind, have some points in common. They may come on quite suddenly, but, when once they appear (except as the result of a very passing exhaustion), they remain for months or years, varying with the patient's general condition. They very frequently, indeed, indicate sexual exhaustion. Sexual excess, of whatever kind, nearly invariably produces them in the end, and is their most common cause. They are nearly always accompanied by other neurasthenic symptoms; they indicate functional, rarely or never

¹ Case of Dr. Cotton (BRITISH MEDICAL JOURNAL, June, 1867), in which the pulsations were 240 per minute, and ceased on the expulsion of a tape-worm.

organic nervous disease; indeed, their presence in an otherwise doubtful case would almost make the diagnosis. The inability to look one in the face is another symptom which usually puts the physician on the track, as there is no such self-consciousness in organic nerve-lesions, such as locomotor ataxy, which may resemble neurasthenia; the more so, as just now ataxic symptoms have so multiplied that a moderate volume might be filled with them, and the same might be said of neurasthenia.

Pain and weight at the vertex of the head (supposed to be distinctive of cerebral anæmia) are usually neurasthenic. They may depend on cerebral anæmia immediately, but, if so, the anæmia depends on neurasthenia acting through the vaso-motor nerves. Tenderness of the scalp (cerebral irritation) is another symptom. This is to the exhausted brain what spinal irritation is to the exhausted cord. *Musce volitantes* are common, even in the slightly neurasthenic; also noises in the head of various kinds. There is a form of asthenopia, not depending solely on accommodative or even muscular trouble, to which neurasthenics are liable. It often renders reading, writing, and all fine work very painful or impossible, for more than a few minutes at a time. It is very distressing, and may last for years, showing its neurasthenic origin, as nearly all the symptoms do, by suddenly ceasing for a time. In my experience, it is a very common affection. I am acquainted with several young ladies who have consulted competent oculists, and have been told there was no organic disease. Glasses have totally failed to give relief in these cases. In these cases of reflex asthenopia in young women, Mr. Hartridge, of the Royal Westminster Ophthalmic Hospital, tells us to look out for masturbation, or uterine disorder, which is additional evidence of its neurasthenic origin. There is often a passive venous congestion of the conjunctiva, and sometimes of the retina, but it is secondary to perverted innervation. In many neurasthenics, the voice becomes faint, soft, and toneless, like that of a person recovering from fever. Hopelessness is another common symptom, and, like the faint voice, rather diagnostic. In most severe organic diseases, the patient is usually quite hopeful, as in phthisis, heart-disease, cancer, paralysis, ataxy, etc.; but neurasthenics lose all hope of cure, even when they are not hypochondriacal, and fancy a much worse disease than exists. Nervous dyspepsia is often the first symptom of neurasthenia. The cause and connection may not be apparent for years, when it becomes evident through other portions of the nervous system becoming affected, as displayed by the development of some of the more characteristic symptoms. It is distinguished from other forms of dyspepsia, and from chronic gastritis, by the fact that, instead of pain and distress coming on, or becoming aggravated, after a meal, the uneasy feelings are always worst on an empty stomach, the missing of a meal being attended with both local and general distress, pain, and weakness. Eating gives local and general relief at once. The affection is capricious, coming and going without apparent reason. The best treatment is by arsenic, *nux vomica*, and perhaps a little morphia. *Gastrodynia* and all the abdominal neuralgic and nedroses, for a good account of which we are indebted to the excellent lectures of Dr. Clifford Allbutt, are also, in my opinion, mere symptoms and indications of neurasthenia, especially where it is more centred in the spinal cord, and whether attended with spinal irritation or not. On this view, we would expect that these abdominal neuroses would be more common among races and families of neurotic temperament, than among others, which, according to Dr. Allbutt, is a fact. The fact that arsenic is the most successful drug in such cases is also evidence as to their neurotic origin. Dr. Allbutt says he does not know what the physician could do for such cases, before arsenic was applied to this new use.

Time will not permit me to refer to many more interesting phenomena due to neurasthenia. Many of these conditions of organs, taken by themselves, are most puzzling in both diagnosis and treatment. But, in view of the common underlying condition, they become comparatively easy both to appreciate and to treat. Want of time also prohibits me from more than alluding to relations existing between many women's diseases and neurasthenia, of which they may be either causes or effects. Dr. Allbutt, in this country, and one of the most prominent gynaecologists of America, Professor Goodell, have done good work on this subject. In the *New York Medical Record* Dr. Goodell lately said that the crying medical error of the day is the mistaking nerve-disease for womb-disease. From this widespread delusion, it has come to pass that no organ in the human body is so overtreated, and consequently so maltreated, as the uterus.

BEQUESTS AND DONATIONS.—The Coombe Lying-in Hospital, Dublin, has received £300, under the will of Mr. James Gorman.—Lady Lee has given £200 to the Maidenhead Cottage Hospital.

THE PRECHOREIC STAGES OF CHOREA.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By C. R. STRATON, L.R.C.P., F.R.C.S. Edin., Wilton, Salisbury.

If we look back over the cases of chorea that have come under our observation, we shall find, I think, that they fall naturally into two large groups.

The cases which belong to the first group occur mostly in childhood, and in early life. They are characterised first, as far as my own experience goes, by sores in the nostril or pharynx, malaise, left apex systolic murmur without hæmic characteristics, blunted intellect, vague pains and swellings of the joints, and some degree of paresis. Then follow the disorderly, unrhythmic, pseudo-clonic movements, which we term chorea, which are aggravated by attempts to do voluntary acts, but which subside wholly during sleep. By the time that choreic movements begin, pyrexia, as a rule, is over. These cases are very frequently attributed to fright; they are liable to be spread "by imitation;" and they last from five to ten weeks. In the few instances in which the disease proves fatal, we find in the nervous centres a pretty general hyperæmia, with minute capillary infarcts, some circumvascular exudation, and on the edge of the mitral valve a row of bead-like vegetations, whether a murmur was heard during life or not.

The second group does not run this apparently specific course. It includes chorea due to direct injury to the brain-substance from wounds, falls, or blows, or to cerebral hæmorrhages, such as accompany violent and prolonged fits of whooping-cough, or to epilepsy, hystero-epilepsy, or any organic disease of the brain. These do not occur at any especial period of life; they are not associated with the particular condition of heart to which I have referred; they do not spread "by imitation;" and their duration is perfectly uncertain.

It is, however, to the prechoreic course of the first group that I would to-day direct your attention: and I would ask what has taken place before this "insanity of the muscles" comes on, and is chorea, not merely an occasional sequel of some more frequent specific disease?

Were I to describe by any special name a temporary form of paralysis, most common in childhood, in which all the physical powers were affected and the mind sometimes enfeebled, where the face lost its expression, and there was difficulty of deglutition and of articulation, where the limbs were either paralysed, or where the child having some power left, yet stumbled along in an uncertain and imbecile manner; and were I to add that this temporary form of paralysis had been known to spread in schools "by imitation," and that it generally subsided in a few weeks, under rest, good food, and tonics; you would at once recognise a disease that was formerly very ingeniously accounted for, but which of late years we have come to regard as an occasional sequel of diphtheria, a sequel which shows itself in one case out of five. And have we not many reasons for regarding the chorea which marks the first group of cases as in like manner the sequel of an acute specific disease of childhood, having clinical affinities with diphtheria and scarlatina?

Is it, like them, a communicable disease? The literature of the past on this point must be taken with much reserve. The great bulk of the so-called epidemics of chorea were marked by symptoms that are as a word to the wise, rapid movements of the eyelids, violent eructations of wind, and copious discharge of pale urine. The epidemics of Aix-la-Chapelle and of Strasburg, which spread over Europe in the fourteenth and fifteenth centuries, afflicting many thousands, were not, so far as I can judge, cases of true chorea at all, but might be classed rather with those epidemics of ecstacy which pass over a community in times of deep religious feeling, and are regarded by revival preachers of our time as signs of grace in the hearts of their converts. But beyond all this, it is probable that there was some substratum of true chorea present. In girls' schools, it is admitted on all sides, that chorea may spread "by imitation;" and four cases of this kind are given in the Preliminary Report of the Collective Investigation Committee. Yet this is an etiology that is scarcely satisfactory, and would apply equally well to diphtheritic paralysis; nor would it account for an outbreak reported in the *Gazette des Hôpitaux*, in 1862, where a girl was admitted into one of Dr. Monneret's wards, suffering from most intense chorea, and on the fifth day afterwards, eight other patients contracted the disorder; and in all probability the contagion would have extended more widely had not its influence been arrested by isolation.

During the past year, among the cases of chorea that have come under my care, were two cases in children attending a certain village

school. One little girl had first a sore nose, then cardiac murmur, tender metatarsal joints, stupidity, and lastly chorea. Shortly afterwards, another little girl in the same school had the same symptoms, with chorea, but without the cardiac murmur; and the brother of this second girl had a sore nose exactly like the other two, with a fissure at the anterior margin of the nares; and his mother said that he had become even more stupid than his sister, but he had no chorea; he had gone through the prechoreic stage, but the choreic sequel was never developed. It may, therefore, be possible that it is a communicable disease, and that chorea need not always follow, any more than paralysis is a necessary sequel of diphtheria.

To make the prechoreic course more clear, allow me to return to the pathological facts to which I have already referred, the cardiac vegetations, the condition of the nerve-centres, and of the joints. The cardiac vegetations are found in rows just where the two sides of the valve come into apposition during closure; and they consist of a sub-endocardial exudation. The base of each is infiltrated with leucocytes, then comes a transition zone, and on the outer part of the vegetation we have a coagulative necrosis, with colonies of micrococci on the surface. Now, what would be the natural result of those micrococci being carried into the blood-current, and deposited in the capillaries of the brain and in the neighbourhood of joints? The recent experiments of Dr. Angel Money render speculation on this point unnecessary. When he injected granules of starch or carmine suspended in a saline solution into the carotid artery of animals, he succeeded in producing an infarction of the nervous-centres, which gave rise to choreiform movements. We can scarcely doubt, therefore, that when these pathogenic micro-organisms become distributed in the blood-current, we shall find that state of capillary embolism which Kirkes and others have described, and with this the blunted intellect and the paresis. The same cause in other parts of the body gives rise to quasi-rheumatic pains, and affections of the joints. Here the case may end, and recovery take place, or the choreic stage may follow. Where the actual particulate injection of pathogenic organisms has not been sufficient to at once set up chorea, there are yet certain exciting causes which may determine the access of movements in one who has gone through the prechoreic stage; these are, dental irritation, gastric irritation, pregnancy, fright, or strong mental emotion. Few persons realise how powerful is the effect of great mental shock on the human brain. Acute primary dementia may result from fright alone; and in chorea it is one of the most potent factors, not only in determining the access of choreic movements, but also in aggravating them when they have once set in. Instances such as this are sufficiently common. A child passes unwittingly through the prechoreic stages of cardiac vegetations and cerebral and joint infarcts, and is progressing towards recovery, when some sudden fright at once develops the choreic movements; and, should the child die, the cardiac vegetations and the cerebral infarcts will be found, although no murmur was detected during life. It is highly probable that a large number of cases thus pass undetected, and, should no exciting cause exist, never develop the choreic sequel at all, but are recorded in the journals from time to time as cases of "anemia with a high temperature," as "simple endocarditis," or "scarlatina without rash."

To summarise; the prechoreic sequence of events appears to be a soreness of the nose or throat, with often a fissure at the anterior margin of the nostril, the sores yielding a micro-organism which takes aniline dye; an endocarditis with the formation of valvular vegetations which undergo coagulative necrosis, and develop colonies of micrococci; the introduction of these products into the circulation producing capillary embolic infarction of the nerve-centres, and of the parts around the joints; with the clinical symptoms of valvular murmur, blunted intellect, paresis, and vague pains. There the case may end and recovery take place; or it may run on to the choreic sequel, especially if the child have been exposed to fright or mental shock.

I feel that it is presumptuous in me thus crudely to express my views on this subject, but I do so with the desire that attention may be directed to those cases (not themselves choreic) of sore nose, stupidity, and joint-pain, with or without murmur, which may be found associated with cases of true chorea; and with the desire also that cases of so-called "imitation" may be more closely scrutinised, and the true character of this cause more accurately determined.

LOTION FOR BRUISES.—In severe contusions and bruises, where pain is severe, Dr. Hewson, of Texas, recommends the following lotion, which has been found of great use in the treatment of the severe injuries often received by the lumbermen: R Sodæ hyposulphit., $\mathfrak{z}\text{iv}$.; acid. carbol. crys., $\mathfrak{z}\text{ss}$.; glycerine, $\mathfrak{z}\text{ij}$.; aquæ, $\mathfrak{z}\text{j}$. M. A cloth saturated with the lotion is kept constantly on the injured part.

WHEN A PATIENT DIES OF EXHAUSTION, FROM WHAT DOES HE DIE?

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By J. MILNER FOTHERGILL, M.D.,

Physician to the City of London Hospital for Diseases of the Chest.

WHEN this question first puts itself to oneself, or is propounded to another, it seems absurd. That is the first impression. Then follows another impression, to the effect of what is meant by "exhaustion." For the answer to that, I must appeal to the experience of each man present. We all know what is meant by death from exhaustion. It is "failing power." We know of death from shock, from hæmorrhage, from nerve-failure, as in death from sheer pain. We also know of that form where the patient sinks before our eyes, slipping away because we cannot "keep up the strength," or "husband the powers," or "maintain life," as we variously phrase it. We know well that, when the sick man declines food, in a limited time he will sink. We give him the readily oxidisable alcohol, but we all know he cannot long survive on that alone. What is amiss, that we fail to keep him alive?

We know that, if a shipwrecked sailor be deprived of food for a certain time, he will die of starvation. He grows weaker and weaker, till, at last, he dies of exhaustion. Just like the sick man, he sinks. We know, too, that, while a man so deprived of food in a cool locality will die in about ten days, he will die in less time in a cold locality; while life will be maintained for a longer period of time, even to seventeen days, in the tropics. (It is assumed that he has access to water.) Starvation is a slow form of burning up. But what is burnt up? The fuel-food of the body, clearly. The fuel of the body is glycogen, and fat—the stored form of fuel. How fat is burned in the body, we do not know; but we all know of the fat pig which was buried under a chalk-cliff at Dover for 160 days. It weighed 160 lbs. when it was immured; when dug out, it weighed 40 lbs. only. It lost 120 lbs. in 160 days, and came out a lean pig. It got some moisture.

Glycogen is burnt, we believe, as lactic acid in union with soda—lactate of soda. From the carbohydrates of our food, glycogen or animal starch is stored, mainly in the liver. This glycogen is stored up from each meal, and given off, as grape-sugar, as the body requires it. Disturbance in the glycogenic function of the liver gives us diabetes, a wasting disease. In the diabetic person the combustible portions of the body are burnt up, just as in death by starvation. The liver gives off grape-sugar as long as it has any to give; and, when its store (and the spare store, the body-fat) is exhausted, then the lamp of life dies out, just as the lamp on our study-table dies out when the oil is exhausted.

Now how does all this bear on our patient sinking from failure of the powers, otherwise "dying of exhaustion?" It bears very materially upon his case. Virtually, the patient is hungering to death; he is dying of starvation. How do we feed that perishing patient? We give him beef-tea, calf's-foot jelly, alcohol, and milk, and seltzer-water or other effervescing-water. He may get a small quantity of other foods; but that just given is the staple of his regimen. Now, let me ask, in all seriousness, how much of the body-fuel (grape-sugar) is contained in the list? A small quantity of milk-sugar there is certainly; also, a small quantity of fat in the milk; some oxidisable alcohol certainly. But are we not mocking the famishing man by giving him a stone when he asks for bread? Do we not stand round his dying bedside, and, with the best intentions in the world, let him die by inches before our eyes, unscoured, unfed? It is a terrible question we must ask ourselves. Do we, or do we not, let our fellow-creatures perish; because we do not know how to help them? It is a grave and serious matter, indeed. In asking this momentous question, no reproach is levelled at our noble profession. Hitherto, we have worked up to our lights. Is our advancing physiological knowledge giving us more light; or am I wasting your time by talking frivolous nonsense? Are we now in a position to feed our patients by the light of science, as well as by that of empiricism? We may speak of the day-light of science and the lamp-light of experience, in relation to this matter, I think.

Fashion prescribes the food of the sick-room to a large extent. Veal-broth had given way to calf's-foot jelly when my professional experience first began. Then a patient who had not had calf's-foot jelly had been neglected—was the verdict of the public. Now the calf can scamper about in safety; its feet are not in demand. Now it is beef-tea which holds the place of honour in the sick-room. The afflicted relatives of a dying man will declare, with a distinct consciousness of

having discharged their duty in a creditable manner, of the quantity of beef, of the very best quality, which has been used to make beef-tea for the sick man—"the very strength of the meat," they will add. Their intentions are excellent, but how about their practice? Are they, or are they not talking nonsense? What food-value does this vaunted beef-tea possess? Answer me that, any of you who can; I will gladly be taught. As a stimulant, as a pleasant vehicle of something else, beef-tea is valuable; but its food-value is so small, that it can scarcely be classed as a food.

I do not desire to speak disrespectfully of beef-tea, nor yet of the motives of those who carefully prepare it, believing it to be a mighty force. I only maintain that to feed—no, that is not the appropriate word—to give a patient beef-tea as food, is to give him a stone when he asks for bread. What that beef-tea needs is grape-sugar. How can this be added? In all our prepared foods, known generically as "baby food," starch has been converted into the soluble dextrine, or maltose; the one grape-sugar, the other only requiring a touch of saliva to complete its conversion. Add some of this material to the beef-tea, and then food is supplied to the famishing system. Starch that has long been exposed to heat (either by the baking process or the malting process) is converted, more or less completely, into grape-sugar. The saliva of a sick person is enfeebled—but on this matter we have only broad impressions, and more precise information is desirable—and so carbohydrates should be provided which do not require insalivation for their solution, being already soluble. Such carbohydrates are now to hand, as may be seen in the museum. There are to be seen malt-extracts containing not only soluble carbohydrates, but also some soluble albuminoids, and phosphatic salts, ground malt of like composition, also grape-sugar itself. The latter is not too sweet to pall upon the palate when added to beef-tea, or other meat-broth.

NOTE ON ANTHRACOSIS.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By ANDREW SMART, M.D., F.R.C.P., Edinburgh.

In a lecture to the Edinburgh Health Society, delivered in November, 1883, and since published under the title of "Germs, Dust, and Disease," I ventured to express the view that anthracosis, or "miner's consumption," had but a doubtful, if any, existence. I rested that belief primarily upon the results of my own observations—not having, in hospital practice or otherwise, met with a single authentic case of it. Careful inquiry into the history of any instances of "black spit," which have fallen under my notice, satisfied me that they were ordinary instances of hereditary phthisis, occurring—a merely accidental circumstance—in persons whose occupation was coal-mining. In any inquiry into the causation of so-called miners' consumption, it is necessary to hold distinctly in view that phthisical heredity will as certainly develop in the employment of coal-mining as in any other, even when there is nothing in the nature of the occupation predisposing to pulmonary disease. And, again, we must be careful to avoid the fallacy of supposing that coal-dust, in the expectation, stands in any causal relation to that disease. It is now a matter of universal experience, and absolute certainty, that a great variety of industrial employments are directly and largely productive of pulmonary disease—notably, for example, among stone-cutters, steel-grinders, iron-miners, etc. In my lecture referred to, I adduced, in support of the view of the non-existence of anthracotic disease, statistical evidence from Dr. Ludwig Hirt's researches into the effects of different kinds of dust upon the health of workers employed in dusty occupations. These tables are elaborately compiled from the records of hospitals, in which patients in large numbers had been treated for trades' maladies.

Dr. Hirt's results are summarised under the headings of "effects of metallic dust," "mineral dust," "animal dust," "dust from poisonous metals," and "vegetable dust." Taking pulmonary consumption as a test-disease whereby to estimate the comparatively hurtful effects of the inhaled dust, he shows that there is a mortality from consumption in the first group amounting to 69 in every 100 sick needle-makers, the mortality diminishing to 10 per cent. in the brass-workers. The grindstone-makers, in the second group, have a death-rate of 90 per cent., which falls to 9 per cent. in the diamond-workers. The maximum pulmonary mortality in the third group is 49 per cent.; in the fourth, 36 per cent.; and, in the fifth class, it varies from 60 per cent. among the cotton, flax, and hemp dressers, to that of the coal-miner, which is represented as only a fraction of one in the 100 sick. That

is, while the lowest consumptive death-rate, in all the other dusty occupations, is little under 10 per cent., there is but a single consumptive death occurring in 125 coal-miners treated in hospital. This fact is, I need not point out, contrary to generally received opinion; and, if correct (and it cannot reasonably be questioned) it shows that coal-mining is not only the healthiest of industrial employments, but one, moreover, which is absolutely unproductive of pulmonary phthisis. In fact, it puts the coal-miner on a par with the most healthy of the rural population, with a death-rate from phthisis below that of the general population.

Dr. E. Headlam Greenhow, in his very able "Papers Relating to the Sanitary State of the People of England," although carefully avoiding any such conclusion, cannot, however, escape the conviction which the results of his elaborate inquiries force upon him. With his statement that lead, copper, and tin-mining are "dangerous to health," he affirms that "coal-mining is not unhealthy." And, again, "the occupation of coal-mining does not increase the death-rate of the class." He finds, however, that in districts in which coal and iron-mining are combined, the pulmonary death-rate is higher than in purely coal-mining districts; a statement which, in fact, refers the pulmonary mortality, and its producing cause, to the effects of the iron-dust respired during the process of iron-mining.

Since my lecture was published, I have personally examined a large additional number of coal-miners from different districts, and in other ways extended my observations, with results entirely confirmatory of the exceptionally rare occurrence of pulmonary consumption among the coal-mining class. Looking to their longevity, high standard of health, and low death-rate, especially from pulmonary disease, one is led to suppose that there must be some special protective feature in coal-mining operations not shared in by the rest of the dusty trades. The preserving element may, after all, be the dust derived from the coal, which has hitherto been credited with the opposite effect.

The antiseptic properties of carbon are generally admitted; and I can aver that, not unfrequently, I have examined miners who, for over fifty years, have daily respired the coal-dust laden air of the mines, with no other effects than the perfectly harmless staining of the sputa, and, it may be, in some instances, of the pulmonary tissue.

IS SUMMER-DIARRHŒA OF CHILDREN ONE DISEASE OR MANY?

Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By FRANCIS VACHER, F.R.C.S. Ed.,
Medical Officer of Health, Birkenhead.

THAT diarrhœa is a symptom rather than a disease no one, I apprehend, will be disposed to deny. The fact is as obvious as that jaundice is a symptom, or hæmoptysis, or albuminuria. Indeed, it is not beyond the truth to assert that diarrhœa is the most frequent and general of all symptoms. How common a symptom it is in continued fevers and allied diseases, every practitioner learns by experience; yet it is not more prominent as a symptom in miasmatic diseases than in enthetic, dietic, and parasitic diseases. In tubercular diseases, also, diarrhœa is a principal symptom, and in a considerable proportion of so-called local diseases. In marasmus, atrophy, and debility, diseases of defective nutrition, it is the intractable symptom. Even in maladies the direct result of physical or chemical forces, burns, scalds, mineral and vegetable poisons, etc., diarrhœa is often present as a chief symptom.

Diarrhœa being, then, a symptom of orders of disease so diverse, the question arises, What is the specific miasmatic disease known as "diarrhœa," which, according to the Registrar-General's returns, is so terribly fatal? Year by year, this disease is more fatal than either small-pox, measles, scarlatina, diphtheria, whooping-cough, or fevers. In 1833, the deaths in England and Wales from these six chief zymotics together amounted to 43,873; the deaths from diarrhœa alone amounted to 15,099. In 1884, the deaths in England and Wales from these six chief zymotics amounted to 46,774, the deaths from diarrhœa alone to 24,988. Thus, in one year, there are more than one-third as many deaths ascribed to diarrhœa as to the remaining six chief zymotics; and in another year, more than half as many deaths ascribed to diarrhœa as to the remaining six chief zymotics. The simple answer is, that these large totals of deaths do not represent deaths from any one disease, but that, diarrhœa being a common symptom of many diseases, its appearance in the official certificate indicates that nothing special beyond this symptom was

noticed, that a diagnosis was not made, or that it was thought inexpedient to express it. In some cases, nothing being noticed beyond the one symptom is due to the practitioner not having been consulted till the patient was almost in *extremis*. The disease not having been diagnosed may be due to the friends objecting to a necropsy. Then even a conscientious practitioner, when his diagnosis is alcoholism or syphilis, may shrink from entering such words in a death-certificate, and the conspicuous symptom at the time of death is entered instead. Many, I feel sure, will be with me thus far; for, after all, the position is not very dissimilar from the one taken up by Watson in his classical lectures, more than a generation ago, that "there are several very different affections classed together under the head of diarrhoea." However, a very large proportion of those who would not think of maintaining that the zymotic diarrhoea of the Registrar-General's returns represented one disease, yet believe that the summer-diarrhoea of children is a distinct zymotic disease, having a specific contagium, a distinct period of incubation, a definite course, and an infectiousness peculiar to itself.

Now it is just this creed, one accepted almost as a matter of course by, I suppose I may say, the majority of practitioners, that I am disposed to call in question. If it be true, it is of the utmost importance that it should be proved true, and the *onus probandi* lies with those who put forward the theory, or teach it, or believe it. Proof should not be wanting, considering the prevalence of the disease, in urban districts especially, during the third quarter of every year.

Having paid some attention to the incidence of the mortality ascribed to this disease (or symptom) for some years past, I find little evidence favouring the theory that the summer-diarrhoea of children is a distinct zymotic. On the contrary, the few facts which appear to throw any light upon the subject (few enough, I am sorry to say), are against this being a specific disease, infectious after its kind, and with a period of latency and fever at all definite or constant.

Speaking generally, I gather from the Registrar-General's returns, that summer-diarrhoea is assigned as a cause of death in respect of little children only; and so few are the exceptions, that any particulars taken out as to the whole diarrhoea-mortality for July, August, and September, proximately represent the diarrhoea-mortality of children under five. It is important to notice this *in limine primo* on entering upon a discussion on mortality from summer-diarrhoea, as it saves much labour in the preparation of statistics.

The next fact, which I think clearly proved in the returns, is that, in the third or summer quarter, diarrhoea-mortality is greater in towns than in the country, and greater in large towns than in small. In round numbers, the mortality in the twenty-eight great towns, taken together, is equal to a death-rate of from 2 to 4½ per 1,000 *per annum*. Similarly, the mortality in the fifty large town-districts, taken together, is equal to a death-rate of 1½ to 3½ per 1,000 *per annum*; and the mortality in England and Wales, exclusive of the seventy-eight most populous towns, is equal to a death-rate of from 1 to 2½ per 1,000 *per annum*.

The third point I submit, as proved by the Government returns, is, that the mortality from diarrhoea in the summer-quarter is, in a large proportion of the great towns, low, high, or exceptionally high, year after year. The regularity with which many of these large towns hold almost the same relative position with reference to diarrhoea-mortality, summer after summer, is not a little remarkable. Note this list of the great towns which are most affected by fatality from summer-diarrhoea. Opposite the towns I have placed the average annual diarrhoea death-rate of the summer quarters of the ten years, 1874-83, and in the next column the annual diarrhoea death-rate of last year. Thus, given the information that summer-diarrhoea was specially fatal in 1884, one might, from past records, have named the towns returning the highest mortality ascribed to this cause.

Towns.	Average Annual Mortality from Summer-Diarrhoea, 1874-83.	Annual Mortality from Summer-Diarrhoea, 1884.
Leicester	7.1	9.1
Preston	6.4	8.3
Hull	5.0	5.8
Salford	4.7	5.5
Leeds	4.5	5.3
Birmingham ..	4.2	5.3
Sheffield	4.0	5.7
Bolton	3.9	5.7

Compare this with a list of the large towns which, in the same decade, had a low death-rate from summer-diarrhoea. In only five of the twenty-eight large towns was the average summer-diarrhoea death-rate less than two per cent. *per annum*. Just as the towns having the two highest death-rates for the decade had the two highest rates last year, the towns having the two lowest rates for the decade had the two lowest rates last year.

Towns.	Average Annual Mortality from Summer-Diarrhoea, 1874-83.	Annual Mortality from Summer-Diarrhoea, 1884.
Halifax	0.9	1.6
Huddersfield ..	1.6	1.7
Bristol	1.7	1.9
Birkenhead	1.8	2.7
Oldham	1.9	3.0

Least any important deductions should be drawn from this as to the essentially endemic character, etc., of summer-diarrhoea, quite a different rule appears to obtain as regards the fifty large town-districts next in importance to the twenty-eight great towns. Last year, the towns showing the highest summer-diarrhoea death-rates were—Northampton, 8.4; Ipswich, 7; St. Helen's, 5.8; Stockport, 5.7.

In 1883, the towns showing the highest rates were—Wigan, 3.1; Walsall, 2.6; York, 2.5; Gateshead, 2.3.

In 1882, the towns showing the highest rates were—Yarmouth, 4.9; Bury, 4.6; York, 4.2; Gateshead, 4.0.

The next matter I note is, that the summer-diarrhoea mortality is not intimately associated with density of population. The large towns most densely populated are, according to last year's returns—Liverpool, with 110.0 persons to an acre; Manchester, 78.8; London, 53.4; Plymouth, 51.4; yet none of these towns has a mean summer-diarrhoea death-rate equal to 4 per 1,000, and the number of persons per acre in the eight large towns in which mortality from summer-diarrhoea is highest is as follows:—Leicester, 41.5; Preston, 26.7; Hull, 22.9; Salford, 38.1; Leeds, 15.2; Birmingham, 50.1; Sheffield, 15.3; and Bolton, 45.3. Of course it may be alleged that the density of population may be very great in portions of Leeds and Sheffield, and in towns similarly circumstanced, including within their area contiguous rural districts. Still, the fact remains, that summer-diarrhoea mortality is not remarkable where overcrowding is, and *vice versa*.

I refer next to the relation of summer-diarrhoea fatality to high temperature. That this mortality is influenced by heat, has been long known. I think the fact that the deaths ascribed to diarrhoea every summer quarter are almost uniformly in excess when the temperature is in excess, and below the average when the temperature is below the average, is best illustrated by the observations taken in London during the last five-and-twenty years.

The years in which the summer-diarrhoea mortality has exceeded 3 per 1,000 *per annum*, during this period, are as follows; and it will be seen that during every one of these years the summer temperature was in excess of the normal summer temperature, that is, the average of 100 years.

Year.	Annual Mortality from Summer-Diarrhoea.	Excess over Average Summer Temperature.
1868	3.99	+ 4.3°
1871	3.84	+ 1.7
1873	3.77	+ 0.7
1870	3.50	+ 1.1
1872	3.44	+ 1.5
1869	3.30	+ 1.8
1880	3.23	+ 1.8
1876	3.22	+ 2.2
1878	3.22	+ 1.2
1884	3.09	+ 3.0

Again, the years in which the summer-diarrhoea mortality has been less than 2 per 1,000 *per annum*, during the same period, are as follows. During all but one of these years the summer temperature was below the average summer temperature of 100 years.

Year.	Annual Mortality from Summer-Diarrhoea.	Departure from Average Summer Temperature.
1860	1.09	- 3.4°
1879	1.25	- 1.5
1869	1.33	- 0.8
1882	1.49	- 1.5
1883	1.91	+ 0.1
1877	1.97	- 1.1

The average summer temperature in London is 59.6°, so that in every year when the summer-diarrhoea death-rate exceeded 3 per 1,000 *per annum*, the summer mean temperature exceeded 60° Fahr.

The relation of summer-diarrhoea mortality to the rainfall, is maintained by many, and doubtless the rainfall does indirectly influence the death-rate from this cause. In London, however, where increased temperature and summer-diarrhoea mortality are seen to be concurrent, the rainfall does not manifestly affect this mortality, except in so far as it reduces the temperature.

The years in which the summer rainfall was greatest were as follows. The amount of rainfall and the summer-diarrhoea death-rate for the third quarter of each year were added.

Year.	Rainfall.	Summer-Diarrhoea Death-Rate.
1879	11.7 in.	1.23
1867	11.3 "	2.81
1875	10.3 "	2.45
1860	9.6 "	1.09
1880	8.8 "	3.23
1871	8.3 "	3.84
1881	8.2 "	2.45

Finally, I find that, in the towns in which the mortality from summer-diarrhoea is high, the average annual birth-rate is high (39 to 40, and upwards); but the average annual death-rate, less deaths from diarrhoea, is not exceptionally high. The highest average annual death-rates, less deaths from diarrhoea, are in Manchester (27.2), Liverpool (26.3), Salford (24.8), and Oldham (24.4). At Leicester, the average annual death-rate, less deaths from diarrhoea, is but 21.1.

I propose now, as far as time will permit, to supplement the conclusions at which I have arrived by study of the Registrar-General's returns, by further conclusions adduced from particulars of deaths entered to summer-diarrhoea in my own town—Birkenhead. I shall state them as briefly as possible.

1. The mortality ascribed to diarrhoea in the summer quarter is not confined to any portion or portions of my district.

2. Fatal cases of summer-diarrhoea are sporadic; a second case in the same family or house being a rare exception.

3. Some practitioners never certify deaths as due to diarrhoea, and others certify deaths as due to this cause so frequently as to be necessarily remarked.

4. Deaths ascribed to diarrhoea are mainly of very young children (under one year), and almost exclusively belonging to the working classes.

5. The houses in which these deaths take place are not necessarily old or insanitary, and a large proportion of them are new, in open situations, and kept cleanly.

6. In a large proportion of the fatal cases certified as diarrhoea, convulsions is a symptom as well as diarrhoea, and the diarrhoea is sometimes preceded by wasting.

7. The duration of this illness varies extraordinarily, from two or three days to two or three months.

Now it appears to me that most of these deductions are adverse to the "one disease" theory, and none are inconsistent with the opposite theory. If the disease were essentially an endemic, one would expect it to recur regularly in nearly all the towns it affects, as it does in Leicester, Preston, etc.; if it were simply epidemic, like the exanthemata, one would not expect it to cling to localities as much as it does. The mortality being increased with an increase of temperature does not specialise this disease, for heat appears to increase the mortality from most maladies of which diarrhoea is a prominent symptom, just as cold increases the mortality from lung-diseases. The birth-rate being high in towns where the disease is most fatal is not singular. If a disease find its victims wholly among children, one would expect it to be fatal where children are the most plentiful. The first two conclusions I have drawn from my own statistics tell against the unity of the disease, while they are absolutely opposed to the hypothesis that the disease is infectious. The fact that there are practitioners who never certify diarrhoea as a cause of death indicates that there are practitioners who do not believe in it as a fatal disease, but merely as a symptom. On the other hand, that there is such a thing as an idiosyncrasy for certifying diarrhoea, shows that local diarrhoea death-rates may be raised or lowered by the migrations of a single practitioner. Again, that a large proportion of cases called diarrhoea prove fatal when the subject is under 1 year old, appears to indicate that the symptom is often due to inanition, malnutrition, early weaning, etc. That many of the cases ascribed to diarrhoea suffer from convulsions, seems to indicate that some are cases of tubercular meningitis; and that wasting sometimes precedes the diarrhoea, shows that there are cases in which diarrhoea is not the primary disease. The duration of the illness varying greatly, though not very strong evidence either way, tells rather against summer-diarrhoea being one and the same disease.

Reviewing the whole subject, I find it impossible to believe that the immense infant-mortality entered to diarrhoea every summer can represent one disease. The many different explanations that have been given of its etiology support my view. Observers are not studying the same disease. In one town (Leicester), mothers are largely employed as factory-hands, and neglect and hand-feeding are probably rightly regarded as important factors in the production of the disease. In another town (York), the usual causes of typhoid fever were present, and so was typhoid fever, and it was thought that the local diarrhoea might be of this nature, and doubtless it was. In a third town, there were the soil and ground-water usually associated with phthisis,

and phthisis was a common disease of the adult population; and it was thought, with some reason, that the infant-diarrhoea was often scrofulous. Not a few of the cases entered to summer-diarrhoea are probably simply cases of heat-fever, often met with in the tropics; some seem to be bilious diarrhoea (a term scarcely ever used now), some acid dyspepsia, some a morbus mucosus, probably allied to dysentery.

Supposing this granted, it is yet a question whether, after sorting out all these spurious diarrhoeas, there might not be an important residuum left of genuine zymotic summer-diarrhoea. The Southport sanitary authority some time since addressed a circular letter to the practitioners in the district, requesting them only to certify as diarrhoea cases of genuine zymotic diarrhoea; and this very naturally evoked the question, How do you define zymotic diarrhoea? to which no reply was forthcoming. If there be such a disease, I do not doubt the fact will be established, and that soon. If there be, however, I am at least satisfied of this, that it will never be discovered and described by the study of mere mortality-statistics, but only by clinical observation of cases extending over many districts, and the correct interpretation of *post mortem* appearances.

I regret that my paper should be breaking down in its tenor rather than building-up. I leave the building-up to others. Having had honest doubts, I have stated them, remembering always the words of Bacon, that "if a man be content to begin with doubts, he shall end with certainties."

MR. JOHNSON MARTIN (Bolton) had no doubt diarrhoea was due to some extent to the milk not being good, and to parents giving fruit to their children in summer.

DR. SWETE (Worcester) spoke of the value of Mr. Vacher's remarks on erroneous returns of the cause of death being returned to medical officers of health. In one case returned to him as typhus, the medical man, on being interrogated, was obliged to depart from his diagnosis, and acknowledge that very probably it was not a case of typhus at all. Unless medical officers of health could depend on the returns of the causes of death being correct their vital statistics must necessarily be of small value.

DR. PAINE (Cardiff) had paid considerable attention to this disease. It had been his practice to visit and inquire into the circumstances of cases of diarrhoea, and on many occasions, if he had had the particulars before, he would no doubt have made a considerable modification in the registered cause of death. The Registrar-General, in one of his reports last year, directed attention to the number of deaths put down to diphtheria, which, he believed, was due to a want of careful diagnosis. This remark applied to no disease more than to diarrhoea. He (Dr. Paine) had come to the conclusion that summer diarrhoea was essentially a symptom, and not a disease *per se*. There might be many factors to be taken into consideration when one tried to form an opinion. First of all there was diet, then came temperature and rainfall, and these taken singly or combined might produce the disease. With regard to diet, he had made inquiries into 110 deaths that were reported to him, and in only one case was the child fed at the breast, and that one died when only three weeks old. As to milk there was, in a town like Cardiff, a great demand for it, and it paid the cowkeepers better to sell their milk than to raise calves. He did not think a cow's milk should be used for at least a fortnight or three weeks after calving. There was a considerable amount of colostrum in the milk immediately after calving, which, though good for the calf, might be injurious to children. But it was not one factor only which had to be taken. During a conversation on this point, he was told that cows calved all the year round, and the question was put to him how it was that there were no cases of diarrhoea in the winter. But in July, August, and September there was that which gave a proclivity to disease. The same milk which was harmless in the winter months might be fatal in warm weather. He had made some inquiries into the changes which milk underwent, but he had not yet sufficiently convinced himself to lay his views before the meeting. To demonstrate what he endeavoured to convey, he referred to the fatality from diarrhoea in the west side of the eastern part of Roath in 1883, which was 100 per cent. more than in any other part of the district. There were flat sewers in Roath, and solid matters became deposited in them, and very much favoured zymotic diseases. It might be asked why the disease was not equally as bad on the western side of Roath, where the sewers were equally flat. On the western side there was a great deal of subsoil water, and the district was water-logged. The water found its way into the sewers, and in that part of the district there was better flushing than on the eastern side. Diarrhoea was less prevalent that year in Canton than in other parts of Cardiff, because the drains were better flushed; but he said at the time that when dry weather came

Canton would be as badly off as Roath. In 1884 July was comparatively cool, but in August the temperature was unusually high. There was also an absence of rainfall. The average rainfall in Cardiff was 43 inches; last year it was 36 inches, a good deal of which fell in storms, and was not distributed as it was the year before. The result was that the mortality in Canton was nearly 100 per cent. more than in the other parts of the district. In consequence of the previous heavy mortality in Roath, he had had disinfectants freely distributed there last year, and this was so far successful that the mortality, which in 1883 was 100 per cent. more than in other parts of the district, was 100 per cent. less in 1884. He did not think that diarrhoea was so much an epidemic as it was sporadic, and he invariably found that it was confined to one person in a house.

Dr. BALLARD (London) said that, if he was satisfied of any one thing, it was that there did exist a distinct specific disease, which the profession indeed called "diarrhoea," and which prevailed in the summer; and that this prevalent summer-diarrhoea was not a mere accidental occurrence in the course of other diseases or in the course of teething. He believed that, like cholera, this disease must be regarded as due to the operation of some specific cause, not yet isolated, indeed, any more than the specific cause of cholera had been isolated; but the operation of which was dependent upon a variety of causes, some of which had been referred to by preceding speakers.

Surgeon-Major PRINGLE (Blackheath) said that the milk of summer differed from the milk of winter. He had made inquiries as to how cows were fed in towns, and had discovered that during the winter months they lived almost wholly on artificial food, whilst in the summer it was the reverse. Certain kinds of rank grass, increased in growth by questionable water or drainage-irrigation, might be blamed for this diarrhoea. Milk absorbed poisonous substances from the air, and no doubt, those arising from sewers, and retained the odour of the grass or herb on which the animal had fed. Dr. Pringle related a case in which milk was unfit for food, owing to the cow eating a highly scented root used in the dry state as a "flea-killer." Condensed milk was much to be blamed for the diarrhoea among the poor; and that was to be explained by the neglect of preparing proper food in a proper manner.

Mr. D. DAVIES (Bristol), President of the Section, believed many cases of death from other causes were returned as "diarrhoea;" but he thought when no other disease could be traced, the term "diarrhoea" must be used. He thought with Mr. Vacher, that diarrhoea was an expression applied to many different diseases; but Mr. Vacher did not define them; it was not yet possible to do so. The necessary factors for infantile diarrhoea seemed to be the summer season; the constitution of the year; artificial feeding; cow's milk; and the geographical peculiarity of the soil. To feed infants on their natural food, breast-milk, seemed to be the surest means of preventing diarrhoea.

Dr. PAINE had noticed at one time, when the disease was very prevalent in Cardiff, that there was not one case among the Irish people. They did not buy cows' milk, but fed their children on oatmeal and water, bread and water, and gruel. The other circumstances which operated in the district were the same in regard to the Irish colony, which, moreover, was very much overcrowded and dirty. Although all the other factors were present, there was not one death.

Dr. C. R. DRYSDALE (London) said that diarrhoea was very common in the London hospitals. The children who died were not those fed on breast-milk. It was not his experience that less diarrhoea occurred among the Irish. He had not attributed the diarrhoea usually to the milk, as Dr. Paine seemed to do; although, doubtless, if there were organisms in the milk, it would be one of the most important causes. Starvation, such as he had very commonly witnessed among the poor children of London, was a clear cause of diarrhoea; and one of the best ways of treating this was, he had found, to feed with good milk. In summer, there was, of course, a good deal of tendency to sweating into the intestines.

Dr. WRIGHT (Southport) believed that, under a proper system, medical officers of health and sanitary authorities would have it in their power to render an important service to the public in informing that public, through the Registrar-General's returns, as to the distribution and incidence of disease. It was, therefore, of very great importance that all vital statistics should be based upon an understood and catholic basis; and, in this sense, all local modifications of the methods of making vital statistical returns were to be deprecated. In reference to the causation of infantile diarrhoea, he narrated the case of two of his own children, aged respectively 7 weeks and 17 or 18 months. These children were fed exclusively on milk supplied by the same milkman, and said by him to be the produce of the same cow. After the milkman changed his cowhouse from the suburban portion

of the town to a part where the drainage-emanations were most offensive, diarrhoea and vomiting occurred in the two milk-fed children, and in them alone in the family. It was found that the feeding of the cow from which the milk was solely supplied had undergone no change; and the only change in the conditions of the dairy which could be detected, and which could have caused disease, was the evil influence of the drainage-tainted atmosphere in which the cows were milked, and in which the milk stood exposed. There could be no doubt of the cause of the illness in these cases, as it ceased and occurred with the disuse and use of the suspected milk.

Mr. VACHER said he had little to say in reply, simply because it appeared to him that nearly all present were with him. The tendency of all the comments had been in the same lines as the paper; speaker after speaker had admitted that diarrhoea, as it appeared in the death-returns, represented many types of disease, produced by many causes. What other opinion was it at all possible to hold, when it was found that, in a single year, half as many deaths were credited to diarrhoea as to the remaining six chief zymotic diseases? Dr. Ballard, the greatest authority on the subject, agreed that the truth would be found by bedside observations and *post mortem* observations, rather than by deductions from mere mortality-statistics. Mr. Vacher had not put himself in the position of trying to prove a negative; he merely said "ignosco," and left those who had a case to prove it. Mr. Vacher did not doubt that, when the Blue-book on summer-diarrhoea of children appeared, we should know almost all that it was at present possible to know on this topic.

INFECTIOUS PNEUMONIA.

Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By J. LLOYD ROBERTS, M.B., Vice-President of the Section,
Medical Officer to the General Infirmary, Denbigh.

THE observations contained in the following remarks may perhaps not add much to what is known of infectious pneumonia, and may do but little more than place upon record an epidemic of this disease, well marked in its progress. They are drawn chiefly from experiences in a rural sanitary district (together with a small adjoining urban district, rural in character) of 84,247 acres in extent.

The diagnosis of the pneumonia is accepted from the death-certificates signed by the medical attendants. Indeed, some cases have been personally seen which were typical cases of pneumonia; but one case, the last seen, is regarded as remarkable, and worthy of especial mention, in that the subjective symptoms of rigor and pain, and the objective symptoms from the tongue, pulse, temperature, and characteristic burning skin, were well marked, but that the physical symptoms from percussion and auscultation were but just perceptible. The epidemic is looked upon as one of a specific fever, which had its manifestation, or eruption, in the lung. And this descriptive case is considered as illustrative, the height of the fever and the ill-defined physical signs being symptoms quite out of proportion one to the other.

That pneumonia was epidemic is clear, for during the year (1884) sixty-five deaths were returned under "Bronchitis, Pneumonia, and Pleurisy," against an average of thirty-seven deaths during the preceding five years, of which sixty-five deaths thirty-three were due to pneumonia. The epidemic commenced in May, and was well marked in June, nearly half of the average number of deaths having occurred during two months. The epidemic is judged to have been more than usually fatal, but no complete record of all cases could be made to test it numerically.

Communications with medical men elicited that this disease had prevalence in at least parts of Carnarvonshire (Pwllheli, Portmadoc, Llanberis) during the earlier months of the year, and in part of Denbighshire (Llanrwst) immediately before these spring months. Of other, or intervening places, no medical history was obtained; but from this it was sufficiently gathered that the epidemic had travelled from the west eastwards. In the rural district particularly referred to, this progress was very marked.

The entire district, both in Carnarvonshire and in Denbighshire, over which the disease had prevalence, is geologically of "blue stone" formation—lower and upper silurian. When, in its progress, it reached the carboniferous limestone forming the western boundary of the Vale of Clwyd, and the extensive clay beds (bunter) of the Vale, it received its almost complete limitation. Thus, its course was uninterrupted over an uninterrupted silurian district. Within the district, long intervals of space separated the incidence of cases; and without

the district this would appear to have been the same, but doubtless information is wanted to connect the localities more nearly together.

It is noteworthy, and more than a coincidence, that when the pneumonia reached its limitation on the western boundary of the Vale of Clwyd, on the eastern boundary diphtheric diseases appeared from undiscovered causes, and had considerable prevalence.

The sanitary and social circumstances of the affected districts in no way differ from those of ordinary rural districts. Tellurically, the silurian or "blue stone" district, has always manifested a greater disposition to, and prevalence of, zymotic diseases, than have the limestone districts and the Vale of Clwyd. Meteorologically, the "blue stone" district has a much larger rainfall than have the limestone and vale districts.

Thus much of the conditions attendant upon the prevalence of pneumonia. A few words may suffice to show its infective property. The cases were regular in their sequence, and the localities visited, though at irregular stages both without and within the district, were in one direction. Locally, cases were traced from one person to another by personal contact, such as by visiting and by nursing, and, in one instance, by attendance at a funeral.

The infecting medium or principle is accepted as being the micrococcus of pneumonia found in discharges from the lung, recognised under the microscope, and by cultivation in gelatine. The agency by which it was conveyed from place to place could not always be discovered; hence no more can be said but that the course of the epidemic was that usual with storms in this country.

The same "zymotic wave" which wafted the pneumonia westward, or the same "zymotic influence," is looked upon as being responsible for the diphtheric diseases on the eastern side of the Vale of Clwyd, which came as a sequel to the pneumonia on the western side (and district) of the vale. Theories of growth or development of infecting germs, or of mutations in these germs, do not gain in credence; and, indeed, would appear to be "pretty generally abandoned as the direct outcome of imperfect methods of experimental research" (Woodhead and Hare). Yet this fact remains, that two diseases which have conditions in common in being propagated by living organisms, and in affecting the respiratory tract, raged so far concurrently that one was a sequel to the other; and that a line of demarcation was drawn between them by the geological formation upon which each flourished.

It is much to be regretted that extended etiological experiments by cultivation of the specific micrococci or bacteria could not be conducted, to identify microscopically and otherwise the sources of infection and the sources of propagation; and, perhaps, also to demonstrate the evolution of the one germ to the other, or, at any rate, the mutation in the function assumed by the altered condition of growth.

With this object in view, the Local Government Board were communicated with, but presumably no medical inspector could be spared from the inspections precautionary against cholera. Locally, private investigations were precluded by unavoidable circumstances. Thus a most favourable opportunity for inquiry into the etiology of infectious pneumonia, and its congener and concurrent disease, has been lost.

Mr. DAVIES (President of the Section) had seen pneumonia decidedly infectious. He could trace it from farm to farm and from funeral to funeral. The month of May and the silurian geological formation were apparently favourable to the presence of the disease.

OUGHT WE TO PRESCRIBE ALCOHOL, AND HOW?

Read in the Section of Pharmacology and Therapeutics, at the Annual Meeting of the British Medical Association in Cardiff.

By NORMAN KERR, M.D., F.L.S., London.

THE medicinal administration of alcohol has, especially of late years, been the subject of much disputation.

There yet linger in our ranks, "*rari nantes in gurgite vasto*," a few survivors of the Brunonian wave of stimulation who, out Browning Brown, seem to order fermented wines and ardent spirits to their patients of both sexes, at all ages, in almost every ailment.

There have arisen in our midst some daring innovators, who deny that alcohol, in any form or in any quantity, possesses useful medicinal virtues, and teach that in all circumstances its therapeutic use is positively injurious. These latter will not concede a place to alcohol even in pharmacy, and insist on the preparation of drugs in non-alcoholic menstrea. Between these extremes lie two other groups.

The one, while deprecating the routine and indiscriminate pre-

scription of alcoholics, have not lost faith in the value of such beverages when ordered with care, deliberation, and precision.

The other group, while condemning the use of intoxicating drinks as therapeutic agents, order alcohol, generously it may be, in a purely medicinal mixture, as alcohol at a definite specific gravity.

I began a quarter of a century ago by adopting the last-named plan, combining the alcohol with "*aqua cinnamomi*" or some other pleasing diluent, likely to render the taste as agreeable as possible to the palate of the patient. I soon realised, however, that there were cases in which pure alcohol so taken could not be tolerated or retained; and I gradually fell into the method of prescribing the alcohol in a mixture composed of compound tincture of cardamom, aromatic spirit of ammonia, spirit of chloroform, with cinnamon water, or some similar combination, with the addition of other alcoholic tinctures as indicated.

Both of these modes of prescribing enable the intelligent physician to administer exactly the amount of alcohol which he wishes to employ, and to watch the precise effects of the remedy.

But I at times encountered cases when each of these methods of administration failed, either to secure retention of the potion, or to benefit the patient; and when some ordinary form of intoxicating liquid was the apparent means of tiding the sufferer over a crisis, or proved efficacious in some other way. At times, relief was experienced from whisky, at times from brandy, and at times from some form of fermented wine.

Most practitioners have, as they advanced on their professional career, ordered less and less alcoholic liquor. I, on the contrary, have steadily resorted to this adjuvant to medical treatment more and more. At the same time, so seldom do I prescribe these potent and dangerous remedies, and in so small doses, that the average of recent years has been only once in every 2,000 cases, and the total amount ordered has not averaged annually more than a quart of spirits, and a couple of dozen bottles of fermented wine. As my practice has comprised a fair share of illness and accident commonly treated by intoxicants, such as *post partum* hæmorrhage, fevers, and shock from injury, and my results have been as good as those of my neighbours, my testimony may be regarded as practically corroborative of the safety and reliability of the treatment of disease and accident without intoxicating drinks. It is right to add that I have found the unfermented port with bark (supplied by Mr. Frank Wright, of Kensington, London) of great value in convalescence from fever and other ailments.

The dictum that alcohol is always, everywhere, and in all quantities, injurious, has no warrant from science or from common sense, and is opposed to the facts. In the present state of our knowledge, such a belief can arise only from the wish being father to the thought. In our recoil from the horrors of intemperance, we are apt to regard alcohol as "only evil, and that continually;" but, as professors of the art of healing and as interpreters of scientific truth, we have no right to allow our reason to be overborne by our feelings.

In pharmacy, though glycerine-tinctures, if they be carefully prepared, are, as regards many drugs, satisfactory, there are other drugs with which they are not so successful. There are other non-alcoholic pharmaceutical preparations; but, for myself, I confess that I know of little advantage which most of these possess over the official forms of the *British Pharmacopœia*, except the fashionable attribute of cheapness. Though, up to the present, alcohol has borne the palm over other media, in the preparation and preservation of most drugs, it is well to have at command the various remedies which we employ in a non-alcoholic form, as we can thus try the therapeutic power of any particular substance, unmasked and unaffected by the effects of the alcohol. There are also cases in which we may be specially desirous of avoiding even the minutest narcotic effect of the alcohol in an ordinary tincture.

To the question, Ought we ever to prescribe intoxicating drinks? I unhesitatingly reply, Yes. How any one can deny that they have been useful, and have saved life, I am at a loss to understand. I have seen cases—not many, certainly—in which, were I to doubt that the timely and judicious administration of fermented wine or distilled spirit has been the means of recovery, I would as reasonably doubt the usefulness of any other drug. For example, in one case of childbirth, to which I was unexpectedly called, the woman appeared moribund, and I had literally no hope of saving her. However, I applied the brandy-bottle, which, of course, stood conveniently near (it is remarkable how handy this physic always is), to her lips, and succeeded in getting about an ounce down. The revival was almost instantaneous, when I forcibly dilated the os uteri, introduced the forceps, and delivered. The patient ultimately made a good recovery. I ought to add that, if there had been at command any other stimu-

iant, such as sal volatile or chloric ether, I would have used it in preference to the brandy.

Let me cite one more case in the practice of my friend, Mr. C. H. Greenly, late of Bristol. A boy, aged 12, was struck down by a severe attack of measles. After twenty-four hours' vomiting he was pale and collapsed, the pulse very feeble and fluttering, the face hippocratic, and the boy appeared at death's door. My friend, now an octogenarian, having been an abstainer of long standing, had tried every non-alcoholic and non-intoxicating remedy that could be thought of. As a last resort, a glassful of champagne was given. The vomiting ceased. In half an hour more, half a glassful was given. The patient then was able to retain a little food, began to revive, and ultimately recovered. No more stimulants were administered.

It does not always follow that, because a patient has recovered after taking an alcoholic stimulant, he owes his recovery to that stimulant. *Post hoc* is not necessarily *propter hoc*.

An old lady died in London a few years ago. The same medical man had attended her for thirty-five years. She left him a legacy carefully packed in a certain huge box. When this box was opened after her death, the legacy to the medical attendant, to whom she had expressed herself as indebted for his skilful advice and excellent medicine which had kept her alive so long, was found to consist of all the bottles of physic which he had ever sent her—unopened.

I have known recovery take place, and the attending physician congratulate himself on the striking effect of the intoxicant prescribed, when all the time the patient has not tasted it.

Yet, after every reasonable allowance for fallacies, there seems to me to be proof, as clear as we can expect to find of the value of any drug, of unmistakable benefit derived from an intoxicating draught wisely ordered.

Even in cases where an intoxicant seemed utterly inadmissible, I have known good results from such a prescription. Take one instance in the practice of my friend, Dr. Fitch. Dr. Fitch was called in consultation to the bedside of a man apparently suffering from dysentery. The sufferer was *in extremis*, and feebly asked for cider. The physicians were all agreed that nothing could be worse for him. As they were also agreed that nothing more could be done to avert a fatal termination, my friend said, "As we are of one mind that the man is dying, cider can't kill him. Let us give him what he wants." A wineglassful was brought. The patient drank it with avidity, and asked for more. "By all means," said my sensible friend; "fetch a pitcher, and let him drink as much as he likes." The man drank a quart, and, to the astonishment alike of his physicians and his friends, made a perfect recovery.

In support of the allegation that alcohol is always injurious in therapeutics, no proof has as yet been adduced. It is interesting and instructive to learn that, in the experience of the London Temperance Hospital, there has been a mortality of only five per cent. in a record of 2,862 in-patients, to only three of whom an intoxicant had been administered; but no argument against the careful therapeutic employment of alcoholic liquor can be founded on these figures. The numbers treated, in comparison with those attended at other hospitals, have been so small that the law of averages has not yet had time to operate. A single hospital epidemic might at once expose the fallacy of drawing a positive conclusion from so limited an induction, by seriously raising the mortality. The only legitimate use which can at present be made of the experience at this most useful institution is a simple statement of the facts (without the enunciation of any dogmatic conclusions), such as has been given by Mr. Pearce Gould in his report of a year's surgical work at this hospital, presented to the surgery and anatomy section of the American Medical Association, a report which I may be permitted to commend for its modesty and candour. To show how dangerous it is to generalise from insufficient data, it will suffice to refer to the variation in the death-rate in enteric fever at the Middlesex Hospital, which was 28.8 per cent. in 1876, and 2.5 per cent. in 1880.

Hitherto, most of the non-alcoholic experiments have been pitted against the profuse administration of alcoholic drinks, a most fallacious procedure. This has been done notably with enteric fever; yet the only recently published record of cases of this disease treated without alcohol in this country in a public institution shows a higher death-rate than I have ever myself seen, though occasionally giving small doses of intoxicants.

A curious exemplification of the confusion of popular reasoning on the medical use of alcohol will be found in a generally accurate and attractive volume, a work of permanent value, by Mr. Axel Gustafson (Kegan Paul, Trench, and Co., 3rd edition, pp. 205-7). The accomplished author, who is not a member of the medical profession, contrasts the low mortality in the treatment of enteric fever

by cold bathing with the higher mortality by hospital treatment embracing alcoholic stimuli, oblivious of the fact that to patients subjected to the cold bathing alcoholics were given. The comparison ought not to lie between the absence of alcohol and its indiscriminate prescription, but between the former and the intelligent employment of the drug. The best method of arriving at the truth is to treat one half of the patients admitted into a hospital with no alcoholic liquors, and to give these remedial agents to the other half with the utmost care and discrimination, ensuring the equality of the conditions of both groups as closely as possible. This plan was adopted by Dr. Bristowe, and his experience was corroborative of my own, that there was practically no difference in the issue. The difference in favour of no alcohol, as contrasted with a lavish use of alcohol, is, however, very marked, as was shown by Dr. Gairdner and Dr. J. B. Russell many years ago.

In my paper on "The Medical Administration of Alcohol," read to the Section of Medicine at the meeting of the Association at Sheffield in 1876, I cited several medical testimonies in favour of non-alcoholic treatment of fevers, notably that of my friend Dr. Simon Nicolls, who had a mortality of less than 5 per cent. in 230 cases.

The record of the results of a greatly lessened administration of alcohol in the treatment of small-pox, in the London hospital-ships, is of deep interest. Having been requested to inquire into the effects of this diminished alcoholic stimulation on the mortality and convalescence, Dr. Birdwood stated that, though the gravity of the cases had increased, with a mortality of 15 per 100 in the metropolis, the ships' death-rate had remained at less than 7 per 100. Convalescence had been more rapid, and there had been fewer and less serious complications from abscesses and inflammatory boils. Other causes had contributed to this improvement, but the medical officers attributed a considerable share in the amelioration to a greatly diminished prescription of alcohol. On the whole, I have no hesitation in giving utterance to the opinion that, as a rule, most cases of all kinds of fever can be best treated without intoxicating remedies, only a rare case calling for and benefiting by such therapeutic adjuvants. Without hesitation, I may make a similar statement with reference to most other diseases.

How ought we to prescribe alcohol?—We should never forget that intoxicating drinks cannot be ordered without some risk of a taste for them being acquired, and the remedy itself proving worse than the original disease.

This risk was strikingly exemplified in the case of a favourite dog of two maiden ladies of my acquaintance. This animal was seized with an attack of acute pneumonia. The veterinary surgeon gave the dog brandy; the dog recovered, whether because of or in spite of the stimulant, I cannot tell. Ever since, if he hear anyone speak of brandy, he is up in a moment on his hind legs, begging for the seductive physic. Though I believe the cases of what may be called "medical drunkenness" are not nearly so numerous as is popularly asserted, I have known instances where the medical prescription of strong drinks has been the beginning of a career of excess.

We ought in all cases to let alcoholic liquors be the last, and not the first, remedy, as they are ever fraught with possible danger. Especially we ought not to administer such "tricksy spirits" to reformed inebriates, or to persons who labour under the suspicion of a transmitted alcoholic taint. The whole system of all such is ever ready to respond to the lightest touch of the poison, and the smallest sip will often light up an uncontrollable conflagration.

For these reasons, as well as for the scientific reason that we should administer our remedies in as well defined doses as possible, and in such a form as to be liable to little disturbance from the action of other agents, it is desirable to order alcohol at a certain specific gravity in some elegant mixture, or in a preparation into which alcoholic tinctures of an ascertained strength enter. By both these plans, you can control the amount of alcohol you employ, and you can note the effects.

But intoxicants are not always given to the sick purely for the alcohol which they contain. The ethers developed in wines and spirits are sometimes of a high medicinal value; and, till science has succeeded in separating these ethers from the alcohol with which they are associated, it will be bad practice to exclude intoxicating drinks altogether from our armamentarium.

Bearing in mind the possibility of the narcotic setting up a new chain of diseased symptoms, and even leading to those habits of intemperance which we all reprobate, we ought to limit our prescription of an intoxicant to the occasion only, taking due precaution that the medicine is not continued after the purpose for which the stimulant was given has been gained. We ought, also, for these reasons, as well as to secure the definite benefit which we hope to attain from the

administration of an alcoholic drink, to order the remedy in accurately defined doses. By the adoption of such a line of practice, we shall act in a spirit of loyalty to the high character of our calling; we shall avail ourselves of all the aid derivable from a potent narcotic remedy; we shall shield ourselves from any imputation of recklessness and carelessness; and we shall have the satisfaction of knowing that none of our patients can rightfully reproach us with having launched him on a deep, beneath the treacherous surface of which a perilous fate may overtake the frail and venturesome voyager.

CASE OF RENAL LITHOTOMY, OR NEPHROTOMY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By R. H. BOURCHIER NICHOLSON, M.R.C.S.,
Assistant-Surgeon to the Royal Infirmary, Hull.

JANE J., aged 42, married, was the mother of ten children. When I first saw her, she had had pain in the left loin for two years, and was not able to lie on that side. In May, 1883, she suffered a sudden pain, which was followed by hæmaturia; this occurred again in October of the same year. In March, 1884, a large quantity of blood was passed, with much pus; in fact, pus had been passed more or less for above two years before I was called in. Lastly, in June of last year she passed more blood, and was in constant pain. She had been under four different medical men, who had told her various reasons for her trouble.

When sent for, I found her very thin, weighing about five stones, looking greatly distressed, having little or no rest either night or day, and passing eight ounces of pus in the twenty-four hours. On the left loin there was a recently blistered surface, six inches square. In the course of a few days this healed, and she could bear a careful examination, when a decided enlargement the size of an orange in the region of the left kidney was found, where on palpation I thought fluctuation could be felt.

I asked my colleague, Mr. Thompson, to see her with me; and on July 2nd, 1884, a fortnight after my first visit, I had her placed under ether by my son, and, assisted by Mr. Thompson and Mr. Freshney, performed the following operation under full antiseptic precautions. I made an incision parallel with the last rib as for lumbar colotomy; and, on arriving at the peritoneum, which was easily pushed aside, I could feel the lower and outer convex border of the kidney. I then passed a very fine aspirating needle into it. At the first insertion no stone, was felt, nor did anything come into the cylinder of the aspirator. I made a second insertion, somewhat more upwards, when I struck the stone, and the cylinder filled with pus. I then carefully cut down on the needle, using it as a director, following the knife with my finger, and making the wound in the kidney large enough to introduce two fingers; after which there was not much difficulty, with the aid of a lithotomy-scoop, in removing a large branched stone, in shape rather like a piece of ginger-root. It is composed of the triple phosphates, and weighs 3 drachms and 14 grains. There was only one small vessel which required tying; and during the operation there was a slight oozing from the kidney, which soon ceased. After removal of the stone, I thoroughly explored the dilated kidney, both with my fingers and with a pair of curved forceps. A small stone, weighing six grains, was the result (this stone had a facet on it). There were eight ounces of fætid pus emptied out; before closing the wound, we thoroughly sponged it out.

I requested Mr. Thompson to examine the interior of the dilated kidney, and then, inserting a large drainage-tube, stitched the outer wound with silver sutures, and dressed with a pad of salicylic silk. The patient rallied very well, and, the same evening, the thermometer went down to 99, and only once rose higher. She gradually progressed towards convalescence, the pus slowly decreasing. Then again, during four months, she passed a rather large number of small calculi, the size of peas, and they were accompanied with a small quantity of pus. She has had no more hæmaturia, and is gradually gaining flesh; the wound is entirely healed, only a small fistulous opening remaining, which requires a pad of lint once or twice a week.

I had a letter from her husband on July 25th, 1885, in which he tells me that she is out of town, is in first-rate health, free from pain, can stoop to pick up anything, can walk upstairs, and has been a few times out shopping, a few doors from where she is staying; knitting and sewing do her no harm; her urine is all but clear. She has been in a scale this week: her weight is 8 stones 10 lbs.

Mr. A. E. J. Barker, of London, lays down some useful instructions in the shape of question and answer as guides in operations on

the kidneys, which were published in the *Transactions of the International Medical Congress of 1881*, and of which I will give an abstract.

1. How early in the course of its formation can a calculus in the kidney be accurately diagnosed? Theoretically and practically, early operation holds out far better prospects than if performed later. He mentions the brilliant case of Dr. Sidney Coupland and Mr. Morris, in which the latter removed a small stone from a healthy kidney with complete success, without producing an urinary fistula in the loin. He says the importance of this case cannot be overestimated.

2. How early is it justifiable to operate on the organ for this condition? The earlier the operation the better, provided the symptoms are clear, and the patient's distress marked and increasing.

3. In what should such operation consist? whether in simple incision of the kidney with extraction of the stone, or nephrectomy? He thinks the whole matter is much simplified, if we adopt the idea of the antiseptic exploratory lumbar incision, with careful, but, if necessary, free puncture of the organ.

4. How late is it justifiable to attempt nephrectomy for renal calculus? Between nephrotomy with extraction of stone and nephrectomy, there is, I venture to assert, but little ultimate choice; in very advanced calculous renal disease, nephrectomy appears particularly formidable. Mr. Barker then goes on to say: "It is a significant fact, as far as the numbers go, that, out of the cases of nephrectomy for stone in the kidney which I have been able to collect, seven died; all of whom were above 30 years of age. The three patients who survived were all under 24. Nephrectomy for other causes, however, has been performed successfully on individuals as old as 53."

CURE OF VARICES BY EXCISION.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By J. FARRANT FRY, L.R.C.P. Lond.,
Assistant-Surgeon to the Swansea Hospital.

THE treatment of varicose veins may be divided into palliative and curative. The latter is chiefly called for when the former is ineffectual, and aims at obliteration of the varix by one of three plans—1, the production of coagulation by caustics applied along the course of the vessel; 2, division of the vein either subcutaneously or by compression; 3, complete excision of the vein. The objections to the first plan are, (a) the difficulty of producing just sufficient slough to obliterate the vein without destroying subjacent structures, and (b) the danger arising from the resulting shock. Division of the vein subcutaneously is neither easy nor safe, as the knife or needle may be passed through, instead of beneath, the vein; and, if passed beneath the vein operated on, it may transfix another vein lying beneath. [In one of my cases, the varix, from its position just above and on the inner side of the knee, was believed to be a part of the internal saphenous vein; but, on dissecting it out, I found that it lay over, and was not connected with, the latter; and that, had I attempted to transfix the vein subcutaneously, my needle would almost certainly have been passed through the saphena vein. A similar case is reported by Mr. Davies-Colley in the *Guy's Hospital Reports* for 1875, in a paper on Varicose Veins of the Lower Extremity treated by Excision.] A further objection to the subcutaneous treatment is the uncertainty as to when the pins can be removed. Subcutaneous section of a vein does not, moreover, always secure its obliteration.

Complete excision of large varices was recommended by Celsus; but the plan fell into disuse, on account of the occurrence of diffuse inflammation and pyæmia. Dr. Steele of Bristol, and also Mr. Marshall, in the *Lancet* of January 23rd, 1875, advocated the excision of a considerable length of the varicose vein; and Mr. Davies-Colley, in the paper before referred to, reports two cases in which he excised varicose veins with strict antiseptic precautions; and, "from the result," he thinks "the operation bids fair to supersede all other plans of operative treatment." Two years later, Mr. Howse wrote a paper in the *Guy's Hospital Reports* on the Cure of Varices by Excision, in which he says he entirely agrees with Mr. Davies-Colley's conclusions. Adopting the recommendations of these two able surgeons (both my much esteemed teachers), I have operated on six cases; and the results have been so good that I have ventured to read this paper, with the hope that it may be the means of inducing others to adopt an operation which I believe to be a safe means of giving effectual relief to a troublesome complaint.

The notes of one case, which may be taken as a type of all, are as follows. Mr. P., a baker, aged 37, of average constitution and health, had for three years suffered from varicose veins of the left leg, and

two months ago, an ulcer appeared on the inner side of the leg. By my advice, he had tried both the elastic stocking and Martin's para rubber-bandage, but they caused such irritation, that he discontinued their use. On the night of September 2nd, 1884, I was summoned on account of profuse hæmorrhage. On examination, there was an indolent ulcer, about the size of a penny-piece, on the inner side of the lower third of the left leg. The bleeding took place from an open-mouthed vein, which, commencing at the upper angle of the ulcer, immediately formed an irregular knotty mass; from here, it could be traced in a dilated condition to just above the internal condyle, where it again formed an irregular convoluted mass, and gradually lessened in size above this point. Mr. P. readily consented to an operation, which promised a fair chance of ridding him at the same time of the ulcer and its cause; so, after keeping him quiet in bed for a week to recover from the effects of the hæmorrhage, the following operation was performed on September 9th, 1884. An ink-mark about an inch long was made over each of the two varices (one near the ulcer, the other above the knee), and, the patient being under the influence of an anæsthetic, a Martin's rubber-bandage was firmly applied from the toes to the middle of the thigh, and removed after a Foulis' tourniquet had been placed round the thigh, at the upper margin of the bandage. The limb was now bloodless. Under carbolic spray (1 in 40), a longitudinal incision was made through the lower ink-mark, but only skin-deep, and extending into the ulcer. The tortuous varix now came into view, and was ligatured at its upper end with catgut; it was dissected down, and ligatured again at the margin of the ulcer; and thus a piece of vein six inches long was removed, through an incision one inch in length. The edges of the skin were brought together with silver wire-suture, and antiseptic dressing applied. The second varix having been treated in the same way, the limb was firmly bandaged, and (after the tourniquet had been removed) swung in a Salter's cradle. During the first three days, the temperature ranged between 99° Fahr. and 100° Fahr., and then fell to normal. The wound was dressed antiseptically on the third, fifth, and eighth days; and on the last date the sutures were removed. Both incisions were healed, and the ulcer had closed in ten days more. On November 1st, Mr. P. returned from a three weeks' holiday, and said that, "so far as sensation goes, I do not know which has been the bad leg." The cicatrices and ulcer were firm, and he could comfortably wear the elastic stocking which I advised him to continue for a time. Within the last week, I have called on this patient; the cicatrices of the ulcer and of the incisions of course remain, but there is no trace of varicose veins in the leg, and he says he can stand and walk as well as ever.

This morning, I met in the streets of Swansea a woman aged 70, who had three varices removed more than two years ago; she tells me the limb is sound, and there is no sign of the varicose vein, and she would like to have the other leg cured.

The conclusions I would draw are that, if palliative measures afford sufficient relief, it is unwise to operate; but, of the various operations, the excision of the vein is the safest; and that, for its successful performance, the following details must be strictly carried out.

1. Excise through several small incisions (not more than an inch in length) in preference to removing one large piece, as by so doing the vein is occluded at several points.
2. Mark the site of the proposed incisions before applying the bandage, as the position of the varices becomes indefinite when the limb is rendered bloodless.
3. Apply the Esmarch's bandage carefully, so as thoroughly to empty the blood-vessels; or, the wound becoming full of blood, there will be considerable difficulty in dissecting out the vein, and very troublesome hæmorrhage may occur.
4. Ligature the vein at its upper end, and dissect it out from above downwards.
5. Remove as little as possible of the tissues surrounding the vein; but, if this be unavoidable, take away also the deep fascia (which is but feebly supplied with blood, and will not favour union), and allow the skin to adhere to the vascular muscle.
6. Apply the dressings, and bandage the limb, before removing the tourniquet. By this means, hæmorrhage is avoided, and primary union encouraged.
7. Above all, the careful employment of antiseptic measures is necessary, both during the operation and in the subsequent dressings.

DONATIONS AND BEQUESTS.—A bank-note for £1,000 has been sent, anonymously, to the Secretary of the Doncaster Infirmary, "for investment for income, not in paying arrears or deficiencies."—The Huddersfield Infirmary has received £200 under the will of Mr. John Eastwood.

THE MODERN TREATMENT OF UTERINE MYOMA.

By HORATIO R. BIGELOW, M.D., Washington, District of Columbia.

I HAVE read with more than common interest Mr. Lawson Tait's paper in the *BRITISH MEDICAL JOURNAL* of August 15th, under the above heading. The additional interest is due to my association, during the past eight months, with the leading gynecologists in Berlin, at whose clinics I have seen over 125 abdominal sections, which very naturally stimulated me to investigate more closely the leading points of an article upon uterine myoma previously published by me in the *American Journal of Obstetrics*. The time has not yet come when a majority of surgeons will endorse Mr. Tait's views, however large his statistics, or however successful his results. Mr. Tait's logic may be, like Wagner's music, reserved for the appreciation of future ages; for its strident chromatics grate somewhat harshly upon those whose experience and studies have turned their thoughts into other channels.

Dr. More Madden's recent address before the British Gynecological Society developed much conservative strength, particularly when he opposed to Mr. Tait's mortality the general clinical history of myoma. It brought out, too, an astonishing want of unity of sentiment in regard to the treatment of these cases among London's best specialists. The paper merited a larger scientific handling than it received, for personalities are vain, and out of place at intelligent gatherings. A simple myomectomy is generally unattended with danger, and its results are enduring. Tait's operation, except in his own hands, is difficult, dangerous, and not always permanent in satisfactory results. Surgical interference that involves a possibility of death is not to be thought of, save only when the myoma endangers the patient's life by hæmorrhage, or by pressure from rapidly increasing bulk. A large subperitoneal myoma that moves freely, and is only dangerous by reason of its bulk, is always treated here, and best treated, by the abdominal section. These tumours rarely bleed, and Tait's operation would be an useless and needless one. If it be true, which I hold is not proven, and which is not in accord with continental experience, that removal of the appendages cuts off the blood-supply, and causes necrosis, death, and shrivelling of the tumour, it would be equally true that the operation would leave the woman with a disorganised, broken-down, and altogether intolerant mass within her belly, which would necessarily set up symptoms of sepsis. It was at one time maintained that electrolysis would produce similar results, and that the lymphatic system would carry off the debris. How such a conception could find a resting-place in any well organised brain, I fail to understand.

But, questions of sequelæ apart, the operation itself is one of very great gravity, quite as serious as the immediate removal of the tumour, and without the probability of permanent cure. We have rid the woman of an essential integral factor in her sexual make up, we have shocked the nervous system to a tremendous extent, we have left her to carry about in her weakened condition a necrosed tumour, and we cannot give her the assurance that she is cured.

All myomata do not bleed; only a small proportion endanger life by bleeding. In these cases better results are obtained in Berlin by the radical operation; indeed, Mr. Tait's operation has not met with success, and is rarely resorted to. I have seen several cases by Dr. Martin here, in which, upon the same patient, a subperitoneal myoma was removed by section, the uterus cut into, and an intraparietal myoma enucleated. As a rule, I do not believe in enucleation, the risk being too great, and I do not believe that any surgical interference is demanded, save when dangerous symptoms accompany the tumour. Many women can be seen here who have carried about with them for twenty years uterine myomata, and who suffer no especial discomfort; would they have so lived after an oöphorectomy or a myomectomy?

Now, when a tumour bleeds badly, and so jeopardises the life of the patient, shall we do a gastro-hysterectomy or an oöphorectomy? For me, both operations are equally difficult, equally hazardous. An oöphorectomy is not radical; it is palliative, and, in hands other than those of him whose name as surgeon is pre-eminent, its success has not been encouraging. I cannot understand, either, the *modus operandi* by which the pathological process shall be so completely obliterated. I do not just see how the entire blood-supply of an uterine myoma, that has its growth in the tissues of the uterus, which is strictly homologous, can be entirely cut off by an oöphorectomy, without also involving the uterus, to some extent, in a similar process of starvation. If it be held that an oöphorectomy performed during the early history of these cases will prevent the necessity of subsequent gastro-hysterectomy, I would object that, at these early stages, no man can predict

what the growth will be, or whether it will be attended with serious symptoms. To subject a woman to such a serious operation as oöphorectomy upon uncertain predicates, would be bad surgery. I would also object that, as the mucous membrane of the uterus itself is intimately concerned in all changes of sexuality, I mean in direct connection with menstruation, removal of the appendages will not necessarily control the hæmorrhage. Mr. Tait himself has found this to be the case. The results here of simple myomectomy are first-rate. In gastro-hysterectomy, intraperitoneally treated, the results are every year improving. The general statistics of oöphorectomy in the treatment of myomas are not such as to meet with general favour, while the operation itself is palliative, and not radical. If necessity demand an operation, I should prefer a hysterectomy as being almost as easy, and more satisfactory. The results of intraperitoneal hysterectomy are not as bad in Berlin as Mr. Tait tells us they are in Birmingham, while the number done is very great. In any surgical consideration, a man is largely swayed by his prejudices and by his own individual success, so that we can understand why Mr. Tait's operation receives so little of general acceptance.

I cannot explain why Mr. Tait's statistics differ so from those of other gynæcologists, except upon the ground, perhaps, of greater facility in operating. I cannot understand the exact processes by which hæmorrhage and growth are arrested without involving the uterus, and without subsequent septic infection. Further, I cannot see that the general acceptance of Mr. Tait's views has met with any better success than the general treatment of myomata here by abdominal section. It is also known that, in other hands, and well skilled ones too, Tait's operation has not been attended with very good results.

CASES OF ECZEMA TREATED BY THE STRATHPEFFER WATERS.

By WILLIAM BRUCE, M.D., Dingwall, N.B.

THE following cases are published as examples of the well known value of sulphuretted waters in the treatment of eczema. Many natural waters of this kind are now available to patients and physicians; but there is no reason why Strathpeffer, the strongest sulphur spa in our own country, should not be brought prominently before the public. Indeed, there are some good and weighty arguments in its favour. Strathpeffer is within comparatively easy access of London (sixteen to seventeen hours) and our large provincial centres. It possesses a delightful climate; is sheltered from the easterly breezes, and yet protected from the drenching rains of the west coast; is in the very mouth, so to speak, of the North-western Highlands; with ready access to Skye, the Lewes, and the wild coasts of Ross and Sutherland. Above all, it is quite beyond the region of smoke and fogs, and lies surrounded by grand old heather-hills in the distance, with green-covered birken-shaws and sombre pine-woods in its more immediate neighbourhood. The accommodation is now ample, and abreast of the day. While water-drinking is still the main portion of the cure at Strathpeffer, the baths are being yearly developed, and more skilled attendants provided. Whilst the waters, as I shall show, are of great advantage in eczema, they are also suitable in psoriasis and other skin-affections. Of their value in gout and rheumatism, in their protean aspects, I hope to be able to give demonstrative evidence another time. Strathpeffer is, however, no panacea. I should strongly advise my brother practitioners against sending patients suffering from acute gout, phthisis in its later stages, and advanced disease of the kidney and heart. In short, all thorough invalids, and such as are quite confined to their rooms, are much better at home, with all its comforts and sympathies, under the watchful eyes of their own physician.

CASE I.—J. B., male, aged 62. Four years ago, a few minute papules, no larger than pin-heads, reddish in colour, and extremely itchy, appeared on the back of both hands. Gradually, the rash extended from the hands to the arms; occasionally even to such an extent as to cover the greater part of the body. At times, the affected parts became swollen, hot, and painful, and a considerable quantity of watery fluid oozed out. This condition generally lasted for two or three days; then the exudation dried up, the swelling subsided, and the pain and heat died away. These acute attacks were followed by crops of small pustules; one crop appearing as another disappeared. Small red papules, similar to those which were noticed at the onset of the disease, frequently made their appearance on the back of the hands, and were so itchy that the patient could not refrain from scratching, although he knew from experience this only made matters worse. He first visited Strathpeffer in 1883, and again in 1884, and left appar-

ently quite cured. The disease reappeared in the winter, and was much relieved by baths of sulphuret of potassium, and the internal use of sulphide of calcium, with a teaspoonful of Carlsbad salts, every morning, in the able hands of my friend, Dr. Manson, of Banff.

CASE II.—Mr. P. was sent to Strathpeffer by Dr. Ford Anderson, of London, who gave the following account of his case. "The patient, aged 70, has a very gouty history; formerly he had a feeble heart and occasionally traces of albumen in the urine. For the last eighteen months the heart has been stronger: there has been no albumen in the urine; and the skin-disease has taken, to a great extent, the place of the gout in the toe. His first attack of eczema began in February, 1883, after exposure to cold; it remained general and acute for four or five months, and improved in the autumn, but never left him entirely. In January last (1884) there was a recrudescence of the disease of a more violent kind, and he has been under constant treatment since. The character of the disease last year was distinctly eczematous—of the moist and red kind, with boils. This year, it has been drier and more scaly. Every morning his bed has been covered with scales, and I do not exaggerate when I say that since January we could have filled a wagon with the sweepings of his bed. When the skin is irritated by too much exercise, or by strong applications, it becomes red and moist, but when he is quiet, and when gentle unguents are applied, the general surface of the skin assumes a more natural appearance. Hebra would have called it pityriasis rubra; but however that may be, the present condition is a continuation of undoubted eczema rubrum. Mr. P. has been seen by several physicians in consultation, and lately by Sir A. Clark, who urged a trial of Strathpeffer, followed by a visit to Harrogate, if Strathpeffer failed. The treatment has included almost everything, and they have all had fair trials. In a general way this is the outcome of my observations, that baths and strong applications of any kind do harm, and that mild applications of a greasy nature (we have of late been using chrisma album), rubbed in twice daily, do best. An occasional bath, once in two or three weeks, is harmless; but whenever we have tried to repeat it soon, the skin becomes red and moist, and the manufacture of scales is intensified. A day of complete rest generally improves the state of the skin when it becomes sore.

"I omitted to mention one of the most striking features of the disease, namely, the intense itching. He scratches incessantly, regardless of consequences, and there can be no doubt that his malady is kept up by this scratching. I need not enumerate the ointments we have used. As to internal remedies, he has had a full trial of colchicum, iodide of potassium, and arsenic; and when Sir A. Clark saw him a fortnight ago, he suggested Donovan's solution. I have stopped this provisionally on account of his journey to the north; but I am rather inclined to think it has done some good—not much, but a little. He has to take aperients, and is subject to occasional sudden calls to stool."

The patient began treatment at Strathpeffer on August 3rd, 1884, drinking two or three large glasses of water from the upper well at 8.0 a.m., and the same quantity again in the forenoon. He was ordered to stop all medicines, to apply simply chrisma to the skin, and to avoid scratching. He continued this treatment steadily for weeks, and gradually improved. During its course he had two breaks, taking a holiday on the one occasion, near Dunrobin Castle, and on the next occasion at Achnasheen, on the watershed between the east and west coasts, 600 feet high, among the mountains. On September 13th, the report was that all weeping had entirely stopped, but there was still much itching. On October 4th he left for London, cured, except for very slight scaling and itching. Dr. Ford Anderson reported (June 15th, 1885). "Mr. P. has spent the winter at Bath, and is practically quite well."

CASE III.—C. B., female, aged 59, enjoyed good health previously to the present illness. There was no hereditary tendency to gout or eczema, but a sister suffered from asthma. The disease began about three years and a half ago. She had tried many remedies, including sulphur and arsenic. This lady was first seen by me on September 3rd, 1884, for aggravated eczema of a somewhat dry kind, with scales almost like psoriasis on the arms and legs. Her most troublesome complaint was of deep fissures in the feet, which almost entirely prevented her from walking. Under the use of the waters and baths, she improved very much, but came too late to be quite cured. She writes (June 16th) that she has been ill during the winter, but is to return again this season.

CASE IV.—C. G., aged 65, a widow, stout and full-blooded, with gouty tendency. About eighteen months ago, eczema of an acute form appeared on the head, face, and neck, with redness, pain, and intense itching. In the course of a few months, the hair had almost entirely disappeared from the scalp. The disease yielded slowly to

treatment, but towards the end of the year it again assumed a very acute condition, and on this occasion was complicated with erysipelas, which confined the patient to the house for the winter. She came to Strathpeffer, and remained for some time, taking baths and waters. She returned home quite cured. Her sister suffered from severe asthma, and seemed to some extent benefited by the internal use of the waters. As a rule, Strathpeffer does not suit asthmatics; but, from its good effects on the sister, it is to be hoped that the present case may prove an exception. The waters certainly staved off the attacks for a time.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

SARCOMA OF THE LUNG.

(Under the care of Dr. PORTER.)

[From notes by Mr. W. W. BANHAM.]

R. C., aged 39, a cabman, first came under observation on May 6th, 1885. He had had good health up to Christmas, 1884, but had since complained of increasing dyspnoea, palpitation, cough and expectoration, with, on one or two occasions, slight hæmoptysis; and latterly, of pain between the shoulders and down the left arm. He was a well built man, but rather cachectic and emaciated. He was propped up in bed, and could not lie down, in consequence of dyspnoea and palpitation. He had some difficulty in swallowing, and loss of voice; the pupils were normal; the pulse was very rapid, 140, feeble, and exceedingly difficult to count; the left radial was slightly weaker than the right radial pulse. The temperature was above normal, but never exceeded 102°. There were slight œdema of the feet and ankles, and of the left arm, and some fulness at the root of the neck, above the left clavicle; the surface-veins were prominent on the left side of the neck, and over the upper part of the chest, beneath the left clavicle. Over the upper part of the left lung there was very little respiratory movement, and an absence of vocal fremitus, together with absolute percussion-dulness as low as the eighth rib, in the nipple-line, in front, and a little below the inferior angle of the scapula behind. Breath-sounds and vocal resonance were almost entirely absent over the same extent of surface. At the base of the left lung dulness was less marked, and some breath-sounds and abundant râles could be heard. Moist sounds were heard all over the right lung, but in other respects the physical signs on the right side of the chest were normal. The heart was displaced downwards, and to the right, occupying the upper part of the epigastrium; the situation of the apex could not be determined, but a feeble undulatory pulsation was perceptible in the epigastrium behind, and to the right of, the ensiform cartilage and the lower part of the sternum. There was marked tenderness in this situation, and an indistinct rough murmur was heard, which was believed to be pericardial. On auscultating the area of dulness over the upper part of the left lung with an ordinary wooden stethoscope, a slight pulsation, corresponding with that of the heart, could be felt, but was not perceptible to ordinary palpation.

The patient sank rapidly, and died on May 14th, a week after he was first seen. The diagnosis was intrathoracic tumour.

Post mortem examination disclosed a large growth, occupying nearly the whole of the upper lobe of the left lung, and enveloping the root of the lung, transverse aorta, and the origin of the left carotid and subclavian arteries. The lower part of the lung, below the growth, presented the appearance of the grey hepatisation stage of pneumonia. The left pleural cavity was almost entirely obliterated by adhesions. The right pleura was normal; and, with the exception of an excessive secretion of mucus in the bronchi, the right lung was healthy. The heart, occupying the epigastrium, was adherent nearly all over to the parietal layer of the pericardium. The valves were healthy. Both liver and spleen were slightly congested; the kidneys were healthy. Under the microscope, the growth presented the character of rounded sarcoma. Here and there portions of pulmonary alveoli could be detected.

REMARKS BY DR. PORTER.—Although the occurrence of primary sarcoma of the lung appears to be of the greatest rarity, according to medical

and pathological works, the above case is the third instance I have met with of a large growth, having the microscopic characters of sarcoma, involving the greater part of one lung and extending, apparently secondarily, along the chain of glands accompanying the pulmonary vessels towards the posterior mediastinum.

EGYPTIAN GOVERNMENT HOSPITAL, PORT SAID.

ACUTE GLOSSITIS: INCISION: RECOVERY.

(Under the care of W. S. ROBERTSON, M.B., C.M.)

MABROOK EL SOUDANI, an Arab labourer, aged 27, was admitted at noon on June 25th, 1885, suffering from "une affection extraordinaire de la bouche." The following history was in part obtained at the time, but the whole not until he was considerably better and able to articulate properly.

There was no traumatic history. His tongue had commenced to swell ten days previously. There was nothing in his family history to account for it, and he had enjoyed perfect health previously to the enlargement. He was sitting on the edge of the bed, with his head bent slightly over a basin, saliva running freely from the mouth. On raising his head, his mouth was seen to be almost wide open. The tongue, protruding about one inch, was enlarged to at least three times its normal size; it was much coated, purplish in colour, and hard to the touch, but he had little or no pain even on manipulation. The tongue was quite moist from the excessive salivation. There was no fluctuation. He could scarcely swallow, and his breathing was considerably impeded. The concavity under the chin was entirely gone; in fact, there was a slight convexity from the chin to the root of the neck, from enlargement of the tonsils and surrounding parts. His temperature was 102° Fahr., and his pulse 100. A diagnosis of acute glossitis was made; and, a cord having been passed through the tip of the tongue, so as to ensure a good hold of it, two long incisions were made, one on either side on the under-surface. A good deal of hæmorrhage followed, and was encouraged by hot water.

On seeing him the following morning, the sudden improvement that had taken place was striking. The tongue, although twice its usual size, was now withdrawn into the mouth, and the salivation had greatly diminished. His temperature had fallen to 100° Fahr., and his pulse to 90. He was ordered a smart purgative, with chlorate of potash (twenty grains to one ounce) for a wash and gargle. He was put on milk-diet. From this time he continued to improve, and on the second morning he said he wanted to eat. For a day or two there was a slight hardness on the left side of the tongue, in its middle third, which gradually disappeared. There was never at any time the slightest sign of bite or abrasion. He was discharged on July 10th, quite well.

ESSENTIALS FOR THE SAFE ADMINISTRATION OF ETHER.—Dr. David W. Cheever concludes an article on the administration of ether, in the *Boston Medical and Surgical Journal*, by giving the following essentials for its safe use:—An empty stomach; a loose neck; a free abdomen, no corsets or skirt-bands; removal of artificial teeth; an easy semi-recumbent position; a sponge wrapped in towels for the ether; a gag and forceps for the tongue. When stertor occurs, the patient should be tipped forward, the cheek opened with two fingers, the tongue drawn out, the fauces swabbed. To ensure safety, the surgeon should hear every respiration of the patient. Anæsthesia from sulphuric ether is of two forms: 1. Primary anæsthesia, which is a moment of confusion coming on after a very few inspirations. At this moment a whiflow can be opened without pain, and the patient awakened at once. 2. Comatose anæsthesia, for prolonged operations. Ether may be given almost indefinitely. To relieve the hopeless agony of tetanus, Dr. Cheever has had it administered for twenty-four hours.

HYPODERMIC INJECTION OF PILES.—Dr. J. W. Girard, of Winchester, Tennessee, says (*Medical Bulletin*), "that the use of carbolic acid in hæmorrhoids is condemned by the majority of leading physicians, but it is successfully used by non-professional men." He further asks if there is not something radically wrong in the method of using the remedy, or in the act of condemning it, and continues: "If my experience with the use of the hypodermic syringe in hæmorrhoids be worth anything to the profession, I give it cheerfully. I have used it for about ten years, and have treated, I think, about 200 cases without a single failure, and in no case has the tumour returned thus far. My course of treatment is generally to take one part of tannic acid, two parts of carbolic acid, four parts of alcohol, and eight parts glycerine. I inject each pile separately, and, in a few days, they slough away, and generally heal kindly under dressings of carbolated cerate. If there be much constitutional disturbance, I generally control it with a steam-bath or a hot sitz-bath."

FIFTY-THIRD ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION

Held in CARDIFF, July 28th, 29th, 30th, and 31st, 1885.

ANNUAL MUSEUM.

THE exhibition, in connection with the fifty-third annual meeting of the British Medical Association at Cardiff, was held at the Public Hall, Queen Street, on July 28th, and the three following days. The exhibits, though less numerous than in some previous years, nevertheless included a great number of objects of special interest, in connection with medicine, surgery and allied sciences. The Honorary Secretary of the Museum, Mr. C. Hardyman, and other members of the local committee, are to be congratulated upon the arrangements which were successfully carried out. The museum, which was divided into sections, comprised the following. Section A.—Preparations, Diagrams, Casts, and Models of Anatomical and Pathological Objects, Microscopical Preparations. Section B.—Surgical and Medical Instruments and Appliances; other Instruments for Scientific Investigation; new Medical Works. Section C.—Foods, Drugs, Chemicals, and Pharmaceutical Preparations. Section D.—Sanitary Section: 1. Books on Sanitation; 2. Ambulances and Appliances for carrying or moving Sick and Wounded; 3. recent Improvements in Hospital Furniture; 4. Personal Hygiene, as Clothing, Beds, Educational Appliances, Domestic Appliances, Filters, and Arrangements for Softening Water; Disinfectants and Disinfecting Apparatus; 5. Sanitary Appliances, including Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, Draining, etc., of Hospitals, Public Buildings, and Private Dwellings. (Illustrations of defects usually found were included.)

SECTION A.—ANATOMICAL AND PATHOLOGICAL PREPARATIONS.

Among the Preparations, Diagrams, Casts, and Models of Anatomical and Pathological Objects, Microscopes, and Microscopical Preparations were:—

Microscopical Preparations. Shown by Mr. John J. Andrew, 2, Belgravia, Belfast.

Messrs. R. and J. BECK (68, Cornhill London) showed their new "Star" Microscope, which is alleged to be the cheapest student's instrument ever made, costing, with two good powers (one inch and quarter inch), £3 3s. They also exhibited their "Complete" Lamp, their Pathological Microscope, their new Ribbon-cutting Microtome, and a series of Micro-organisms, including the Cholera-Bacillus, Bacillus Anthracis, Tuberculosis, Spirillum, and others.

Messrs. DARTON and Co., of 41, St. John's Street, West Smithfield, London, exhibited, in addition to their several patterns of Histological Microscope, including their Improved Binocular Model, a collection of Clinical Thermometers; and called special attention to their "Hospital" Thermometer, which is cheap in price, and, we are told, extensively used.

Sagittal mesial sections of Female Pelvis (frozen); Sagittal lateral sections of Female Pelvis; Axial Coronal Sections of Female Pelvis, showing relations of Ureters to Vagina and Cervix Uteri. Exhibited by Dr. D. Berry Hart, Edinburgh.

Vesical Calculi were shown by Dr. Sheen (Cardiff), and Dr. Taylor (Cardiff).

A Specimen, showing result of Ligature of the Femoral Artery for Popliteal Aneurysm, sixteen years previously to death, were shown by Mr. J. Bland Sutton.

Microscopical Specimens: Tinea Echinococcus from Dogs in Australia, and from Hydatids of Man. Shown by Dr. J. Davies Thomas, Australia.

Microscope and Objects. By Mr. J. R. Wood, 3, Castle Street, Cardiff.

SECTION B.—SURGICAL AND MEDICAL INSTRUMENTS AND APPLIANCES.

Messrs. ARNOLD and SONS (London) had a varied and handsome display of Surgical Instruments, of superior finish. Among the novelties exhibited by this firm were the new patent Glycerine Pad

Pessary, which supersedes air or water, and has been found to last much longer in use; the new patent Truss, with adjustable spring and pad, made of India-rubber, and filled with glycerine; Butler Smythe's new form of Battery, portable and yet powerful; Hensley new aspirating Trocar; and Walsham's instruments for the treatment of nasal septum, including his new pattern mask, forceps, plugs, etc.; Arnold's new patent constant current Battery, which is said to last in use for at least two years, and costs only a small sum to renew when exhausted. A new pattern Cabinet, containing eye-instruments of exquisite finish, attracted much attention.

Barlow's Patent Souple Boot was shown by Mr. W. BARLOW (Meal-house Lane, Bolton). This boot is perfectly pliable, and requires no muscular force to bend it. The "upper" is composed of leather that is patented for its durability and softness. The sole is absolutely waterproof, being made from leather as used in the Arctic Expedition. The boot will not creak in walking, and is the lightest damp-proof boot in the market, weighing only two pounds eight ounces per pair. The boots are described as being made on the most approved principles of anatomy, and are patented for their pliability. We think they have much to recommend them.

Messrs. CHADBORN and COLDWELL (223, Upper Thames Street, E.C.) exhibited one of their largest sized Excelsior Health-Exercising Apparatus, with a full assortment of special appliances for specific exercises, and curves of various deformities, including round shoulders, various forms of "stoops," and also for curvature of the spine, for which this gymnasium enjoys a high reputation. A more detailed description of this useful and cheap apparatus will be found in our issue of the 31st of January last.

Messrs. DANIELSSON and Co. (late Lebon and Co.), Engravers and Lithographers (23, Southampton Buildings, London, W.C.), exhibited their various Clinical Figures. They also showed Blocks of various parts of the Brain by which lesions can be shown, and electro-blocks made, at a very small cost, for illustrations. This ingenious plan, we believe, was the suggestion of Dr. Ferrier. This firm also exhibited their very useful and compact Pocket Case-Books, Temperature-Charts and Forms for Instructions to Patient or Nurse.

The exhibit of Messrs. DOWN BROS. (3, St. Thomas's Street, Borough) included Mr. Symonds' Short Oesophageal Tubes. These are passed as far as the seat of stricture by means of a long stilette, and can be withdrawn at any time by means of the silk cords attached to them. The great advantage of these tubes is that the patient is able to taste all food administered. Mr. Golding-Bird's Trachea-Dilator is an useful instrument in cases of membranous laryngitis, as it offers no obstruction to the upward passage of the mucus. Mr. Clement Lucas's Forceps for removing foreign bodies from the trachea and bronchi, through the tracheal opening. Mr. Clement Lucas's set of Instruments for Operations on the Kidneys, comprising a stilette for exploration, a blunt curved knife for dividing adhesions, scissors for dividing the pedicle, and needle for passing ligature round the pedicle. Dr. Galabin's Short Speculum, for digital examination of the uterus. Dr. Gervis's Pessaries for Retroflexion, and also a pair of firm holding Ovum Forceps, by the same author. Mr. Brindley James's Registered Percussio-Punctator, on which a paper was read in the course of the meeting, for the alleviation and cure of obstinate rheumatic and neuralgic affections. Galvanic Caustery batteries, including a very delicate set of causteries for application to the larynx, vocal cords, posterior nares, etc. Various forms of Evacuation Apparatus, for use in lithotomy, including a new pattern suggested by Mr. Golding-Bird. Holmgren's Selection of Wools for testing for colour-blindness. A pair of Forceps, by Mr. Morse, of Norwich, and other ingenious contrivances for removing foreign bodies from the ear and nose. A new Portable Electric Lamp for use in the consulting room, or for operation at the bed-side, the power being furnished by a small accumulator. Also Electric Lights, for use with the laryngoscope, and through the speculum. Mr. Gowan's Osteotome for division of the neck of the femur, etc., and an ingenious pair of "Bell-crank" Retractors for use with it. Mr. Gowan's Plaster-Saw for removing Sayre's jackets and plaster-of-Paris bandages. Mr. Gowan's Mouth-Gag, and also his Auril Loop for the removal of foreign bodies from the ear and nose.

Messrs. HODGES and Co. (111, High Street, Ryde, Isle of Wight) showed their ingenious washable Truss, which was recently noticed in favourable terms in these columns. This truss, we are told, has given great satisfaction where it has been adopted.

JAHNCKE's patent nickel-plated pocket Hypodermic Syringe Case, designed by Dr. Talfourd Jones, was shown. A supplementary case of exactly the same shape and size as the Hypodermic Syringe Case, and fitted with seven glass-stoppered bottles, three large and four smaller ones can also be supplied at six shillings per case. The object of this Sup-

plementary Case is to enable practitioners to carry, besides the five different liquids contained in the Hypodermic Syringe Case itself, also a further seven, for occasions of emergency, when it might be found advisable to take as many medicines as possible with them. Any of these bottles can be substituted for another in the Hypodermic Syringe Case. In order that the Nickel-plated Hypodermic Syringe Case should be easily distinguished from the Nickel-plated Supplementary Case without having to open each of them, the former is supplied "quite plain," in a violet leather cartouche, whilst the latter is decorated with an engraving, and put up in a red leather cartouche.

Dr. PROSSER JAMES (London) showed: *a.* A series of Oesophageal Bougies, from No. $\frac{1}{2}$ catheter-gauge, to full size for oesophagus, extra flexible and soft; *b.* Series of Tubes for feeding in stricture of Oesophagus, etc., from No. $\frac{1}{2}$ to No. 12; *c.* Series of Tubes for feeding through the Nose, extra soft and flexible; with smooth piece to fit hypodermic syringe for smallest size, graduating from this to full size; *d.* Series of Instruments for applying Medicaments, on the plan exhibited at the Cambridge meeting, but smaller.

MESSRS. KROHNE AND SESEMAN (Duke Street, Manchester Square, London) exhibited an elaborate and elegant display of Surgical Instruments and Appliances, notably amongst which we noticed Paquelin's Thermo-Cautère, Junker's Inhalers, Reginald Harrison's (Liverpool) Bladder Tumour-Forceps, Dr. Spencer's (Bristol) New Combined Differential and Binaural Stethoscope (a very fine instrument), Small Midwifery-Bag (a most useful article at a moderate price), Clinical Thermometers, which it is claimed are absolutely correct at every point, with Kew guarantee-certificates, Ovariectomy-Instruments in a large variety, Eye Cases, a small set put up in a neat way for the general surgeon, New Combined Aspirator and Stomach-Pump, a most complete instrument at a moderate cost, Olis's Improved Bladder-Evacuator, a large variety of Constant Current Batteries, and Electrodes for use with same. This firm also makes a great speciality of all classes of Orthopaedic Appliances; amongst many things we noticed Thomas's Hip and Knee-Joint Splint, a most useful apparatus; also Nickel-Plated Instruments.

MESSRS. MAYER and MELTZER (London) exhibited a large number of novelties, of which the following were specially noticeable. Mayer's Patent Self-retaining Surface-Thermometer: this thermometer can be fixed on any surface of the body, and, being self-retaining, does not require straps or bandage to keep it in place; the shield over the bulb excluding all external air, the thermometer registers the surface-temperature only. Morell Mackenzie's Oesophagus-Bougies: these bougies being flattened antero-posteriorly, more easily adapt themselves to the lumen of the tube through which they are meant to be passed. Thirteen sizes are made, the measure of each one being based on the number of millimètres in the transverse, namely, their long diameter. The sizes are reckoned from No. 3 to No. 15. Nos. 1 and 2 are not made, as they are too small to be of any use. At the suggestion of Dr. Morell Mackenzie, Nasal Bougies are made on the same principle. Mayer's Portable Operating-Table: this table is made of wrought-iron, very strong and steady, though light; it has all the latest movements for raising the pelvis, and for placing the patient in lithotomy-position. When not required, the table may be folded up, then occupying very small space. Dr. Miller's New Cucaine-Spray. Mayo Robson's Dry Spray for Eucalyptus. Also a special exhibit of Anaesthetic Apparatus, prominent among which was Clover's Portable Ether-Inhaler. Bailey's Combined Gas and Ether-Apparatus, and Dr. Dudley Buxton's valuable modification of Junker's Methylene-Inhaler.

MESSRS. RUSSELL and EVERETT (1, Roehampton Street, Vauxhall Bridge Road) exhibited The Red Cross Pocket Ambulance (price one shilling), containing the Triangular Bandage (as recommended by the St. John Ambulance Association), which can be used to bandage any part of the body, and is converted in five seconds, without injury, into broad bandage, narrow bandage, large or small arm sling, tourniquet, etc. The bandage folds into a small triangle half an inch thick, and some useful hints as to its use are indelibly printed upon it. Anyone can use the bandage, and although a little instruction is desirable, it is not indispensable. The case also contains antiseptic ointment, compress for stanching blood, pins, waxed thread, and tape.

Dr. SHEEN (Cardiff) exhibited a Hospital Bedstead and Ward Locker (as in use at the Cardiff Infirmary). The bedstead is so made, that diet-sheet, case-paper, and temperature-chart can be attached to it, thus avoiding the necessity of hanging them on walls. The height of the bedstead is 26 inches. The Ward Locker combines a seat, a place for clothes, another for medicines, a small drawer for odds and ends, a dinner-table or writing-desk. The patient's towel is hung on the

back. Dr. Sheen's "Handy" System of Medical Bookkeeping was shown, consisting of prescription slips for prescriptions, arranged in alphabetical order, as may be required; a day-book, in which the name and address of the patient is only entered once in a month (this book is an epitome of all the work); and a ledger, indexed so that the accounts may be entered under each client's name alphabetically, each patient being distinguished by a number, and accounts sent out once in six months. The "Handy" System is said to reduce the labour of "posting" to a minimum, and enables book-debts to be kept well in hand, and shows, by an easy calculation, how much is booked year by year. Several imitations of this system of book-keeping have been published. The visiting-list occupies but little space, is cheap, and, when full, can be replaced by another. The temperature-charts are equally handy. These can be obtained of W. Lewis, Duke Street, Cardiff.

Mr. J. R. WOOD, Optician, (Cardiff) had a case with a large assortment of Clinical Thermometers, Microscopic Objects, Patent Medical Measures, Schott's Medical Lamps, New Designs in Spectacles, besides a table with Microscopes. The Medical Lamp was exhibited during the day, and seemed to receive much praise.

SECTION C.—FOOD, DRUGS, ETC.

MESSRS. ALLEN and HANBURY had an extensive display of their well known Specialities, including their "Perfect" Cod Liver Oil and Malt Extract, Malted Farinaceous Food, Tasteless Castor Oil, etc., also a large assortment of fluid extracts, granular preparations, medicated throat-pastilles, nitro-glycerine Tablets, nitrite of amyl, and iodide of ethyl capsules, and chrisma, and its combinations with sulphur and carbolic acid. We may mention two preparations, said to have a special interest, which are quite new. One is "Bywin," a fluid extract of malt, which, it is alleged, possesses the peptic properties of malt in perfection, its action being, it was stated, exceedingly rapid and powerful on gelatinised starch. It is said to be much more convenient to use than the denser and more viscid preparations at present sold, and to be really palatable, and subject neither to fermentation nor crystallisation. The other preparation is their "Standard" Extractum Cinchonæ Liquidum, a preparation of *British Pharmacopœia* strength, which is said to possess the following advantages. 1. It will mix perfectly with distilled water, without producing the copious deposit thrown down by the official fluid-extract as usually prepared. 2. It contains the natural acids and aromatic and astringent properties of the bark without deterioration. 3. It contains no extraneous menstrua; the alkaloids exist as tannates and cincho-tannates. 4. It contains five per cent. of total alkaloids.

The Friedrichshall Natural Mineral Water occupied a stall of the AROLINARIS COMPANY, LIMITED. This old established and favourite aperient water, which has maintained its reputation for a long course of years, is now promising to spring into extended and renewed favour in view of the researches which explain, while they confirm, the special advantages as an habitual and a tonic aperient, due to its large impregnation with chlorides.

MESSRS. BATTLE and WATTS showed their Liquors, which have been before the profession for many years, and which have just taken the Gold Medal at the New Orleans Exhibition. They are Battle's liquors of belladonna (concentrated), buchu (concentrated), cinchona cordifolia, cinchona pallida, conium (concentrated), hyoscyamus (concentrated), sedative of opium, secale cornutum, tritium repens, and taraxacum.

MESSRS. BRAND and Co. (11, Little Stanhope Street, Hertford Street, Mayfair, W.) exhibited a general assortment of their Invalid Specialities and other manufactures, including their new production of "Peptone" Foods, including beef, veal, mutton, and chicken-peptone, and peptonised osseine.

MESSRS. CORBYN, STACEY, and Co. (London) had an extensive exhibit of Drugs and Pharmaceutical Preparations, comprising a long list of new remedies, of which we can here only mention a few of the more important. Liquor cerri citratis is a new and elegant form intended to supersede the insoluble oxalate of this metal in the vomiting of pregnancy; apocynum cannabinum, a diuretic and diaphoretic, recommended by this firm in dropsy and Bright's disease; berberis aquifolium, antiperiodic and tonic; conia hydrobromate, which, we are told, has been successfully employed in epileptic cases; caulophyllum thalictroides, an useful emmenagogue; esculus glabra, of use in habitual constipation; a number of eucalyptus preparations, including a solution of eucalyptus and coal-tar, miscible with water, and forming an agreeable antiseptic and detergent; euphorbia pilulifera, the preparations of which have been given in asthma and bronchial complaints; hydrangea arborescens, said to be of advantage in gravelly deposits in the urine; juglans cinerea, a mild cathartic;

lycopus virginica, used in incipient phthisis and pulmonary hæmorrhage; *menyanthes trifoliata*, in functional amenorrhœa; mercury tannate, said to be of antisyphilitic value; *myrica cerifera*, a tonic and astringent; preparations of the metallic oleates, made according to Shoemaker's directions; *ptelia trifoliata*, a tonic in debility connected with gastro-intestinal irritation; *syzygium jambolanum*, recently employed in diabetes; soda-taurocholate, which, we are told, has yielded striking results in gouty obesity and dyspepsia; *stillingia sylvatica*, a substitute for mercury in syphilitic affections. This firm also showed an interesting specimen of the fruit of the *areca* nut, as well as typical specimens of cuprea bark, cupreine, quinine fluoride, also the now well known local anæsthetic, *eucaine hydrochlorate* and pure *eucaine*, these salts having been beautifully prepared by Messrs. Howards and Sons, of Stratford. This firm well maintains its reputation, both in supplying and in anticipating the needs of the profession in respect to pharmaceutical preparations of valuable manufacture.

DE VRIJ'S CINCHONA COMPANY exhibited Dr. De Vrij's Fluid Extract of Cinchona.

MESSRS. A. ESSINGER and Co. (Hatton Garden, E.C.) showed samples of Hartmann's Patent Wood-Wool, which we have already favourably noticed, and which is being used, we are told, by some of the leading hospitals in the country with great success. A new preparation, namely, Hartmann's Patent Wood-Wool Wadding, was shown for the first time at this exhibition. The wood-wool in this preparation is put up in sheets, and will doubtless become very useful to surgeons in general and private practice, as it contains all the qualities of wood-wool with the advantage of ready handling for bandaging and like purposes. A further advantage claimed is that this wadding is by far cheaper than the absorbent cotton-wool tissue. This preparation, we were told, is generally prepared with a light solution of corrosive sublimate, giving it constant antiseptic power, in addition to the antiseptic properties which the wood-wool contains in itself.

MESSRS. EVANS, LESCHER, and WEBB (Bartholomew Close, London), and Messrs. EVANS, SONS, and Co. (Hanover Street, Liverpool), showed a series of about one hundred Fluid Extracts. These fluid extracts are said to contain the whole of the active medicinal properties, and in all cases, a fluid ounce is said to be equivalent to one ounce by weight of the drug. Thus Decoctions, Infusions, Tinctures, Wines, and Syrups, can, it is stated, be at once obtained from these fluid extracts by simply mixing. The actinic glass bottles are handsome, with distinctive label; but the special feature seems to be the back label, which contains full scientific names, botanical, origin, description, medical properties, dose, strength, active ingredients, etc. We also noticed copies of the second edition of Mr. Lescher's work on *Recent Materia Medica*.

MESSRS. FERRIS and Co. (Bristol) exhibited a large and interesting collection both of surgical instruments and appliances, and of new drugs and pharmaceutical preparations. The catalogue of their exhibit, published specially for this meeting, was a pamphlet of more than fifty pages, and we can only mention a few of the leading novelties and improvements. The Beaufort Artificial Limbs, made by Werner of Paris, for whom Messrs. Ferris and Co. are agents, are both serviceable and cheap. Ferris and Co.'s tinned wire and jannaped woven Wire Splints are light and strong. The Perfect Clinical Thermometer has already been noticed in these columns. A silver Spray-Apparatus for solution of *eucaine*, designed so as to avoid waste of solution. A Trachea-Probang, for removing diphtheritic membrane, invented by Mr. J. Paul Bush, of the Bristol Royal Infirmary. Mr. Richardson Cross' (Clifton) new Ophthalmoscope. The Miniature Pocket-Case, a handy and compact case of dressing instruments, small enough to be carried in the waistcoat-pocket. The new Airo-Carbon Lamp for surgical purposes, on the same principles as the platinum thermo-cautery. Ferris and Co.'s Miniature Hypodermic Syringe, holding five minims, and fitting into an aluminum case, with a compartment for discs, and a ring to attach to watch-chain. A Hypodermic Syringe with barrel made of the new patent opal glass, said to be a great improvement, as the height of the fluid can be easily read even in a bad light; also measures and burettes in the same material. Ferris and Co.'s improved Induction-Apparatus for the use of the ordinary medical practitioner, which, it is stated, will remain in working order for several months without attention. An American pattern Suture-Needle and Holder, introduced by Mr. Greig Smith of Clifton; and Dr. J. G. Swayne's modification of Dr. Buck's Dilator for the Cervix Uteri. A number of articles were shown, made partly or entirely of celluloid, including stethoscopes, very light and neat, Fergusson's specula, pessaries of various patterns, ovariectomy-tubes, unbreakable hypodermic syringe-barrel, catheters, bougies, trusses, etc. Ferris and Co.'s Universal Aspirator;

small set of Trial Sights, at three guineas; and Surgeon-Major Jessop's "Finger-ended" Stethoscope, designed to adapt itself readily to the intercostal spaces. Among the new drugs and preparations exhibited by this firm, we may mention the *Abstracta* introduced into the latest edition of the *United States Pharmacopœia*. They are said to be the dry powdered extract, with twice the strength, of the crude drug. Several new drugs were shown, both in the crude state and in the form of fluid extracts, tinctures, etc.; *Alstonia Scholaris*, or "Dita Bark," said by Messrs. Ferris to be useful in chronic diarrhœa and advanced stages of dysentery; *Azadirachta Bark*, tonic and anti-periodic; *Jatropha Curcas Seeds* (*Curcas Purgans*), yielding an oil, twelve or fifteen drops of which are said by the manufacturers to be equal to an ounce of castor-oil in effect, without any disagreeable odour or taste; etc. Ferris and Co.'s Iodoform Pastilles, said to be useful for bringing the remedy into contact with syphilitic sores of the mouth and pharynx; Glycerine and Codeia Jelly, for allaying the irritable cough of phthisis; Elixir of Cascara Sagrada; and their Elixir of Damiana will also be found useful. Two powders for hay-asthma, one recommended by Dr. Mortimer Granville, and the other by Dr. Beverley, also claimed notice. The oleates of the metals prepared according to Dr. Shoemaker's process, several preparations of Thymol, including the well known Thymol Soap, and some of their older preparations, such as Nephenthe, Anodyne Amyl Colloid, and Emplastrum Belladonnæ Fluidum, may also be mentioned.

HARTMANN'S Hygienic Wood-Wool Diapers were also shown. These, it was stated, are largely in demand, and highly approved as being vastly superior to the ordinary absorbent cotton-wool pads.

MESSRS. HEARON, SQUIRE, and FRANCIS (5, Coleman Street, London, E.C.) exhibited fine specimens of Grindelia and Damiana Herbs; the Leaves of Eucalyptus and Jaborandi, the Bark of Cascara Sagrada, and Kola Nuts. Among the chemicals were Menthol in bold prismatic crystals, of their own manufacture; Hippurate of Sodium, colourless and crystalline; the alkaloids *Eucaine*, *Hyoscyamine*, and *Eserine*; also, Beta Naphthol, Eucynmin, and Iodoform, all being of good quality. Granular effervescent preparations were represented by Caffein Citrate, Sodium Sulphate, Sodium Salicylate, and Sodium Citrate, P.B. Their lists of preparations embraced a large number of the Liquid Extracts official in the *United States Pharmacopœia*, and others which have still more recently been introduced into medical practice, together with a selection of their proprietaries, as Ess. pro. Mist. Ferri Co., Sol. Bismuth. Aromati, and Sol. Magnes.-Bisulph. In the manufacture of their pharmaceutical preparations, they claim great advantages from the use by them of vacuum apparatus in the evaporation of liquors shown, and, they state, in the transparency, stability, and general character of their infusions and liquors. Sanitary requisites took the form of their well known Alcoholic Solution of Coal-Tar, and their two varieties of Coal-Tar Soap—toilet and strong medicinal. The "Heron" Medicinal Biscuits, in three varieties, were also exhibited by the firm.

Professor HELFERICH'S 50 per cent. Sublimate Tampons were exhibited. These tampons are packed in small cases containing six tampons, and can easily be carried in a waistcoat-pocket; on requirement of a solution of corrosive sublimate, one of these tampons is taken out of the case, cut open, put in two pints of cold water, and well stirred; this, Professor Helferich says, forms, in a few seconds, a solution of corrosive sublimate of the strength of one part in one thousand, equal to one-tenth per cent.

MESSRS. INGRAM and ROYLE (Farringdon Street, London, Liverpool, and Bristol) exhibited their Natural Mineral Waters of Vichy, Belestines, Hauterive, Grande-Grille Hôpital, and Natural Lithia Water.

Dr. PROSSER JAMES exhibited: *a.* *Eucaine* and other Alkaloids, as Caffeine, Theine, Theobromine. *b.* Salts and compounds of these and other Alkaloids, some not previously combined, chiefly Hydrochlorates, Benzoates, Hydrobromates, Lactates, Acetates; about thirty of these. *c.* Ptyalin, Pepsine, Pancreatine, and various preparations of the Digestive Ferments, to illustrate a paper on Pancreatic Digestion, read in the Section of Medicine.

MESSRS. LOEFLUND and Co. (148½, Fenchurch Street, London, E.C.) again exhibited their well known Pure Hordeum Malt-Extract, which we favourably noticed two years ago, and which still maintains its reputation among the profession. It is alleged of this malt-extract that it does not ferment nor congeal, and keeps in any climate. This is an obvious advantage to patient and physician. The "compounds" with Lime, Iron, Pepsine, etc., were also shown. Their combination of Pure Hordeum and Fresh Cream, known as *Cremor Hordeatus*, is a palatable substitute for cod-liver oil, and is put forward as being useful in phthisis and all wasting diseases. Kindermilch is an infant's food, containing fat, casein, carbohydrates, and nourishing milk-

salts, in proper proportions, for infant-feeding. The advantages it is said to possess for mother and nurse are, that it requires no cooking. It is used, we are told, largely in many of the lying-in hospitals throughout Germany, Austria, etc., and with good results. This firm also exhibited their Preserved Milk, "L" brand, which is condensed without cane-sugar and chemicals, and is recommended by them for invalids, and also for culinary use.

THE LONDON MANUFACTURING COMPANY (59 to 61, Hatton Garden, London) exhibited samples of their Essence of Beef in glass; Essence of Beef in tin, two sizes; Liebig's Extract in jars; Beef-Tea Jelly in glass; Turtle-Soup in glass; Beef-Tea in tins. The specialty of this firm is the putting up of Essences and Soups of Beef, Mutton, Chicken, Turtle, etc., in glass, capsuled air-tight in such a way that the contents do not touch metal; they are said to keep good for a long time after the bottles are opened, the original flavour of the several meats being fully preserved. The Beef-Tea Jelly in glass is not quite so highly concentrated as Beef-Tea in skin or tin.

Among the exhibits of the MALTINE MANUFACTURING COMPANY (Limited), whose standard preparations are well known, were their Maltine Compounds, which received a gold medal at the International Health Exhibition, 1884. Carnrick's Beef-Peptonoid, which also received a gold medal, is an extract of beef said to contain 70 per cent. of nitrogenous nutritive matter. Carnrick's Peptonised Cod-liver Oil and Milk is a very perfect emulsion, and, combined with evaporated milk, makes a very palatable and nutritious digested preparation. Carnrick's Soluble Food closely imitates in composition an average sample of human milk.

Messrs. MOTTESHEAD and Co. (S. PAINE and F. B. BENDER, Manchester). This exhibit included the "Portable Nursery and Sick-room Kitchen," described by Dr. Wm. Roberts in his address, and specimens of the specially finely ground Flours, Malt, Oat, Lentil, Barley, and Maize, recommended by Dr. Roberts for the preparation of fortified gruels, etc.; also the new dry preparation of Pancreatic Enzymes—*Pulvis Pancreaticus Alkalinus* (Benger). This is sent out in packets of twelve powders, each being sufficient to peptonise a pint of milk, etc. It consists of a white, odourless, non-hygroscopic powder, containing the requisite quantity of bicarbonate of soda. In certain cases, it may be a convenient substitute for Mr. Benger's well known liquor pancreaticus. Each powder is equivalent to two teaspoonfuls of this preparation, and may be used instead in the preparation of all peptonised foods.

Messrs. F. NEWBERRY and Sons (London) exhibited a varied and elegant assortment of Sugar-coated Pills and Parules, manufactured by W. R. Warner and Co., Ingulin for vomiting in pregnancy, cholera infantum, etc.; and "Lentiforms," or compressed lozenges of various drugs, varying in size from five to ten grains, were also exhibited. Paregoric, and Mist. Glycyrrhiza Co. in lentiforms of ten grains each, are amongst the recent novelties in compressed medicines.

The stand occupied by Messrs. JOHN RICHARDSON and Co. (Leicester) attracted a good share of attention. Besides their usual grand display of Pearl-coated Pills and elegant pharmacopœial preparations, we noticed their Liq. Secal. Ammon., a most reliable form of ergot; Liq. Rosa Dulc. (a colouring and flavouring agent); Hypnopœiotic, said to be a valuable sedative; Liq. Copaiba Co. cum Matico, a remedy in gleet, etc.; Liq. Picis Co., in eczema; Liq. Vesicatorius, a blistering-fluid; Peptocolos, for indigestion; Styptic Colloid, for healing wounds by the first intention; Syrupus Hypophosph. Co., a nerve-tonic; Thymol-Jelly, for use in obstetric practice; Tinct. Gelsem. Semp., a preparation for neuralgia; Antizyme, an hepatic and saline aperient; Anapmine, for inhalation in asthma; Codeia-Jelly, said to be most soothing in dry and irritating coughs; Medicated Pessaries, Bougies, Suppositories, prepared either with Theobroma or Gelatine; specimens of Eucalyptus Citriodora, Erythroxylon Coca, Cinchona Calisaya, Pilocarpus Pennatifolius; a variety of Medicine-chests, suitable for colonists, captains, clergymen, families, country practitioners, etc.; and a number of elegant little Pocket-Cases containing most useful medicines. There was also exhibited a Machine for making Plaster-of-Paris Bandages, which is a very simple and useful contrivance, supplying a long-felt want, and, as such, will no doubt command appreciation. One of the chief attractions, however, at this stall was their "Portrait-Gallery," containing portraits of some of the medical celebrities who have appeared from time to time in the *Midland Medical Miscellany*, edited by Dr. Dolan. This month's number had a *succès du jour*, as containing the portrait of Mr. Ernest Hart, the editor of the JOURNAL, which was generally regarded as being a good likeness.

Messrs. SAVORY and MOORE's exhibit included their well known Ophthalmic Discs, which now acquire additional interest from having been introduced into the new *Pharmacopœia*. The almost imponder-

able, quickly soluble film of gelatine, whether used for application to the eye, nose, or hypodermically, is manifestly superior to a solid tabloid. The Cucaine Discs are of two strengths, made at the suggestion of Mr. Nettleship; one-two-hundredths of a grain, repeated two or three times, if necessary, at intervals of two or three minutes, being found sufficient for minor operations; and one-fiftieth of a grain, applied in the same way, for more prolonged operations. There are also discs containing one-sixth of a grain, which can be conveniently applied to the nostrils in hay-fever, or for use hypodermically. Sodium Taurocholate Pills, covered with keratin, which safeguards them through the stomach, as they are absolutely unacted on by an acid solution of pepsine; the coating dissolves at once in a neutral solution of the pancreatic ferments. Coca Wine, made at the suggestion of several London physicians. Meat Peptone, the original English preparation, made from prime English ox-beef, claiming to be superior in flavour, concentration, and keeping properties. Amongst their other well known peptone-preparations, were Darby's Fluid Meat, Condensed Peptonised Milk, and Cocoa and Milk: also Pancreatine, Pepsine of five times the pharmacopœial strength, Fluid Preparations of Pepsine and Pancreatine, etc. Nor must we omit to notice the Liqueurs Cinchona (Paul), the chief advantages being that these liquors are the only ones giving bark alkaloids in their natural state of combination, that they are made from rich assayed barks, and are certified as to their contents.

Messrs. SOUTHALL, BROTHERS, and BARCLAY's (Birmingham) exhibits comprised Gamgee's Absorbent Dressings, Pads, and Sheets for surgical and other uses. Dressings and bandages rendered uniformly antiseptic by means of boric, salicylic, carbolic acids, sublimated serum, iodoform. Millboard Splints saturated with dextrine or with paraffin. Tenax, a cheap and simple absorbent and antiseptic dressing for wounds; their Sanitary Towels, which have been extensively adopted by ladies, made of two kinds, No. 1 and No. 2, the latter being sold at one shilling per dozen. Antiseptic Elemi Plaster, Styptic Colloid, a solution specially adapted for the treatment of injuries to the hand and fingers, as a simple application on lint. Aconitum Ferox, Asceptol, Cucaine, Pyridine (for asthma), Helenin, Mercurous Tannate, Sodium Taurocholate, Tincture of Thuja Occidentalis (Arbor Vite), Japanese Oil of Camphor, Sodium Borobenzoate, Naphthalin Cones, Extractum Cinchona Liquidum, Confection of Senna and Figs, Fumigating Pastilles, Preparations of Cascara Sagrada, Fluid Extract of Camellia, Aluminium Oleate, Liquor Emetinae, Glycerine Preparations of Pepsine, Phosphorus (in the free and unoxidised state), Podophyllin Resin, etc.; Powdered Extracts of the same strength as the official extracts, being made up with a simple diluent to original strength; A 1 Cod-Liver Oil. A Patent Beef-Tea or Gravy Extractor was shown, an apparatus by which all the soluble constituents of meat are removed at a uniform temperature, this being ensured by having an air-chamber around the containing porcelain vessel; the temperature never exceeds 180° Fahr., whatever heat is applied to the outer vessel. A distinctly new feature in their exhibit were the specimens of following list of cabinets which they have prepared and supplied to the professors in the universities of Oxford, Cambridge, Dublin, and several medical institutions. 1. The organic materia medica of the *British Pharmacopœia* contained in a neat wooden box. 2. The chief official chemicals and minerals. 3. Illustrating the composition of Food and Drink, specially designed for the use of lectures on food, cookery, etc. 4. Chemical Apparatus designed for the use of medical and other students about to undergo tuition in chemistry at the schools and colleges. 5. A small useful and compact Urine-Testing Cabinet, containing all the necessary apparatus for taking the specific gravity, for heating, filtering, and evaporation of urine, with reagents for the detection of the normal and abnormal constituents of urine, such as acidity, bile, albumen, sugar, blood, pus, mucus, urinary sediments, and calculi.

The exhibits of G. VAN ABBOTT and SON (Princes Street, Cavendish Square) included Van Abbott's Gluten Bread, Biscottes, Flour, Macaroni, Vermicelli, Semola, Chocolate, Soups, Bran Biscuits, Ivory Jelly, and Loaves of soft Bread, just introduced, and said to be highly approved of as an occasional change from the ordinary gluten bread and biscuits in cases of diabetes, etc.

Messrs. WYETH and Co. exhibited their Compressed Tablets. The advantages claimed for these are that they are prepared without sugar or mawkish paste, and are so small that they can easily be retained in the mouth while singing or speaking; also their Test-Tablets—Fehling's Test compressed into tiny tablets, very portable, and ready for quickly preparing Fehling's Solution; Hypodermic Tabloids, a convenient form for putting up hypodermic and ophthalmic remedies. Several important additions have been made to the list of medicines put up in tabloids, notable among which are Cucaine (which

has become very popular in this form), Egotinin, Sclerotinic Acid, Pilocarpin, Apomorphia, etc. A new, very compact, and ingenious Pocket-Case, well suited for carrying these tabloids, and a Hypodermic Syringe was also exhibited. The Dialysed Iron (Wyeth) is, we are told, a pure neutral solution of the peroxide in colloidal form, and is so bland that it has been used hypodermatically, and retained by the most sensitive stomach: this form of iron is recommended by them for young children. This firm also exhibited the well known Kepler Extract of Malt, which is abundant in pure vegetable diastase, and possesses great nutritious properties. Experience has proved its value in consumption, convalescence, certain forms of dyspepsia, cachexia and dyscrasia, either alone or as an adjunct. In conjunction with cod-liver oil, it is said to constitute at once a concentrated nutritive, digestive, and highly assimilable food, to be relished and retained by stomachs the most delicate and easily turned. Hazeline, the active principle of Hamamelis Virginica, an useful remedy for hæmorrhoids, is another preparation of which we have previously spoken in terms of satisfaction. Fairchild's improved forms of the Digestive Ferments attracted great attention. Extractum Pancreatis, in the form of a dry powder, which will keep unchanged in any climate, is highly active; five grains will peptonise a pint of milk in thirty minutes; thirty grains will digest four ounces of lean beef in three hours. The Peptonising Powders furnish a most convenient means of peptonising milk; one powder peptonises a pint of milk. The Fairchild Pepsin in Scales is very active, one grain digests 1,000 grains of albumen. The Enzyme Tabloids are unique in form, entirely original, and designed for gastric and intestinal indigestion. Dr. Fairchild's improved forms of the Pancreatic Enzyme show a most distinct advance, and will, we believe, be found of great value, especially for infant-feeding.

SECTION D.—SANITARY APPLIANCES, ETC.

The sanitary section included Books on Sanitation; Ambulances and Appliances for carrying or moving the Sick or Wounded; Recent Improvements in Hospital Furniture; Personal Hygiene, as Clothing, Beds, Educational Appliances, Domestic Appliances, Filters and Arrangements for Softening Water, Disinfectants, and Disinfecting Apparatus; Sanitary Appliances, including Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, Draining, etc., of Hospitals, Public Buildings, and Private Dwellings.

The following is a detailed list of the principal exhibits.

Among the sanitary exhibits, we noticed the interesting display of the well-known firm of BANNER BROTHERS and Co., Sanitary and Ventilating Engineers (Billiter Square, London), showing models of the Banner system of ventilation. The Banner system, we are told, has been applied, among other places, to Guy's Hospital, Royal Cambridge Hospital (Aldershot), and the Sussex County Hospital. Their Fixed Ventilators were fitted to some of the portable hospitals sent out with the late Soudan Expedition. The system was partially applied to the drains at the Health Exhibition, 1884, and to the whole of the drainage of the Inventories Exhibition. Another exhibit was the Banner Water-closet; in this apparatus, there is no metal to corrode—an important point being that all parts of it are removable or accessible; the basin is hermetically sealed by a water-groove. The closet has been highly spoken of by some eminent sanitarians. This firm also showed the Banner Grease-trap, and the "Champion Fumigator," an ingenious and newly devised apparatus, to be used for testing drains.

Mr. ALFRED CARTER (Holborn Viaduct, E.C.) exhibited a very interesting selection from his stock of Invalids' Furniture and Appliances. We particularly noticed his adult Go-cart, or Walking Machine, which appears to be well constructed, and fitted in every way to meet the wants of those likely to require such an appliance. It is alleged that this machine, in addition to being useful in cases of locomotor ataxy and partial paralysis, would be a very good substitute for crutches in the cases of patients who object to the use of the latter from fear of falling, or other causes. There was also a Speculum and General Surgical Chair, fitted with a strong, simple mechanism, and adjustable to a great number of different positions, a very useful Invalid Bedstead, with a spring mattress and rising back; a portable Bed-Lift for raising patients from the bed without disturbance, Self-Propelling Chairs, Carrying Chairs, Bed-Tables, the well-known Reading-Machine, and various other useful contrivances. We must not omit to mention a very light form of Carrying-Chair made entirely of cane, weighing only about 7 lbs., and which is said to be the lightest thing of the kind ever made. The goods in this exhibit generally appeared to be well finished, and free from complicated mechanism.

Messrs. H. and C. DAVIS and Co. ("Metropolitan" Gas-Stove

Works, Camberwell Road, S.E.) exhibited a large assortment of their Metropolitan Family Gas-Kitcheners, and Stoves for Cooking and Heating; as well as a quantity of suitable utensils made of a superior kind of enamel, particularly suitable for using with the Gas-Stoves.

Mr. EDWARD K. GROVES (11, Greenway Road, Redlands, Bristol) showed his Self-Acting Sick-Bed, for enabling the patient to attend to the calls of nature in respect of relieving the bowels and bladder without assistance or delay, without raising head or body, and attended with no risk of soiling the clothes, without uncovering the person, or making the air of the room impure. It needs, however, some action on the part of the patient, and these results cannot be promised in cases of delirium, unconsciousness, or general paralysis; yet when these conditions are present, it is possible to save most of the labour an ordinary bed entails. During the two years that have elapsed since it was first tested in the Bristol Royal Infirmary, it has been improved in various ways. This bed can be arranged to suit alike tall and short patients.

The exhibit of Clothing, etc., by Dr. JAEGER'S Sanitary Woollen System Company, attracted attention through novelty of construction, and by its intrinsic purity from adulteration and noxious dyes. Much interest was shown in the manner in which has been practically carried out Dr. Jaeger's theory that animal should wholly supersede vegetable fibre in clothing and bedding. The camel hair wadding shown by this company for dressing wounds, etc., is stated to remain free from odour. This fabric may be worth looking into by the profession.

The LONDON SANITARY ENGINEERING WORKS (Southwark Bridge Road, London) exhibited Stidder's Patent Torrent Water-Closet. The flushing fans of this closet are so arranged that every particle of the basin is washed at each flush, and no matter can remain in the basin. At the inlet arm of the same is Stidder's Patent Cast Lead Closet Arm Joint. It saves great labour in fixing down the pipe to the closet, and there is 50 per cent. greater flush of water than if bent round in ordinary way. Stidder's Patent Hospital and Mortuary Sink, with Patent Swivel Lock Plug, forms a standing waste and overflow with handle on top to obviate the necessity of putting the hands in the water to discharge the sink.

Messrs. MAWSON and SWAN (West Grainger Street, Newcastle-on-Tyne) showed their New Water Filter (patent) in glass and earthenware. The advantages claimed for this filter are (1) that it can be taken to pieces to be cleaned; (2) that the medium, which rests upon a bed of glass-wool, consists of purified charcoal in strata, the lower being so fine that it removes, when fresh, even the minutest bacterial life; and (3) that the medium is so placed that it can be simply removed and renewed whenever necessary. The cost of renewing the largest size is only two shillings and sixpence; and in the case of the glass ones, sufficient filtering medium is given free for re-charging six times.

The exhibits of MORRELL'S SANITARY APPLIANCE COMPANY (4, St. Ann's Square, Manchester) comprised a Model of Morrell's patent Ash-sifting Earth Closet, illustrating the system as applied to an out-door closet, either at a gentleman's house or at the workman's dwelling. This system utilises house-ashes for sanitary purposes by automatically separating the fine ash-dust from the cinders: the former being a powerful deodorant, is automatically scattered over the soil, on each use of the closet, and the cinders sifted, and thrown down, ready for collection for reburning. It was stated that over 4,000 of the closets had been applied in one town. The exhibits included, in addition to the model, 1, the requisite apparatus for applying to the premises for forming the ash-sifting earth-closet; 2, a complete portable self-acting ash-sifting earth-closet, for use in room or outhouse; 3, the ash-sifting portion of the apparatus only, for application to existing premises; 4, a self-acting earth-closet (not a sifter), in complete portable form, for chamber use; 5, a skeleton earth-closet apparatus for application to chamber floor closets. The ash-sifting earth closet forms a dustbin as well as closet. This firm also calls attention to a special dustbin for use with or apart from the closet. This is also a self-acting cinder-sifter, prepared to receive all dry refuse of the dwelling, compartments being provided for each class of refuse. Thus the sifted cinders fall into one drawer, the fine ash-dust into another, and the large refuse, such as preserved meat cans, etc., have a compartment for their reception; so that the refuse which, when accumulated in the ordinary dustbin, becomes most offensive, both whilst on the premises and on removal, is automatically divided, and kept separate, and so rendered perfectly inoffensive, its removal being also rendered much more convenient, and the bulk to be removed much reduced.

Messrs. J. H. PECK and Co (Tarpaulin Manufacturers, of Wigan and Liverpool) showed their Patent Ambulance, which attracted a good deal of attention. It was suspended from two wooden rails, representing the sides of a cart, by four straps,

two on each side. Between each strap and stretcher was a spiral spring working in a case, whereby all jolting is entirely obviated, however rough the road. Its salient features are efficiency, strength, simplicity, and low cost. It is made entirely of steel, and large enough to carry any man, when wrapped up for storage it measures but 5 ft. 9 in. by 4 in. by 3 in., weighing under 30 lb., and is adapted to hand carriage by two men, to any cart, to any mine workings, however restricted, and to any pit-cage carrying two boxes on a deck, and of course to general run of accidents. The head-rest is adjustable to various heights, and the feet may be raised above the head in case of hemorrhage. The cover is removable for cleansing purposes, and the sufferer lies on canvas only, the cross-bars being much below and beyond the possibility of contact. The side-rods are made of angle-steel 1 in. by 1½ in. by ½ in., lightened, when possible. The cross-bars are in the form of the letter X, and made from steel (¾ in. and ½ in.), and are carried from leg to leg (which are 6 in. long), and the four legs are held in position by two drop-hinges; the handles are hinged, and drop below by their own weight, when not in use; the waistband is of strong 4 in. webbing, 5 ft. 6 in. in length, with tent-hook at end, loops being made from whipcord laced in. This ambulance, which has been before the public little more than a month, has, we are told, been awarded two silver medals, and has been subjected to some severe tests, and adopted by the Southport Corporation Watch Committee for their various police stations. The following are the advantages which this ambulance is said to possess: 1, complete efficiency; 2, great strength, being made entirely of steel; 3, simplicity; 4, low cost (price 50s. complete); 5, adapted to any cart, to any mine, however restricted, and to any pit-cage carrying two boxes on a deck; 6, adjustable head-rest and removable cover, sufferer in contact with canvas only; 7, though large enough to carry any man, when wrapped up for storage measures but 5 ft. 9 in. by 3 in. by 4 in., and weighing under 30 lbs.; 8, strap and spring arrangements annihilate all jolting.

The exhibits of the "SANITAS" COMPANY, Limited, embraced "Sanitas" Fluid, a colourless, antiseptic, and oxidising agent, for use in sick-rooms, and in the dressing of wounds. The manufacturers further allege that it is of especial service in obstetric practice, and for internal administration in cases of cholera, and that, while it is fatal to all classes of disease-germs, it does not seriously interfere with the process of digestion. "Sanitas" Oil (antiseptic and oxidant), for fumigating sick-rooms and hospital-wards, and for the specific treatment of lung and throat complaints by inhalation. "Sanitas" Emulsion, a preparation made from "Sanitas" Oil, by means of gum-acacia, etc., and intended to be used in cases where a powerful antiseptic agent is required, and for street-watering purposes. "Sanitas" powder, a disinfectant for general use, containing as its active agent "Sanitas" oil. The "Sanitas" Company also exhibited several Household and Toilet Soaps medicated with "Sanitas"; their "Sanitas" Disinfecting Fumigator, Antiseptic gauze, and sundry toilet articles.

Mr. HUGH TAYLOR, Surgeon (Coltishall, Norfolk), exhibited his Patent Disinfecting Apparatus, specially designed for use in bed in medical and surgical cases, and for other purposes. This apparatus can be used for any kind of disinfectant, either in the form of liquid or of powder, and can also be used for fumigation. The chief advantages are said to be that, by its means, the patient is kept free from the offensive odours accompanying a great number of diseases; the risk of infection is not so great. Further, the patient is kept sweet, the bed-clothes purified, and the air of the bed kept pure and wholesome, and the recovery of the patient thereby rendered much more probable by the effectual destruction of the germs of disease. The apparatus is simple in construction, and made to resist acids. The lid is taken off, the required quantity of the disinfectant put into the pan, and the apparatus is then fit for use, and has only to be placed in the bed, as near the patient as is thought advisable. A small wooden peg is passed through the knob on the top of the lid to act as a kind of tent-pole to keep the bed-clothes off the pan, and to insure a more thorough circulation of the disinfected air through the bed, and round the patient. The handle of the apparatus is made hollow, so that fluids, etc., can be poured out when it is wished to clean it, or to renew the disinfectant. It is put forward as being of use in hospitals, on board-ships, and everywhere where a disinfectant is thought advisable, especially in hot foreign climates.

Messrs. TRAPNELL and GANE (Complete House Furnishers, of Crockherbtown, Cardiff, and College Green, Bristol) exhibited a Collection of Spring Mattresses, Bedsteads, Bed-rests, chairs, etc., specially constructed with a view to the requirements of invalids and public institutions. A noteworthy feature was the Invalid's Bedstead, with patent rack for raising and lowering the back and head, without disturbing the person occupying it. Bed-rests, fitted with Billington Brothers' patent

Springs, were also shown, together with a compact Folding Spring Mattress and Bedstead combined. An adjustable Invalid Chair, fitted with the spring seat, back and leg rest, was also exhibited, and we may mention that a special feature of these spring mattresses, which are made in all sizes, is that in the case of a mattress adapted for two sleepers, they are so constructed that the movement of one person does not affect the other—a great advantage when we remember that the tendency of the ordinary spring mattress has been to roll the two sleepers towards each other, into the centre of the bed. The exhibit, however, which attracted most attention and favourable comment at this stand was a self-acting Equilibrium Lounge, which is instantly adjusted into any required position by the simple movement of the occupant, and retains that position without the slightest effort on the part of the occupier, until required to take a fresh position. This lounge, which is well upholstered, and covered in morocco, is a model of elegance and ease.

Mr. WITHINGTON (Brown Street, Manchester) showed a Patent Sewer-Gas Excluder, for disconnecting Water-Closets from direct connection with the Soil-Pipes and Sewer. Among the advantages claimed for this are these. The soil-pipe is hermetically sealed, independent of any liquid; it prevents any back current from the sewer ventilating pipes from blowing through the water-seal; it can be easily fixed to existing arrangements; owing to its simplicity, it cannot readily get out of order; the Excluder being connected to the chain or wire for the flushing arrangements, it can only be opened by lifting the handle or pulling the chain, as the case may be.

Among the other exhibitors were: Messrs. Bowes, Scott, and Read, Broadway Chambers, Westminster (Model of Self-Cleansing Earthenware Latrine, with Field's Flushing System). The Bromhead-Tester Manufacturing and Trading Company, Limited, 43, Farringdon Road, London (Bromhead's Patent Automatic Dry Gas-regulator). Messrs. Doulton and Co., Lambeth Pottery (Combination Closet). Mr. Charles Hawksley, C.E. (Drain Testing by Air Pressure). A. E. Hubert, S.E., and C. N. Hake, M.S.A.C. (Drain Testing by Smoke Test; Portable Smoke Canister and Prepared Smoke Paper). H. T. Johnson and Co., St. Andrew's Chambers, Albert Square, Manchester (Drawings of Sanitary Appliances). The Lancaster Pneumatic Door-Check, for closing doors noiselessly, suitable for Hospitals, Consulting Rooms, etc. Mr. W. Beddoes Moore, Stourbridge, Worcestershire (Doctor's Gig). Mr. J. G. Proger, 12 and 13, Trinity Street, Cardiff (Sanitary Appliances for Ventilating, Draining, Lighting, Heating, etc.). Messrs. W. Phillips and Son, 10, Baker Street, Portman Square, London (Patent Cerus Traps; Defective Plumbing, taken from London Houses). Messrs. J. Rowcliffe and Co., Dinting, near Manchester (Sanitary Wire Mattresses). Dr. Horace Swete, Baskerville House, Worcester (Safety Antivacuum Valves). Messrs. Thomas Thomas and Sons, Engineers, Cardiff (Patent Self-sustaining Lift for Invalids). Mr. Thorn, St. Giles' Gates, Norwich (Drawings and Models of Medical Brougham, Buggy, etc.). Miss Staples, Carriekfergus, Belfast (Model of Woman's Reform Dress).

LUNACY IN LANCASHIRE.—A return issued by Mr. R. C. Lewis, clerk to the Rainhill Asylum, shows that there were, on the 1st of January last, 3,178 pauper lunatics, idiots, and persons of unsound mind in Lancashire. Of that number, 5,815 were in the four county asylums (1,401 in Lancaster, 2,005 in Prestwich, 665 in Rainhill, and 1,744 in Whittingham), 34 were in licensed houses, 55 in the Royal Albert Asylum for Idiots at Lancaster, 172 with friends, and 2,102 in workhouses. Four classes of persons furnish very nearly one-fifth of the whole number of asylum-inmates: factory operatives, 268; labourers, 243; domestic servants, 134; and housekeepers, 456—making a total of 1,151. The highest percentage of lunacy occurs in the Manchester Union, being 4.025 per 1,000 of the population on the census of 1881; and the lowest occurs in Barrow, where it is .740. The cost of maintenance in the asylums, including salaries of officers, was: Lancaster Asylum, £32,266 10s. 1d.; Prestwich, £40,376 0s. 8d.; Rainhill, £16,908 3s. 5d.; Whittingham, £40,641 8s. 5d.; total, £130,192 2s. 7d.

PIGMENTARY SYPHILIDE.—In his inaugural dissertation (*Revue Méd. de l'Est.*, 1885, No. 7), M. Saintin has described several cases of this rare form of syphilide, which appears generally during the second half of the first year after infection. It is much more frequent in women than in men. The pigmentation begins on the sides of the neck, and spreads gradually. The coloration is at first uniformly ash-grey or bistre; later on whitish patches appear, and the darker parts form a sort of reticulum around them. The duration of the disease varies from five months to three years. No treatment seems to have much influence upon it.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 5th, 1885.

SUMMER-DIARRHŒA OF CHILDREN.

THE interesting paper read by Mr. Vacher, of Birkenhead, in the Section of Public Medicine, at the meeting of the British Medical Association in Cardiff, and published in the present number of the JOURNAL, raises an important question as to the nosological and etiological positions of that cause of death among young children which is entered in the Registrar-General's returns as "diarrhœa." Is this diarrhœa a substantive disease? or is it merely a symptom? It is to the latter question that Mr. Vacher would give an affirmative answer; and, in doing so, he points out that diarrhœa is a common symptom in miasmatic, enthetic, dietic, and parasitic diseases; in tubercular disease, in marasmus, in debility, and in acute and chronic poisonings. He is further strengthened in this opinion by the fact that the deaths consequent to diarrhœa in England and Wales amount to nearly one-half of the total number of deaths from the six chief zymotic diseases—small-pox, measles, scarlatina, diphtheria, whooping-cough, and fevers; and also by a remark, made many years ago by Sir Thomas Watson, in his *Lectures*, that "there are several very different affections classed together under the head of diarrhœa."

The generally accepted belief that the summer-diarrhœa of children is a distinct specific zymotic disease, finds little favour with Mr. Vacher. An examination of the Registrar-General's returns, in his opinion, favours the opposite view. Briefly, he gathers from these returns the following facts. 1. Summer-diarrhœa, as a cause of death, is almost limited to little children. 2. The mortality is greater in town than in country, and in large towns than in small. 3. Many of the large towns show low rates, or high rates, year after year. 4. In other towns, not the largest, this rule does not hold good. 5. The mortality from summer-diarrhœa does not bear a direct ratio to density of population. 6. The mortality from summer-diarrhœa is increased by heat; and (7) only slightly by the rainfall. 8. In towns where the death-rate from summer-diarrhœa is high, the birth-rate is also high, and the average death-rate from other causes than diarrhœa is not high. In addition, Mr. Vacher finds, from an investigation of the deaths ascribed to summer-diarrhœa in his own town, Birkenhead, that the mortality is not confined to any parts of the district; that a fatal case is rarely followed by another in the same house; that some practitioners certify no deaths as due to diarrhœa, others many; that the children under one year, who are said to die from diarrhœa, belong almost exclusively to the working classes; that many

of the houses where the deaths occur are not specially unsanitary; that in many of the cases there are convulsions or wasting; and that the duration of the disease varies in an extraordinary manner. Mr. Vacher's comments on these facts, and the conclusions which he draws from them deserve careful perusal.

A review of the whole subject leads Mr. Vacher to the conclusion that the mortality among infants, ascribed to diarrhœa, is not due to the same disease; and he considers that the many different explanations that have been given of its etiology support this view. In one town (Leicester), mothers are largely employed as factory-hands, and neglect and hand-feeding are probably important factors in the production of the disease. In another town (York), typhoid fever is frequent, and very probably the diarrhœa is allied to this disease. In a third town, there is the soil and groundwork usually associated with phthisis, and phthisis is a common disease of the adult population; and it is thought, with some reason, that the infant diarrhœa is often serofulous. Not a few of the cases entered as summer-diarrhœa, the author believes, are simply cases of acute heat-fever; some are bilious diarrhœa, some acid dyspepsia, some a disease probably allied to dysentery.

It must not be understood that Mr. Vacher altogether denies the existence of a genuine zymotic summer-diarrhœa; all that he contends for is that, if such a condition exist, many more deaths are put down to its account than are due to it. Whether there really be such a disease cannot, Mr. Vacher rightly pointed out, be determined by mortality statistics, but only by extensive clinical observation extending over many cases and many districts, and by the correct interpretation of *post mortem* appearances. An attempt in this direction was made several years ago by Dr. Edward Ballard, but we regret that it did not meet with the success that the importance of the subject deserves. A mass of information, collected on the lines laid down by Mr. Vacher, and digested by such a competent statistician as Dr. Ballard, would doubtless do much to clear away the obscurity which overshadows the etiology of those deaths occurring in the summer months among children, which are, rightly or wrongly, attributed to diarrhœa.

The *New York Medical Record* of August 8th contains an article which is interesting in connection with Mr. Vacher's paper, especially as it tends to confirm his remark as to the relation between a high atmospheric temperature and summer-diarrhœa. We quote a portion of the article.

"The opinion seems to be gaining ground among certain observers that there is some analogy or connection between ordinary heat-stroke and the summer-diarrhœa of infancy. It is the universal experience of physicians practising in large cities, that the frequency and mortality of infantile diarrhœa is in direct proportion to the extent and duration of the high temperature. How the heat acts does not seem so plain. Inasmuch as removal from the city to the country is frequently followed by improvement and recovery, the bad effects of the heat have been supposed to be chiefly due to fermentative changes produced in food, and to increasing atmospheric impurity. The heat of the city, however, is very different from the heat of the country, disregarding all other factors, even though the thermometer may register the same in both places. The bricks and paving-stones of the city, in the unshaded glare of the sun, reflect and radiate an oppressive stifling heat that is shut in by high walls; in the country, however, not only is there a free expanse for any breeze, but the trees and foliage combine to lessen the deadly effects of a prolonged high temperature.

"There is reason to believe that several different conditions may be produced by continuous heat. Dr. Guiteras, in the March number of the *Therapeutic Gazette*, describes a thermic fever he has observed at Key West. This form of fever prevails only during the summer; poorly nourished overworked persons living in close houses are especially liable to be attacked.

"It is not difficult to understand how digestive symptoms would assume a prominent place in infants suffering from such fever. Not only is the food upon which they are obliged to live subject to speedy fermentative changes, and impossible to procure very fresh, but heat depresses the nervous mechanism of digestion. The supposition that a sort of thermic fever acts as a main factor in causing indigestion and diarrhoea, instead of the diarrhoea or entero-collitis primarily producing the fever, has some points to commend it. We know that infantile diarrhoea begins to increase in frequency and fatality abruptly with the inception of hot weather, and as quickly stops at its close. Again, of the two hot months of summer in New York, the mean temperature of July is somewhat higher than that of August, and the death-rate from diarrhoeal diseases of young children is very much larger in the former month than in the latter, although all other conditions are largely the same. When the weather for a time becomes cooler, the death-rate sensibly diminishes.

"Instead of falling back on teething or malaria to explain fever in the absence of local symptoms, the direct effect of the heated atmosphere of summer will often afford a more natural explanation. The view that much of the summer complaint is really a form of thermic fever, derives its principal interest from emphasising a point of treatment, namely, the free employment of cooling applications. Dr. Comegys believes such cases should be treated more by the external use of cold water than by drugs.....The avidity with which babies, having summer-diarrhoea, will drink water, and the evident relief they experience from cool sponging, are easily explained by the high fever and dry mouth accompanying this condition."

MEDICAL PRACTICE IN THE COLONIES.

OUR correspondence-columns from time to time contain inquiries on the prospects of practice for young medical men in the colonies, and especially in Australia and New Zealand. From the nature of the case such inquiries admit of only very general and indefinite answers; nevertheless some indications can be confidently given which may prove of value to those whom health, inclination, or other considerations have led to contemplate emigration. We write upon the basis of a considerable personal acquaintance with several of the Australian colonies, and with New Zealand, which has been communicated to us.

Colonial practice is divided even more sharply than at home into the two classes of town and country practice. In the large colonial towns, such as Melbourne, Sydney, or Auckland, the conditions of practice approximate closely to English metropolitan life. The profession is well supplied, competition is keen, and the stranger, unless exceptionally qualified or powerfully befriended, would have but poor prospects of obtaining paying practice, except as the result of as prolonged and as strenuous a struggle as is necessary under similar conditions at home. It is true the colonial towns are developing rapidly, and growth of population is on the average much more speedy than at home; but it must not be forgotten that several of the colonies possess vigorous medical schools which are turning out every year a large number of fairly equipped medical men. For the present, British degrees have still the preference in the colonies, and the medical schools there are still weak in some departments, particularly in the specialities; but if they prove true to themselves, and steadily raise their standards, they must soon rise in the estimation of a people who

are strongly characterised by self-esteem. On the whole, then, we strongly dissuade any young medical man from going out to the colonies, on pure speculation, with a view to city practice there.

On the other hand, the prospects of country practice are far better in the colonies than at home. It constantly happens that advertisements appear in the colonial papers, from the inhabitants of some inland towns, offering a guarantee of £200 or £300 *per annum*, in addition to practice, to any medical man who will settle in their district. Such offers, though occasionally deceptive, are more frequently quite *bonâ fide*, and will be made good to any properly qualified and well recommended medical man. It must, however, be clearly borne in mind what country practice of this nature really means. It does not mean life in a pleasant village, with a church, railway-station, and post-office within five minutes' walk, and pleasant society, easily accessible. It means residence in some primitive settlement, consisting, perhaps, of a few rude wooden houses, and separated, it may be, by forty or fifty miles of trackless sheep-runs from the nearest township. It means the utter absence of professional companionship and of social privileges. It means a life of rude plenty and fair remuneration, but a rough, uncultured, half-civilised existence. Many young medical men would delight in the vigorous, open-air, untrammelled existence afforded by such conditions; but others, of a more intellectual cast and more delicate fibre, would find it insupportable.

Special conditions may determine the decision in such cases. If there be delicacy, especially of the respiratory system, this bush-life can be strongly recommended. It is extremely healthy. The climate of Australia is very hot for three or four months of summer, but even this season is healthful, and the other portions of the year are in all respects agreeable. The country doctor in the colonies, whose patients are sometimes scattered over an area as wide as an English county, spends perhaps half his time in the saddle, and he usually becomes as bronzed and robust as a typical farm-labourer. He is free from all the oppression of etiquette. He dresses as he pleases, eats what he pleases, and lives as he pleases. This return to the primitive conditions of existence has its charm for some minds; but it is well to remind others that few realise the advantages of civilisation until they have been deprived of them. If the medical man set much store on intellectual society; if he have a fondness for music or art, or any other refined pleasures; if he desire to pursue his profession in the true scientific spirit, and not merely as a convenient means of earning a livelihood; we would advise him to pause before emigrating to the colonies. He might find success there purchased at too dear a rate.

On the other hand, the prospect of quickly securing remunerative practice, and of leading a free, healthful, and unconventional existence, will possess a decisive attraction for many who need feel no compunctions for their choice. It is our wish, however, to prevent unnecessary disappointment by showing that these very genuine advantages of colonial medical practice have their reverse. The practitioner who deliberately chooses such practice, aware of its drawbacks, and resolved to take the rough with the smooth, will probably not regret his choice; but it is highly desirable that there should be no self-deception in the matter; and that no one should imagine that he can secure the peculiar advantages of colonial life, without sacrificing much to which he has been accustomed at home.

These remarks apply almost indifferently to Australia, Tasmania,

and New Zealand. Of the Australian colonies, probably New South Wales offers the greatest advantages to the intending medical immigrant, if he is entirely without local claims or connections. The colony is at present highly prosperous, the population is rapidly increasing, and the interior presents much varied and agreeable scenery. Victoria is more populous and more settled, but competition is keener there; and the colony, being destitute of coal and iron, can hardly have the great future which is certainly in store for New South Wales. South Australia is fairly prosperous, but its progress has only been moderate. Queensland will certainly be a great country, but it is still in the rough; and the settler in the Queensland bush, if he desires any of the appurtenances of civilisation, must carry them with him. Tasmania is a charming little island, with a perfect climate; but the population is small, and the openings for practice few, and not likely to be lucrative. New Zealand can be heartily recommended to those who desire a climate more home-like than that of Australia, and who are content with moderate professional prospects in return for settling in a beautiful and healthful country, which must some day play an important part in the world.

THE BRITISH PHARMACOPŒIA, 1885.

THE new edition of the *British Pharmacopœia*, a seemly volume of 500 pages, was published on September 1st, and has already been scanned with the keenest interest by numberless physicians and surgeons, and by pharmaceutical chemists throughout the country. The last edition was published eighteen years ago, and some additions were made eleven years ago; but since that time a vast number of new remedies have been candidates for favour. A large majority of these have had their day, and have already disappeared; others still await judgment; while a minority have established their claim to be admitted into the select circle of official remedies, and, in the future, every medical man and every chemist will be expected to understand their properties and their dangers. The number of preparations added is 114, but some of these are merely old remedies in more convenient shape, so that the actual number of new remedies is much smaller.

The new edition has been supervised by a Committee of the General Medical Council, presided over by Dr. Quain, F.R.S. The work of supervision and selection has entailed much labour on this Committee, and especially on its Chairman, who has freely given the results of his ripe experience as a practical physician to the work of rendering this edition perfect and complete. In the technical part of the book, the Committee have had the advantage of the skilled assistance of Professors Redwood, Bentley, and Attfield, to whom the task of editing the work was committed.

A glance through the list of drugs and preparations added will show that the present tendencies of modern medicine and surgery, as ought to be the case, have been reflected in its pages. Diseases of the nervous system are, so it is said, the prevailing maladies in this half of the nineteenth century; and, in consequence, we find the class of nerve sedatives and tonics represented by twenty-seven new preparations, or nearly a quarter of the whole. The great triumphs of surgery have been accomplished through the more extended use of antiseptics, and we find fourteen new antiseptic preparations added to the official list.

The spread of the use of hypodermic medication is evidenced by the addition of several new preparations; and, in the preparations of

the more active poisons, an attempt has been made to obtain increased uniformity in strength.

Certain alterations have been made in the nomenclature so as to bring it into accord with the present state of chemical science, and the new chemical notation has been introduced. The book is certainly an advance on the last edition, and the work is now probably one of the most perfect that has ever been published.

THE Professorship of Ophthalmic Surgery in Vienna, which was held by the late well-known Professor Jaeger, is likely to be conferred on Professor Fuchs, of Lüttich (Liège).

WE understand that the sudden death of Lord Houghton was due to an attack of angina pectoris; he had previously suffered from several severe attacks.

A SHRIMP'S HEAD IN THE TRACHEA.

A CHILD, fifteen months old, while his mother was at tea, picked up a shrimp's head. Afterwards the child was noticed "choking." The medical officer of the Seamen's Hospital performed tracheotomy, but found nothing to cause obstruction to breathing. Death took place the same night. At the *post mortem* examination, the shrimp's head was discovered in the trachea just above the bifurcation.

THE TREATMENT OF FROSTBITTEN FINGERS AND TOES.

DR. LAPATIN, in the *Proceedings of the Caucasian Medical Society*, advises that fingers and toes which have been slightly frostbitten, and which subsequently suffer from burning, itching, and pricking sensations, should be painted, at first once, and afterwards twice a day, with a mixture of dilute nitric acid and peppermint water in equal proportions. After this application has been made for three or four days, the skin becomes darkened and the epidermis is shed, healthy skin appearing under it. The cure is effected in from 10 to 14 days. The author has found this plan very effectual amongst soldiers, who were unable to wear their boots, in consequence of having had frozen feet. They were, in this way, soon rendered capable of returning to duty.

CONCERNING OVERPRESSURE.

THE publication of the official report of the Educational Department affords evidence of the opinion of the chief inspectors on the question of overpressure. According to the condensed extract published by the *Globe*, several of the chief inspectors manifest a disposition to minimise complaints on the subject, and one or two of them contend at length that the evil does not exist at all, or that it is of much smaller dimensions than has been commonly imagined. This appears to be Mr. Alderson's view, but he cites, nevertheless, the testimony of some of his colleagues on the other side. One of these, Mr. Howard, says: "The working of the new code seems to be telling on the health of teachers generally. Complaints of overstrain are very general, and I have never known so much illness among the teachers in this district as during the past year." Mr. Burrows, reporting on the Southampton schools, is compelled to state it as his decided opinion "that, partly because many children now come to school in an absolute state of starvation, partly because many children are now to be prepared for examination who never attend regularly, the requirements in many cases, both in town and in country, bear too hardly both on teachers and children." He adds that he could give "a great deal of very painful evidence on this point." As an instance, he mentions that a very large number of children came to his inspection in Southampton who had not broken their fast since five o'clock on the preceding day, and who had not eaten meat for three days. That it was "terribly painful" to have to examine such unfortunates will be

readily believed. Another of Mr. Alderson's colleagues, Mr. Codd, has no hesitation in saying that the pressure is greater on girls than on boys. It is only fair, after quoting these extracts, for the opportunity of doing which we are indebted entirely to Mr. Alderson's candour, to add that he does not think they warrant the belief that overpressure exists in such a degree as to call for general anxiety. The practices of keeping and working overtime are, there is reason to hope, diminishing in frequency. Mr. Blakiston, reporting on the north-eastern counties, says that where teachers have followed the advice given them not to work overtime, the result has been increased efficiency in school, and the enjoyment by teachers of better health. But reform is still wanted in these respects in the districts concerned, for another inspector writes that keeping in is very largely practised, and that he often sees teachers going home late, and hears of schools where the average day's work lasts six hours and a half. One would have been glad to hear that the practice of enforcing home-lessons has been generally given up, but on that subject the reports are silent, so far as we are permitted to know their contents. That there is danger of over-pressure is admitted even by inspectors who do not believe in its widespread prevalence. For example, Mr. Fowler, inspector of the Stoke-upon-Trent district, thinks all will be well "where the teaching staff is strong, the management active and intelligent, and the instruction given in a steady, persistent fashion throughout the whole year." Doubtless; but one would like to have Mr. Fowler's opinion as to the percentage of schools in which all these conditions are realised.

REPORT OF THE LUNACY COMMISSIONERS.

THE thirty-ninth report of the Commissioners in Lunacy has just been issued. It shows that the number of lunatics, idiots, and persons of unsound mind on January 1st was 79,704, showing an increase of 1,176 on the preceding year; but this total does not include 245 lunatics so found by inquisition, and residing in private houses under the immediate care of their committees, nor 75 male prisoners detained in the wards of convict prisons. Of the total, 79,704, 7,751 were private patients (3,950 males and 3,801 females), 71,215 were paupers (31,333 males and 32,882 females), and 736 were "criminals" (556 males and 182 females). The usual elaborate tables are given, and some fresh tables have been added, showing five or six years' summaries of certain tables appearing year by year in previous reports. The change in the law as to the maintenance of criminal lunatics has suggested the expediency of carrying back the same threefold classification into the summaries relating to past years, and accordingly this has been shown for twenty-seven years back. It appears that in county and borough asylums, the recovery-rate, for both sexes taken together, is rather lower than the average of the ten preceding years, though the females taken separately show a higher rate; and the death-rates are also slightly lower than the same average. The Commissioners rightly make complaint as to cases where the accommodation and arrangements are unsatisfactory or are tardily provided.

BRITISH DENTAL ASSOCIATION.

THE annual meeting of the British Dental Association was opened on August 27th, at Cambridge, in the rooms of the Union Society. At the preliminary business meeting, Dr. John Smith presiding, the Association was reported to be in a healthy and progressive condition. There are now 562 members, against 536 last year. During the year, convictions had been obtained against two persons for infringing the Dentists Act, and some others had been induced to discontinue unlawful practices. It was agreed to hold the next annual meeting in London, under the presidency of Sir Edwin Saunders, and the dates voted were August 19, 20, and 21. Dr. Smith, in his valedictory address, suggested the expediency of visitation of the dental examinations in the same manner as, or something similar to, what is carried out at the medical examinations. He would even suggest the expediency of an interchange of delegates from the different licensing boards at

the various dental examinations, as was now customary at the medical and surgical ones of the Scotch licensing bodies. Mr. Richard White, the president-elect, upon taking the chair, also delivered an interesting address, in which he prophesied that as time went on many more of their members would enter at Cambridge University, and he suggested the expediency of the University establishing a degree in dental and medical surgery, which would, undoubtedly, attract large numbers. He also said that the time had arrived for a more general development of dental surgery in connection with the hospitals. The president pointed out that the advancement of dentistry would depend largely upon scientific investigations executed on a basis of certain defined laws, and showed that there was scope for much original research.

INTERNATIONAL PHARMACEUTICAL CONGRESS.

THE proceedings of the International Pharmaceutical Congress, sitting at Antwerp, have been opened by the Minister of Foreign Affairs, who in his address dwelt on the importance of the questions before the Congress to the well-being of the people. The following are the questions down for discussion:—(1) Examination of the project of an international pharmacopoeia, elaborated by the committee appointed at the last Congress in London. (2) Pharmaceutical instruction. What instruction ought to be acquired previously to pharmaceutical studies? Pharmaceutical scientific studies. Professional applications. (3) Adulterations of human food, legislation, administrative service, etc. (4) Drinking water. The characteristics of potable water. What are in the present state of science the best practical procedures to be recommended for recognising these characteristics? After the Minister's address, M. Van Bastelaere, President of the Congress, traced the history of pharmaceutical science in Belgium, and explained the nature of the labours awaiting the Congress. He declared the question relating to drinking water to be the most important of all. Among the vice-presidents are Professor Redwood, and Messrs. Carteighe and Bruncker. On Monday evening the Communal Council gave the Congress a reception in the Town Hall. There was a brilliant assembly of guests, including many ladies. Alderman Walravens, in the absence of the Burgomaster, welcomed the Congress, and referred to the constant endeavours of the Brussels authorities to suppress the adulteration of food, and to procure pure water for the population.

THE DANGERS OF THE SEASHORE.

THE neglect by the authorities of many watering-places of the health and safety of the guests upon whom their prosperity depends has been exemplified in a startling manner by the melancholy fatality in Devonshire. It is true that the charge of contributory negligence is often raised against the too confiding visitor, and the carelessness which he exhibits in the selection of a health-resort and in the engagement of temporary quarters, as was recently pointed out in the *Sanitary Record*, is indeed astonishing; but in the enjoyment of the natural attractions of the sea-side he has at least a right to expect that his steps shall not be directed into danger by the authorities responsible for his entertainment. That this confidence is often misplaced is illustrated by the unusually long list of summer accidents. If the holiday-maker bathes there is too often no floating sentinel to watch his movements and to warn him of dangerous currents or tidal peculiarities; hidden from the shore by a row of closely-packed bathing-machines, he must get to land as best he can, or drown unaided and perhaps unseen. If his children and servants, permitted, by the relaxation of home-discipline, to wander where they will, choose to ramble under the cliffs, they must trust to a chance coastguardsman to tell them of the dangers of the tottering Scylla on the one hand and of the incoming flood on the other; or, if they prefer the narrow path above, there is no protecting rail to guard the crumbling edge, and no notice of the treacherous nature of the ground. The inquest on the Dawlish

accident has had the result of at last awakening the local authorities to the danger of the spot set apart by them for bathing purposes, though it failed to settle a comparatively unimportant question as to whether a railway-company who weekly deposited hundreds of excursionists in a natural trap, or the board who invited victims by facilitating their approach, were legally responsible for the absence of a caution-notice. Local boards are almost proverbially slow in their movements, and it is not, unfortunately, in watering-places only that they refuse to recognise a danger until it has been indicated by a coroner's jury. A London authority, recently, when appealed to by a neighbouring board to co-operate with them, "on account of the danger to pedestrians beneath," in staying a cataract of suicides from an elevated viaduct, considered the fact that there had been no falls from their side of the bridge a sufficient reason for refusing to protect it. The authorities of holiday and health resorts, however, owe an unquestionable and special duty to their visitors, whose annual incursion they solicit, and in whose enjoyment and satisfaction they hold a direct pecuniary interest. It is surely not going too far to insist that, while as few vexatious restrictions are placed upon the footsteps of the adventurous holiday-taker as are compatible with safety, he shall at least be warned of the presence of danger; and that his unsuspecting children and women-folk shall not be invited to stroll and sit in localities where no experienced quarryman would dare to venture.

DRUNK OR DYING.

ONE of those mistakes which are so very difficult and sometimes impossible to avoid, and have most unfortunate results, occurred last week; this time at St. George's Hospital. A drunken cabman, who had fallen off his box, was taken to the Hospital on the evening of August 27th, but as he presented no symptoms of any serious injury, he was not admitted; the policeman who had him in charge took him first to the Workhouse, in Buckingham Palace Road, where admission was again refused, and then to the police-station, where he was seen by Mr. Samuel Benton, who found that his pupils were uneven, and arrived at the conclusion that he had sustained some injury to the head. The man died between six and seven in the morning, and a *post mortem* examination revealed a fracture of the skull. Upon these facts, the Coroner's jury attempted to pass an official censure on the house-surgeon for not exercising sufficient care in his examination of the cabman; this attempt was very properly quashed by Mr. A. Braxton Hicks, but, if the inquiry had been held before a coroner of less knowledge and firmness, we should again have seen a surgeon censured for not discovering the undiscoverable.

A NEW HOME FOR INEBRIATES.

A HOME for the treatment and cure of inebriety was inaugurated on Tuesday last at High Shot House, Crown Road, St. Margaret's, Twickenham, by a luncheon given by Mr. Harrison Branthwaite, who has for many years devoted his studies to the subject of intemperance as a disease amenable to a careful *régime*, and has opened this establishment, which is licensed under the Act of 1879, for the purpose of putting into practice his particular scheme and method of treatment. The number of patients taken will be restricted to twelve, and confined to males, who will be received privately or under the Act. In addition to the existence of a library, and other institutions designed for the elevation of the moral and intellectual nature, every reasonable recreation has been provided. The house—built in Queen Anne's style and during that sovereign's reign—was formerly the residence of King Louis Philippe, and gives ample accommodation. The rooms in all parts of the house, and perhaps especially in the old portion, are light and airy, and brightly furnished. Dr. Norman Kerr, who presided at the luncheon, said that, with reference to the general question of temperance, his hearers must all feel, he was sure, that the opening of an institution like the one they were met to inaugurate was another landmark in the spread

of temperance throughout England and the world. With regard to the great matter of temperance, he believed there was no difference of opinion among those who had studied the subject as to the method to be adopted in endeavouring to reform the victims of intemperance; the only way to reclaim the inebriate was to make him a total abstainer. Whether it was thought that total abstinence was incumbent as a duty or not, all must agree that it would be a good thing if there were no use for such institutions as this. The stain of intemperance, by fair means or foul, must be wiped from the name of England, and they were all one in the desire to root out drunkenness. There were a great many different wings of temperance: the first was that which was engaged in rescue work; another was that which provided popular amusement and recreation for the people. Other speakers followed, and Dr. Carpenter proposed "Success to the Inebriates' Home of High Shot House," which was acknowledged by Mr. Branthwaite.

THE ANTWERP MEDICAL CONGRESS.

THE Medical Congress of Antwerp, over which Dr. Kuborn, President of the Belgian Royal Academy of Medicine, presided, terminated its labours on Sunday by a visit to the Hospital of the Stuvemberg. Drs. Brouardel and Proust have attended the sittings. The following resolution has been passed. "The Congress, desirous to prevent the introduction of the cholera into Europe, expresses the wish that a serious medical surveillance be exercised at Suez, and that the International Council of Alexandria be reorganised, and begs the Belgian Government to bring about an understanding on this subject between Egypt and the various Governments." The members of the Congress have also examined the quarantine measures taken by Belgium and Holland on the Scheldt. In the full sittings, Dr. Brouardel's modification of Article 7 was adopted. This was to the effect that, in the present relations between European nations, land quarantine and sanitary cordons are useless, and even dangerous; the fumigation of letters it considers to be useless. The majority of the Congress declared itself for the maintenance of maritime quarantines in seaports and at the mouths of rivers. Such quarantines were pronounced to be both practicable and efficient in Belgium. Finally, a resolution was adopted declaring that "the rendering healthy of towns and rural communes by cleanliness is a primary duty imposed upon nations as a means to oppose the invasion of infectious diseases." To obtain this result, the Congress expresses the wish that the central authorities should have the direction of sanitary measures.

SCOTLAND.

ANDERSON'S COLLEGE NATURAL HISTORY SOCIETY.

ALTHOUGH Glasgow already possesses one Natural History Society, the members of the classes of Anderson's College have thought that it would be advantageous to have a similar association, and they have accordingly formed one, under the name of the "Andersonian Natural History Society." Its objects are to promote the study of botany, geology, and zoology, by the reading of papers, exhibition of specimens, and excursions to places of interest. Professor A. S. Wilson was elected the first President, and the meetings and excursions are to be commenced this month.

COTTAGE HOSPITAL, HAWICK.

AT a cost of £1,300 a cottage hospital has been erected at Hawick, which will undoubtedly prove a great boon to the town. It has been built on a site granted by the late Duke of Buccleuch, in Buccleuch Street, from plans prepared by Mr. M'Lachlan, architect, Edinburgh. It is built of white Northumberland stone, with overhanging eaves, slated with green Welsh slates, and with red ridges on the roof. The principal doorway at the east admits to a conservatory, which is 17 feet long by 11 feet wide, made of glass, and forming a very charm-

ing porch. Next is an operating room and a large central corridor, which traverses the breadth of the building, at each end of which is a principal ward, one for males and one for females. Each ward is 20 feet long by 16 feet 6 inches in width, and both are provided with oriel windows, which overlook the grounds of Wilton Lodge. It is intended to have four beds in each ward. At the side of each ward, but separated from it by a lobby, well ventilated, is the lavatory accommodation. Between the two principal wards there are three apartments, which enter from the main corridor, and each is 12 feet square. They may be used as wards or nurses' rooms. At the back of the building are the bath-room, kitchen, and dispensary. A mortuary has also been provided. The upper story, which is built above the three central front rooms, has also three apartments, and may be used as matron's quarters or as wards, as circumstances may require. The manner in which the funds for the institution have been raised is worth notice, and might serve as an incentive in other places. At the close of the course of Coombe Lectures, delivered by Mr. Andrew Wilson in 1882, there remained a surplus of £21. This it was resolved should be the nucleus of a fund from which to erect a cottage hospital. A handsome amount was raised by local gentlemen, on condition that funds should be raised for the erection of the building. A bazaar in aid of the object in view realised over £1,200, and a grant of nearly £1,000 was given from the Scott Bequest Fund on behalf of the dispensary, which forms an important adjunct to the hospital. The late Duke of Buccleuch presented the site, and thus the object has been attained, and is a credit to all who have taken a part in the scheme. On Saturday the hospital was formally opened by her Grace the Duchess of Buccleuch, and this ceremony, together with that of laying the foundation-stone of new municipal buildings for Hawick, was the occasion of much popular rejoicing.

INTERESTING ANTIQUARIAN REMAINS.

The last few weeks have seen the discovery of some very interesting antiquarian remains in the neighbourhood of Dunfermline. The latest find has been that of a large tumulus, about 150 feet in diameter, in the centre of which was a strongly constructed cist, formed of massive stone slabs, and containing an urn of much beauty and grace. A number of cinerary urns, full of calcined human bones, were unearthed in other parts of the tumulus; and, in addition to these, there were many detached collections of bones and charcoal lying all around, where it would seem as if interments had been made without urns. Considerable interest is being taken in the discoveries thus brought to light, and all the operations are being conducted with the utmost care.

THE EMPEROR OF BRAZIL AND EDINBURGH UNIVERSITY TERCENTENARY.

The Emperor of Brazil has evidently considered the Tercentenary of Edinburgh University, and the courtesy shown to the Brazilian representatives at the ceremony, worthy of his Imperial favour and remembrance, as, by a decree of July 28th, he has created the Chancellor of the University (Lord President Inglis) a Grand Dignitary; the Principal (Sir William Muir) a Dignitary; and the Secretary to the Senatus (Emeritus Professor John Wilson) a Knight Commander of the Imperial Order of the Rose.

DANGEROUS MEDICINES FOR CHILDREN.

It is well known that, in every household, a great deal of useless and unnecessary medication is carried on by parents among the youthful members of the family. As a rule, resort is had to medicines that are practically safe, and which experience has shown to be innocuous; but there is also, we fear, a tendency to employ drugs which should only be administered by the family physician, without calling in medical aid. An instance of this was furnished by a trial which took place at Hamilton last week, where a father was placed in the dock, on a charge of culpable homicide, for administering four drops of laudanum

to a child five weeks' old, with the result that it became unconscious, and died within the next few hours. There was no evidence that the medicine had been given with any criminal intent, and the jury very properly acquitted the parent, whose mental suffering must have been sufficient punishment for the indiscretion of which he had been guilty; but the facts brought out in connection with the case cannot be too widely known. They may serve to impress more forcibly on the public, what is well known and universally admitted, that there is extreme susceptibility on the part of children, especially within the first few weeks of life, to the influence of opium in any form, and that it should never be given, except under medical guidance and sanction. The evidence of some of the witnesses at the trial showed the hazy notions that exist as to the administration of laudanum to children, some holding that a drop of laudanum for each week of the age was perfectly safe, while others were not prepared to go such lengths. Where the issues involved are those of life or death, it would be well to follow the rule we have given above; for, where a child is ill enough to require an opiate, the sooner medical advice is procured the better.

GLASGOW DISTRICT ASYLUM.

THE annual report of the Committee of the Glasgow District Asylum has been issued. At the beginning of the year, there were 179 beds occupied, of which, during the year, 124 were vacated by the deaths or recoveries of their occupants; 127 cases were admitted during the year, of which the larger number was of new cases, the proportionate relation of new to old cases being as seven to three. Some of the opinions of the Commissioners in Lunacy are given: thus, Dr. Arthur Mitchell remarked that the working of the institution seemed to show that the accumulation of chronic and incurable cases in an asylum could be avoided; while Dr. J. Sibbald pointed out that the want of a separate ward for the treatment of infectious diseases had given rise to difficulties in the management, and suggests the erection of a detached building, of a simple character, in which such patients could be treated separately from the other inmates of the asylum, as sufficient to meet the difficulty.

ILLNESS IN A VESSEL OFF LEITH.

THE Spanish steamer *Marzo*, bound from Carbonera, with a cargo of esparto-grass, arrived in Leith Roads on Tuesday, flying a quarantine flag. The vessel left Spain on August 21st, and, during the voyage, several of the crew were taken ill. The medical authorities, on boarding the vessel, found several of the crew suffering from sickness of a suspicious character. The steamer has been placed in quarantine, and will not be permitted to come into Leith until a further medical examination has been made. The latest telegram on the subject says the *Marzo* left Newcastle for the Mediterranean thirty-seven days ago, and shipped cargo at Belarecos, Zarucha, and Carbonera. Some of the crew were ill before leaving Belarecos, which is within seven miles of a declared infected district. On Tuesday night, the three worst cases had shown signs of improvement, and the bulk of the crew seemed perfectly healthy.

IRELAND.

ABOUT £400 was obtained from the collections made in Belfast last Saturday. The proceeds will be handed over to the Belfast Royal Hospital.

CHOLERA HOSPITAL FOR DERRY.

A MEETING of the committee having in charge the providing a cholera hospital for Derry, was held in the Corporation Hall last week. After some discussion, a resolution was adopted to the effect that the committee recommend the guardians to purchase an iron int-recepting hospital of suitable dimensions.

ROYAL UNIVERSITY OF IRELAND.

At a meeting of graduates held last week, Dr. Maguire was nominated as a candidate for the vacant seat on the Senate, and a committee was appointed to aid him in the election.

KELLS UNION.

In a recent report of the Expenditure Committee of Kells Board of Guardians, reference was made to the fact that nearly all the patients got meat and soup for dinner on five days of the week, and, in addition, adults had a pint each of new milk. The committee regarded this as extravagant, and alleged that an eminent medical authority, Sir Henry Thompson, had challenged such food as an unwisely devised combination, even for those of active habit, but for men and women whose lives were little occupied by exercise it was one of the greatest dietary blunders which could be perpetuated. As Dr. Ringwood, the medical officer, was unjustly blamed by the guardians for the expenses in connection with the dietary, he very properly brought this matter under the notice of Sir H. Thompson, who, in his reply, informed Dr. Ringwood that the article on "Diet" in the *Nineteenth Century* was directed against the over-feeding propensities of elderly men in the middle class, who had acquired sufficient resources for the purpose of self-indulgence. The case of the workhouse pauper, he adds, is a wholly different one, and he is astonished, he says, and grieved to find the article in question applied for the purpose of diminishing the ordinary slender workhouse dietaries.

QUEEN'S COLLEGE, GALWAY: ANNUAL REPORT.

THE President, in his report for the Session 1884-5, refers to the Commission to "make full inquiry into certain matters affecting the well-being and efficiency of the Queen's Colleges," and states that it was with unqualified satisfaction that the governing body of the College heard of the Commission being appointed, as for years the College had been subjected to a system of vague and covert disparagement and detraction, dealing in general statements and assumptions unsupported by any tangible facts upon which issue could be raised. He adds that he is prepared, with entire confidence, to rest the case of the College on the evidence which, in the course of the inquiry, was brought under the consideration of the Commissioners. The President, in referring to the benefits which the West of Ireland owes to the College, particularly notices the Medical School, which, it should be remembered, was created by the College, no such institution having previously existed in the western province. Up to 1881-2, the returns of the number of students gave evidence of the progressive condition of the College, and in that session the students numbered 201. In the following session, it fell to 144; and, in the session just closed, a further decrease to 100 has taken place. This decrease has mainly taken place in the Faculty of Medicine, that department which it was foreseen would be particularly affected by the substitution of the Royal for the Queen's University in Ireland. Strong objection is made to the proposal to transfer the scholarship and prize fund of the Queen's University to the Royal University, the President remarking that it would have the effect of depriving his college of the means of rewarding and encouraging deserving students, thus starving it out of existence. The library and museums are in a satisfactory condition, and large additions have been made to the Natural History Museum, which may now be said to be in a perfect state of efficiency for teaching purposes. The apparatus for the illustration of the principles of natural philosophy, and the collections especially devoted to the pursuits of the medical profession, are also worthy of special notice.

ALLEGED CASE OF FORGERY.

In the Custody Court, Belfast, recently, James Beresford Thompson, described as a medical student, was charged with having forged a matriculation certificate of the Royal University of Ireland. The case has been adjourned.

THE NEW EDITION OF THE BRITISH PHARMACOPEIA.

THE new edition of the *British Pharmacopœia*, the appearance of which has been long anticipated, was issued on Tuesday last, September 1st. As we have previously announced, the amount of matter has been considerably increased, the new volume containing nearly one hundred pages more than its predecessor. This increase is chiefly due to the introduction of new remedies; and the general opinion will probably be that the Committee of the General Medical Council, over which Dr. Quain has ably presided, has not, as a rule, erred by adopting too readily new-fangled drugs. As the preface justly says, most of the drugs before the profession, but not in the new edition of the *Pharmacopœia*, have either not yet received sufficient recognition from the medical profession to entitle them to be made official, or their properties are of such a nature that remedies already official possess them to an equal or greater degree.

Certain alterations in terminology, of no great importance in themselves, but interesting as marking the advance of chemical science, have been introduced, and add to the accuracy of the nomenclature. Thus, the so-called lime-salts are now all properly referred to calcium; though, in the case of certain preparations, the term calx is retained, and used in a way which, at first sight, may appear rather inaccurate. Thus, to lime itself (CaO) the term calx is applied; slaked lime is termed calxii hydras, but the solution (lime-water) is still termed liquor calcis. It was, however, probably felt that the terms calx and lime were too deeply rooted to be displaced in favour of a pedantic accuracy, which would be liable to cause confusion. All the salts formerly called ammonia are now referred to ammonium, so that it is at length not only chemically, but officially, accurate to write ammonii carbonas, ammonii benzoas, etc. In the same way, magnesium has replaced magnesia in the case of all the salts of that metal except the oxide, which still has two articles devoted to it, under the headings *Magnesia Levis* and *Magnesia Ponderosa*. Sodium and potassium in like manner replace potassa and soda in the names of all the salts; while the latter terms are retained for potash and soda, and for tartarated soda and sulphurated potash. The term lithia entirely disappears, in favour of lithium. The nomenclature of the alkaloids has been brought into harmony with that adopted in other pharmacopœias and in pharmacy generally; so that we find morphia for morphia, quina for quinia, atropina for atropia, aconitina for aconitia, berberina for berberia, strychnina for strychnia, veratrina for veratria, conina for conia. The alteration in terms will be found to have some useful purpose, and to have been effected with much judgment and success.

The chemical symbols used have been revised throughout, and the old notation, which lingered long in the *British Pharmacopœia*, after it had been banished from every other book written in any language, has been replaced by the notation now universally adopted. Temperatures are still given on the Fahrenheit scale, but the equivalent on the Centigrade scale is added. Greater uniformity of strength, especially in active medicines, has been sought; and one of the means used has been to direct a solid which is to be dissolved, to be first reduced to a powder of a certain definite degree of fineness, as ascertained by passing it through sieves with meshes of standard size; in other cases additional facts with regard to specific gravity, or solidity, and to the detection of impurities, have been given. In a great number of cases, in giving directions for making preparations, the relative quantities of drugs are indicated, not only in weights and measures, but in proportional parts. The Pharmacopœia Committee has not yet seen its way to carry out this improvement throughout the whole work by superseding the use of specified weights and measures by the use of proportional parts; and this being the case, it was impossible in all cases to indicate the relative quantities by proportional parts with any convenience.

It is satisfactory to find that the changes made in the composition of preparations already in use are neither many nor grave. The solutions of sulphate of atropine, of acetate and hydrochlorate of morphia, of hydrochlorate of strychnine, of the iodide of arsenium and mercury, of arseniate of soda, the arsenical solution, and the hydrochloric solution of arsenic, have all been made one per cent. solutions. The hypodermic injection of morphia has been made rather stronger, and is now ten per cent.; a hypodermic injection of apomorphia which has been introduced, contains two per cent.; while the hypodermic injection of ergotin consists of a hundred grains of ergotin dissolved in two hundred fluid grains of camphor-water.

As examples of other similar changes, we may mention the following. The pulvis elaterii compositus disappears, being replaced by a pulvis elaterini compositus, made from elaterin, the active principle of elaterium, but

the dose of the compound powder remains the same. Tinctura quiniæ, which was made from the sulphate of quinine, is now made from the hydrochlorate, which has been made officinal. The compound liquorice powder, will, in future, contain sulphur, a change which will meet, we anticipate, with general approval. Red cinchona bark is to be exclusively used in the manufacture of all the preparations except the alkaloids, for which any of the barks may be indifferently used; sulphates of cinchonine and cinchonidine are mentioned among the official salts. Scammony resin is now used in the place of scammony in all preparations of the drug. Paraffin wax and paraffin ointment have been introduced, under the terms paraffinum durum and molle respectively, and form the basis of a large number of ointments, including the new ointments of boric (boracic), carbolic, and salicylic acids, and of eucalyptus. The strength of the ointment of ammoniated mercury has been reduced from 15 to 10 per cent.

Among new preparations made from drugs already official may be mentioned, as of special importance, in addition to the hypodermic injections referred to above, sulphate of morphine, a solution of bimeconate of morphia, which has been made of about the same strength as tincture of opium, aloin, codeina, elaterin, lupulin, physostigmin, the well-known liquor arsenici et hydrargyri iodidi (Donovan's solution), dialysed iron, cyanide of potassium, bromide and iodide of sodium, a tincture of podophyllum (gr. j to 3j), and a tincture of chloroform and morphine which contains so many ingredients (chloroform, ether, rectified spirits, hydrochlorate of morphine, hydrocyanic acid, oil of peppermint, liquorice, treacle, and syrup), that it reminds one of an old-fashioned cordial; the quantity of each of these constituents contained in a dose of ten minims has been calculated by the editors, and is mercifully set forth in the margin. In future, this tincture, already perhaps, in a different guise, known to many, will deserve to rival the famous tinctura camphoræ composita as a stock question with examiners who are desirous of discovering whether a candidate has "got up opium."

The *British Pharmacopœia* is not the place to look for novelties, and Dr. Quain's Committee understood the nature of their responsible duties too well to permit the introduction into the *Pharmacopœia* of any drugs not of well established reputation. About certain drugs there could be no doubt; salicin, salicylic acid and salicylate of soda, coca and cocaine, gelsemium, iodoform, jaborandi and pilocarpine, staphisagria, thymol, paraffin, oleic acid and certain oleates, boric acid (boracic acid), and oil of eucalyptus, had made good their claim to unquestioned admission. The appearance of certain other drugs may perhaps cause some little surprise; neither rhamnus frangula nor rhamnus purshiana can be said to be among the urgent needs of the profession. The resemblance between the names of these two drugs has led to a curious series of double names, for the preparations of rhamnus purshiana are to be termed extractum cascariæ sagradæ, and extractum cascariæ sagradæ liquidum. Menthol, ethylate of soda, fir-wood oil, sandal-wood oil, and caffeine and caffeine citras will be welcome to many; and butyl-chloral hydrate (which has often improperly been called croton-chloral hydrate), cimicifuga (actæa racemosa), calamine, and chrysarobin, are doubtless useful remedies, and very widely used. It is convenient also to have absolute alcohol (alcohol ethylicum), and chromic, hydrobromic, and lactic acids in the *Pharmacopœia*. Gelatine-discs (lamellæ) as a menstruum for alkaloids, an improvement in pharmacy which we owe to English pharmaceutical chemists, find their place in the *Pharmacopœia* for the first time. The discs of atropine contain $\frac{1}{5000}$ grain of the sulphate; the discs of eucaïne contain $\frac{1}{5000}$ grain of the hydrochlorate; and the discs of physostigmine $\frac{1}{5000}$ grain of that alkaloid. The same method might perhaps have been extended with advantage to other alkaloids; but it is a great advantage to have the principle admitted. Although nitroglycerin, probably from motives of prudence, has not been made officinal, tabellæ nitroglycerini, chocolate tablets containing one-hundredth of a grain of pure nitroglycerine, are now officinal.

The drugs omitted are very few in number. This, while a matter of some regret to many, was inevitable; for, however unanimous we may all be in considering the *Pharmacopœia* too long, this unanimity invariably disappears when we descend from principle to details, and endeavour to select the drugs and preparations which should be excluded. Areca, iodide of cadmium, dulcamara, castoreum, buckthorn juice, and elm bark, will be regretted by few. The iodide of iron has been excluded, but the syrup and pill have been retained; acetate of soda has been relegated to its proper place in the appendix. The omission of ferri peroxidum humidum is of no consequence as the dry hydrated peroxide is retained, and its method of preparation is fully given. Liquor atropinæ is, practically, replaced by a better preparation. Digitalin is rejected probably because it is untrustworthy, and the tobacco enema because it has gone out of use, though tobacco

still appears. Stramonium leaves, the green iodide of mercury, and the gentian mixture, complete the list of drugs and preparations omitted from the new *Pharmacopœia*.

The new edition of the *British Pharmacopœia* will be closely studied and keenly criticised for many months to come; but a careful review of its pages has convinced us that it will pass through the ordeal with the highest credit. It has been ably edited by Professors Redwood, Bentley, and Attfield, who have worked under the general supervision of a committee of the General Medical Council, which consisted of Dr. Quain, Sir Henry Acland, Messrs. Bradford and Collins, Dr. Haldane, Professor Rawdon Macnamara, Sir Henry Pitman, and Dr. Aquilla Smith. A large part of the work which has now been so happily completed has fallen upon the already busy shoulders of Dr. Quain. To him and to them the hearty thanks of the profession are due for so freely giving their time and experienced supervision.

Articles and Preparations included in the New Edition which were not in the Edition of 1877 nor in the Additions of 1874.

Articles.		Preparations.
Acidum Boricum		Unguentum.
" Chromicum		Liquor (1 in 4).
" Hydrobromicum Dilutum		
" Lacticum		Acidum Lacticum Dilutum
" Oleicum		Oleatum Hydrargyri (10 per cent.)
		Oleatum Zinci (10 per cent.)
		Unguentum Zinci Oleati (5p. cent.)
Acidum Phosphoricum Concentratum		Acidum Phosphoricum Dilutum.
Acidum Salicylicum		Unguentum Acidi Salicylici.
		Sodii Salicylas.
Butyl-Chloral Hydras		
Caffeina		Caffeina Citras.
Calamina Preparata		Unguentum.
Chrysarobinum		Unguentum.
Cimicifuga Rhizoma		Extractum Liquidum.
		Tinctura.
Coca		Extractum Liquidum.
		Cocaina Hydrochloras.
		Lamellæ Cocainæ ($\frac{1}{250}$ gr.)
Gelsemium		Extractum Alcoholicum.
		Tinctura.
Iodoformum		Suppositoria (gr. iii.)
		Unguentum (1 in 10).
Jaborandi		Extractum.
		Infusum.
		Tinctura.
		Pilocarpinæ Nitras.
Liquor Sodii Ethylatis		
Menthol		
Oleum Eucalypti		Unguentum Eucalypti.
" Pini Sylvestris		Vapor.
" Santali		
Paraffinum Durum		
" Molle		
Rhamni Frangulæ Cortex		Extractum.
		" Liquidum.
Rhamni Purshianæ Cortex		" Cascariæ Sagradæ.
		Extr. Cascariæ Sagradæ Liquidum.]
Salicinum		
Staphisagriæ Semina		Unguentum.
Tabellæ Nitroglycerini		
Thymol		

New Preparations of Drugs which were in the "*Pharmacopœia*" of 1867, or the "*Additions*" of 1874.

Articles.		Preparations.
Of Alcohol		Alcohol Ethylicum.
" Aloes		Aloin.
" Alum		Glycerinum Aluminis.
" Ammonium		Liquor Ammonii Acetatis fortior.
		Liquor Ammonii Citratis fortior.
" Arsenic		Arsenii Iodidum. Prep.: Liquor
		Arsenii et Hydrargyri Iodidi.
" Belladonna		Extractum B. Alcoholicum. Prep.: Emplastrum B. and Unguentum B.
		Lamellæ Atropinæ ($\frac{1}{5000}$ gr.)
" Bismuth		Bismuthi Citras. Prep.: Liquor
		Bismuthi et Ammonii Citratis, from which again is prepared Bismuthi et Ammonii Citras.

Of Calabar Bean (Physostigmatis semen)	Physostigmina. Prep.: Lamellæ physostigminæ (γρ. gr.).
„ Calcium Salts	Calci Sulphas. Prep.: Calx Sulphurata.
„ Carboic Acid	Liquor Calcii Chloridi.
„ Cinchona Barks	Acidum Carboicum Liquefactum.
	Unguentum Acidi Carbolici.
	Cinchonidinæ Sulphas.
	Cinchoninæ Sulphas.
	Quinina Hydrochloras. Prep.: Tinctura Quinina.
„ Cinnamon	Spiritus Cinnamomi.
„ Copper	Cupri Nitras.
„ Cubebs	Oleo-resina Cubebæ.
„ Elaterium	Elaterin. Prep.: Pulvis Elaterini Compositus.
„ Ergot	Ergotinum. Prep.: Injectio Ergotini Hypodermica.
„ Ether	Spiritus Ætheris Compositus (Hoffman's Anodyne).
„ Iron	Liquor Ferri Acetatis.
	„ „ „ Fortior.
	„ „ „ Dialysati.
„ Lead	Glycerinum Plumbi Subacetatis.
„ Lupulus	Lupulina.
„ Mercury	Unguentum Hydrargyri Nitratiss Dilutum (see Oleates).
„ Opium	Acidum Meconicum.
	Liquor Morphina Bimeconatis.
	Morphina Sulphas.
	Tinctura Chloroformi et Morphina.
	Codeina.
	Apomorphina Hydrochloras. Prep.: Injectio Apomorphina Hypodermica.
„ Podophyllin Resin	Tinctura Podophylli (gr. j to 3j).
„ Potassium	Potassii Cyanidum.
„ Pyroxylin	Collodium Vesicans.
„ Santonin	Trochisci Santonini.
„ Sodium	Sodii Bromidum.
	„ Iodidum.
	„ Sulphis.
	„ Sulpho-carbolas.
„ Taraxacum	Extractum Taraxaci Liquidum.
„ Tragacanth	Glycerinum Tragacanthæ.
„ Zinc	Zinci Sulphocarbolas (see Oleates).

THE CHOLERA.

CHOLERA IN SPAIN.

OUR correspondent from Valencia writes, under date August 28th:

I must begin this short letter by apologising for the questions I put in my last, relating to the seemingly intense susceptibility of healthy returned refugees to be stricken suddenly with cholera on their arrival at their own homes, both in this city and elsewhere. This being a most anxious puzzle to me, I set about earnestly to try to solve it by visiting the houses where these sad disasters occurred. On making every kind of inquiry, I found the same state of affairs in every house. When they abandoned their houses in panic, everything was left therein just as they were: the food on tables, the beds unmade, soiled clothing all about, etc.; all doors and windows and shutters firmly fastened, except the water-closets. After being absent a month or two, when the disease had all but left us, they returned, after a day or days of most fatiguing travel, direct to their now foul abandoned houses, without any precautions as to ventilation and cleanliness. Numbers were cut down in from four to twelve hours. Only yesterday, a patient told me of a wealthy family of eight, friends of his, who returned well after a long journey, and two and a half months' absence from their large house. In thirty-six hours, six had cholera, and four died. I hope I have answered my own question of last week.

The Danish steamer *Omsk* put into this harbour some days ago, having come from Tarragona, the captain allowing only two men on shore. On her arrival here, these same men were found cholera-stricken, and died. Other two, being seized, were sent to hospital here; both recovered, and the ship was ordered to Mahon, to undergo ten days' quarantine. Yesterday, the papers state, four men were attacked on the passage thither.

I see, likewise, there is a strong tendency for the disease to return

to its well prepared dirty bathing-quarter of Cabañal; six or eight deaths have occurred.

I am delighted to inform you that we are going on improving in this city and province in health for three days. For the past eight days, the cholera-bulletin has been, "No hay defunción de colera;" that is, "No deaths from cholera." To-day's cemetery report is, "Fourteen deaths from all causes, and none of these cholera." Hence we are free; so much so, that vessels are now subject to three days' instead of eight days' quarantine. I wish I could report the same good news from all the other provinces; but, on the whole, it is also on the decrease everywhere. On the other hand, the troublesome and prostrating ague is flooding this part of Spain, especially in the "Huerta" and rice-plantations, prostrating in vast numbers the labourers and their masters. In one place, there were ninety harvest-people, and eighty-seven were down with ague.

The temperature here has been: maximum for last week, on 23rd and 24th, 84° F., min. 79°; black bulb, 114° F.; barometer 30 $\frac{1}{16}$; wind, E.N.S. While writing now, a "poniente," or westerly inland wind, corresponding to "mistral," "levante," etc., is setting in for the first time this summer, and makes us all, and everything, limp and good for nothing.

The harvest reports from all quarters, and about every product, are good.

The severity of the epidemic appears to be at length decreasing. According to the official statements in the *Madrid Gazette*, the total number of cases and deaths, since the beginning of the epidemic in March, has been 270,000 cases, and 96,000 deaths. Of the forty-nine provinces into which the country is divided, forty have suffered from the epidemic. During the month of August, 142,248 cases of cholera, and 48,778 deaths from this cause, occurred throughout the kingdom.

CHOLERA IN FRANCE.

Cholera at Marseilles is abating. The last returns there are fourteen deaths from cholera; seventy cases are being treated at the Pharo Hospital. At Toulon, also, there is considerable amelioration. At St. Maudrier, eighty-four are under treatment; at the Lay Hospital, twenty-six. The cases in private houses are rarely serious. Food is distributed in the different schools. A woman arrived at Arles from Marseilles, and died the same day from cholera. The Sanitary Commission of Marseilles has just demanded that the annual fair, in the month of September, shall not take place. The prefect will be examined concerning the sanitary condition of Marseilles. The Marseilles chamber of commerce has opened a subscription for funds in relief of the cholera sufferers, and has contributed to it 10,000 francs (£400); each member subscribed 200 francs (£8). The Legitimist journals have also opened a subscription, headed by the editors. It is announced that a death occurred, believed to be from cholera, on board the boat going from Marseilles to Ajaccio; the vessel was sent into quarantine during seven days. A Madrid journal publishes that a case of cholera has appeared at Hérault, but official investigation proves that department to be perfectly free from the epidemic. A letter from Hendaye announces three cases of cholera in the same family, and another in Fontarabia. The Minister of the Interior has published an announcement stating that a foreign paper has asserted that cholera has appeared in Paris and its suburbs; a strict investigation has proved the assertion to be unfounded. M. Alain Targé, Minister of the Interior, has announced his willingness to demand from Government a fund to aid the cholera victims.

CHOLERA PRECAUTIONS IN AUSTRIA.

It may interest travellers to Austria-Hungary to know that, in view of the official announcement of cholera in Marseilles, and the expected return from that neighbourhood of large numbers of Austrian workmen, the Ministry of the Interior at Vienna has addressed to all the provincial authorities instructions for the sanitary surveillance and examination of travellers arriving from infected localities by the country roads. These instructions, which were in force towards the end of last year, require, as regards arrivals, the exercise of special vigilance by owners of hotels, boarding-houses, and public-houses, by farmers, and by private individuals, particularly in the larger districts. They require the immediate notification to the local police officer of the arrival of every traveller from the South of France, or from Spain, in order that the local authority may cause the traveller to be examined by a medical man appointed for the purpose, and to be kept under supervision for at least three days. Should cholera or its premonitory symptoms appear in connection with any of these travellers, the proper measures of isolation, treatment, and disinfection are to be taken. In carrying out the regulations, the instructions of the superior officials

are to be obeyed, and any further regulations than those already imposed are to be submitted to.

In Austria-Hungary a quarantine of ten days has been imposed upon arrivals from Gibraltar, in consequence of cholera.

All vessels arriving in any port of Cyprus, except Larnaca, from any part of the Mediterranean shore of France, without having performed quarantine at an intermediate port, are by a recent quarantine notice to be repelled. Arrivals at Larnaca from any part of the Mediterranean shore of France are to undergo a quarantine of ten clear days. Passengers' baggage and merchandise must be landed in quarantine to undergo the disinfection considered necessary. Rags are to be repelled; non-susceptible merchandise shall not be liable to quarantine. Mails arriving direct therefrom will be landed in quarantine, disinfected, and delivered to the postal authorities with the greatest possible dispatch.

The Board of Trade have received from the Consul-General for Russia an intimation that the sanitary measures adopted in that country as regards vessels coming from Spain are applicable to vessels coming from Marseilles to the Baltic and Black Sea ports of Russia, and that Gibraltar itself is not included in the number of seaports of the Pyrenean Peninsula declared infected with cholera.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTemperance.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHthisis.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Hastings, on Friday, September 25th. Dr. Cooke will preside. The following communications are promised:—The Chairman, A case of Perforating Ulcer of the Stomach; Mr. W. Grant Jones, A case of Chronic Ulcer of the Stomach. Notice of intended contribution of papers, or cases, should be sent to the honorary secretary, T. JENNER VERRALL, 95, Western Road, Brighton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Staplehurst on Thursday, September 24th, at 2.30 P.M.; Dr. Joyce in the chair. The following communications have been promised. 1. Dr. Edis: The Treatment of Miscarriage. 2. Dr. Joyce: On the Puerperal Phlegmasia. 3. Dr. F. Eastes: A Case of Cherry-stone in Bronchus. 4. Dr. Tyson: A Case of Acute Glaucoma simulating a Bilious Attack. The dinner will take place at the South Eastern Hotel at 5 P.M.—W. J. TYSON, Honorary Secretary, 10, Langthorne Gardens, Folkestone.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Action of Medical and Toxic Substances in Hysterical Patients.—Vaccination in France.—The Specific Characters of Epidemic, Endemic, and Sporadic Forms of Cholera.—The Influence of Light on Bacillus Anthracis.—Physiological Connection between the Mother and Placenta.—General News.

At the Congress for the advancement of science recently held at Grenoble, M.M. Bourru and Burot made a communication on the action of medical and toxic substances on hysterical patients, exercised at a distance. The substance is wrapped up in paper or put in a bottle, and placed at the back of the patient's head, without the cognisance of the patient. All narcotics, under these circumstances, it is alleged, produce sleep. Opium and morphia provoke heavy sleep; chloral lighter sleep; sleep from narceine ceases suddenly, and the patient has an anxious expression; that from codeine, thebaine, and narcotine, is accompanied by more or less diffused convulsive movements. Emetics and purgatives also vary in the effects produced. Ethylic alcohol provokes heavy drunkenness; amylc alcohols excite angry drunkenness; aldehydes produce almost instantaneously a prostrate condition. Absinthe causes paralysis of the legs. Antispasmodics are very varied in their effect; camphor and cherry-laurel water acts as a sedative; in women, it produces religious ecstasy and convulsion of the respiratory muscles; in male subjects, only convulsions. Repeated experiments show that essential oils produce ecstasy; and hydrocyanic acid con-

vulsions. Valerian produced violent agitation, accompanied by phenomena resembling those which it produces in the cat. Anæsthetics produced excitement, followed by sleep. Phosphorus produced trembling; cantharides a state of excitement which camphor calmed. Veratrine produces a pricking of the nostrils, with disturbed vision. Jaborandi and pilocarpin produce sweating, and a flow of saliva, with saccharine re-action. Some of these experiments have been made in the wards of M. Charcot and Dumontpallier. At Grenoble it was proposed to M. Burot to repeat his experiments at the Congress, and a day was fixed, but it was impossible to find a hysterical patient.

In the Hygienic Section of the meeting at Grenoble of the Society for the Advancement of Science, M. Rochard, chief medical officer of the navy, surveyed the question of vaccination, and demonstrated the necessity of effecting a complete reorganisation of this service in France. Small-pox kills, in Europe, 60,000 people annually; of these, 7,000 are contributed by France. The civil population pays the tribute. The army is all but free from small-pox, in consequence of vaccination and constant re-vaccination being effected. M. Rochard observes that, before decreeing that vaccination shall be compulsory, it must be made amenable to every one, and he asks that a vaccination service shall be in regular working order from one end of France to the other. He suggests that a vaccinator should be appointed to each *arrondissement*. Twice a year every commune in it should be visited, the children vaccinated, and the adults re-vaccinated. The medical officers would inform the subprefects of their proposed route before starting. They could choose the manner of vaccinating, provided they observed the general rules laid down and sanctioned by experience. Four inspectors should be appointed to overlook the medical vaccinators, and institute an inquiry whenever an epidemic of small-pox broke out. The inspector should send in a yearly report to the Minister, and mention the medical vaccinators who deserved being distinguished for the manner in which they performed their duties. M. Rochard believes that this organisation would effect a saving of 4,000,000 to 5,000,000 francs yearly (£160,000 to £200,000).

Dr. Tholozan, at a recent meeting of the Académie de Médecine, observed that since 1817 much has been said and written about cholera, but it has not yet been demonstrated in what respect endemic, sporadic, and epidemic forms of cholera differ one from the other. According to Dr. Tholozan, the symptoms in each form are identical. The accuracy of the term "invading," used by the disciples of the dualist doctrine to characterise the epidemic form, Dr. Tholozan considers questionable. It is probably not the cholera which is invading, but that the population are peculiarly disposed to be attacked by the malady. Epidemics begin by being sporadic, and at their end isolated cases occur, so that it is difficult to say when the epidemic form ends or the sporadic begins. M. Tholozan agrees with M. Jules Guérin concerning the identity of the forms of cholera; but, unlike M. Guérin, he believes that Indian cholera is contagious. Careful study of facts can alone help to establish the identity. If exotic epidemics (*épidémies exotiques*) were compared with ordinary epidemics of European countries, perhaps, as has been suggested by M. Lettée in reference to cholera, it might be proved that they all have one origin.

M. Arloing, in a note forwarded to the Académie des Sciences, states that the vitality of the spores of the bacillus anthracis is considerably weakened when submitted to the influence of the sun's rays. The possibility of utilising this action of the sun as a curative agent is suggested.

M. Bouley presented before the Académie des Sciences a second note from M. Koubassoff on the migration of pathogenic microbes from the mother to the fetus and milk. Not long since, it was believed that the placenta constituted an impassable barrier between the mother and the fetus. Experiments made by M. Koubassoff indicate that this is not so. He has recognised the presence of the bacilli of charbon, of tubercle, and of measles (pork), in the pelvis of the animal attacked by these maladies.

At a recent meeting of the Municipal Council, M. Georges Berry again called attention to the bad smells prevalent in some of the Paris districts. The Director of Public Works did not deny that every year, during the hot weather, some parts of Paris were pervaded by intolerable smells; but they are not, he maintained, dangerous to public health. They proceed from factories of sulphate of ammonia. The inhabitants of Bondy, a suburb situated north of Paris, have for some time complained of the dreadful smells which proceed from factories of a company where sulphate of ammonia and manure are manufactured from night-soil. M. Doré, one of the sufferers, brought an action against the company for damages, his house and land being rendered uninhabitable. The case was tried before the Seventh Chamber, which declared it was not competent to judge the question.

A sad event has just taken place at a lunatic asylum at Leyne, in

the Department of Lot. One of the patients walked about the corridors in a state of excitement, asking to be killed. He stopped in front of the cell of another patient, who took him at his word and strangled him. When the night-keeper went his rounds, he found the dead body hanging to a bar of the cell.

M. Remchard, the chemist attached to the St. Louis Hospital, has been tried for manslaughter from imprudence. It appears that each hospital dispenser has a certain quantity of medicinal substances in his custody. When he requires any not in his possession, he procures it from a reserve-store near the chief *pharmacien's* case of medicines. Not having *eau de vie Allemande* in his own case, he took it from the reserve-store. The bottle he withdrew was labelled *gouttes noires*; but he believed it was a mistake, and its contents to be *eau de vie Allemande*. An assistant in the dispensary confirmed his opinion. The judge observed that he should have consulted the *pharmacien en chef*, and sentenced him to two months' imprisonment, and to pay a fine of fifty francs.

CORRESPONDENCE.

THE NATURE OF THE INFECTIVE MATERIAL IN CHOLERA.

SIR,—Will you allow me to correct or explain my remarks on Dr. Paine's excellent paper on Cholera at the Cardiff meeting (BRITISH MEDICAL JOURNAL, August 29th, page 336). In discarding the word "germ," I simply meant to say that I gave up my belief in any alleged recent discovery of any specific "germ," "microbe," "bacillus," or any other form of organic matter which may be considered as the cause of cholera. I said that, because many of my friends connect the use of the word "germ" with such a belief.

I most firmly believe in a peculiar contagiousness attached to cholera, dependent on some material connected with it; which material is portable, destructible by fire and chemicals, and has the power of reproduction under certain conditions; I could prove each of these points by numerous examples from my experience of the great epidemic of 1849.

I am rather puzzled as to the best term to apply to this undiscovered material, which, by its power of reproduction and diffusion by human intercourse, is the cause of cholera epidemics. I sometimes use the words "seed," "poison," "cholérine," etc., but no word seems satisfactory for the description of this undiscovered matter; as each word seems to imply an hypothesis as to the mode of action and reproduction of an unknown body. If the word "germ" should be considered to be the best term to use, I shall readily reinstate it in my creed.

During the latter period of his life, my friend, the late Dr. William Budd, most frequently used the word "seed." My difficulty is more philosophical than pathological.—I remain, yours very truly,

DAVID DAVIES, Medical Officer of Health for Bristol.

SHORTENING THE ROUND LIGAMENTS.

SIR,—Dr. Alexander, in his reply, in the number of the JOURNAL of August 29th, to my letter of the 18th of July, is kind enough to say that it will be a great benefit to medical science if I take an early opportunity of describing in detail the grounds upon which I expected the above operation (which I performed in four cases of acute retroflexion of the uterus, with a tender prolapsed ovary beneath the fundus) would be of value. Now, whilst I cannot possibly hope to benefit medical science by doing so, seeing that the whole subject of prolapse and congestion of the ovaries is treated of in most standard works on gynecology, still, as I may benefit Dr. Alexander, who does not appear to fully understand (either from reading or practical experience) the *rationale* of the procedure in the aforesaid cases, perhaps you will allow me to tell him that my idea was, to draw up the uterus, and with it, probably, the ovary, thus relieving the congestion, facilitating the circulation in the uterine and ovarian veins, and obviating the necessity for the constant use of that abomination—a pessary; or, in the event of the ovary not rising with the fundus, then to accomplish this by means of a glycerine pad-pessary, which, if used whilst the fundus remained acutely flexed, could not fail to greatly aggravate the pain and other distressing symptoms. Let me also tell him that before operating I found that, on replacing the uterus with the sound, the ovary was somewhat raised, and could be pushed up with the finger, thus showing that no adhesions existed.

But Dr. Alexander confirms my view by stating that he operated, against his own recommendation, in one such case, and that "the ovary was drawn up with the fundus." Perhaps he will be good

enough to say what was the indication for operation in this case which he himself did not recommend?

Dr. Imlach, of Liverpool, published an able paper (of which I was not aware when I sent my previous letter to you) on this subject in the *Edinburgh Medical Journal* for last April, in which he makes the following remarks. "By far the more important class of cases, however, are those in which retroflexion is associated with enlarged, prolapsed, and tender ovaries. These ovaries often cause agonising and unendurable pain; yet it is sometimes highly desirable to endeavour to afford relief without removing them..... When they are not adherent in Douglas's space, and when there is a fair prospect that their structure is not hopelessly damaged, it appeared to me, as it would, I think, to most, that repositing the uterus would relieve pressure, and possibly raise the ovaries nearly to their normal position." Three of Dr. Imlach's thirty-six cases, in which the displacement both of uterus and ovary existed, were completely cured, both of the displacement and of the painful symptoms.

Having now acceded to Dr. Alexander's wish, no doubt he will, "for my benefit and that of the profession at large, give the subject his best attention;" but I dare not buoy him up with the hope that, by so doing, he will confer "a benefit on medical science."

With regard to the operation itself, I again protest against its being spoken of as one without danger to life. It was only a fortnight ago I heard of another death from peritonitis after operation by a celebrated surgeon in the midland counties. This makes, as far as I know, seven deaths; and I have yet to learn that the operation has been done 350 times, which would be necessary to give Dr. Alexander 2 per cent. mortality.

Dr. Alexander says in his letter "he has no hesitation in declaring to his patients that the operation is devoid of danger;" yet, in the sentence but one after this, he gives the following opinion: "The time has not yet arrived for estimating whether the operation has any real mortality or not." Now, after these two conflicting statements, I am reluctantly forced to the conclusion that the writer is like a man "riding a hobby to death," rather than one giving an unbiassed opinion. Surely Dr. Alexander cannot have forgotten that sometimes the peritoneum in the female is prolonged in front of the round ligament in the inguinal canal (thus forming the canal of Nuck); and that, in these cases, even such a distinguished operator as he may find it difficult to avoid opening the general peritoneal cavity.

Dr. Alexander has seen fit to insinuate that, if I had had any operative trouble with my cases, I should not have so readily mentioned them; but I feel he must regret having written thus, for surely I had nothing whatever to be proud of (rather the reverse) in my few cases. The operation is one which the veriest tyro, possessing some anatomical knowledge and any operative skill whatever, cannot fail to accomplish, and, let me hope, with better results than mine—namely, one partial success and three failures.

If Dr. Alexander will again read my letter of July 18th, he will observe (what he has evidently failed to note) that I did not "sound a trumpet-call to the unsuccessful to appear in court," but that I expressed a hope, which I now repeat, that "all" who have performed this operation will publish their cases and give their opinion as to its value. This hope is one which Dr. Alexander, in a letter published in the *Edinburgh Medical Journal* for last May, has expressed, perhaps in better terms, as follows: "It is essential that those who have experience of this operation should state that experience clearly and according to sober fact, leaving aside eulogistic language regarding ease of performance and rapid curative effects until time shall have thoroughly justified such eulogies."

In conclusion, whilst giving Dr. Alexander every credit for having practically put to the test an operation long ago suggested by Mr. Rivington, I would point out the danger it runs of falling into desuetude (like the operation of ligating the vertebrals for epilepsy) by making it appear uniformly successfully and devoid of risk, instead of trying to have each case, especially the unsuccessful and fatal ones, published.—I am, sir, yours faithfully,

Harley Street.

WILLIAM A. DUNCAN, M.D., F.R.C.S.

TUMOURS OF THE BLADDER.

SIR,—In opening the discussion on this subject at Cardiff, Mr. Reginald Harrison, in remarking on tumours of the female bladder, says: "Dr. Alexander, of Liverpool, was, I believe, one of the first in this country to demonstrate the successful removal of growths from the bladder under these circumstances." I hope I may be pardoned calling attention to a case I published in the *Lancet* (May 30th, 1868), which must have been performed more than six months before that date. This was ten years before the publication of Dr. Alexander's paper; before, indeed, he had entered the profession. At that time,

I said, "I was not aware that it had been done before." As no contradiction was made to this, I conclude my assumption was correct. I may add that I have operated on two other similar cases more lately.—I am, etc.,

J. BRAXTON HICKS, M.D., F.R.S., etc.

NAVAL AND MILITARY MEDICAL SERVICES.

EXAMINATION OF SURGEONS-MAJOR FOR PROMOTION.

WE find, on inquiry, that some misapprehension exists as to the exact purpose with which the examination of surgeons-major for promotion was instituted. According to the new regulations (see *BRITISH MEDICAL JOURNAL*, November 1st, 1884, p. 887), the selection of surgeons-major for promotion is made on the grounds of ability and merit. In estimating the ability and merit of an officer, three points are taken into consideration: (1) the reports of the several military and departmental officers under whom he may have served, as set forth in the annual confidential reports; (2) his physical fitness for general service, and his performance of the necessary qualifying foreign and Indian service; (3) the result of the examination held to test his efficiency. The result of the examination will be considered strictly confidential; but we are authorised to state that any surgeon-major applying personally or by letter to the Director-General will at once be informed of the result of the examination as regards himself. Promotion does not depend merely upon the result of this examination, but is made after full consideration of the eligibility of the officer as shown by the three above enumerated sources of information.

THE HIGHER SCIENTIFIC TRAINING OF THE ARMY MEDICAL OFFICER.

SIR,—In all the opinions expressed about the status of the army doctor within the army, people seem to forget that the medical service is before everything a preventive medical service, and that its great object is to stop the oncoming of disease from bad sanitary conditions. Remembering this fact, you can quite see that, if our scientific teaching forces us to be continually urging on uneducated commanders the needs of sanitary precautions, it is not fair to measure us by the opinions of those often prejudiced men whom we have had to urge into compliance with our suggestions.

Do you imagine that, in any English borough, we should measure the value of an active medical officer of health by the opinion expressed about him by the obstructive members of the borough corporation, or by the owners of unhealthy houses? No, you would not do so; you would say they were prejudiced. We are exactly in the same condition. We are fighting for sanitary progress, and in the fight we find ourselves heavily handicapped against executive authority from absence of sanitary knowledge in the governing body of the army.

To measure us by their opinion would be very unjust. We need their special protection against aggression that we may, without fear, do our duty to keep the army healthy. It is for this reason we need defined status and shelter against any factious oppression. But when you talk of our scientific knowledge, and the need of developing it, we are all with you. Permit me to say that, after leaving Netley, where the training is itself markedly deficient in at least one subject, nothing is done to develop our knowledge by state action.

The Netley training is deficient in this particular, that the science of hospital administration is not taught there. Practically, since 1873, no change has been made in the course of instruction there, although since that same date we have been entrusted with the administrative command of our hospitals. This, then, is of the most urgent matter as far as the Netley course is concerned.

But what training is given when this is over? I reply, nothing. And what is needed? I reply, a definite course of instruction, say for six months, between the eighth and twelfth year of our army-service, after return from foreign stations, for the purpose of refreshing and levelling up our knowledge, grown rusty in outlandish colonies, and remote Indian garrisons, and on field-service.

We want a definite order issued, that a secondary course of study for six months shall be compulsory on all army surgeons. We need that course to be given in London, and the officers to be struck off all duty while attending it. We need at least four professors, chosen from separate London hospitals and schools, and paid to teach the thirty or forty medical officers who would annually have to be instructed.

We need some class-rooms in London, and a medical officer as secretary, to keep the class records; and this secretary would found in London a military medical institute like the R.A. Institute and the R.E. Institute, and the professors would take the classes in their own hospitals on special days every week; for instance, surgery at St. Thomas's Hospital, medicine at University College, pathology at Guy's Hospital, and hygiene at St. Bartholomew's, or any such like plan. The professors should be chosen from the best London teachers, every five or seven years, and be paid £500 a year while doing the work.

This post-graduate teaching is urgently needed; we all desire to have it; if, then, you want us to be more scientifically efficient, address the authorities, and get it for us. It will cost £8,000 a year, and it will repay the country five-fold. If you think, because I want just rank in the army, that I wish to ignore medicine, you are wrong. I wish to be scientific and learned in my work, but the authorities refuse me the chance. They institute examinations as they please, but the definite courses of instruction needed by officers who are serving England far and wide over her spreading empire, they do not establish; for there are no garrison-classes, literally no advanced educational aid, yet no corps needs it more than we do, remembering the rapid progress of scientific medicine, and our prolonged foreign service.

Were I a gunner, I could go through any number of artillery classes when of senior rank. Were I a sapper, I could go at Government expense to visit every great engineering factory at home or abroad. Were I in the infantry, I could spend two years at the staff college learning the higher branches of the military art. But I am an army medical officer, asked to make bricks without straw, and am expected, after years of isolation in colonies, to rival Jenner in medicine, Paget in surgery, and Parkes in hygiene.

It cannot be done, unless the State mean to do it, and that costs money. Give us our post-graduate training when we are sensible of our ignorance, and anxious to work, and you will then have achieved a great work for the profession in the army, and for that private soldier who is wholly depending on our skill.—Yours, I. V. R. C.

THE Secretary of State for War has sanctioned the payment of a gratuity of six months' pay to Surgeon J. Magill, M.D., Coldstream Guards, in consideration of the wound he received in action at Abu Klea on January 17th, when he was in charge of the Guards division of the Camel Corps. It has been stated that this officer, after being struck, actually removed the bullet from the wound himself during the progress of action.

VOLUNTEER SURGEONCIES.

D.M.—No examination is required for the appointment of Surgeon or Acting Surgeon in the volunteer forces.

If a medical man be doubly qualified, he can apply to any commanding officer in whose battalion a vacancy exists, and practically the commanding officer appoints him. If, however, the medical officer after appointment desire to earn the extra capitation-grant for efficiency, he can pass a voluntary examination in the duties of an army-surgeon in the field, camp-sanitation, disease incident to armies in war. This examination is generally held at the headquarters of the military district in which the candidate lives. The board is made up of medical officers of the regular army.

In the new volunteer medical staff-corps, it is laid down that the Director-General is to be the appointing officer, the nomination coming through the medical commandant of the corps.

We believe that no officer should be promoted to the grade of Surgeon-Major in the volunteer forces without passing some test-examination; but on this point, as on many others connected with the medical service in the volunteers, much remains to be done.

NAVAL MEDICAL SERVICE.

THE following appointments have been made at the Admiralty during the past week. J. T. COMBERFORD, M.D., Fleet-Surgeon, to the *Duncan*, additional; J. H. MARTIN, Fleet-Surgeon, to the *President*, additional; T. D. GIMLETTE, Staff-Surgeon, to the *Orion*; W. M. RAE, Surgeon, to the *Dart*; JOHN CASHIN, Surgeon, to the *Mistletoe*; G. W. BELL, Surgeon, to the *Duncan*; A. M. PAGE, and C. B. d'E. CHAMBERLAIN, Surgeons, to the *Duke of Wellington*, additional, for disposal.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR WILLIAM GRAVES has been promoted to be Brigade-Surgeon, in the place of S. B. ROE, M.B., C.B., promoted. Mr. Graves entered the service September 23rd, 1858; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1873. He is at present serving in Bengal, but is not credited with any war-service in the Army Lists.

Surgeon-Major JOHN CANDY, M.D., who went on half-pay on February 26th last, is now granted retired pay, with the honorary rank of Brigade-Surgeon. His commissions bear date: Assistant-Surgeon, September 30th, 1854; Surgeon, March 1st, 1873; and Surgeon-Major, September 30th, 1876. During the Egyptian war of 1882, he was engaged on board the hospital-ship *Carthage*, and has the medal and Egyptian bronze star for the campaign.

The rank of Deputy Surgeon-General, granted to Brigade-Surgeon E. G.

McDOWELL, C.B., whilst serving as Principal Medical Officer at Woolwich, is local and temporary, and not as described in the *Gazette* of August 25th, 1885.

The undermentioned Surgeons on probation are gazetted Surgeons: J. F. McMillan, S. G. Allen, G. S. Green, M.B., G. H. Symes, M.B., C. A. Lane, M.B., P. C. H. Gordon, L. T. M. Nash, J. H. Brannigan, M. O'Halloran, M.D., C. S. Sparkes, W. H. Pinches, H. F. Horne, J. H. Daly, G. J. A. Tuke, P. R. Skerrett, H. C. Dent, F. J. Greig, C. Hayden, M.D., H. D. Rowan, M.B., H. Carr, M.D., H. G. Hathaway, A. L. H. Dixon, C. G. Woods, M.D., P. J. R. Nunnerly, B. A. Maturin, H. V. Dillon, T. Daly, M. J. Sexton, M.D., H. T. Baylor, H. E. Cree, F. L. Carte, W. H. Starr, A. A. Sutton, A. P. H. Griffiths, W. S. Boles, M.B., H. L. G. Chevers, F. J. W. Stoney, J. F. Burke, H. N. Kenny, M.B.

Surgeon and Honorary Surgeon-Major JOSEPH PEARSON, M.D., has resigned his commission in the 1st Cumberland Artillery Volunteers, which dates from July 31st, 1878; he is permitted to retain his rank and uniform.

Surgeon and Honorary Surgeon-Major B. P. MATHEWS has resigned his commission, dated August 19th, 1863, in the 2nd Volunteer Battalion of the Queen's Own Royal West Kent Regiment (late the 3rd Kent Volunteers); he also retains his rank and uniform.

Mr. HENRY SMITH, M.B., has been appointed Acting-Surgeon to the 3rd Volunteer Battalion of the Queen's Own Royal West Kent Regiment (formerly the 4th Kent Volunteers).

Surgeon ROBERT TREVOR died at Malta on the 15th ultimo, in the 24th year of his age. He joined the Army Medical Service on January 31st last, and was shortly afterwards sent to Malta, where he died.

INDIAN MEDICAL SERVICE.

SURGEON F. S. PECK, Bengal Establishment, is appointed to act as Civil Surgeon of Midnapore during the absence on furlough of Surgeon A. Tomes.

Surgeon G. SHEWAN, Bengal Establishment, officiating in medical charge of the 43rd Assam Light Infantry at Kohima, is, with the consent of the military authorities, directed to officiate as Civil Surgeon, Naga Hills, during the absence of Surgeon S. Borah, M.B., on leave.

Surgeon-Major JAMES SMITH, Madras Establishment, Civil Surgeon and Superintendent of the gaol at Vizagapatnam, is appointed for a period of two years to be Medical Officer, Ootacamund, *vice* Dr. Farquhar, who has been promoted.

Surgeon-Major J. J. L. RATTRON, M.D., Madras Establishment, Professor of Surgery and Clinical Surgery, Madras College, is directed to act as Principal of the Medical College during the absence on leave of Brigade-Surgeon J. Keess, M.D., or till further order.

The services of Surgeon T. J. H. WILKINS, Madras Establishment, in medical charge of the 11th Native Infantry, are placed at the disposal of the Public Department.

Surgeon C. M. THOMPSON, M.B., Madras Establishment, is directed to do general duty under the orders of the Deputy Surgeon-General, H.M.'s forces, Eastern District.

Surgeon-Major C. T. PETERS, M.B., Bombay Establishment, is appointed Civil Surgeon of Bejapore, but is to act as Civil Surgeon at Nassick as already ordered.

The services of Surgeon-Major A. BARRY, M.D., Bombay Establishment, in medical charge of the 2nd Bombay Cavalry, and who has been on sick leave, are placed at the disposal of the Military Department.

Surgeon A. F. FERGUSON, Bombay Establishment, is ordered to act as Superintendent of the Lunatic Asylum at Colaba during the absence of Surgeon-Major W. Nolan, M.A., M.D. Dub.

The appointment of Surgeon-Major WARD to the medical charge of the Poorundhur Sanitarium is cancelled; Surgeon-Major R. W. HARE, M.B., will continue in the appointment till April 1st next.

The undermentioned gentlemen have obtained leave of absence for the periods specified. Surgeon S. BORAH, M.B., Bengal Establishment, Civil Surgeon Naga Hills, privilege leave for three months; Surgeon J. P. GREANY, M.D., Bombay Establishment, for two months in extension; Surgeon-Major D. F. KEEGAN, M.D., Bengal Establishment, residency surgeon, Indore, and civil administrative medical officer for Central India, three months' privilege leave.

Surgeon C. P. LUKIS, Bengal Establishment, has been declared by the Board of Examiners at Calcutta to have passed with high proficiency in Persian.

Surgeon S. C. WANDI, M.B., Bengal Establishment, has passed the higher standard in Sanscrit.

INDIA AND THE COLONIES.

STRAITS SETTLEMENTS.

INTRODUCTION OF HYDROPHOBIA.—Among the countries which have enjoyed complete immunity from hydrophobia, the Straits Settlements have been numbered until within recent years. The disease was quite unknown to the natives until about three years ago, when cases were first observed, and traced, it was believed, to dogs imported from England. Although this attribution has been strenuously denied by the captains of the ships, yet there can be no reasonable doubt but that diseased dogs have been imported. A considerable number of deaths have occurred; the *Straits Times*, in a recent issue, reported two cases—one, a native child, who died thirty days after being bitten; the other, a young man, who died about three months after being bitten by a dog "exhibiting all the symptoms of rabies." Some months earlier, an English officer died of hydrophobia on board the mail steamer bound from Hong Kong to Singapore; three months before his death, while at Singapore, he had been bitten, slightly, on the hand by his fox-terrier. It is stated that the Government has drawn up stringent regulations regulating the importation of dogs. The greatest vigilance will, however, be required to prevent their evasion by affectionate owners or unscrupulous dealers.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETIQUETTE.

IN place of giving insertion to "A's" reply to the explanatory statement offered by "B," in the JOURNAL, July 18th, page 126, column 2, we would, in consequence of the diverse representations of the case submitted to us, urge upon the disputants the advisability of a friendly visit and mutual explanation; or, if for any valid reason, such a course be not possible, we would suggest a reference to one or more professional friends; and, failing that resource, to submit the matter for the consideration and decision of the Council of the local Branch of the British Medical Association, who, by oral examination of witnesses, would be enabled to sift the conflicting statements, and elicit the real facts.

CONTRACTS WITH PATIENTS.

SIR,—In replying to the inquiry of "Member British Medical Association," in the JOURNAL of August 22nd, I wish to be allowed to say that it is not yet an usual thing in London to accept a fixed annual sum for medical attendance, except, of course, in provident dispensaries and benefit clubs, where the fees are both inadequate and inflexible. Some fees must be inadequate, but it is only those that are not justly and legitimately so that can be regarded as an evil, and they need never be inflexible or uniform. These evils are the result of taking the control of his own fees out of the hands of the medical attendant—an act to which the profession, with the most incredible blindness and thoughtlessness, has hitherto submitted with complacent acquiescence.

"Health Assurance," which is the remedy for these and many other evils in medical practice, your correspondent does not seem to have heard of. It is not yet an usual thing in London, but he will therefore deserve the greater credit if he join those who are taking the lead in this reform.

In estimating the charges for the family he mentions, there are several contingencies which he does not apparently consider, especially the health, both present and prospective, of each member. Supposing this to be satisfactory, the fees under Health Assurance, Class B, might fairly be stated thus: for the husband and wife, each, £1; for the children, each, 12s. The four servants (Class A) should be admitted at from 4s. to 8s. each, according to wages, health, etc.; but, as a reduction should be made in this class for four persons in one household, the sum of £1 would probably be sufficient. The total charge would thus be £4 4s., the usual extras excepted in both classes, of course.

If "Member British Medical Association" will send me his name and address, and a stamp for postage, I shall be happy to forward him the pamphlet on Health Assurance, which will afford him the necessary information and guidance. Should he desire it, I will also send him a specimen of the printed forms employed for both classes.—I am, etc.,
W. FLEMING PHILLIPS.
St. Mary Bourne, Andover, Hants.

OBITUARY.

THOMAS COLAN, M.D., M.R.C.S., F.R.G.S., INSPECTOR-GENERAL, R.N.

DR. COLAN has lately died at Buxton, whither he had gone to seek the benefit of the waters. He commenced his services in the Russian war in the Baltic, braving cholera on board the *Royal George*, and the rigors of the ice in the *Pylades*, in addition to the risks of war. Thus his initiation into the naval fields of honour made him acquainted with all its chances. He next went to China, where he served at the capture of the Peiko Forts, under Admiral Sir James Hope, in 1860, and he obtained promotion to the second rank after nine years and a half, which was then an early range. His next meritorious service was under Sir Edward Commaerell, on the coast of Africa, who being very severely wounded in attempting the mouth of a river, recovered from his wound, under the skillful treatment of Dr. Colan. For that service he received his step of promotion to fleet-surgeon.

On returning from the Bights of Benin, he volunteered for and obtained the post of senior medical officer in the Arctic Expedition, fitting out under command of Sir George Nares, and, as a reward, after twenty-three and a half years' service, he was promoted to the rank of deputy inspector-general. After a short interval for recruitment, he was sent to Jamaica to take charge of the naval hospital at Port Royal—the least healthy of naval stations—remaining there the full term of three years, 1877-80—during which there were two epidemics of yellow-fever to be dealt with, one of which (1877) fell most heavily on the medical officers, of whom four were attacked and two died. Dr. Colan himself, being also attacked, narrowly escaped death. His next step to the highest grade—inspector-general of hospitals and fleets—was attained, by seniority, in January, 1883, after twenty-nine years' service in arduous positions. Sensible of the failure in his health, he preferred to seek retirement from active employment with increasing responsibilities, and to secure repose, from which death took him away at the premature age of 64, inflicting thereby a great loss on his family and friends.

Dr. Colan was a man of good professional and scientific acquirements, and of generous sentiments towards those who needed aid, zealous and conscientious in the performance of his duties, and always desirous of being at the post of danger; and, with all his excellent qualities, he was of unassuming and even of retiring manners. He

had many personal friends, for he was highly esteemed by his brother officers, and possessed the highest confidence of the distinguished commanders under whom he served.

In 1872, he was awarded the Gilbert Blane Medal for his professional ability displayed in the *Rattlesnake*; and was granted at various periods the Baltic, Chinese, Ashanti, and Arctic medals for service. He has left to the rising generation of his brother officers a notable example of fidelity to his calling of naval medical officer, by which he obtained his well-merited steps of promotion at unusually early ages.

JOHN RICHARD WARDELL, M.D. Edin., F.R.C.P. Lond.

JOHN RICHARD WARDELL was born at Pickering, in Yorkshire, in September, 1819, and died at Brighton—whither he had gone in the hopes of recruiting his enfeebled powers—on August 21st. About ten days before his decease, the symptoms of jaundice, which had never entirely left him for two or three years past, became more intense, attended with profuse gastric catarrh and abhorrence of all food. A failing heart and passive congestion of the bases of both lungs soon brought about a fatal termination, the mind being unclouded to the last. During this period of his illness, Dr. Wardell had the advantage of the devoted attention of his friend of very many years, Dr. Withers Moore, the President-elect of the British Medical Association.

Dr. Wardell was educated at a private school in Doncaster, where he early manifested that indomitable perseverance and fixed determination to do his best which were so conspicuous in his after-life. His professional education was obtained at Edinburgh, where he graduated in 1844. During his pupillage, he filled many important offices at the Royal Infirmary, being assistant pathologist and resident physician there. He was also president of the Royal Physical and Hunterian Medical Societies.

The opportunities for scientific and clinical research thus placed within his grasp were well turned to account, thereby laying the foundation for future sound and most meritorious professional work. In 1859, he became a member of the Royal College of Physicians of London, and in 1867 was elected a Fellow of that College. For the first few years of his professional life, Dr. Wardell acted as private physician to a gentleman of rank, upon whose decease he settled at Tunbridge Wells. Here he practised for many years, finally becoming the consultant of the town and neighbourhood. The local infirmary, of which he was the senior physician, had a large share of his time; and it was here he carried on that painstaking clinical research which bore such good fruit in his professional life and writings. Dr. Wardell's was a busy pen, and he took the greatest possible pleasure in elaborating his ideas and experiences. His writings are too well known to need an enumeration of them here: but, as a sample, we might mention his exhaustive articles on Diseases of the Spleen, and of the Pancreas, in Reynolds's *System of Medicine*, and that on Hypertrophy of the Heart, in Quain's *Dictionary*. His name has been conspicuous in this JOURNAL, as contributing many most important articles bearing on clinical medicine—notably those on Enteric Fever and Pleurisy.

Four years ago, he was struck down by illness, and compelled to relinquish all idea of continuing the practice of his profession. The enforced rest, and the careful watching of a loving wife, aided by attached medical friends, restored the subject of this notice to a moderate share of health, but he was ever afterwards an invalid.

Notwithstanding his bodily infirmities, his mind still retained its unwearied activity, and the last year of his life was occupied with the supreme effort of collecting together some of his numerous writings into one volume, styled *Contributions to Pathology and the Practice of Medicine*; this work, with characteristic loyalty, he dedicated to the two especial friends of his professional life, Sir William Jenner and Dr. Quain. The publication of the work, and the demise of our valued fellow-member, are both too recent to render it possible or decorous to criticise this work of a lifetime; that must be done at some future day, and done honestly, for so would he have wished it.

Dr. Wardell was a good example of the well informed practical physician, giving his mind to the elucidation of the natural history of disease with a view to its successful treatment, rather than to the elaboration of theories as to the occult causes of disease. He was of a retiring disposition, and seldom meddled with medical politics, being happiest when quietly acting as a student of medical truth. Having retired from the active practice of his profession for several years, he will not leave the void that otherwise would have been felt among his patients and medical brethren; but among his more immediate friends he will be sorely missed. Nevertheless, his kindly nature and affectionate regard will still be kept alive in their memories, for

"To live in hearts we leave behind
Is not to die."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

DURING the week ending Saturday, August 29th, 5,439 births and 3,133 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had declined from 21.8 to 19.7 in the three preceding weeks, further fell last week to 18.4. The rates in the several towns, ranged in order from the lowest, were as follow:—Bolton, 13.7; Leicester, 14.6; Norwich, 14.9; Nottingham, 15.3; Oldham, 15.3; Bristol, 15.5; Blackburn, 15.8; Huddersfield, 16.1; Halifax, 16.2; Bradford, 17.3; Hull, 17.4; London, 17.5; Birmingham, 17.9; Sheffield, 18.4; Leeds, 18.6; Cardiff, 18.8; Birkenhead, 19.6; Liverpool, 20.3; Derby, 20.9; Brighton, 20.9; Manchester, 21.5; Wolverhampton, 21.7; Newcastle-upon-Tyne, 21.8; Sunderland, 22.9; Portsmouth, 23.6; Salford, 24.5; Plymouth, 24.7; and Preston, 27.5. The death-rate during the week in the twenty-seven provincial towns averaged 19.1 per 1,000, and exceeded by 1.6 the rate recorded in London. The 3,133 deaths registered during the week in the twenty-eight towns included 653 which were referred to the principal zymotic diseases, against 833 and 697 in the two preceding weeks; of these, 374 resulted from diarrhoea, 89 from measles, 85 from whooping-cough, 49 from "fever" (principally enteric), 27 from scarlet fever, 23 from diphtheria, and 6 from small-pox. These 653 deaths were equal to an annual rate of 3.5 per 1,000. The zymotic rate in London was equal to 3.4 per 1,000, of which 1.5 was due to diarrhoea; while in the twenty-seven provincial towns the zymotic death-rate was 4.2 per 1,000 (of which 2.7 was due to diarrhoea), and ranged from 0.7 and 1.7 in Halifax and Bradford, to 7.5 in Cardiff, 8.5 in Portsmouth, and 9.9 in Preston. The deaths referred to diarrhoea, which had been 628, 549, and 423 in the three preceding weeks, further declined during the week to 374, and showed the largest proportional fatality in Portsmouth, Salford, and Preston. The fatal cases of measles, which had fallen from 132 to 84 in the four previous weeks, were 59 last week; this disease caused the highest death-rate in Derby. The 85 deaths from whooping-cough were within 2 of the number in the preceding week, and showed the highest proportional fatality in Blackburn, Cardiff, and Derby. The fatal cases of "fever," which had been 46 and 44 in the two previous weeks, rose to 49 last week, and showed the largest proportional fatality in Sunderland and Portsmouth. The 27 deaths from scarlet fever, showed a decline of 10 from the numbers recorded in the preceding week. The fatal cases of diphtheria, which had been 15 and 18 in the two previous weeks, further increased to 23, of which 14 occurred in London, and 2 in Liverpool. Of the 6 deaths from small-pox last week in the twenty-eight towns, 5 occurred in London (exclusive, however, of 4 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), and 1 in Manchester. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the twelve preceding weeks from 1,889 to 347, had further fallen to 310 on Saturday last, August 29th; the admissions, which had been 44 and 41 in the two previous weeks, were 43 last week. The death-rate from diseases of the respiratory organs in London was equal to 2.6 per 1,000, and exceeded the average. The causes of 62, or 2.0 per cent., of the 3,133 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 785 births and 440 deaths were registered during the week ending August 29th. The annual rate of mortality, which had been 20.4 and 19.6 per 1,000 in the two preceding weeks, further declined last week to 18.0, and was very slightly below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 14.2 in Aberdeen, 15.3 in Dundee, 16.0 in Leith, 16.0 in Edinburgh, 19.1 in Greenock, 19.3 in Paisley, and 21.1 in Glasgow. The 440 deaths registered during the week in these towns included 41 which were referred to diarrhoea, 9 to whooping-cough, 6 to "fever" (principally enteric), 7 to diphtheria, 2 to measles, and not one either to small-pox or scarlet fever; in all, 66 deaths resulted from these principal zymotic diseases, against 116 and 81 in the two preceding weeks. These 66 deaths were equal to an annual rate of 2.7 per 1,000, which was 1.1 per 1,000 below the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns were recorded in Greenock, Glasgow, and Paisley. The deaths from diarrhoea, which had been 64 and 53 in the two preceding weeks, further declined during the week to 41, and were considerably below the number recorded in the corresponding week of last year; 25 occurred in Glasgow, 5 in Edinburgh, and 4 in Paisley. The fatal cases of whooping-cough, which had been 23 and 11 in the two previous weeks, further fell to 9, and included 5 in Glasgow. The 7 deaths referred to "fever" exceeded by 4 the number in the preceding week; 5 were returned in Edinburgh. The 7 fatal cases of diphtheria also showed an increase, and included 4 in Glasgow and 2 in Edinburgh. The 2 deaths from measles corresponded with the number in the preceding week; 1 occurred in Glasgow, and 1 in Paisley. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.3 per 1,000, against 2.6 in London. As many as 62, or 14.1 per cent., of the 440 deaths registered during the week ending August 29th, in these Scotch towns were uncertified.

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending August 29th, that the annual death-rate recently averaged 32.0 per 1,000 in the three principal Indian cities; it was equal to 26.7 in Bombay, 20.7 in Calcutta, and 39.6 in Madras. Cholera caused 49 deaths in Calcutta, and 13 in Bombay; while the mortality from "fever" was excessive in each of the three Indian cities. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in nineteen of the largest European cities averaged 25.2. The death-rate in St. Petersburg was equal to 29.2, showing an increase upon the rates recorded in recent weeks; the 520 deaths included 139 from diarrhoeal diseases, 11 from typhus and typhoid fever, and 11 from measles. In three other northern cities—Copenhagen, Stockholm,

and Christiania—the death-rate averaged only 19.1 per 1,000; it was 16.7 in Copenhagen, 20.7 in Christiania, and 21.0 in Stockholm. In Copenhagen, 2 deaths were referred to typhoid fever; and 4 deaths resulted from scarlet fever in Christiania. The rate of mortality in Paris was equal to 23.1 per 1,000, showing an increase upon the rates recorded in recent weeks; 152 deaths were referred to diarrhoea, 29 to typhoid fever, and 18 to diphtheria and croup. In Brussels, the death-rate was 26.6, no fewer than 51 of the 219 deaths being referred to diarrhoeal diseases. The 18 deaths in Geneva corresponded to an annual rate of 13.1 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 31.2, the highest being 23.8 in the Hague, where 3 deaths resulted from whooping-cough. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 27.5, and ranged from 20.6 and 25.5 in Vienna and Hamburg, to 31.4 in Prague and 35.8 in Breslau; small-pox caused 16 deaths in Vienna, and 4 in Buda-Pesth; diphtheria showed fatal prevalence in Hamburg and Berlin; and the mortality from diarrhoeal diseases was excessive in most of the German cities. Among the principal Italian cities, the rate was equal to 25.9 in Rome, and to 28.9 in Venice, where 6 fatal cases of small-pox were recorded. No returns appear to have been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the mean death-rate was 28.5, and ranged from 19.7 in Baltimore, to 35.6 in New York. Diarrhoeal mortality showed a marked excess in New York and Brooklyn; typhoid fever caused 7 deaths in Philadelphia, and diphtheria 6 deaths in Baltimore.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON MANOR.—In his annual report for 1884, Mr. May admits that he has little to record that is novel in the sanitary work of the area under his charge, and that there is little change in the character of the district. Good general sanitary work seems, however, to be going on under his supervision. The new hospital, which is being erected, and will, it is hoped, soon be ready for use, is expected to prove a great boon to the district, and possibly to adjoining areas. No pains have been spared in making it as perfect an institution of its kind as present knowledge on this subject will permit. Mr. May incidentally remarks that, in the many back-to-back houses which prevail in the town, isolation of infectious disease is impossible; and when the amount of gossiping in a court is taken into account, and the number of cases in which two or three families use the same washhouse, etc., it is obviously difficult to confine the disease to one house. The establishment of the new permanent hospital will enable the first cases to be removed as they occur, and these will thereby be prevented from remaining centres of infection. Small-pox, which was epidemic in 1883, continued to prevail during the early months of 1884. Of the 149 cases admitted to the temporary small-pox hospital, from its opening, in September, 1883, till the end of 1884, 24 were totally unvaccinated, whilst 37 had one or two vaccination-marks, and 86 had three or four marks. Of the 24 unvaccinated, 9 died, or 37 per cent.; whilst of the 123 vaccinated, only 2 died, or 1.6 per cent.; and these latter two were "persons of broken constitutions past middle age." Mr. May noted in his report for 1883, as a curious circumstance, that pregnancy afforded no protection against small-pox, but rather the reverse. No fewer than three of the cases admitted were women delivered of children whilst suffering from the disease, and a fourth case was heard of outside. Diarrhoea caused severe and unprecedented sickness and mortality during the year, 114 deaths having to be registered from this disease, as against 60 in 1883. Mr. May says that he is at a loss to account for the prevalence of this disease. The vital statistics show that the general death-rate per 1,000 was 17.1 in 1884, as against 16.0 in 1883, and 15.4 in 1882. But this rate would probably in each case have to be increased by about 4, if the deaths belonging to Aston which occurred in the public institutions situated outside the district could be included. The zymotic rate was 3.4 per 1,000; and infant mortality seems to have greatly increased during 1884, chiefly owing to the prevalence of diarrhoea already referred to.

BARNSTAPLE.—The first annual report of Mr. H. Jackson, as medical officer of health for the borough of Barnstaple, a post which he held during the last nine months of 1884, shows the general death-rate for that period to have been 19.4 per 1,000, and the district to have been "fairly healthy" at the close of the year. The zymotic death-rate was .82 per 1,000, and compares very favourably with those of former years. There was no epidemic, but diphtheria prevailed more or less extensively during the greater portion of the year, and a considerable number of cases occurred in different parts of the town, especially at the higher levels. In connection with the cases of fever and diphtheria, Mr. Jackson calls attention to the main flaw in the sanitary arrangements of the town, namely, defective drains and imperfectly ventilated sewers. It is satisfactory to find that the sanitary authority show a disposition to take this important matter in hand. The authority seem also to be alive to the need for proper hospital provision, a committee having been appointed to look out for a site suitable for a small-pox hospital or sanatorium. Phthisis caused 25 deaths in the district; and Mr. Jackson, in calling special attention to the fact, suggests "that strict supervision over building-sites, and the construction of buildings in general and increased facilities for im-

proved ventilation, he exercised, in order that this heavy rate may be much lessened." He also observes, that "the infant mortality is much greater than it should be in an agricultural district," but he offers no explanation of this important point, nor does he give any further record of his own observations on the subject.

BEDFORD.—This town seems unable to free itself from diphtheria, and Dr. Prior, the medical officer of health, has to record in his last two reports the occurrence of as many as 16 deaths from that disease in 1883, and 13 in 1884. He discredits the belief that the disease may be generated or originated by foul accumulations, obstructed drains, foul ponds, or by the admission of sewer-air into houses; and, speaking from an experience of several years, he states that he has never discovered any distinct evidence that diphtheria is so generated any more than scarlatina, to which it possesses some curious affinities. He goes so far as to say that "these coarse theories of spontaneous generation of epidemic disease are fading, and must fade away before the advancing light of accumulated observations, and the laborious but sure progress of microscopical science." For himself, he thinks it probable that, like other disorders of a zymotic character, diphtheria is caused by schizomycetous fungi. No other zymotic disease has lately prevailed to any great extent, and the rate for that class of disorder was 1.38 per 1,000 in 1883, and 1.4 in 1884. The general death-rate was 14.84 and 15.05 respectively. During last year, Dr. Prior's attention was continuously directed to the sanitary improvement of the town in various directions. As an example of the vigilance which is necessary to ensure thorough efficiency of a system of water-supply and sewerage, he notes that no fewer than 330, out of 410 reported nuisances in Bedford last year, were related to the sewerage or the water-supply. The area of the water-supply has been extended to meet the growing requirements of the town, and a new reservoir is in course of construction.

SHANKLIN URBAN DISTRICT.—This district was exceptionally favoured in 1884 by the entire absence of infectious and contagious disease. Thirty-two deaths in all occurred in the district during the 12 months, but of these seven were among visitors, giving a total death-rate of 10.7 per 1,000, or 8.3 per 1,000, if the visitors be ignored. To record these facts has been the pleasing duty of Dr. George R. Dabbs, in his first annual report as health-officer for the district. Special reference is made to the water-supply, which seems to be excellent as regards quality, but insufficient in quantity. The question of its improvement is, however, at present prominently before the ratepayers, and the health-officer anticipates an early and satisfactory settlement. The dairies in the town have been examined, and the medical officer of health can vouch for their proper sanitary condition. He suggests, however, that he should be supplied with the names of all persons selling milk in the town, in order that the sanitary circumstances of the dairies outside the district supplying milk within the district might be ascertained. Dr. Dabbs makes three chief recommendations to the sanitary authority, to the effect that the plans for all new buildings should be carefully examined by the health-officer before being sanctioned by the local board; that attention should be given to the question of waste of water in houses, and that the health-officer should be permitted to have printed and distributed a brief memorandum on the plain methods of disinfecting closets, sinks, etc. A system of registering lodging-houses in the town has been set on foot with satisfactory results, and the medical officer of health hopes that, during the current year, all those lodging-house keepers who have not registered, will consent to his examination of their premises with a view to his certifying as to their sanitary arrangements.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 27th, 1885.

Bostock, Robert Ashton, 78, Onslow Gardens, S.W.
 Emtage, Edmund Walter, 1, Endsleigh Gardens, N.W.
 Julian, Oliver Richard Archer, St. Bartholomew's Hospital.
 Mathias, Hugh Brodrick, Minchard, Somersetshire.
 Milner, Edmund Taylor, Crescent, Salford, Manchester.
 Thomas, Archibald, Towey House, Wellingborough.

MEDICAL VACANCIES.

The following vacancies are announced.

ABINGDON UNION.—Medical Officer. Salary, £130 per annum. Applications by September 19th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by September 22nd.

BRIGHTON AND HOVE DISPENSARY.—House-Surgeon. Salary, £140 per annum. Applications by October 5th.

BRISTOL GENERAL HOSPITAL.—Physicians' Assistant. Salary, £50 per annum. Applications by September 9th.

CANCER HOSPITAL (FREE), Brompton, S.W.—Resident House-Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of the Weekly Board by September 21st.

CANCER HOSPITAL (FREE), Brompton, S.W.—Assistant House-Surgeon. Salary, £35 per annum. Applications to the Chairman of the Weekly Board by September 21st.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £60 per annum. Applications by September 18th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by September 15th.

GRANARD UNION, FINNEA DISPENSARY.—Medical Officer. Salary, £116 per annum. Election September 9th.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary, £75 per annum. Applications by September 9th.

HOSPITAL HOME FOR PAYING PATIENTS.—Resident Medical Officer. Salary, £100 per annum. Applications to M. S. Mountfield, Bonchurch, I.W.

KENT COUNTY LUNATIC ASYLUM, Chatham Downs, near Canterbury.—Second Assistant Medical Officer. Salary, £120 per annum. Applications by September 10th.

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Surgeon. Salary, £200 per annum. Applications to C. H. Wilson, 9, Elinwood Green, Camp Road, Leeds.

LEEDS GENERAL INFIRMARY.—Honorary Obstetric Physician. Applications to the Treasurer, and marked "private," by September 5th.

LEEDS GENERAL INFIRMARY.—Resident Obstetric Officer. Salary, £100 per annum. Applications to Mr. Blair by September 10th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Medical Officer. Salary, £60 per annum. Applications by September 16th.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum. Applications to the Chairman of the Board by September 12th.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street.—Assistant Dental Surgeon. Applications by September 29th.

NEWPORT INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by September 12th.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum. Applications to Mr. R. F. Easterby, Fishgate, Preston, by September 11th.

RADCLIFFE INFIRMARY, Oxford.—Resident House-Surgeon. Salary, £80 per annum. Applications by September 12th.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by September 16th.

UNIVERSITY OF ABERDEEN.—Examiners in Medicine. Applications to the Secretary, H. Walker, University Court.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications by September 5th.

MEDICAL APPOINTMENTS.

FOULERTON, G. R., M.R.C.S., L.R.C.P. Lond., appointed House-Surgeon to the Royal Isle of Wight Infirmary, Ryde, vice J. Walter Hopkins, M.R.C.S. Eng., L.S.A., resigned.

ROBERTS, D. Lloyd, F.R.S.E., F.R.C.P. Lond., Physician to St. Mary's Hospital, and Lecturer on Clinical Obstetrics and Gynaecology at the Owens College, appointed Obstetric Physician to the Manchester Royal Infirmary, vice the late Dr. Thorburn.

VOIGT, J. C., M.D. Edin., appointed Resident Medical Officer and Visiting Surgeon to the Southport Infirmary and Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SPOONER.—August 31st, at Maitland Lodge, Clapton, the wife of Fred. H. Spooner, M.D., of a son.

MARRIAGE.

STALLARD—MARSHALL.—At St. John Baptist, Hulme, Manchester, on September 2nd, J. Prince Stallard, M.B., C.M., youngest son of the late Josiah Stallard, D.L., of The Blanquettes, Worcester, to Nita, elder daughter of the Rev. Dr. Marshall, Rector of St. John Baptist, Manchester.

DEATHS.

BURDWOOD.—August 25th, at West Cottage, Bourn, Linc., Minnie Helen Watson Burdwood, the loving and beloved wife of Dr. J. Watson Burdwood, after a prolonged and painful illness.

HEDLEY.—On the 1st instant, at Welford, Rugby, Charles Hedley, M.R.C.S. Eng., L.S.A.

KARKEEK.—August 30th, at Isca, Torquay, Clara, wife of Paul Q. Karkeek, M.R.C.S., etc.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARGING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., ; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th., 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CASE OF DR. BRADLEY.

SIR,—Will you kindly acknowledge the enclosed additional list of subscribers
—I remain, yours faithfully,
Eastwood House, Chesterfield.

RICHARD JEFFREYS.

	£	s.	d.
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Mr. J. B. Lee, Clay Cross	0	10	0
Dr. A. H. Guest, Hulme, Manchester	0	10	0

I. J.—The Coroner acted according to law.

RIDING-LEGGINGS.

SIR,—Can any county reader who, like myself, does most of his work in the saddle, tell me what is best to wear to keep one's legs dry and clean through the winter? and, I would also add, to keep them clean in the summer, when the saddle-flaps and stirrup-leathers do more harm than dirty roads, and ordinary leggings are too hot to be worn then; but, for winter, the desiderata are a waterproof covering from the middle of the thighs downwards, that can be easily put on and off, and is neat in appearance, and not too expensive. I have been in the saddle most days for more than thirty years without having met with a satisfactory combination of these desiderata. Trusting I may not be reduced to wheels for many years yet I make this inquiry, and am, etc.,

EUGEN RUSTICUS.

THE ABUSE OF CHARITY AND A PROPOSED CURE.

SIR,—Seeing that the City Council propose to give £15,000 of public money to one of the Liverpool hospitals, and also that two other hospital-grants are soon to be asked for, I beg to call attention to the great abuse of charities in Liverpool, and to point out a partial cure.

The extent to which the abuse of medical charity is growing is painful to contemplate. Nearly all the annual reports state that "the number of patients is increasing," "a sign of the increasing usefulness of the institution," they say, while attention is called to the low state of the hospital funds. If the City Council propose to give a grant of a few thousands to each of the eighteen charities in Liverpool which are at present in need, then there will be a great many applicants.

In Liverpool alone there are 298,260 persons who receive medical treatment at our various public charities, while at nine hospitals, during the last twelve months, as many as 398,885 attendances of patients have been recorded. These eighteen charities, along with the three boards of guardians, expend £353,925 16s. 7d. yearly. It should be added that these figures do not embrace those who attend private charities, such as the Tumour and Throat Hospitals, the Victoria Hospital, or the Fistula and Pile Hospital; neither do they include the cases who receive charity from the different religious orders in Liverpool; nor do they include 4,500 patients who receive gratuitous treatment at the homes of medical men. It seems to be a general opinion that if this indiscriminate giving of medical aid goes on unchecked, all feelings of thrift and independence will soon be extinguished. It is mere nonsense for people to tell the working classes to be thrifty, while all the time the various charities hang out their sign-boards and say, "This way, please." Hospital committees should co-operate with provident societies. The clerk to one of the boards of guardians, when writing on the above subject, says: "I concur, in the main, with you, and have frequently said that this indiscriminate dispensation of medical relief is gradually destroying all notion of thrift and independence in the poorer classes."

All who take an interest in this matter hold similar views. Unfortunately, when provident societies have been started in Liverpool, their bitterest opponents have been a few medical men, and those who are on the hospital com-

committees; for are we not aware how the hospital physician sneers at the "provident dispensary doctor." And until the hospital committees and hospital doctors cease fighting their institutions against provident societies, no one should expect to see the latter gaining much ground, although they directly encourage the working classes to thrifty habits.

As there are some who doubt that there are so many hospital-patients in Liverpool, a tabular statement is given; and as a few hold that many of the cases come from Birkenhead and surrounding districts, a list of these charities is also given.

Liverpool Public Charities.

Hospital.	Number of Patients.	Number of Attendances.	Expenditure.
			£ s. d.
Northern	6,342	No return	7,553 0 9
Southern	8,303	"	10,081 17 5
Consumption	2,180	24,752	5,203 8 9
Dental	12,426	16,646	722 1 7
Cancer and Skin	6,880	24,398	1,607 6 3
Eye and Ear	10,102	No return	3,478 6 4
Royal Infirmary and Lock	13,688	"	14,174 13 2
Children's	13,232	30,779	3,419 3 9
Eye and Ear (St. Paul's)	3,450	16,325	929 9 4
Skin (St. George's)	1,708	No return	471 2 11
Netherfield Road	329	"	3,296 12 11
Ladies' Charity	2,397	"	8,091 12 0
Women's	3,760	14,375	4,369 8 9
Homeopathic	41,000	88,221	1,647 19 7
Stanley	13,424	36,581	3,007 13 9
Medical Missions	40,554	No return	1,299 15 9
Dispensaries	69,754	151,807	6,354 8 6
Booth	3,440	No return	2,189 11 9
Totals	253,059	398,885	77,737 11 2

Patients Treated by the Medical Staffs of the Three Boards of Guardians.

Parish.	Number of Patients.	Outdoor Relief.	Expenditure.
			£ s. d.
Liverpool	18,575	8,413	137,762 0 0
West Derby	17,347	21,580	111,636 10 1
Toxteth	4,779	5,142	26,789 15 4
Totals	40,701	35,142	276,188 5 5

Birkenhead Public Charities.

Hospital.	Number of Patients.	Expenditure.
		£ s. d.
Birkenhead Borough	8,834	2,868 5 1
Lying-in	421	267 1 0
Dispensary for Children	2,235	2,341 12 4
Eye and Ear	1,219	199 0 1
Homeopathic	1,100	111 18 0
Birkenhead Board of Guardians	No returns	..
Wirral Board	"	..
Totals	13,809	5,577 16 6

The first table records some interesting facts. Thus, the expenditure varies greatly. One hospital treats 12,426 patients for £722; another, 3,450 for £299; another, 13,688 for £14,176; and another, 6,880 for £1,607. Also the alcohol bill varies from £490 to £80. Another point worth noting is that, in eight of these hospitals, a grand total of 21,878 operations are performed during twelve months; nor does one fail to note the annual subscribers are informed that "No. 900 has a granular fundus," which resulted in "a radical cure," or that so and so was afflicted with "emphysema of lids." How many operations take place at the remaining ten hospitals is not recorded, but if their number equals the above, it will soon be a rare treat to meet men or women in Liverpool who still retain all their members.

One point in favour of a provident society for Liverpool is that all its members would obtain equal attention and care. Anyone acquainted with the working of public charities knows that the deserving person, or case, is not often taken in, but that the interesting and novel case receives most attention. Again, it should be noted that it is impossible for the 150 doctors and dentists belonging to the eighteen hospitals, to examine and treat with care equal to that which they bestow on their private patients, the 398,815 patients; and it seems a further impossibility when one remembers that these medical men have their private practice to attend to, even should each spend two hours at the charity.

A London report states that "three hours is the average time the patients have to wait in crowded infectious rooms, while the actual time often exceeds seven hours; and, after all, they only get the smallest dividend of attention from an overworked medical man who knows nothing of their individual constitution and habits." It has been asked why do so many obtain relief at the charities? Medical men are partly to blame. Some refuse to accept small fees, such fees as the patient can afford. Wishing to obtain the name of "high-class" doctors, they will not take less than 5s., 7s., 10s., or 21s. a fee, which the mechanic, clerk, or small tradesman is unable to pay, especially when an

illness is prolonged. Another reason is that the poorer classes are directly encouraged to become paupers. They are seldom advised to join a provident society, nor is the condition of the person who visits the hospital inquired into. Besides this, churches send their hospital Sunday collections to the hospitals, while the givers know that the funds go to support in part diseases due to drink and immorality. Last year, 1,397 cases of venereal disease received treatment at two Liverpool hospitals. Is it right that the clergy should invite their people to support these cases, or that the taxpayer should be compelled to contribute? One point in favour of the provident society is that it refuses to treat those diseases which are due to drink and immorality, and so it endeavours to act as a moral force in the community. Medical men know that if diseases due to drink and immorality were excluded from hospitals, more than half might close their doors. Some may feel sceptical concerning all the figures quoted; but if it were known how many, who can well afford to pay, request the medical man to treat them for nothing, and that many of those who obtain treatment at the public charities are in receipt of such high wages that they are thereby excluded from the benefits of the provident system, they would perhaps give credence to the printed hospital reports. In order that the number of those who obtain free medical treatment may be lessened, it has been proposed that the Provident Medical Association should be established in Liverpool. In London, such a system is working well, even though it is calculated that 1,000,000 of the population of that city receive gratuitous medical relief. There is a central committee composed of well known men; London is divided by them into districts, where a branch, with its own committee and medical staff, is established. A member can have medical treatment, either at the local office or at his own home, if he pay a monthly subscription of 6d.; a husband and wife the same for 10d.; and children, below 14, for 2d.; the confinement fee is about 20s. All drugs are supplied without extra cost, while the medical staff receive all the money after accounts have been paid. Honorary members also help. None are permitted to become members who are making over 50s. a week, so that those who are able to pay are not drawn away from their family doctor; thus, no one is injured. There is an entrance fee of 1s., while those who are in arrears are excluded from benefits. It may be stated that the system of club-doctors is not altogether satisfactory, for while the husband is certain of treatment, the wife and children are not provided for. Provident societies supply this want.

It seems strange that the provident system does not flourish in Liverpool, where there are so many of the working classes. The Metropolitan Provident Medical Association has now 25,000 members, with an income of £3,207 yearly. The Battersea Provident Society last year had its 10,150 members, with an income of £1,626, while the West Cheshire, Wandsworth, and Worcester societies are each doing good work. Striking an average, it may be said that a medical man to a provident society is paid 6d. for each visit made to a patient, medicines included. One society had a membership of 8,400; 6,524 of these reported cases of illness during the year, while 32,540 attendances of these patients, either at the office or at their own houses, were entered. This is a fair example of the working of a society. There are in and about Liverpool 448 surgeons and physicians, and over 100 dental surgeons. About 180 of these are on the staffs of the eighteen public charities. If all gave a hearty co-operation to the provident system, if the hospital committees would regulate their out-patient departments, if the Hospital Sunday Committee would help those who are trying to help themselves, and if those who wish success to the movement would become subscribers, then the Society would prosper. The working man, mechanic, clerk, and smaller shopkeeper only require a friendly start, and they would soon cease to claim free medical treatment. The Penny Savings Bank, with its 640,213 transactions, and its £23,652 deposits, illustrates this statement. In the *Liverpool Post* of August 4th, a correspondent points out that if all the servant girls in Liverpool paid 1d. per week to a central fund, they could, in this way, collect over £4,000 yearly, and so might have, in their own right, a servant's home, where they could stay when out of a situation, or in ill health.

May the time soon come when this unnecessary pauperism will be no longer with us, and when the working man will, in the exercise of that manhood given him, refuse to accept aids in any form from charity. At present, the population of Liverpool is 573,724, while 298,260 persons receive medical treatment at the public charities. Surely each man who places himself outside the ranks of pauperism is able to pay 6s. a year, and so ensure for himself fair medical treatment and medicine. By so doing, he will show others that he is in earnest in his actions, and in becoming a member of a society where mutual support is a rule, he will accentuate the feeling that co-operation is the best plan, and that he not only takes an interest in himself, but in those around him, and so he will be a true working man.

—Yours, etc.,

ROBERT RENTON.

DIPHTHERIA AND SCARLET FEVER.

SIR,—Some months ago I had under treatment two cases, which would seem to have an important bearing upon the investigation as to the relation subsisting between diphtheria and scarlet fever.

A little boy, aged 4 years, began to feel rather out of sorts, and to complain a little of his throat, but was not, for some days, ill enough to be confined to bed. When I first saw him, which was some days after he began to complain, he was not in bed, but his throat, on examination, was seen to be slightly sore, and he was feeling languid, and had lost his appetite; but there was scarcely any increase of temperature, and there was no rash. A few days later, however, he was a good deal more prostrate, slightly more feverish; the gland under the angle of the jaw was more swollen, and the characteristic deposit of diphtheria had become well established, while a sanguineous discharge by-and-by appeared from the nostrils, and the breath became very offensive. The throat and nasal symptoms became very severe, and remained so for several weeks. Then dropsy made its appearance, being confined chiefly to the face; and the urine was found to be highly albuminous, while there was considerable drowsiness, with catarrhal symptoms. He recovered after being confined, to bed continuously for five or six weeks, and there was not the slightest appearance of desquamation observed, although very carefully looked for.

About a week after he first began to complain, his sister, who was about two years older, was suddenly seized with a severe attack of well-marked scarlet fever, with sore throat, copious eruption on the second day, high pyrexia, and severe cerebral disturbance. This was followed, in a week or two, by acute rheumatism, with cardiac and pulmonary implication, and a renewal with greater severity of the cerebral symptoms, necessitating removal of the hair, and blistering of the vertex. She also was confined to bed for five or six weeks, and there was copious desquamation, but no dropsy, nor, so far as I can recollect, any albuminuria.—Yours truly,

B. F.

AN APPEAL.

We are requested to publish the following letter.

The Coroner's Private Room, Coroner's Court, Liverpool,
July 23rd, 1885.

Dear Sir,—The sad and untimely death of Dr. A. F. Graham, of 59, Everton Road, has left his young family of four children without any provision for their maintenance and advancement in life. A committee has been formed with a view of raising a fund to place them, as far as possible, in a position to maintain themselves. Dr. Graham was so much respected and so highly esteemed by all who knew him, that the committee hope to receive a very generous response to their appeal. A considerable sum of money is still required to enable the committee to carry out the objects which they have in view.

Trusting in your kind support, we are, dear sir, yours faithfully, CLARKE ASPINALL, Chairman (Coroner), W. MITCHELL BANKS, F.R.C.S.; JAMES BARR, M.D.; JOHN BURBIDGE, Clerk; WILLIAM CARTER, M.D.; E. H. DICKINSON, M.D.; D. M. DRYSDALE, Esq.; A. DUNBAR, M.D.; ROBERT GEE, M.D.; T. R. GLYNN, M.D.; S. McCULLOCH HIGGINS, M.R.C.S.; GRAY HILL, President Liverpool Law Society; ROBERT IRVING, Clerk; J. C. LANGLEY, Esq.; THOMAS LEE, Esq.; ROGER PARKER, M.R.C.S.; RUSHTON PARKER, F.R.C.S.; RICHARD POSTANCE, Clerk; T. E. PRIEST, Solicitor; WILLIAM PRESTON, Esq.; R. I. RICHARDSON, M.B.; GEORGE SEARER, M.D. Honorary Treasurer, Rev. ROBERT IRVING, M.A., 21, Ivanhoe Road, Sefton Park, Liverpool. Honorary Secretary, JAMES BARR, M.D., 1, St. Domingo Grove, Liverpool.

The following sums have been already promised:

	£	s.	d.		£	s.	d.
The Liverpool Reversionary Company	100	0	0	Dr. McCann	2	2	0
James Barr, M.D.	21	0	0	J. Birbeck Nevins, M.D.	2	2	0
D. M. Drysdale, Esq.	10	0	0	Dr. Oliver	2	2	0
G. Graham Kirkinton, Esq.	10	0	0	Roger Parker, Esq.	2	2	0
A Friend (yearly, for four years)	10	0	0	W. Perkins, Esq.	2	2	0
W. Mitchell Banks, F.R.C.S.	5	5	0	Sir J. A. Pictou	2	2	0
J. Cameron, M.D.	5	5	0	W. Preston, Esq.	2	2	0
E. H. Dickinson, M.D.	5	5	0	Dr. Richardson	2	2	0
Dr. McCulloch Higgins	5	5	0	Thos. H. Sheen, Esq., C.C.	2	2	0
Arthur Wrigley, Esq.	5	5	0	F. Vacher, F.R.C.S.	2	2	0
Gray Hill, Esq., President Liverpool Law Society	5	0	0	George Walker, M.D., Birkenhead	2	2	0
Malcolm Guthrie, Esq.	5	0	0	J. Wallace, M.D.	2	2	0
T. P. Minton, Esq.	5	0	0	Clarke Aspinall, Esq.	1	1	0
Dr. James Johnson	5	0	0	W. Alexander, M.D.	1	1	0
Mark Wright, Esq.	4	0	0	James Armstrong, M.D.	1	1	0
T. R. Glynn, M.D.	3	3	0	W. Macfie Campbell, M.D.	1	1	0
Reginald Harrison, F.R.C.S.	3	3	0	Dr. Edis	1	1	0
Messrs. Whitehead & Son	3	3	0	D. Forbes, M.D.	1	1	0
Robert Gee, M.D., President Liverpool Medical Institution	2	2	0	J. Muir Howie, M.D.	1	1	0
R. Blezard, Esq.	2	2	0	Dr. Jones, Everton Road	1	1	0
J. J. Burbidge	2	2	0	Thomas Lee, Esq.	1	1	0
Rev. J. Tarbuck, Esq. (per Mr. Clarke Aspinall)	2	2	0	J. W. Lloyd, Esq.	1	1	0
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Dr. Clompitt	2	2	0	Dr. Pierce	1	1	0
A. Dunbar, M.D.	2	2	0	Rev. R. Postance	1	1	0
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Thomas Haughton, Esq.	2	2	0	George E. Walker, F.R.C.S.	1	1	0
John Houlding, Esq., C.C.	2	2	0	Dr. Ewing Whittle	1	1	0
Rev. R. Irving	2	2	0	Mrs. Hugh Shimmis	1	0	0
				Mr. Hobbins	1	0	0
				Miss Torick	1	0	0
				Glynn Whittle, M.D.	0	10	6
				J. C. Langley, Esq.	0	10	6

TRAINING OF NURSES.

SIR,—A lady friend of mine proposes to enter on missionary work in China, leaving England about a year from this. In the meantime, she is anxious to acquire some knowledge of nursing and general management of the sick. It has been proposed to her to undertake probationer's duty in a large hospital for six months (if possible), and also attend a lying-in hospital in London for a shorter period. If you, or any member who has had experience in such matters, could offer a suggestion as to what would be the most profitable course for her under the circumstances, I should be greatly obliged.—Yours truly,

G. W. S.

* * The course suggested appears very judicious. Applications might be made to the matrons of Guy's, the London, St. Bartholomew's, or St. Mary's Hospital, stating the circumstances of the case. Practical instruction in midwifery can be obtained at, amongst other places, the British Lying-in Hospital, Endell Street W.C. (Matron, Miss Freeman), and the General Lying-in Hospital, York Road, Lambeth, S.E. (Matron, Miss Atkinson); a probationer passes through a regular course at the Lying-in Hospital.

SHAM DOCTORS.

SIR,—If a copy of the *Medical Register*, or *Medical Directory* were kept at each of our police-offices, it would be a check upon the vagabonds who call themselves medical men, and are assumed by the public to be so, because their statements are not tested and exposed.

In the *Times* of August 24th a man, brought up for the abduction of a girl, was said to "keep a doctor's shop" in Fetter Lane. Another fellow, who was fined forty shillings for cheating a railway-company with a false ticket, was "described as a physician." Surely books of reference ought to be kept at all police-courts—the *Post Office Directory*, the *Clergy List*, the *Law List*, and the books I have named, so that the magistrate might be able at once to detect and expose fraudulent addresses.—Your obedient servant,

CHRONIC DIARRHŒA: ERRATUM.

THE formula recommended by Mr. Vose Solomon (*BRITISH MEDICAL JOURNAL*, August 22nd, page 344) was incorrectly given, one ingredient (liquor strychnia) being omitted. It should run as follows: R Acid nitric dil. ʒss; liquoris opii sedativi (Battley) ʒi; liquoris strychnia ʒxvi; tinctura gentiane co. ʒss; infusi gentiane co. ʒivss; aquam menthae piperite fort., ad ʒviij. M.

MANGANESE DIOXIDE FOR CHLOROSIS.

SIR,—In reply to "Anxious," I beg to say that the black oxide of manganese, or manganese dioxide (MnO₂) is a heavy black powder, which dissolves almost entirely in hydrochloric acid with evolution of chlorine, and gives off oxygen when heated to redness. The commercial salt is not used in medicine, but an oxide purified by precipitation, which consists principally of hydrated manganic oxide, a bulky black powder, free from grittiness and entirely soluble in cold hydrochloric acid. This may be given in doses of from three to ten grains or more, in pills with syrup. The preparations of manganese are somewhat irritant to the gastro-intestinal mucous membrane, and the sulphate is emetico-cathartic in full doses. In small doses, the manganic salts promote the appetite and digestive functions. Manganese and iron are found together in the blood, hair, bile, biliary concretions, and renal calculi. The proportion of manganese to iron in the red blood-corpuscles is as one to twenty. Being an essential constituent of the blood, it undoubtedly has to do with the constructive metamorphosis of the body. Used in large doses and for a considerable period, it produces effects analogous to those of zinc—progressive wasting and feebleness, a staggering gait, and paraplegia. According to Laschewitsch, in toxic doses it causes in animals death by convulsions. In smaller doses, it lowers blood-pressure and the action of the heart, and diminishes the pulse-rate.

Like arsenic and phosphorus, manganese produces acute fatty degeneration of the liver and principal organs. Injected into the veins of animals, it causes tetanic cramp, dilatation of the pupil, exophthalmos, and death. After death, the heart does not respond to electrical stimulation (Laschewitsch). The salts of lead, silver, and mercury, and the caustic alkalis, are chemically incompatible with manganese. Iron is synergistic as regards hæmatinic effects, and the salts of silver, copper, and zinc, as regards effects on the nervous system. As regards its use in chlorosis, it has not hitherto been found of much use alone; but there is no doubt that its combination with iron much increases the efficacy of the latter, just as arsenic does. I fancy that if some of the various preparations of iron alone, or combined with quinine, arsenic, and nuxvomica, with proper attention to hygiene, and oils or fats if indicated, do not cure chlorosis, manganese will be very likely to fail also. "Anxious" does not give any details of his case; perhaps there is something keeping up the chlorotic condition—menorrhagia, other womb-disease, syphilis, struma, tubercle, lead-poisoning, malarial cachexia, Bright's disease—or perhaps it is fecal anæmia, from constipation. In any of the above cases, it is of very little use to merely give iron or other hæmatics. The cause must be first attended to, when the secondary anæmia becomes quite tractable.

Catamenial anæmia seems often to be secondary to amenorrhœa or other form of disordered menses, on account of the want of excretion; the blood not being properly depurated, just as in fecal anæmia. In such cases, purgatives, potash, or other eliminatives must precede or accompany the hæmatics, or the latter will be without effect. Or, perhaps, the case is one where the aorta and vessels are congenitally small, as described by Virchow, when of course all remedies are likely to fail.—Yours truly,

JOHN STRAHAN, M.D.

Belfast.

THE REGISTRATION OF DEATHS.

IN consequence of a complaint made by the City Coroner, the Registrar-General recently issued a circular to coroners and registrars of births and deaths of England and Wales, pointing out certain regulations which he deemed it expedient to make to insure that all deaths which should be brought under the notice of the coroner should be duly reported to him. After referring to the Births and Deaths Registration Act of 1874, the circular goes on to say:—"The experience of the past ten years suggests the advisability of an alteration being made as regards the manner in which registrars of births and deaths perform their duties. It seems desirable that some greater precaution should be taken to insure that all deaths which should be reported to the coroner are duly brought under his notice. Registrars are therefore instructed, before registering any death of either of the following descriptions, to report such deaths to the coroner, namely:—

1. All deaths occasioned directly or indirectly by violence.
2. All deaths occurring under suspicious circumstances.
3. All deaths the cause of which is stated to be unknown.
4. All deaths which are stated to be sudden, and respecting which no medical certificate is produced.
5. All deaths of infants in houses registered under the Infant Life Protection Act, 1872.

And in order that every such death may be more certainly reported to the coroner before the body is buried, and that such report may be more correct and precise than hitherto, printed forms are now supplied to registrars upon which to make such report. If the coroner considers an inquest unnecessary, he will sign an intimation to that effect and return the form to the registrar, so that the death may be registered without delay.

HEMOPTYSIS DURING THE NIGHT.

SIR,—With regard to the frequency of hæmoptysis during the night, my own experience does not bear out that of the writer on the above subject in the *BRITISH MEDICAL JOURNAL*, August 22nd, p. 373. Of five cases that occurred in my practice last year, I have noted that three were before 11 P.M., and not one of these was in bed when I was called. With regard to the other two, I cannot find from my notes the hour of day when the hæmoptysis occurred, but only the fact that I was not called to either of them in the night.

If it be true that hæmoptysis is more common in the night than in the day, it may be because the cough, nearly always a prominent symptom in this disease, is apt to be more violent during the night than in the day time. Most pulmonary diseases, also, whether acute or chronic, tend to be aggravated during the night-time.—I am, yours obediently,

MAJOR GREENWOOD, JUNR.

CREMATION SOCIETY.

MR. J. D. MORTIMER.—The Honorary Secretary of this Society is Mr. W. Eassie, 11, Argyll Place, W., to whom all communications for the Society should be addressed.

CUCAINE IN OBSTETRICS.

SIR,—I have been able to mitigate considerably the pain attending the dilatation of the os in primiparae, by freely painting the os uteri with a 12 per cent. solution of cucaïne. I have thus used this drug four times in four successive cases, which happened all to be primiparae; but I shall henceforth use it in all cases. I paint it on liberally through a speculum.—Your obedient servant,

Shanklin, I.W.

GEORGE H. A. DABBS, M.D.

PHARMACY IN AUSTRALIA.

MEDICUS inquires whether drugs are to be obtained at Melbourne, Adelaide, Sidney, and Brisbane of good quality; and if so, how much more they cost there than in England.

NAPIER AS A HEALTH-RESORT.

SIR,—Dr. Leslie Allen's interesting article upon the above, in the BRITISH MEDICAL JOURNAL of August 22nd, brings to the notice of the profession a climate worthy of attention. A careful perusal of the article discloses several important natural qualifications in the district, not to be found in every part of the islands: a fine climate, dry air, sandy soil, level sandy beach, with hills rising from it to 200 or 300 feet, and inland, a fine alluvial country lying to the south.

Consumptives in the early stage, who are the most likely people to be sent from England to New Zealand, for the benefit of the voyage, and in order to avoid the English winter, will be weary after a time, especially if travelling alone, of town life; and it is desirable in many cases that they should, if possible, live upon a sheep-run, where they may enjoy a home-life, be able to share in healthy pursuits, interesting occupations, and have horse-exercise. The conclusions to which I came, from travelling in New Zealand some years ago, with an invalid relative, including some weeks spent in Hawkes Bay Province and in Napier, were, that consumptive patients from England, travelling to New Zealand *via* Melbourne, would do well to cross to New Zealand at the end of November or early in December.

Stoppages might be made *en route* to Napier; and, on arrival at the latter place, they should reside facing the sea, at the north part of the town, and remain there till the end of May. The cooler weather would then allow a tour to Auckland, and on to Sydney or Brisbane. Returning at the end of the winter to Napier, patients might either continue to reside there, or, if practicable, go on to a sheep-run, and never travel south of Napier or Nelson. The curative advantages of the climate may be very greatly enhanced by a little healthy occupation. Dr. Bennet, I believe, gave great attention to flowers, and so employed his time on the Mediterranean coast, when his health compelled him to live there. If a home-life can be procured for a consumptive traveller, he will not feel his isolation and loneliness so much, and of course it is most important that he should be free from any anxiety. As a medical man, he will do well not to embark in any extensive practice at first.

I believe that at Napier living is tolerably cheap, and residence at a boarding-house can be procured for the sum of thirty shillings weekly. A great objection, however, to New Zealand is the distance from England.—I am, sir, yours truly,

PER MARE PER TERRAS.

HOME FOR A PARALYTIC.

DR. STRETCH DOWSE refers Mr. Stewart to a small sanatorium at Jevington Tolegate, Sussex, where, he has no doubt, the patient would be received, and well cared for. He thinks it unfortunate that no recognised home exists for the paralysed and epileptic beyond the pauper class, but that it is a question which before long must be brought to the notice of a philanthropic public.

S. E.—We would recommend either "A B C, M.B.," or "Mr. A B C, M.B."

PORTABLE OR POCKET FILTERS.

MR. DE VERE HUNT writes to recommend Maignen's Filtre Rapide (32, St. Mary-at-Hill, Eastcheap, E.C.), as it is quick, capable of being taken to pieces and easily cleaned, and the result satisfactory. He states that Maignen's pocket filters were largely used in the Nile and Soudan expeditions, and were highly approved of by Lord Wolseley and his staff. There are several in use at the "Inventions" at present, made in various sizes, and of moderate cost. He understands that those used in the Abyssinian campaign were of compressed charcoal.

INCOME-TAX ASSESSMENT.

MEMBER.—Income-tax on professional incomes is payable on the average income of the last three years. The Commissioners are not justified in making a prospective assessment. If the surveyor has claimed on a larger income than you return, you must appeal to the Commissioners, and satisfy them that the amount claimed is excessive. This will, no doubt, be troublesome, but you cannot refuse to pay unless you get the amount reduced.

DIARRHŒA AND FEEDING-BOTTLES.

SIR,—In the JOURNAL of August 22nd, attention is most properly called to the frequent close connection between infantile diarrhœa and feeding-bottles.

I regret that no allusion was made to that objectionable appendage of most modern bottles, the flexible rubber tube. The old boat-shaped bottle is free from this, but it is difficult to clean mechanically, and I do not consider any other mode of cleaning efficacious, since oil of vitriol, though undoubtedly effective, is too dangerous for ordinary use.

I would recommend anyone interested in the subject to go into the nearest nursery and cut open the tube of the "Alexandra," or similar bottle, and smell it. He would then, I think, do as I have done, banish such elegant contrivances in favour of the older form.—Yours faithfully,

G. B. LONGSTAFF.

MILITARY TITLES FOR ARMY MEDICAL OFFICERS.

SIR,—In a leading article, which appeared in the BRITISH MEDICAL JOURNAL of August 22nd, there is an allusion to a remark (by no means flattering to medical men) made by the late Lord Lawrence, when Viceroy of India, on the submission to him of a medical officer's name for the distinction of the Star of India.

Will you allow me to state, for the information of your readers generally, that when I served in India at that time, there was a current report, and one believed to be true, that Lord Lawrence's life was, on one occasion, saved, during a serious illness, through the care, skill, and devotion of a medical man, who was afterwards made his private secretary; further, that on Lord Lawrence assuming the post of Governor-General, it was a request of the members of his family that his particular medical man should be a member of his staff.

It is possibly some old retired Indian medical officer could verify or contradict the report.—Yours, etc.,

AN ARMY SURGEON.

* It is quite true that, during a considerable part of the Viceroyalty of Lord Lawrence a medical officer was his private secretary, but this fact does not militate against the truth of the statement made in our editorial to which our correspondent refers.

CHRONIC URTICARIA.

SUBSCRIBER asks for hints as to the treatment of chronic and inveterate urticaria. The patient, a married lady, has suffered severely for many years, and no treatment adopted has hitherto been of much benefit.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. T. Simpson, Lincoln; Dr. D. C. McVail, Glasgow; Mr. J. W. Morden, London; Mr. T. Wilson Bootle, London; Messrs. Down Brothers, London; Mr. G. Richardson, Fulham; Dr. H. B. Bailey, Grantham; Dr. G. B. Longstaff, Morthoe; Messrs. F. Darton and Co., London; Messrs. Arnold and Sons, London; Mr. E. Corcoran, Plymouth; Mr. J. Savage, Bridgend; Mr. J. E. Prouse, Wroughton; Dr. Styrup, Shrewsbury; Dr. J. Crichton Browne, London; Mr. W. H. Withington, Manchester; Dr. Thompson, Ulverston; Mr. W. F. Somerville, Glasgow; Mr. J. B. Hamilton, Dublin; Dr. W. White, Hadfield; Mr. H. C. Wilkin, London; Mr. J. F. Blennerhasset, London; Dr. Maxwell, Woolwich; Mr. W. E. Good, Dorchester; Dr. H. H. McNaul, Dartford; Dr. A. Harris-Bickford, Camberne; Mr. J. Brindley James, London; Dr. Rabagliati, Bradford; Dr. W. A. Duncan, London; Mr. W. Curtis, Chatham; Mr. J. J. Lamprey, London; Mrs. Peacecke, Scarborough; Mr. W. F. Phillips, Andover; Mr. H. Smith, London; Mr. H. E. Richardson, Birkenhead; Dr. Moffat, Oldham; Dr. B. Fenwick, London; Mr. D. Davies, Bristol; Dr. D. Noel Paton, Edinburgh; Our Aberdeen Correspondent; Our Paris Correspondent; Our Edinburgh Correspondent; Mr. Cresswell Baber, Brighton; W. W.; Mr. James Barr, Liverpool; Our Valencia Correspondent; Mr. A. J. H. Crespi, Wimborne; Messrs. Ferris and Co., Bristol; Mr. F. Skerrett, Gort; Philologist; Mr. R. H. A. Hunter, London; Mr. De Vere Hunt, Bolton; Mr. Keetley, London; Dr. Hine, Londonderry; Mr. E. Cotterell, Bicester; Dr. J. A. Lindsay, Belfast; Dr. W. J. Tyson, Folkestone; Dr. Joseph Rogers, London; Messrs. Brand and Co., London; Dr. Bourneville, Paris; Dr. B. O'Connor, London; Messrs. Widenman, Broicher, and Co., London; Mr. I. H. Jones, Bury; Mr. D. E. Finna, London; Dr. B. Annington, Cambridge; The Brounhead Tester Company, London; Mr. R. T. A. O'Callaghan, Carlisle; Mr. R. Daere Fox, Manchester; Mr. R. H. Noott, Parkhurst; Mr. H. Greenway, Plymouth; Mr. James Dixon, Dorking; The Reverend A. W. Drew, London; Mr. J. W. Stride, Brighton; Mr. W. J. Tivy, Clifton; Dr. C. Bevis, Pinetown, Natal; Mr. T. E. Cahill, Callan; Dr. W. Ewart, London; Our Dublin Correspondent; Dr. John Tatham, Salford; Dr. Spooner, London; Mr. Thomas Twyford, Hanley; Mr. J. E. Edwards, Chester; Dr. D. Lloyd Roberts, Manchester; Mr. R. A. Morrish, Liverpool; Mr. Jeffreys, Chesterfield; The Medical Secretary of St. Thomas's Hospital; Messrs. J. H. Peck and Co., Wigan; The Eolus Waterspray and General Ventilating Company; Mr. J. N. Constable, Sandwich; Dr. Angus Fraser, Aberdeen; Mr. H. W. G. Macleod, Edinburgh; Mr. A. Thomson Shaw, Edinburgh; Dr. Edward Malins, Birmingham; Mr. E. A. McGowan, Oldham; Mr. Mark H. Judge, London; Mr. T. F. Tannahill, Rochester; Mr. Henry Power, London; Mr. A. W. Mayo Robson, Leeds; Mr. Charles Richardson, Leeds; Miss H. Daniel, Denton, Manchester; Mr. George Terry, Wells, etc.

BOOKS, ETC., RECEIVED.

Bad Drains and How to Test Them. By R. Harris Reeves. London: E. and F. N. Spon. 1885.
Questions on Magnetism and Electricity. By F. W. Levander, F.R.A.S. Second Edition. London: H. K. Lewis. 1885.
Inebriism; A Pathological and Psychological Study. By T. L. Wright, M.D.
Veterinary Pharmacology and Therapeutics. By J. B. Gresswell, M.R.C.V.S. London: H. K. Lewis. 1885.
Notes on Medical Experiences in India, Principally with Reference to Diseases of the Eye. By Surgeon-Major S. E. Maunsell, M.S. London: H. K. Lewis. 1885.

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Post-Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

REGULATIONS

OF

THE GENERAL MEDICAL COUNCIL AND
MEDICAL LICENSING BODIES.

SESSION 1885-86.

REGULATIONS OF THE GENERAL MEDICAL COUNCIL
REGARDING REGISTRATION OF MEDICAL STUDENTS.

PRELIMINARY EXAMINATION.—1. No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided.—2. The Executive Committee is to prepare and issue from time to time a list of examining bodies whose examinations fulfil the conditions of the Medical Council as regards general education.—3. Testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list.—4. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.)—5. The following is a list of examining bodies whose examinations fulfil the conditions of the Medical Council: I. *Universities in the United Kingdom.* Oxford: Responsions; Moderations. Cambridge: Previous Examination; Higher Local Examinations. Durham: Examinations for Certificate of Proficiency; Examination for Students at the end of the first year. Oxford, Cambridge, and Durham: Examination for Degrees in Arts; Oxford and Cambridge: Senior Local Examinations, Certificates to include Latin and Mathematics; Junior Local Examinations, Certificate to include Latin and Mathematics; and also one of the following optional subjects: Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—Oxford and Cambridge Schools' Examination Board: Certificate to include Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, including the first two books of Euclid; Latin, including Translation and Grammar; and one of the following optional subjects: Greek, French, German, and the Mechanical Division of Natural Philosophy.—London: Matriculation Examination; Preliminary Scientific (M.B.) Examination; Examination for a Degree in Arts or Science.—Victoria: Preliminary Examination, Latin to be one of the subjects; Entrance Examination in Arts to include all the subjects required.—Aberdeen, Edinburgh, Glasgow, and St. Andrew's: Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery; Local Examinations (Junior and Senior); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects: Greek, French, German, Natural Philosophy; Preliminary Examination for Graduation in Medicine or Surgery.—Edinburgh: Preliminary Examination for Graduation in Science.—Dublin: Entrance Examination; General Examination at end of Senior Freshman's Year; Examination for a Degree in Arts.—Queen's University (Ireland): Local Examinations, Certificates to include all the subjects required by the General Medical Council; Entrance or Matriculation Examination; Previous Examination for B.A. Degree; Examination for a Degree in Arts.—Royal University of Ireland: Matriculation Examination. II. *Other Bodies named in Schedule (A) to the Medical Act.*—Society of Apothecaries in London: Examination in Arts.—Royal Colleges of Physicians and Surgeons of Edinburgh: Preliminary (combined) Examination in General Education.—Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Education.—Royal College of Surgeons in Ireland: Preliminary Examination; Certificate to include Mathematics.—III. *Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act.*—College of Preceptors: Examination for a First-Class Certificate, or Second-Class Certificate of First or Second Divisions, Algebra, Geometry, Latin, and a Modern Language having been chosen.—Intermediate Education Board of Ireland: Junior, Middle, and Senior Grades; the Certificate to include all the subjects required.—Queen's Colleges of Belfast, Cork, and Galway: Matriculation Examination.—St. David's College, Lampeter: Responsions Examinations, to include all the subjects required.—Educational Institute of Scotland: Preliminary Medical Examination.

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—IV. *Indian, Colonial, and Foreign Universities and Colleges.*—Universities of Calcutta, Madras, and Bombay: Entrance Examination; Certificate to include Latin.—Ceylon Medical College: Preliminary Examination (Primary Class).—Universities of McGill College, Montreal; Bishop's College, Montreal; Toronto: Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton, New Brunswick; Halifax, Nova Scotia; Melbourne; Sydney; Adelaide: Matriculation Examination.—University of Manitoba: Previous Examination.—University of Adelaide: Matriculation Examination; Primary Examination.—University of King's College, Nova Scotia: Matriculation Examination; Responsions.—University of Otago: Preliminary Examination.—University of Cape of Good Hope: Matriculation Examination; Examination for a Degree in Arts.—University of New Zealand: Entrance Examination.—Codrington College, Barbadoes: English Certificate for Students of two years' standing, and Latin Certificate or "Testamur."—Tasmanian Council of Education: Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.—Christ's College, Canterbury, New Zealand: Voluntary Examinations, Certificates to include all the subjects required.—Dalhousie College and University, Halifax: Matriculation and Sessional Examinations.—University of California: Examination in Department of Letters.—Germany and other Continental Countries: Gymnasial Abiturienten Examen in Germany, and other corresponding entrance examinations to the Universities.—Gymnasium of the Circuit of Dorpat: Examinations of Maturity.—6. No person will be allowed to be registered as a Medical Student unless he shall have previously passed (at one or more examinations) a Preliminary Examination in: 1. English Language, including Grammar and Composition; 2. Latin, including Grammar, Translation from specified authors, and Translation of easy passages not Latin from such authors; 3. Elements of Mathematics, comprising (a) Arithmetic—including Vulgar and Decimal Fractions (b) Algebra—including Simple Equations; (c) Geometry—including the first book of Euclid, with easy questions on the subject matter of the same; 4. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics; 5. One of the following optional subjects: (a) Greek; (b) French; (c) German; (d) Italian; (e) any other modern language; (f) Logic; (g) Botany; (h) Zoology; (i) Elementary Chemistry.¹

REGISTRATION OF MEDICAL STUDENTS.—7. Every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council.—8. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council,² and has produced evidence that he has commenced medical study.—9. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.—10. The registration of medical students shall be placed under the charge of the Branch Registrars.—11. Each of the Branch Registrars shall keep a register of medical students, according to a form indicating the name; the preliminary examination, with date thereof; the date of registration, and the place and date of commencement of medical study, as certified by a master, or a teacher, or an official in a medical school or hospital.—12. Every person desirous of being registered as a medical student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to a form which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and evidence that he has commenced medical study.³—13. The Branch Registrar shall enter

¹ The examination in General Education conducted by Universities will be accepted as heretofore; but if, in any of these examinations, the subject of Elementary Mechanics be not included, a knowledge of that subject will be required at a subsequent Examination.

² Exception may be made in the case of a Student from any Indian, Colonial, or Foreign University or College, who shall have passed the Matriculation or other equivalent Examination of his University or College, provided such examination fairly represents a standard of general education equivalent to that required in this country.

³ Form of Application for Registration as a Medical Student.—I hereby apply to be registered a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length): Surname; Christian name; Preliminary examination, with date thereof; Place and date of commencement of medical study; Applicant's signature; Address; and Date of application.]

Certificate of Commencement of Medical Study.—I hereby certify that Mr. — has commenced the study of medicine in (insert name of School, or Hospital, or place of apprenticeship, as the case may be); Signature of Master, Teacher, or Official

the applicant's name and other particulars in the *Students' Register*, and shall give him a certificate of such registration.—14. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of medical students.—15. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory.—16. A copy of the *Medical Students' Register*, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st of December in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to each of the several medical schools and hospitals.—17. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the *Medical Students' Register* at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.

RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL ON PROFESSIONAL EDUCATION AND EXAMINATION.

AGE FOR LICENCE TO PRACTISE, ETC.—1. The age of twenty-one should be the earliest age at which a candidate should obtain a licence to practise, and the age should, in all instances, be certified. 2. The course of medical study after registration should occupy at least five years, if the subjects of Elementary Physics, Chemistry, and Biology are included in that period, or at least four years if a satisfactory examination in these subjects has been passed previous to registration.¹

PROFESSIONAL EDUCATION.—3. At least four winter and three summer sessions should be passed at a school or schools recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act. 4. The following are the subjects without a sufficient knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: (1) Chemistry, including the principles of the science, and the details which bear on the study of Medicine, and the rudiments of Heat, Light, and Electricity; (2) Anatomy; (3) Physiology; (4) *Materia Medica* and Pharmacy; (5) Pathology; (6) Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; (7) Surgery, including Surgical Anatomy and Clinical Surgery; (8) Midwifery, including Diseases peculiar to Women and to Newly Born Children; (9) Theory and Practice of Vaccination; (10) Forensic Medicine; (11) Hygiene; (12) Mental Disease.⁵

PROFESSIONAL EXAMINATION.—5. The Professional Examinations should be so framed as to secure that the knowledge of every practitioner whose name appears in the *Medical Register* has been tested in all the subjects of professional education which the Council deems essential (see Recommendation No. 4).⁶ 6. There should be at least three Professional Examinations. 7. The Examinations, and the subjects included in each, should be such, and in such order, as may ensure, as far as possible, a due continuity and sequence of study.

in a Medical School or Hospital; Place and date. To the Registrar of the Branch Council for —.

N.B.—The word "Master" or "Teacher" will be held to include any registered practitioner whose pupil the applicant may be at the time. The certificate of examination must testify that the student has been examined in the subjects required by the General Medical Council.

The above form of Application, duly and legibly filled up, and accompanied by a certificate of the applicant's having passed a preliminary examination, as required by the General Medical Council, must be forwarded post paid to the Registrar of one of the Branch Councils.

⁴ Exception may be allowed in the case of any graduate in medicine of an Indian, colonial, or foreign university, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university, the several licensing bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard to such exceptional cases.

⁵ It is to be understood, as regards the above-mentioned subjects, that the Council offers no opinion as to the manner in which the subjects should be combined or distributed for purposes of teaching.

⁶ It is to be understood, as regards these subjects, that the Council offers no opinion as to the manner in which the subjects should be combined or distributed for purposes of examination.

8. The Final Examination should not take place till the termination of the full period of medical study. 9. The Professional Examinations should be conducted both in writing and orally; and they should be practical in all branches in which they admit of being so. 10. Two Examiners at least should take part in every oral and clinical examination. 11. A candidate should not be rejected on any written examination unless his answers have been submitted to at least two Examiners. 12. Excellence in one or more subjects should not be allowed to compensate for failure in other subjects. 13. The Professional Examinations should be held by the several licensing bodies at stated periods, to be publicly notified. 14. In no case should the Examination of a candidate in any subject be conducted exclusively by his teachers in that subject in the school in which he has been educated. 15. Every candidate for the Final Professional Examination should be required to give evidence that he has had sufficient opportunities of practical study, with care of patients, medical, surgical, and obstetrical, in hospital, dispensary, or elsewhere.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DOUBLE QUALIFICATION.

THE regulations for the Conjoint Examination, entitling the candidate who passes it, to obtain both the Licence of the Royal College of Physicians of London, and the Diploma of Member of the Royal College of Surgeons of England, are applicable to candidates commencing professional study on or after October 1st, 1885. For a synopsis of the regulations, see pages 478 and 479.

Professional Studies commenced before Registration, except in the cases of Chemistry and Chemical Physics, *Materia Medica*, Botany, and Pharmacy, will not be recognised, at which not less than three winter sessions and two summer sessions shall have been passed at one or more of the Medical Schools recognised by the two Colleges. One winter session and two summer sessions may be passed in one or more of the ways as recognised in the regulations for the Licence of the Royal College of Physicians.

The instruction in Pharmacy must be given by a registered Medical Practitioner, or by a Member of the Pharmaceutical Society of Great Britain, or in a Public Hospital, Infirmary, or Dispensary.

The systematic practical instruction in Medicine, Surgery, and Midwifery, includes: 1, The applications of anatomical knowledge to the investigation of disease; 2, the methods of examining various organs and other parts of body, in order to detect the evidence of disease or the effects of accidents; 3, the employment of instruments and apparatus used in diagnosis or treatment; 4, the examination of diseased strictures, whether recent or in a museum; 5, the clinical examination of morbid products; 5, the performance of operations on the dead body; 7, *post mortem* examinations.

No Metropolitan Hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of Clinical instruction in the wards of a lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

The Clinical Lectures must be attended after the Candidate has passed the second examination.

The duties of Clinical Clerk and Surgical Dresser may be discharged at a general hospital, infirmary, or dispensary, or parochial or union infirmary, recognised for this purpose, or in such other similar manner as shall afford sufficient opportunity for the acquirement of practical knowledge.

Exemption from any of the regulations can only be granted by the Committee of Management.

Professional Examination.—The Examinations will be partly written, partly oral, and partly practical, and will be held in January, April, July, and October, unless otherwise appointed. Every candidate intending to present himself for examination must give notice in writing to the Registrar of the Royal College of Physicians, or to the Secretary of the Royal College of Surgeons, fourteen clear days before the day on which the Examination commences, transmitting at the same time the required Certificates. All fees must be paid three days prior to the day on which the Examination commences.

Synopses indicating the range of subjects in the Examinations in Chemistry and Chemical Physics, *Materia Medica*, Medical Botany, Pharmacy, Elementary Anatomy, and Physiology, may be obtained together with the Regulations.

A candidate will be admitted to the Examination on Chemistry and Chemical Physics, *Materia Medica*, Medical Botany, and Pharmacy, on producing evidence of having been registered as a Medical Student by the General Medical Council, and of having received instruction in

each of these subjects: but he will not be admitted to the Examination on Elementary Anatomy, and Elementary Physiology, earlier than the end of his first winter session at a Medical School.

A candidate will be admitted to the Second Examination after not less than six months from the date of passing the First Examination, on producing evidence of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised Medical School or Schools, and of having during twelve months, dissected and attended lectures in Anatomy and Physiology.

A candidate will be admitted to the Third or Final Examination on producing evidence: 1, of being twenty-one years of age; 2, of having passed the Second Examination; 3, of instruction in the remaining subjects mentioned in the Table.

The colleges do not admit to either part of the Third Examination any candidate (not exempted from registration) whose name has not been entered in the *Medical Students' Register* at least forty-five months, nor till the expiration of two years after his having passed the Second Examination. Students are recommended to pass these two years in acquiring practical knowledge in a recognised hospital.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

ALL persons who have been admitted before February 16th, 1859, Licentiates of the College, shall be entitled to be admitted Members of the College, provided that they have, since their admission as Licentiates, obeyed the By-laws, and accept such membership, and engage henceforth to obey the By-laws and Regulations of the College.

Any Extra-Licentiate who shall have produced testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall engage henceforth to obey the By-laws and Regulations, may be proposed to the College to be admitted a member of the College. The fee for admission is £5 5s.

Every candidate for the membership of the College must furnish proof that he has attained the age of twenty-five years, and must produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a member of the College.

No candidate shall be admitted to examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a chemist or any other person for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues; or who refuses to make known, when so required by the President and Censors, the nature and composition of any remedy he uses.

A candidate for the membership is inadmissible to the Professional Examination who is unable to satisfy the Censors' Board of his general culture.

All candidates for the membership shall exhibit to the Censors' Board such diplomas or other evidence of their general education as they may possess, that it may be recorded by the Registrar for future consideration of their claims to the Fellowship of the College.

All candidates for membership under the age of forty shall be required to prove a knowledge of Latin, and of either Greek, French, or German; by examination before the Censors' Board, unless they have obtained a Degree in Arts in a British University.

Any candidate who has already obtained the degree of Doctor or Bachelor of Medicine at an University in the United Kingdom, in India, or a British Colony, or who shall have obtained a Foreign Qualification entitling him to practise Medicine or Surgery in the country where such qualification has been conferred, wherein the Courses of Study and the Examinations to be undergone previously to graduation, shall have been adjudged by the Censors' Board to be satisfactory, shall, if the Censors shall think fit, be admitted to the Pass Examination. The nature and extent of this examination shall, in the case of each candidate, be determined by the Censors' Board.

Pass Examination for Membership.—The Pass Examination shall be conducted as follows:—Thursday: from 2 till 6, by written questions on Medical Anatomy, and on the Principles of Medicine. Friday: from 2 to 6, by written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday: the candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital.

Tuesday and Wednesday: by Examination *viva voce*. This examination will commence on the last Thursday but one in January, April, July, and October.

Any candidate who has attained the age of forty years, and who can produce testimonials as to his moral character and conduct, his general and professional acquirements, and that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a medical practitioner, shall submit such testimonials to the Censors' Board, who may, if they see fit, submit them to the Fellows at a general meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the candidate shall be admitted to examination.

The fee to be paid for examination for membership shall be £6 6s., and such examination fee shall be reckoned as part of the fee for admission as a member, in the event of the candidate satisfying the Censors' Board of his competency.

Every candidate (except those holding the qualifications above mentioned, or above forty years of age) shall produce proof of his having passed the examinations required for the Licence of the College.

If the Censors' Board doubt the sufficiency of the certificates and testimonials produced by any candidate, or his fitness for admission to examination, they may submit the case to a general meeting of the Fellows.

Every candidate (except in cases specially exempted as above) shall give proof of his acquirements by written answers to questions, and shall also be examined *viva voce*.

Every candidate approved by the Censors' Board shall be proposed, at the next general meeting of Fellows, as qualified to become a member of the College; and if the majority of the Fellows present shall consent, he shall, on engaging to obey the By-laws and Regulations, be admitted a member of the College.

The fee to be paid for admission as a member of the College shall be £31 10s., except when the candidate for membership is a Licentiate of the College, in which case the fee for admission as a member will be £15 15s.

Any candidate not approved by the Censors' Board shall not (except by special permission of the College) be readmitted to examination until after the lapse of a year.

Every candidate is required to give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for examination, at the same time transmitting—1. Such diplomas or other evidence of his general education as he may possess; 2. Such Medical and Surgical Qualifications as he may have obtained, unless such qualifications are registered in the *Medical Register*; 3. Proof that he has attained the age of twenty-five years; and 4. A testimonial from a Fellow or Member of the College.

LICENTIATES.

The licence of the College is a qualification to practise Medicine, Surgery, and Midwifery. The regulations here given (for synopsis, see pp. 478 and 479) are applicable to candidates who commenced their professional studies after March 25th, 1880.

Of the forty-five months of professional study, one winter and two summer months may be passed in either of the following ways: 1. Attending the practice of a hospital, infirmary, or other institution, recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner, having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced before registration, except in the cases of Chemistry, Materia Medica, Botany, and Pharmacy, will not be recognised.

Certificates required: First Examination.—Evidence of having been registered as a Medical Student by the General Medical Council; and of having received instruction in Chemistry, including Chemical Physics (*i.e.*, Heat, Light, and Electricity), in Practical Chemistry, in Materia Medica, in Botany, and in Practical Pharmacy.

Second Examination.—Evidence of having completed, after registration as a student, eighteen months of professional study at a recognised school or schools; and of instruction in Anatomy and Physiology. (See Table.)

Third Examination.—Evidence of being twenty-one years of age; of moral character; of having passed the second examination; of having been engaged in professional study not less than forty-five months (see Table); and of instruction in the remaining subjects of study mentioned in the Table.

The systematic practical instruction in Medicine, Surgery, and Obstetric Medicine comprises: 1. The application of anatomical facts

TABULAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES IN LONDON.

	ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.		ROYAL COLLEGE OF PHYSICIANS OF LONDON.		ROYAL COLLEGE OF SURGEONS OF ENGLAND.		APOTHECARIES' SOCIETY.	
	DOUBLE QUALIFICATION.	LICENTIATES.	LICENTIATES.	FELLOWS.	MEMBERS.	LICENTIATES.		
AGE REQUIRED ... EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	Twenty-one. Certificate of Registration as a Student by the General Medical Council.	Twenty-one. Certificate of having passed examination in subjects of General Education recognised by the General Medical Council, and of being registered as a student.	Twenty-five. Certificate of Registration by the General Medical Council.	Twenty-one. Certificate of Registration by the General Medical Council.	Twenty-one. Certificate of Registration by the General Medical Council.	Twenty-one. Certificate of Registration as a Medical Student by the Medical Council, and of examination in Elementary Mechanics, recognised by the Council.		
DURATION OF PROFESSIONAL STUDY	Forty-five months; at least three winters and two summers at a recognised school or schools.	Forty-five months; at least three winters and two summers at a recognised school or schools.	A course of Anatomy; Dissections 12 months.	Six years; or members, two years in addition to the certificate for the diploma of member.	Four years, or not less than four winter and four summer sessions.	Forty-five months; not less than three winter and two summer sessions at a recognised hospital and school of medicine.		
COURSES OF LECTURES, ETC., REQUIRED. <i>Anatomy and Dissections</i>	Lectures, six months; dissections, twelve months.	Lectures, six months; dissections, twelve months.	Physiology & Practical Physiology, each one course.	Lectures during two winters; dissections three winters.	Lectures, two winters; dissections, two winters.	First two winter sessions: Histology, second winter session.		
<i>Physiology</i> ...	Lectures, six months; Practical Physiology, three months	Instruction; time not specified.	One course; demonstrations in <i>post mortem</i> room during clinical study.	Lectures one winter; & Practical Physiology, another session.	Lectures, one winter; Practical Physiology, another session.	First two winter sessions.		
<i>Chemistry</i> ...	Instruction.	One course; demonstrations in <i>post mortem</i> room during clinical study.	One course.	One course.	One course.	First winter session.		
<i>Practical Chemistry</i>	Three months; Demonstrations in <i>post mortem</i> room during clinical study.	One course; demonstrations in <i>post mortem</i> room during clinical study.	One course.	Three months.	Three months.	First summer session.		
<i>Practical Pharmacy</i>	Six months.	One course.	One course.	Not required.	Not required.	Three months.		
<i>Botany</i> ...	Nine months.	One course.	One course.	Lectures, three months; demonstrations, three winter and two summer sessions.	Lectures, three months; demonstrations, three winter and two summer sessions.	First summer session.		
<i>Morbid Anatomy</i> ...	Six months.	One course.	One course.	One winter and one summer session.	One winter and one summer session.	Lectures, third summer session; Demonstrations, with hospital practice.		
<i>Medicine</i>	Six months.	One course.	One course.	One winter session.	One winter session.	Third winter session.		
<i>Clinical Medicine</i>	Nine months.	One course.	One course.	Two winter and two summer sessions. Observation and examination of patients for three months.	Two winter and two summer sessions. Observation and examination of patients, three months.	Second and third summers; third winter.		
<i>Surgery</i> ...	Three months; attendance on twenty labours.	Required.	One course; not less than twenty labours.	One winter session.	One winter session.	Second winter session.		
<i>Clinical Surgery</i> ...	Three months.	One course; not less than twenty labours.	Three months.	Two winter and two summer sessions. Observation and examination of patients for three months.	Two winter and two summer sessions. Observation and examination of patients, three months.	Second winter session.		
<i>Practical Surgery</i>	Three months.	One course.	One course.	Six months.	Six months.	Not required.		
<i>Midwifery and Diseases of Women</i>	Three months.	Medical and surgical practice, three winter and two summer sessions.	One course; not less than twenty labours.	One course; not less than ten labours.	One course; not less than ten labours.	Second summer session; twenty cases of labour.		
<i>Clinical Study of Diseases of Women</i>	Three months.	Medical and surgical practice, three winter and two summer sessions.	One course.	Not stated.	Not stated.	Third summer session.		
<i>Forensic Medicine</i>	Three months.	Medical and surgical practice, three winter and two summer sessions.	One course.	One course.	One course.	Second summer session.		
<i>Hospital Practice</i> ...	Medical Clinical Clerk, six months; Surgical Dresser, six months.	Clinical clerk, six months; dresser, six months.	House-surgeon or dresser, six months.	Surgical practice, four winter and four summer sessions; medical practice, one winter and one summer.	Surgical practice, three winter and two summers; Medical practice, one winter and one summer.	Surgical practice, two winters and one summer; Medical practice, two winters and two summers.		
<i>Hospital Appointments</i>	Medical Clinical Clerk, six months; Surgical Dresser, six months.	Clinical clerk, six months; dresser, six months.	House-surgeon or dresser, six months.	House-surgeon or dresser, six months.	House-surgeon or dresser, six months.	Clinical clerk and surgical clerk or dresser.		
<i>Other Certificates</i> ...	Systematic Practical Instruction in Medicine, Surgery, and Midwifery. Instruction in Vaccination. Attendance on Class Examinations.	Systematic Practical Instruction in Medicine, Surgery, and Obstetric Medicine. Instruction & proficiency in Vaccination. Moral character.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course. Operations on Dead Body.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course. Operations on Dead Body.	Instruction and proficiency in Vaccination. Examinations in Elementary Anatomy and Physiology at medical school.	Having been examined at class examinations. Instruction in Vaccination. Moral conduct.		

[illegible]

to the investigation of disease; 2. The methods of examining various organs in order to detect the evidence of disease or the effects of accidents; 3. The employment of instruments used in diagnosis and treatment; 4. The examination of normal and diseased structure, whether recent or in a museum; 5. The chemical examination of morbid products; 6. Operations on the dead body; 7. *Post mortem* examinations.

No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of clinical instruction in the wards of a recognised Lunatic Hospital or Asylum may be substituted for the same period in the medical wards of a General Hospital.

Exemptions.—Any candidate who shall produce satisfactory evidence of having passed an examination in any of the subjects of the first examination, or an examination in Anatomy and Physiology as required for a degree in medicine or surgery, at an university in the United Kingdom, in India, or in a British Colony; or an examination in Anatomy and Physiology conducted by either of the Royal Colleges of Surgeons in the United Kingdom, or by the Faculty of Physicians and Surgeons of Glasgow, will be exempt from re-examination in the respective subjects. Any candidate who shall have obtained a Degree in Surgery at an University in the United Kingdom, or who shall have passed the Examination in Surgery conducted by a Royal College of Surgeons of the United Kingdom, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery. Any candidate who shall have obtained a Foreign Qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

The examinations will commence in January, April, July, and October, unless otherwise appointed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

For synopsis of Regulations, see pages 478 and 479.

i. Preliminary General Education and Examination.—Candidates are required, before the commencement of their professional education, to Pass a Preliminary Examination recognised by the General Medical Council, and to obtain a certificate of having been registered by the General Medical Council. In the case of any Colonial, Indian, or Foreign student, not registered by the General Medical Council, the conditions of admission to the professional examination for the diploma will be determined by the Council of the College.

ii. Professional Education.—The following are recognised modes of commencing professional education. 1. Attendance on the practice of a Hospital or other public institution recognised by this College.

2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lectures recognised by this College.

a. By the Practical Course of General Anatomy and Physiology, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

b. The certificates of attendance on Lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

c. The Course of Practical Surgery is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to Surgery, on the living person or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases or accidents on the living person or on the dead body; the performance, where practicable, of the operations of Surgery on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise.

d. The course of lectures on Chemistry is not required in the case of

a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

e. The certificate of instruction in Vaccination must be such as will qualify its holder to contract as a Public Vaccinator under the Regulations at the time in force of the Local Government Board.

iii. Certificates, etc.—Certificates of attendance upon the practice of a recognised Provincial or Colonial Hospital, unconnected with, or not in immediate proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, but a Certificate of having acted as Dresser for at least six months will be required.

iv. Professional Examinations.—The First or Primary Examination is partly written and partly demonstrative. The Second or Pass Examination is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. A candidate, having entered his name for either the Primary or the Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards.

Primary Examination.—Candidates who commenced their professional studies on or after the 1st of October, 1882, and have pursued those studies in recognised Medical Schools in England, are required, before presenting themselves for the Primary or Anatomical and Physiological Examination for the Diploma of Member, to produce certificates of having passed an examination in Elementary Anatomy and Physiology, conducted by their teachers at the Medical Schools.

1. The periods at which the examinations are held are determined by the teachers at the Medical Schools, provided that an interval of not less than six months elapse between the date at which the candidates have passed the examination, and the date of their presenting themselves for the Primary Examination of the College. 2. The teachers at the Medical Schools determine the nature and extent of the Examination in Elementary Anatomy and Physiology.

Pass Examination.—Candidates who have commenced their professional education on or after October 1st, 1882, are not admitted to the Second or Pass Examination until after the expiration of two years from the date of passing the Primary Examination, except in the following cases. 1. When a candidate, before presenting himself for the Primary Examination, shall possess a recognised Degree or Diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma. 2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary Examination for the Fellowship; it being required in such case that not less than one year's attendance on the Surgical Practice of a recognised Hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Second or Pass Examination for the Diploma of Member. 3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the Primary Examination at the end of his second winter session of attendance at a recognised Medical School; provided that in his case not less than one year shall elapse between the date of his passing the Primary Examination and the date of his presenting himself for the Second or Pass Examination for the Diploma of Member. 4. When a candidate, owing to illness, duly certified by one or more of the teachers of his Medical School, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study. 5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study, it being left to the Court of Examination to determine whether, in such case, the candidate shall or shall not be required to comply with the regulation.

Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions; viz.:

1. The production by the candidate of a Degree, Diploma, or Licence in Medicine and Midwifery, entitling him to register under the Medical Act of 1858; or a Degree, Diploma, or Licence in Medicine and Midwifery of a Colonial or Foreign University approved by the Council of the College.

2. A declaration by the candidate, prior to his admission to the Final Examination for Membership or Fellowship, that it is his intention to obtain either of the Qualifications in Medicine and Mid-

wifery mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical Qualification or proof of having passed the several examinations entitling him to receive the same.

"Referred" Candidates.—A candidate referred on the Primary Examination is not readmitted to examination until after a period of not less than three months, and, if he shall not have obtained more than half of the total minimum number of marks, is not readmitted to examination until after the lapse of six months. A candidate referred on the Pass Examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, subsequently to the date of his reference. A candidate, referred on the Pass Examination, who shall have exhibited such extreme ignorance as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, is required, before his admission to re-examination, to produce a certificate of having attended the Surgical Practice of a recognised Hospital for a further period of nine or twelve months, as the Court shall determine.

The candidates under the special regulations referred to in the Table at page 479 are admitted to examination on producing, (a) the several certificates required for the degrees or diplomas in the respective countries; (b) the diploma, licence, or degree of the College or University; together with, in each case, a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after passing the Preliminary Examination, at least four years, or during four Winter and four Summer Sessions, in the acquirement of professional knowledge.

DIPLOMA OF FELLOW.

For synopsis of Regulations, see pages 478 and 479.

The paragraphs marked a, b, c, d, e, in the Regulations for the Membership are also applicable to the Fellowship.

SOCIETY OF APOTHECARIES, LONDON.

MEDICAL EXAMINATIONS FOR THE LICENCE.

For synopsis of Regulations, see pages 478 and 479.

The Examinations required for the Licence are two, each divided into written, practical, and oral. The Primary is held on the first Wednesday and following day of every month, and may be passed at the end of the second winter session. The Final is divided into two parts. Part I is held on the second and fourth Wednesday and following day of every month, with the exception noted; Part II is held on every Wednesday and Thursday of every month. Both may be passed at the end of the prescribed curriculum.

Candidates intending to offer themselves for examination must give seven days' notice, and deposit, at the same time, all the required certificates, with the fee, at the Office of the Beadle, where attendance is given daily, from 10 to 4, Saturdays excepted.

The Examination in Midwifery includes Obstetric Instruments and their application, Anatomy of the Pelvis, and Diseases of Women and Children, with their Pathology. The written portion of this Examination is held on every Wednesday, and must be passed one week antecedent to Part II; and candidates must appear next day passing for their oral examination in these subjects.

Exemptions.—1. The following are exempt from the written part of the Primary Examination on Anatomy and Physiology: Members of the Royal College of Surgeons of England; Licentiates of the Royal Colleges of Surgeons of Edinburgh or Ireland; and those who have passed the First Examination of the Royal Colleges of Surgeons of England, Edinburgh, or Ireland. 2. The following are exempt from the Primary Examination; those who have passed: the First Examination for M.B. Oxford and Durham; the Intermediate Examination in Medicine, London and Victoria; the First and Second Examinations for M.B. at Cambridge, Edinburgh, Glasgow, Aberdeen, St. Andrew's, Dublin, and the Royal University of Ireland; the First and Second Examinations for L.R.C.P. London; the First Examination for M.R.C.S. England, together with the First Examination for L.R.C.P. London; the First Examination for the Licence of the Royal College of Physicians, Edinburgh; the Royal Colleges of Physicians and Surgeons, Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the King and Queen's College of Physicians in Ireland; the Apothecaries' Hall of Ireland. Those Candidates who have not undergone an Examination in Materia Medica and Pharmacy will also be examined *vis*

voce in these subjects. 3. The following are exempt from the Primary Examination and from the written part of the Final Examination: Graduates in Medicine of British Universities; Licentiates of the Royal Colleges of Physicians of London and Edinburgh, of the Faculty of Physicians and Surgeons of Glasgow, of the King and Queen's College of Physicians in Ireland, and of the Apothecaries' Hall in Ireland. 4. Candidates who have passed in Surgery at one of the Royal Colleges of the United Kingdom, or at a British University, or such other examining body as may be deemed satisfactory to the Court of Examiners, are exempt from the Examination in Surgery. 5. The cases of Graduates of Colonial and Foreign Colleges and Universities will be considered on their respective merits.

Qualified Candidates will be required to produce their Diploma.

No Candidate can be entered for Examination, whether Primary or Final, until all the Certificates are forwarded, and found correct.

Medical and Surgical Scholarships.—Each scholarship is of the annual value of £100, and is tenable for two years on certain conditions. It is open to all students of the medical profession whose standing at the time of the examination is not less than four and not more than five years from the date of their registration, and who possess an English medical qualification.

Prizes.—The Society of Apothecaries annually offer two Prizes for proficiency in the knowledge of the Materia Medica and of Pharmaceutical Chemistry; and two in Botany.

The Prizes consist of a Gold Medal awarded to the candidate who distinguishes himself most in the examination; and of a Silver Medal, and a Book or Books, to the candidate who does so in the next degree. All registered Medical Students, prior to the close of the third year of their medical studies, will be competent to compete for the Society's Prizes.

The examination in Materia Medica will be held at the Hall of the Society on the third Wednesday in August, and that in Botany on the third Tuesday in June, at 10 A.M., and will be conducted by printed papers and *vis* *voce* questions. Gentlemen intending to compete for these Prizes must send a written notice of their intention to the Beadle on or before the 1st day of the month in which the examination is held, with evidence of their being in attendance on their medical studies, and a certificate of their having attended their Lectures and Class Examinations with diligence and regularity.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must (1) reside in the University during the required portion of each of nine terms; (2) pass (or obtain exemption from) the Previous Examination; (3) pursue medical study for five years, unless he have obtained Honours in any Tripos, in which case four years only are required.

There are three examinations for the degree of Bachelor of Medicine. They are partly in writing, partly oral, and partly practical. The examinations take place twice in the year, in the Michaelmas and Easter terms.

The first examination is divided into two parts: 1. Chemistry and other branches of Physics; 2. Elementary Biology. These two parts may be taken together or separately. Before admission to this examination, the candidate must have passed (or obtained exemption from) the Previous Examination. He must also produce certificates of diligent attendance on a course of lectures in Chemistry, and on practical instruction in Chemical Manipulations.

The second examination is divided into two parts, which may be taken together or separately: 1. Human Anatomy and Physiology; 2. Pharmacy and Pharmaceutical Chemistry. Before admission to this examination, the student must have passed both parts of the first examination, must have attended Hospital Practice, and have practised Dissection, during six months, and must produce certificates of diligent attendance on a course of lectures on each of the following subjects: 1. Human Anatomy; 2. Physiology; 3. Pharmacy and Pharmaceutical Chemistry.

The third examination is divided into two parts, called the first part and the second part respectively. Before presenting himself for either part, the student must have passed both parts of the second examination. The first part includes Principles of Surgery, and Midwifery and Diseases peculiar to Women. The second part includes Pathology, Principles and Practice of Physic, Elements of Hygiene, and Medical Jurisprudence. The student, before admission to the first part, must produce certificates of attendance on one course of lectures in each of the following subjects: Pathological Anatomy, Principles of Surgery, Midwifery; he must have attended ten cases of Midwifery,

and have attended the Surgical practice of a recognised hospital (with lectures in Clinical Surgery) during one year at least; and must have obtained a certificate of proficiency in Vaccination from an authorised vaccinator appointed by the Local Government Board. Before admission to the second part, he must produce evidence that he has completed the course of Medical Study and certificates of diligent attendance on one course of lectures in each of the following subjects: Principles and Practice of Physic, Physiological Actions and Therapeutic Uses of Remedies, and Medical Jurisprudence; he must also have attended the Medical Practice of a recognised hospital (with lectures in Clinical Medicine) during three years at least; of having been Clinical Clerk at a recognised hospital for six months at least, or have, subsequently to the completion of his attendance on Hospital Practice, attended to Practical Medicine or Surgery with special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passed, an Act must be kept in the Schools in the following manner. The Regius Professor of Physic assigns the day and hour for keeping the Act, of which public notice has to be given eight days before. The candidate reads a thesis, composed by himself, on some subject approved by the professor; the professor, or a graduate in medicine who is a member of the Senate, brings forward arguments or objections for the candidate to answer, and examines him *visà voce*, as well on questions connected with his thesis as on other subjects in the faculty of a more general nature.

DOCTOR OF MEDICINE.

This degree may be taken by a Bachelor of Medicine in the ninth term after his inauguration (this occurs on the commencement day next following the admission to the degree). He is required to produce certificates of having been engaged five years in medical study, to keep an Act in the same manner as that for M.B., and to write a short extempore essay on some one (at his choice) of four topics relating severally to Physiology, Pathology, Practice of Medicine, and State Medicine.

A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A., without having taken the degree of M.B. He must pass all the examinations for M.B., and keep the Act and write the extempore essay for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice as are required of the candidate for the degree of M.B.

BACHELOR OF SURGERY.

The subjects of examination are—1. Surgical Operations and the Application of Surgical Apparatus; 2. The Examination of Surgical Patients.

A Student is admissible to the examination for this degree at any time after he has passed the First Part of the Third Examination in accordance with the regulations for the degree of Bachelor of Medicine. The examination takes place twice in the year, soon after that for the first part of the third examination for the degree of M.B., and is conducted in a similar manner.

Before admission to the examination, the student must produce certificates: 1. Of having attended the Surgical Practice of a recognised Hospital during two years at least, and of having acted as Dresser or House-Surgeon for six months; 2. Of having diligently attended a course of instruction in Practical Surgery.

Before admission to the degree of Bachelor of Surgery, the candidate must also have passed the second part of the third examination for the degree of M.B.

MASTER IN SURGERY.

The subjects of the examination for this degree are—1. Pathology; 2. Principles and Practice of Surgery; 3. Surgical Anatomy and Surgical Operations; 4. A Surgical Case and a Topic relating to Surgery will be submitted in writing to the candidate, on one or both of which, at his option, he will be required to write a short extempore essay.

The candidate must have completed all that is required for the degree of Bachelor of Surgery two years at least before admission to the examination for the degree of Master in Surgery.

A notice is published early in the Michaelmas and Easter Terms stating when the examinations for Medical and Surgical degrees commence, and the dates when candidates are required to send their names and the necessary certificates to the Secretary of Honours Examinations.

Each candidate pays £3 3s. to the Registry of the University on

giving notice of his intention to offer himself for the first or the second examination for M.B. He pays £2 2s. before the examination for B.S.; and £3 3s. before that for M.S.; on keeping the Act for the degree of M.D. £10 10s.

Schedules defining the range of subjects in the first examination, and of the Pharmacy and Pharmaceutical Chemistry in the second examination, also schedules for the requisite certificates, and a list of the Schools of Medicine and Hospitals recognised by the University, may be obtained, on application to the Secretary of Honours Examinations, or to Mr. English, at the Anatomical Museum.

UNIVERSITY OF LONDON.

The following examinations will be held in the University of London in 1885 and 1886.

Preliminary Scientific Examination: Monday, January 18th, and Monday, July 20th, 1886.

Intermediate Examination in Medicine: Monday, July 27th, 1886.

Bachelor of Medicine (M.B.): Monday, November 3rd, 1885; and Monday, October 26th, 1886.

Bachelor of Surgery (B.S.): Tuesday, December 2nd, 1885; and Tuesday, December 8th, 1886.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, December 1st, 1885; and Monday, December 7th, 1886.

Subjects relating to Public Health: Monday, December 8th, 1885; and Monday, December 14th, 1886.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination. In the case of the Preliminary Scientific Examination, one month's notice is required.

The fee for each examination is Five Pounds.¹ If a candidate withdraw, or fail to pass either of the examinations, the fee is not returned; but he is admitted to a subsequent preliminary scientific, intermediate M.B. or B.S. M.S. or M.D. examination, on payment of an additional fee of Two Pounds Ten Shillings, provided that he gave notice to the Registrar at least fourteen days (or in the case of the Preliminary Scientific Examination, one month) before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required—1. To have passed the Matriculation Examination; 2. To have passed the Preliminary Scientific Examination; 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom; 4. To pass two examinations in Medicine.

Preliminary Scientific Examination.—Candidates for the degree of M.B. are required to pass the Preliminary Scientific Examination before commencing their regular medical studies. The examination in July is for pass and honours: that in January for pass only. Candidates for the Pass Examination may take all the subjects, namely, (1) Inorganic Chemistry; (2) Experimental Physics; and (3) General Biology, at the same examination, or at two separate examinations; that is, two at the first examination and one at the second; or one subject at the first and two at the second examination (Note b). Candidates who enter for the whole examination in July are examined for a pass or for honours in Inorganic Chemistry and Experimental Physics, and for a pass in General Biology. Candidates who have entered for the whole examination may also be examined for honours in Botany and in Zoology. Every candidate, on sending in his name for the examination, must state whether he intends to compete for Honours in any subject or subjects; and, if he does so intend, must specify the subject or subjects. No candidate will be allowed to take both the Pass and the Honours Papers in the same subject;² but every candidate must take the Pass Papers in those subjects in which he does not offer himself for honours. A candidate who enters for, but fails to obtain, honours in Inorganic Chemistry or Experimental Physics may be recommended by the examiners for a Pass in these subjects respectively, if they are satisfied that he has shown such a competent

¹ For the degree of Doctor of Medicine, the fee will continue to be Ten Pounds to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

² This rule does not apply to the Honours Examinations in Botany and Zoology, which do not stand in the same relation to the subjects of the Pass Examination as is the case in the other Branches. Every candidate must take the Pass Examination in General Biology.

knowledge thereof as is required by the regulations for the Pass Examination.³

Intermediate Examination in Medicine.—The candidate must have passed the Preliminary Scientific Examination at least two years previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the following subjects: Descriptive and Surgical Anatomy, Physiology and Histology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine; 3. Of having dissected during two winter sessions; 4. Of having attended a course of Practical Chemistry; 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of Medicines. Candidates are examined in Anatomy, Physiology, and Histology; 5. Materia Medica and Pharmaceutical Chemistry, Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *vis à voce* interrogations, by demonstration from preparations and specimens, and by dissections.

Examinations for Honours.—Any candidate who has passed the examination in all its subjects at one time may be examined for Honours in—1. Anatomy; 2. Materia Medica and Pharmaceutical Chemistry; 3. Organic Chemistry; 4. Physiology and Histology. If, in the opinion of the Examiners, sufficient merit be evinced, the candidate who distinguished himself most in each of the first and fourth divisions receives an exhibition of £40 *per annum*, and in each of the others £30 *per annum*, for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the M.B. examination within three academical years from the time of passing the intermediate examination in Medicine. Under the same circumstances, the first and second candidates in subjects 1 and 4, and the first candidate in subjects 2 and 3, receive each a gold medal of the value of £5.

M.B. Examination.⁵—No candidate is admitted to this examination within two academical years of the time of his passing the intermediate examination, nor without certificates: 1. Of having passed the intermediate examination in medicine; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the intermediate examination; 3. Of having conducted at least twenty labours; 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine; 6. Of having, after having attended Surgical and Medical Hospital Practice⁶ for at least twelve months subsequently to passing the intermediate examination in Medicine, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months—such attendance not to be counted as part of the hospital practice prescribed in 4 and 5; 7. Of having acquired proficiency in Vaccina-

³ Candidates must bear in mind that the standard of attainment for the Honours Examination is much higher than that for the Pass Examination; and they should therefore exercise due caution in making their choice—to which they will be required to adhere. A candidate who has entered for the Pass Examination will not be allowed to take the Honours Papers; and only under special circumstances will a candidate who has entered for Honours in any subject be transferred to the Pass Examination in that subject.

⁴ The subjects numbered 2, 3, and 4, must be attended after passing the Matriculation Examination.

⁵ Any candidate, on giving notice at the time of registration, may postpone his examination in Physiology and Histology from the Intermediate Examination in Medicine at which he presents himself for examination in the remaining subjects, until the Intermediate Examination in Medicine in any subsequent year; but he cannot compete for honours on either occasion; and he cannot be admitted as a candidate at the M.B. Examination until at least twelve months after he has passed his examination in Physiology and Histology.

⁶ Any candidate for the M.B. Examination who has passed the Intermediate Examination in Medicine under the former regulations, is required to have also passed the Examination in Physiology at some previous Intermediate Examination in Medicine carried on under the present regulations; at which examination he is not allowed to compete for honours.

⁷ Certificates will be received from any legally qualified practitioner.

⁸ The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the Intermediate Examination in Medicine. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

tion.⁹ The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics, and Hygiene, Surgery, Medicine, Obstetric Medicine, and Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *vis à voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has passed the M.B. examination may be examined for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30 *per annum* for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a gold medal of the value of £5.

BACHELOR OF SURGERY.

The candidate must produce certificates—1. Of having passed the examination for the degree of Bachelor of Medicine in this University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on Surgical Anatomy and Surgical Operations; by examination, and report on cases, of surgical patients, by performance of operations upon the dead subject; by application of surgical apparatus; and by *vis à voce* interrogation.

Examination for Honours.—Any candidate who has passed the B.S. examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a gold medal of the value of £5.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery¹⁰ in this University; 2. Of having attended subsequently—(a) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (b) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (c) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.¹¹ 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vis à voce* interrogation; and the candidates are examined in Logic and Psychology,¹² and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £20.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having

⁹ Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

¹⁰ Candidates who have obtained the degree of Bachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and their attendance on surgical practice required by Regulation 2, may commence from the date of the M.B. degree.

¹¹ One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

¹² Any candidate who has taken the degree either of M.D., B.A., or B.Sc., in this University (provided that Mental and Moral Science was one branch of his examination), is exempted from this part of the examination; and any candidate who has passed the M.B. Examination may, at any subsequent M.S. Examination, present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

special relation to Medicine. The examination is conducted by printed papers and *viva voce* interrogations; and candidates are examined in Logic and Psychology, and in Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £20.

UNIVERSITY OF DURHAM.

THERE are two Licences and three degrees conferred; namely, a Licence in Medicine and a Licence in Surgery, and the Degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. A certificate of proficiency in Sanitary Science is also awarded.

The regulations for the licence and degree of Bachelor, so far as regards the course of study, the subjects of each examination, and the certificates required, are similar; but the candidate for a degree must produce evidence of general education in addition to that implied in the certificate of registration as a medical student.

The examinations for the licences and degrees above named are conducted at the College of Medicine, and in the Infirmary, at Newcastle-upon-Tyne. Candidates are examined—(1) by printed papers of questions, (2) practically, (3) *viva voce*. Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must at the same time send the fee (£5) and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.¹

BACHELOR OF MEDICINE.

A Candidate for Degrees in Medicine must produce the following certificates: 1. Of registration in the books of the General Medical Council as a medical student; 2. Of (a) having passed the Preliminary Examination in Arts for Degrees in Medicine of the University of Durham; (b) of Graduation in Arts at one of the following Universities, namely, Oxford, Cambridge, Durham, London, Dublin, Queen's (Ireland), Edinburgh, Glasgow, St. Andrew's, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College (Kingston); or (c) of having passed the Preliminary or Extraprofessional Examination for Graduation in Medicine at one of the following Universities—London, Edinburgh, Glasgow, St. Andrew's, Aberdeen, and Queen's (Ireland); or (d) of having passed the Preliminary Examination in Arts which, before 1881, qualified for the Fellowship of the Royal College of Surgeons of England, or that qualifying for the Membership of the Royal College of Physicians of London. The Preliminary Examination in Arts in the University of Durham is held twice yearly, in April and September, at the same time as the Registration Examination.² Application for admission must be made at least one month before the Examination in Arts. The Fee is £1. Candidates who, at the commencement of their professional education, passed the Arts Examination for Registration only, may pass in the extra subjects required, either *before or after* presenting themselves for the First Examination for the Degree, but must do so before presenting themselves for the Second Examination.

For the Degree of Bachelor of Medicine there are three Professional Examinations, the first and second being held in September and April, the third in June and December. The first will commence on September 14th, 1885, and April 19th, 1886; the second on September 21st, 1885, and April 26th, 1886; and the third on December 7th, 1885, and June 21st, 1886. The subjects of the First Examination are Elementary Anatomy, Elementary Physiology, Chemistry and Chemical Physics, Botany and Medical Botany.

The subjects of the Second Examination are Anatomy, Physiology, Materia Medica, and Pharmacy. The subjects of the Third Examination are Medicine, Surgery, Pathology, Midwifery and Diseases of Women and Children, Medical Jurisprudence, Therapeutics, and Public Health.

Candidates will be admitted to each of these Examinations after duly certified attendance at a recognised Medical School on Courses of Instruction in the various subjects of the Examination, as set forth in the Schedules of Certificates issued by the University. These may

¹ There are special regulations in the case of practitioners of fifteen years' standing. See next page.

² The next examination will commence on September 22nd, 1885, and will include the following subjects, viz.: Necessary: Greek: Xenophon's *Anabasis*, Book V. Euclid: Books III and IV. Optional Subjects (two to be taken): Latin: Cicero, *De Senectute*. French: *Frédéric et Brunehaut*. German: Goethe, *Knabenjahre*. Mechanics, Hydrostatics, and Pneumatics. English History: Henry IV to Richard III.

be obtained on application to the Registrar of the University of Durham College of Medicine.

Each Examination must be passed before the next can be proceeded with, and each must be passed in its entirety, except the First Examination, which may be taken in two parts at different times, one part comprising Elementary Anatomy and Elementary Physiology, and the other part of Chemistry, Chemical Physics, Botany, and Medical Botany. Failure in one of the subjects comprised in either part of this Examination will entail rejection in that part.

A candidate who has passed the First Examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England, will be exempt from the First Examination of the University of Durham except in the subject of Chemistry, on which he will be re-examined.

A candidate who has passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board in England, and will be entitled to present himself for the Final Examination of the Board on the completion of the necessary curriculum.

One of the four years of professional education must be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent, the candidate must attend at least two courses of lectures in the Winter Session, and two in the Summer Session, together with the Class and Test Examinations held in connection with those classes; and must also attend Hospital Practice and Clinical Lectures at the Infirmary. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the Final Examination for the Degree. They are not required to reside at Durham. The other three years of the curriculum may be spent either at Newcastle-upon-Tyne, or at one or more of the Schools recognised by the Licensing Bodies.

The successful candidates for the First and Second Examinations for the Degree of Bachelor in Medicine will be arranged in three classes, the first and second (honours) according to merit, and in the third or pass, in alphabetical order.

Candidates who have completed part of their curriculum elsewhere may pass their First Examination previously to entering at Newcastle-upon-Tyne, and are recommended to commence their year of residence at Newcastle at the beginning of the Winter Session.

DEGREE OF DOCTOR OF MEDICINE.

Candidates must not be less than twenty-four years of age, must have obtained the Degree of Bachelor of Medicine at least two years previously, and have been subsequently engaged in medical and surgical practice. Each candidate must write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and pass an examination thereon; and must be prepared to answer questions on the other subjects of his curriculum, so far as they are related to the subject of the essay. A Gold Medal will be awarded to the candidate who presents the best essay (provided that the essay is judged to be of sufficient merit). The successful candidate will be permitted to publish his essay. The essays will be retained by the Faculty of Medicine.

DEGREE OF MASTER IN SURGERY.

Candidates must have passed the Examination for the Degree of Bachelor in Medicine, and must have attended one Course of Lectures on Operative Surgery. Each candidate will have an additional Paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must, at the same time, send the fee and the necessary certificates. If, after payment of the fee, a Candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.

THE DEGREE OF DOCTOR OF MEDICINE FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

Practitioners of fifteen years' standing are admitted to examination for the Degree of Doctor of Medicine under the following regulations. 1. The candidate must be registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He must have been in the active practice of his profession for fifteen years as a qualified practitioner. 3. He must not be under forty years of age. 4. He must produce a certificate of moral character from three registered members of the medical profession. 5. If the candidate

shall not have passed, previously to his Professional Examination (in virtue of which he has been placed on the *Register*), an Examination in Arts, he must pass an Examination in Classics and Mathematics.³ 6. If the candidate shall have passed previously to his Professional Examination (in virtue of which he has been placed on the *Register*), a Preliminary Examination, he must translate into English passages in any of the parts specified below of any one of the Latin authors mentioned:—*Cæsar, De Bello Gallico*, first three books; *Virgil*—first three books of the *Æneid*; *Celsus*—first three books. The candidate has an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern language. 7. He must pass an Examination in the following subjects: i. Principles and Practice of Medicine, including Psychological Medicine and Hygiene; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology, Medical and Surgical; v. Anatomy, Medical and Surgical; vi. Medical Jurisprudence and Toxicology; vii. Therapeutics. The examination is conducted by means of printed papers, clinically, in the Newcastle Infirmary, and *visâ voce*. 8. The fee is Fifty Guineas. 9. If the candidate shall fail to satisfy the Examiners, Twenty Guineas are retained; but, if he again offer himself for the Examination, Forty Guineas only are then required.

Examinations, in accordance with the above regulations, will commence on December 7th, 1885, and June 21st, 1886, in the College of Medicine, Newcastle-on-Tyne. Gentlemen intending to offer themselves as candidates are required to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-on-Tyne, at least twenty-eight days before the commencement of the examination, together with the fee and the before-mentioned certificates.

Fees.—The Fees for the Examinations, Licences, Degrees, and Certificates are:—Registration Examination, £1; Extraordinary Registration Examination, £2; Preliminary Arts' Examination for Degrees, £1; First or Second Examinations for Degrees in Medicine, each £5; third Examination for Degrees in Medicine, £10; Licence in Medicine or in Surgery, £3; Degree of Master in Surgery, Bachelor in Medicine, or Doctor in Medicine, each £6; Degree of Doctor in Medicine, for Practitioners of fifteen years' standing, £52 10s. The fee of Ten Pounds for the Third Examination will be required from Candidates who entered at the University of Durham College of Medicine, Newcastle-upon-Tyne, on and after May 1st, 1885, and from candidates from other Schools of Medicine who commenced their professional studies on or after October 1st, 1883.

VICTORIA UNIVERSITY.

The Degrees in the Faculty of Medicine are Bachelor of Medicine (M.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). All candidates for Degrees in Medicine and Surgery are required to have passed Examiners in the Entrance Examination in Arts, or to have passed such other Examination as may from time to time be recognised for this purpose by the University. This examination can be passed before matriculation, if desired, in which case the candidate is required to present a certificate from his last instructor to the effect that he is a proper person to be admitted to the examination, and to pay a fee of £1.

Matriculation must precede admission to any University Examination other than the Entrance Examination in Arts. Matriculation consists in signing the University Register, and paying a fee of £2. If, however, the candidate has passed the Entrance Examination in Arts before matriculating, a fee of £1 only is charged. Before matriculating, candidates must produce proof that they are at the time registered students of a College of the University, or of some medical school recognised by the University.

Entrance Examination in Arts.—The subjects of the Entrance Examination in Arts shall be:—(1) Latin; (2) Elementary Mathematics; (3) Elementary Mechanics; (4) English. (5 and 6) Two of the following: (a) French; (b) German; (c) Greek; (d) mathematics (more advanced); (e) English history and elements of Modern Political Geography.¹

³ The subjects for this examination are:—1. An English Essay. (A short essay on some subject to be specified at the time of the examination.) 2. Arithmetic. 3. Euclid—Books I and II. 4. Latin—Translation from *Virgil, Æneid*, Books I and II, together with Grammatical Questions. 5. One of the following subjects: i. Greek—Translation from *Xenophon's Memorabilia*, Books I and II, with Grammatical Questions; ii. French—Translation from *Voltaire's Charles XII.*, with Grammatical Questions; iii. German—Translation from *Goethe's Dichtung und Wahrheit*, Book I, with Grammatical Questions; iv. Elements of Mechanics, Pneumatics, and Hydrostatics; v. Some Treatise on Moral, Political, or Metaphysical Philosophy.

¹ The Special Books for the Entrance Examination in Arts in October, 1885. Greek: *Xenophon, Hellenics*, Book II. Latin: *Virgil, Georgics*, Book IV; *Cicero*,

BACHELOR OF MEDICINE.

Before admission to the Degree of Bachelor of Medicine a candidate is required to present certificates that he will have attained the age of twenty-one years on the day of graduation, and that he has pursued the courses of study required by the University Regulations during not less than four years subsequently to the date of his registration as a Medical Student, two of such years having been passed in a College of the University, and one year at least having been passed in a College of the University subsequently to the date of passing the Preliminary Examination in Science. All candidates for the Degree of Bachelor of Medicine must pass three examinations, namely—the Preliminary Examination in Science; the Intermediate Examination; and the Final Examination.

Preliminary Examination in Science.—The subjects of the Examination are:—1. *Chemistry*: (1) Laws of Chemical Combination; non-metallic elements and their compounds; metals; introduction to Organic Chemistry; (2) Elementary Qualitative Analysis. 2. *Elementary Biology*: (1) Animal Morphology; (2) Vegetable Morphology, Physiology, and Elements of Classification; (3) Laboratory Work. 3. *Physics*: (1) General Physics: The chief phenomena of Heat, Electricity, and Magnetism, treated in an elementary manner; Geometrical and Physical Optics; Acoustics; (2) Methods employed in the Physical Laboratory.

Candidates for the Preliminary Examination in Science must have attended, during at least one year, courses, both of lectures and laboratory work, in each of the above-named subjects.

Intermediate M.B. Examination.—The subjects of Examination are:—1, Anatomy; 2, Physiology (including Physiological Chemistry and Histology); 3, *Materia Medica* and Pharmacy. Candidates for this Examination must have passed the Preliminary Examination in Science, and have attended courses of instruction in Anatomy for one winter session, in Physiology for two winter sessions, in *Materia Medica* and Pharmacy for one summer session. The certificates must show (1) that the human body has been dissected twice at least; (2) that laboratory instruction has been received in Physiology; (3) that practical instruction has been received in *Materia Medica* and Pharmacy.

Final M.D. Examination.—The examination is divided into two parts, called the First Part and the Second Part respectively, which may be passed separately or on the same occasion; but the First Part cannot be taken before the end of the third year, and the Second Part cannot be taken before the end of the fourth year of medical study, in accordance with the University Regulations. The subjects of examination are as follows:—Part I.—1, Systematic Surgery; 2, Pharmacology and Therapeutics; 3, General Pathology. Part II.—1, Systematic and Clinical Medicine, including Mental Diseases; 2, Practical and Clinical Surgery; 3, Obstetrics and Diseases of Women and Children; 4, Morbid Anatomy; 5, Forensic Medicine; 6, Hygiene.

Candidates, on presenting themselves for the Final Examination, must have passed the Intermediate Examination, and must furnish certificates—1. Of having attended the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years, of which years two at least must be subsequent to the date of passing the Intermediate Examination, except when exemption has been granted by the General Board of Studies, after report from the Departmental Board of Medical Studies. 2. Of having attended, during at least twelve months, demonstrations in the *post mortem* theatre of a hospital; 3. Of having attended, under proper supervision, at least twenty cases of labour; 4. Of having, during at least three months, received, in either a general or a special hospital approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University; 5. Of having acquired proficiency in vaccination; 6. Of having attended courses of instruction, approved by the University, in a College of the University, or in a College or Medical School recognised for this purpose by Statute of the University, in the following subjects: a. Systematic Medicine, two winter sessions; b. Clinical Medicine, two years; c. Systematic Surgery, one winter session; d. Practical Surgery, one winter session; e. Clinical Surgery, two years; f. Obstetrics and Diseases of Women and Children, two summer sessions, or one winter session; g. Pharmacology and Therapeutics, one winter session, or one summer session; h. General Pathology and Morbid Anatomy, one winter session and one summer session; i. Forensic Medicine, one summer session; j. Hygiene, one summer session.

DOCTOR OF MEDICINE.

Candidates are not eligible for the Degree of Doctor of Medicine

Pro Sullâ. French: *Theuriet, Les Enchantements de la Forêt.* German: *H. von Kleist, Michael Kohlhaas.*

unless they have previously received the Degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. Candidates for the Degree of Doctor of Medicine must present a printed dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the degree unless his dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance. Candidates may be examined on any subject connected with their dissertations.

MASTER OF SURGERY.

Candidates are not eligible for the Degree of Master of Surgery unless they have previously received the Degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. The subjects of examination are—1. Surgical Anatomy; 2. Surgical Pathology; 3. Practical Surgery, including the performance of operations on the dead body; 4. Clinical Surgery; 5. Ophthalmology. Candidates must furnish certificates that they have been engaged, since taking the Degree of Bachelor of Medicine, in the study of Practical Surgery; and that they have held, for not less than six months, a surgical appointment in a public hospital or other public institution affording full opportunity for the study of Practical Surgery. They must also furnish certificates—1. Of having attended a special course of instruction in Operative Surgery approved by the University, and of having personally practised the principal surgical operations on the dead body; 2. Of having attended a systematic course of instruction, including practical work, approved by the University, on Surgical Pathology, or a course of the same kind of which Surgical Pathology forms part; 3. Of having attended a course of Ophthalmology, and of having received instruction in Ophthalmic Surgery, approved by the University.

Fees.—No fee entitles to admittance to more than one examination. The fee for matriculation is £2, and includes the fee for the Entrance Examination in Arts. A fee of £1 is payable for any subsequent Entrance Examination; for the Preliminary Examination in Science is £1, or for the Intermediate Examination for the Degree of M.B. The fee for the Final Examination for the Degree of M.B., for the Examination for the Degree of Ch.M., and on sending in the dissertation for the Degree of M.D., is £2. A fee of £5 is payable on the conferring of the Degree of M.B. A fee of £10 is payable on the conferring of the Degree of M.D., or that of Ch.M.

The Entrance Examination in Arts is held twice in each year, about the middle or end of June, and about the beginning of October. The Preliminary Examination in Science, the Intermediate Examination, and the Final Examination, are held in July and in October. Those candidates only can present themselves in October who have matriculated since the corresponding examination in July, or have failed in that examination, or have been prevented from attending that examination by reasons satisfactory to the General Board of Studies. The Examination for the Degree of Master of Surgery is held in October.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

THE College does not grant its "Single Qualification" in Medicine except under the following conditions.

1. The College grants its Single Qualification in Medicine to candidates who already possess a recognised British or Irish Qualification in Surgery, upon their passing an Examination (written and oral) before the Examining Board of the College, in Medicine, Clinical Medicine, *Materia Medica*, Midwifery, and Medical Jurisprudence. Such an Examination will be held on the first Wednesday, and succeeding days, of every month, except September and October.

2. Candidates who, before October 18th, 1884, passed the First Professional Examination of the College, obtain the single Qualification under the old Regulations, provided they pass the Final Examination before October 18th, 1886. The Regulations which must be fulfilled by the second class of candidates are given in the Table at pages 488 and 489.

Every applicant must have studied vaccination under a competent and recognised teacher.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months. Every candidate must sign a declaration that he has not been rejected within this period.

Candidates may be admitted to special examination by bringing

forward satisfactory reasons, and paying an extra fee of £5 5s. Should the candidate be unsuccessful, £11 11s. will be returned to him.

All candidates must communicate with the Secretary of the College not less than eight days before the date of Examination; and the fees must be paid to the Secretary four days before Examination.

FELLOWSHIP AND MEMBERSHIP.

No one can be elected a Fellow of the College until he has been at least one year a Member, and has attained the age of twenty-five years.

Any Licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.

Every motion for the election of a Fellow or Member shall be made at a quarterly Meeting of Fellows by one of the Fellows present, and seconded by another; and this motion shall be determined by ballot at the next quarterly meeting—a majority of three-fourths being necessary to carry it in the affirmative.

Every candidate for the Membership (except such as are admissible under the provisions for candidates above forty years of age) must pass an examination:—(1) On the Principles and Practice of Medicine, including Therapeutics;—(2) On one of the following subjects, to be selected by the candidate: (a) Pathology, including Morbid Anatomy; (b) Medical Jurisprudence and Public Health; (c) Midwifery and the Diseases of Women; (d) Psychological Medicine.

Application for the Membership must be made through the Secretary, who will transmit to the candidate a copy of the Regulations and plan of examination, together with a form of petition. The candidate must return the petition duly filled up to the Secretary, and at the same time transmit testimonials of recent date from well known members of the profession, certifying as to his professional and social standing. If satisfied as to the eligibility of the candidate, the Council authorise his examination by the Board of Examiners. If the report of the Examiners be satisfactory, the Council report the same to the College at the next quarterly meeting, when a motion may be made for the election of such candidate to the Membership of the College.

If any candidate who has attained the age of forty years, and has been a Registered Practitioner for not less than ten years, produce testimonials showing that he has been distinguished for his scientific attainments, or eminence as a Medical Practitioner, the Council may, if they see fit, exempt him from the whole or any part of the prescribed examination.

Examinations will be held on October 13th and 14th, 1885, January 12th and 13th, April 13th and 14th, and July 13th and 14th, 1886. Application must be made to the Secretary not less than one month previous to the date of the Examination.

Fees.—The fee to be paid by a Member is £31 10s. A Licentiate who has obtained the Licence prior to the 1st August, 1876, when raised to the rank of Member, pays £21; a Licentiate obtaining the Licence subsequently to that date, when raised to the rank of Member, pays £15 15s. When a Member is raised to the rank of Fellow, he pays £31 10s., exclusive of stamp-duty (£25). All candidates for Fellowship or Membership must lodge their fees and the amount of stamp-duty payable with the Treasurer previously to presenting their petitions.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS OF CANDIDATES FOR THE LICENCE.

THE Regulations in the Tables at pages 488 and 489, and below, are applicable to candidates who are already registered as Licentiates of one of the Colleges of Physicians in the United Kingdom, or Graduates in Medicine of a British or Irish University mentioned in Schedule A of the Medical Act; and to candidates who have already entered for the professional examination for the single qualification of the College.

Professional Education.—In addition to the subjects enumerated in the Table, the candidate must have been instructed in vaccination. Two courses of Clinical Medicine, or of Clinical Surgery, of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the Hospital where they are delivered. The six months' courses delivered in Scotland must consist of not fewer than 100 lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' course must consist of not fewer than fifty lectures. It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on

Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examination.—In the first examination, candidates must apply to the Secretary of the College of Surgeons, Mr. Joseph Bell, Melville Crescent, Edinburgh, on or before the Tuesday preceding the day of examination; and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination.¹ The fee for this examination must be paid to the Inspector of Certificates not later than 9 A.M. of the Saturday preceding it. For the second examination, application must be made to the Secretary not later than the Monday previous to the day of examination. Every candidate must produce—*a.* Satisfactory evidence of having attained the age of twenty-one years, and of having been duly registered; *b.* Certificates of having attended the classes enumerated under Professional Education; *c.* Certificate of having passed the first professional examination; *d.* A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session. If he have been an apprentice, he must insert the name of his master, the date of his indenture, and the length of time for which he was bound. If he have been apprenticed to a Fellow of the College, he must also produce his discharged indenture. The fee must be lodged with the Inspector not later than 9 A.M. of the Tuesday preceding the examination. Candidates who have passed the first professional examination at the College in Anatomy, Physiology, and Chemistry, and registered practitioners in Medicine admissible to the second professional examination on producing certificates of the whole course of study, of having passed their preliminary and first professional examinations, and of having been registered as students. If any of the three subjects of the first examination have been omitted, the candidate must undergo an examination on the omitted subjects; and none of the subjects of the second examination are omitted. The fee is £15 15s., and unsuccessful candidates receive back £11 11s.

Recent dissections, anatomical specimens, and articles of the *Materia Medica*, are employed during the examinations; and all candidates must write out formulæ of prescription. They are also subjected to a practical clinical examination in the Surgical Hospital, including the application of surgical apparatus, bandages, etc. No candidate is admissible to examination who has been rejected by any other Licensing Board within the preceding three months.

Candidates desirous of Special Examinations, on other days than those fixed, must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to show why it is impossible for them to avail themselves of the ordinary examination. They must, at the same time, produce certificates of the whole of the prescribed Course of Study, and of having passed the Preliminary Examination, and must state the earliest and the latest days within which they can present themselves. The fees, which must be lodged by 9 A.M. of the day preceding the Examination-day, are £20 for First and Second Examinations; of which £12 will be returned to candidates remitted on the First Examination; but no part of the money will be repaid to candidates who, having passed the first, are unsuccessful in the Second Examination. £17 for Second Examination. Of this no part will be returned to the candidate if unsuccessful.

LAWS RELATING TO THE FELLOWSHIP.

1. No person is received as a candidate for the Fellowship who has not the Diploma of the Royal College of Surgeons of Edinburgh, or of the Royal College of Surgeons of England, or of the Royal College of Surgeons of Ireland, or of the Faculty of Physicians and Surgeons of Glasgow. 2. Every candidate for the Fellowship, with the exception of those admissible under the old Constitution, with right to the Widows' Fund, and those hereinafter mentioned, must show that he is twenty-five years of age, and that he has for at least two years subsequently to the date of his licence been engaged in the study or practice of his profession; and, before having his petition laid before the College, must pass an examination as follows. *A.* Those who are already Licentiates of the College: on Clinical and Operative Surgery,

and one optional subject. *B.* Those who are not Licentiates of the College: on Clinical and Operative Surgery, Surgical Anatomy, and one optional subject; and in such supplementary subjects as have not, in an adequate manner, been included in the examination for the registrable surgical qualification possessed by such candidate, and which are required in the examination of licentiates of this College. The optional subjects embrace—*a.* Surgery in any one of its Ophthalmic, Aural, Laryngeal, or other special branches; *b.* Advanced Anatomy and Physiology; *c.* Pathology and Morbid Anatomy; *d.* Midwifery and Gynecological Medicine and Surgery; *e.* Medical Jurisprudence and Hygiene; *f.* Practice of Medicine and Therapeutics. In the case of registered practitioners of not less than forty years of age, who have been in practice for not less than ten years, the President's Council may consider their claims; and if these and the registrable surgical qualification they possess seem of a sufficiently high order, they may recommend such candidates to the College for ballot without examination. 3. Every candidate for the Fellowship (with the exception of those entitled to enter under the old Constitution of the College, and having right to its Widows' Fund) must lodge with the Secretary a petition for examination with a view to admission, and must be recommended by two Fellows, of whom one at least shall be resident in Edinburgh. 4. Candidates for the Fellowship (not embraced under the exception to Law 3) pay £30 to the College funds, including all fees. The money is payable to the Treasurer immediately upon the presentation of the petition. The fee paid by any candidate not admitted is returned to him; but in the case of candidates by examination not being successful, £5 is retained as examination expenses. 5. The billets calling the meetings at which the petition is to be laid before the College must intimate the name and surgical qualification of the candidate, his professional appointments (if any), and the names of his proposer and seconder, and whether such petition is presented after or without examination. 6. The petition will be considered at a subsequent meeting, to be held not earlier than four weeks after the first; and, in the meantime, the petition, with the names of the proposer and seconder, must have been hung up in the Library; and the billets calling the second meeting must contain an intimation in the same form as those of the first. 7. At the meeting for finally considering the petition of the candidate, except in the case of those eligible for the Widows' Fund, the result shall be ascertained by ballot. Three-fourths of the votes are required for admission; and the number of those voting shall not be less than twenty. 8. The candidate is informed of the result of the ballot; but, before taking his seat as a Fellow, he must make a declaration to the following effect, and subscribe the same in the Sederunt-book: "I hereby promise faithfully to maintain and defend all the rights, liberties, and privileges of the Royal College of Surgeons of Edinburgh, and to promote the interests thereof to the utmost of my power. I also promise faithfully to obey all the laws of the said Royal College, made and to be made." 9. Candidates who do not find it convenient to repair to Edinburgh may, by a vote of the College, be enrolled as Fellows in absence, if they transmit letters of obligation to conform to No. 8 before taking their seats. 10. Every Fellow, on admission, receives a diploma with the seal of the College appended; and, as regards Fellows admitted after examination, the diploma bears that such has been the case. 11. Every Fellow is entitled to attend the meetings of the College, and to take part in the proceedings, and in the election of office-bearers. 12. No Fellow of the College must keep an open shop for the sale of drugs or other merchandise. 13. No Fellow of the College must allow his name to be connected with advertisements or publications of an indelicate or immoral nature. 14. No Fellow of the College must practise, or profess to practise, by the use of or according to any secret remedy or method of treatment; or allow his name to be connected with advertisements for the sale of any secret remedy, or for practise by the use of any secret remedy, or method of treatment; or connect himself in partnership or otherwise, or continue in connection with, any person practising by means of or advertising the sale of any secret remedy. 15. No Fellow must be guilty of any deception or other immorality in the practice of his profession, or in any other way conduct himself inconsistently with the honour and decorum which become his position as a Fellow of the College.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DIPLOMA OF FELLOW.

The Regulations in the Tables, at pages 488 and 489, and below, are applicable to candidates not previously qualified.

Professional Education.—Every candidate is admissible to the First Professional Examination on producing certificates of registration as a student, and of having studied (as defined in the Table) Anatomy,

¹ Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents. Candidates should attend punctually to the dates fixed by the Regulations for lodging their Certificates and for paying their money. If these preliminaries are neglected, their examinations may require to be postponed. The safest mode of remitting money is by a bank-order made payable, at sight, to Mr. Joseph Bell, the Treasurer, at an Edinburgh Bank, and crossed in the usual way. A cheque on a private account cannot be received, as it is worth nothing till paid by the banker on whom it is drawn.

TABULAR VIEW OF THE REGULATIONS OF THE MEDICAL EXAMINING BODIES IN SCOTLAND.

	ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.		ROYAL COLLEGE OF SURGEONS OF EDINBURGH.		COLLEGE OF PHYSICIANS & SURGEONS OF EDINBURGH, & FACULTY OF PHYSICIANS & SURGEONS OF GLASGOW.		FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.		UNIVERSITIES OF SCOTLAND.
	LICENCE.		DIPLOMA.		COMMON EXAMINATION.		FELLOWSHIP.		
AGE REQUIRED	Twenty-one.	Twenty-one.	Twenty-one.	Twenty-one.	Twenty-one.	Twenty-four years.	Twenty-one years.	Twenty-one years.	BACHELOR OF MEDICINE AND MASTER IN SURGERY.
EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	Having passed a preliminary examination, and being registered as a student by Medical Council.	Having passed a preliminary examination, and being registered as a student by Medical Council.	Having passed a preliminary examination, and being registered as a student by Medical Council.	Having passed a preliminary examination, and being registered as a student by Medical Council.	Having passed a preliminary examination, and being registered as a student by the Medical Council.	Registration as a student by the General Medical Council.	Preliminary examinations in Arts or equivalent examinations.	Preliminary examinations in Arts or equivalent examinations.	
DURATION OF PROFESSIONAL STUDY.	Four years; including four winter sessions, or three winter and two summer sessions at a recognised school.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognised school.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognised school.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognised school.	Forty-five months, including four winter sessions, or three winter and two summer sessions at a recognised school.	(For candidates having qualified) six years; graduates in Arts or Science, five years.	Four years; one year being in the University, and another in the same or some other University (see page 492).	Four years; one year being in the University, and another in the same or some other University (see page 492).	
COURSES OF LECTURES, ETC., REQUIRED.									
Anatomy	Six months.	(A., two courses of six months, and P.A. twelve months; or A. six months, and P.A. eighteen months. Fifty lectures.	Six months.	Six months.	Six months.	Two winter sessions.	One hundred lectures.	One hundred lectures.	
Practical Anatomy ...	Six months.	Six months.	Six months.	Six months.	Six months.	Eighteen months.	(Course of same duration.	(Course of same duration.	
Physiology	Three months.	Three months.	Three months.	Three months.	Three months.	One winter.	One hundred lectures.	One hundred lectures.	
Practical Physiology ...	—	—	—	—	—	Three months.	—	—	
Chemistry	Six months.	Six months.	Six months.	Six months.	Six months.	One winter.	One hundred lectures.	One hundred lectures.	
Practical Chemistry ...	Three months.	Three months.	Three months.	Three months.	Three months.	Three months.	Three months.	Three months.	
Materia Medica	Three months.	Three months.	Three months.	Three months.	Three months.	Three months.	One hundred lectures.	One hundred lectures.	
Practical Pharmacy ...	Three months.	Three months.	Three months.	Three months.	Three months.	Three months.	(See page 492).	(See page 492).	
Natural History (Zoology)	—	—	—	—	—	—	Fifty lectures.	Fifty lectures.	
Pathology	Three months.	Attendance in <i>post mortem</i> room, three months.	Attendance in <i>post mortem</i> room, three months.	Attendance in <i>post mortem</i> room, three months.	Attendance in <i>post mortem</i> room, three months.	Three months; and Practical, three months.	One hundred lectures; or Pathological Anatomy three months, with supplementary course of Medicine or Clinical Medicine.	One hundred lectures; or Pathological Anatomy three months, with supplementary course of Medicine or Clinical Medicine.	
Medicine	Six months.	Six months.	Six months.	Six months.	Six months.	Six months.	Six months (100 lectures, Elin.) or two courses of three months.	Six months (100 lectures, Elin.) or two courses of three months.	
Clinical Medicine ...	Six months.	Six months.	Six months.	Six months.	Six months.	Twelve months.	One hundred lectures.	One hundred lectures.	
Surgery	Six months.	Six months.	Six months.	Six months.	Six months.	Six months.	Six months (100 lectures, Elin.) or two courses of three months.	Six months (100 lectures, Elin.) or two courses of three months.	
Clinical Surgery ...	Three months.	Six months; and a third course, either systematic or clinical.	Six months; and a third course, either systematic or clinical.	Six months; and a third course, either systematic or clinical.	Six months; and a third course, either systematic or clinical.	Twelve months.	Three months.	Three months.	
Practical Surgery ...	—	—	—	—	—	Three months.	—	—	

<i>Midwifery and Diseases of Women.</i>	Three months; at least six labours.	Three months; six cases of labour.	Three months; six cases of labour.	Three months; six cases of labour.
<i>Medical Jurisprudence Hospital Practice and Hospital Appointments.</i>	Three months. Public Hospital twenty-four months; twelve months in medical wards. Public Dispensary six months, or Clinical Clerk or Dresser, or Visiting Assistant, six months.	Three months. General Hospital twenty-four months; Public Dispensary six months; or three months with three months hospital clerkship.	Three months. General Hospital twenty-four months; Public Dispensary six months; or three months with three months hospital clerkship.	Three months. General Hospital twenty-four months; Public Dispensary six months; or three months with three months hospital clerkship.
NUMBER OF EXAMINATIONS.	One; final only. Candidates must have qualification in Surgery.	Two.	Three.	Two; each examination may be divided.
FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	—	End of second winter; Anatomy, Physiology, and Chemistry.	End of first year; Chemistry, Practical Chemistry, Elementary Anatomy, and Histology.	Anatomy and Physiology (including Histology and Embryology); Chemistry (unless already passed).
SECOND EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	At end of four years; Medicine, Clinical Medicine, Pathology, Materia Medica and Pharmacy, Surgery, Midwifery, Medical Jurisprudence.	After last winter session; Surgery and Surgical Anatomy, Medicine, Midwifery, Materia Medica, and Medical Jurisprudence.	End of summer session of second complete year; Anatomy, Physiology, Materia Medica and Pharmacy.	Pathology, Medicine (Systematic and Clinical), Surgery (Systematic, Operative, and Clinical), Materia Medica, Midwifery, Medical Jurisprudence.
THIRD EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	—	—	End of full period of study; Medicine, Clinical Medicine, Surgery, Clinical Surgery, Midwifery and Gynaecology, Medical Jurisprudence, and Hygiene.	—
FEES PAYABLE ...	£15 15s.	£15 15s.; £6 6s. at first examination; in case of rejection, £3 3s. retained. £9 9s. at second examination; in case of rejection, £4 4s. retained.	First and Second Examinations, each £5 5s.; additional, after rejection in all subjects, £3 3s.; after partial failure, £2 2s. Third Examination, £15 15s.; after rejection, additional, £5 5s.	First Examination, £8 8s.; Second Examination, £12 12s.
DATES OF EXAMINATION	November 4th and 5th, 1885, January 6th and 7th, April 7th and 8th, July 7th and 8th, 1886.	First: October 6th, 1885; January 26th, April 13th, July 13th, 1886. Second: Immediately after conclusion of first.	First: in Edinburgh, October 14th and 17th, 1885; January 18th to 16th, April 21st to 24th, July 7th to 10th, 1886; in Glasgow, April 7th to 10th, and July 21st to 24th, 1886. Second: Monday, Tuesday, and Wednesday next after First Examination. Final: Days next following Second Examination.	Second week in April and third week in October.
REJECTED CANDIDATES	—	Not readmitted under three months.	At either examination, not readmitted for three months; not re-examined in subjects in which he has passed.	Not readmitted until after another year of medical study, or such portion of a year as may be prescribed by the examiners (unless he has studied during another year two of the subjects— <i>Edinburgh</i>).
ADDITIONAL INFORMATION.	See page 486.	See page 486.	See page 487.	See page 491.

One hundred lectures; three months' Midwifery Hospital, or six cases of labour. Fifty lectures. General Hospital, two years; Out-practice of Hospital, or of dispensary or registered practitioner, six months.

In Edinburgh and Glasgow, four; in Aberdeen and St. Andrew's, three. For the subjects of these examinations, and the periods of study at which they may be passed in the respective universities, see page 492.

£21; £5 5s. each of two examinations, £10 10s. at last examination of three.

Aberdeen: end of winter and summer sessions. Edinburgh and Glasgow, April, July, and October. Clinical Examination: Edinburgh, May; Glasgow, June. Final in Edinburgh, June. St. Andrew's, end of April.

Not readmitted until after another year of medical study, or such portion of a year as may be prescribed by the examiners (unless he has studied during another year two of the subjects—*Edinburgh*).

See page 491.

Physiology and Practical Physiology, and Chemistry and Practical Chemistry. A candidate for the Second Professional Examination for the Fellowship must produce certificates of the remaining courses of instruction mentioned in the Table, and of having been instructed in Vaccination by a Public Vaccinator under the regulations of the Local Government Board.

Graduates in Medicine or Surgery of recognised Universities, Licentiates of Faculty or of any of the Colleges of Physicians or Surgeons of the United Kingdom, qualified in Medicine and Surgery, are admissible to the First Professional Examination.

The two examinations shall be passed in their order first and second; but a candidate may enter for or may pass in only one of the subjects special to the Fellowship, either at the First or the Second Examination; and he will not be required to pass again in any of these subjects in which he has formerly passed.

A candidate qualified in Medicine and Surgery, whose diplomas have been received not less than ten years previously from the Faculty, or from any of the Universities or Colleges of Physicians or Surgeons of the United Kingdom, may be admitted to an Examination embracing two subjects—(1) Surgery, or, as an alternative, Medicine; and (2) one of the subjects to be selected by the candidate from the following list: (a) Human Anatomy; (b) Comparative Anatomy; (c) Physiology; (d) Pathology; (e) Midwifery and Diseases of Women; (f) Medical Jurisprudence; (g) State Medicine; (h) Psychological Medicine.

Election.—There may be admitted yearly to the Fellowship without examination, should the Faculty see fit, not more than two legally qualified medical practitioners, who have been at least ten years qualified, and who shall have highly distinguished themselves by original medical investigations. Candidates must be proposed in writing by not less than six Fellows of the Faculty, and the proposal must be submitted at an ordinary meeting of the Faculty. The proposal must be intimated on the billets calling the next three ordinary meetings of the Faculty, and at the third meeting the election shall be determined by ballot. Before the ballot is taken the Council shall report whether in their opinion the applicant has so distinguished himself as to render him admissible under this Section. For the election, two-thirds of those voting must be in favour of admission.

Fees.—These are, in the case of a candidate, a Licentiate of the Faculty, or a Graduate in Medicine of a recognised University, First Examination, £6 6s.; Second Examination, £9 9s.; in the case of a previously qualified candidate, not a Licentiate of the Faculty, nor a Graduate in Medicine of a University, First Examination, £8 8s.; Second Examination, £12 12s.; in the case of a qualified candidate of more than ten years' standing, at entry for examination, £10; before admission: in the case of a resident Fellow, £40; of a non-resident Fellow, £15 (by a "resident" Fellow is meant one whose ordinary place of residence is within five miles of the Faculty Hall). The fees in the case of a candidate admitted by election are: resident Fellow, £50; non-resident Fellow, £25.

Candidates must give notice to the Secretary not later than the second Monday of March and the third Monday in September. Not later than one week prior to the Examination they must submit to the Secretary the certificates required, and pay the entry fee.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW: CONJOINT EXAMINATION.

THE Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, have made arrangements by which, after one series of Examinations, the student may obtain the diplomas of the three Co-operating Bodies.

This Joint Examination is conducted by a Board, in which each Body is represented in those branches which are common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the Examination in Medicine; and the College of Surgeons, along with the Faculty of Physicians and Surgeons of Glasgow, of the Examination in Surgery. Students passing the Examination are enabled to register three Diplomas under the Medical Act,—Licentiate of the Royal College of Physicians of Edinburgh, Licentiate of the Royal College of Surgeons of Edinburgh and Licentiate of the Faculty of Physicians and Surgeons of Glasgow.¹

¹ The three Co-operating Bodies grant their Single Qualifications only to Candidates who are already registered as possessing another and opposite Qualification in Medicine or Surgery, as the case may be.—The Royal College of Physicians of Edinburgh may, notwithstanding this agreement, grant its Licence on Examination to candidates already possessed of one or other of the Surgical Qualifications men-

Every candidate must have followed his course of study in an University; or in an Established School of Medicine; or in a Provincial School specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate. Under the title Established School of Medicine are comprehended the Medical Schools in those cities of Great Britain and Ireland in which Diplomas in Medicine and Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examinations.—All students who intend becoming candidates for the Diplomas of the three Bodies must pass the complete Examinations in General Education, and have their names registered by the General Medical Council at the commencement of their professional studies. The Preliminary Examination may be passed before any of certain recognised Boards, of which a list may be obtained on application. Preliminary Examinations are conducted in Edinburgh by the Educational Institute of Scotland on behalf of the Royal Colleges of Physicians and Surgeons; and in Glasgow by a Board chosen by the Faculty of Physicians and Surgeons. Copies of the Regulations respecting this Examination may be had on application to the Officer of either of the Royal Colleges in Edinburgh, and to the Secretary of the Faculty of Physicians and Surgeons in Glasgow.

Professional Education.—For particulars, see pages 488 and 489. The two courses of Anatomy and Practical Anatomy must not be attended in the same session. In those schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these courses will be received as a Course of Anatomy, and the other as a Course of Physiology. Two Courses of Clinical Medicine, of three months each, if not simultaneous, are held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules apply to Clinical Surgery. The six months' Courses delivered in Scotland, with the exception of Clinical Medicine and Clinical Surgery, must consist of not fewer than 100 Lectures. The three months' Courses must consist of not fewer than 50 Lectures. The teacher signing the certificate of Practical Pharmacy must be a Member of the Pharmaceutical Society of Great Britain, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicine to his own patients, or a teacher of a class of Practical Pharmacy. The candidates must have been instructed in vaccination; the teacher signing the certificate must be a registered practitioner. It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases; also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examinations.—See Table, pages 488 and 489. A candidate may present himself either in Edinburgh or in Glasgow, irrespectively of the place at which he may have been previously examined. An applicant for admission to any of the Examinations is required, on entering, to lodge with the Inspector of Certificates a schedule (forms for which are supplied) showing the Courses he has attended qualifying for admission. Candidates who enter themselves for any of the Examinations, and fail to appear without giving notice to the Inspector at least two days before the Examination, may be held as rejected, and may forfeit the fees of such Examination, if a satisfactory reason cannot be given for their absence, and their failure to give the required notice.

At the First Examination, the examination in Chemistry embraces Chemical Physics and the principal Non-metallic and Metallic Elements, and their more common combinations; also the leading Alcohols, Organic Acids, Ethers, Carbo-hydrates, and Alkaloids. The candidate is also examined practically in testing. By Elementary Anatomy is meant—Anatomy of the Bones, Joints, Muscles, and chief Blood-vessels. Candidates who desire to pass this must apply to the Inspector of Certificates on or before the Friday preceding the day of Examination,² and must produce certificates of attendance on one course each of Chemistry, of Practical Chemistry, and

tioned in Schedule (A) of the Medical Act, 1858; and the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, may each grant its Licence on Examination to candidates, already Licentiates of one of the Colleges of Physicians of the United Kingdom, or Graduates in Medicine of a British or Irish University. Copies of the Regulations for the Single Qualification of any of the Bodies may be had on application to the respective Secretaries.

² Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their Course of Study when it was too late to rectify them by the production of documents.

of Anatomy, and nine months' Practical Anatomy. The fee of £5 5s. must be paid to the Inspector of Certificates not later than 11 A.M. of the Saturday preceding it.

At the Second Examination, the candidate must produce certificates of attendance on Anatomy, Practical Anatomy, Physiology, and Materia Medica. The fee must be paid to the Inspector of Certificates not later than one week before the day of examination.

At the Final Examination, every candidate must produce to the Inspector, Mr. James Robertson, solicitor, 4, Lindsay Place, Edinburgh; or to Mr. Alexander Duncan, Faculty Hall, St. Vincent Street, Glasgow, 1st, satisfactory evidence of his having attained the age of twenty-one years; 2nd, a certificate of his registration in the books of the General Medical Council; 3rd, the certificates enumerated under Professional Education.

The fees payable for the second and final examinations must be lodged with the Inspector not later than one week prior to the examination-day. Any sum already paid by a successful candidate for the first half of either of the Single or Double Qualifications, is credited to him in part payment for the Conjoint Examination, if he wish to enter for it, and such a candidate is at once admitted to its Final Examination if he be otherwise eligible.

Candidates who have passed the Professional Examination in Chemistry,³ Materia Medica, and Pharmacy, Anatomy and Physiology, at any of the recognised boards, will be admissible to the Final Professional Examination on producing certificates of the whole course of study prescribed, of having passed the Preliminary, and in the subjects of the First and Second Professional Examinations, and of having been registered. If any of the subjects of the First and Second Professional Examinations have been omitted, such candidates will have to undergo an examination on the omitted subjects, and shall pay the fee of £5 5s.; and none of the subjects of the Final Examination will be omitted, even if some of them should have formed part of the examinations by another board.

The fee payable by such candidates is £26 5s., and unsuccessful candidates will be readmitted to examination on payment of £5 5s. In addition to the written and oral examinations, all candidates will be subjected to an examination in operative surgery, and to practical clinical examinations in medicine and surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, surgical appliances, bandages, etc.

No candidate is admissible to examination who has been rejected by any other licensing board within the three preceding months.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREWS.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[The Regulations of these Universities are nearly similar. We therefore give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University: viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of C.M. is conferred only on those who at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.—The preliminary branches of extraprofessional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass an examination in at least two of the following subjects: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.¹ The examination in the first class of subjects takes place² before the commencement of medical study, and in the second, before admission to the first professional examination.³

¹ In none of these subjects will it be held sufficient that the Candidate has passed in them at one of the Boards authorised to conduct the Preliminary Examinations in General Education.

² The Universities of Aberdeen and St. Andrew's include Natural History. In Edinburgh, Natural History is included in the first professional examination.

³ As far as possible—Aberdeen.

⁴ In Edinburgh, examinations will be held on October 6th, 7th, 8th, and 9th, 1885, and March 9th, 11th, and 12th, 1886. 1. English: Writing a passage from dictation; Composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words; History and Geography, especially the History of the British Islands and of English Literature. 2. Latin: for October, 1885 and March, 1886, Livy, Book XXII; for October, 1886 and March, 1887, Cicero *De Amicitia*, an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be re-translated into Latin, the more difficult Latin words being given. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III;

A Degree in Arts (not honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from preliminary examination. The Universities also recognise examination in Arts by any corporate body whose examination has been recognised by the General Medical Council, and also approved by the University Court, so far as regards all subjects comprised in the examination of the said corporate body.

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

The principal regulations to be observed by candidates for the Degree of Bachelor in Medicine or Master in Surgery are given in the Tables at pages 488 and 489. Each *Annus Medicus* is constituted by at least two courses of not less than 100 lectures each, or by one such course, and two courses of not less than 50 lectures each:

or Wilson's *Elementary Geometry*, Books I, II, and III; and the *Elementary Rules of Algebra*, including Simple Equations. A knowledge of Geometry alone or of Algebra alone will not be sufficient. 5. Elements of Dynamics (Mechanics): *Elementary Kinematics*, Statics, Kinetics, and Hydrostatics; Text-Book, Blaikie's *Elements of Dynamics*. At least two of the following subjects. 1. Greek: for October, 1885 and March, 1886, Xenophon, *Cyropædia*, Book V; for October, 1886 and March, 1887, Xenophon, *Hellenics*, Book I. 2. French: for October, 1885 and March, 1886, A. Dumas, *La Tulipe Noir*, ch. i to xv; for October, 1886 and March, 1887, Saintine, *Picciola*, Book I. 3. German: for October, 1885 to March, 1887, M. Homan, *Deutsche Mährchen*. 4. Higher Mathematics: Geometry, Euclid, Books I to IV, Book VI, and the Propositions of XI usually given in the modern editions, or Wilson's *Elementary Geometry*, Books I, II, III, and V, and Wilson's *Solid Geometry and Conic Sections*, Book IV, Section 1; Algebra, *Elementary Trigonometry and Conic Sections*, Wilson's *Solid Geometry and Conic Sections*, Book V. 5. Natural Philosophy: Balfour Stewart's *Elementary Physics*, 6. Logic: for October, 1885 to March, 1887, Fowler's *Deductive Logic, Introduction*, Parts I, II (chap. i to iv, vii, viii), III (chap. i, ii, iii, and viii), and *Inductive Logic*, chap. i, ii, (sect. 1 and 2) iii, iv; or Fraser's *Selections from Berkeley*, Editor's "Introduction" and "Principles of Human Knowledge," Part I, sect. 1 to 44. 7. Moral Philosophy: for October, 1885, to March, 1886, Bishop Butler's *Sermons*, 1, 2, 3; and Professor Calderwood's *Handbook*, pp. 1-43, 123-152, 165-202; for October, 1886 and March, 1887, Macintosh's *Dissertation*—"Hobbes," "Cudworth," "Clarke," "Shaftesbury," "Butler," "Hutchinson," "Hume," "Smith," "Price," "Paley," "Bentham," "Stewart." Professor Calderwood's *Handbook*, pp. 1-43, 77-97. In answering the questions in Arithmetic, Mathematics, and Dynamics (Mechanics), the steps of the reasoning, as well as the final result, must be exhibited. In Latin, Greek, French, and German, mere translation is not sufficient; there must be translation of an English passage into each of the languages taken up by the candidate.

In Glasgow, examinations will take place on October 7th, 8th, 9th, and 10th, 1885; and on March 31st, April 1st, 2nd, and 3rd, 1886. **Registration Subjects:** The candidate must pass in all the subjects of this division before registration by the Branch Registrar of the General Council. 1. English: Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar, with analysis of sentences and the derivation and meaning of some common English words. 2. Latin: *Æneid*, Book III and *Cæsar, De Bello Gallico*, Book V, or *Sallust, Catiline*. Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied; Questions in Grammar and Construction. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III (Books II and III may be passed at a subsequent examination, before the first professional); Algebra, as far as Simple Equations. 5. One optional subject, Greek, French, German, or Logic, as prescribed in the second part. 6. Elements of Dynamics (Mechanics): *Elementary Kinematics*, Statics, Kinetics, and Hydrostatics. Text-books: Bottomley's *Dynamics* (Collins's series); Blaikie's *Elements of Dynamics*. **Optional Subjects for M.B. and C.M.:** The candidate must pass in a second optional subject in addition to the one passed for registration, before he can be admitted to the first professional examination. 1. Greek: Xenophon, *Memorabilia*, Book I, and the Gospel according to St. John; Translations of passages from Greek authors not prescribed, and of English passages into Greek—the principal Greek words supplied; Questions in Grammar. 2. French: Montesquieu, *Considérations sur les Causes de la Grandeur des Romains et de leur Décadence*,—Translations and Exercises. 3. German: Schiller's *Maria Stuart*—Translations and Exercises. 4. Higher Mathematics: Euclid, Books I to VI; Algebra, including Quadratic Equations, and the Rudiments of Trigonometry. 5. Natural Philosophy: Todhunter's *Natural Philosophy for Beginners*, Part II, Sound and Heat, omitting chapters xii and xiii on Sound and in Heat from Text, 732 to 746; Bottomley's *Handbook*. 6. Logic: Jevons's *Elementary Lessons in Logic*. 7. Moral Philosophy: Herbert Spencer's *Data of Ethics*. A Certificate of having passed, at the examinations for the Degree of M.A. or B.Sc., in English, Latin, Mathematics, Natural Philosophy, Greek, Logic, or Moral Philosophy, will be accepted instead of examination in these subjects.

At St. Andrew's, the examination takes place during the first week of the session. The following are the subjects. 1. English language, including Grammar and Composition. 2. Latin, Cicero, *De Officiis*, Book I; Virgil, *Æneid*, Book II. 3. Elements of Mathematics, comprising Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, including the first book of Euclid, with easy questions on the subject-matter of the same. 4. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. Candidates will be expected to have a knowledge of one or other of the following works: Garnett's *Elementary Dynamics*, Blaikie's *Elements of Dynamics*, Besant's *Hydrostatics*, Parkinson's *Elementary Dynamics*. 5. One of the following optional subjects: (a) Greek, Xenophon's *Anabasis*, first two books, or any one book of Herodotus or two books of Homer that the candidates like to select; (b) French: Voltaire's *Charles XII.*; (c) German: Schiller, *Thirty Years War*, or any one of his dramas; (d) Italian: Tasso's *Gerusalemme*, Canto I, Manzoni's *I Promessi Sposi*; (e) any other modern language; (f) Logic: Jevons's *Elementary Lessons in Logic*; (g) Botany: Hooker's *Catechism of Botany*, or Macnab's *Elementary Botany*; (h) Zoology: Huxley's *Manuals of Zoology*; (i) Elementary Chemistry.

with the exception of the clinical course, in which lectures are to be given at least twice a week.

Two courses of Midwifery, of three months each, are reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses.

Practical Pharmacy may be attended in either of the following ways: A course of not less than fifty hours' instruction in the Class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in an University or recognised School of Medicine, or a similar class conducted by a Teacher recognised by the University Court; or, for at least three months, compounding and dispensing drugs at the Laboratory of a Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain. Evidence of a practical knowledge of vaccination is required in Edinburgh and Glasgow.

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.⁶ [At St. Andrew's no one can be received as a candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges, viz.: the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Of the other two years, one may be constituted by attendance during at least six winter months on the medical or surgical practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers in the hospital schools of London, or in the school of the College of Surgeons in Ireland, or of such teachers of medicine as shall be recognised by the University Court, may be reckoned as one of the four years.⁷ All candidates not students of the University attending the lectures of Extra-academical Teachers, must at the commencement of each year of attendance enroll their names in a book to be kept by the University for that purpose, paying a fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.⁸

The examinations are conducted in writing and *visâ voce*, and, as far as possible, by demonstrations of objects and other practical tests. They are divided as follows.

EDINBURGH: 1. Chemistry, Botany, and Natural History; 2. Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3. Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4. Clinical Medicine and Surgery in a hospital. Students may be admitted to examination on the first division at the period of examination next preceding their second winter session, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*.

Candidates may be admitted to examination on the first two divisions at the end of their third year, or to the four examinations at the end of the fourth year.

GLASGOW: 1. Chemistry, Botany, and Natural History; 2. Anatomy and Physiology; 3. Regional Anatomy, Materia Medica and Pharmacy; 4. Surgery, Clinical Surgery, Medicine, Clinical Medicine, Pathology, Midwifery, and Forensic Medicine. Students may be examined in the first division of subjects at the period of examination next preceding the second winter session; in the second division, after two winter and three summer sessions, or, for those who commenced in a winter session, two winter and two summer sessions, from the time of the commencement of studies; in the third division, after the conclusion of the third winter session of attendance upon medical classes; in the fourth division, at the first term for the final examination after the conclusion of the curriculum of study.

ABERDEEN: 1. Botany, Natural History, Chemistry, and Anatomy; 2. Regional Anatomy, Institutes of Medicine, Materia Medica, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, Pathological Anatomy, and Medical Jurisprudence.

ST. ANDREW'S: 1. Chemistry, Botany, Elementary Anatomy, and Materia Medica; 2. Advanced Anatomy, Zoology with Comparative Anatomy, Physiology, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

At the Universities of Aberdeen and St. Andrew's, the examination in the first division of subjects may be passed at the end of the second year (except that at Aberdeen the examination in Botany and Natural History may be passed at the examination term preceding the second winter session); the examination in the second division at the end of the third year; and that in the third division at the end of the fourth year. Candidates may be admitted to examination on the first two divisions at the end of the third year, or to the three examinations at the end of the fourth year.

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the Degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a graduate in Arts, or must before or at the time of obtaining his Degree of Bachelor of Medicine,⁹ or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the other optional subjects of the examination in general education (see page 491). At Aberdeen, Edinburgh, and Glasgow, he must submit to the Medical Faculty a thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.¹⁰

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, in Aberdeen before the first Tuesday in November, 1861, and in Glasgow before October 1st, 1861, are entitled to be examined for the Degree of Doctor of Medicine under the regulation then in force in each University. At Edinburgh, candidates settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experiences are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiner of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year. The candidate must produce a certificate of age, and three certificates from medical men of acknowledged reputation as to his professional position and experience. The examination is conducted in writing

⁹ Or within three years thereafter. — *St. Andrew's*.

⁶ Entitled to grant Degrees in Medicine. — *Glasgow*.

⁷ Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Annus Medicus* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' courses in them, are not equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *Annus Medicus* by attending either (a) full winter courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (b) on one such course and two three months' courses on any of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student select the arrangement prescribed in (a), attendance on a third course will be accepted. The other subjects, and the additional courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at the University. In Provincial Schools where there are no Lecturers recognised by the University Court, a candidate can have only one *Annus Medicus*, and this is constituted by attendance on a qualified Hospital along with a course of Practical Anatomy; but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months', recognised courses. — *Edinburgh*.

⁸ The University of St. Andrew's requires an Inaugural Dissertation to be presented previously to the final examination for M.B. In the other universities, no Thesis is required until the candidate seeks the Degree of M.D.

¹⁰ No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's Degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise reference to the publications quoted, so that due verification may be facilitated. — *Edinburgh*. There is a similar regulation in the University of Glasgow.

and *vis à voce* on Materia Medica and General Therapeutics; Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery and Diseases of Women and Children.

The *Graduation Fees* in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s. = £15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.B., together with Government stamp-duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25. At St. Andrew's, the fee for the Degree of M.D. under the Section relative to Registered Medical Practitioners is 50 guineas; if the candidate fail to pass, £10 10s. (which is to be paid before the examination) is retained. Stamp-duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

STATED EXAMINATIONS for the Licences of the College in Medicine and Midwifery are held in the week following the first Friday in each month, except August and September.

LICENCE IN MEDICINE.

Every candidate for the Licence of the College to practise Medicine must produce satisfactory evidence—1. Of character, from a Fellow of the College, or from two registered practitioners. 2. Of having passed an examination in general education, held by some one of the examining bodies recognised by the General Medical Council. 3. Of having been engaged during four years in the study of Medicine. 4. Of having attended courses of lectures on the following subjects, at Schools recognised by the College: Practical Anatomy, two courses; Physiology or Institutes of Medicine, Chemistry, Practical Chemistry, Materia Medica, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery and Midwifery—each one course. 5. Of having attended for twenty-seven months a recognised Medico-Chirurgical Hospital in which clinical lectures and clinical instruction in Medicine are given; the attendance not to be for more than nine months in any one year, namely, six winter and three summer months. 6. Of having discharged the duties of Medical Clinical Clerk during six separate months, or of having taken notes, to the satisfaction of the Physician in charge of the case, and certified under his hand, of at least six Medical Cases—including different varieties of acute and chronic disease—in the wards of a recognised Hospital; and of having attended, during the whole period of his attendance on Hospital Practice, Demonstrations in the *post mortem* room of a recognised hospital. 7. Of having, for not less than three months, studied Fever in a recognised Clinical Hospital containing fever-wards, and of having recorded, from daily personal observation, at least five cases of fever, to the satisfaction of the attending Clinical Physician. 8. Of having attended Practical Midwifery and Diseases of Women for six months at a Lying-in Hospital or maternity recognised by the College; or, where such hospital attendance cannot have been attained during the course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; in either case, not less than twenty labour-cases must have been actually attended. 9. Of having lodged the admission-fee in the Royal Bank of Ireland to the credit of the College. Every candidate who commenced the study of Medicine on or after October 1st, 1879, must furnish evidence of having been engaged in the practical study of Vaccination.

Examinations.—The professional examination is divided into two parts: 1. Anatomy, Physiology, Practical Histology; Chemistry, and Materia Medica; 2. Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. Candidates may be examined in the subjects of the first part at the termination of the second year of study, on producing the certificates in these subjects, or in all the subjects of their education on the completion of their medical studies. No candidate can be examined in all the subjects of the first and second parts in the same month. The examinations are conducted by printed papers, orally, and at the bed-side.

Exempted Cases.—Candidates qualified as follows are required to undergo the second part only of the professional examination, namely, 1. Graduates in Medicine of any University in the United Kingdom, or of any Foreign University approved by the College; 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh; 3. Graduates, Members, or Licentiates in Surgery; 4. Candidates who, having completed the curriculum laid down above, shall have passed the previous professional examination or examination.

¹ This rule is enforced in the case of all Candidates who shall have commenced their professional studies after September 30th, 1883.

tions of any of the licensing medical authorities in the United Kingdom. Candidates thus qualified, as specified in Sections 1, 2, and 3, must fill up a schedule and present their registration-certificate (or their medical or surgical qualification), as well as certificates of character, of practical midwifery, and of attendance on a clinical hospital which receives cases of fever. Candidates whose case is met by Section 4 must produce, in addition to the certificates required from candidates for the licence, a certificate from the licensing medical authority to the effect that such previous professional examination has been successfully passed.

Any registered practitioner of five years' standing may be admitted to examination for the licence of the College on producing his certificate of registration, with satisfactory reference, and is exempted from the examination by printed questions.

Unsuccessful candidates may be admitted to re-examination after not less than two months.

LICENCE IN MIDWIFERY.

Candidates for the licence in Midwifery, who are not licentiates in Medicine, may be admitted to examination on the following qualifications: 1. The degree or licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom; 2. Testimonials as to character; 3. Certificates of having attended (a) a course of lectures on Midwifery in a school recognised by the College; (b) Practical Midwifery and Diseases of Women, as in Section 8 of the Regulations for the Licence in Medicine.

Candidates who are licentiates in medicine of the College, or who have passed the examination for such licence, may be admitted to examination for the licence in Midwifery on lodging their fees, and signifying their wish to the Registrar a week at least before such examination.

Registered practitioners of five years' standing are admitted to examination for the licence in Midwifery on producing their certificate of registration, with satisfactory reference, and are exempted from the examination by printed questions.

Fees.—The fees are: For the licence to practise medicine, £15 15s., which may be divided as follows: Examination at the termination of the first period of study, £5 5s.; final examination, £10 10s. Examination for the licence to practise midwifery, £3 3s. Examination for the licences in medicine and midwifery, if obtained within a month, to be lodged in one sum, £16 16s. Special examination for the licence to practise medicine, £21; for the licence to practise midwifery, £5 5s. The admission fee, less the sum paid to the examiners, is returned to any candidate rejected at any of the College examinations.

MEMBERSHIP.

Every candidate for the Membership of the College (not admitted before December 12th, 1878), is required to produce satisfactory evidence—1. Of having attained the age of twenty-five years. 2. Of being a Licentiate of this College for three years at least, computed from the day on which he shall have subscribed his name on admission as a Licentiate; or a Licentiate of one year's standing, who shall be a Graduate of Arts of an University in the United Kingdom at the time of his obtaining the licence; or a Licentiate of one year's standing, who shall be a registered practitioner of seven years' standing at the time of his obtaining the licence. 3. Of moral character and professional conduct from a Fellow or Member of the College, or from a Fellow of one of the Colleges of Physicians of London or of Edinburgh. 4. That he is not engaged in trade; and that he does not dispense medicine, or make any engagement with a chemist or other person for the supply of medicines; and that he does not practise medicine or surgery in partnership. 5. Of having held during at least six months the office of resident physician or resident medical pupil, or of having acted during the same period as medical clinical clerk, in a recognised hospital; or of having been in medical charge for at least twelve months of a public institution for the treatment of the sick.

Every candidate must pass an examination in: 1. Principles of Medicine, including Pathology, Morbid Anatomy, and Medical Chemistry; 2. Practice of Medicine, including Principles of Public Health; 3. Clinical Medicine. The fee for the examination is £21, which must be lodged in the Royal Bank, Dublin, before the applications and certificates are sent in. The examinations are held in January, April, July, and October.

Candidates who were admitted Licentiates of the College before December 12th, 1878, may be admitted Members of the College, under the following conditions. They shall comply with Clauses 1, 2, 3

and 4, as above stated. 2. They shall satisfy the College that they have, since their admission as Licentiates, obeyed the by-laws of the College. Should the College be satisfied that they have complied with the above regulations, they shall be admitted Members without fee or examination, on taking the declaration required of Members.² Should the candidate wish to obtain the parchment diploma of Membership, he shall pay one guinea.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL (LICENCE).

THE following regulations are applicable to students who commenced their study after May 1st, 1882.

Every candidate for the Letters Testimonial of the College must produce evidence—*a.* Of having, before entering on medical studies, passed the Preliminary Examination of the College, or an equivalent examination in general education, recognised by the General Medical Council; and *b.* Of having been registered by that Council as a student of medicine.

The College recognises as the commencement of professional study: 1. Attendance on the practice of a hospital, or other public institution recognised by the College for that purpose; or 2. Instruction as pupil of a legally qualified surgeon, holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council; or 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

The Letters Testimonial of the College will not be granted to any candidate at an earlier period than forty-five months subsequent to his registration as a medical student; nor to anyone who has not attained the age of twenty-one years.

Matriculated Pupils of the College.—Any student desiring to be matriculated as a pupil in the College books shall, if the Council think fit, be so registered on payment of a matriculation-fee of £5 5s., for which credit will be given subsequently in his examination-fee. No student can be admitted as a candidate to any examination for the Letters Testimonial until he shall have been enrolled as a registered pupil, and passed the Preliminary Examination. Matriculated pupils of the College are admitted to the Preliminary Examination, but are not entitled to re-examination without further fee. They are permitted to study each week-day in the Museum, and to read in the Library; also to attend the lectures on Comparative Anatomy, and to obtain a certificate for such attendance, without payment of any fee.

Examinations.—Every candidate must pass a Preliminary Examination and four Professional Examinations. Candidates who possess a Diploma or Degree in either Medicine or Surgery recognised by this College, or who have passed an examination in these subjects considered by the Council to be equivalent to examinations required by these regulations, may be exempted from the necessity of compliance with them, on such terms as the Council may deem expedient. Licentiates of a College of Physicians, or Graduates in Medicine of a recognised University, will be examined in General and Descriptive Anatomy, Histology, Physiology, Theory and Practice of Surgery, Operative Surgery, and Surgical Appliances. Candidates must return their names to the Registrar of the College, and lodge their fees and certificates, at least one week before the day specified for examinations. Each candidate has a number assigned to him, by which he is recognised during the examination.

The Preliminary Examinations are held on the third Wednesdays in January, April, July, and October in each year.¹

Professional Examinations.—The First, Second, and Third Professional Examinations are held in July and October of each year. Should the student fail to pass in July, he may present himself at the examination held in October. The examination of each year must be passed before a new session can be entered on, but, in special cases,

² In case the residence of any candidate be beyond a radius of twenty miles out of Dublin, the candidate will be permitted to send a copy of the declaration required of members, written in his own handwriting, with his name subscribed and duly attested.

¹ The Preliminary Examinations shall be in the following subjects: 1. English, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Simple Equations. 4. Geometry, first two books of Euclid. 5. Latin: the First and Second Books of the *Æneid* of Virgil, or the *Juniorine War* of Sallust, or the Third Book of Livy. 6. Physics, as may be found in Ganot's *Popular Natural Philosophy*. (The Examination in Physics may be passed either at the Preliminary or the First Professional Examination; notice to be given when entering for the Preliminary Examination. *Alternative Subjects* (one to be selected by the student): 1. Greek: The Gospel of St. John, or the First Book of Xenophon's *Anabasis*, or the Dialogue of Lucian, entitled *Menippus* or the *Necromancy*. 2. French: Fénelon's *Télémaque*, first three books. 3. German: Schiller's *Wilhelm Tell*.

the Council of the College may permit the student to commence a new year of study, and subsequently present himself for a supplemental examination.

First Professional Examination.—Candidates must produce evidence of having passed the Preliminary Examination, and of having been registered as medical students, at least nine months before the date of examination. Candidates are recommended to attend a course of lectures on Practical Anatomy, and one on Chemistry, before the First Professional Examination. The examination includes:—1. Physics (if not passed at the Preliminary Examination); 2. The Elements of Chemistry; 3. Botany; 4. Anatomy (Human Osteology); 5. Practical Pharmacy (Elementary). The candidates are examined in numerical order, one day by printed questions, and the next day orally.

Second Professional Examination.—Candidates must produce evidence of having passed the First Professional Examination; also certificates of having subsequently attended: Medico-Chirurgical Hospital, nine months; winter courses of Practical Anatomy, with Demonstrations and Dissections; Physiology; Surgery; Chemistry (unless attended in the first year); and summer courses (three months) of Practical Chemistry; Practical Physiology; and *Materia Medica* (unless attended in the first year). Candidates are examined in: 1. Anatomy (Bones, Joints, Muscles, and Topographical Anatomy of the Viscera of the Chest, Abdomen, and Pelvis); 2. Histology; and the Physiology of the Circulatory, Respiratory, and Digestive Systems; 3. Surgery (the Signs, Terminations, and Treatment of Inflammation; Wounds; Hæmorrhage; Burns and Scalds; Ulcers; Bandaging); 4. Chemistry; 5. *Materia Medica*. The candidates are examined in numerical order; the first day orally, and the second on Dissections and Histology. Each candidate must dissect a region allotted to him; half an hour, at least, being allowed for this purpose. He is examined on the anatomy of that part; and may also be examined on regions dissected by other candidates. He is also examined on microscopic preparations.

Third Professional Examination.—Candidates must produce evidence of having passed the Second Examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital, nine months as an extern pupil, or six months as a resident pupil; winter courses of Demonstrations and Dissections, Practical Anatomy (unless attended in the first year), Surgery, and Medicine; and a three months' summer course of Medical Jurisprudence. Candidates will be examined in: 1. Anatomy; 2. Physiology; 3. Surgery (not including Operative, Clinical, and Ophthalmic Surgery). Candidates are examined in numerical order; the first day by printed questions, the second day orally. On the third day, each candidate must dissect a region allotted to him. He is examined on the anatomy of that part, and may also be examined on regions dissected by other candidates.

The Fourth Professional Examination is held in July and October, and in the following April. Candidates must produce evidence of having passed the Third Professional Examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital, nine months as extern pupil (or six months as resident pupil, unless a certificate to that effect has been accepted in the third year); winter courses of Dissections and Demonstrations, and of Midwifery; of having attended a Midwifery Hospital, or Maternity, for six months, and of having been present at thirty labours; of Clinical Ophthalmology, three months; of Operative Surgery (between April 1st and October 1st); and of Practical Instruction in Vaccination. Candidates are examined in: 1. Surgery—Clinical, Ophthalmic, and Operative, with Surgical Anatomy; 2. Medicine; 3. Midwifery and Diseases of Women; 4. Medical Jurisprudence. The candidates are examined in numerical order, and the examination occupies four days. On the first day, it is by written questions, and on the second oral. On the third day, the examination is clinical. Each candidate must make a diagnosis in, at least, two surgical cases, examining the patients in the presence of the Examiners. He is questioned upon these cases, and upon others, if necessary. He also takes notes of another case, to test his accuracy in case-taking. He is required to bandage, adjust some surgical appliance, or perform some clinical surgical duty. On the fourth day, there is an examination in Operative Surgery. Each candidate performs a major and a minor operation, the names of which he will draw by ballot. He is questioned upon these, and on surgical instruments and appliances, and on the relative anatomy of the parts implicated in the operations performed by himself or other candidates.

Rejected Candidates.—No candidate can present himself for examination on the second or following days who has not satisfied his examiners upon the previous days; but all candidates who have

passed any of these days' examinations get credit for the same, if they have passed in all the subjects of the day's examination.

Fees.—For the Preliminary Examination, matriculated pupils of the College pay no fees; other pupils pay £1 ls. All matriculated candidates pay a further fee of £1 ls. for re-examination. For each of the Professional Examinations, the fee is £5 5s., no part of which will be returned on rejection. Rejected candidates are admitted to re-examination on paying an additional sum of £2 2s. Enrolment fee on issue of diploma, £1 ls.

FELLOWSHIP.

A candidate is admitted to the examination for the Fellowship if he have laid before the Council—(a) a receipt showing that he has lodged in the Bank of Ireland the fees as hereafter stated; also (b) a certificate that he is twenty-five years of age; (c) a certificate of general good conduct during his professional education, to be signed by two or more Fellows of the College; (d) certificates of attendance on the courses of lectures required for Letters Testimonial, together with one course of lectures on Comparative Anatomy and one course of lectures on Natural Philosophy; also (e) a Thesis on some medical subject, or Clinical Reports, with observations, of six or more Medical or Surgical cases, taken by himself. He must also produce certificates that he has been engaged in the acquisition of professional knowledge for not less than six years, during three of which he must have studied in one or more of the Schools and Hospitals recognised by the Council. He may have studied for the other three years in any School or Schools of the United Kingdom which shall be approved by the Council, or in any foreign School of repute. The candidate must also have been House-Surgeon or Dresser in a recognised Hospital.

Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their diploma, be admitted to the examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practice of their profession.

Examinations for the Fellowship shall be held from time to time as the Council may direct. Candidates are arranged in five grades.

Grade I.—Candidates possessing no qualification are examined on at least three days, the first two of which are devoted to the examination for the Letters Testimonial of the College; the third, to additional subjects required for the Fellowship. Candidates who do not pass the first two days' examination are not allowed to proceed to the third; but those who do pass are entitled to receive the Letters Testimonial of the College, although they may not have passed the third day's examination. No credit will be given, on a subsequent occasion, for passing a part only of either examination. The examination on the first day is written and oral, in Anatomy, Physiology and Histology, and Chemistry and Materia Medica, with Dissections; second day, clinical, in Surgery and Ophthalmic Surgery; written, in Surgery, Medicine, Medical Jurisprudence, and Prescriptions; oral, in Surgery and Medicine; and Operations; third day, clinical, in Surgery; written, in Pathology and Comparative Anatomy; and oral, in Surgery and Pathology, Comparative Anatomy, Histology and Pathology, and Therapeutics. The fees are: registration, £5 5s.; special licence examination, £5 5s.; letters testimonial, £21; additional for Fellowship, urban, £31 10s.; rural, £21. The fees for registration and special licence examination are retained in case of rejection.

Grade II.—Licentiates of the College of less than ten years' standing are examined one day orally in Anatomy, Comparative Anatomy, and Histology and Pathology, with Dissections; on the second day, clinically, and by written and oral examination, in Surgery, and orally in Pathology and Practice of Medicine and Therapeutics; they also perform operations on the dead subject. The fee is: for urban practitioners, £31 10s.; rural, £21; £10 10s. being retained in case of rejection.

Grade III.—Candidates of less than ten years' standing, possessing qualifications in surgery of other bodies, which the Council consider satisfactory, are, if admitted to examination, examined according to Grade II. The fees are the same.

Grade IV.—Licentiates of the College of more than ten years' standing are examined on the first day, orally, in Surgical Anatomy; and perform Operations on the dead subject. On the second day, they are examined clinically in Surgery and Medicine, and undergo a Written Examination in Surgery, and are examined orally in Theory and Practice of Surgery, and in Morbid Anatomy. The fees are as in Grade II.

Grade V.—Candidates of more than ten years' standing, possessing qualifications in surgery of other bodies, are, if admitted to examination, examined according to Grade IV.

Candidates may present themselves for examination in any grade junior to that under which they are classed, but pay the fees of the senior grade.

DIPLOMA IN MIDWIFERY.

Any Fellow or Licentiate of the College is admissible to the examination for a Diploma in Midwifery, on producing certificates of having attended a course of Lectures on Midwifery and Diseases of Women and Children; the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Lying-in Women and Children; and that he has attended at least thirty labours.

Candidates are examined on the Organisation of the Female; the Growth and Peculiarities of the Fetus; the Practice of Midwifery, and the Diseases of Women and Children; and, if approved of, receive a licence or diploma.

A rejected candidate is not again admitted to examination within three months, nor unless he produce satisfactory evidence of having been engaged in the study of Midwifery subsequently to his rejection.

The fee is £1 6s. if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 2s.

APOTHECARIES' HALL OF IRELAND.

A SERIES of new by-laws and regulations regarding the Preliminary and the Professional Education and Examinations required for the Licence to Practise the Profession of Apothecary has been recently issued.

Preliminary Education and Examination.—The Court of the Apothecaries' Hall, in accordance with the recommendations of the Medical Council, has transferred the Preliminary Arts Examination to the National Educational Institutions, and will in future accept the Certificate in Arts granted by these bodies, and also the Certificates in Arts of the Intermediate Examination Boards in Ireland, provided the subjects of examination are the same as those required by the General Medical Council.

Professional Education and Examinations.—Every Candidate for the Licence to Practise Medicine and Pharmacy must produce certificates: 1. Of having passed an Examination in Arts previously to entering on professional study. 2. Of registration in the *Medical Students' Register*; 3. Of medical study, after registration, for at least five years; 4. Of being 21 years of age, and of good moral character. 5. Of apprenticeship or pupilage to a qualified apothecary, or of having been otherwise engaged at Practical Pharmacy for twelve months subsequently to having passed the examination in Arts. 6. Of having attended the following courses, namely: Chemistry, Anatomy and Histology, Principles and Practice of Medicine, Surgery, and Midwifery and Diseases of Women and Children, each six months; Demonstrations and Dissections, twelve months; Materia Medica and Pharmacy, Botany, Zoology, Practical Chemistry (in a Laboratory), and Forensic Medicine, each during three months; one course each of Mental Diseases and Hygiene; Practical Midwifery at a recognised Hospital (twenty cases); instruction in Vaccination by a Public Vaccinator. 7. Of having attended the practice of a recognised Medico-Chirurgical Hospital or Hospitals, with Clinical Instruction, during at least four winter and three summer sessions. 8. Of Practical study, with care of patients, as apprentice, pupil, clinical clerk, or assistant in a Hospital or Dispensary.

The Examination for "the Licence to Practise the Profession of Apothecary" is divided into three parts. The first part comprehends Materia Medica and Pharmacy, Elementary Chemistry, Botany, Zoology, and Human Osteology; the second part, Anatomy, Physiology, Histology, and Practical Analytical Chemistry; and the third part, Medicine, Surgery, Midwifery, Mental Disease, Forensic Medicine, and Hygiene.

The Examinations commence on the first Monday in the months of January, April, July, and October, and are conducted by printed papers and orally.

A Hospital Physician, who is also an M.D. of a British University, is co-opted with the Examiners of the Court in conducting the Clinical Examination.

Candidates are eligible for the first part of the Professional Examination at the termination of the second year of study; and candidates for the second part, after having passed the first successfully, at the end of the third year of study; and candidates for the Final, after having passed the previous Examinations successfully, at the completion of the prescribed course of Professional Study.

Fees.—The fee for every examination and re-examination is £2 2s., half to be returned in case of failure. Ten shillings is the charge for "the Licence of the Hall."

Candidates for the Licence of the Hall, who have entered upon their Medical Studies on and after the 1st of October, 1884, will be required to comply with the new and amended Rules and Regulations; and all who have commenced their Professional Studies prior thereto will be admitted to examination for the Licence in accordance with the Regulations previously in force, if they prefer it; but in every case the candidate must, in future, pay the full fees above specified.

Candidates who fail to pass the First or the Second Part of the Examination will be remitted to their studies for three months, and unsuccessful candidates at the Final Examination for six months.

Doctors of Medicine of any of the Universities of the United Kingdom, and Licentiates of a Royal College of Physicians, or of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who have spent twelve months at Practical Pharmacy with a duly qualified Apothecary or a registered Medical Practitioner holding a public medical appointment, may obtain the Licence of the Hall by undergoing an examination—the former two in Pharmacy, and the latter in Medicine and Pharmacy. Registered Licentiates of the London Society of Apothecaries may obtain the Licence on the payment of £6 6s.

Candidates for the Professional Examination must lodge their testimonials and the fees, and enrol their names and addresses, with Mr. Charles Wright, the Clerk, at the Hall, in Dublin, a clear week prior to the day of examination.

UNIVERSITY OF DUBLIN.

The degrees in Medicine and Surgery granted by the University of Dublin are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery; 5. Master in Obstetric Science. It also grants Licences in Medicine, Surgery, and Obstetric Science, and a qualification in State Medicine.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical Surgery; Chemistry; Institutes of Medicine (Physiology); Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine (Practical Histology); Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence; Practical Chemistry. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board.¹ A certificate of personal attendance on fever cases, with names and dates of cases. Six months' instruction in Practical Midwifery,² including clinical lectures. Practical instruction in Vaccination. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.³ Students who shall have diligently attended the practice of a recognised London or Edinburgh hospital for one year, or of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the degree of M.B. must pass the Previous Medical Examination and the Bachelor of Medicine Examination.

The *Previous Examination* comprises Botany and Comparative Anatomy, Physics and Chemistry; Descriptive Anatomy and Institutes of Medicine (Practical Histology and Physiology). The examination in Descriptive Anatomy includes examination on the dead subject. It is not necessary that the student should pass in all these subjects at the same examination.

A stated Half M.B. examination is held at the close of the summer

¹ The following Hospitals are recognised:—Sir Patrick Dun's Hospital, Meath Hospital, Dr. Stevens' Hospital, Jarvis Street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, Mater Misericordiae Hospital, St. Mark's Ophthalmic Hospital, and the National Eye and Ear Infirmary.

² Certificates of Practical Midwifery are received from the Rotunda Hospital, the Coombe Hospital, and Sir P. Dun's Hospital Maternity.

³ The following schools, in addition to the School of Physic, are recognised:—The School of the Royal College of Surgeons in Ireland, the Carmichael School, the Ledwich School of Medicine and Surgery, the School of the Catholic University.

session in each year; in addition to which there is an examination in last term before the M.B.

Bachelor of Medicine Examination.—The candidate for the M.B. examination must have previously passed the Previous Medical Examination in all the subjects, and have lodged with the Medical Registrar, on a certain day to be duly advertised, certificates of attendance upon all the courses of study above prescribed.

Candidates must pass a final examination in the following subjects: Physiological Anatomy; Practice of Medicine; Surgery; Midwifery; Medical Jurisprudence; Institutes of Medicine (Pathology and Hygiene); Clinical Medicine; Therapeutics. The fee for the *Licent ad Examinandum* is £5; for the Degree of M.B., £11.

DEGREE IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read a Thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic. The total amount of fees for this degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must have passed the M.B. examination before presenting himself at the B.Ch. examination, having previously completed the prescribed curriculum of study. The curriculum of study comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates are required to perform surgical operations on the dead subject, and are examined in Bandaging and Minor Surgery, and in Surgical Pathology. Fee for the *Licent ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £5.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read a Thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor. Fee for the Degree of Master in Surgery, £11.

MASTER IN OBSTETRIC SCIENCE.

A Master in Obstetric Science must have passed the M.B. and B.Ch. Examinations, and produce certificates of having attended—1. One winter course in Midwifery; 2. Six months' practice in a recognised Lying-in Hospital or Maternity; 3. A summer course of Obstetric Medicine and Surgery; 4. Two months' practice in the Cowpock Institution. Existing Graduates in Medicine, of the standing of M.D., may present themselves for examination without producing certificates of attending 3 and 4. Fee for the Degree of Master in Obstetric Science, £5.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine, Surgery, or Obstetric Science, must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Licentiate in Medicine.—The Medical course and examination necessary for the Licence in Medicine are the same as for the Degree of M.B. A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the degree fees, without further examination in Medicine.

Licentiate in Surgery.—The surgical course and examination are the same as for the Degree of Bachelor in Surgery.

Licentiate in Obstetric Science.—The course of study and examination are the same as for the Degree in Obstetric Science.

Fee for the *Licent ad Examinandum* in Medicine or Surgery, £5.; for the Licence in each of the three cases, £4.

ROYAL UNIVERSITY OF IRELAND.

DEGREE OF BACHELOR OF MEDICINE.

CANDIDATES must, in addition to attending the lectures and complying with the other conditions prescribed, pass the following examinations: the Matriculation Examination; the First University Examination; the First Examination in Medicine; the Second Examination in Medicine; the Degree Examination.

A medical student from one of the Queen's Colleges, the Queen's University, or any other institution approved by the Senate, matriculated therein before October 1st, 1881, who has completed at least one year of the medical curriculum in any of the said institutions, is exempted from passing the First Examination in Arts.

The course of medical studies extends over at least four years, and is divided into periods of at least two years each.

The first period comprises attendance on the following courses: Chemistry, one course of at least six months; Practical Chemistry, at least three months; Botany (with Heborisation) and Zoology; Anatomy and Physiology; Practical Anatomy; Materia Medica.

The second period comprises attendance on the following courses: Anatomy and Physiology (including Histology); Practical Anatomy; Theory and Practice of Surgery; Midwifery and Diseases of Women, a six months' course; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates must also attend, in the first period, during a winter session of six months, the Practice and Clinical Lectures at a Medico-Chirurgical Hospital, recognised by the Senate, containing at least sixty beds; and, during the second period, six months at a recognised Midwifery Hospital or at a Midwifery Dispensary, at either of which Clinical Instruction in Midwifery and Diseases of Women and Children is given; the certificate in each case stating that the candidate has attended at least twenty labours; also, the Practice of a recognised Medico-Chirurgical Hospital during eighteen months, including either three winter sessions of six months each, or two winter sessions of six months each and two summer sessions of three months each.

Candidates must also, before presenting themselves for the Degree Examination, produce certificates: 1. Of three months' attendance on a fever hospital or the fever wards of a general hospital, and of personal attendance on at least ten fever cases; 2. Of having compounded medicine under an apothecary or pharmaceutical chemist for at least three months; 3. Of having received practical instruction in vaccination; 4. Of having attended for three months in a recognised Lunatic Asylum, where clinical instruction on Mental Diseases is given.

The Senate further recommend that students should avail themselves of opportunities of attendance on lectures on Diseases of the Eye, Ear, and other special departments. Candidates for the degree of M.B. will be required to exhibit proficiency in the use of the Ophthalmoscope and Laryngoscope.

First Examination.—Students are admitted to this examination after one academical year from matriculation. They may pass this examination at the same time as the First University Examination.

The subjects of this examination are Zoology,¹ Botany,² and a Modern Language (French or German). Candidates who have passed in a Modern Language at the ordinary First University Examination are exempt from presenting this subject.

Second Examination.—Students are admitted to this examination after one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies.

The subjects for this examination are: Anatomy, Physiology, Materia Medica, and Chemistry.

Examination for the Degree of M.B.—Students are admitted to this examination after one academical year from the time of passing the Second Examination in Medicine, provided that they have completed the second period of the course of medical studies. Students who have commenced their medical studies since January 1st, 1884, must furnish evidence of having been registered by the Medical Council, as Students in Medicine, for at least forty-five months, before being admitted to the final examination for M.B.

The subjects for this examination are: Anatomy, including Practical Anatomy; Physiology, including Practical Physiology and Histology; Surgery; Midwifery and Diseases of Women and Children; Theory and Practice of Medicine; and Medical Jurisprudence.

DEGREE OF DOCTOR OF MEDICINE.

Candidates may be admitted to this Degree after two academical years from the time of obtaining the Degree of M.B. All persons who were students in Medicine in the Queen's University at the date of its dissolution are entitled to obtain the Degree of M.D. upon passing the examination for the M.B. Degree.

¹ The examination in Zoology will consist of questions on the Anatomy and Classification of the Vertebrate and Invertebrate Animals.

² The examination in Botany will comprise the general principles of the Structure and Classification of Plants. Candidates will be expected to possess a practical acquaintance with the following natural orders, namely: Ranunculaceae, Cruciferae, Leguminosae, Rosaceae, Umbelliferae, Compositae, Scrophulariaceae, Solanaceae, Boraginaceae, Labiatae, Euphorbiaceae, Cupuliferae, Coniferae, Aroideae, Orchideae, Liliaceae, Gramineae, Papaveraceae, Fumariaceae, Malvaceae, Caryophyllaceae, and Valerianaceae, in addition to what they may learn from Oliver's *Lectures* as to the structure of these and other orders described in Part II of that work. Candidates must be able to distinguish the orders named from the principal allied orders.

Candidates must give notice in writing of their intention to present themselves, and must pay the fee of £1 at least one month before the examination, and must produce a certificate of having been, for at least two years, engaged in Hospital or Private Medical or Surgical Practice, or in the Military or Naval Medical Service.

Every candidate will be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment; to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon. Every candidate must submit to the Medical Examiners a Thesis certified by him (or her) to have been composed by himself (or herself). No Thesis will be approved which does not contain some original or personal observations in Practical Medicine, Surgery, or Midwifery, or in some of the Sciences embraced in the curriculum; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

Candidates who have been settled for two years in the Colonies or Foreign Countries, may, upon furnishing papers on medical subjects written by them, or official reports dealing with subjects of Medical Science, with evidence of the papers or reports being their own original composition, have the Degree conferred on them in absence.

DEGREE OF MASTER IN SURGERY (M.CH.).

This Degree is conferred only on Graduates of Medicine of the University.

The examination for this Degree comprises the Theory and Practice of Surgery, including Operative and Clinical Surgery. Candidates must produce a certificate of having attended a three months' course of Operative Surgery.

DEGREE IN OBSTETRICS.

Instead of a Diploma in Obstetrics, the University will grant the Degree of "Master of the Art of Obstetrics" (M.A.O.).

The degree is conferred only on Graduates in Medicine of the University. The examination comprises the Theory and Practice of Midwifery, and the use of Obstetric Instruments and Appliances, Gynecology, and Diseases of Children.

Candidates will be permitted to enter for this Examination when entering for the Examination for the M.B. Degree; but no one will be allowed to present himself for the Examination for the Degree in Obstetrics unless he has previously satisfied the Examiners at the M.B. Examination.

Fees, etc.—Candidates must give notice in writing to the Secretaries, at least one month before each examination, of their intention to present themselves. They must, at the same time, produce evidence of having completed the required courses of study, and pay the prescribed fees, namely: First Examination and Second Examination in Medicine, each £1; Examination for the Degree of M.B., £3; Examination for the Degrees of M.D. and M.C., £5; Examination for the Diploma in Obstetrics, £2.

If any candidate fail to attend for, or to pass, any University Examination (other than the Matriculation Examination) in respect of which any fee was paid, such candidate is not entitled to have the fee returned, but may, within three years, enter on any two subsequent occasions for the same examination, without the payment of an additional fee; provided that he give notice to the Secretaries at least one month before the commencement of the examination.

Exhibitions.—The following Exhibitions may be awarded annually by the Senate. At the first Examination in Medicine, Two First Class at £30, and Two Second Class at £15. At the Second Examination in Medicine, Two First Class at £40, and Three Second Class at £20. At the M.B. Degree Examination, Two First Class at £50, and three Second Class at £25. An Exhibition will not be awarded to any candidate at the First Examination in Medicine, if a longer interval than three Academical years shall have elapsed from the time of Matriculation; nor at the Second Examination in Medicine, if a longer interval than two Academical years shall have elapsed from the time of passing the First Examination in Medicine; or at the M.B. Degree Examination, if a longer interval than three Academical years shall have elapsed from the time of passing the First Examination in Medicine.—Hutchinson Stewart Scholarships, each tenable for three years, will be offered in the autumn of 1885: one, value £10 per annum, for competition in the subject for the second examination in Medicine; the other, annual value £50, to graduates of not more than two years' standing, for proficiency in Mental Diseases.—A sum of £95 may be placed annually at the disposal of the Examiners in Medicine, to be awarded in Prizes for superior answering in special subjects.

GUIDE TO THE LONDON HOSPITALS AND MEDICAL SCHOOLS: 1885-86.

For further particulars regarding each Hospital and Medical School, see p. 502, et seq.

	ST. BARTHOLOMEW'S HOSPITAL.	CHANCING CROSS HOSPITAL.	ST. GEORGE'S HOSPITAL.	GUYS' HOSPITAL.	KING'S COLLEGE AND HOSPITAL.
Physicians.....	Dr. Andrew. dy. ex. Th., 1.30 Dr. Church..... daily, exc. W., 1.30 Dr. Gee. Tu. Th. S., 1.30 Dr. Duckworth..... daily, exc. Tu., 1.30	Dr. Pollock. M. Th. } Dr. Green. W. S. } Dr. Bruce. Tu. F. } 2 3 1	Dr. Wadham. M.F., 1 Dr. Dickinson..... M.T. Th. F., 1 Dr. Whipham. Tu. W. S., 1 Dr. Cavaly. Tu. S., 1	Dr. Pavy. Tu. F., 1.30 Dr. Moxon..... M. Tu. Th. F., 1.30 Dr. Pye-Smith. M. Th. S., 1.30 Dr. Taylor. Tu. W. Th. F., 1.30	Dr. Johnson. M. Th., 2 Dr. Beale. Tu. F., 2 Dr. Duffin. W. S., 2 Dr. I. B. Yeo. T. F., 1.30 Dr. Ferrier. M. Th., 1.30 Dr. Curnow. W. S., 1.30 (Sum.) out
Assistant-Physicians	Dr. Hensley. M. Th., 11 Dr. Brunton. T. F., 11 Dr. Leggs. W. S., 11 Dr. N. Moore. Tu. W. Th. S., 9	Dr. Abercrombie. Tu. F. Dr. M. Lubback. W. S. Dr. Willcocks. M. Th. Dr. H. M. Murray. W. S.	Dr. Ewart. M. F., 12 Dr. I. Owen. Tu. S., 12	Dr. Goodhart. F., 12.30 Dr. Carrington. W., 12.30 Dr. White. M., 12.30	Dr. Tirard. W. S., 1.30 (Win.)
Obstetric Physicians	Dr. M. Duncan. Tu. Th. S., 2 Dr. Godson. W. S., 9	Dr. J. W. Black. Tu. F. Dr. A. Routh. Tu. F.	Dr. Champneys. Tu. F., 2	Dr. Galabin. M. F., 1.30 Dr. Horrocks. Tu. F., 1.30 (o.p.). Th. S., 12.30	Dr. Playfair. Tu. Th. S., 2 Dr. Hayes (o.p.)... M. W. F., 12.30
Diseases of the Skin.....	Mr. H. Cripps. F., 1.30	Dr. Sangster. M. Th., 1.30	Dr. Cavaly. W., 2	Dr. Pye-Smith and Dr. Car- rington. Tu., 12	Dr. Duffin. F.
Surgeons.....	Mr. Savory. daily, 1.30 Mr. T. Smith..... daily, exc. Tu., 1.30 Mr. Langton. daily, 1.30 Mr. Willett. daily, exc. F., Mr. Marsh. Tu. F., 1.30 Mr. M. Baker. daily, 1.30 Mr. Marsh. Tu. F., 12.30 Mr. Butlin. M. Th., 12.30 Mr. Walsham. W. S., 12.30 Mr. Cripps. Mr. Clarke, 9 Mr. Power (i.p.). Tu. F., 1.30	Mr. Barwell. Tu. F. } Mr. Bellamy. M. Th. } Mr. Bloxam. W. S. } 2 3 1	Mr. Holmes. M. Th. F., 1 W., 1.30 Mr. Rouse. M. Th. F., 1; W. 1.30 Mr. Pick. Tu. Th. S., 1; W., 1.30 Mr. Howard. Tu. Th. S., 1; W., 1.30	Mr. Bryant. M. Th., 1.30 Mr. Durlan. M. Th. F., 1.30 Mr. Howse. W. S., 1.30 Mr. Davies-Colley. M. Th., 1.30	Mr. Wood. Tu. Th. S., 1.30 Sir J. Lister. M. W. F., 1.30 Mr. H. Smith. M. W. F., 1.30 Mr. R. Bell. M. Th., 1.30
Assistant-Surgeons	Mr. Marsh. Tu. F., 12.30 Mr. Butlin. M. Th., 12.30 Mr. Walsham. W. S., 12.30 Mr. Cripps. Mr. Clarke, 9 Mr. Power (i.p.). Tu. F., 1.30	Mr. Cantlie. M. Th. Mr. Morgan. Tu. F. Mr. Boyd. W. S.	Mr. Bennett. M. F., 12 Mr. Dent. Tu. S., 12	Mr. Lucas. Th., 12.30 Mr. Golding-Bird. S., 12.30 Mr. Jacobson. W., 12.30 Mr. Symonds. M. S., 12.30	Mr. Rosen. Tu. F., 1.30 Mr. Cheyne. W. S., 1.30
Ophthalmic Surgeons	Mr. Vernon (i.p.). M. Th. S., 2 Mr. Cumberbatch. Tu. F., 2 Mr. Ewbank, Mr. Paterson Tu. F., 9	Royal Westminster Ophthalmic Hospital 1 Mr. Cantlie. F. 9 Mr. Fairbank. M. W. F., 9	Mr. B. Carter. M. Th., 2; F. 1.15 Mr. Frost (asst.). W. S., 2 Mr. Dalby. Tu., 2 Mr. Winterbottom. Tu. S., 9	Mr. Higgins Dr. Braley (Asst.) Mr. Purves. Tu. F., 12.30 Mr. Moon and Mr. Pedley Tu. Th., 12.30	Mr. McHardy. M. Th., 1 Dr. U. Pritchard. Th., 2.30 Mr. Cartwright. Tu. F., 10
Anal Surgeons.....	Mr. Ewbank, Mr. Paterson Tu. F., 9	Mr. Fairbank. M. W. F., 9	Mr. Winterbottom. Tu. S., 9	Mr. Moon and Mr. Pedley Tu. Th., 12.30	Mr. Cartwright. Tu. F., 10
Dental Surgeons	Mr. Ewbank, Mr. Paterson Tu. F., 9	Mr. Fairbank. M. W. F., 9	Mr. Winterbottom. Tu. S., 9	Mr. Moon and Mr. Pedley Tu. Th., 12.30	Mr. Cartwright. Tu. F., 10
CLINICAL MEDICINE	The Physicians. F., 1	The Physicians	The Physicians. M., 2	The Physicians (Win.)... S., 1.30; the Assistant-Phy- sicians (Sum.)... W., 1.30	Dr. Johnson. alt. M., 3 Dr. Beale. alt. Tu., 3 Dr. Duffin. alt. F., (Win.) 3 Dr. B. Yeo. alt. Tu. (Sm.) 3 Mr. Wood. Tu. Th., 1.30 Sir J. Lister. M. W., 2
CLINICAL SURGERY	The Surgeons. S., 12.45	The Surgeons	The Surgeons. Tu., 2	The Surgeons (Win.)... W., 1.30; the Assistant-Sur- geons (Sum.)... F., 1.30	Dr. Johnson. alt. M., 3 Dr. Beale. alt. Tu., 3 Dr. Duffin. alt. F., (Win.) 3 Dr. B. Yeo. alt. Tu. (Sm.) 3 Mr. Wood. Tu. Th., 1.30 Sir J. Lister. M. W., 2
CLINICAL MIDWIFERY AND DISEASES OF WOMEN....	Dr. M. Duncan. (Dis. of Women) alt. Th., 1 Wed. and Sat., 1.30; on Eye, Tu. Th., 1.30	Dr. J. W. Black. Twice a week Thursday and Saturday. 2	Dr. Champneys. F., 2 Thursday, 1; Eye, F., 1.15	Dr. Galabin (Win.) W., 1.30 Dr. Horrocks (Sum.) Tu. 1.30 Tuesday and Friday, 1.30 Eye, M. Th., 1.30	Dr. Playfair. alt. Th. in Winter 1.30; the Assistant-Sur- geons (Sum.)... F., 1.30 Mr. Wood. S., 2; Sir J. Lister S., 1 Dr. G. F. Yeo. Daily, 12.15
WINTER LECTURES. PHYSIOLOGY.....	Dr. Klein. Tu. Th. S., 10	Mr. F. W. Mott. M. W. F., 3	Dr. W. Ewart. Tu. Th. S., 8; S., 10	Mr. Golding-Bird. M. W. F., 4.15	Dr. G. F. Yeo. Daily, 12.15
ANATOMY, DESCRIPTIVE & SURGICAL.....	Mr. Langton & Mr. Marsh Tu. W. Th. F., 9	Mr. Bellamy. M. W. F., 9	Mr. Bennett. M. W. F., 9	Mr. Howse and Mr. Davies- Colley. Tu. W. Th. F., 9	Dr. Curnow (sen.). M. Tu. W. Th., 9; (jun.) W. Th., 11.15
ANATOMICAL DEMONSTRATIONS.....	Mr. Bruce Clarke, Mr. Lock- wood, Mr. Jessop, and Assistants. 10 to 4	Mr. Cantlie. daily, 9 to 4; (S. and Sum., 9 to 1 daily)	Mr. Turner and Assistant- Demonstrators	Mr. Lane, Mr. Poland, and Mr. Dunn. daily, 10 to 4	Dr. Curnow and Mr. Kenny
CHEMISTRY.....	Dr. Russell. M. W. F., 10	Mr. Heaton. M. W. F., 4	Mr. Donkin. Tu. Th. S., 11.30	Dr. Debus and Dr. Steven- son. Tu. Th. S., 11	Mr. Bloxam. M. W. Th., 10.15
MEDICINE.....	Dr. Andrew and Dr. Gee. M. Tu. Th., 3.30	Dr. Pollock. M. W., 4; Th., 3	Dr. Dickinson. M. Th. F., 3	Dr. Moxon and Dr. Pye- Smith. M. W. F., 3	Dr. Beale. M. F., 4; W., 5
SURGERY.....	Mr. Savory. W. Th. F., 2.30	Mr. Barwell. Tu. Th. F., 4	Mr. Pick. Tu. Th. S., 9.15	Mr. Bryant & Mr. Durham Tu. Th., 3.30; S., 2.45	Mr. H. Smith. Tu. W. Th., 4
SUMMER LECTURES. MATERIA MEDICA.....	Dr. Lauder Brunton. Tu. W. Th. S., 10	Dr. Bruce. Tu. Th. S., 9	Dr. Owen. M. W. F., 2	Dr. F. Taylor. M. Tu. Th., 9	Dr. Tirard. Tu. W. Th. F., 9.45
BOTANY.....	Rev. G. Henslow. M. F., 10; W., 11.30	Dr. Willcocks. M. W. F., 10	Mr. G. Murray. Tu. Th. S., 10	Mr. Bettany. Tu. Th. S., 11.15	Mr. Bentley. M. Tu. Th. F., 12.15
MIDWIFERY.....	Dr. Matthews Duncan. Tu. daily, 9	Dr. J. W. Black. M. Tu. W. F., 3	Dr. Champneys. M. W. F., 9	Dr. Galabin. Tu. W. Th. F., 9	Dr. Playfair. Tu. W. Th. F., 9
FORENSIC MEDICINE.....	Dr. Hensley. Tu. F., 2.30; Th. 3.30	Dr. Abercrombie. M. W. F., 9	Dr. Wadham. Tu. Th. S., 9	Dr. Stevenson. Tu. Th. S., 10	Dr. Ferrier. M. Tu. W. Th., 4
PRACTICAL CHEMISTRY.....	Dr. Russell. M. Tu. F., 11	Mr. Heaton. M. Th., 3	Mr. Donkin. daily, 11	Mr. Groves. M. W. F., 10 to 1	Mr. Bloxam and Demonstra- tors. M. W. Th., 10.15
COMPARATIVE ANATOMY	Dr. N. Moore (Summer) Tu. Th., 11.15	Dr. Garson (Sum.) S., 9	Dr. Howes (Sum.) M. F., 4	Dr. Braley and Dr. Shaw (Win.) M. W., 1.45	Mr. F. J. Bell. (Win.) M. Tu. F., 4
PRACTICAL PHYSIOLOGY & HISTOLOGY.....	Dr. Harris, Dr. Tooth, and Mr. Shore, daily	Mr. Mott. (Sum.) M. W. F., 11; (Win.) M. W. F., 10, and Tu. Th., 3	Dr. Délépine (Histology) M. W. F., 12; Tu., 2; Dr. Clarke (Phys. Dem.) M. W. Th. F., 2.30	Dr. Wooldridge (Win.) Tu. Th., 10	Dr. G. F. Yeo and Demonstra- tors (Sum.) Tu. F. S., 10.15
PATHOLOGY AND MORBID ANATOMY.....	Dr. Legg (lect.) W. S., 10; (demons.), Medical, 12; Surgical, 2.30	Dr. Green (Sum.) Tu. W. F., 4; Mr. Morgan, Sur- gical (Win.)	Dr. Whipham (Winter) S., 9; Dr. Slesley (demons.) W., 12 Dr. Blandford	Dr. Goodhart (lect.) (Sum.) S., 9; Dr. Goodhart and Dr. Carrington (dem.) 2.30 Dr. Savage (Sum.) Tu., 11; F., 10.30	Dr. Duffin (Sum.) W. Th. F., 3 Dr. Sheppard (Summer)
PSYCHOLOGICAL MEDICINE	Dr. Claye Shaw (Sum.) Tu. Th., 12.30	—	Dr. Bridges	Mr. G. Turner. M. F., 11.30	Dr. Kelly (Win.) F., 3
PUBLIC HEALTH.....	Dr. Thorne Thorne, M., 10	—	—	—	—
PRACTICAL AND OPERATIVE SURGERY.....	Mr. Butlin and Mr. Wal- sham. M., 4.30; W., 3.45; F., 3.30	Mr. Bloxam and Mr. Mor- gan (Win.); Mr. Bloxam (Sum.) daily, exc. M., 9	Mr. Dent (Pract.) (Sum.) M. W. F., 3; Mr. Turner (Oper.) (Sum.) M. W. F., 3.30	Mr. Clement Lucas. Pract. Surg. in Win.; Oper. Surg. in Sum.	Dr. McHardy (clin. lect (Win.) alt. M., 3
OPHTHALMIC MEDICINE & SURGERY.....	Mr. Power. Tu. Th., 9; Mr. Vernon (dem.) (Win.) M., 2	—	Mr. K. B. Carter and Mr. Frost (Win.) W., 4; (Chn.) W. S., 2	Mr. Higgins, W. 3 (Winter); Dr. Braley, W. 2 (Sum- mer)	Dr. McHardy (clin. lect (Win.) alt. Tu., 10.30
DENTAL SURGERY.....	Mr. Ewbank and Mr. Pater- son	Mr. Fairbank. Jan. Feb. March	Mr. Winterbottom (Sum.) Tu., 10	Mr. Moon (Summer)	Mr. Cartwright (clinical lect. (Win.) alt. Tu., 10.30
AURAL SURGERY.....	—	—	Mr. Dalby (Sum.) Tu., 2	—	Dr. U. Pritchard. W., 9, Oct. Dec.
DISEASES OF SKIN.....	—	—	Dr. Cavaly (Win.) W., 2	—	—

GUIDE TO THE LONDON HOSPITALS AND MEDICAL SCHOOLS: 1885-86.

For further particulars regarding each Hospital and Medical School, see p. 502 et seq.

LONDON HOSPITAL.	ST. MARY'S HOSPITAL.	MIDDLESEX HOSPITAL.	ST. THOMAS'S HOSPITAL.	UNIVERSITY COLLEGE AND HOSPITAL.	WESTMINSTER HOSPITAL.
Sir A. Clark. .M.Th.,2 Dr. Down. .Tu.F.,2 Dr. H. Jackson. .M.Th.,2 Dr. Sutton. .M.Th.,2 Dr. Fenwick. .Tu.F.,2 Dr. S. Mackenzie. .Tu. F., 2; (o.p.) W.S., 1.30 Dr. Sansom. W., 2(o.p.) M.Th., Dr. Turner. .W., 9.30; S., 1.30; (o.p.) Tu. F., 1.30 Dr. G. Smith. .Tu.F., 2(o.p.) W.S., 1.30 Dr. Warner. .M.Th., 2; (o.p.) Tu. F., 1.30 Dr. Ralfe. .(op.) M.Th., 1.30 Dr. Herman. .Tu. F., 2 Dr. Lewers. .M.Th., 2 Dr. S. Mackenzie. .Th., 9 Mr. Couper. .M.Th., 1.30 Mr. Rivington. .Tu. F., 2 Mr. Tay. .M.Th., 2 Mr. McCarthy. .W.S., 1.30 Mr. Treves. .Tu. F., 2 Mr. Reeves. .Tu. S., 1.30 Mr. C. Mansell-Moullin. .M. Th., 1.30 Mr. H. Fenwick. .Tu. F., 1.30 Mr. F. S. Eve. .M.W., 1.30 Mr. W. Tay & Mr. Eve. .Tu. S., 9 Dr. Woakes, Mr. Howell. S., 9.30 Mr. Barrett. .Tu., 9 The Physicians The Surgeons Dr. Herman. .(Win.) 2nd F. in mon.; (Sum.) alt. Tu., 2.30 Wednesday, Thursday and Saturday, 2 Mr. McCarthy. .Tu. Th. S., 9 Mr. Treves, 1st year. .Tu. Th. 12; 2nd year. .M. W. F., 9 Mr. Moullin & Demonstrators . 10 to 5, excepting Sat. aft. Dr. Tidy. .M. W. F., 10.30 Dr. S. Mackenzie. .M. W. F., 4 Mr. Rivington. .Tu. Th., 4 S., 10 Dr. Prosser James, Tu. Th. F., 9 Dr. F. Warner. .M. W. F., 12 Dr. Herman. .M. W. F., 9 Dr. Tidy. .W. F., 10.30; Dr. Sansom. M. Th., 3.30 Mr. Page (Summer) Dr. Mansell-Moullin. .Tu. Th. 10 Mr. McCarthy (Win.). .Tu. Th. S., 9; (Sum.) Tu. Th., 9.15 Dr. Sutton (Sum.). .Th., 12.30; S., 10; ditto or Dr. Turner (dem.) daily, 3.30 With Forensic Medicine Mr. Reeves and Mr. Riving- ton (Sum.) Mr. Adams (Sum.) Mr. Barrett (Sum.) Dr. Woakes (Sum.). .Tu., 4	Dr. Sieveking. .Tu. F., 1.45 Dr. Broadbent. .M. Th., 1.45 Dr. Cheadle. .W. S., 9.30 Dr. Lees. .W. S., 1 Dr. S. Phillips. .M. Th., 1 out-p. Dr. Maguire. .Tu. F., 1 — Dr. Meadows. .Tu. F., 9.30 Dr. Wiltshire. .M. Th., 1.30 Mr. M. Morris. .M. Th., 9.30 Mr. Walton. .W. S., 9.30 Mr. Norton. .M. Th., 1.45 Mr. Owen. .Tu. F., 1.45 Mr. Page. .T. F., 1 Mr. Pye. .M. Th., 1 Mr. Pepper. .W. S., 1 out-p. Mr. A. Crichtett Tu. F., 9.30 Mr. H. Julier. .Tu. F., 9.30 Mr. Field. .W. S., 9.30 Mr. H. Hayward. .W. S., 9.30 The Physicians The Surgeons Dr. A. Meadows and Dr. Wiltshire Wednesday. .1.30; Eye, Tu. F., 9 Dr. A. Waller. .M. W. Th., 12 Mr. Owen. .M. Tu. Th. F., 9 Mr. J. E. Lane and Mr. J. J. Clarke. .daily 9 to 5 Dr. Wright. .Tu. W. Th., 10 Dr. Broadbent and Dr. Cheadle. .before Chr. M. Tu. Th., 9; after Chr. M. W. Th., 3 Mr. Norton and Mr. Page . .M. Tu. Th., 4 Dr. Lees. .Tu. W. F., 10 Rev. J. M. Crombie. .M. W. F., 11 Dr. Meadows and Dr. Wilt- shire. .Tu. W. Th. F., 9 Dr. Randall. .M. Tu. Th., 10 Dr. Wright. .W. F. S., 9; or ganic, W. F., 10 Mr. Poulton (Sum.). .Tu. F., 11 Dr. Waller and Mr. Evans. . Tu. Th. S., 10 Mr. Silcock. .Tu. F., 12; daily, 2.30 Dr. Crichton Browne With Forensic Medicine Mr. Pepper. .Tu. Th., 12 Mr. G. A. Crichtett Mr. H. Hayward Mr. Field Mr. M. Morris	Dr. Cayley. .M. Th., 1.30 Dr. Coupland. .Tu. Th., 1.30 Dr. D. Powell. .M. Th., 1.30 Dr. Finlay. .Tu. F., 1.30 Dr. Fowler. .Tu. F., 3.30 Dr. Biss. .M. Th., 1.30 Dr. Pringle. .W. S., 1.30 Dr. Edis. .Tu. F., 1.30 Dr. W. A. Duncan. .(o.p.) W. S., 1.30 Dr. R. Liveing. .F., 4 Mr. Hulke. .M. Th., 1.30 Mr. Lawson. .M. Th., 1.30 Mr. Morris. .Tu. F., 1.30 Cancer. .Th., 1.30 Mr. A. Clark. .M. Th., 1.15 Mr. Pearce Gould. .Tu. F., 1.30 Mr. Lang. .W. S. (o.p.) 9 (in-p.) 10 Mr. Hensman. .Tu., 9 Mr. Bennett & Mr. C. Rogers The Physicians. .F., 3 The Surgeons. .Tu., 3 Dr. Edis, Dr. Duncan. . (sum.) W. S., 1.30 Wednesday, 1; Saturday, 2 Mr. Lowne. .M. W. F., 9 Mr. Hensman. .M. Tu. Th., F., 4 Mr. Hensman, Mr. Sutton & Mr. Wynter daily, 9 to 4 Mr. Foster. .M. W. Th. F., 3 Dr. Cayley. .Tu. Th. S., 9 Dr. Edis. .Tu. Th. S., 8 Dr. Finlay. .M. W. F., 9 Mr. Foster. .M. W. F., 3 Mr. J. B. Sutton (Sum.). . Tu. Th., 4 Mr. Lowne (Sum.). .Tu. Th. S., 9 Dr. Fowler (Sum.). .M. W. F., 9; Dr. Fowler (demons.) weekly Mr. H. Case (Sum.). .Th., 12 (Sum.) Mr. A. Clark. .(Tu. F., 4; Oper. Surg., April Mr. Lang (Clin.). .W. S., 9 Mr. S. Bennett. .W., 9.30	Dr. Bristowe. .Tu. F., 2 Dr. Stone. .M. Th., 2 Dr. Ord. .M. Th., 2 Dr. J. Harley. .Tu. F., 2 Dr. Payne. .Tu. F., 12.30 Dr. Sharkey. .M. Th., 12.30 Dr. Gulliver. .W. S., 12.30 Dr. Gervis. .M. Th., 2 Dr. Cory. .W., 1.30; S., 12.30 Dr. Payne. .W. 12.30 Mr. S. Jones. .Tu. F., 2 Mr. Croft. .M. Th., 2 Sir W. Mac Cormac. .M. Th., 2 Mr. Mason. .Tu. F., 2 Mr. MacKellar. .M. Th., 12.30 Mr. Clutton. .Tu. F., 12.30 Mr. Anderson. .W. S., 12.30 Mr. Pitts. .M. Tu. Th., 12.30 Mr. Nettleship. .M. Th., 2; (o.p.) M. Tu. W. Th. F., 1.30 Mr. Clutton. .M., 12.30 Mr. Ranger. .Tu. F., 10 The Physicians. .weekly The Surgeons. .weekly; Mr. Croft, special course Dr. Gervis Wednesday and Saturday, 1.30; Eye, Tuesday, 4; Friday 2 Dr. J. Harley and Dr. T. C. Charles. .Tu. W. F., 4 Mr. Reid and Mr. Anderson . .daily exc. Sat., 9.30 Mr. Reid, Mr. Anderson, Dr. Taylor, Mr. Ballance. . daily, 10 Dr. Bernays. .Tu. Th. F., 10.30 Dr. Bristowe and Dr. Ord . .M. Th. F., 9 a.m.; after Jan. 1, 4 p.m. Mr. Jones & Sir W. MacCor- mac. .to Dec. 31, M. Th. F., 4; after Jan. 1, M. Th. F., 9 Dr. Stone. .M. F., 12; W., 12.30 Mr. A. W. Bennett. .Tu. W. S., 10 Dr. Gervis. .M. Tu. Th. F., 4 Mr. Clutton, Dr. Bernays, and Dr. Cory. .Tu. Th. S., 9 Dr. Bernays. .M. Th. F., 10 Dr. Gulliver. .(Sum.) M. Th., 9 Dr. T. C. Charles. .(Sum.) M. Tu. F., 2; Demonst. (Win.) M. Th., 2 Drs. Payne & Sharkey W. F., 9; Dem., Drs. Sharkey & Hadden. .M. 4 Dr. H. Rayner (Sum.). .F., 12 Dr. A. Carpenter (Sum.). . W. 4 Mr. Mason and Mr. Mac- Kellar (Win.). .S., 9; (Sum.) Tu. F., 4 Mr. Nettleship. .(Oct. 1 to Dec. 31) Tu. F., 5 — — Dr. Payne	Dr. Wilson Fox Dr. Ringer Dr. C. Bastian Dr. F. T. Roberts Dr. Gowers Dr. Poore Dr. T. Barlow Dr. Graily Hewitt Dr. J. Williams Dr. Crocker. .W. 1.30; S. 9.15 Mr. Berkeley Hill Mr. C. Heath Mr. Marcus Beck 1 & 2 daily Mr. A. E. Barker Mr. R. J. Godlee Mr. V. Horsley Mr. Streetfield and Mr. Tweedy. .M. Tu. Th. F., 2 Mr. Barker. .S., 1.30 Mr. S. Hutchinson. .W., 9.30 Dr. W. Fox (Holme Prof.), Dr. Ringer, Dr. Bastian, Dr. Roberts, Dr. Gowers, and Dr. Barlow Mr. Hill, Mr. Heath (Holme Prof.), Mr. Beck, Mr. Bar- ker, Mr. Godlee Dr. G. Hewitt. .fortnightly Wednesday, 3 Mr. Schäfer & Dr. McWil- liam. .M. Tu. Th. F., 10 Mr. Thane. .daily, exc. S., 12 Mr. Thring, Mr. Bradford, and assistants, 8 to 5; Sat., 8 to 2 Dr. Williamson. .daily, exc. S., 11; (exerc.) Tu. W. Th. F., 9 Dr. Ringer and Dr. Buxton . .Tu. W. Th. F., 9 Mr. Marcus Beck. .M. S., 9; W., 4 Dr. F. T. Roberts. .M., 9; Tu. W. Th. F., 10 Mr. Oliver. .daily, exc. S., 8 a.m. Dr. Graily Hewitt and Dr. J. Williams. .Tu. W. F. S., 9 Dr. Poore. .Tu. W. Th. F., 10 Dr. Williamson (jun.) Tu. W. Th. F., 10; (sen.) M. S., 10 Mr. Leakester (Win. and Sum.) Dr. McWilliam and Demon- strators. Dr. Bastian (Sum.). .M. S., 10; Th., 4; Pract., Tu. F., 4; Mr. Barker (Surg.) Jan. Feb. March, M. Th., 4 Dr. Corfield (Sum.). .Tu. Th. F., 4 Mr. Hill (Oct. Nov. Dec.) . .M. Th., 4; Mr. Godlee (Win. and Sum.) Mr. Tweedy (Sum.) M. W., 4; (clin.) Mr. Streetfield and Mr. Tweedy Mr. Hutchinson Dr. Crocker. .(clin. lect. alt. weeks)	Dr. Sturges. .M. Th., 1.30 Dr. Allchin. .Tu. F., 1.30 Dr. Donkin. .W. S., 1.30 Dr. Hall. .M. Th., 1.30 Dr. A. H. Bennett, Tu. F., 1.30 Dr. Murrell. .W. S., 1.30 Dr. Potter. .Tu. F., 2 Dr. Grigg. .Tu. F., 9 Dr. T. C. Fox. .W., 1.30 Mr. Cowell. .M. Th., 1.30 Mr. Davy. .Tu. F., 1.30 Mr. Macnamara. .W., 1.30; S., 9.30 Mr. T. Cooke. .M. Th., 1.30 Mr. Bond. .Tu. F., 1.30 Mr. B. Barrow. .W. S., 1.30 Mr. Cowell. .M. Th., 2.30 Mr. Barrow. .Tu. F., 9 Dr. Walker. .W., 9.15; Mr. Smale. .S., 9.15 Dr. Sturges. .Th. (alt. Xms.) Dr. Allchin. .F. (bef. Xms.) Dr. Donkin. .W. (Sum.) Mr. Cowell. .Th. (aft. Xms.) Mr. Davy. .F. (Sum.) Mr. Macnamara W. (of Xms.) Dr. Potter. .F. Tuesday and Wednesday, 2 Dr. Heneage Gibbs. .M. W. F., 1.30 Mr. Black. .Tu. W. Th. F. S., 9; also Sun. Tu. Th. 9 Mr. Hebbert and Mr. Powell M., 9.30 to 1, other days 10 to 1 Dr. Dupré. .M. Th. F., 3 Dr. Sturges & Dr. Allchin before Xms., M. W. Th., 3; after Xms., Tu. Th., 9 Mr. Cowell and Mr. Mac- namara. .Tu. Th., 4; F., 3 Dr. Murrell. .M. W. F., 9 Mr. Worsley-Benison. .Tu. W. Th. F., 10 Dr. Potter. .Tu. Th. S., 9; F., 4 Dr. Hall and Dr. Dupré. Tu. W. F., 8 Dr. Dupré and Mr. Hake . .M. W. F., 11 Dr. L. Ogilvie. .Jan. to July Dr. H. Gibbs. .Th., 1.30; Hist. (Sum.) M. W. F., 1.30 Dr. Allchin. .M. W. Th., 9; Morbid Hist., Dr. Gibbs . .Tu. Th., 11 Dr. Sutherland (June). .Tu. Th. F., 8 With Forensic Medicine Mr. Davy. .F., 12.30; Minor Surg., Mr. Barrow Mr. Cowell (Sum.) M., 3 Dr. J. Walker. .(Oct. Nov., Dec.) W., 9.30 Mr. Barrow. .(June) Tu., 10 Dr. Colcott Fox. .(Feb. Mar.) Th., 2.30

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

ADDITIONAL NOTES.

ST. GEORGE'S HOSPITAL.—Perpetual students pay £125 at entrance; or 1st and 2nd years, each £45; 3rd year £40. Gentlemen who have completed a year of professional study at an English University are allowed a reduction of £40 from the perpetual pupil's fee. A reduced fee is also paid by students who have attended lectures in other schools. The payments for courses required by the examining boards do not confer the privileges of perpetual students. Practical

King's College.—The Composition Fee includes perpetual attendance on Anatomy, Physiology, Chemistry, Medicine, Clinical Medicine, Surgery, Clinical Surgery (one Professor), Obstetric Medicine, Botany, Forensic Medicine, Materia Medica, Comparative Anatomy, Pathological Anatomy, and Hospital Practice; and one course each of Natural Philosophy, Practical Surgery, Practical Chemistry, and Practical Physiology. A reduction of 20 per cent. is made to pupils who have attended at least five terms in King's College School.—Clinical Surgery (win.), one professor, s. £6 6s.; p. £8 8s.; both professors, s. £8 8s.; p. £11 11s.; (sum.), one professor, s. £4 4s.; p. £5 5s.; both, s. £5 5s.; p. £6 6s.—Anatomy and Practical Anatomy, together, s. £9 9s.; p. £12 12s. Students of Practical Physiology pay £1 1s. for use of apparatus, etc. Practical Biology and Experimental Physics, 3 terms, each subject, £8 8s.; second year, each £3 8s. Practical Pathology and Natural Philosophy, each course, £22s. Analytical and Experimental Chemistry (exclusive of material) 1 month, £4 4s.; 3 months £10 10s.; 6 months, £18 18s. Medical Tutor, each year, £3 8s.

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

[illegible]

LONDON HOSPITAL.—The General Fee for Lectures and Hospital Practice covers four years, and includes two years' Practical Anatomy. For students entering at or before beginning of second winter, £75 15s.; or two instalments of £47 5s. and £31 10s. This fee cover three years from the date of entry. Students in Arts of Universities who have attended Lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, may become Pupils of the Hospital, eligible for all Hospital Appointments, on payment of £52 10s. Graduates of any Indian, Canadian, or other Colonial or American University or Medical College, may be admitted to three months' Clerkship or Dressership and twelve months' Hospital Practice for £10 19s.—The fees for Hospital Practice include Clerkships and Dresserships for one-half the term, not exceeding 6 months' Clerkship and 9 months' Dressership. Maternity Department, one year, £4 4s.; including Midwifery Lectures, 46 6s. Perpetual Fee for Lectures or Hospital Practice alone, £52 10s. Diseases of Throat and Aural Surgery, each, s. £2 2s.; two years, £2 3s. Experimental Physics, one session, £3 3s. Extra for use of Apparatus, etc., in Practical Chemistry, £2 2s.; in Practical Physiology, £1 1s. The Subscription to the Library, and the fees for Practical Pharmacy and Apparatus in Practical Chemistry, are extra. Candidates rejected at the Final Examination, and requiring a further surgical certificate, pay £3 3s.

ST. MARY'S HOSPITAL.—Entrance Fees for unlimited attendance on Hospital Practice and Lectures (including one course of Practical Chemistry), £131 5s., in instalments, or £124 19s. in one sum. Students who have kept a portion of the course of Medical Study elsewhere are admitted as Perpetual Pupils at a reduction. Students who have not entered to the Anatomical and Physiological

cal classes, can dissect on the payment of £4 4s. for each session. Inorganic Practical Chemistry is included in the General Fee. Organic Practical Chemistry £4 4s. Aural Surgery, Diseases of Skin, each £2 12s. 6d. Practical Pharmacy, twelve months, £10 10s.

MIDDLESEX HOSPITAL.—The Composite Fee includes all the Lectures required by the London licensing boards, one course of Practical Chemistry, and two courses of Dissections, the use of the Library, and the instruction of the Tutor. When payment is made by instalments, additional fees must be paid after the fourth year. Members of English Universities who have completed one year of medical study in University, are admitted to all lectures and hospital practice required (except Practical Chemistry, and including only one course of Dissections), for £60 on entrance, or instalments of £45, £20, and £5 at the beginning of each year; separate fees in the latter case being required after the third year. Qualified Practitioners are admitted to six months' Hospital Practice on payment of £3 5s.; perpetual, £10 10s. Occasional pupils entering to the Hospital Practice pay a registration fee of £1 6s. Parts for dissection, each session, £2 2s. Practical Medicine, one course, £6 6s.; subsequent course, £2 2s. Practical Midwifery, one course, £3 3s.; subsequent course, £1 1s. Physiological and Pathological Chemistry, one course, £2 2s.; subsequent course, £1 1s.

ST. THOMAS'S HOSPITAL.—Perpetual Fee for students entering in second year, £85 in one sum; or, 2nd year £65; 3rd year £25; for students entering in third year, £55 on entrance; or £40, and the next year, £20. Qualified Medical Practitioners are admitted to Hospital Practice and Lectures on payment of (Continued on next page.)

(Continued on next page.)

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

IN addition to the Tables of the Classes, hours of attendance, and fees, given at pages 498, 499, we subjoin the points of most interest in the Programmes issued by the several Medical Schools. At each hospital, clinical instruction in Medicine, Surgery, and Midwifery is given in the wards and in the out-patient department; and also in various special departments, as stated in the tables at pages 498, 499, and in the subjoined notes. All hospital appointments, except where otherwise specified, are made without extra fee.

ST. BARTHOLOMEW'S HOSPITAL.—*The Hospital* comprises 750 beds; 227 for Medical cases, 353 for Surgical cases, 26 for Diseases of the Eye, 20 for Diseases of Women, and 50 for Syphilitic cases; while 75 are at the Convalescent Hospital at Swanley. Children are admitted into both the medical and the surgical wards.

Museums, etc.—The Anatomical Museum, and the Museums of Materia Medica and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Library is open every day from 9 to 5, except one week of the Christmas vacation and one month in the long vacation.

College.—Students attending the hospital or medical school are admitted to residence on the recommendation of a medical officer of the hospital; and such recommendation may be obtained by commencing students on adducing satisfactory evidence of good moral character. The entrance fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage of furniture. Resident students are expected to dine in the hall every day.

£12 10s. for unlimited attendance. Practical Pharmacy is not included in the perpetual fee. Students Dissecting, or attending Operative Surgery, pay for the parts they use. Midwifery Practice, £5 5s.; Obstetric Demonstrations, £3 3s.; Ophthalmic Practice, £2 2s.; Operative Surgery (voluntary class), £5 5s.; Operations on Eye (voluntary class), £2 2s. Pathological Anatomy (including practical course), £6 6s., with 10s. 6d. (extra) for apparatus, etc. Laryngology, £3 3s.; Experimental Physics, s. £4 4s.; p. £5 5s.

UNIVERSITY COLLEGE.—The Composition Fee admits to attendance for five years on Hospital Practice and Lectures on Physiology, Histology, Chemistry, Surgery, Medicine, and Midwifery, and three years' Anatomy and Practical Anatomy; and to one course each of Botany, Materia Medica, Practical Chemistry, Practical Physiology, Practical Histology, Medical Jurisprudence, Pathological Anatomy, Practical Surgery, and Pharmacy; and one term of the tutorial classes of Chemistry and Physiology. Additional, for attendance for five years on Botany, £1 11s. 6d.; on Materia Medica, Medical Jurisprudence, and Pathological Anatomy, £1 1s. each; Practical Anatomy, each additional year after third, £1 1s.; second course of Practical Physiology, Practical Histology, or the tutorial class of Physiology, £1 1s.; of Practical Chemistry, £3 3s.; of Practical Surgery, £4 4s.—Physiology: General Course of Physiology, s. £7 7s.; latter part, £4 4s., each additional, £1 1s.; General Course of Practical Physiology, one course, £2 2s.; each additional, £1 1s.; Advanced Practical Physiology, s. £5 5s.; General Course of Histology, s. £4 4s.; each additional, £1 1s.; General Course of Practical Histology, one course, £5 5s.; each additional, £1 1s.; tutorial class, each term, £1 1s. Special instruction in Laboratory, £3 3s. each term, with fee to instructor. Chemistry: General Course, half winter session, £3 3s.; third term, £2 2s.; Organic Chemistry (summer), £2 2s. 6d.; senior class, £5 5s.; second course, £3 3s.—Practical Class, one course, £5 5s.; second course, £1 1s.; Advanced Inorganic Chemistry (summer) £2 2s.—Anatomy: Lectures and Practical Anatomy, Course, £1 11s.; Perpetual £2 2s. and three years' Practical Anatomy, £16 16s.—Pathological Anatomy: Practical Course, £2 2s.—Hygiene and Public Health: Laboratory Instruction (exclusive of materials), six months, £18 18s.; three months, £10 10s.; one month, £4 4s.; two months, working every other day, £5 5s., exclusive of materials; Practical Class for Detection of Poisons, £2 2s.

WESTMINSTER HOSPITAL.—The payments include all extras except parts for Dissection, and Lectures on Experimental Physics.—Students who have completed a year of study elsewhere pay £72 on entrance, or two instalments of £37 16s. each, or three payments of £30, £30, and £20. Students who have completed their Anatomical and Physiological Studies can enter to hospital practice and lectures on practical subjects by paying £60 on entrance, or two instalments of £31 10s. each. These payments do not include Lectures on Experimental Physics or Comparative Anatomy, nor the special course of Operative Surgery. Graduates of Medicine of Colonial and Foreign Universities are admitted to Hospital Practice and Lectures on payment of £12 12s. Experimental Physics, one course, £3 3s.; each subsequent course, £2 2s.; Anatomy and Elementary Anatomy in summer, each course, £2 2s.; Morbid Histology (in summer) one course, £5 5s.; Minor Surgery and Bandaging, £1 1s. Diseases of Skin, £1 1s. Aural Surgery, £1 1s. Obstetric, Ophthalmic, Aural, Skin, or Dental Clinical Departments, 3 months, £2 2s.; 6 months, £3 3s. General students may attend additional courses of lectures on all subjects except Histology and Practical Chemistry, for a second course of which a half-fee is charged. Special Clinical Departments, and Lectures on Psychological Medicine, Ophthalmic, Aural, and Dental Surgery, Diseases of Skin, and Comparative Anatomy, are free to general students, unless a special certificate be required.

QUEEN'S COLLEGE, BIRMINGHAM.—Students who have paid the composition fee, and desire to repeat attendance in any class beyond the ordinary requirements of the examining bodies, can do so on payment of half the stated fee for each class. Dissection after second winter, 3 months, £2 2s.; 6 months, £3 3s. (including parts for dissection). A fee of £1 1s. is charged for apparatus in the class of Practical Physiology, and 15s. in the class of Practical Chemistry. Each student also deposits £2 as "caution money," the balance of which is returned when he has passed a final examination. Every dissecting student pays a fee of £1 10s. at the beginning of each winter session.

Special Departments, etc.—Surgical consultations are held on Thursdays at 1.30. Medical casualty patients are attended by the Junior Assistant-Physician, the Casualty Physicians (Dr. Haig, Dr. Davies, and Dr. Nias), and the House-Physician; the surgical casualty patients, by the two Junior Assistant-Surgeons and the House-Surgeons and Dressers. In addition to the courses mentioned at page 498, Dr. Matthews Duncan teaches Practical Gynecology in the Wards for Diseases of Women on Tuesdays, Thursdays, and Saturdays, at 2 P.M. The Demonstrator of Morbid Anatomy gives a demonstration of morbid specimens (medical) at 11 on Fridays. The Surgical Registrar gives a demonstration of Surgical Morbid Specimens every Tuesday at 11. Inspections are made in the Pathological theatre: medical cases by Dr. Norman Moore, at 1 P.M.; surgical cases by Mr. Bowlby, at 1.45. Microscopic specimens are demonstrated every Friday at 3.30 by the Demonstrator of Morbid Anatomy and the Surgical Registrar. The Ophthalmic Wards are visited at 1.30 on Tuesdays and Thursdays by Mr. Power, and at 2 on Mondays, Thursdays, and Saturdays by Mr. Vernon; the ophthalmic out-patients are seen at 2 o'clock on Tuesdays and Thursdays by Mr. Power, and at 2.30 on Tuesdays and Saturdays by Mr. Vernon. Mr. Vernon gives Ophthalmic Demonstrations at 2 P.M. on Mondays in the winter session. Mr. Walsham sees orthopaedic cases at 2.30 on Mondays, and Mr. Butlin patients with diseases of the larynx at 2.30 on Fridays. Demonstrations of Operative Surgery are given by the demonstrators of Anatomy and Operative Surgery throughout the year. Mr. Mills gives three months' courses of instruction on the administration of anaesthetics.

Appointments.—Four House-Physicians and ten House-Surgeons (who must be qualified to practise), and a Senior and a Junior Assistant.

BRISTOL MEDICAL SCHOOL. Students of Anatomy or Physiology pay a Medical Tutor Fee of £2 2s. per annum; this (for 2 years) is included in the Composition Fee. Students not belonging to the Anatomical Class may dissect on paying £3 3s. each session, besides Tutor's fee.—*Royal Infirmary:* Entrance fee, £2 2s.; and £1 1s. per annum to Library; Clinical Clerk, 6 months, £5 5s.; 1 year, £8 8s.; Dresser, each 6 months, £5 5s.; Obstetric Clerk, each 3 months, £3 3s. *General Hospital:* Extra fee for Clerk or Dresser, £5 5s. for 6 months; for Obstetric Clerk, £3 3s. for 3 months. Library, £1 1s. per annum.

YORKSHIRE COLLEGE: LEEDS SCHOOL OF MEDICINE.—An Entrance Fee of £1 1s. is paid by students who do not pay a composition fee. The composition fee admits to the lectures required by the English medical corporations and to one course each of Mental Diseases, Ophthalmology, and Hygiene. Diseases of Women and Children, £2 2s.; with Midwifery, £5 5s. Morbid Histology, £3 3s. Dissecting-room for students not attending the course on Descriptive Anatomy, 3 months, £2 2s.; 6 months, £3 3s.

LIVERPOOL UNIVERSITY COLLEGE (ROYAL INFIRMARY) SCHOOL OF MEDICINE.—The Composition Fee includes Library and Ophthalmology. The aggregate fee of £105 for Lectures and Hospital Practice is exclusive of Vaccination (£1 1s.); Dissecting-room expenses (about £3 3s.); Practical Anatomy in summer (£2 2s.); and Practical Pharmacy (£3 3s.). Six months' Gynecological Practice and Lectures at the Infirmary, £5 5s.; Practical Midwifery at the Ladies' Charity and Lying-in Hospital, £2 2s. Elementary Biology, Elementary Zoology, Practical Biology, Practical Zoology, one course of each, £2 2s. General Zoology, £3 3s. Composition fee for first year of above, £7 10s.; with General Zoology, £9 10s. Embryology, £1 5s. Comparative Osteology, £2 2s. Practical Pathological Histology, each course, £2 2s. Diseases of Children, first course, £2 2s.; second and third, each £1 1s. Physics, first course, £6 6s.; second, £4 4s.; both together, £8 10s. Organic Chemistry, each course, £1 10s. Practical Toxicology, £3 3s.

OWENS COLLEGE, MEDICAL DEPARTMENT.—The Composition Fee admits to four years of study. It does not include Hospital Practice, Practical Anatomy, after two sessions, 3 months, £2 2s.; 6 months, £3 3s.; Operative Surgery (special course), £4 4s.; Practice Pharmacy, £3 3s.; Practical Morphology, two days per week, £7 7s.; one day, £4 4s.; Comparative Embryology, £5 5s.; Comparative Osteology, £2 2s.; Botany (Practical Course), £1 11s. 6d.; Demonstration class in Anatomy, £2 2s.; to members of Practical Anatomy Class, £1 1s.; Tutorial classes in Anatomy and Physiology, each £1 1s.; Tutorial classes in Chemistry and Botany, each 10s. 6d.; Deposit Fee (Dissection), £2 5s.; Practical Chemistry, for chemicals, £1 1s. Surgical Pathology, £2 2s. Pathological Laboratory (6 hours weekly), 3 months, £5 5s.; 6 months, £8 8s. Practical Physiology and Histology, extended course (October to end of July), six days per week, £17 17s.; four days, £14 14s.; three days, £10 10s.; two days, £7 7s.; one day, £4 4s. Students entering at or after Christmas pay two-thirds of the fees, if they enter for not less than two days a week. For shorter periods, the fees, entitling the student to work every day in the week, are, six months, £15 15s.; three months, £9 9s.; one month, £4 4s.—Chemistry, Preliminary Scientific, of Victoria University, £4 4s., of University of London, £4 14s. 6d.; junior and senior lectures, each £3 10s.; both, £5 5s.; Organic Chemistry, lectures, £3 10s.; Laboratory classes according to length of course and number of days.—Zoological Laboratory, special courses, fees as for extended course of Practical Physiology.—Obstetric Practice at St. Mary's Hospital, £2 2s.—Diseases of Children, £2 2s.—Morbid Histology (summer), £2 2s.—Demonstrations in Medical Jurisprudence and Practical Toxicology, £3 3s.—Registered medical practitioners wishing to qualify as officers of health can attend the Hygiene course free.—Practical Anatomy in summer, £2 2s. An extra charge of 5s. is made for use of microscopes in several of the practical classes.

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.—Chemical Apparatus, £1 1s. (to be returned at end of session); Use of Books for home-reading, 10s. The perpetual fee does not include Chemistry and Practical Physiology beyond one course.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor's Fee, £2 2s.—At the Fifth College: (1) Chemistry of the Non-metallic Elements, £3 18s. 6d.; (2) Chemistry of the Metals, £2 2s.; or both courses, £5 5s.; (3) Organic Chemistry, £1 11s. 6d.; or with (2), £3 3s.; Chemical Philosophy, £1 1s.; Lectures on Analytical Chemistry, £1 11s. 6d.; Practical Chemistry for Medical Students, £8.

ant-Chloroformist, are appointed annually. A Resident Midwifery Assistant and an Ophthalmic House-Surgeon are appointed every six months. Each of these officers receives a salary of £25 a year, except the Senior Assistant Chloroformist, who receives £50. All, except the five Junior House-Surgeons, are provided with rooms. The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheur, are chosen from the most diligent students. Clerks and dressers are also selected to attend in the out-patient rooms and in the special departments and in the *post mortem* room. Dressers to the surgical in-patients and the surgical casualty department are selected, to the number of forty in each year, from the students (of the first year) who pass the best examination in the subjects of the first year. Other in-patient dresserships may be obtained by payment of the usual fees (see p. 500).

Exhibitions, Scholarships, and Prizes.—Two open Scholarships in Science, value of each £130, tenable for one year, to be competed for on September 26th. For one of the scholarships, candidates must be under twenty; for the other, under twenty-five years of age. The subjects are Physics, Chemistry, Botany, Zoology, and Physiology. No candidate may take more than four subjects. The successful candidates must enter at St. Bartholomew's Hospital in the October succeeding the examination. Jeaffreson Exhibition: £50; examination on September 28th; subjects, Latin, Mathematics, and any two of the following languages—Greek, French, German. Candidates for the Open Scholarships and the Jeaffreson Exhibition must not have entered to the hospital practice of any metropolitan medical school. Preliminary Scientific exhibition, £50, for one year, on October 20th, for students of less than six months' standing; holder of Open Scholarship not eligible; subjects, the same as for the open scholarship. *First Year:* Three Junior Scholarships, of the value of £50, £30, and £20, after the general examination in first year's subjects at the end of the winter and summer sessions. Candidates, who must not have previously entered at a Metropolitan Medical School, must have been students at the Hospital for less than fifteen months. Prize Dresserships are awarded to the succeeding forty candidates, if of sufficient merit, provided that they pass the first professional examinations before the end of the second year. Treasurer's Prize for Practical Anatomy, junior. *Second Year:* Foster Prize for Practical Anatomy, senior. Harvey Prize for Practical Physiology. *Second or Third Year:* Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, The Life and Works of Sir Charles Bell. Hichens Prize: subject, Bishop Butler's *Analogy*. Two Brackenbury Scholarships in Medicine and Surgery. Bentley Prize, for the best report of not less than twelve medical or twelve surgical cases occurring in the Hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine, open to students of not less than two or not more than four years' standing. *Third or Fourth Year:* Two scholarships of £30 or £40. Lawrence Scholarship and Gold Medal, value £42; subjects, Medicine, Surgery, and Midwifery. Candidates for the Lawrence and Brackenbury Scholarships may compete after the end of the third winter session. An Anatomical prize has been presented by the late Mr. H. Skinner. Details will be announced.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers, demonstrators, and tutors. All students of the first year are examined at the close of the first winter and first summer sessions. Classes are held to prepare candidates for the examinations of the University of London.

The *Abernethian Society*, composed of the teachers and students of the Hospital, meets every Thursday at 8 p.m. during the winter. The *Abernethian Reading Room* is for the exclusive use of members of the Society.

Communications regarding the Hospital and Medical College must be addressed to Dr. Norman Moore, the Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL.—The Hospital contains 180 beds. Students are also admitted to the practice of the Royal Westminster Ophthalmic Hospital, which contains 50 beds.

The Library is open daily from 10 A.M. to 4 P.M., except on Saturdays, when it is closed at 1 P.M. The Museum is open from 10 to 4.

Special Courses.—Lectures on Diseases of Children are given by Dr. Murray at 12 noon on Wednesdays; and clinical instruction at 1.30 p.m. on Wednesday and Saturday.—Dr. Wilcocks and Dr. Murray will give a course of Practical Medicine on Mondays and Thursdays, at 12 during the winter.—Instruction in case-taking is given by the Registrars.—Mr. Woodhouse Braine and Mr. F. Hewitt give instruction in the administration of Anæsthetics in the operating theatre every

Thursday. Practical instruction in Operative and Minor Surgery is given by Mr. Bloxam; and in Surgical Pathology by Mr. Morgan. Instruction in the Clinical uses of Electricity is given by Dr. Murray at 12 noon on Mondays; and by the Electrical Assistant on Wednesdays and Fridays. An Elementary and an advanced course of Physiology will be given.

Appointments.—A Medical and a Surgical Registrar, each with a salary of £40 a year, are appointed for 12 months. Two House-Physicians, two House-Surgeons, and a resident Obstetrical Officer, are appointed by competitive examination for six months. They are entitled to rooms and commons in the hospital. An Electrical Assistant is appointed every four months. Clinical Clerks and Surgeons' Dressers and Pathological Assistants are appointed for three months. Each student must hold an In-patient Clerkship and In-patient Dressership, after the first professional examination, in order to obtain certificates of hospital attendance. Students may serve as assistant to the Dental Surgeon for three months.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded in October, after examination in English, Latin, French, and German, and Mathematics, with either Chemistry, Mechanics, German, or French. Intending candidates must give notice before September 21st. The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second year; examination in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, and Midwifery. The Golding Scholarship, £15, open to all matriculated students who have just completed their first year; subjects of examination, Descriptive Anatomy, Physiology, Materia Medica, and Chemistry. The Pereira Prize of £5, to matriculated students who have completed the third year, for the best clinical reports of cases in the hospital (surgical in 1886). The Governors' Clinical Gold Medal; examination on subjects of clinical lectures during the session, and on medical and surgical cases in the hospital. Silver and Bronze Medals and Certificates of Honour in all the classes. Prizes of six guineas and four guineas are given by the lecturer on Dental Surgery. A Surgeon's Operating Case will be given by the Lecturer on Practical and Operative Surgery, at the end of the third winter session, for general practical knowledge and manipulative skill. The Lecturer on Physiology will give a prize for the best note-book and set of specimens.

Examinations.—Classes are held to prepare students for the Preliminary Scientific and Intermediate M.B. Examinations of the University of London, and the Primary Fellowship Examination and Pass Examination for the Membership of the Royal College of Surgeons of England.

Residence.—Arrangements have been made with several members of the hospital staff to receive resident pupils.

Information may be had of the Dean, Dr. Mitchell Bruce, or the Subdean, Mr. Cantlie.

ST. GEORGE'S HOSPITAL.—The Hospital contains 351 beds, of which 205 are devoted to Surgical, and 146 to Medical cases. There are special wards for cases of Diseases of the Eye (19 beds) and Diseases of Women. Children are received into the women's wards.

The Library and Reading Room and the Museum are open daily.

Special Subjects.—Surgical consultations are held on Wednesdays at 1.30. Orthopædic out-patients are seen by Mr. Bennett every Wednesday at 2. Dr. Whipple sees patients with Diseases of the Throat on Thursdays at 2, and gives instruction in the use of the laryngoscope, etc. Dr. R. H. Clarke will give a course of demonstrations in Physiological Chemistry on Monday, Wednesday, Thursday, and Friday, at 1.30, during the winter session. Mr. Turner will give demonstrations on the Bones, and Mr. Ross on the Joints and Muscles. A course of demonstrations in Histology will be given by Dr. Delépine. A course of Practical Medicine will be given by Dr. Whipple to students of the second summer session, at 9 A.M. on Tuesdays, Thursdays, and Saturdays. Mr. Dent gives a course of Practical Surgery (including minor surgery, bandaging, case-taking, etc.) for second year's students, at 3 P.M. on Mondays, Wednesdays, and Fridays, and 3.30 P.M. on Tuesdays, in the summer, and Mr. Turner a course of Operative Surgery for third year's students, at 9.30 on Mondays, Wednesdays, and Fridays. Dr. Champneys holds a class of Practical Midwifery in the winter and summer sessions. Dr. Delépine gives a course of Practical Pathology, at 4 on Mondays, and 3.30 on the next four days, in the summer; and Dr. Sisley gives demonstrations in Morbid Anatomy at 12 noon on Wednesdays.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, are ap-

pointed, half-yearly, from among the perpetual pupils.¹ The House-Physicians and House-Surgeons are appointed by the Weekly Board, on the nomination of the Medical School Committee; they hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer, which will be returned on the expiration of their term of office, if they have satisfactorily performed their duties. An Obstetric Assistant is appointed annually; he must be a legally qualified practitioner. He resides and boards in the hospital, and receives a yearly salary of £100. A Curator of the Pathological Museum, and a Medical and a Surgical Registrar, are appointed annually from among the senior pupils, each with a salary of £50. A Pathologist and Demonstrator of Histology is appointed annually, with a salary of £25. Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of Assistant House-Physician. An Assistant Surgical Registrar is also appointed; this office must be held, alternately with that of Ophthalmic Assistant, before competing for the office of Assistant House-Surgeon. Two Demonstrators of Anatomy are appointed annually. Each pupil of the hospital must act as Clinical Clerk and Dresser before a certificate of attendance on hospital practice can be signed.

Exhibitions and Prizes.—The following Entrance Scholarships are offered for competition: 1. A Scholarship, value £125, for the sons of medical men who have entered the school during the current year. 2. Two Scholarships, each of £50, open to all students commencing their studies. The subjects for these three Scholarships will be Latin, French or German, and Elementary Physics, and the examination will be held on Monday, October 5th. 3. A Scholarship, value £90, open to all students who have entered the school during the current year, and who have passed the Cambridge First M.B. since October, 1884. Subjects: Elementary Biology, Anatomy, Physiology, and Practical Chemistry. 4. A Scholarship, value £75, for students who have entered during the current year, and have passed the Oxford First M.B. or the Cambridge Second M.B. Subjects: Anatomy and Physiology. The examination for these Scholarships will be held during October.² The William Brown Exhibitions: 1. £100 *per annum* for two years, open to perpetual pupils of the hospital under the age of 25, who have become entitled to be registered under the Medical Act within two years previously; examinations in July; subjects, Clinical Examination of three Medical and three Surgical cases (including one case of Obstetric Medicine and one of Ophthalmic Surgery). 2. £40 *per annum* for three years, to perpetual pupils of the third and fourth winter sessions. Subjects as above; and the second candidate will receive the Treasurer's Prize (value £10 10s.), and the third the Thompson Silver Medal. Brackenbury Prizes in Medicine and in Surgery (value of each £32 5s. 11½d.), open to all pupils who have been for eighteen months students of the hospital, and who have not completed the fourth year on April 1st; examinations in June. Sir Charles Clarke's Prize (value £6 5s. 9d.) for good conduct; awarded at end of summer session. Sir Benjamin Brodie's Clinical Prize in Surgery (value £6) for the best report with notes of not more than twelve surgical cases in the hospital during the preceding twelve months. Sir H. W. Acland's Clinical Prize in Medicine (value £5) for the best record of not more than twelve cases of disease in the hospital during the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before May 1st). The Henry Charles Johnson Memorial Prize (value £10 10s.) for Practical Anatomy. The Pollock Prize in Physiology (value £18 12s. 6d.). These two prizes are for second year's students. General Proficiency Prizes, £10 10s., for students of each year: first year, Anatomy, Elementary Physiology, Botany, and Chemistry; second year, Anatomy, Physiology, including Histology, Physiological Chemistry, and Materia Medica; third year, Medicine, Surgery, Pathology, and Midwifery.

The Medical Society meets once a week at the hospital during the winter session.

Residence of Students.—Dr. Champneys, 60, Great Cumberland Place, receives pupils to reside with him, and superintends their professional education. The Dean has also a list of medical gentlemen living in the neighbourhood, who receive pupils to reside in their families.

¹ All perpetual pupils are eligible for the office of House-Physician and House-Surgeon. All pupils of the hospital may become candidates for the offices of Medical and Surgical Registrar, Obstetric Assistant, Curator of the Museum, and Demonstrator of Anatomy. They are also entitled to attendance on the Maternity Department, and the practice of Ophthalmic and Dental Surgery, without additional fee.

² Subjects: Latin, Cicero, *De Amicitia*; Horace, *Odes*, Books iii and iv. French, Molière, *Le Malade Imaginaire*; Voltaire, *Charles XII.* German, Schiller, *Geschichte der Abfälle der Niederlande*; Heine, *Buch der Lieder*. The examination in Elementary Physics will include Mechanics, Hydrostatics, Light, Heat, and Electricity.

Further Information may be obtained from Dr. Wadham, the Dean of the School; from any of the Lecturers; or from Mr. F. J. Marshall, the Resident Medical Officer at the Hospital.

GUYS' HOSPITAL.—The Hospital contains 695 beds. There are 50 beds for Ophthalmic and 26 for Obstetric cases. Children are received into the female wards.

Museums, etc.—The Museums of Human Anatomy, Comparative Anatomy (above 2,000 specimens), Pathological Anatomy (above 5,000 specimens), and Materia Medica, are open to the students. The Library is open to the students daily from 9.30 A.M. to 5.30 P.M., except on Saturdays, when it is closed at 4 P.M.

Special Courses.—The Dissecting-room is open at stated periods during the summer; and the students who desire to dissect in September have facilities for doing so. Students are allowed to visit Bethlem Hospital on fixed days in the summer; and gentlemen can enter as extern students for three months by arrangement with Dr. Savage. A course of Lectures on Experimental Physics is given by Mr. Reinold at 11 on Mondays and Wednesdays during the winter session.—Mr. Symonds gives a course of practical demonstrations in Morbid Histology two days in the week. Dr. G. N. Pitt gives instruction in Practical Medicine throughout the year. Mr. Clement Lucas gives a course of demonstrations of Practical Surgery (including Minor Surgery and Surgical Pathology) in the winter; and in summer a course of Operative Surgery, at 4 P.M. on Mondays, Wednesdays, and Fridays.—Mr. Jacobson will hold a surgical class daily before each pass examination of the Royal College of Surgeons.—Ophthalmic out-patients are seen at 12.30 by Mr. Higgins on Tuesdays, and on Tuesdays and Fridays by Dr. Brailey; in-patients at 1.30 P.M. on Fridays by Mr. Higgins, and on Wednesdays and Fridays by Dr. Brailey.—Dr. Horrocks gives courses of practical instruction in Midwifery and Diseases of Women.

Appointments.—All appointments are given according to the respective merits of the candidates. There are appointed annually House-Physicians, House-Surgeons, Surgeons' Dressers, and Medical Clinical Clerks, for six months; Dressers in the Eye Wards, for four months; Clinical Assistants, Assistant-Physicians' Clerks, Assistant-Surgeons' Dressers, Dressers in the Surgery, Obstetric Ward Clerks, Surgical Clinical Clerks, Assistant-Surgeons' Clerks, for three months; Obstetric Residents, *Post Mortem* Clerks, Dental Surgeons' Dressers, Aural Surgeons' Dressers, for two months; Obstetric Out-Patient Clerks, six weeks; Extern Obstetric Attendants, one month; also Clerks in the Room for applying Electricity. A special honorary certificate is given to every gentleman who has diligently performed the duties of not less than three of the various offices; and special certificates are given to those who have attended one hundred cases of midwifery.

Scholarships and Prizes.—Two Entrance Scholarships, each 125 guineas, to be competed for on September 28th, 129th, and 30th: one in Arts,³ and one in Science.⁴ Candidates must be under twenty-five years of age, and must not compete for both Scholarships. Notice must be given to the Dean before September 25th. The successful candidates must enter at the Hospital in the October immediately following. **First Year:** At the end of the summer session, two prizes of £50 and £25; subjects, Anatomy of Bones, Ligaments, and Muscles, Physiology, Materia Medica, Chemistry (including Practical Chemistry), and Botany or Comparative Anatomy. **Second Year:** At end of the summer session, prizes of £25 and £10; subjects, Anatomy and Physiology (including Practical Physiology). At end of the winter session, the Michael Harris Prize of £10 for Human Anatomy (including Minute Anatomy); the Sands Cox Scholarship (every third year, next in 1886), value £15, tenable for three years; subjects, Physiology (including Physiological Physics), Histology, and Physiological Chemistry. **Third Year:** At end of the summer session, two prizes of £25 and £10; subjects, Medical Anatomy and Methods of Diagnosis, Surgical Anatomy and Diagnosis, Operative and Minor Surgery, Midwifery, and Therapeutics. **Fourth Year:** At end of the summer session, two prizes of £25 and £10, in Medicine, Surgery, Diseases of Women, and Medical Jurisprudence. **Fourth and Fifth Years:** Treasurer's Gold Medals in Clinical Medicine and Clinical Surgery; Gurney Hoare Prize of £25, for best reports of three Medical and three Surgical cases, with commentaries; Beane

³ The subjects are—Latin: Caesar, *De Bello Gallico*, Book vii. Greek: Xenophon, *Hellenica*, Book ii. French: German: Euclid, the first four Books; Algebra to Quadratic Equations; Arithmetic. Candidates may choose Greek or German, but will not be allowed marks in more than one of these subjects.

⁴ The subjects are—Inorganic Chemistry; Zoology; Botany; Physics, including general properties of solid, liquid, and gaseous bodies; Acoustics, Heat, Magnetism, Electricity, and Optics. Specimens will be given with the papers in Botany and Zoology.

Prize of thirty guineas in Pathology. *Fourth, Fifth, and Sixth Years:* Mackenzie Bacon Prize, value £10 10s., for proficiency in Medical Ophthalmoscopy; Mackenzie Bacon Prize, value £15, for Nervous Diseases; Burdett Prize, value £80, for Hygiene. Honorary certificates are given to those candidates who pass creditable examinations.

The Registrars and Demonstrators of Anatomy and Chemistry assist the pupils in their studies. Classes for the preparation of candidates for the Examinations of the University of London are held.

The *Pupils' Physical Society* meets on alternate Saturdays at 7.30 P.M. Two prizes of £10 and £5 will be awarded for the best papers read during the session. Two prizes, value £5 each, will be given for the best essays on selected subjects. A prize of £5 is also given to the member who has most distinguished himself in the debates.

The Treasurer gives a prize of £5 for Clinical Research.

Several of the Lecturers have vacancies for Resident Private Pupils. Information may be obtained from the Dean, Dr. F. Taylor, at the hospital.

KING'S COLLEGE AND HOSPITAL.—The *Hospital* contains 170 beds in use.

The *Museums* of Anatomy, *Materia Medica*, Natural History, etc., are open daily from 10 till 4. The *Medical Library* is open daily.

Special Courses.—Clinical Instruction is given daily by the Physicians and Surgeons; and Special Demonstrations in Operative Surgery, Minor Surgery and Bandaging, and Surgical Pathology, by the out-patient Surgeons and Assistant-Surgeons. Instruction is given in the Diseases of Women and Children; and in Throat-Diseases (with Laryngoscopic Demonstrations), by Mr. Rose, every Tuesday, at 2. Demonstrations and Practical Instruction in Morbid Anatomy are given in the *Post Mortem Theatre*. Special Instruction is given in Medical Chemistry and the Microscope by the Physicians. A course of Osteology is given at 2 P.M. on Mondays and Fridays in the summer. Lectures on Natural Philosophy are given in the summer, at 2 P.M. on Tuesdays.

Appointments.—Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from matriculated students, who are pupils at the hospital.

Scholarships and Prizes.—Two Warneford Scholarships, for the encouragement of previous education,⁵ each £25 *per annum*, for three years; and one Warneford Scholarship of £25 *per annum* at the close of the winter session, for two years, for third year resident medical students. Medical Scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth year; one of £30 for one year, to students of the second and third year; three of £20 for one year, to students of the first year. Daniell Scholarship, open to students who have worked in the laboratory six months, £20 *per annum*, for two years. Two Sambrooke Registrarships, of the annual value of £50 each, open to matriculated students who have filled any of the higher appointments at the hospital. Two Sambrooke Exhibitions, one £60 and one £40, open to all matriculated students at the commencement of their course of study; subjects of examinations, Mathematics, Elementary Physics, Inorganic Chemistry, Botany, and Biology. Rabbeth Scholarship, value £20, in July, for best evidence of early scientific training. Two Science Exhibitions, given by the Clothworkers' Company, one of £50 and one of £25 *per annum*, each tenable two years, for proficiency in any four of the following subjects: Mathematics, Mechanics, Physics, Chemistry, Botany, Geology, Mineralogy, and Zoology; open to all candidates under 19 on October 1st, 1885. Inglis Scholarships: two annually, £50 each, for proficiency in Modern History and English Literature. Leathes' Prizes: Interest of £300 applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated medical students. Warneford Prizes: £40 in medals and books, to two matriculated medical students. Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency

in each of the several subjects taught in the classes. Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session; and two Surgical Clinical Prizes of £3 each for the winter session. Todd Medical Clinical Prize: Bronze Medal and Books, value £4 4s. Jelf Medal, to the candidate at the senior scholarship examination who is second in order of merit. Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics. Carter Prize: Gold Medal and Books, value £15, for proficiency in Botany. The Carter (English Original Verse), Stephen (English Essay), Trench (Greek Testament), and McCaul (Hebrew) Prizes are open to students of the medical department.

The *Medical Tutor* assists, by instruction and examination, all students in the subjects of the first winter and summer sessions, as well as those preparing for the Preliminary Scientific Examination of the University of London. Classes are held for the latter examination.

Associate of King's College.—At the end of each winter session, the professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students under the supervision of the Censor. The cost of the academical year varies from £50 to £60.

The *Medical Society* meets on Thursdays, at 8.30 P.M.

Information.—The Dean of the Medical Department, Professor Curnow, attends daily (Saturday excepted), at King's College, from 11.30 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean during the vacation will receive early attention.

LONDON HOSPITAL.—The *Hospital* contains about 800 beds, approximately thus allotted: Accidents and Surgical cases, 334; Medical cases, 300; Diseases of Women, 26; Children under seven years of age, 68; Ophthalmic cases, 12; out-door wards, 60. Special wards are allotted to Jewish patients.

Museum, etc.—The Anatomical and Pathological Museum, the *Materia Medica* Museum, and the Library are open daily.

Special Courses.—Mr. Jonathan Hutchinson will give in the winter and summer sessions courses of six lectures on Clinical Surgery. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Mr. Millar, at the Bethnal House Asylum, every Wednesday from 10 to 12. Dr. Morell Mackenzie gives a course of lectures on Diseases of the Throat. Mr. H. A. Reeves gives a course of Practical Surgery (bandaging, etc.), and Mr. Rivington a course of Operative Surgery in the summer session. Dr. Herman gives instruction in Diseases of Women at 2 P.M. on Fridays. Mr. T. M. Mark Hovell is Junior Surgeon to the Aural department. Mr. T. J. M. Page gives a course of Experimental Physics at 10.30 on Thursday and Saturday, in January, February, and March. Mr. McCarthy gives instruction to first year's students in Practical Histology, at 9.15 A.M. on Tuesday and Thursday in the summer.

Appointments.—Five House-Physicians, five House-Surgeons, and a Resident Accoucheur, are appointed every six months, renewable for two further periods of three months each. The house-physicians and resident accoucheur must possess a medical or surgical degree or diploma, and the house-surgeons a surgical diploma. Clinical Clerks, Surgical Dressers, and Clinical Obstetric Clerks are appointed for three months. They must have passed the primary examination of the College of Surgeons, or an equivalent examination. Every student must act as Clinical Clerk for six weeks in the medical out-patient department, after passing the first College of Surgeons examination. Maternity pupils must have passed the primary examination of the College of Surgeons, or an equivalent examination. Two reside in the hospital every week. Each student must attend at least twenty cases of Midwifery; those who have attended one hundred are entitled to a special certificate. Four Dressers reside and board in the hospital every week. Every student must act as Dresser in the Surgical out-patient department for at least three months after the end of the first winter session. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £80 *per annum*. An unpaid Clinical Assistant is appointed in the Ophthalmic department. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. Every student must act as *Post mortem* Clerk for three months. A Dental Assistant, Prosector of Anatomy, and Dressers in the Ophthalmic and Aural departments, are also appointed. Full pupils, and those who, having commenced elsewhere, pay the general fee to the hospital and college, at or before the beginning of the second

⁵ Candidates for these Scholarships must be matriculated students of the Medical Department, and perpetual pupils of the Hospital, commencing their first winter session in October 1884. The examination will be in the following subjects. 1. Divinity: The Books of Genesis and Exodus; the Gospel according to St. Matthew; The Church Catechism. 2. English Language and Literature: Cowper, *The Task*; History—The History of England from 1760 to 1816. 3. Latin: *Cæsar, De Bello Gallico*, Books v and vi. 4. Greek: Xenophon, Book vi. 5. Mathematics: Arithmetic, the ordinary rules, with Vulgar and Decimal Fractions; Algebra, as far as including Quadratic Equations; Euclid, Book I, Book II (except props. 8, 9, 10), Book III. 6. French: Montesquieu, *De la Grandeur et de la Décadence des Romains*. 7. German: Schiller, *Wilhelm Tell*. Candidates may omit any subject except Divinity. Names of candidates must be sent to the Secretary before 2 P.M. on September 26th, and the examination will be held on September 29th and 30th, October 1st and 2nd.

winter, are eligible for appointments. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Nine scholarships will be offered for competition. 1 and 2. Two Entrance Scholarships, value £60 and £40; examination on September 21st, 22nd, and 23rd; subjects: Physics, Botany, Zoology, and Inorganic Chemistry. Successful candidates must forthwith become pupils of the hospital and school. 3 and 4. Two Buxton Scholarships, value £30 and £20, open to full students of six months' standing; examination on September 28th, 29th, and 30th; 5. A Scholarship at the end of the summer session, value £20, to a first year's student; subjects: Human Anatomy and Physiology. 6. A Scholarship, value £25, to a first or second year's student, at the end of the winter session; subjects: Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital Scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics. The Lethby Prize, value £30, for Chemistry; open to all full students from the end of the second session to the end of the fourth year. The Duckworth Nelson Prize, value £10, awarded biennially, at the end of the winter session; subjects: Practical Medicine and Surgery. For the Hospital Scholarships and the Duckworth Nelson Prize, full students of the Hospital are eligible up to the end of their fourth year, with or without a diploma; qualified officers of the Hospital are not eligible. The Hutchinson Prize, value £35, awarded triennially to the author of the best essay on a subject in Clinical Surgery; open to full students of the Hospital who have not been registered as medical students more than ten years. Six prizes, of the aggregate value of £60, to the most meritorious of the Dressers in the out-patient rooms. Two prizes, value £6 and £4, for Dissections, for full students up to the end of the fifth year. Special certificates to those gentlemen who have faithfully performed their duties in the Hospital, and to those who have distinguished themselves at the examinations.

Special attention is paid to the preparation of students for the examinations of the Colleges of Physicians and Surgeons, the Apothecaries' Hall, and the University of London.

The Medical Society meets for the reading and discussion of papers at 7.30 p.m. on alternate Wednesdays during the winter session.

Residence.—Students wishing to reside with a member of the medical profession, within easy access to the Hospital, can obtain information by application to the Warden. Several members of the Hospital staff receive resident pupils. A list of approved lodgings is kept by the Warden. A Students' Club has been erected in the Hospital grounds, where luncheons, tea and coffee, etc., can be obtained at moderate charges.

Information may be obtained from the Warden, Mr. Munro Scott, at the College.

ST. MARY'S HOSPITAL.—The Hospital contains 270 beds; 130 Medical, and 140 Surgical. The wards are appropriated to Diseases of Children, and one to those of Women; there are also beds for Ophthalmic, Aural, and Cutaneous cases.

The Reading Rooms and Library are open daily. The Museum is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy. There are also a Materia Medica Department and a collection of specimens illustrative of Comparative Anatomy. A Histological Room is open daily. Arrangements have been made for the establishment of a better collection of bones.

Special Courses.—Clinical Lectures on special selected subjects are given by the Physicians and Surgeons, at 4 p.m. on Fridays, in the winter and summer sessions. Clinical Demonstrations on Diseases of the Skin and of the Throat are given.—The students are carefully trained to the use of the Microscope. Dr. Alder Wright gives a course of Physics at 10 a.m. on Fridays. Dr. de Watteville gives instruction in the Practical Application of Electricity. Mr. Pepper gives a course of Operative and Practical Surgery at 12 on Tuesdays and Thursdays during the winter.

Appointments.—Four Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital. All students must act as clinical clerks and dressers for eight months after passing the Primary Examinations, and after having acted as dressers two months in the Casualty Department, and one month as Assistants in the Electrical Department. A Demonstrator of Anatomy is appointed at a salary of £70, and a junior demonstrator at £50 a year. Two Prosectors are appointed annually; each receives a certificate and £5. A Demonstratorship in Pathological Anatomy, value £15, tenable for six months, is given after competitive examination in Pathology and Morbid Anatomy.

Scholarships and Prizes.—One Scholarship in Natural Science, value £100, and four of the value of £50 each; subjects, Inorganic Chemistry and Experimental Physics, with either Botany and Vegetable

Physiology, or Zoology. There will be a practical examination in each subject. The examination will take place on September 22nd and following days. The candidate must not have completed a year of study at a medical school in London. The successful candidates must enter as perpetual pupils of the hospital, and pursue the full course of study there. A scholarship of £105, open for competition to students of Epsom College, who are sons of medical men. Three scholarships, value £20, £25, and £30, at end of each year, after examination in class subjects. **First Year:** Winter Session: Prizes of £3 8s. each in Anatomy and Histology, and in Chemistry. Summer Session: Prizes, value £2 2s. each, in Comparative Anatomy, Materia Medica, Botany, and Inorganic Practical Chemistry. **Second Year:** Winter: Prizes of £3 3s. each for Anatomy and General Physiology. Summer: Prizes, value £2 2s. each, for Midwifery and Medical Jurisprudence. **Third Year:** Winter: Prizes of £3 3s. each for Medicine, Surgery, Pathology, and Operative Surgery. At end of each year, prizes of £5 5s. each for Clinical Medicine and Clinical Surgery. **Rollston Prize in Biology:** Book or Books of the value of about £5; open to students of not less than one year's standing; subject, the Principles of Construction of Animals and Plants. A prize of £10 10s. in Ophthalmology.

Three Medical Tutors, Dr. Phillips, Mr. Pyc, and Dr. M. Handfield Jones, assist the students in preparing for their final examinations.

Preliminary Classes are held for the final M.B., Intermediate M.B., and Preliminary Scientific Examinations of the University of London, and for the Examinations for the Fellowship of the Royal College of Surgeons.

The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 p.m.

A Residence for Students has been provided in connection with the Hospital, under the charge of Dr. Maguire as Warden.

A Students' Club has been founded. The rooms (in the basement of the "Mary Stanford" wing) comprise a library, reading-room, and dining-rooms. The annual subscription is 7s. 6d.

Further Information may be obtained from Mr. G. P. Field, Dean of the School; from any of the lecturers, or from the Medical Superintendent, Mr. Walter Pearce, at the Hospital.

MIDDLESEX HOSPITAL.—The Hospital contains upwards of 300 beds, of which 185 are devoted to Surgical and 120 to Medical cases. There are 33 beds for cases of Cancer; also wards for cases of Uterine Disease and of Syphilis, and beds for cases of Diseases of the Eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens.—**The Library and Reading-Room** are open to all general students from 9 to 5; on Saturday, from 9 to 2.

Special Subjects.—A course of Practical Medicine is given by Dr. Coupland and Dr. Douglas Powell on Monday, Wednesday, and Friday, at 9 a.m. Mr. Morris sees out-patient cancer cases at 1.30 on Thursdays. Practical Instruction in Mental Diseases is given at the Leavesden Asylum. A class for Practical Surgery is held in the winter session. Mr. Andrew Clark will commence a class of Practical Instruction in Operative Surgery in April. Each student will personally perform all the operations. Dr. Duncan gives a course of Practical Midwifery in the summer. Instruction in the administration of Anaesthetics is given every Wednesday and Saturday by Mr. G. E. Norton and Mr. Davis. Dr. Pringle gives instruction in the practical application of Electricity.

Appointments, etc.—Fourteen Resident Appointments are open annually to competition among pupils of the hospital. The officers reside and board in the hospital free of expense. Six House-Surgeons are appointed every year after examination. The Senior House-Surgeon must have a legal surgical qualification. The Junior House-Surgeon is eligible for appointment as Senior House-Surgeon if he have performed his duties satisfactorily. Six Resident Physicians' Assistants are appointed from time to time for six months. They must have a legal medical qualification, or hold a Broderip Scholarship. A Resident Obstetric Physician's Assistant (qualified to practise) is appointed for six months. Each of the above mentioned resident officers pays £10 10s on appointment. Non-Resident Physicians' Assistants are appointed in the out-patient department. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physician's Clerk and Ophthalmic Dressers are appointed. The appointments are so arranged that every student may take both a clerkship and a dressership. Each student must be an out-patient clerk or an out-patient dresser, before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Entrance Scholarships, value £25

and £20, tenable for two years,⁶ open to all gentlemen commencing their medical studies at the Hospital in October 1885. The successful candidates must become general pupils of the school. Entrance Science Scholarship, value £50, open to all students who have not completed a year of study at a metropolitan school of medicine, or more than a year at an university or provincial school. The successful candidate must become a general student of the school. The subjects of examination are: Inorganic Chemistry, Botany and Vegetable Physiology, Zoology, and Experimental Physics, and in the Preliminary Scientific Examination of the University of London. Examination on September 29th and following days. John Murray Scholarship and Gold Medal open to competition, in May 1886, among students in actual attendance who have entered since April 30th, 1882. Subjects: Medicine, Surgery, and Obstetrics. Hetley Clinical Prize, value £25, at end of summer session, to students who have completed the third and not commenced the fourth winter session: *viva voce* examination in Medicine, Surgery, and Obstetric Medicine. Lyell Medal, value £5 5s., at end of second winter, for proficiency in Surgical Anatomy and Practical Surgery. Exhibition, value £10 10s., at end of first winter session. Subjects: Osteology, Elementary Anatomy, and Physiology. Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third or fourth year, for reports or comments on selected medical and surgical cases. The Governor's Prize, value £21, to the student who, at the end of the third winter session, not obtaining a Broderip Scholarship, shall have been most diligent in the wards, and shall pass the best examination in Clinical Medicine and Surgery, and Practical Pathology. Prizes and Certificates of Honour are given in each class.

Tutors.—Mr. Pearce Gould and the Demonstrators assist all general students of the Hospital, especially those who are preparing for primary examination before the Licensing Boards. Special classes are held for the Preliminary Scientific Examination of the University of London.

The Students' Medical Society meets in the Board Room of the Hospital on alternate Thursdays at 8 p.m. during the Winter Session. Prizes are given to the reader of the best paper, and also to the exhibitor of the best histological specimens; a President's prize for debate is also given.

Information may be obtained from Mr. Andrew Clark, the Dean; from Dr. Cayley, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—*The Hospital* contains 572 beds, of which about 180 are appropriated to ordinary Medical, and 230 to ordinary Surgical cases. There are also special wards for Diseases of Women, Diseases of the Eye, Venereal Affections, Children under six years of age, and (in a separate block) Infectious Diseases.

Museum, etc.—Students have access to the Library, and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, of Botany, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Special Subjects.—A Course of Lectures on Physics and Natural Philosophy is given by Dr. Stone at 12 noon on Saturdays in the winter. Physiological Demonstrations are given at 2 p.m. on Mondays and Thursdays in the winter session; and Demonstrations of Pathological Anatomy at 2 p.m. daily by Dr. Sharkey and Dr. Hadden; and Dr. T. D. Acland gives demonstrations in Morbid Histology. Dr. Cory sees cases of Diseases of Women and Children at 1.30 on Wednesdays and 12.30 on Saturdays. Out-patients with Diseases of the Throat are seen by Dr. Semon at 1.30 on Tuesdays and Fridays. Dr. Semon gives a short course of Clinical Lectures on Throat-Diseases. Mr. Mason and Mr. McKellar give instruction in Practical and Manipulative Surgery. Practical instruction in the Administration of Anæsthetics is given by Mr. Tyrrell and Mr. White.

Appointments.—Two resident and one non-resident House-Physicians, an Assistant House-Physician, two House-Surgeons, an Assistant House-Surgeon, and a Resident Accoucheur, are selected from gentlemen who have obtained their professional diplomas; they hold

⁶ The Examination will take place on September 29th and following days. The following are the subjects for examination. Latin: Passages for translation into English; short passages for translation from English into Latin; and questions in Grammar. 1885: Cæsar, the *Gallie War*, Books v and vi. 1886: Livy, Book xxii. Greek: Easy passages for translation into English; questions in Grammar. 1885: Xenophon, *Hellenics*, Book ii. 1886: Euripides, *Hercules Furens*. French or German: Passages for translation into English; short passages for translation from English into French or German; and questions in Grammar.—Mathematics: Arithmetic; Algebra up to and including Quadratic Equations; and Euclid, Books i, ii, iii.—Natural Philosophy.—Chemistry.—Botany.—Zoology: Huxley's *Classification of the Animal Kingdom*; Rudiments of Animal Physiology.—Candidates will be examined in any three, and not more, of the above subjects which they may select.

office for three or six months. An Ophthalmic Clinical Assistant is appointed for six months, with a salary at the rate of £50 *per annum*. Clinical Clerks and Dressers are selected each year, to the number of at least one hundred for in-patients, and eighty to one hundred for out-patients. Obstetric Clerks are from time to time appointed; also Assistants in the Physiological Laboratory and in the Dissecting-room, Prosectors, and Assistants to the Demonstrator of Pathological Anatomy. All students have the opportunity of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. The House-Physicians, the House-Surgeons, the Resident Accoucheur, and Dressers and Obstetric Clerks, are provided with rooms and commons. The Ophthalmic Assistant has board, but not residence. Two Hospital Registrars are appointed, at an annual salary of £100.

Scholarships and Prizes.—Two Open Scholarships in Natural Science, value £100 and £60, open to students who have passed a Preliminary Examination in Arts; subjects, Physics, Chemistry, and either Botany or Zoology; examinations on October 5th, 6th, and 7th. Successful candidates must become students of the Hospital. The William Tite Scholarship, £30, to the student highest on the first-class list at the examination at the end of the first winter session. The Musgrove Scholarship, value £42 *per annum* for two years, biennially, to the student highest on the first-class list at the end of the second winter session. The Peacock Scholarship, of the same value as the Musgrove Scholarship, and given alternately with it, on the same terms. College Prizes each winter for first and second years' students, of £20 and £10 each winter; and for third year's students, of £20, £15, and £10; and £15 and £10 each of three summers. The Cheselden Medal, annually, to a fourth year's student, for Surgery and Surgical Anatomy. The Mead Medal, annually, to a fourth year's student, after practical examination in Medicine, Pathology, and Hygiene. The Treasurer's Gold Medal, annually, at end of fourth winter session, for general proficiency and good conduct. The Grainger Testimonial Prize, value £20, biennially, to students of from three to six years' standing, for a Physiological Essay. The Solly Medal, with a Prize in money, every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student.

University of London.—Classes in the subjects required for the Preliminary Scientific Examination are held from October to July, and for the Intermediate M.B. Examination from January to July.

The Medical and Physical Society meets on alternate Thursdays, at 8 p.m.

Further information may be obtained from Mr. G. Rendle, the Secretary to the Medical School, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—*The Hospital* contains 209 beds available for clinical instruction and study. In addition to the Physicians' and Surgeons' wards, there are special wards for Diseases of Women, for Children's Diseases, for Ophthalmic affections, and for Skin-disorders. In connection with the Skin department, there is a complete system of medical baths.

Libraries, Museums, etc.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, are open daily. There are also a Chemical, a Physiological, a Zoological, and a Hygienic Laboratory, where instruction is given under the superintendence of the Professors.

Practical Instruction.—Dr. Wilson Fox, Holme Professor of Clinical Medicine, delivers Clinical Lectures every Tuesday and Thursday at 2, and trains the pupils in the practical study of disease. Lectures are also given by Dr. Ringer, Dr. Eastian, and Dr. Roberts. Dr. Gowers, Assistant-Professor of Clinical Medicine, gives instruction and demonstration on Physical Examination, on the Diagnosis of the Diseases of the Heart and Blood-vessels, and on the Modes of Investigation of Diseases of the Nervous System; and Dr. Barlow, Assistant-Professor of Clinical Medicine, instructs in the Examination of the Lungs and of the Urine. Lectures are given every Monday at 2 by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight, or oftener, by Mr. Beck and Mr. Berkeley Hill. The Holme Professor will hold a Clinical Examination every Friday at 8. Mr. Barker and Mr. Godlee, Assistant-Professors of Clinical Surgery, will hold examinations, and instruct students in the observation and examination of patients. Dr. Poore attends on Thursdays at 1.30 to see patients with throat-diseases, and to give instruction in the use of laryngeal instruments. A class for the study of Practical Gynaecology meets twice a week under the direction of Dr. John Williams. A course of Practical Surgery is given during the winter. It consists of

three divisions: 1. The use of Surgical Apparatus, etc., by Mr. Berkeley Hill, Mr. Stonham, and Mr. Thring, on Mondays and Thursdays, at 4, in October, November, and December; 2. Operative Surgery, by Mr. Godlee, during the latter part of the session; 3. Demonstrations of Surgical Preparations, by Mr. Barker, on Mondays and Thursdays, at 4, in January, February, and March. Mr. Godlee also gives, in the summer, a course of Operative Surgery intended for candidates for the public services, for the surgical degrees of the University of London, and the Fellowship of the Royal College of Surgeons. A practical course of instruction in Pathological Anatomy is given in January, February, and March.

Biological Courses.—Elaborate courses of instruction are given in this College in the class of Physiology, by the Jodrell Professor, Mr. Schäfer, and assistants; and in the class of Comparative Anatomy and Zoology, by Mr. Ray Lankester, Jodrell Professor, and assistants.

Offices.—Eight House-Physicians, six House-Surgeons, four Obstetric Assistants, Out-patient Physicians' and Surgeons' Assistants, Clinical Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants, are selected from among the pupils. The House-Physicians, the House-Surgeons, and the Obstetric Assistants, reside in the hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £100, £60, and £40 *per annum*, to gentlemen who are about to commence their first winter's attendance. Subjects; Chemistry, Physics, Botany, and Zoology. The examination will take place on September 28th and 29th. Notice of intention to compete must be given on or before September 23rd. The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery. Atchison Scholarship, about £60 *per annum*, tenable for two years, for general proficiency. The Sharpey Physiological Scholarship, annual value about £105. The Filbiter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy. Dr. Fellowes' Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each winter and each summer session. The Liston Gold Medal, with Certificates of Honour, at the end of the winter session, for reports and observations on surgical cases in the hospital. The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery. The Tuke Silver Medal to be awarded annually at the discretion of the Professor of Pathological Anatomy. The Cluff Memorial Prize, every second year, to the most proficient in Anatomy, Physiology, and Chemistry: next award in 1887. Erichsen Prize, a Surgeon's Operating Case, value £10 10s., awarded yearly in the class of Practical Surgery. Morris Bursary of £25 a year, tenable for two years. Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes. Prizes to the value of £10 in the class of Hygiene.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

The Medical Society meets fortnightly to discuss subjects connected with the study of medicine, and for the exhibition of microscopical specimens.

Residence of Students.—University Hall (Professor Henry Morley, Principal) adjoins the College. Full information as to cost and conditions of residence may be had by application at the office of the College. Several professors and other gentlemen connected with the College receive students to reside with them; and, in the office of the College, there is kept a register of persons unconnected with the College who receive boarders into their families.

Information respecting the College may be obtained from the Dean, Dr. Poore; the Vice-Dean, Mr. Marcus Beck; the Sub-Dean, Mr. Thane; or the Secretary, Mr. Talfourd Ely.

WESTMINSTER HOSPITAL.—The Hospital contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, for Diseases of Women, and for Orthopædic Practice. New School Buildings will be opened on October 1st.

Museums, etc.—The Anatomical Museum is constantly open to the students. A cabinet containing a valuable collection of microscopical preparations, chiefly histological, has been presented to the Museum. There are also a Pathological Museum and a Materia Medica Museum. The Library is open daily from 9 to 5.

Special Subjects.—In addition to the practice of the Hospital, general students may attend, without further fee, the practice at the Royal Westminster Ophthalmic Hospital; and the practice of the National Hospital for Paralysis. Instruction in the physical examination of the Chest is given by the Physicians and Assistant-Physicians, and in the use of the Laryngoscope, at 9 A.M. on Wednesdays, by Dr. De Havilland Hall. Mr. R. Davy gives demon-

strations on Orthopædic subjects at 2.30 on Fridays. A course of Practical Surgery is given by Mr. Davy in three divisions: 1. October to December, Surgical Anatomy and Diagnosis and Use of Apparatus; 2. January to March, Examination of Pathological Specimens, the Use of the Ophthalmoscope, Laryngoscope, etc.; 3. May to July, Surgical Instruments; Operations on the Dead Subject. In the summer, Mr. Davy gives a course of Operative Surgery, and Mr. Boyce Barrow will give instruction in minor surgery. Mr. Black gives, on Tuesday and Thursday, at 9 A.M. during the summer, a course of demonstrations on the upper and lower limbs, for first year's students; and Mr. Hebbert will give special demonstrations in Anatomy for junior students, at least twice a week in the summer. Dr. Heneage Gibbes will give a course of Morbid Histology, at 11 A.M. on Tuesdays and Thursdays in the summer. Mr. G. Ogilvie will give a course of lectures on Experimental Physics, commencing in January.

Appointments.—A Curator of the Museum and Pathologist is appointed annually, with a salary of £52 10s.; and a Medical and a Surgical Registrar, each with a salary of £40. Two House-Physicians, a House-Surgeon, and a Resident Obstetric Assistant are appointed for six months, after examination, and are provided with rooms and commons. The Senior House-Physician, who is also Chloroformist, receives in addition £21. An Assistant House-Surgeon is appointed from among the senior students; he is provided with commons at the hospital table. Clinical Assistants to the Assistant-Physicians and Assistant-Surgeons, and to the officers in charge of special departments, are appointed from students of the fourth year. Every student must perform the duties of out-patient Dresser for three months during the first year; and afterwards hold the office of in-patient Dresser and Clinical Clerk for periods of three months each.

Scholarships and Prizes.—The Fence and Houldsworth Entrance Scholarship, each £40 a year for two years; and two Entrance Scholarships, value £20 each, tenable for two years.⁷ Treasurer's Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men. The President's Scholarship in Anatomy, Histology, and Physiology, value £21, to students of second year (to be styled Assistant-Demonstrator). After end of fourth winter, Prizes of £5 each (books or instruments) in Clinical Medicine and Clinical Surgery. Frederic Bird Medal and Prize, value £15, to students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth; subjects of examination: Anatomy, Physiology, Histology, Medicine, Surgery, and Midwifery. In most of the Classes, Special Prizes are given by the Lecturers; and Certificates of Honour are awarded in each Class.

Tutors assist and guide the students in their work, and hold Senior and Junior Classes. Each student must attend at least three hours' tutorial instruction each week. Classes are held for the Preliminary Scientific examination of the University of London.

Communications respecting the Medical School should be addressed to Dr. De Havilland Hall, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

SCHOOL OF ANATOMY, PHYSIOLOGY, SURGERY, ETC.—The School meets the requirements of three classes of students: namely, 1, qualified practitioners and advanced students, *i.e.*, gentlemen wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services; 2, students preparing for the usual primary and pass examinations of any of the licensing bodies; 3, beginners entering upon their medical duties, either by a short term of apprenticeship, or under the new Regulations of the Examining Board in England. Both rapid advanced classes complete in three months, or less, but still thoroughly practical, are provided; and also, as required, more elementary classes of six

⁷ The next Examination will be held at the Hospital on September 29th and 30th. The following are the subjects. Latin; 1885, Cæsar, *Gallie War*, Books v and vi.; 1886, Livy, Book xxii. The paper will contain passage for translation, questions in Grammar, and easy English sentences for translation into Latin. French and German—The papers will contain passages for translation into English, and questions in Grammar. Mathematics: Arithmetic—including Vulgar and Decimal Fractions, and extraction of Square Root. Algebra—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. Geometry—First Four Books of Euclid, or the subjects thereof. Experimental Physics and Chemistry—The questions in these will be elementary, and in the latter will be confined to the Non-Metallic Elements. The examination is by written papers. Notice of intention to compete, with a statement of the languages in which the candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 21st.

months' duration. The Physiological Laboratory is fitted up with the requisites for practical work, and every effort is made to render the teaching thoroughly practical and demonstrative.

The Operations of Surgery are all performed on the dead body by the students. The course is recognised by the London University.

The dissecting-room is open daily from 10 A.M. to 6 P.M. The Demonstrators attend four hours daily.

Fees.—Anatomy and Physiology: For Primary Membership Examination of Royal College of Surgeons, three months, £4 4s.; six months, £5 5s. For Primary Fellowship Examination (with Comparative Anatomy), six months, £5 5s. Surgery: For Second Membership Examination of Royal College of Surgeons, three months, £5 5s.; six months, £8 8s.; for Second Fellowship Examination, six months, £8 8s.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Winter Session will commence on October 1st.

The following courses of Lectures are delivered at this school: Anatomy and Practical Anatomy, by Mr. Stanley Boyd; Physiology and Histology, by Dr. J. McWilliam; Chemistry, by Mr. Heaton; Botany, by Dr. P. H. Stokoe; Materia Medica and Therapeutics, by Dr. Sainsbury; Practice of Medicine, by Mrs. Garrett-Anderson, M.D., and Dr. H. Donkin; Midwifery and Diseases of Women, by Dr. Ford-Anderson and Dr. Louisa Atkins; Forensic Medicine, by Dr. Dupré and Mr. T. Bond; Surgery, by Mr. Norton; Ophthalmic Surgery, by Mr. J. Grosvenor Mackinlay; Pathology, by Dr. A. Q. Silecock; Hygiene, by Dr. Sophia Jex-Blake; Mental Pathology, by Dr. Sankey.

The Dissecting-Room, the Physiological Laboratory, the Chemical Laboratory (in summer), the Library, and the Museum of Anatomy, Pathology, and Materia Medica, are open daily.

Clinical Instruction is given at the Royal Free Hospital, which contains 150 beds. *Physicians*: Dr. Cockle and Dr. Samuel West; *Assistant-Physician*: Dr. Sainsbury; *Surgeons*: Mr. Gant and Mr. W. Rose; *Assistant-Surgeon*: Mr. A. B. Barrow; *Physician for Diseases of Women*: Dr. T. C. Hayes; *Ophthalmic Surgeon*: Mr. Grosvenor Mackinlay; *Pathological Demonstrator*: Dr. Sainsbury.

Clinical Lectures are given once a fortnight by each of the four senior members of the staff. Instruction is also given at the Hospital as follows. Practical Pharmacy, by Mr. S. Barber; Pathological Demonstration twice a week, by Dr. Sainsbury; Minor Surgery, ten demonstrations, by Mr. A. B. Barrow; Auscultation, ten demonstrations, by Dr. West. Students are appointed to the posts of Clinical Clerks, Surgical Dressers, and Pathological Registrar without further fee.

Fees.—The fee for the ordinary curriculum of non-clinical Lectures is £80 if paid in one sum, or, if paid in instalments, £40 for the first year, £30 for the second, and £15 for the third. The courses of Lectures included in this fee are as follows. Two courses each of Anatomy, Practical Anatomy, Physiology, and Practice of Medicine, and one course each of Practical Physiology, Chemistry, Practical Chemistry, Materia Medica, Surgery, Pathology, Midwifery, Diseases of Women and Forensic Medicine. Any student having paid the above compounding fees, on a further payment of £6 6s., may attend additional courses of the classes mentioned above. Materials for the practical classes will be charged extra when additional courses are taken. Practical Pharmacy costs £3 3s. extra. The fees for the courses are: Anatomy, Practical Anatomy, Physiology, Chemistry, Medicine, Surgery, and Midwifery, one course of each, £8 8s.; Practical Chemistry, Botany, Materia Medica, Forensic Medicine, Pathology, each £5 5s.; Ophthalmic Surgery and Mental Pathology, each £2 2s. Students who do not hold a perpetual ticket, and who have attended regularly, can repeat any course on payment of £2 2s. for each course. Materials for the practical classes will, in such cases, be charged according to a fixed scale. The fee for four years' Clinical instruction at the Royal Free Hospital is £20 the first year, £15 the second, and £15 the third year; the fourth year is free.

Scholarships and Prizes.—1. An Entrance Scholarship, value £30, is offered for competition at the end of September in each year. Candidates must have passed a Preliminary Examination in Arts, and the successful candidate must enter on a full course of medical study at the School. 2. The John Byron Scholarship, value of £25 a year for four years, is offered to ladies requiring assistance for the prosecution of their medical studies. The next award will probably be in 1889. 3. Scholarships are offered from time to time by the National Association for the Promotion of the Medical Education of Women, and by the Birmingham Ladies' Association. 4. The Zenana Medical Mission Society assists ladies who wish to go to India as missionaries. 5. A Prize, value £100, will shortly be offered for competition to registered medical women. The holder of

this Prize will be required to spend one year on the Continent, and to give up her time to the special study of Operative Midwifery. 6. Prizes and Certificates of Honour are awarded in each Class at the end of the Session.

WEST LONDON HOSPITAL PREPARATORY SCHOOL OF MEDICINE.—Lessons and demonstrations, not lectures, are given in the subjects of the first part of the first examination under the conjoined scheme, namely, Chemistry, Physics, Materia Medica, and Botany. Osteology is also taught; and the students are admitted to the practice of the hospital, which contains over 100 beds, and has a large out-patient department. The time counts for a part of the four years' curriculum. The fees are 18 guineas for one winter, 25 guineas for one year. The School has an excellent laboratory, and complete collection of specimens of Materia Medica.

The objects of this institution are, to give, in a systematic manner, all the advantages of a year's pupillage at a first-class provincial infirmary or county hospital; also to give commencing Medical Students an early insight into Medical work, so that they may, without needless loss of time or money, be able to judge whether or not they have chosen the right profession.

The Acting Medical and Surgical Staff of the Hospital is as follows: *Physicians*: Dr. Goddard Rogers, Dr. D. W. C. Hood, Dr. F. G. D. Drewitt. *Physician for Diseases of Women*: Dr. Albert Venn. *Surgeons*: Mr. C. B. Keetley, Mr. Swinford Edwards, Mr. Bruce Clarke. *Ophthalmic Surgeon*: Mr. B. J. Vernon. *Assistant-Physicians*: Dr. Herringham, Dr. Savill, Dr. J. B. Ball. *Assistant-Physician for Diseases of Women*: Dr. J. A. Mansell-Moullin. *Assistant-Surgeons*: Mr. C. A. Ballance, Mr. H. F. Weiss, Mr. B. Wainwright. *Assistant-Surgeon for Diseases of the Eye*: Mr. H. P. Dunn. *Dental Surgeon*: Mr. H. L. Albert.

Besides the above, students and practitioners are admitted to attend the practice of several of the general and special hospitals and infirmaries. Information may be obtained on application to the secretaries of the respective institutions.

NOTES CONCERNING THE PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

UNIVERSITY OF OXFORD.—Arrangements have been made, coming into action in October, by which students will be enabled to study the necessary subjects for the Second Professional Examination of the Conjoint Board at the University.

The Radcliffe Infirmary is open to students for practical medical and surgical work, and Clinical Lectures are given during term by the Litchfield Lecturers, and other members of the staff.

Some alterations are in progress with regard to the Medical Statute generally, which will be announced in due course.

UNIVERSITY OF CAMBRIDGE.—The following Lectures and Courses of Practical Instruction in the subjects of the Examinations for Medical and Surgical Degrees will be given during the ensuing year. The courses are given at the New Museums and University Laboratories, unless another place is mentioned.

Chemistry and Other Branches of Physics: Elementary: Professor Liveing, Chemistry for First M. B. Examination, T. Th. S., 12; Mr. Main (St. John's Laboratory), Revision Course for First M. B. Examination, M. W. F., 10; Mr. Muir (Caius Laboratory), Principles of Chemistry (chiefly non-metals), M. W. F., 10; Mr. Heycock (King's), General Principles of Chemistry (non-metals) for Nat. Sciences Tripos Part I, M. W. F.; Mr. Glazebrook, Electricity, M. W. F., 12; Mr. Shaw, Physics for Natural Sciences Tripos Part I, M. W. F., 9; Mr. Hart (St. John's), Mechanics and Heat for First M. B. Examination, T. Th. S., 11; Mr. Hart (St. John's), Electricity for Natural Sciences Tripos Part I, T. Th., 12½. Advanced: Professor Liveing, General Principles of Chemistry, T. Th. S., 1½; Mr. Main (St. John's Laboratory), Thermo-chemistry, T. Th. S., 10; Mr. Muir (Caius Laboratory), Carbon-compounds for Natural Sciences Tripos Part II, T. Th. S., 10; Mr. Glazebrook (Trinity), Physics, S., 9; Mr. Shaw (Emmanuel), Physics, T. Th., 9. Practical Work and Demonstrations: Mr. Sell, Chemistry with explanatory Lectures for First M.B., T. Th. S., 9½ and 11½; and Mr. Fenton, Chemistry with explanatory Lectures for Natural Sciences Tripos Part I, M. W. F., 9½ and 11½; Mr. Robinson, Analysis of Food and Water, M. W. F., 11; Mr. Neville (Sidney Laboratory), Chemistry, with explanatory Lectures

for First M.B. Examination, M. W. F., 9; Mr. Lewis (Downing), Elementary Organic Chemistry, T. Th. S., 9; Mr. Glazebrook and Mr. Shaw, Mechanics and Heat (elementary, M. W. F., 10 to 12, Heat (advanced), T. Th. S., 10 to 12; Electricity and Magnetism (advanced), T. Th. S., 10 to 12 and 3 to 5.—Biology: Elementary: Mr. Sedgwick, Animal Morphology (*Invertebrata*), M. W. F., 9; Mr. Vines, General Course of Botany, M. W. F., 12. Advanced: Professor Newton, Evolution in the Animal Kingdom, M. W. F., 1; Mr. Harmer, Invertebrate Morphology, T. Th. S., 11; Mr. Gadow, Morphology of Ichthyopsida, M. W. F., 10; Mr. Gadow, Human Embryology, twice a week; Mr. Vines, Physiology of Plants, T. Th. S., 10.—Pharmacy, and Anatomy and Physiology: Professor Latham (Downing), Pharmacy and Pharmaceutical Chemistry, M. W. F., 9; Professor Macalister, Peripheral Nervous System, T. Th. S., 1; Professor Macalister, Demonstrations in Visceral Anatomy, M. W. F., 12; Professor Foster, Elementary Physiology, T. Th. S., 9; Mr. Langley, Advanced Physiology and Histology, T. Th. S., 9, and 2 to 4. Mr. Lea, Chemical Physiology, W. F., 11; Mr. Hill, Central Nervous System, T. S., 12.—Medicine and Surgery: Professor Roy, General Pathology, M. W. F., 9; Professor Roy, Practical Course in Morbid Anatomy and Histology, T. Th. S., 2 to 4; Professor Roy (Hospital), Demonstrations in Morbid Anatomy, occasionally, at 10; Professor Latham (Hospital), Demonstrations in Practical Therapeutics, M. W. F., 10; Professor Humphry, Surgery, T. Th. S., 1; Mr. Wherry, Practical Surgery, M. W. F., 5; Dr. MacAlister, Principles of Medicine, T. Th. S., 9; The Physicians (Hospital), Clinical Medicine, daily 10, and T. Th. S., 11; the Surgeons (Hospital), Clinical Surgery, daily 11, and T. Th. S., 10.

Lent Term, 1886.—Chemistry and other Branches of Physics: Elementary: Professor Liveing, Chemistry for First M.B. Examination (continued), T. Th. S., 12; Mr. Main (St. John's Laboratory), General Course of Chemistry, M. W. F., 10; Mr. Muir (Caius Laboratory), Principles of Chemistry (chiefly metals), M. W. F., 10; Mr. Heycock (King's), Chemical Philosophy for Natural Sciences Tripos Part I, M. W. F., 9; Mr. Glazebrook, Physics for First M.B. Examination, M. W. F., 12½; Mr. Shaw, Physics for Natural Sciences Tripos Part I (continued), M. W. F., 9; Mr. Shaw (Emmanuel), Physics for First M. B. Examination, T. Th. S., 12; Mr. Hart (St. John's), Light and Electricity for First M.B. Examination, T. Th. S., 11; Mr. Hart (St. John's), Electricity (continued), T. Th., 12½; Mr. Atkinson (Trinity Hall), Experimental Course in Heat, M. W. F., 10. Advanced: Professor Liveing, Spectroscopic Chemistry, T. Th. S., 1½; Mr. Muir (Caius Laboratory), Carbon-compounds (continued), M. W. F., 10; Mr. Glazebrook (Trinity), Physics (continued), S., 9; Mr. Shaw (Emmanuel), Physics (continued), T. Th., 9; Practical Work and Demonstrations: Mr. Sell and Mr. Fenton, Chemistry with explanatory Lectures for First M.B., T. Th. S., 9½ and 11½, Chemistry with explanatory Lectures for first M.B. for Natural Sciences Tripos Part I, M. W. F., 9½ and 11½; Mr. Neville (Sidney Laboratory), Chemistry for First M.B. (continued), T. Th. S., 9; Mr. Neville (Sidney Laboratory), Chemistry for Natural Sciences Tripos Part I, M. W. F., 10; Mr. Lewis (Downing), Practical Course for First M.B. Examination, T. Th. S., 9; Mr. Glazebrook and Mr. Shaw—Mechanics and Heat (elementary, M. W. F., 10 to 12, Optics and Electricity (elementary), T. Th. S., 10 to 12 and 3 to 5, Electricity and Magnetism (advanced), M. W. F., 10 to 12.—Biology: Elementary: Mr. Sedgwick, Animal Morphology and Embryology (*Vertebrata*), M. W. F., 9; Mr. Vines and Mr. Sedgwick: Elementary Biology, M. W. F., 10; Mr. Harmer, Comparative Osteology, W., 1; Mr. Vines, General Course of Botany (continued), T. Th. S., 10; Mr. Hicks (Sidney), Botany (chiefly morphological), M. W. F., 11; Advanced: Professor Newton, Geographical Distribution of Vertebrates, M. W. F., 1; Mr. Weldon and Mr. Harmer, Invertebrate Morphology, T. Th. S., 11; Mr. Gadow, Morphology of Sauropsida, M. W. F., 10; Mr. Darwin, Biology of Plants, T. S., 12; Mr. Gardiner, Anatomy of Plants, M. W. F., 12; Mr. Potter, Demonstrations in Systematic Botany.—Pharmacy and Anatomy and Physiology: Professor Macalister, Organs of Digestion and Reproduction, T. Th. S., 1; Professor Macalister, Demonstrations in Osteology, M. W. F., 12; Professor Foster, Elementary Physiology (continued), T. Th. S., 9; Dr. Gaskell, Advanced Physiology (Vascular system, etc.), M. 11, S., 12; Mr. Langley, Advanced Physiology and Histology (continued), T. Th., 2 and 2 to 4; Mr. Lea, Chemical Physiology, W. F., 11; Mr. Hill (Downing), Physiology for Second M.B. Examination, T. Th. S., 12.—Medicine and Surgery: Professor Roy, General Pathology, M. W. F., 9; Professor Roy, Practical Course in Morbid Anatomy and Histology, T. Th., 2 to 4; Professor Roy (Hospital), Demonstrations in Morbid Anatomy, occasionally, at 10; Professor Latham (Hospital), Demonstrations in Practical Therapeutics, M. W. F., 10; Professor Humphry, Surgery, T. Th. S., 1; Mr. Wherry, Practical Surgery, M. W. F., 5; Professor Paget, Principles and Practice of Physic (continued), M. F., 12; Dr. MacAlister, Physical Methods of Diagnosis, T. Th. S., 9; Dr. Annington, Medical Jurisprudence, T. F. S., 12; The Physicians (Hospital), Clinical Medicine, daily 10, and T. Th. S., 11; The Surgeons (Hospital), Clinical Surgery, daily 11, and T. Th. S., 10.

in Practical Therapeutics, M. W. F., 10; Professor Humphry, Surgery, T. Th. S., 1; Mr. Wherry, Practical Surgery, M. W. F., 5; Mr. Ingle, Midwifery, M. W. F., 9; Professor Paget, Principles and Practice of Physic, M. F., 12; Dr. MacAlister, Introduction to Clinical Medicine, T. Th. S., 9; The Physicians (Hospital), Clinical Medicine, daily 10, and T. Th. S., 11; The Surgeons (Hospital), Clinical Surgery, daily 11, and T. Th. S., 10.

Easter Term, 1886.—Chemistry and other Branches of Physics: Elementary: Professor Liveing or Mr. Sell, Class in Chemistry, M. W. F., 12; Mr. Main (St. John's Laboratory), General Courses of Chemistry (continued), M. W. F., 10; Mr. Muir (Caius Laboratory), Carbon-compounds, T. Th. S., 10; Mr. Heycock (King's), Revision-class in Chemistry for First M.B., M. W. F.; Mr. Glazebrook, Physics for First M.B. Examination (continued), M. W. F., 12½; Mr. Hart (St. John's), Revision Course of Physics for First M.B., M. W. F., 9. Advanced: Mr. Glazebrook (Trinity), Physics (continued), S. 9; Mr. Shaw (Emmanuel), Physics (continued), T. Th., 9. Practical Work and Demonstrations: Mr. Sell and Mr. Fenton, Chemistry, with explanatory Lectures for First M.B., T. Th. S., 9½ and 11½, Chemistry, with explanatory lectures for first M.B., for Natural Sciences Tripos Part I, M. W. F., 9½ and 11½; Mr. Neville (Sidney Laboratory), Chemistry for First M.B. (continued), T. Th. S., 9; Mr. Neville, Chemistry for Natural Sciences Tripos Part I (continued), M. W. F., 10; Mr. Lewis (Downing), Practical Course (continued), T. Th. S., 9; Mr. Glazebrook and Mr. Shaw, Optics and Electricity (elementary), M. W. F., 10 to 12, Light (advanced), T. Th. S., 10 to 12, Sound (advanced), T. Th. S., 10 to 12.—Biology: Elementary: Professor Babington, Structural and Systematic Botany, 1; Mr. Vines, Cryptogams, T. Th. S., 10; Mr. Sedgwick, Morphology and Embryology (*Vertebrata* continued), M. W. F., 9; Mr. Sedgwick, Elementary Biology (continued), M. W. F., 10; Mr. Harmer, Comparative Osteology (continued), W., 1. Advanced: Mr. Weldon and Mr. Harmer, Invertebrate Morphology (continued), T. Th. S., 11; Mr. Vines, Cryptogams, M. W. F., 10; Mr. Darwin, Physiology of Plants, T. S., 12; Mr. Potter, Demonstrations in Systematic Botany (continued).—Pharmacy, and Anatomy and Physiology: Professor Latham (Downing), Pharmacy and Pharmaceutical Chemistry, M. T. W. F., 11; Professor Macalister, Muscular and Skeletal Systems of the Different Races of Man, T. Th. S., 1; Professor Macalister, Demonstrations in Vascular Anatomy, M. W. F., 12; Professor Foster, Elementary Physiology (continued), T. Th. S., 9; Dr. Gaskell, Advanced Physiology (Respiration, etc.), M. 11, S., 12; Mr. Langley, Central Nervous System (advanced), T. Th. S., 9, and W. Th., 2 to 4; Mr. Hill (Downing), Physiology for Second M.B. Examination (continued), T. Th. S., 12.—Medicine and Surgery: Professor Roy, General Pathology, M. W. F., 9; Professor Roy, Practical Course in Morbid Anatomy and Histology, T. Th., 2 to 4; Professor Roy (Hospital), Demonstrations in Morbid Anatomy, occasionally, at 10; Professor Latham (Hospital), Demonstrations in Practical Therapeutics, M. W. F., 10; Professor Humphry, Surgery, T. Th. S., 1; Mr. Wherry, Practical Surgery, M. W. F., 5; Professor Paget, Principles and Practice of Physic (continued), M. F., 12; Dr. MacAlister, Physical Methods of Diagnosis, T. Th. S., 9; Dr. Annington, Medical Jurisprudence, T. F. S., 12; The Physicians (Hospital), Clinical Medicine, daily 10, and T. Th. S., 11; The Surgeons (Hospital), Clinical Surgery, daily 11, and T. Th. S., 10.

Throughout the three terms, the Chemical Laboratories of the University, St. John's, Caius, and the Cavendish Laboratory, are open for practical work daily from 10 to 5; the Dissecting-room. The Anatomical Museums are open daily from 9 to 5. Clinical Instruction in Mental Disease is given weekly at Fulbourn County Asylum.

Long Vacation, 1886.—Mr. Fenton, General Course of Chemistry, T. Th. S., 11; Mr. Potter, Systematic Botany (with practical work), T. Th. S., 9; Repetitions in Histology and Physiology by a Demonstrator of Physiology; Mr. Hill, Practical Histology, T. Th. S., 12; Professor Macalister, Demonstrations in Osteology, M. W. F., 12; Mr. Laurance Humphry, Demonstrations in Pathological Anatomy, W. F., 1; Professor Humphry, Surgery, T. Th. S., 1; Mr. Wherry, Practical Surgery, M. W. F., 5; Dr. Annington, Medical Jurisprudence, T. Th. S., 12; Mr. Ingle, Midwifery, T. W. Th. S.; Clinical Medicine and Surgery at the Hospital daily.

The Clinical Laboratory and the Cavendish Laboratory are open for practical work daily.

BIRMINGHAM.—**QUEEN'S COLLEGE.**—The classes of Physiology, Histology, and Practical Physiology, Chemistry, Practical Chemistry, and Botany, are held in Mason Science College.

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1885-86.

For further particulars regarding each Hospital and Medical School, see pp. 510 and 512.

LECTURES, ETC.	BIRMINGHAM QUEEN'S COLLEGE.	BRISTOL UNIVERSITY COLLEGE: MEDICAL SCHOOL.	YORKSHIRE COLLEGE: LEEDS SCHOOL OF MEDICINE.	LIVERPOOL UNIVERSITY COLLEGE: MEDICAL FACULTY.	OWENS COLLEGE (MANCHESTER ROYAL SCHOOL OF MEDICINE)	FIFTH COLLEGE: SHEFFIELD SCHOOL OF MEDICINE.	UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE.
WINTER SESSION.							
ANATOMY & PHYSIOLOGY.	Mr. Haycraft. M. Tu. W. Th. F., 11.30.	Dr. R. S. Smith. M. W. Tu. Th. F., 10.30.	Dr. Birch and Dr. Barrs. (Senior) M. W. P., 11.30. (Junior) Tu. Th., 11.30.	Dr. Caden. Tu. Th. F. S., 9.15.	Mr. Waters, Dr. Hasham; Jun., M. W. F., 10.30; M. Young. M. Tu. W. Th. F., 11.30.	Dr. S. White & Dr. Porter. M. W. Tu. Th. F., 9.45.	Mr. Williamson and Oliver. M. Tu. F., 3.45.
ANATOMY, DESCRIPTIVE & SURGICAL.	Dr. Windle. M. Tu. W. Th. F., 12.	Mr. F. R. Cross. Tu. Th. F. S., 9.15.	Mr. McGill (Senior) Tu. W. F., 2; Mr. Robinson (Junior) M. Th. S., 10.	Mr. W. M. Banks. M. Tu. W. Th. F., 11.30. (Sum.) W. Th. S., 11.	Mr. Young. M. Tu. W. Th. F., 11.30.	Dr. Skinner and Mr. Snell. M. Tu. W. Th. F., 4.15; Tu. Th. F., 12.2nd year, M. F., 9.15; Tu. Th. S., 9.15.	Dr. Meares. 1st year, M. F., 9.15; Tu. Th. F., 12.2nd year, M. F., 9.15.
DEMONSTRATIONS & DISSECTIONS.	Mr. J. Lloyd, Mr. Haslam, and Mr. Barling. daily.	Mr. Hasant.	Mr. Travis and assistants. daily from 9 to 1.	— daily, 9 to 5; exc. S. 9 to 1.	Mr. Young and demonstrators. daily, 9.30 to 12.30; S. 9.30 to 12.	—	—
CHEMISTRY.	Dr. Tilden. M. Tu. W. Th. F., 9.30.	Mr. Coomber. M. W. F., 9.30.	Mr. A. Smithells. M. Tu. Th. F., 4.	Dr. J. C. Brown. M. Tu. W. Th. F., 9.30.	Mr. J. E. Roscoe and Mr. Schoedemaker. daily 9.30 to 12.30.	Dr. Williams (at F. C.). M. W. F., 10; Tu. Th. S., 11.	Dr. Bedson. M. W. F., 12.5.
MEDICINE.	Dr. Foster and Dr. Sawyer. Tu. W. F., 9.30.	Dr. Spencer. M. W. F., 9.30.	Dr. Eddison and Dr. Charlton. M. W. F., 9.30.	Dr. Glynn. Tu. Th. S., 9.15.	Dr. W. Roberts and Dr. Morgan. M. Tu. Th. F., 9.15.	Dr. Harrison. M. W. F., 5.	Dr. Philipson. M. W. F., 5.
SURGERY.	Mr. Pemberton and Mr. Jordan. Tu. W. F., 4.	Mr. Dobson. Tu. Th. S., 9.30.	Mr. Jenson and Mr. Alkinson. M. W. F., 3.	Mr. Rushdon Parker. M. Tu. W. Th. F., 1.	Mr. Landau and Mr. Southern. M. W. F., 1.	Dr. A. Jackson. M. W. F., 5.	Dr. Heath and Dr. Arnison. M. W. F., 9.
HOSPITAL PRACTICE.	GENERAL HOSPITAL (Q. QUEEN'S HOSPITAL (Q.))	ROYAL INFIRMARY (Q. GENERAL HOSPITAL (Q.))	LEEDS GENERAL INFIRMARY (Q.))	LIVERPOOL ROYAL INFIRMARY (Q.))	MANCHESTER ROYAL INFIRMARY (Q.))	SHEFFIELD INFIRMARY (Q. SHEFFIELD HPTL (Q.))	NEWCASTLE INFIRMARY (Q.))
CLINICAL MEDICINE.	Physicians of Hospitals	Physicians (c) 8, 12; (Q) Physicians of Infirmary. Tu, 1.	Physicians of Infirmary. Tu, 1.	Physicians, Royal Infirmary. weekly.	Physicians, Royal Infirmary. W, 9.15.	Physicians of Infirmary and Hospital. Tu, 5 P.M.	Physicians of Infirmary. F, 12.
CLINICAL SURGERY.	Surgeons of Hospital	Surgeons (c) F, 12; (Q) Surgeons of Infirmary. Tu, 3.	Surgeons of Infirmary. Tu, 3.	Surgeons, Royal Infirmary. weekly.	Surgeons, Royal Infirmary. Tu, 9.15.	Surgeons of Infirmary and Hospital. Tu, 5 P.M.	Surgeons of Infirmary. Th, 10.
SUMMER SESSION.							
MATERIA MEDICA.	Dr. Rickards and Dr. Suckling. Tu. W. Th. F., 12.	Dr. Shaw. Tu. Th. S., 9.	Dr. Hedder. Tu. Th. F., 9.	Dr. Carter. Tu. Th. F. S., 9.15.	Dr. Leech & Mr. Elphinstone. M. Tu. W. Th. F., 12.30.	Dr. Young. M. W. F., 8 A.M.	Mr. McBean. M. W. F., 4. F. 5; Mr. Barron. M. W., 3.
MIDWIFERY, ETC.	Mr. Clay and Dr. Russell. Tu. W. Th. F., 1.	Dr. Swayne & Dr. Aust. Tu. W. Th. F., 1.	Dr. Wright M. W. F., 11.30.	Dr. Wallace (Win.). M. W. F., 9.15; S., 10.	Dr. Cullingworth. M. Tu. Th. F., 1.	Dr. Keeling, Mr. R. Fyall, Mr. Laver. M. W. F., 8 P.M.	Dr. Gibson and Dr. Nesham. daily 9 A.M.
BOTANY.	Mr. Hildhouse. M. F., 10.30; W., 9.30.	Mr. Leclerc. Tu. Th. S., 8 A.M.	Mr. Hall. M. Th. F., 2.	Dr. Shearer. M. Tu. W. Th. F., 3.	Dr. W. C. Williamson and Mr. Ward. M. Tu. W. Th. F., 2.30.	Mr. Birks. Tu. Th., 8 A.M.	Dr. J. Murphy. Tu. Th. F., 4.
FORENSIC MEDICINE.	Mr. Withers. M., 1. Tu, 2.30.	Dr. Eager and Dr. H. H. H. M. W. F., 8 A.M.	Mr. Seaton. M. Tu. Th. F., 12.30.	Mr. F. T. Paul. M. W. F., 3.	Dr. Cullingworth and Mr. Beverley. M. W. Th., 2.	Mr. Harrison. Tu. Th., 5; Tu. Th. F., 3.	Dr. F. Page. Tu. Th. F., 3.
PRACTICAL CHEMISTRY.	Dr. Tilden. Tu. Th., 2.	Mr. Coomber. M. W. F., 9.	Mr. Smithells. Tu. Th., 10.	Dr. J. C. Brown. W. Th. S., 4; F., 10.	Dr. H. E. Roscoe. M. W., 10.30.	At Fifth College	Dr. Bedson. M. W., 9.30.
COMPARATIVE ANATOMY.	—	Mr. Morgan. Tu. W. F., 10.	Mr. Mall. M. Th., 3.	Dr. Herlihan (Sum.). M. W. F., 10.30.	Dr. M. Marshall & Mr. Hurst. M. W. F., 10.30.	—	—
PRACTICAL PHYSIOLOGY.	Mr. Haycraft (Sum.). M. W. F., 9.30.	Mr. Atchley. M. W. F., 8 A.M.	Dr. Birch and Dr. Barrs. (Sum.) M. W. F., 10.	Dr. Caden and Mr. Larkin (Win.). M. W., 10.30.	Dr. M. Marshall & Mr. Hurst. M. W. F., 10.30.	Mr. Pye-Smith. Tu, 12.30.	Dr. Oliver. Tu. W. Th., 2.30.
PATHOLOGY.	Dr. Rickards. F., 9.30 (Win.).	Dr. Spencer & Dr. Skerritt (Sum.). M. W. F., 9.	Dr. Skerritt. Dr. Jac. b., 8.10.	Dr. Davidson (Win.). Tu, 12.30.	Dr. Droschfeld & Dr. Harris (Win.). M. Tu. Th., 2.	House-Surgeon at Infirmary (Sum.).	Dr. Drummond (Sum.) M. W. Th., 5; F., 4.15.
PRACTICAL SURGERY.	Mr. Bartleet and Mr. May. M. W. F., 9.30.	Mr. A. W. Pritchard (Sum.). Tu. Th. S., 4.	Mr. Jenson and Mr. Atkinson. M. W. F., 9.30.	Mr. Parker (Win.). M. Th. 4; over, course in sum.	Mr. T. Jones (Win.). Tu, 12; (Sum.) W. F., 12.	House-Surgeon (Win.).	Dr. L. Armstrong (Sum.) daily, 7 A.M. and 3.30.
OPHTHALMIC SURGERY.	Mr. J. V. Solomon.	—	Mr. Nunndley. Tu. F., 2.	Mr. T. S. Walker. W., 4.	Dr. Little (Sum.). W. F., 4; clin. M. Th. 10.	Mr. Suck (Sum.). W. F., 12.30.	Dr. Demmonstr. M., 12; Th., 9.
VACCINATION.	—	—	Mr. Holmes.	—	Mr. E. Guest.	Mr. Skinner.	Mr. Hawthorn.
(a) Physicians: Dr. Wade, Dr. Posters, Dr. Rickards, Dr. Sandilby, Assistant-Physicians: Dr. Simon, Dr. Foxwell, Surgeons: Mr. O. Penhurlton, Mr. T. H. Bartlett, Mr. R. Jolly, Mr. T. F. Chavasse, Assistant-Surgeons: Mr. Archer, Mr. W. F. Haslam, Obstetric Officer: Dr. E. Mallus.							
(b) Physicians: Dr. Sawyer, Dr. Cartier, Dr. Suckling, Surgeons: Mr. F. Jordan, Mr. J. S. S. Withers, Mr. B. May, Mr. Jordan Lloyd, Obstetric Officer: Mr. A. Haykins, Ophthalmic Surgeon: Mr. P. Smith.							
(c) Physicians: Dr. C. Sims, Consulting Officer: Mr. A. W. Moore, Mr. W. Fowler, Mr. Spencer, Dr. R. S. Smith, Dr. Waldo, Dr. Shaw, Assistant-Physicians: Dr. Prowse, Surgeons: Mr. Board, Mr. Dowson, Mr. A. W. Pritchard, Dr. Shaw, Assistant-Surgeons: Mr. Harsant, Operations: Tu. F., 1.30.							
(d) Physicians: Dr. Eddison, Dr. Harrison, Dr. B. J. Baron, Surgeons: Mr. F. P. Lansdown, Mr. Dobson, Mr. Keall, Mr. Fickering, Physician-accoucheur: Dr. Aust. Lawrence, Diseases of Skin: Dr. Hirdson, Diseases of Ear: Mr. Keall, Diseases of Ear and Throat: Mr. Fickering, Dentist: Mr. Parnon, Operations: Th., 1.30.							
(e) Physicians: Dr. Eddison, Dr. Charlton, Surgeons: Mr. T. R. Jenson, Mr. E. Alkinson, Mr. McGill, Mr. Mayo Robson, Ophthalmic and Aural Surgeons: Mr. J. A. Nunndley, Mr. H. J. Hewison, Assistant-Physicians: Dr. A. G. Barrs, Dr. E. H. Bead, Assistant-Surgeons: Mr. E. Ward, Mr. W. H. Brown, Dental Surgeon: Mr. T. Carter. Operations: Th., 1; 5.30, W., 1.							

Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Practical instruction is given in the use of the microscope, laryngoscope, ophthalmoscope, and surgical appliances; also in case-taking and bandaging, with minor surgery and prescribing. Students must attend each hospital alternately for six months. No student may enter for hospital medical practice or lectures during the first year.

Appointments.—*General Hospital*: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable for six months. *Queen's Hospital*: Resident Obstetric Assistant, tenable for six months; Resident Dresser, tenable for three months.

Prizes.—The Sands Cox Prize, value £20, annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery. Candidates must produce certificates of good conduct from the Warden. The examinations in 1885 will be held in the last week in March. Two Ingleby Scholarships, after examination in Obstetric Medicine and Surgery and the Diseases of Women and Children; open to students who have completed two years. One or more Sydenham Scholarships, £31 10s. each, awarded annually; tenable three years; limited to orphan sons of legally qualified men; age not to exceed 23 years. One or more Queen's Scholarships, value £31 10s. each, awarded annually after examination; limited to sons (not more than 20 years of age) of legally qualified medical practitioners. The Sydenham and Queen's Scholarships are open to students entering at the College, and are each tenable for three years. Preference in each case is given to sons of former pupils of the College. Application must be made on or September 15th in each year. Medals and Certificates of Honour, annually, in each class after examination. A Senior Medical and a Senior Surgical Clinical Prize (third and fourth years), value in each department, £5 5s.; a Junior Medical and a Junior Surgical Prize (first and second years), value £3 3s.; Midwifery Prize (third and fourth years), £4 4s.

The Medical Tutor holds classes for Junior Students.

Further particulars may be obtained by application to the Rev. the Warden, at the College; or to Dr. Carter, 51, Newhall Street. Information regarding Hospital Practice may be obtained from Dr. Malins, 8, Old Square; or Mr. Jordan Lloyd, 21, Broad Street, Birmingham.

BRISTOL MEDICAL SCHOOL, AFFILIATED TO UNIVERSITY COLLEGE, BRISTOL.—Clinical Instruction is given at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 264 beds; it has a large Children's ward; wards for Eye cases and other special purposes; and two wards, apart from the main building, for cases requiring isolation. The General Hospital contains 154 beds; it has a Children's ward, and private and isolated wards. The Infirmary and the Hospital each contain a Library and a Museum. Demonstrations and instruction in Diseases of the Eye and the Use of the Ophthalmoscope are given at the Royal Infirmary by Mr. A. W. Prichard on Thursdays at 11, and by Mr. Cross on Saturdays at 11; and in Diseases of the Throat and Ear, on Tuesdays at 11, by Mr. Harsant. Instruction in the Diseases of Women is given at the Royal Infirmary by Mr. Greig Smith on Wednesdays at 11, and at the General Hospital by Dr. Lawrence on Mondays and Thursdays at 12. A course of Operative Surgery and Surgical Pathology is given by Mr. Keall on Tuesdays, Wednesdays, and Fridays at 10 A.M. during the summer; each student performs operations on the dead body. On Tuesdays, Thursdays, and Saturdays, at 9 A.M., Mr. A. W. Prichard gives instruction in Practical Surgery, including surgical diagnosis, the use of apparatus, etc. Mr. D. Davies gives a course of Lectures on Hygiene in the Medical School at 10 A.M. on Mondays and Fridays.

Appointments.—*Royal Infirmary*: Students are appointed to Dresserships after the first year of study. Resident Dressers are appointed in weekly rotation. Clinical Clerks are appointed in the third and fourth years of study. A Pathological Clerk is appointed every four months. Obstetric Clerks are appointed from students who have attended lectures on Midwifery and entered to the Surgical Practice. *General Hospital*: Clinical Clerks, Dressers, and Obstetric Clerks are appointed. The Dressers reside in the Hospital in rotation, free of expense. Resident pupils are received at the Hospital.

Prizes.—Prizes and Certificates of Honour are awarded after examination in the subjects of each year. Certificates alone are given for Comparative Anatomy and Hygiene. *Royal Infirmary*: Supple's Medical Prize, and Supple's Surgical Prize, each a Gold Medal, value £5 5s., and about £7 7s. in money, awarded after examination in Medicine and in Surgery respectively. Clarke's Prize (interest of £500) to the most successful student in the third year in the Medi-

cal School, if he have attended the Royal Infirmary. Tibbits Memorial Prize (interest on £315), annually, for proficiency in Practical Surgery. Crosby Leonard Prize (interest on £300), to third year's surgical students, for best written report of ten surgical cases (excluding those taken for the Supple Prize). A prize of £3 3s. to the Pathological Clerk, if he have performed his duties satisfactorily. *General Hospital*: Martin Memorial Entrance Scholarship, £20, at beginning of winter session, after examination in subjects of general education. Clarke Surgical Scholarship, £15, annually. Sanders Scholarship (interest of £500); and Lady Haberfield Prize (interest of £1,000 annually); each after examination in Medicine, Surgery, and Diseases of Women. The Martyn Memorial Scholarship and the Lady Haberfield Prize, when not awarded, are available for the remuneration of a Museum Curator, appointed from among the students after competitive examination.

The Medical Tutor assists students in their Practical Anatomical and Physiological studies.

Further particulars respecting the Infirmary may be known on application to Dr. Spencer; respecting the Hospital, on application to Dr. Markham Skeritt. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. E. Markham Skeritt.

LEEDS SCHOOL OF MEDICINE: MEDICAL DEPARTMENT OF YORKSHIRE COLLEGE.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. The Library is open to students. The Museum of the Literary and Philosophical Society is open to students at a nominal charge.

The lectures in Chemistry and Botany, and the instruction in Practical Chemistry, are given at the Yorkshire College, and the lectures in Comparative Anatomy at the Philosophical Hall.

Clinical Instruction, etc.—The General Infirmary has 320 beds. Clinical lectures are delivered by the Physicians and Surgeons, and classes meet in the wards for practical instruction. Courses of Practical Physiology are held. The Systematic and the Practical courses of Surgery are delivered in alternate winter sessions. A course of lectures on Diseases of Women and Children is given by Dr. James Braithwaite. Demonstrations of Eye and Ear Diseases, and instruction in the use of the Ophthalmoscope, are given. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures is given by Mr. Bevan Lewis during the summer; the systematic lectures being given at the school, and the clinical at the asylum, in alternate weeks. Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several resident appointments at these institutions.

Hospital Appointments.—Every student must hold the offices of Clinical Clerk and Dresser. A House-Physician and a House-Surgeon are elected from time to time. There are also five Resident Assistant Medical Officers in the Infirmary; they are selected from the senior students with at least one legal qualification. They hold office for one year, and are provided with apartments and board, free of charge.

Prizes.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeons' Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases during the winter session. These prizes are open to students who have completed the first year. The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session. At the close of each session, Silver and Bronze Medals, Books, and Certificates of Honour are awarded according to merit.

UNIVERSITY COLLEGE, LIVERPOOL: MEDICAL DEPARTMENT (ROYAL INFIRMARY SCHOOL OF MEDICINE).—There are a Museum containing specimens of Morbid and Comparative Anatomy, a collection of Wax Models, and a collection of Materia Medica, a Library, and a Reading-Room.

Instruction.—Clinical lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds: the Lock Hospital adjoining contains 60 beds. Medical and Surgical Tutors attend in the wards from 10 to 12, daily. Dr. Glynn gives practical instruction in Clinical Medicine and the Methods of Physical Diagnosis at 11.15 on Tuesdays during the winter. Besides a winter course of Practical Surgery, a course of Operative Surgery is given in the summer for candidates for the Fellowship of the Royal College of Surgeons and the University degrees in Surgery. Dr. Wallace gives practical instruction in Midwifery during the winter session to third and fourth year's students. Dr. Gee lectures on Diseases of Children. Students of Midwifery attend the practice of the Ladies' Charity and Lying-in Hospital on payment of a fee of £2 2s. The Dissecting-room will be open during the

summer. In May, a series of twelve lectures on the Organs of Respiration, and afterwards a course of twenty-four demonstrations on Surgical Anatomy, will be given. There will also be a tutorial class of Osteology and an examining class in the summer. Dr. Lodge gives a complete course of Physics, beginning in October and ending in June. A course of Practical Pathological Anatomy will be given during the summer.

Appointments.—*Royal Infirmary*: Two House-Physicians and three House-Surgeons are appointed for six months, after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Clinical Clerks for each Physician, three or more Dressers for each Surgeon, and two Clerks to the Thornton Wards for Diseases of Women, are appointed for three months in October, January, and May. *Post mortem* Clerks are appointed for six weeks. All students must perform this duty before the Schedule for the final examination is signed.

Exhibitions and Prizes.—Roger Lyon Jones Scholarships (each £21 for two years); one as an entrance scholarship to the candidate who has passed the Entrance Examination of the Victoria University. If there be more than one candidate in the first division, a further examination is held by the College. The successful candidate must become a composition ticket-holder in the school. Another of the scholarships to a student who has completed two years in July after examination in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry, on condition of his remaining a pupil of the School. Derby Exhibition of £15, awarded after examination; open to third and fourth years' students; examinations in March. Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P., for second year's students; and one, also for Anatomy and Physiology, presented by Dr. J. Bligh, for students of the first year; also a bronze medal and certificates in each case. Medals and Certificates of Honour for groups of subjects: namely, second year, Advanced Anatomy and Physiology; first year, Elementary Anatomy and Physiology, and Chemistry. Silver Medal and Certificates in each of the following: Medicine, Surgery, Pathology, Midwifery, Botany, Materia Medica, Practical Chemistry, and Medical Jurisprudence (including Toxicology). Two prizes for the best sets of Microscopical Preparations made in the Physiological Laboratory during the winter.

The *Debating Society* meets eight or ten times during the winter session on Saturday evenings for the reading and discussion of papers. Prizes are given for the best papers, and for the best collection of clinical reports.

Communications should be addressed to the Vice-Dean, Mr. F. T. Paul.

OWENS COLLEGE, MANCHESTER: MEDICAL DEPARTMENT.—I. The Anatomical Department comprises (1) a dissecting-room; (2) bone-room; (3) an anatomical workroom; (4) room for the storing and preparation of subjects; (5) an "articulating" room; (6) Professor's private room; (7) Demonstrator's room. II. The Physiological comprises a lecture-room and the Physiological Laboratory, which includes twelve rooms specially adapted for carrying on physiological work. It is supplied with a very complete collection of apparatus. III. The Pathological Department is provided with—(1) a student's laboratory; (2) a Professor's private laboratory; (3) a laboratory for surgical pathology; (4) an Assistant-Curator's room. IV. The Department of Materia Medica, Pharmacy, and Pharmacology has (1) a large museum; (2) a laboratory; (3) a Professor's laboratory. There are also Departments of Hygiene and Medical Jurisprudence, and of Midwifery and Diseases of Women, to both of which belong the necessary collections. On the ground-floor of the Medical Buildings are situated the rooms in which are located the Library of the Medical Society of Manchester. These include (1) the library, containing above 27,000 volumes; (2) a Student's Library; (3) a Reading-room, reserved for members of the Medical Society. The Medical Buildings also comprise a Student's Common Room, besides rooms for Professors and Lecturers, Offices, etc.

Instruction.—In the College, the following courses (in addition to those mentioned in the table) are given in the summer: Diseases of Children, by Dr. H. Ashby (W. and F., 3 P.M.); Mental Diseases, by Mr. G. W. Mould (Tu. and Th., 4 P.M.); Hygiene, by Dr. A. Ransome (Tu. and F., 2 P.M., summer); and Embryology (lectures and laboratory work) by Dr. A. M. Marshall (M., W., and F., 1.30 P.M., in the summer); Comparative Osteology by Mr. Hurst (M., W. F., 9.30). A special course of lectures on Dyspepsia will be given by Dr. W. Roberts in February (F., 7.30). Practical Pathology is taught by Dr. Harris, under the superintendence of Dr. Dreschfeld. In the summer, Dr. Harris will conduct a course of Pathology for medical men. Mr.

Thomas Jones gives a course of Practical Surgery (Tu. and Th., 12 A.M. in the winter, and W. and F. 12 A.M. in the summer); and a course of Operative Surgery in the summer at 4 P.M. on Mondays. Mr. A. H. Young gives a course of Surgical Pathology in the winter, at 2 P.M. on Tuesdays; also an elementary course in the summer (Tu. and Th., 1 P.M.). Two courses of Materia Medica and Therapeutics are given at separate hours on the same day; one being devoted to Materia Medica proper, and the other to the Action of Drugs. A special course of Anatomical Demonstrations will be given on three days a week, if a sufficient number of students offer themselves.

The *Royal Infirmary* contains 298 beds. In addition to the Practice of the Infirmary, the Monsall Fever Hospital (220 beds), and the Convalescent Hospital (136 beds), and the Royal Lunatic Asylum at Cheadle, which accommodates 200 patients, are open for purposes of instruction.

Clinical Instruction is given by the Physicians and Surgeons of the Infirmary. Clinical classes are formed in October, January, and May; also Advanced Clinical Classes for students of the last two years. Medical and Surgical Demonstrations are given at 9.15 A.M. one morning weekly in the summer. Dr. Simpson gives instruction in the use of the Laryngoscope (Tu., 10); Dr. Dreschfeld in Electro-Therapeutics (W., 11, in summer); Mr. Wright in Aural Surgery (M., 12). Dr. Steell gives Clinical instruction at the Fever Hospital; also a series of Clinical Lectures on Fever, in the College. Mr. Wright gives instruction in Diseases of the Ear. Clinical Lectures on Diseases of Women and Obstetrics will be given at the Royal Infirmary, and at St. Mary's Hospital by Dr. Lloyd Roberts and Dr. Cullingworth. Clinical instruction in Diseases of the Eye, and Ophthalmoscopic Demonstrations will be given at the Royal Infirmary by Dr. Little, and at the Royal Eye Hospital by Dr. Glascott.

Appointments.—The following appointments are made: Surgical Registrar, at £70 or £80 per annum; a Pathological Registrar, at £80 per annum; a Medical Registrar, at £50 per annum; two Assistant Medical Officers, each at £100 per annum; Resident Medical Officer, two years, £150 per annum; ditto, at Cheadle, one year, £150 per annum; ditto, at Monsall, one year, £200 per annum; Resident Surgical Officer, one year, £150 per annum; eight House-Surgeons and four House-Physicians, a Resident Assistant at Monsall (salary £50 per annum); and one at Cheadle, each for six months. The House-Physicians, House-Surgeons, and the Resident Assistant at Monsall, must be qualified. Two or more Clinical Clerks are attached to each Physician and Assistant-Physician, and two or more Dressers to each Surgeon and Assistant-Surgeon. Two Clerks to the Pathological Registrar, and Accident-room Dressers, are appointed for three months.

Scholarships and Prizes.—A prize of the value of £5 5s. is offered on the results of the Final Class Examinations in each of the following subjects: Anatomy (first and second years), Physiology (first and second years); Pathology and Morbid Anatomy, Medicine, Surgery and Midwifery and Diseases of Women and Children; one of the value of £3 3s. in each of the following: Botany, Practical Chemistry, Materia Medica and Therapeutics, Medical Jurisprudence, Hygiene, Practical Surgery, Ophthalmology, and Practical Physiology; and one of the value of £2 2s. each of the following subjects: Practical Anatomy (senior and junior), Surgical Pathology, Diseases of Children, Mental Diseases, and Materia Medica (first year's course). Turner Scholarship of £25, to students who have completed four years of study in the College, after examination in the subjects of the third and fourth years' courses. Platt Physiological Scholarship, value £50, tenable for two years, to students between the ages of 18 and 25, who have attended Physiology in the College Laboratory during one session, for best original investigation and the result of a written examination. The successful candidate must attend for one year of his tenure the class of Practical Physiology in the Laboratory of the College, and in the other year in the same or some other approved Physiological Laboratory. Examinations on October 12th, 13th, and 14th. Two Platt Exhibitions, £15 each, for first and second years' students in Physiology. Dunville Surgical Prize, value £20 (in books or surgical instruments), at the end of winter session, to students of two years who have attended four courses, including one at least in Surgery. Subjects of Examinations (about middle of July, 1885): Principles and Practice of Surgery, including Surgical Anatomy or Surgical Pathology, and, at option of Examiners, examination of patients and operations on dead subject, with reports of cases. Dauntsey Medical Scholarship, value about £100, tenable for one year. Candidates must not have attended lectures in a medical school. Subjects of Examination: General and Comparative Anatomy, with Dissections and Description of Preparations illustrating Typical Forms of Animals; Outlines of Physiological Botany; Chemistry; and either Mathematics or Latin. The successful candidate must enter to

the full course of medical studies at the College. Examination will commence on October 1st. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, awarded biennially, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division; also one, biennially, upon the results of the June Preliminary Examination of the Victoria University. The successful candidate must prepare for graduation in the University of London. Grammar School Scholarship, value £18 10s., tenable for three years, open to scholars of the Manchester Grammar School between the ages of 15 and 23. Examination on October 1st and 2nd; subjects in 1885, Mathematics and Physical Science; in 1886, Classics and Mathematics. The successful candidate must enter to one of the departments of Owens College. Medical and Surgical Clinical Prizes (books or instruments to the value of £6 6s. in each department) are given for reports of cases in the Infirmary. The Bradley Memorial Scholarship in Clinical Surgery is offered annually in the summer session. Candidates must be in their fourth year of study, have completed their Dresserships, and have spent their whole period of studentship at the Manchester Royal Infirmary.

Tutorial Classes in Medicine and Surgery are formed before each examination at the College of Surgeons. There are also tutored classes in Anatomy and Physiology.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

FIRTH COLLEGE: SHEFFIELD SCHOOL OF MEDICINE.—The General Infirmary contains 190 beds, including two ophthalmic wards. The Public Hospital and Dispensary contains 101 beds. Students are also admitted to the practice of the Jessop Hospital for Diseases of Women.

Besides the lectures mentioned at page 511, a course of Public Medicine is given by Dr. Drew. The instruction in Chemistry is given at Firth College.

The Library of the Medical School is open to students under certain regulations.

Prizes and certificates of honour are given at the end of each session.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Students have access to the Reading Room, and the Museums of Anatomy and Pathology, and of Materia Medica, in the College; the Museum of Pathology and the Medical Library of the Infirmary; the Libraries of the College of Physical Science and of the Literary and Philosophical Society; and the Chemical and Physical Laboratories in the College of Physical Science.

Appointments.—An Assistant-Curator of the Museum is annually appointed from among the senior students. Assistant Demonstrators of Anatomy, Assistant Physiologists, Pathological Assistants, Assistants to the Dental Surgeon, and an Assistant in the Eye Department, are also elected. The Assistant Demonstrators of Anatomy receive £5 each; the others are unpaid. Four times in the year, two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers, are nominated by the Medical Board, and, if approved, appointed by the House Committee for three months. The Medical and Surgical Assistants are provided with apartments and board in the Infirmary, on payment of £5 5s. for three months.

The Infirmary contains 300 beds. There are special wards for diseases of the eye, for lock cases, male and female, and for children. Pathological Demonstrations are given as opportunity offers. Practical Midwifery can be studied at the Newcastle Lying-in Hospital. Opportunities for practical study are also afforded by the Dispensary, Fever Hospital, Eye Infirmary, Children's Hospital, and Coxlodge and Dunston Lunatic Asylums. Instruction in Psychological Medicine is given at the Coxlodge Lunatic Asylum at 11 A.M. daily by Mr. R. H. B. Wickham, Medical Superintendent. Mr. H. E. Armstrong gives a course of lectures on Public Health at 3 P.M. on Tuesday, in winter. Dr. Gibson lectures on Diseases of Women and Children daily, at 9 A.M.; and Dr. Neasham on Midwifery daily at the same hour. The lectures on Therapeutics are given by Mr. Barron (M., W., 3), and those on Materia Medica by Mr. McBean (M., W., 4; F., 3). Courses of Anatomical Demonstration are given in the summer. Mr. Herschell gives a course of six or eight lectures on Physics in the winter (Tu., Th., 10).

Scholarships, etc.—An University of Durham Scholarship, value £25 a year, for four years, for proficiency in Arts, open annually at beginning of winter session to intending students, and to those who

have attended only one winter and one summer session.¹ The Dickenson Memorial Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology; open to perpetual students who have passed the primary examination of a licensing body. The Tulloch Scholarship, interest of £400 annually, for Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, interest of £700 annually, with Gold Medal, open to full students entered for the class of Medicine, at end of winter session. The Gibb Scholarship, interest of £500 annually, for Pathology, at end of summer session. The Goyder Memorial Scholarship, proceeds of £325; subjects, Clinical Medicine and Clinical Surgery. At the end of each session, a Silver Medal and Certificates of Honour are awarded in each of the regular classes.

Further information may be obtained from the Registrar, Dr. Luke Armstrong, Newcastle-on-Tyne.

The following hospitals are also recognised by the Royal College of Surgeons for the purpose of professional education: Bath United Hospital; Bedford General Infirmary; Berkshire Royal Hospital, Reading; Bradford Infirmary; Addenbrooke's Hospital, Cambridge; Derbyshire General Infirmary; Devon and Exeter Hospital; Gloucester General Infirmary; Hants County Hospital; Hull Infirmary; Kent and Canterbury Hospital; Leicester Infirmary; Liverpool Northern Hospital and Royal Southern Hospital; Norfolk and Norwich Hospital; Northampton General Infirmary; Nottingham General Hospital; Radcliffe Infirmary, Oxford; Salisbury General Infirmary; Salop Infirmary; Staffordshire General Infirmary; North Staffordshire Infirmary; Wolverhampton and Staffordshire General Hospital; Sussex County Hospital; Worcester Infirmary.

NOTES ON THE MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF ABERDEEN.—Practical Medical Jurisprudence and Hygiene, Dr. Hay (summer). Practical instruction in Insanity is given by Dr. Reid at the Royal Lunatic Asylum; in Public Health, by Dr. Simpson; in Diseases of the Ear and Larynx, by Dr. McKenzie Booth, at the Dispensary; in Diseases of the Skin, by Dr. Garden, at the Royal Infirmary and Sick Children's Hospital. The General Dispensary and the Lying-in, Vaccine, and Eye Institutions, and the Sick Children's Hospital, are open daily. Fee to each class, £3 3s., except Anatomical Demonstrations, Practical Natural History, Practical Midwifery and Gynecology, Practical Pharmacy, Operative Surgery, Practical Medical Jurisprudence and Hygiene, each £2 2s.; Practical Ophthalmology, Insanity, Public Health, Diseases of the Ear and Larynx, and Diseases of the Skin, each £1 1s.; Matriculation fee, both sessions, £1; summer session alone, 10s.; Royal Infirmary: Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Lectures and Hospital Practice, with Examinations, £107 18s.; or, first summer, £9 8s.; first winter, £18 17s.; second summer, £8 8s.; second winter, £15 14s.; third summer, £3 3s.; third winter, £18 17s.; fourth summer, £6 6s.; fourth winter, £16 15s.; final examination, £10 10s.; Sessional Fee for Materia Medica, Chemistry, Surgery, Institutes of Medicine, Midwifery, Clinical Surgery (winter), Clinical Medicine (winter), Anatomy, Practice of Physic, Pathology, Botany (with Garden Fee of 5s.), Natural History, Medical Jurisprudence, each £4 4s.; Practical Anatomy, Practical Physiology, Practical Chemistry, Practical Pathology, Clinical Medicine (summer), Clinical Surgery (summer), Operative Surgery, Mental Diseases, Diseases of the Eye, Practical Materia Medica and Pharmacy, Obstetric and Gynecological Operations, each £3 3s.; Anatomical Demonstrations, Organic Chemistry (advanced), Practical Natural History, each £2 2s.; Clinical instruction in Diseases of Children (winter and summer), £1 1s.; Vaccination, £1 1s. The fee for a second course of any lectures is £3 3s.; any subsequent course is free. For a perpetual ticket at the beginning of the first course, the fee is £6 6s. Every student, before entering with any Professor, must produce a matriculation-ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer

¹ The subjects of examination, which will commence on October 14th, will be Greek: *The Gospel of St. Luke*; Latin: Grammar; *Cæsar, De Bello Gallico*, Book IV; *Virgil's Æneid*, Book IV; Euclid, Books I and II; English History: from the beginning of the reign of William I to the end of the reign of Henry II. In 1886, the English History will comprise the period from the beginning of the reign of Richard I to the end of the reign of Edward III.

session pay a fee of 10s.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 P.M.

The following means are afforded for practical instruction, in addition to those mentioned in the table at page 516: Practical Pathology and Morbid Anatomy, under the superintendence of Dr. Greenfield, assisted by Dr. Woodhead and Mr. Barrett; Tutorial Class of Clinical Medicine, in the Royal Infirmary, by Dr. Murdoch Brown, under the superintendence of the Clinical Professors; Tutorial Class of Clinical Surgery, by Mr. James Bennet, under the superintendence of the Clinical Professor; Practical Surgery, under the superintendence of Mr. Chiene and Mr. A. M. Hare; Obstetric Operations, by Dr. Simpson and Dr. Barbour; Organic Chemistry (advanced class), by Dr. Crum Brown; Practical Instruction in Mental Diseases, at Morning-side Asylum, by Dr. Clouston, on Mondays, Wednesdays, and Fridays at 3 (summer); Practical Botany and Vegetable Histology, by Dr. Dickson and Mr. Geddes. The Anatomical Museum, under the superintendence of Mr. Turner; Chemical Laboratories, under Dr. Crum Brown and Assistants; Physiological Laboratory, under Dr. Rutherford and Assistants; Physical Laboratory, under Mr. Tait; Natural History Laboratory, under the superintendence of Dr. Cossar Ewart and Assistants; Medical Jurisprudence Laboratory, under the superintendence of Dr. MacLagan and Mr. C. H. Stewart; Royal Botanic Garden, Herbarium, and Museum, under the superintendence of Dr. Dickson; *Materia Medica* Museum and Laboratory, under the superintendence of Dr. Fraser and Assistants, are open to students.

Fellowships, etc.—Falconer Memorial Scholarship, for the encouragement of the study of Palæontology and Geology, value £101 4s., for two years, but renewable under certain conditions, open to Graduates in Science or Medicine of the University of not more than three years' standing. Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, for the best Thesis on a Surgical subject; next award in August 1887. Leckie-Mactier Fellowship, value £70 *per annum*, tenable three years, open to Bachelors of Medicine of not more than three years' standing; next award in November, 1885. Sibbald Scholarship, £40, tenable for three years; subjects: Chemistry, Botany, and Natural History; next competition in October 1886. Hope Prize Scholarship, about £35, in March 1886, to the most distinguished junior student in the Chemical Laboratory during the winter. Thomson Scholarship, value £40, tenable four years, in October 1886; subjects: Botany, Zoology, and Elementary Mechanics. Six Vans Dunlop Scholarships, each £100, tenable for three years, one, in March 1887, for highest marks at Preliminary Examinations; one, in July 1887, for highest marks (not less than 60 per cent.) in first year's subjects—Botany, Zoology, Chemistry, and Anatomy; one, in March 1887, for highest marks (as above) in Physiology and Surgery; three (one each year) at end of third winter, for highest marks at a special examination on Anatomy, Physiology, *Materia Medica*, and Pathology. Vans Dunlop Scholarships in Chemistry and Clinical Pharmacy, and in Natural History, including Botany and Geology, each £100, tenable for three years. Coldstream Memorial Medical Missionary Scholarship, proceeds of at least £470, tenable for four years, to the students who intend to become medical missionaries; next award at Preliminary Examination in October 1887. Buchanan Scholarship, annual proceeds of £1,000, yearly, for proficiency in Midwifery and Gynecology. Murchison Memorial Scholarship, for proficiency in Clinical Medicine, annual proceeds of about £1,000; alternately in Edinburgh and London; competition in London in July 1886; open to candidates from London and from Edinburgh. Stark Scholarship in Clinical Medicine, proceeds for two years of about £1,400, tenable one year; awarded every alternate year; next competition in July 1886. James Scott Scholarship, value £50, for proficiency in Midwifery. Ettles Medical Scholarship, value about £40, to the most distinguished graduate in Medicine of the year. Abercrombie Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Two Sibbald Bursaries, value £30 each. Eight Thomson Bursaries, value £25 each, tenable for four years, in March and October, at Preliminary Examination in the subjects of General Education. Four Grierson Bursaries, each £20 *per annum*; in the absence of certain preferential candidates, open to competition; one to the student who shall pass the best examination in the subjects of Preliminary Education; one open to student commencing the second winter session; after examination in Chemistry, Botany, and Natural History; one to student commencing the third winter session; after examination in Anatomy and Physiology; one to student commencing the fourth winter session; after examination in *Materia Medica* and Pathology. Two Dr. John Aitken Carlyle's Medical Bursaries, £32 each, for one year, for proficiency in ordinary class-examinations; one

to a first year's student, in Anatomy and Chemistry; one to a second year's student in Anatomy and Physiology. Two Mackenzie Bursaries, annual proceeds of £1,000, to students in junior and senior classes of Practical Anatomy, for industry and skill. Competitors for the Bursaries must have studied the subjects of examination at the University of Edinburgh. Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy. Beane Prize, value £35, to the candidate for degrees of M.B. and C.M., who shall obtain most marks in Anatomy, Surgery, and Clinical Surgery. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Neil Arnott Prize, above £40, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session. Ellis Prize, value about £60, every three years, for an Essay or Treatise in some subject of Animal or Vegetable Physiology; next award in April 1888. Goodsir Memorial Prize, £60, awarded triennially. Wightman Prize, £10 10s., to student of class of Clinical Medicine for best report and commentary on cases treated in the wards. Cameron Prize, income of £2,000 yearly, to the member of the medical profession who shall have made the most valuable addition to Practical Therapeutics during the preceding year. Dobbie-Smith Gold Medal in Botany, in alternate years, for an Essay on a Botanical subject.

EDINBURGH ROYAL INFIRMARY.—Fees: three months, £2 2s.; six months, £4 4s.; one year, £6 6s.; perpetual, £12. Separate payments, amounting to £12 12s., entitle to a perpetual ticket. Clinical Medicine and Clinical Surgery, each £4 4s. for the course in winter, and £3 3s. in summer. Resident Physicians and Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each Surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist. Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—Of the Extra-academical lecturers, some give their instruction in Surgeons' Hall; others at Minto House; others at other places. The following courses of instruction are given, in addition to those mentioned at page 516: Tutorial Classes of Physical Diagnosis and of Practical Surgery at the Royal Infirmary; Diseases of the Ear, Dr. Kirk Duncanson, lectures, 4 P.M. Tuesdays and Fridays (winter), and Fridays (summer), with clinical instruction Mondays, Thursdays, and Saturdays, 12 (winter and summer); Diseases of the Ear and Throat, Dr. P. McBride, Mondays and Thursdays, 10 (winter); Laryngology and Medical Ophthalmology, Dr. Wyllie, 9 A.M. (summer); Vaccination, six weeks' course in winter and summer, Dr. Husband; Diseases of Children, Dr. J. Andrew; Practical Medicine and Diagnosis, Dr. Byrom Bramwell, daily, 9 A.M. (S.); Practical Midwifery, Dr. A. Macdonald, February, March, April, 5 (winter); Practical Gynecology, Dr. Halliday Croom, at 5 (winter); Clinical Midwifery, Dr. Croom, 9.30 A.M. daily (summer); Clinical Gynecology, Dr. C. Bell, Tuesdays and Fridays, 4 P.M. (summer), and 1.30 P.M. (winter); Practical Midwifery, with clinical instruction, Dr. C. Bell, throughout year; Practical Midwifery and Clinical Gynecology, Dr. P. Young, Fridays, 1 P.M., throughout the year; Practical Gynecology, Dr. D. B. Hart, 5 P.M. (summer); Diseases of the Skin, Dr. A. Jamieson; Insanity, Dr. Batty Tuke, Tuesdays and Fridays, 5 (summer). Dr. Littlejohn and Mr. Aubrey Husband lecture on Public Health in conjunction with Medical Jurisprudence.

Fees.—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Practical Anatomy (six months), £3 3s.; Anatomical Demonstrations, £2 2s.; perpetual, £4 4s.; Practical Anatomy with Demonstrations, £4 4s.; Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months; Practical *Materia Medica* (including Practical Pharmacy), Diseases of the Eye, Diseases of the Ear, Diseases of Children, and Diseases of the Skin, each £2 2s.; Practical Physics, £3 3s.; Practical Zoology, £2 12s. 6d.; Vaccination, £1 1s.; Summer Courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Demonstrations, Operative Surgery, and Medical Anatomy and Physical Diagnosis, each £2 2s.; Insanity, £1 1s. The minimum cost of education in this school for the triple qualification of the Royal Colleges of Physicians and Surgeons of

a. ABERDEEN ROYAL INFIRMARY.—Physicians: Dr. Smith-Stuart, Dr. Beveridge, and Dr. A. Fraser; Surgeons: Dr. A. Ogilvie, Dr. Will, and Dr. Curdson. *Ophthalmic Surgeon:* Dr. Davidson, Daniel; Dr. Williamson.

b. EDINBURGH ROYAL INFIRMARY.—Consulting Physicians: Dr. D. R. Haldane, Dr. G. W. Balfour, and Dr. A. K. Simpson; Dr. T. Grange Stewart, Dr. T. R. Fraser, Dr. G. W. Yellie, and Dr. A. Keller. Professors of Clinical Medicine: Dr. C. Muirhead, Dr. Brakenridge, and Dr. J. Wyllie. *Graduated Lecturer on Diseases of Women:* Dr. Angus Macdonald. *Graduates on Clinical Medicine:* *Edinburgh and Lecturer on Diseases of Women:* Dr. Angus Macdonald. *Assistant Physicians:* Dr. Adcock, Dr. A. Stuart, Dr. A. James. *Extra Assistant-Physician for Diseases of Women:* Dr. Halliday Croon. *Physician for Diseases of the Skin:* Dr. W. M. Jamieson. *Consulting Surgeons:* Dr. J. Munro and Dr. J. D. Gillespie. *Surgeons:* Mr. J. Chene (Professor of Surgery), Mr. Amundale (Professor of Clinical Surgery), Dr. J. Bell, Dr. Duncan, and Dr. G. A. Miller. *Extra Surgeon:* Dr. P. H. Watson. *Ophthalmic Surgeons:* Dr. D. A. Robertson, Dr. G. A. Hery, Dr. J. Keith. *Surgeon for Diseases of the Ear and Throat:* Dr. P. McNeill. *Surgeon for Diseases of the Throat:* Dr. P. H. Maclellan, Dr. J. Bishop, Dr. MacGillivray, Dr. Cotterill, Dr. Guthrie. *Pathologist:* Dr. E. Brown Brannwell. *Dental Surgeon:* Dr. J. Smith.

c. GLASGOW WESTERN INFIRMARY.—Physicians: Dr. Gardner, Dr. Metcalf Anderson, Dr. Finlayson, Dr. G. P. Tennant. *Assistant Physicians:* Dr. J. Coats, Dr. Christie. *Physician for Diseases of Women:* Dr. Leishman. *Surgeons:* Dr. Macleod, Dr. A. Pattison, Dr. H. C. Cameron. *Dispensary Physicians:* Dr. McVail, Dr. S. Gemmell, and Dr. J. Alexander. *Extra Dental Surgeon:* Dr. W. G. Dunn. *Out-patient Physician Anæsthetist:* Dr. R. K. Kirk, Dr. W. L. Reid, Dr. M. Cameron. *Dispensary Surgeon:* Dr. Renton, Dr. Beaton, and Dr. Newman. *Dispensary Surgeon for Diseases of the Ear:* Dr. T. Barr. *Extra Dispensary Surgeons:* Mr. A. E. Maynard, Mr. J. Parker. *Dental Surgeon:* Mr. J. R. Brownlie. *Pathologist:* Dr. Coats.

d. GLASGOW ROYAL INFIRMARY.—Physicians: Dr. Perry, Dr. Wood Smith, Dr. Robertson, Dr. W. Anderson. *Physician for Diseases of Women:* Dr. Sturton. *Surgeons:* Dr. Macewen, Dr. Tunlop, Mr. Clark, Dr. Lathlan, Dr. Knox, Dr. Fleming. *Acute Surgeon:* Dr. Macle. *Dental Surgeon:* Dr. J. C. Woodburn. *Assistant-Physicians:* Dr. Douglas, Dr. Middleton, Dr. T. B. Henderson, Dr. Campbell Black, Dr. Macpherson, Dr. Stevenson. *Assistant-Surgeons:* Dr. Barlow, Dr. J. A. Adams, Mr. Muir, Dr. Shaw, Dr. Whitson. *Surgeon for Diseases of the Throat:* Dr. Newman. *Diseases of the Skin:* Dr. Provan.

Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, including the fees for the joint examination, is £100, payable by yearly instalments.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospitals, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Dr. Gairdner will give a special course of lectures on Diseases of the Liver, Spleen, and Kidneys on Tuesdays and Thursdays at 1 P.M. in summer. Dr. Leishman lectures on Diseases of Women at 2 P.M. on Mondays, Wednesdays, and Fridays in the summer; and Dr. Yellowlees on Insanity at 2 P.M. on Wednesdays in the College, and at 10 A.M. on Saturdays in the Gartnavel Asylum.

The Chemical Laboratory is open from 10 A.M. to 4 P.M. (fee £10 10s. in winter, and £5 5s. in summer); the Physiological Laboratory from 9 A.M. to 4 P.M. winter and summer; the Zoological Laboratory from 10 A.M. to 1 P.M. in summer; and the Botanical Laboratory from 9 A.M. to 4 P.M. in summer (fee £2 2s.) Demonstrations in the Botanical Gardens are given in the summer.

Fees, each course, £3 3s., except summer courses of Anatomy, Insanity, Diseases of Women, and Operative Surgery, each £2 2s., and Lectures on the Eye, £1 1s. In most of the courses for which £3 3s. is charged, the fee for a second session is £2 2s.; for a third session, £1 1s.

GLASGOW.—ANDERSON'S COLLEGE.—The following courses are given in addition to those at p. 516. In winter, Senior Anatomy, Dr. Buchanan, 12.30 P.M.; in summer, Osteology, Dr. Buchanan, as may be arranged; Public Health, Dr. Christie, 4 P.M.; Aural Surgery, Dr. Barr, Thursday, 3 P.M. The Chemical Laboratory is open daily from 10 to 5. Students of the College are admitted to the practice of the Ophthalmic Institution on the payment of a matriculation fee of 5s.

Fees.—Each course of lectures (except Anatomy), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy (including Dissecting-room), first session, £4 4s.; second session, £4 4s.; third session and perpetual, £1 1s.; summer (including Practical Anatomy) £1 11s. 6d.; Osteology, £1 1s. Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at reduced fees. Fees for all the Lectures and Hospital Practice required of candidates for the diplomas of Physician and Surgeon, £48.

A Dispensary is connected with Anderson's College. Students have the privilege of visiting and treating patients at their own homes, being assisted by a specially appointed qualified practitioner.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—In addition to the subjects mentioned in the table at page 516, lectures are given in the summer on Aural Surgery, by Dr. Johnston Macfie, at 4 on Thursdays; and on Mental Diseases by Dr. A. Roberts at 12 noon. The City Parochial Asylum under his charge is free to students of this school.

Fees.—For each course, first session, £2 2s.; second session and perpetual, £1 1s. Students who have attended a first course elsewhere can enter on the second course on payment of £1 1s. Anatomy: first winter session, £4 4s.; summer session, £1 11s. 6d.; second winter session, £4 4s.; afterwards for Lectures and Practical Anatomy, £1 1s. per session. Lectures on Diseases of the Ear, £1 1s.; with Clinical instruction to those who are not students of the hospital, £2 2s. Lectures on Diseases of the Eye, £1 1s.

GLASGOW WESTERN MEDICAL SCHOOL.—This school is situated near the Western Infirmary, where students obtain their hospital practice and clinical lectures. The class-rooms have been newly arranged and enlarged. The attention of students is directed to the facilities for the study of Practical Anatomy and Operative Surgery, the supply of subjects being practically unlimited. The Dissecting-rooms are open from the beginning of October till the end of July.

Fees.—For each course of Lectures, first session, £2 2s.; second session, £1 1s. Students who have attended a first course elsewhere pay £1 1s. Anatomy, including Practical Anatomy, £4 4s.; summer session, £1 11s. 6d.

GLASGOW ROYAL INFIRMARY.—The number of beds is 532; 214 for Medical and 318 for Surgical cases; and there are special wards for the treatment of Diseases of Women, and of Venereal Diseases in

Males. Dr. Norman sees cases of Diseases of the Throat at the Dispensary at 11 A.M. on Tuesdays and Fridays. Dr. Macfie attends cases of Disease of the Ear at 3.30 on Thursdays and Saturdays. Dr. Provan sees cases of Diseases of the Skin at 12.30 on Wednesdays. Ophthalmic demonstrations are given by Mr. H. E. Clark at 10 A.M. on Saturdays. Courses of Clinical Medicine and Surgery are given by the Physicians and Surgeons, and *post mortem* examinations are conducted by the Pathologist. Operations on Wednesdays and Saturdays at 9 A.M.

Appointments.—Four Physicians' and six Surgeons' Assistants reside in the hospital. These appointments can be held for one year, and are open to students who have passed all their examinations except the last, or to gentlemen who have a qualification in Medicine or Surgery. Clinical Clerks and Dressers are selected from the students without additional fee.

Fees for Hospital Practice and Clinical Lectures: first year, £10 10s.; second year, £10 10s.; afterwards free: for six months, £6 6s., three months, £4 4s. To perpetual students of other hospitals where the perpetual fee is equal to that of the Infirmary, £2 2s. for six months. For Vaccination certificate, £1 1s.

GLASGOW WESTERN INFIRMARY.—This Hospital adjoins the University of Glasgow. Number of beds 400. Special wards are set apart for Diseases of Women and for Cutaneous Affections. In the Out-patient Department there are special clinics for Diseases of Women and for Disease of the Throat, Ear, and Teeth. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students may attend whichever they select at the beginning of the session. Special instruction is given to Junior Students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. All the courses of clinical instruction are recognised by the University of Glasgow and the other Boards in the Kingdom. In the Pathological Department, a systematic course is given in the winter, and a practical course in the summer; these are likewise recognised by the University for graduation. Eight resident assistants are appointed annually without fee, from those who have completed their course. An Out-door Department is connected with the Infirmary.

Fee for the hospital practice, including the various courses of Clinical Instruction, is £21 in one payment, or in two equal instalments for the first and second years; for six months, £7 7s.; and for three months, £4 4s. For attendance in the Obstetric Department, the fee is £1 1s.

GLASGOW EYE INFIRMARY.—Fee, six months, £2 2s.; for pupils of the Ophthalmic class in the University, £1 1s.: three months, £1 1s.

Instruction may also be obtained at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE NAVAL, ARMY, AND INDIAN MEDICAL SERVICES.

ARMY MEDICAL STAFF.

1. EVERY candidate for a commission in the Army Medical Staff must be 21 years of age and not over 28 years at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians, giving his exact age. He must produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted; and also a certificate of moral character from the parochial clergyman, if possible. 2. The candidate must sign a declaration on honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, or any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a board of medical officers, who are required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The board must also

certify that he is free from organic or other disease, and from constitutional weakness or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the examining board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: *a.* Anatomy and Physiology, 1,000 marks; *b.* Surgery, 1,000 marks; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1,000 marks; *d.* Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 1,000 marks. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and examination of medical and surgical patients at the bedside. The examination in Chemistry will be limited to the elements of the science, and to its application to Medicine, Pharmacy, and Practical Hygiene. No candidate will be considered eligible for the Army Medical Staff who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. 5. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be—French and German (150 each), 300 marks; Natural Sciences, 300 marks. A number less than one-third of the marks obtainable in each of these voluntary subjects will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The Natural Sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to *Materia Medica*. 6. The appointments announced for competition will be filled up from the list of qualified candidates arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and the voluntary subjects. 7. After passing this examination, every successful candidate will be required to attend one course of practical instruction at the Army Medical School as a surgeon on probation on (1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. 8. All surgeons on probation will be required to conform to such rules of discipline as the Senate may from time to time enact, and provide themselves with uniform; namely, the regulation undress and mess-uniform of a surgeon, but without sword. 9. They will be required to attend the medical staff mess at Netley, and to conform to the rules and regulations thereof.

Every candidate for appointment to the medical ranks of the Army Medical Staff must possess two diplomas or licences recognised by the General Medical Council—one to practise medicine, and the other surgery, and shall be registered under the Medical Act in force in the United Kingdom at the time of his appointment. A public and open competition will be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for will be not less than half of the number of vacancies which shall have arisen in the last completed half-year ending on June 30th or December 31st. Not less than half the number of vacancies will be filled up by competition, and it will be competent for the Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in the United Kingdom, or in the colonies, as he may think proper. Every candidate so proposed must be certified by the governing body proposing him to be duly qualified according to a standard to be laid down by the Secretary of State, and must be approved by the Director-General. The Secretary of State will from time to time fix the order of precedence and the proportion in which the several schools of medicine shall be offered the nomination of candidates. A surgeon on probation, on being so nominated, will be sent to some large station for instruction in ambulance and hospital corps duties, until the commencement of the next course of study at the Army Medical School. After passing through such course at the Army Medical School as the Secretary of State shall decide, the surgeon on probation, after passing a qualifying examination in the military medical subjects taught there, and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Staff will be commissioned as surgeon. The surgeons on probation who pass out of the Army Medical School at one qualifying examination will take precedence among each other as surgeons as follows: (*a.*) Those appointed on nomination according to their date of joining on probation; (*b.*) Those appointed on competition according to the last day of the competitive examination, and in the order of

merit at such examination, with priority over any joining under subsection (*a.*) on the last day of the competitive examination. A surgeon's commission will bear the date of the day of his passing out of the Army Medical School.

INDIAN MEDICAL SERVICE.

1. ALL natural-born subjects of Her Majesty, between twenty-two and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a Diploma in Surgery, or a licence to practise it, as well as a Degree in Medicine, or a licence to practise it in Great Britain or Ireland. 2. The candidate must subscribe and send in to the Military Secretary, India Office, Westminster, so as to reach that address at least a fortnight before the date fixed for the examination, a declaration, stating his readiness to engage for the service and to proceed to duty immediately on being gazetted; also that he labours under no mental nor constitutional disease; nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer. A schedule of the degrees or licences possessed by the candidate, with the sources and dates thereof, must be appended. 3. This declaration must be accompanied by the following documents: (*a.*) proof of age, either by extract from the register of the parish in which the candidate was born, or, where such extract is unattainable, by his own declaration (pursuant to the Act 5 and 6 Will. IV, c. 62), form of which can be obtained at the India Office; a certificate of baptism, which does not afford proof of age, will be useless; (*b.*) a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits and likely in every respect to prove creditable to the service if admitted; and a certificate of moral character from a magistrate, or a minister of the religious denomination to which the candidate belongs; (*c.*) a certificate of registration, in accordance with the Medical Act of 1858, of the degrees, diplomas, and licences possessed by the candidate. 4. The physical fitness of candidates will be determined previous to examination by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it do not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. Every candidate must also be free from all other organic disease, and from constitutional weakness, or other disability likely to unfit him for military service in India. 5. On producing the foregoing qualifications, the candidate will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: (*a.*) Anatomy and Physiology, 1,000 marks; (*b.*) Surgery, 1,000; (*c.*) Medicine, including Therapeutics, the Diseases of Women and Children, 1,000; (*d.*) Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 1,000. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene. No candidate will be considered eligible who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. 6. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: French, German, and Hindustani (150 each), 450 marks; Natural Sciences, 300 marks. The Natural Sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany with special reference to *materia medica*. A number less than one-third of the marks obtainable in any of these voluntary subjects will not be allowed to count in favour of a candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. 7. The appointments announced for competition will be filled up from the list of qualified candidates arranged in order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects. The Examiners in London will prepare a list in order of merit, with the marks affixed in the different subjects, to be transmitted to the Director-General, and communicated to the Professors of the Army Medical School. If any candidate is found to be deficient in any particular subject, this shall be stated, in order that he may receive special instruction on the point at Netley. 8. After passing their preliminary examination, candidates will be required to attend one entire course of Practical Instruction at the Army Medical

School, as surgeons on probation, on 1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases and Injuries incident to Military Service. These courses are to be of not less than four months' duration; but candidates who have already gone through a course at Netley as candidates for the Army or Navy Medical Service may, if thought desirable, be exempted from attending the School a second time. 9. During the period of his residence at the Army Medical School, each candidate will receive an allowance of eight shillings per day, with quarters, or, when quarters are not provided, with the usual lodging and fuel and light allowances of subalterns, to cover all costs of maintenance; and he will be required to provide himself with uniform (namely, the regulation undress uniform of a surgeon of the British service, but without the sword). 10. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact. 11. At the conclusion of the course, candidates will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any medical officer deputed by him, may be present and take part in the examination. If the candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as surgeon. 12. The position of the candidates on the list of surgeons will be determined by the combined results of the preliminary and of the final examinations; and, so far as the requirements of the service will permit, they will have the choice of Presidency in India, according to their position in that list.

MEDICAL DEPARTMENT OF THE ROYAL NAVY.

1. EVERY Candidate for admission into the Medical Department of the Royal Navy must not be under 21 nor over 28 years of age on the day of the commencement of the competitive examination. He must produce an extract from the register of the date of his birth; or, in default, a declaration made before a magistrate, from one of his parents or other near relative, stating the date of birth. He must also produce a certificate of moral character, and a recommendation, signed by a clergyman or magistrate, to whom he has been for some years personally known, or by the president or senior professor of the college at which he was educated. 2. He must be registered, under the Medical Act in force, as possessing two diplomas or licences recognised by the General Council, one to practise Medicine, and the other Surgery, in Great Britain and Ireland. 3. He must sign a declaration that he is a British subject, the son of parents of unmixed European blood, that he labours under no mental or constitutional disease or weakness, or any other imperfection or disability which may interfere with the most efficient discharge of the duties of a medical officer in any climate; and that he does not hold, and has never held, any commission or appointment in the public services. He must also declare his readiness to engage for general service at home or abroad as required. He must be free from organic or other disease, and his physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's Test Types. The certificates of registration, character, and birth, must accompany the declaration, which is to be filled up and returned as soon as possible, addressed as above. 4. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: *a*, Anatomy and Physiology; *b*, Surgery; *c*, Medicine, including Therapeutics and the Diseases of Women and Children; *d*, Chemistry and Pharmacy, and a practical knowledge of drugs, each 1,000 marks.

The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in Chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene.

No candidate will be considered eligible who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. 5. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: French and German (150 each), 300 marks; Natural Sciences, 300 marks. A number less than one-third of the marks obtainable in each of these voluntary subjects, will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The Natural Sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and

Botany, with special reference to *Materia Medica*. 6. The appointments announced for competition will be filled up from the list of qualified candidates arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects. 7. Successful candidates, immediately after passing the examination, will receive Commissions as Surgeons in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital.

PUBLIC HEALTH OR STATE MEDICINE.

SUBJOINED are the regulations of the Examining Bodies which grant degrees or certificates in Public Health or State Medicine.

UNIVERSITY OF CAMBRIDGE.—Any person whose name is on the *Medical Register* of the United Kingdom may present himself for examination, provided he be in his twenty-fourth year at least when he presents himself for the first part of the examination, and have attained twenty-four years of age before he presents himself for the second part.

Part I comprises Physics and Chemistry; the Principles of Chemistry, and methods of analysis, with especial reference to analyses of air and water; application of the microscope; the laws of heat and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general.

Part II comprises laws of the realm relating to public health; sanitary statistics: origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and drainage in reference to health; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

The examination in both parts is oral and practical as well as in writing. Candidates may present themselves for either part separately, or for both together.

Every candidate must pay a fee of £4 4s. before admission to each part of the examination.

Every candidate who has passed both parts of the examination will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

The following suggestions have been drawn up as some guide to candidates preparing for the examination. Part I. Candidates will be expected to understand the application of the general laws of Chemistry to such cases as occur in the practice of an Officer of Health. It is not expected that Officers of Health will in general be able to act as public analysts, but that they will know the methods of analysis, and be able to interpret correctly the results of professional analysts. The kinds of applications of the several sciences of which the candidates are expected to show a competent knowledge will be best understood by a perusal of Parkes' *Manual of Practical Hygiene*. In the actual analysis of water and air, candidates will not be expected to make complete quantitative analyses, but to know how to apply ordinary chemical methods for the detection and discrimination of mineral and organic substances in the samples. Candidates must show a practical acquaintance with the use of the microscope. Part II. Candidates must show an acquaintance with the sanitary laws in force in England; but if any candidate have information respecting alternative laws in force in the metropolis or in Scotland or in Ireland, opportunity will be given him, alternatively, of showing his acquaintance with such laws. The rest of Part II, besides the subjects expressly mentioned, is to be understood as including those of Vaccination, Disinfectants, the management of outbreaks of Infectious Diseases, with the construction of Hospitals, temporary or permanent; Endemic Diseases; Birth-rates and Death-rates; the qualities and suitability of various Waters used for domestic purposes; the inspection of factories, mines, workshops, and common lodging-houses.

Applications for admission to the examination, or for information respecting it, must be made to Professor Liveing, Cambridge.

The following list of works will probably be found valuable to some of the candidates, but the necessity of reading all or any one of them is not urged upon them.

Parts I and II.—Parkes' *Manual of Practical Hygiene*; G. Wilson's *Handbook of Hygiene*; Grimshaw and others, *Manual of Public Health for Ireland*; Cameron's *Manual of Hygiene*; Seaton's *Handbook on Vaccination*; *Army Medical Reports; Reports on Hygiene; *Reports to Privy Council and Local Government Board by their Medical Officer.

Chemistry: General Principles: Fownes' *Manual of Chemistry*; Bloxam's *Chemistry*; Roscoe's *Lessons in Elementary Chemistry*; Atfield's *Chemistry*. Analysis: Bloxam's *Laboratory Teaching*; Bowman's *Practical Chemistry*; Sutton's *Systematic Handbook of Volumetric Analysis*; Frankland's *Water-Analysis for Sanitary purposes*; Wanklyn and Chapman's *Water-Analysis*; Hartley's *Air and its Relations to Life*; Wanklyn's *Milk-Analysis*; Wanklyn and Cooper's *Bread-Analysis*; C. Fox, *Sanitary Examinations of Water, Air, and Food*. Physics: Todhunter's *Natural Philosophy for Beginners*; Ganot's *Physics*; Everett's *Textbook of Physics*. Microscopy: Carpenter's *Microscope and its Revelations*; Macdonald's *Guide to Microscopical Examination of Drinking Water*; *Hassall's *Food and its Adulterations*. Sanitary Engineering, Water-Supply, Sewage, etc.: Eassie's *Sanitary Arrangement for Dwellings*; Galton's *Healthy Dwellings*; Corfield's *Dwelling Houses, their Sanitary Construction and Arrangement*; *Bailey-Denton, *Sanitary Engineering*; *Latham's *Sanitary Engineering*; *Bayles' *House-drainage and Water-service*; Tomlinson's *Warming and Ventilation*; Corfield's *Treatment and Utilisation of Sewage*; *Report of Committee appointed by President of Local Government Board on modes of treating Town Sewage; *Reports of Royal Commission on Pollution of Rivers, especially the sixth, on Domestic Water-Supply; *Report from Select Committee on Public Health Act (1875) Amendment Bill, with the Evidence; *R. Angus Smith's *Air and Rain*; *Ure's *Dictionary of Arts, Manufactures, and Mines*. Laws of the Realm and By-laws relating to Public Health. For England: Public Health Act, 1875, and the Acts of Parliament relating to the various subject-matters within the domain of Hygiene passed since that date; Artisans' and Labourers' Dwellings Acts; Vaccination Acts. For the Metropolis, or for Scotland, or for Ireland: Laws dealing with the same subject-matters as the above, and having application to the particular part of the United Kingdom; Model By-laws of the Local Government Board; Adulteration of Food and Drugs Act. Statistics: Lewis's *Digest of the English Census*; the article on "Statistics" in the *Cyclopedia of Anatomy and Physiology*; *Dr. Farr's letters to the Registrar-General in the early Reports of the Registrar-General; *Reports of the Registrar-General; *Deaths in England. Average Annual Proportion of Deaths, etc., 1861-70. Parliamentary Paper C. 874, Session 1873. Construction of Hospitals: Miss Nightingale's *Notes on Hospitals*; Oppert's *Hospitals, Infirmarys, and Dispensaries, their construction, interior arrangement, and management*; Galton, *On the Construction of Hospitals*; Burdett, *Cottage Hospitals*; *De Chaumont, *Hospitals*, in the *Encyclopædia Britannica*, last edition. The books thus marked * are books of reference.

The next examination for the certificate in Sanitary Science will begin on Tuesday, October 6th. The names of candidates must be sent, on or before September 28th, to Professor Liveing, Cambridge.

UNIVERSITY OF LONDON.—A special examination is held once in every year in subjects relating to Public Health, and commences on the second Monday in December. No candidate is admitted to this examination unless he have passed the second examination for the degree of Bachelor of Medicine in this University at least one year previously, nor unless he have given notice of his intention to the registrar at least two calendar months before the commencement of the examination. The fee for the examination is £5, which must be previously paid to the registrar. If, after payment of his fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any subsequent examination upon payment of an additional fee of £2 10s., provided that he give notice to the registrar at least two calendar months before the commencement of the examination. Candidates are examined in the following subjects: 1. *Chemistry and Microscopy*, as regards the examination of air, water, and food; 2. *Meteorology*, as regards general knowledge of meteorological conditions, and the reading and correction of instruments; 3. *Geology*, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply; 4. *Physics and Sanitary Apparatus*; the laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation to the construction of dwellings, and to warming, ventilation, drainage, and water-supply, and to apparatus for these and other sanitary uses; the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances; 5. *Vital Statistics*, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life; present amount of mortality at the various stages, and its causes, in different classes and communities: practical statistics of armies, navies, civil professions, asylums, hospitals, dis-

pensaries, lying-in-establishments, prisons, in-door and out-door paupers, friendly societies, sick-clubs, medical and surgical practice; towns; 6. *Hygiene*, including the causation and prevention of disease. Reference shall be had to such matters as the following: parentage, temperaments; morbid diatheses; congenital diseases and malformations; effects of close interbreeding; special liabilities at particular periods of life; physical regimen of different ages; earth and climate and changes of season; dampness of soil; malaria; conditions of healthy nourishment; conditions of healthy lodgment; conditions of healthy activity; hygiene of particular establishments and particular classes of population; disease as distributed in England; particular diseases, as regards their intimate nature, causation, and preventability; processes of contagion in different diseases; incubation; particular dangers of infection, etc.; disinfectants, and establishments for disinfection; quarantine; hospitals for infectious disease; conveyance of the sick; vaccination; prostitution; diseases of domestic animals in relation to the health of man; rabies; diseases of the vegetable kingdom, and failures of vegetable crops in relation to the health of man; famine diseases; poisons in manufacture, and commercial and domestic use; 7. *Sanitary Law*, as regards the Public Health Act, 1875; the Vaccination Acts; the Rivers Pollution Prevention Act; the Sale of Food and Drugs Act; the Artisans and Labourers Dwellings Improvement Act, 1875; the Acts regulating the Medical Profession and the Practice of Pharmacy; the Acts relating to Factories and Workplaces, and to the Detention and Care of Lunatics. The examination is written and practical, and extends over four days. Candidates are not approved by the examiners unless they have shown a competent knowledge in all the principal subjects. In the week following the examination, the examiners publish the names of the candidates who have passed, arranged in alphabetical order. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £5. A certificate under the seal of the University, and signed by the Chancellor, is delivered at the public presentation for degrees to each candidate who has passed.

UNIVERSITY OF DURHAM.—Certificates of proficiency in Sanitary Science are granted under the following regulations.

Candidates must give at least twenty-eight days' notice to the Registrar, and send the fee and the necessary certificates.

A. *Certificate of Proficiency in Sanitary Science*.—1. The candidate must be a registered medical practitioner. 2. He must have attended one Course of Lectures on Public Health at the University of Durham College of Medicine, Newcastle-on-Tyne, during one winter session. 3. He must pass an examination in the following subjects: *a. Physics*.—Laws of light, heat, hydrodynamics, and pneumatics; *b. Chemistry*.—As applied to the detection of noxious gases and atmospheric impurities, analysis of air and water; *c. Sanitary Legislation*.—Knowledge of the Acts of Parliament in force for the preservation and protection of health; *d. Vital Statistics*.—Rates of births, deaths, and marriages; the methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom; *e. Meteorology, Climatology, and Geographical Distribution of Diseases in the United Kingdom*; *f. Sanitary Medicine*, more especially in relation to epidemic, endemic, epizootic, and communicable diseases; diseases attributable to heat, cold, or damp, insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity; preventive measures, vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances; *g. Practical Hygiene*, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply, and refuse-disposal of dwellings, schools, hospitals, and other buildings of public and private resort; action with respect to nuisances and outbreaks of disease; other duties of a medical officer of health.—The examination is by written papers, practical, and *visà voce*. In the practical examination, the candidate is required: 1. To report upon the condition of some actual locality; 2. To analyse liquids and gases; 3. To explain the construction and the uses of instruments employed in meteorology; 4. To make microscopic examinations. The fee is £5 5s. The next examinations will commence on September 21st, 1885, and April 26th, 1886.

B. *Certificate of Proficiency in Sanitary Science for Medical Officers of Health*.—The candidate must have obtained a registrable qualification before January 1st, 1878, must be registered, and must have acted as a medical officer of health for five years. He must not be under thirty years of age. He must pass the same examination as particularised under the heading A., and must write an essay upon some practical sanitary subject, and be examined upon the essay and upon other sanitary questions. The fee is £10 10s.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—1. Candidates must be registered under the Medical Act (1858). 2. The Examination, consisting of two parts, will be held annually, in the month of March. *Part I* will comprise: 1. Physics in their application to Health, with reference to—(a) Warming and Ventilation; (b) Water-Supply, Sewerage, and Drainage; (c) Sanitary Construction. 2. Meteorology in relation to Health. 3. Chemistry, with special reference to the Examination of Air and Water (exact quantitative analyses will not be required, neither will candidates be restricted to any particular chemical notation. 4. Microscopical Examinations, as applied to Air, Food, and Water (excluding work special to the duties of a Public Analyst). 5. Geology, in its relation to Drainage and Water-Supply. 6. Statistics in relation to Health. *Part II* will comprise: 1. Medicine, in relation to the growth, origin, and prevention of Disease; (a) Special Pathology of Preventable Diseases; (b) Influence of Climate, Season, and Soil; (c) Effects of unwholesome Air, Water, and Diet; (d) Diseases of Animals in relation to the Health of Man; (e) Influence of Occupation and Lodgment; (f) Isolation, Quarantine, Disinfection, Vaccination. 2. Application of Medical and other Sciences to Sanitary Work and Administration: (a) Health-requirements of Houses, Villages, and Towns; (b) The Sanitary Regulation of Households, Establishments, and Occupations; (c) The Prevention and Control of Epidemic Diseases. 3. Statutes and By-Laws relating to Public Health. 4. Duties of Sanitary Authorities and their Officers. 3. Candidates must be at least 23 years of age before being admitted to *Part I*, and 24 years of age before being admitted to *Part II*. 4. Candidates may enter for *Parts I* and *2* separately or at the same time; but no candidate's name will be published until he has passed in both parts of the Examination. 5. The Examination in each will be written, oral, and practical. The fee for each part is £5 5s., and must be paid three days prior to the day on which the Examination commences. 7. A candidate who fails to satisfy the Examiners in either part may present himself again at the next Examination, on payment of a fee of £3 3s. 8. The Examination on *Part I* will commence on the first Monday in March, and the Examination on *Part II* on the second Monday in March. 9. The certificate awarded is entitled "Certificate in Hygiene of the Royal College of Physicians of London." 10. A candidate intending to present himself for either part of the Examination must give fourteen days' notice in writing to the Registrar of the College.

UNIVERSITY OF EDINBURGH.—This University gives the degrees of Bachelor and Doctor of Science in Public Health.

Bachelor of Science.—1. The candidate must be a graduate in Medicine of a British University, or of such Colonial, Indian, or Foreign University as may be specially recognised by the University Court. 2. He must be matriculated for the year in which he appears for examination. 3. If the candidate have not passed an *annus medicus* in the University of Edinburgh, he must, before presenting himself for examination, have attended at the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examination. 4. There are two examinations for the degree. A candidate who has passed the first examination may proceed to the second at the next or at any subsequent period fixed for this examination. 5. The candidate must produce evidence that, either during his medical studies or subsequently, he has attended a course of lectures in which instruction was given on Public Health; and that he has studied Analytical Chemistry practically for three months with a recognised teacher. 6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court. 7. The subjects of examination are as follows.

First Examination.—1. *Chemistry*.—Qualitative analysis; analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and the amount of their mineral and organic constituents; detection, chemical and microscopical, of adulteration in articles of food and drink, and in drugs; detection of poisons; practical examination, including at least two analytical researches. 2. *Physics*.—Elements of experimental physics; and hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in relation to warming and ventilation; meteorology, and methods of making meteorological observations. An oral examination, and an examination in practical chemistry in the laboratory a few days after the written Examination. Candidates must give in their names and pay the fee on or before October 13th, 1885.

Second Examination.—1. *Medicine*.—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases, and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including

pathological changes. 2. *Practical Sanitation*.—Duties of a health-officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries; nuisances from manufactories, etc.; bad or insufficient supplies of food; outbreaks of zymotic diseases; quarantine, disinfectants and deodorisers; construction of permanent and temporary hospitals. 3. *Sanitary Law and Vital Statistics*.—Knowledge of the leading Sanitary Acts of Parliament; knowledge of statistical methods and data in reference to Population, Births, Marriages, and Deaths. 4. *Mensuration and Mechanical Drawing*.—Plans and Sections of Public and Private Buildings, Mines, Waterworks, and Sewers; the Candidate will be expected to make figured sketches from models, and to have such a knowledge of Mechanical Drawing as will enable him fully to understand Engineering Plans, Sections, and Elevations. Candidates are required to lodge with the Secretary of the Senatus proof of their being eligible, and to pay the fee on or before November 14th.

The first examinations will take place on October 16th to 20th, 1885, and April 1st to 5th, 1886; the second on November 24th, 25th, and 26th, 1885.

Doctor of Science.—A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department, on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on producing a thesis on some subject embraced in the department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners. The candidate must lodge his thesis with the Dean of the Medical Faculty on or before January 31st in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The fees for the degrees in Science in the Department of Public Health are: for each examination for B.Sc., in Public Health, £5 5s.; for the degree of D.Sc., in Public Health, £5 5s. Every candidate must, before graduation, pay a registration fee of £1 1s. The following are recommended as books to be studied in preparation for the examination: Balfour Stewart, *Elementary Physics*; Parkes, *Practical Hygiene*; George Wilson, *Handbook of Hygiene*; Edw. Smith, *Manual for Public Officers of Health*, and *Handbook for Inspectors of Nuisances*; Michael, Corfield, and Wanklyn, *Manual of Public Health*, edited by Ernest Hart; Eassie, *Healthy Houses*; Baldwin Latham, *Sanitary Engineering*; F. Jenkin, *Healthy Houses*; Henry Law, *Rudiments of Civil Engineering*; George Munro, *The Public Health (Scotland) Act*; R. A. Scott, *Meteorology (International Series)*; A. W. Blyth, *Poisons, their Effects and Detection*.

UNIVERSITY OF GLASGOW.—A special examination is held once in every year in subjects relating to Public Health, and commences on the third Tuesday in October. All candidates must be registered medical practitioners. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which special instruction was given on Public Health; and that they have attended a course of Analytical Chemistry specially bearing upon the subjects of examinations, given by recognised teachers. Candidates who have not passed an *annus medicus* in the University of Glasgow must, before presenting themselves for examination, have attended as matriculated students in this University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations. The examinations are written, oral, and practical.

The fee for this examination is £5 5s. The candidate must give notice to the Assistant-Clerk of Senate, and pay the required fee, at least one calendar month previous to the examination. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any one subsequent examination without the payment of an additional fee.

The examination embraces the following subjects: Duties of Health-Officer; Air and Ventilation; Food and its Adulterations; Water and Water Supply; Sewage and Drainage; Construction of Hospitals, Public Buildings, and Dwellings; Overcrowding; Manufactories; Insalubrious Trades; Cemeteries; Nuisances; Quarantine; Disinfectants and Deodorisers; Outbreaks of Zymotic Diseases; Climate, Topographical and Seasonal, its influences in relation to Health and

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 12th, 1885.

LONDON AS A CENTRE FOR ADVANCED MEDICAL TEACHING.

ANOTHER aspect of a question which has frequently occupied our attention has been forcibly placed before us in the trenchant letter by Dr. Wesley Carpenter, of New York, published on August 22nd. "Why," he asks, "should not London be one of the, if not the, great medical centre of the world?" This is a question which nearly touches the honour and welfare of the medical schools of London, and, even setting aside the needs of foreign visitors, has a lively interest for a large body of the profession. So many English practitioners find their way abroad, to the colonies or dependencies; so many are forced, immediately the legal curriculum is over, or even earlier, to enter on practice as assistants at home; that there is a constant stream of men still young, or in early middle age, returning to London on furlough, or in the interval between relinquishing assistant's work and taking up independent practice. It is, unfortunately, too true that men of this class can find but few openings to turn their leisure to good account, and are apt to content themselves with an occasional perfunctory attendance in the operating-theatre of their old hospital. When more earnest and energetic, they generally betake themselves to Berlin, Vienna, or some other German university. London not only fails to attract foreign students, but is unable to retain even her own *alumni*.

Before discussing the possible remedies for this state of things, we may inquire what facilities already exist, and it must be admitted they are few in number and entirely wanting in system. The Royal College of Surgeons has done something for the advanced student; it has faithfully guarded the great collection which the nation committed to its care; and, by the generosity of the profession, it has been able to add large and valuable series; so that at the present time it owns one of the most important medical museums in existence. It has also gathered an extensive library; and, like the Royal College of Physicians, it has been enabled, by the gifts of various benefactors, to provide certain courses of lectures, which are always valuable, and sometimes interesting. Still, neither College has understood its duties in a wide sense; and the College of Surgeons, though long possessed of large revenues, has rather reluctantly followed the progress of medical thought, than boldly led the van; it has neither sought to stimulate the appetite for original research, nor to satisfy it when aroused by other influences. The opportunities for laboratory work

in London are few and inaccessible. There are excellent laboratories at St. Bartholomew's Hospital, at University College, and at a few other medical schools; but these are only designed to meet the wants of the regular students, and are by no means too large even for this purpose. With the exception of the Brown Institution, founded for the study of the diseases of the domestic animals, there is no laboratory in London where practical pathology can be studied. The original pathological work done in London is conducted, often under great disadvantages, either in the rooms of the hospital-registrars, in private houses, or in one or two physiological laboratories by leave of the professors or lecturers. What is true of pathology is equally true of experimental therapeutics, of the study of micro-organisms, even of histology and physiology. With regard to facilities for advanced clinical work, the case is rather better; the opportunities for obtaining instruction in the use of the methods and instruments of clinical research in most of the special departments are not only very good, but easily accessible. We believe that diseases of the skin, of the lungs, of the nervous system, and of the eye, may be studied in London with as great profit as in any other centre; in the case of the eye, with probably greater. In diseases of children, and in other special departments not enumerated above, the opportunities for seeing practice, though less valuable, are still not to be despised. It is in the more purely scientific and experimental departments that London is so very badly provided.

Whether the Royal College of Surgeons, with its large revenues, to be so enormously increased in the future, will step forward and occupy the vacant ground, it is impossible to say. If the legitimate aspirations of the Fellows and Members be satisfied, and if the present oligarchic system be replaced by well-regulated democracy, everything may be hoped from the College, constituted as it is, but little, in any case; and even should the College exhibit greater wisdom and liberality than its past history would lead us to fear will be shown, it is, we fear, certain that nothing will be done now. Yet now is the time. There are energy, knowledge, and material enough, and to spare. The large number of small schools wastes our resources, and the absence of system squanders our energy and our money. That this opinion is entertained by a great many people competent to form an opinion there can be no doubt; it finds expression in the First Report of the Association for Promoting a Teaching University in London, in which the hope is expressed that from the success of that scheme would flow, "in regard to the scientific branches of Medical Education, the concentration of the teaching, in particular studies, within a smaller number of centres than at present; the foundation and endowment of chairs, either attached to particular Institutions or otherwise, for the prosecution of the higher and more specialised studies, supplementing the instruction already provided by existing institutions." This is precisely what Dr. Wesley Carpenter tells us we want; for by the phrase "the foundation and endowment of chairs," it must be meant to include the provision of laboratories, without which the "chairs" would be valueless.

The question raised involves perhaps more far-reaching consequences than may be at first apparent. Meanwhile, cannot some effort be made to put the advantages which already exist more prominently forward, and to fill up the vacant places? The matter is eminently one for the consideration of the teachers and men of scientific attainments in the various departments. The want of funds is no doubt a very great difficulty; but the want of organisation and concentration of thought

and work is greater. If a satisfactory scheme for the formation of biological laboratories for advanced students were drawn up and put before the profession, there would be at least something to point to, and it is quite possible, nay, certain, if sought in the right way, that funds would be found.

CHANGES IN THE EXAMINATIONS AND IN THE MEDICAL SCHOOLS.

SUBJOINED is a summary of the changes which have taken place in respect of medical education and examinations during the past year.

The "Recommendations" of the General Medical Council, at the meeting of that body in May last, underwent revision, and several changes were made. The recommendation as to the earliest period after registration as a student at which a licence to practice may be obtained, is now, that the course of medical study should occupy five years, unless a satisfactory examination have been passed in the subjects of elementary physics, chemistry, and biology; in which case it should be at least four years. Four winter and three summer sessions must be passed at a recognised school or schools. Hygiene and mental diseases have been added to the list of subjects of professional education and examination. Vaccination is also included in the list, in place of being the subject of a special recommendation.

In the University of Oxford, some important changes, of which we have already given an outline (see JOURNAL, June 6th, page 1181), are in progress. The new statute for the purpose will be passed next term. We defer for the present any statement respecting the regulations of the University; but, when the changes now under consideration are finally determined on, a full account of them will be given in the JOURNAL.

The Royal Colleges of Physicians and Surgeons have instituted a conjoint examination, the passing of which gives a title to the licence of the former and the membership of the latter.

The Society of Apothecaries of London has added Surgery to the subjects of examination, and has made some changes in its regulations.

The University of London will in future hold the Preliminary Scientific Examination twice a year; and this examination (unless for honours) may be passed at two separate examinations.

In the medical schools, the following changes have been made.

At the St. Bartholomew's Hospital, Mr. Harrison Cripps has charge of the department of Skin-diseases, in place of Dr. Legg. Mr. A. Coleman has retired from the office of Dental Surgeon, and has been succeeded by Mr. Ewbank and Mr. Paterson. Dr. Tooth and Mr. Shore teach Practical Physiology in place of Dr. Ormerod and Dr. Nall. Dr. Davies and Dr. Nias have been appointed Casualty Physicians, in place of Dr. Steavenson and Dr. Herringham. Dr. Steavenson has been appointed Electrician to the Hospital.

At Charing Cross Hospital, Mr. F. W. Mott has been appointed Lecturer on Physiology, and Dr. H. M. Murray an additional Assistant-Physician to the Hospital. Practical Medicine is taught by Dr. Willcocks and Dr. Murray, in place of Dr. Lubbock. Mr. F. Hewitt has succeeded Mr. Bailey as an instructor in the use of Anæsthetics.

At St. George's Hospital, Dr. Robert Barnes has retired from the offices of Obstetric Physician and Lecturer on Midwifery, leaving Dr. Champneys, lately Assistant Obstetric Physician, as his successor. Mr. Rouse has retired from the Lectureship on Surgery, which is now

in the hands of Mr. Pick alone. Dr. R. H. Clarke has been appointed Demonstrator of Practical Physiology. Dr. Sisley gives Pathological Demonstrations in place of Dr. Isambard Owen.

At Guy's Hospital, Dr. Wilks has retired from the office of Physician, and has been appointed Consulting Physician. A vacancy was also caused last year among the Assistant-Physicians by the death of Dr. Mahomed. In consequence, Dr. F. Taylor has been promoted to a Physicianship; and Dr. Carrington and Dr. Hale White have been appointed Assistant-Physicians. Dr. Carrington is associated with Dr. Pye-Smith in the charge of the department of Diseases of the Skin; and Mr. Pedley with Mr. Moon, in the Dental Department. Mr. Dunn has succeeded Dr. Hale White as a Demonstrator of Anatomy. Demonstrations on Pathological Anatomy are given by Dr. Carrington in place of Dr. Mahomed. Dr. Brailey gives a course of Lectures on Diseases of the Eye in summer. Dr. G. N. Pitt has been appointed Instructor in Practical Medicine.

In King's College, the vacancies in the offices of Assistant-Physician and of Professor of Materia Medica, caused by the death of Dr. Buchanan Baxter, have been filled by the appointment of Dr. Nestor Tirard.

At the London Hospital, Dr. Lewers has been appointed Assistant-Obstetric Physician; and Mr. F. S. Eve, Assistant-Surgeon. Mr. J. E. Adams has retired from the office of Surgeon. Dr. Turner gives Pathological Demonstrations in place of Mr. McCarthy.

At St. Mary's Hospital, Dr. Handfield Jones, the Senior Physician, has retired, and has become a Consulting Physician; Dr. Shepherd, one of the Physicians to out-patients, has also resigned, and has since died. Dr. S. Phillips has been appointed a Physician; and Dr. Maguire Assistant-Physician. Mr. St. George Mivart has retired from the lectureship on Comparative Anatomy, and is succeeded by Mr. Poulton. Mr. J. E. Lane has become Senior Demonstrator of Anatomy in the place of Dr. Phillips; and Mr. J. J. Clarke has been appointed Assistant-Demonstrator. Mr. E. Evans has been appointed Demonstrator of Practical Physiology in place of Mr. Nall. Dr. Crichton Browne will lecture on Psychological Medicine. Dr. Phillips, Mr. Pye, and Dr. M. Handfield Jones, have been appointed Medical Tutors.

At the Middlesex Hospital, Dr. Finlay, the Senior Assistant-Physician, has been made a full Physician; and Dr. Pringle has been appointed an Assistant-Physician. Dr. Fowler lectures on Pathology, in place of Dr. Coupland; and Dr. Coupland and Dr. Douglas Powell have been appointed teachers of Practical Medicine.

At St. Thomas's Hospital, Dr. Cranstoun Charles is associated with Dr. John Harley in the Lectureship on Physiology; and Dr. Gulliver lectures on Comparative Anatomy, in place of Mr. C. Stewart, who has been appointed Conservator of the Museum of the Royal College of Surgeons.

In University College, Mr. John Marshall has retired from the office of Surgeon to the Hospital, and has been appointed a Consulting Surgeon. Mr. V. Horsley has been appointed an Assistant-Surgeon to the Hospital. Mr. Marshall has also retired from the Professorship of Surgery, and has been succeeded by Mr. Marcus Beck, whose place as a teacher of Operative Surgery is taken by Mr. R. Godlee. Mr. Thring and Mr. Bradford have been appointed Demonstrators of Anatomy, in the place of Mr. Godlee and Mr. Collingwood.

At the Westminster Hospital, Dr. Hake takes the place of Mr. Hehner as teacher of practical Chemistry, in conjunction with Dr.

Dupré. Mr. Powell has been appointed Assistant-Demonstrator of Anatomy.

In the London School of Medicine for Women, Dr. Silcock lectures on Pathology in place of Dr. W. A. Sturges; and Mr. Barron has been appointed Demonstrator of Minor Surgery and Assistant-Surgeon to the Royal Free Hospital, in place of Mr. F. S. Eve, who has joined the London Hospital.

In Queen's College, Birmingham, Dr. Sawyer has been appointed Professor of Medicine jointly with Dr. B. Foster; and his place as Professor of Materia Medica has been filled by the appointment of Dr. Rickards and Dr. Suckling. Mr. J. Lloyd, Mr. Haslam, and Mr. Barling, have been appointed Demonstrators of Anatomy, in place of Mr. B. May and Mr. Eales.

At the General Hospital, Birmingham, Dr. Russell has retired from the office of Physician, and Dr. Saundby has been promoted to the vacant office, his place as Assistant-Physician being filled by Dr. Foxwell.

At the Queen's Hospital, Birmingham, Mr. A. Hawkins has been appointed Obstetric officer in place of Mr. John Clay, who has retired; and Mr. W. Forster has been appointed a Casualty Surgeon in place of Mr. Hawkins.

In the Yorkshire College, at Leeds, Mr. Smithells has succeeded Dr. Thorpe as Professor of Chemistry and Practical Chemistry.

In the Medical Faculty of University College, Liverpool, Mr. F. T. Paul has succeeded Dr. E. Whittle as Lecturer on Medical Jurisprudence. Mr. Larkin has been appointed Teacher of Practical Physiology, in place of Mr. Mott.

In Owens College, the vacancy in the Professorship of Anatomy, caused by the death of Dr. Morrison Watson, has been filled by the appointment of Mr. A. H. Young; and that in the Chair of Midwifery, caused through the death of Dr. Thorburn, by the appointment of Dr. C. J. Cullingworth. Mr. W. H. Waters has become Brackenbury Professor of Physiology in place of Dr. Gamgee, who has retired. Mr. W. Elborne is associated with Dr. Leech in teaching Materia Medica. Dr. Harris has succeeded Dr. Maguire as Dr. Dreschfeld's colleague in teaching Pathology. Dr. Lloyd Roberts has been appointed Obstetric Physician to the Manchester Royal Infirmary, in place of the late Dr. Thorburn.

In the Sheffield Medical School, Dr. Banham has retired from the offices of Physician to the Infirmary and Lecturer on Medicine, and has been succeeded in both duties by Dr. Dyson; who, in his turn, is succeeded as Lecturer on Anatomy and Physiology by Dr. Porter. Dr. Roberts succeeds Dr. Dyson as one of the Physicians to the Sheffield Public Hospital.

In the Edinburgh Royal Infirmary, Dr. Douglas MacLagan has retired from the office of Physician and Professor of Clinical Medicine.

In the Extra-Academical Ward of Edinburgh, Dr. Moinet has ceased to lecture on Materia Medica; and Dr. G. A. Gibson has become a lecturer on that subject. The name of Dr. Binst does not appear among the lecturers in Pathology, and Dr. W. Russell is announced as a lecturer on that subject.

In the University of Glasgow, Mr. Bower has been appointed Professor of Botany in place of Dr. Isaac B. Balfour.

In the Glasgow Royal Infirmary School of Medicine, Mr. Macintyre is associated with Mr. H. E. Clark in teaching Anatomy.

In the Glasgow Royal Infirmary, Dr. Scott Orr has retired from the office of Physician, and has been succeeded by Dr. W. Anderson.

Eben Watson has retired from the office of Surgeon, and Dr. W.

J. Fleming has been appointed Surgeon. Dr. Steven has been appointed Assistant-Physician, and Dr. Macintyre, Assistant-Surgeon. Dr. Newman takes charge of the department of Diseases of the Throat, in place of Dr. Eben Watson.

In the Glasgow Western Infirmary, Dr. J. Christie, one of the Dispensary Physicians, has been appointed an Assistant-Physician, and has been succeeded in the latter office by Dr. J. Alexander. Dr. Knox has retired from the office of Dispensary Surgeon, and has been succeeded by Dr. D. Newman, whose place as an Extra Dispensary-Surgeon is filled by Mr. James Parker.

In Queen's College, Cork, Dr. C. Y. Pearson has been appointed Professor of Materia Medica.

In the Coombe Lying-in Hospital, Dublin, Mr. J. C. Hoey has been appointed an additional Assistant-Master.

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and a statement of the ceremony, if any, which will take place on the occasion.

St. Bartholomew's Hospital—October 1st; annual dinner of old students.

Charing Cross Hospital—October 1st.

St. George's Hospital—October 1st, 4 P.M.; address by Mr. T. Holmes.

Guy's Hospital—October 1st; *soirée* at 8.30 P.M.; distribution of medals and prizes.

King's College—October 1st, 4 P.M.; address by the Right Hon. and Right Reverend the Lord Bishop of London; distribution of prizes.

London Hospital—October 1st, 8 P.M.; distribution of prizes, and address by the Right Hon. the Lord Mayor; *conversazione*.

St. Mary's Hospital—October 1st, 3 P.M.; address by Mr. Pepper; annual dinner at the Holborn Restaurant at 6 for 6.30 P.M., Dr. Cheadle in the chair. *Conversazione* in the New School Buildings on October 2nd, at 8.30 P.M.

Middlesex Hospital—October 1st, 3 P.M.; address by Dr. J. K. Fowler; distribution of prizes; dinner at the Holborn Restaurant at 6.30, Mr. J. Smith Turner in the chair.

St. Thomas's Hospital—October 1st, 3 P.M.; address by Mr. MacKellar; annual dinner in Governor's Hall at 6 for 6.30.

University College—October 1st, 4 P.M.; address by Professor Schäfer, F.R.S.; annual dinner at Freemasons' Tavern on October 4th at 6.30, Sir W. Jenner in the chair.

Westminster Hospital—October 1st, 3 P.M.; address by Mr. G. Cowell; distribution of prizes; annual dinner at the Holborn Restaurant at 7 P.M.

London School of Medicine for Women—October 1st.

Birmingham Queen's College—October 1st; distribution of prizes; *conversazione* and address.

Bristol University College Medical School—October 1st. Yorkshire College, Medical Department (Leeds School of Medicine)—October 1st, 4 P.M.; address by Mr. Jonathan Hutchinson, F.R.S.; annual dinner at 6 P.M.

Liverpool University College, Medical Department—Early in October, the Earl of Derby in the chair; address; distribution of prizes.

Owens College, Manchester, Medical Department—October 1st. Firth College (Sheffield School of Medicine)—October 1st, 5 P.M.; address by Mr. R. J. Pye-Smith.

University of Durham College of Medicine, Newcastle-on-Tyne—October 1st, 2 P.M.; presentation of scholarships and prizes by Mr. Gainsford Bruce, Q.C.

Aberdeen University—October 21st.

Edinburgh University—October 28th.

Edinburgh School of Medicine—October 27th.

Glasgow University—October 28th; address by Professor Bower. Glasgow, Anderson's College—October 27th, 2 P.M.; address by Dr. J. Morton.

Glasgow Royal Infirmary School of Medicine—October 27th, 1 P.M.; address by Dr. Wallace Anderson.

Glasgow Western School of Medicine—October 27th.

DEATH OF DR. PAUL BÖRNER.

WE regret to hear of the death, on August 30th, at the age of 56, of Dr. Paul Börner, of Berlin. The cause of his death was acute peritonitis. Dr. Börner had, since 1874, ably conducted the *Deutsche Medicinische Wochenschrift*. He was also the editor of the *Reichs-Medicinal-Kalender*, a book which we have found extremely useful as a work of reference in matters relating to the medical profession in Germany; of a *Jahrbuch für praktische Ärzte*, and other publications. He had resided in Berlin since 1863; previously to which he had been a prominent practitioner. He was greatly liked by his professional brethren; and his death is referred to in terms of deep regret by the leading medical periodicals in Germany and Austria.

THE DISTRIBUTION OF WAR MEDALS.

WE would draw the attention of the authorities to a letter, in the *Times* of the 9th instant, referring to the distribution of war medals to the native Indian hospital establishments. It would appear that, under Indian rules, no doolie-bearer, no member of the native hospital-corps, is entitled to a war medal. This is manifestly unjust, when we remember their devoted services in war time, and the risks they encounter in field-service. We trust the India Office will see fit to carry out the suggestion in the *Times*, that war medals should be issued to all native hospital-attendants and doolie-bearers. It is distinctly unjust to deny to these men the rewards meant by the country for all its military servants.

THE LOCAL GOVERNMENT BOARD AND THE HOP-PICKERS.

THE action of the Local Government Board, in declining to sanction the supply, by certain sanitary authorities in Kent, of diarrhoea-mixture to farmers, for distribution amongst their hop-pickers, has been somewhat misunderstood; and it may be well, therefore, to explain the exact position of the Board with reference to the matter. It appears that the sanitary authorities in question were desirous of repeating, this year, what they had done for a year or two past, without any known bad result; but the district auditor intimated his inability to allow in future the necessary expenditure, without the sanction of the Local Government Board, under Section 33 of the Public Health Act. No doubt, if the medicine were used discreetly, and only for the praiseworthy purpose intended, it would be harmless enough, and an infinite boon to the poor people concerned. But the presence of a narcotic in the mixture affords a strong temptation to ignorant mothers to use it for soothing and quieting their refractory infants, more especially when a troublesome child is likely to interfere materially with the mother's earnings in the field. The dangers of such practices need scarcely be here enlarged upon. It may be contended that, as the charge would be one on the local rates, and not an imperial burden, the central authority need not interfere with the local wishes. But the legislature has given the Local Government Board a voice in the matter, and they evidently hesitate to assume the responsibility which their sanction would involve. In fact, we believe they have always shown great reluctance to give their sanction, except in very special and extraordinary circumstances. Probably in the present case the farmers could provide the little medical advice that their temporary employees are likely to need; but, if not, the parish medical officer, or, by special arrangement, the health-officer, might be consulted in case of diarrhoea symptoms appearing among these poor people. In any case, there is some doubt as to the expediency of doling out wholesale, to ignorant and reckless hop-pickers, diarrhoea-mixture as carelessly as if it were an allowance of beer or milk, to be used perhaps rightly, but just as probably to drug their burthensome offspring.

SMALL-POX IN LONDON.

THE long prevailing epidemic of small-pox in London is, apparently, passing away, and the Metropolitan Asylums Board, which has carried out thoroughly its duties as "health-authority" in providing hospital-accommodation for patients who are victims of these diseases,

is preparing to disestablish some of the provision thus made. The Darent Camp for small-pox patients is already closed against the reception of any more patients; and, when the 119 patients who were there on Saturday last leave the camp for their homes, the work of providing for the convalescent small-pox patients on the Darent camping-ground will be discontinued. The statistics of the camp have not yet been made up, but the work done there under the chairmanship of Sir E. H. Currie has been enormous; and unquestionably the energy of the Asylums Board, in providing these establishments, has saved London from a dreadful infliction, such as would have arisen if every street in the metropolis had been a centre of infection, as would have been the case but for this work. The work now carried out by the camp will be performed by the hospital-ships *Atlas*, *Endymion*, and *Castalia*, lying in Long Reach, where there were last Saturday 168 patients. In all, there were 297 patients with small-pox in the Metropolitan Asylums Board hospitals; but, besides those in the ships and at the camp, there were only three in the Eastern Asylum, and seven in the South-Eastern Asylum, all the other institutions being empty. The Board has arranged also to close the Western small-pox wards. The total number of 297 under treatment last Saturday stands in great contrast to the 637 at the meeting of the Board five weeks previously.

FEVER IN LONDON: THE EAST END AND HEALTH LAWS.

FEVER in London shows its usual autumnal increase already, and it is no doubt assisted by the unsanitary condition of the East-end, where the increase of fever, especially scarlet fever, is by "leaps and bounds." In the Homerton Asylum (the "Eastern Asylum"), there were 143 cases of fever, out of a total of 309 in the whole of the metropolis, an indication of a significant character of the loss of health and life suffered by the working classes by such unsanitary conditions as the River Lea at present presents, and the heavy cost which the metropolis, as a whole, suffers in having to make provision for the sickness thus caused, as well as in having to bear the loss of valuable life. Incidentally, the necessity of sanitary reformers being elected in the next Parliament, to represent the interest of the workers in health matters, is abundantly shown, for with a lessened fever and small-pox rate, the material and social position of the East-end multitude would be vastly improved. None of the other four asylums come anywhere near the Eastern Asylum in the number of the fever patients. The South-Western Asylum has 46 altogether, the Western 48, the South-Eastern has 40 (5 of them typhus cases, a sure indication of overcrowding and filthy living), and 32 in the North-Western Asylum. The total figures show a steady rise over the figures of the last month.

BRITISH PHARMACEUTICAL CONFERENCE.

THE twenty-second annual British Pharmaceutical Conference was commenced in Aberdeen on Tuesday. There was a large attendance, delegates being present from London, Liverpool, Sussex, Leicester, Sheffield, Leeds, Hull, Hawick, Edinburgh, Dundee, and other towns. Mr. Stephenson, of Edinburgh, the president, occupied the chair. The reception of delegates took place at half-past ten o'clock, and the president then delivered his annual address, in which he traced the true character and statutory position of pharmacy as an integral part of the medical profession. Subsequently, papers were read by Dr. Threst Buxton; Professor Wyndham Dunstan; Mr. Francis Ransom; Mr. W. Gilmour; Mr. P. McEwan; Mr. J. Moss, F.J.C.; Mr. H. W. Jones, F.C.S.; Mr. D. B. Bott, F.R.S.E.; and Mr. H. T. Davies.

SCOTLAND.

EDINBURGH ROYAL HOSPITAL FOR SICK CHILDREN.

THE report of the Edinburgh Royal Hospital for Sick Children, for the month of August, shows that there were admitted during the month 32 cases, and there were 33 in the hospital at the end of July.

Of these, 16 were discharged cured, and 6 relieved. The average daily sick was 27. At the dispensary, 547 patients were treated, and 17 vaccinated, making a total of 564. Of 304 new cases during the month, 238 were from the city, 45 from Leith, and 21 from the country. The number of cases during the last two months has been affected by the alterations necessary in consequence of infectious diseases being no longer treated in the hospital. The fever wards are nearly ready for the reception of general cases.

THE SICKNESS ON BOARD A SPANISH STEAMER AT LEITH.

LAST week, there was noticed in the JOURNAL the arrival and placing in quarantine of a steamer at Leith, from Spain, with suspicious cases on board. On Thursday last, the ship was again visited by the medical officer of health and the sanitary officer of the port, who examined the sick men. The medical officer was of opinion that the disease was not cholera, but fever, and instructed that at least two of those ill should be removed to Leith Hospital. The cabins occupied were then disinfected and fumigated, the water-tanks emptied; and the Customs Authorities then gave permission for the vessel to enter the docks.

ALLEGED DEATH FROM DRINKING METHYLATED ALCOHOL.

ABOUT four o'clock on Sunday afternoon a woman and two men were found in an unconscious state on a stair, in the Old Town, Edinburgh. The woman was taken to Chalmers Hospital, but had died before arriving there. The two men were taken to the police-court, but one was so ill he had to be removed to the infirmary. The men have since recovered. The trio had been drinking methylated spirits of wine on the Sunday, and it is believed owed their illness to it, but a *post mortem* is to be held on the 9th, on the body of the woman.

IRELAND.

A GIRL died recently from sunstroke at Ballinasloe.

DR. DOUGLAS, of Warrenpoint, has been appointed a Justice of the Peace for the County Down.

DR. WILLIAM JENNINGS has resigned the appointment of Medical Officer to Drimoleague Dispensary, Skibbereen Union, and an election for his successor takes place this week.

YOUGHAL UNION.

A RESOLUTION has been adopted by the Youghal Board of Guardians, that the salaries of the several dispensary medical officers be reduced 25 per cent. Whether the Local Government Board will, however, see the matter in the same light as the guardians, is another affair altogether; and we shall be much surprised if they sanction the reduction proposed.

THE CHOLERA.

THE CASE OF CHOLERA IN CARDIFF DOCK.

THE following particulars have reached us from an official source, concerning the case which occurred on the steamer recently arriving at Cardiff.

The S.S. *Crindau* arrived at Barcelona on August 14th, and left on the 22nd, reaching Penarth roads on the morning tide of September 2nd; she was then examined by the quarantine officer appointed by the Customs authorities; the crew appeared to be in good health, and the replies of the captain to the official questions were satisfactory. The ship was afterwards visited by the chief sanitary inspector, and the crew individually examined by him. He inquired from what source the drinking-water was obtained, and, on being told it was obtained from Barcelona, he directed the captain to throw it overboard, and to pump overboard the bilge and ballast-water. Permission was then given for the vessel to enter the port; this she did on the 3rd. On Friday, the 4th, the crew were discharged, and all appeared to be

well. In the afternoon four fresh hands joined the ship. At 10.30 p.m. of that day Dr. Paine was informed by Mr. Laen, a surgeon at the docks, that he had been called to a fatal case of suspected cholera, and that he attributed the cause of illness to drinking some Barcelona water while on board the *Crindau*. Dr. Paine immediately called on that gentleman, and ascertained that he had visited the case about 9 o'clock; he found that the patient had just died. The deceased had gone on board the ship about 4 o'clock, then being apparently in perfect health, and commenced his work by assisting to move the ship to a new berthing place; after he had been working about an hour, during which time he drank some of the water alluded to, he was suddenly seized with cramps in the bowels, vomiting and purging, and died about 8 o'clock. Dr. Paine then visited the ship with Mr. Laen, and ascertained the facts to be in accord with what that gentleman had stated; but Dr. Paine learned, in addition, from the captain, that some of the crew suffered from trifling looseness while on the passage home.

The medical officer immediately ordered the vessel to be moved, without delay, to the mooring station, near the Flat Holm, to be disinfected, and the deceased to be buried at sea. The ship's present crew have been daily visited, and up to this time no fresh case of sickness has occurred.

Dr. Blaxall and Dr. Paine have been inquiring into all the circumstances of the case, with the view of ascertaining the cause of the attack, but as yet without success. There can be no doubt that the deceased was a man of temperate habits and well conducted, and rather robust. The landlady of the house at which he lodged, said she had every reason to believe that he was in good health, and a fellow-lodger states confidently that he had no diarrhoea up to the time he left the house; he ate his breakfast, consisting of bread and butter with tea, about 9 o'clock; he then went to seek employment, and returned to his lodgings about 3 o'clock, when he changed his clothes and went to join the *Crindau*, in company of an old friend who knew him well, and who never saw him apparently in better health or spirits.

Up to this time, the medical officer says, "I have every reason to consider the attack sporadic, and not malignant."

CHOLERA IN ITALY.

THE rumour that cholera has appeared at Palermo is confirmed. The *Rassagna* reports nineteen cases and five deaths. On the news becoming known in Naples, after the *Galileo*, from Palermo, had landed her passengers, great excitement broke out, demonstrations were made in front of the Prefecture and Municipal Palace, and a large crowd gathered about the Hôtel de Rome, threatening to break the windows if the inmates who had arrived from Sicily were not expelled.

Cholera is increasing at Parma, but diminishing in the other continental Italian provinces.

CHOLERA IN FRANCE.

THE cholera epidemic at Marseilles and Toulon appears to be gradually disappearing, but neighbouring localities are becoming contaminated. At St. Chamas, cholera has appeared, and nine deaths have occurred; one at Nîmes, one at St. Césaire. Disinfection was immediately effected. A M. Solamon Boneen went on foot from Arles to Salon to be present at his brother's funeral, who had died from cholera. M. Boneen was exhausted by fatigue, and wore his brother's clothes. On returning to Arles, he died from cholera. A death from cholera is announced in the Commune of Montagnac, also one at Frontegnau, and one at Méze, all in the Department of Hérault. At Cette, three people have been seized with cholera, and two have died. At Pignan, there are eight new cases. The Portuguese Government refuses to receive parcels from France, or from other countries, if they pass through France. The Minister of the Interior has visited Marseilles and Toulon. As on a former occasion, he visited the Pharo Hospital, and expressed his satisfaction at the good order maintained in the wards. He also visited the localities where the epidemic was the most intense. The municipal councillors expressed their wish to have the church St. Martin pulled down, a second network of sewage-pipes laid down, and a subsidy given to the police. M. Alain Targé promised to help on these questions. He gave to the Sanitary and Help Commission 50,000 francs (£2,000), a Government grant, and a personal gift of 40,000 francs (£1,600).

At Marseilles, the state of the public health on Wednesday was said to be much improved. From five o'clock p.m. on Tuesday till the same hour on Wednesday there were twenty-nine deaths, of which eleven were those of children, and eight were due to cholera. There were thirty-five persons under treatment at the Pharo.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Hastings, on Friday, September 25th. Dr. Cooke will preside. The following communications are promised:—The Chairman, A case of Perforating Ulcer of the Stomach; Mr. W. Grant Jones, A case of Chronic Ulcer of the Stomach. Notice of intended contribution of papers, or cases, should be sent to the honorary secretary, T. JENNER VERNALL, 95, Western Road, Brighton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Staplehurst on Thursday, September 24th, at 2.30 P.M.; Dr. Joyce in the chair. The following communications have been promised. 1. Dr. Edis: The Treatment of Miscarriage. 2. Dr. Joyce: On the Puerperal Phlegmasia. 3. Dr. F. Eastes: A Case of Cherry-stone in Bronchus. 4. Dr. Tyson: A Case of Acute Glaucoma simulating a Bilious Attack. The dinner will take place at the South Eastern Hotel at 5 P.M.—W. J. TYSON, Honorary Secretary, 10, Langhorne Gardens, Folkestone.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held on Wednesday, September 30th, at Saluburn. Members are requested to inform the Secretary, at their earliest convenience, should they intend to read papers, show specimens, etc.—DAVID DRUMMOND, Honorary Secretary.—7, Saville Place, Newcastle-on-Tyne, September 8th.

NAVAL AND MILITARY MEDICAL SERVICES.

RANK AND TITLES FOR MILITARY MEDICAL OFFICERS.

SIR,—In your article on this subject, in the JOURNAL of August 22nd, you say that "the consideration and status afforded to medical officers in the army, depends, not on their relative military rank, but on the reputation they make for themselves as skilful surgeons and physicians."

I should rather say that the amount of "consideration and status" accorded to these gentlemen is so exceedingly small, as to be nothing short of being scandalously disproportioned to their skill, and to their great and heroic services, not only as military surgeons and physicians, but as hygienists and soldiers besides. Otherwise, how could it have been, as you say, that "scores—nay, hundreds—have gone down to their graves unhonoured by the Government they served"?

Did medical officers of the British army possess, as they should, the military rank and titles bestowed by other nations, the discreditable action attributed to Sir John Lawrence would, in all probability, never have occurred.

It is not so much the man as the office he fills which is, and always must be, regarded in every well organised army. Yet we all know that the office brings to the man holding it, honour in proportion to its responsibilities and dangers; and rightly so. From the application of a rule so just and so general, how can the officers of the medical service of the country be either fairly or safely excluded?

It is the office, therefore, and its corresponding rank and authority, and not the private individual, which must be chiefly considered where military administration and discipline are concerned. No one knew, or expressed this fact, as applying to the medical service, better than Sidney Herbert, one of the ablest war ministers that our United Kingdom has ever produced. How his most wise and magnanimous endeavours to place this great and indispensable portion

of our military machine in its proper position were most unwisely and most ungenerously foiled and frustrated by military prejudice and bigotry, has long since passed into the domain of history.

With the rapidly growing *esprit de corps* and influence of the medical profession will, I trust, come the speedy and complete effacement of all that traditional policy of evil, which has long and seriously impaired the beneficent energies of a branch of the public service of such vital importance as that which holds in its keeping the health, the physical efficiency, and, to a large extent, the morale and success of our army.—Yours truly,

ALEXANDER MACLEAN, M.D., Deputy Surgeon-General (ret.).

PAY OF MILITIA SURGEONS.

WE have received a letter from the surgeon of a militia regiment. So far as we can understand his communication, he thinks a medical man in charge of troops who does not belong to the Medical Department of the Militia is better treated as regards pay than one belonging to the Department; and he invites us to explain why this should be. It is not for us to explain any anomalies that may exist in the pay-regulations of the Militia. We advise our correspondent to seek an explanation in the proper quarter.

THE ARMY MEDICAL STAFF.

WE have received a letter from a correspondent who signs himself "Good Red Herring;" this letter covers five and a half folio pages, closely written. Even if the subject-matter of this communication were more pressing than it is, we cannot find space for a letter of such immoderate length, still less can we undertake the unusual task of forwarding to another journal a letter which we find it impossible to publish. The writer is distressing himself in vain. There is not, so far as we can learn, any intention of interfering with the "unification scheme" by attaching a medical officer to every regiment in the service, unless, it may be, to such as are sent on active service in time of war. Lord Morley's Committee pointed out the financial objections to such a measure. "Good Red Herring" may rest assured that they are sufficiently cogent in the present state of the finances of the country to exclude any scheme of the kind from a place in the military estimates to be presented to the coming Parliament.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A QUESTION OF MEDICAL ETHICS.

SIR,—Will you please give me your opinion as to what you think is my duty in the following circumstances?

Mr. X., a brother practitioner, asked me, in January, 1884, at Mrs. A.'s request, to see a child of her's with him in consultation. I did so on two occasions, and was paid consultation-fees for my services. In a short time, Mrs. A. became dissatisfied with Mr. X., and asked him to cease attendance on her family, which he did. She then asked me to attend her family. I refused, on the ground that professional etiquette forbade me. She pressed the point by letter, stating that she was determined not to employ Mr. X. again, and that I could therefore do no harm to him in going. I again refused, gently, but very positively. Mrs. A. then sent for Mr. Y., a very competent man, in whose hands the child I had seen in consultation with Mr. X. died. Mr. Y. has continued attendance ever since on other members of the family; and I heard no more from Mrs. A. till to-day, when she sent a friend to tell me she expected her confinement in about six months, and hoped that I would attend her. I refused. The friend pressed me very much, saying Mrs. A. had set her heart upon having my services on that occasion, and begging me to reconsider my decision. I then promised to reconsider the question.

Before giving my answer, I should like to ask what you advise. Mr. X. having ceased attendance for eighteen months, and the child whom I saw along with him having died, would it be right for me to attend the mother in her approaching confinement?—I am, yours, etc., Z.

* The line of conduct pursued by "Z." in the consultation-case of "Mr. X." has, *de facto*, been in strict accord with the medico-ethical rules of professional life; inasmuch as Mrs. A. having insisted on dispensing with the services of Mr. X., and having also personally communicated to him her determination, our correspondent would have been justified in taking charge of the boy, who subsequently died under the care of "Mr. Y." Eighteen months, moreover, having elapsed since "Mr. X." ceased his attendance, through no fault or suggestion of "Z.", there is, in our opinion, no just or reasonable cause why the latter should persistently decline to accede to the strongly urged wish of Mrs. A. in regard to her expected but non-immediate confinement.

If "Z.", nevertheless, still entertain any doubt or scruple on the point, we would suggest (though, in our opinion, such is unnecessary) a friendly call upon "Mr. X.", to explain to him the ethical difficulty in which "Z." feels himself placed; and, as an honourable practitioner, "Mr. X." cannot fail to endorse our advice.

MEDICAL ETIQUETTE.

A. H. B., M.D.—It is not, as our correspondent justly assumes, in accord with professional etiquette and rule, "to give advice gratis on certain days, and to direct recipients of a prescription to a certain chemist," and it is alike unprofessional "to refer paying patients in the same way, and thus secure an interest." It is also highly derogatory for any member of the faculty to announce "by advertisement, in a daily paper, his address for consultations at present." Such is the ordinary practice of charlatans, and altogether incompatible with the dignity of a long and justly-honoured profession.

MR. F. J. O'REILLY.—We do not keep copies of the legal document which our correspondent is solicitous to obtain, and would recommend him to apply to a respectable medical agent, who will no doubt at once furnish him with the desired form, on payment of the customary fee.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following vacancies are announced.

- ABINGDON UNION.**—Medical Officer. Salary, £130 per annum. Applications by September 19th.
- BIRMINGHAM GENERAL DISPENSARY.**—Resident Surgeon. Salary, £15 per annum. Applications by September 22nd.
- CANCER HOSPITAL (FREE), Brompton, S.W.**—Resident House-Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of the Weekly Board by September 21st.
- CANCER HOSPITAL (FREE), Brompton, S.W.**—Assistant House-Surgeon. Salary, £95 per annum. Applications to the Chairman of the Weekly Board by September 21st.
- CHESTER GENERAL INFIRMARY.**—Visiting Surgeon. Salary, £80 per annum. Applications by September 18th.
- EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.**—Registrar and Chloroformist. Salary, £30 per annum. Applications by September 15th.
- GROVE HALL PRIVATE ASYLUM, Bow.**—Assistant Medical Officer. Salary, £150 per annum.
- HARTLEPOOL HOSPITAL.**—House-Surgeon. Salary, £100 per annum. Applications to J. Rawlings, Cliff Terrace, Hartlepool, by September 15th.
- MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.**—Medical Officer. Salary, £60 per annum. Applications by September 16th.
- MANCHESTER ROYAL INFIRMARY.** Resident Surgical Officer. Salary, £150 per annum. Applications to the Chairman of the Board by September 12th.
- NEWPORT (MON.) INFIRMARY AND DISPENSARY.**—House-Surgeon. Salary, £100 per annum. Applications by September 12th.
- RADCLIFFE INFIRMARY, Oxford.**—Resident House-Surgeon. Salary, £80 per annum. Applications by September 12th.
- ROYAL UNITED HOSPITAL, Bath.**—House-Surgeon. Salary, £60 per annum. Applications by September 18th.
- ST. BARTHOLOMEW'S HOSPITAL, Chatham.**—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.
- ST. LUKE'S HOSPITAL.**—Resident Clinical Assistant. Applications to the Secretary.
- SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.** Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Williams by September 16th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 6s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

- SANDBERG.**—On September 1st, at Liverpool Lodge, Brixton Hill, S.W., the wife of Arthur Sandberg, M.D., of a daughter.
- VAISSEY.**—On Friday, September 4th, at Winslow, the wife of T. F. Vaisey, M.R.C.S., of a son.

MARRIAGES.

- BERTOLACCI.—MARCH.**—At St. Peter's, Eaton Square, on September 5th, by the Rev. F. W. Small, J. Hewetson Bertolacci, of Varden House, St. John's Hill, S.W., son of Francis R. Bertolacci, late of the War Office, and formerly Auditor of the Duchy of Lancaster, to Leah (Trottie), niece, and adopted daughter, of John March, Esq., M.D., of Spencer Park, New Wandsworth. No cards.
- WELSFORD.—WILLOUGHBY.**—On August 25th, at St. Cuthbert's Church, Bedford, George Frederic Welsford, M.B.Camb., of Woodstock, to Emma Henrietta, third daughter of Lieut.-Colonel H. J. Willoughby, late Bombay Army, of St. Cuthbert's, Bedford.

DEATH.

- DOWKER.**—On August 20th, at Helmsley, Yorkshire, aged 11, Henrietta Jane (Harrie), youngest daughter of F. W. Dowker, surgeon.

RESIDENCE FOR MEDICAL STUDENTS AND OTHERS IN EAST LONDON AT TOYNBEE HALL.—Many members of the Universities have, during the last year, lived in Whitechapel. They have been able to follow their own calling as medical men, civil servants, etc., while their leisure has been shared with neighbours to whom they have given the fruit of their knowledge, and from whom they have learnt the opinion of the majority. Toynbee Hall is in Commercial Street, close to Aldgate Station, on the Inner Circle railway, and thus centrally situate and connected with many of the leading hospitals by easy means of access, and has all the essentials, both in comfort, privacy, and cheapness, of a residential club. New members are subject to a ballot, and the necessary qualification is the will to make some sacrifice of time for the common good. Those who, before committing themselves to an ultimate decision, wish to know more about the conditions of life in East London, and who would satisfy themselves as to the possibility of combining social work with the discharge of their professional duties, might, in a short visit of a few weeks to Toynbee Hall, gain the information they require.

OPERATION DAYS AT THE LONDON HOSPITALS.

- MONDAY**.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
- TUESDAY**.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
- WEDNESDAY**...St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
- THURSDAY**....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
- FRIDAY**.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
- SATURDAY**....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

- CHARING CROSS.**—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.
- GUY'S.**—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th. Tu. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
- KING'S COLLEGE.**—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.
- LONDON.**—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
- MIDDLESEX.**—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
- ST. BARTHOLOMEW'S.**—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
- ST. GEORGE'S.**—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
- ST. MARY'S.**—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
- ST. THOMAS'S.**—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
- UNIVERSITY COLLEGE.**—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
- WESTMINSTER.**—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CASE OF DR. BRADLEY.

SIR,—Will you kindly publish the following additional list of subscriptions received for the Bradley fund.—Yours faithfully,
Eastwood House, Chesterfield. RICHARD JEFFREYS.

(The following is a copy of a letter received.)

Cromwell House, Chapel-en-le-Frith, near Stockport.

Dear Sir,—I enclose cheque for one guinea towards the subscription you are getting up for Dr. Bradley. I was in the court during the hearing of the case, and thought the verdict a most shameful and illegal construction of the evidence. With sincere sympathy for your cause, and trusting it may prosper, I remain, yours faithfully,
R. Jeffreys, Esq. W. STIRLING ANDERSON.

Mr. Frederick William Jowers, 27, Old Steyne, Brighton..	£	s.	d.
Mr. Edward Lund, 22, St. John's Street, Manchester ..	5	5	0
Mr. C. A. Atkin, Sussex Square, London ..	3	3	0
Dr. T. Grainger Stewart, Edinburgh ..	2	2	0
Dr. Arthur W. Edis, 22, Wimpole Street, Cavendish Sq. ..	2	2	0
Mr. Septimus W. Sibley, 7, Harley Street ..	2	2	0
Dr. Anthony H. Corley, Dublin ..	2	2	0
Dr. Marriott, Leicester ..	2	2	0
Dr. J. T. Banks, Dublin ..	2	2	0
Dr. Dyce Duckworth, 11, Grafton Street, Piccadilly ..	2	2	0
Mr. G. O. Siddall, Nottingham ..	1	1	0
Dr. M. Griffith Evans, Cardiff ..	1	1	0
Dr. Robert Laurie, Lorne Villa, Osmaston Road, Derby ..	1	1	0
Mr. Charles J. Pinching, The Terrace, Gravesend ..	1	1	0
Dr. Thomas William Kyle, Measham, Atherstone ..	1	1	0
Mr. M. George Biggs, 101, Great Northcote Road, Wandsworth Common ..	1	1	0
Dr. C. J. Cullingworth, Manchester ..	1	1	0
Dr. Geo. Ernest Herman, 7, West Street, Finsbury Circus ..	1	1	0
Dr. Arthur W. Orwin, 15, Weymouth Street, Portland Place ..	1	1	0
Dr. J. Halliday Croin, 25, Charlotte Square, Edinburgh ..	1	1	0
Dr. G. H. Rickards, The Manor House, Pool, near Leeds ..	1	1	0
Dr. Joseph Coats, 81, Lynedoch Street, Glasgow ..	1	1	0
Dr. Withers Moore, Brighton ..	1	1	0
Dr. S. J. Ramsbotham, 16, Park Place, Leeds ..	1	1	0
Dr. W. J. Sinclair, Manchester ..	1	1	0
Dr. J. Caldwell Uthoff, 9, Brunswick Place, Brighton ..	1	1	0
Dr. Henry S. Ferguson, 1, Fisherswick Place, Belfast ..	1	1	0
Mr. Joseph Bell, 2, Melville Crescent, Edinburgh ..	1	1	0
Mr. Ethelbert Hosking, Turner's Hill, Sussex ..	0	10	6
Mr. Langford Clay, 443, Mosley Road, Highgate, Birmingham ..	0	10	6
Dr. G. Dickson, 9, India Street, Edinburgh ..	0	10	6
Mr. Charles Crossley, 78, Granby Street, Leicester ..	0	10	0
Mr. John R. Baumgartner, Newcastle-on-Tyne ..	0	10	0
Dr. C. E. Hitchcock, York ..	0	10	6
Dr. Alfred Neale, Manchester ..	0	10	0
Mr. Frederick Melland, Victoria Park, Manchester ..	0	10	0
Mr. James Dewar, St. James's Terrace, Buxton ..	0	5	0
Mr. Albert Haslewood, Buxton ..	0	5	0
Dr. John Ritchie, 9, Buccleuch Street, Glasgow ..	0	5	0
Mr. Frank S. Goulder, Dudley ..	0	10	0

THE PHENOMENA OF HANGING.

SIR,—In my official capacity as gaol-surgeon, I had, a short time since, the unpleasant duty of seeing a criminal executed. The execution was very well carried out, except that the black cap was omitted to be put on. As the prisoner dropped, death was apparently instantaneous; not a move, not even a twitch of any muscle, all the more visible as the cap was omitted. As soon as the drop had taken place, I walked down to the prison yard, where I was introduced to a fellow-surgeon, who had come to see the execution and attend the post mortem examination. Together we walked to the body, then hanging. I put out my hand and touched the hand of the criminal, which was, of course, warm; perhaps naturally my hand strayed to his pulse, which, to my surprise, was beating, apparently at about 130 to 140 beats a minute. My friend, seeing my look of astonishment, did the same, and also felt it, and was about to take out his watch and count the pulse; but there were a number of people present in the yard, and I stopped him accordingly. In a short time, the pulse died away—a few seconds. Naturally, we concluded death must have occurred from strangulation; but a post mortem examination showed dislocation of the odontoid process of the axis-bone.

I should like to know if this has occurred in the experience of other surgeons, and, if so, how it is accounted for?—I am, yours truly,
Jamaica. D. M. O.

AN APPEAL.

SIR,—Knowing how ready the profession are to aid those whose battle of life has been less successful than their own, I take the liberty of calling attention to the case of Mr. J. E. D. Rodgers, well known as Lecturer on Forensic Medicine at the London Hospital Medical College for many years. He is 71 years of age, totally unable from infirmity to follow his professional avocations, scarcely able even to hold a pen, and in great straits, being without any means whatever, except £25 a year from the British Medical Benevolent Fund. His address is No. 59, Cumberland Street, Piccadilly, which I mention to enable anyone who may feel so inclined to satisfy himself of the circumstances.

Hoping that you will allow contributions to be received at your office, and to be dispensed as you may deem best calculated to smooth the short remnant of his life as much as possible—I remain, yours respectfully,
H.

ANNUAL EXHIBITION AT CARDIFF.

In the list of exhibits at the annual meeting at Cardiff, given in our issue of last week, we omitted to mention the exhibit of Mr. A. De St. Dalmaz (Leicester), who showed his Porous Belladonna and Capsicum Plasters on Scarlet Felt, and also the St. Dalmaz Improved Adhesive Plaster on fine Flesh-coloured Cambric.

A CORRECTION.

THE notice of Hartmann's Hygienic Wood-Wool Diapers and Professor Helferich's 50 per cent. Sublimated Tampons, which appeared in our report of the Annual Museum held at Cardiff, on p. 451 of last week's JOURNAL, was, by an accident, misplaced. It should have appeared among the exhibits of Messrs. A. Essinger and Co., 11, Hatton Garden, E.C.

JUST ONE BOOK.

SIR,—Will you spare a few lines to plead with the tourist readers in behalf of the stay-at-homes who have no books to read? At this season many interesting and amusing works are purchased at railway book-stalls and thrown aside after having served for the recreation of a few hours' journey. These would be greatly valued by the sick, the poor, the old and infirm, who have few pleasures but reading. The Kyrle Society will take charge of any books sent, and will see that they reach an appropriate haven either in hospitals, infirmaries, work-houses, boys' or men's clubs, or wherever they may be wanted. The applications far exceed the supply already. Magazines, whether of general interest or of a technical character, such as the engineering, etc., periodicals, are specially acceptable. Those who enjoy reading will, I am sure, help us, and will all (they can do no more) send us just one book. Further particulars will be sent gladly to any address by
EMMA S. BUSK, Honorary Secretary,
14, Nottingham Place, W. Literature Distribution Branch, Kyrle Society.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. J. Minchinton, Jamaica; Messrs. Grimwade, Ridley, and Co., London; Dr. R. H. Coombs, Bedford; Dr. D. Embleton, Newcastle-on-Tyne; Mr. T. Ryall, London; Mr. M. R. Fairer, Kirkby Stephen; Mr. F. H. Parsons, London; Mr. Blomfield, Exeter; Mr. Lawson Tait, Birmingham; Mr. J. Smith, Manchester; Mr. F. Lawrence, York; Mr. J. Mulvaney, London; Dr. W. F. Bennett, Cairo; Dr. C. A. Gray, Glasgow; Mr. A. De St. Dalmaz, Leicester; Dr. J. A. Lindsay, Belfast; Mr. F. T. Paul, Liverpool; Dr. T. K. Powell, London; Mr. H. Saxon Snell, London; Mr. W. Renshaw, London; Dr. A. O. Ward, Tottenham; Dr. Maurice Hime, Londonderry; Mr. J. Hadley, London; Dr. Styrup, Shrewsbury; Dr. Ireland, Prestonpans; Mr. J. R. Gibson, London; Mr. J. A. Johnson, Monaghan The President of Guy's Hospital; Mr. George Eastes, London; Mr. T. E. Bowkett, London; Mr. B. Roth, London; Mr. F. C. Bryan, Littlehampton; Mr. H. E. Cauty, Liverpool; Messrs. F. G. Calvert, Manchester; Dr. Neville, London; Dr. Rogers, London; Dr. Strachan, Monkwearmouth; Mr. S. H. Owler, Manchester; Mr. W. Draper, St. Leonards, Yorkshire; Mr. H. Greenway, Plymouth; Mr. D. R. Pearson, London; Mr. J. J. Lamprey, London; Mr. A. Cooper Key, London; Dr. R. Rentoul, Liverpool; Dr. David Drummond, Newcastle-on-Tyne; Dr. Arlidge, Stoke-upon-Trent; Mr. De Vere Hunt, Bolton; Dr. Maunsell, West Haddon; Dr. Willoughby, London; Mr. David Hardie, Forres; Mr. D. G. Prothero, Llandebie; Dr. G. M. Johnston, Leith; Dr. R. E. Carrington, London; Mr. J. T. Carter, Glasgow; Mr. E. R. Frere, London; Mr. Joseph Knight, Manchester; Mr. A. E. Legat, South Hylton; Dr. G. H. Batterbury, Wimborne Minster; Mr. T. H. Williams, Wrexham; Dr. Paine, Cardiff; Mr. G. H. Gilruth, Edinburgh; Messrs. Cassell and Co., London; Mr. J. Miller, Glasgow; Mr. E. Child, New Malden; Mr. G. Fox, London; Messrs. Harrison and Brass, Elgin; Dr. Sutherland, London; Mr. J. Dale, Stockton-on-Tees; Dr. W. Alexander, Liverpool; Dr. C. J. White, Snodland; Mr. J. B. Sincok, Bridgwater; Dr. A. Sheen, Cardiff; Mr. C. R. Walker, Leytonstone; Mr. J. E. Deane, Rhymney; Mrs. E. Brelby, Beverley; Mr. A. H. Wilson, Liverpool; Mr. F. A. Southam, Manchester; Mr. B. Blower, Liverpool; Mr. J. Yates, Newcastle-under-Lyme; Mr. C. J. R. Lunday, Everton; Dr. W. Gripper, Wallington; Messrs. A. Essinger and Co., London; Mr. Birch, London; Dr. W. J. Mackie, Turvey; Mr. Robert Jones, Liverpool; Mr. Henry Power, London; Mr. J. F. Le Page, Salford; Mr. S. W. North, York; Mr. J. Snell, Baccup; Mr. William B. McQuitty, Belfast; Mr. Newland Pedley, London; Dr. S. D. Darbishire, Oxford; Mr. R. Jeffreys, Chesterfield; Our Edinburgh Correspondent, etc.

BOOKS, ETC., RECEIVED.

In the Watches of the Night: Poems. Vols. VII and VIII. By Mrs. Horace Dobell. London: Remington and Co. 1885.
Two North British Railway Guides. Glasgow: John Miller. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE PRACTICE OF ARTIFICIAL ANÆSTHESIA,
LOCAL AND GENERAL,WITH ESPECIAL REFERENCE TO THE MODES OF PRODUCTION,
AND THEIR PHYSIOLOGICAL SIGNIFICANCE.*Introduction to a Discussion in the Section of Pharmacology and
Therapeutics, at the Annual Meeting of the British
Medical Association in Cardiff.*By DUDLEY W. BUXTON, M.D., B.S., M.R.C.P.,
Administrator of Anæsthetics at University College Hospital.

MR. PRESIDENT AND GENTLEMEN.—In attempting to carry out in the best way the honourable and onerous task imposed upon me, that, namely, of opening a discussion upon the practice and theory of anæsthesia, I think I shall best subserve the end in view by briefly sketching the plan upon which my subject will be treated, before plunging into such details and by-issues as are incident to so wide-reaching a theme as that we have assembled to discuss.

I may remind this Section, that twenty years ago, artificial anæsthesia was discussed under the ægis of our great Association, but in the Section devoted to physiology. Then pharmacology and therapeutics were not what they are now, and hence the relegation of the purely practical subject of anæsthesia to physiology. But now, let us remember that in the Section in which we sit we have to know the physiological side of our therapeutic agents, and to apply this knowledge to the practice of grappling with disease and assuaging pain. And can we carry out such a scheme for anæsthetics, can we, with hope of profit or success, seek to disentangle the thread and unfold a rational explanation of the physiology of anæsthesia, to be followed by the wholly practical considerations involved in the skilled and beneficial application of anæsthesia for surgical or medical practice? It seems to me, that such a course is the only one likely to advance the knowledge of our subject, and to prevent undue prominence from being bestowed upon mere details of practice, details important enough in themselves, but surely subservient to the consideration of those great laws of life and death which underlie our practice in the induction of anæsthesia.

We may start with a proposition that the end and aim of anæsthesia, however applied, is comprised in the rendering a given area insensitive to pain. The more perfect the agent in use, the more truly localised must be its action; and conversely, the more widely distributed be its action, the less safe is the anæsthetic in question. Now, to illustrate this proposition, let us briefly sum up the physiological bases of life. We may, perhaps, be permitted to regard them as a duality, a conscious voluntary portion wherein we meet with receptive end-organs whose function must be to convey impressions for our purpose, we will say painful impressions, from the periphery by nervous strands to the central receptive and perceptive centres, the cerebro-spinal axis; and the second member of this duality is the nervous mechanism whereby the wholly involuntary and unconscious functions of life are carried out. To these we must add the bloodstream, and its physiological behaviour towards the cells, whereby their due regeneration, growth, and function, are performed.

Now clearly anæsthesia might be attained by cutting off the afferent channels from peripheral nerve-endings to nerve-centres, thus leaving these last unaffected. This was proposed long ago by Dr. Waller, who suggested the compression of nerve-trunks, to obviate the pain experienced when their peripheral branches were divided. And again, anæsthesia must result if the sensory paths of the spinal cord, or the perceptive centres of the brain, be acted upon by some agent which annuls their function. In the first case, we have the subject of local anæsthesia brought before us, the abrogation of painful sensation over a given area, and determined by a locally applied agent; in the second, we find ourselves face to face with the wider and, I venture to think in the present state of our knowledge, more important subject of general anæsthesia.

[1290]

I have yet to learn if any agent, applied locally, fulfils the requirements of the ideal anæsthetic; whether it wholly removes pain when peripheral structures are divided, and yet leaves healthy tissues uninjured, while the nervous structures of the cerebro-spinal axis remain unaffected.

Among agents which have been proposed to effect general anæsthesia, I would have us ask ourselves which does most nearly approach the ideal anæsthetic—namely, the one which, robbing the patient of that intensity of sensation which we call pain, will yet not overflow, so to speak, the nervous system, and by its action interfere with rational life; secondly, and most important of all, which will not impede the due carrying on of organic existence.

In some carefully executed researches commenced in 1882, Dr. Brown-Séquard sought to show that analgesia without sleep could be induced by irritation of the mucous membrane of the larynx, of the trachea, and of certain skin-areas. He found (*Comptes Rendus*, June, 1885) that, by using certain (irritating) vapours, he could, in the case of monkeys, dogs, and various other animals, induce a condition in which these creatures gave no evidence of painful sensation, even during cutting or other painful procedures. His method was to allow carbonic acid gas, or chloroform-vapour, to play upon the larynx or trachea, after having done a preliminary tracheotomy to prevent the access into the lungs of the irritating vapour. Stimulation of the trunk of the vagus above the origin of the superior laryngeal nerve, and even irritation of the skin of the back, will, he asserts, induce this sleepless analgesia. His view is, that the irritation of the superior laryngeal nerves exerts a reflex inhibitory action upon the brain-centres—an explanation which appears to me almost too vague for us to accept, save as a working hypothesis. In applying this extraordinary discovery to the practical issue of inducing surgical anæsthesia, we are met by formidable difficulties. Brown-Séquard had an arrangement whereby his patient breathed pure air for from two-thirds to three-fourths of a second; he then breathed carbonic acid gas, and immediately emptied his lungs. Thus he would take less than half the ordinary period of inspiration for pure air. Brown-Séquard's discovery cannot be said to have yet entered into the domain of practical anæsthetics; but he assures me that the subject will ere long be placed more fully before the profession.

I may here mention an experience of Dr. Péan's, which, I fear, we seldom meet with, and this is that, in a certain number of cases, he, Péan, had found that ether will, while rendering the patient analgesic, yet permit him to retain his consciousness. Indeed, we are told that the patients watched the steps of the operation with evident interest.

I have belief that such cases occur sufficiently frequently to deserve a more thorough inquiry being made into their nature. They are, at least, most curious, and have a truly important bearing upon the question now before us.

As it will clearly be impossible for me to attempt an examination of each member of the large group of carbon compounds which have been used as anæsthetics, I will, with your permission, restrict my attention to some of the most important members of the group. This method, I am convinced, will prove the only possible one, as the subject is so wide, and the amount of information so prodigious, that we should hardly profitably deal with more than a few agents. And I would venture to express an opinion that what we, as workers in this important field of pharmacology, most need, is more thorough and intimate knowledge of individual anæsthetics than a superficial, if showy, acquaintance with the plethora of agents which already gluts the anæsthetist's armamentarium.

The prevailing views advanced to explain anæsthesia by the carbon compounds may be summarised: (1) that they act by lessening oxidation of the tissues; (2) that they induce physical changes in the blood, which, in their turn, induce anæsthesia; (3) that they produce anæmia of the brain; (4) that they are capable of affecting nervous tissue directly.

The first view, advanced with considerable force by Dr. Snow, which again and again cropping up as the subject of anæsthesia has come under discussion, may be said to have been finally disposed of at the hands of the committee appointed by the Royal Medical and Chirurgical Society (*Medico-Chirurgical Transactions*, vol. xlviii, p. 329), who showed that chloroform narcosis, although analogous to, is not, in fact, an asphyxia. Claude Bernard (*Anesthésiques et Asphyxie*, p. 97, 1875) also points out that, whenever asphyxia occurs during chloroform narcosis, it happens only as a result of the narcosis, and is not the precedent and determining cause of that state. And, further, we find actual proofs of these statements; for Paul Bert (*Leçons*, 1870) found in experiments instituted upon dogs, that the following changes in the blood occurred. Before anæsthesia, 7.5 per cent. of oxygen

existed in the blood; during the stage of resolution, 12.4 per cent.; and similar results occurred in other experiments.

The only period in which venosity of the blood appeared was when the violent struggles of the individual under experiment impeded respiration, while they enhanced tissue-metabolism. Nor is the evidence brought to a close here; for the committee appointed by our Association, which, in 1881, produced their most careful and valuable report, found that the exhalation of carbonic acid gas was actually increased during chloroform narcosis.

Dr. Richardson has also shrewdly pointed out that there are very many agents, such as nitrite of amyl, powerful stayers of oxidation, which do not assume the part of anæsthetics. Hence the statement "narcotism is suspended oxygenation" (Sansom on Chloroform, p. 62) must, I think, be taken as non-proven.

Nor, indeed, will the second theory survive the test of experiment. Ludwig Herman (quoted by Wood; *Therapeutics*, 279), found that, in the lower ranges of the animal world, among infusoria, etc., chloroform produced a species of narcosis. It has also been shown that, if all the blood be drained from frogs, and an artificial saline medium be injected, they live with apparent normality. Now, if these frogs be subjected to the influence of chloroform vapour they become narcotised. (Lewiss, *Reichert's Archiv. f. Anat. und Physiologie*, 1870.) In a similar way, we find members of the vegetable kingdom affected by the vapours alike of ether and of chloroform. The leaves of the sensitive plant cease to shrink if narcotised, and seeds will remain without any signs of germination when exposed to narcotic vapours; while aquatic plants may be rendered quiescent, as far as growth is concerned, when similarly treated. Now, in all these cases physical changes in the blood can have nothing to do with the matter. It is interesting to note that these narcotic effects in plants, like similar phenomena in animals, are purely transitory. It is an abeyance of vital existence; the thread of life will again be taken up when the narcotic agent is removed. The theory based upon the assumption that anæsthesia supervenes upon anæmia of the brain, seems to be a case of *post hoc non propter hoc*. Cerebral anæmia certainly supervenes on sleep, and on the torpor provoked by anæsthetics. In the functionally active anæmic brain of the frog, chloroform will induce narcosis. Such, and other considerations into which I have no time to enter, seem to me abundantly to show that these theories are untenable. We therefore have to fall back upon an hypothesis which formulates that the action of this group of anæsthetics is one exerted upon the nervous system itself. We shall also see that to this view a rider will have to be appended, to the effect that this action is one which falls upon the protoplasm of the nervous and of the muscular systems.

Bernstein's (Schmidt's *Jahrbuch*, Band 142) researches are also confirmatory of the view that the nerve-centres are themselves directly affected. He found that the action of chloroform upon peripheral nerves was very slight, thus rendering it very doubtful how much of the struggles and excitement of the second stage of narcosis is due to spinal irritation. Bernard and Bert certainly are opposed to the last view. The former holds that the struggles are purely physical, and shows that after section of the spinal cord no such movements occur. It must then, I think, be conceded that, although these vapours can gain access to the nervous system by the lungs, by serous membranes, and possibly by the skin, yet the action exerted is one directly upon the nervous centres themselves.

Prevost found that, if the encephalon of a frog were touched with chloroform, after deligation of the aorta, narcosis resulted, which passed off when the ligature having been removed, the blood-stream again found its way to the brain, sweeping away the chloroform.

In numerous experiments, with which I will not detain you, it has been shown that when the centres are protected, narcosis or anæsthesia is not produced; but that, when the muscles and nerves are similarly treated, while the centres are exposed to anæsthetic vapours, anæsthesia obtains. But, as I shall point out in a moment, chloroform has various ways in which it affects the nervous system. These, for convenience, we will call the direct and the reflex. By the direct, I mean when the chloroform is conveyed by the blood-stream to the cerebro-spinal tissues, and produces gradual extinction of the activity of the centres therein found. The reflex action of chloroform is that action which I believe chloroform to be able to exert upon the peripheral terminations of the vagi, giving rise to cardiac inhibition and sudden death.

Speaking of this reflex action of chloroform, I am anxious that we clearly separate the cases of pure syncope, due to fright, to shock—as when operations are commenced before adequate anæsthesia has been attained—from those which result directly from the action of chloro-

form. Let us consider the last cases first. The mechanism of such deaths is, I think, clearly enough proved to be as follows.

The patient has presented to him an atmosphere impregnated with chloroform, up to a high percentage value. This atmosphere acts as a powerful irritant on the naso-pharyngeal and laryngeal areas, and produces a reflex inhibition alike of respiration and of cardiac rhythm. The patient seems to hold his breath for an instant, and then grows pallid. At this moment his pulse will have ceased, respiration will be in abeyance. In support of this view, I would bring the following facts to your notice. The Committee appointed by the Royal Medical and Chirurgical Society of London, state that, when chloroform was given to dogs, as to the human being, the breathing was often arrested as if by spasm.

Professor Rutherford (*Journal of Anatomy and Physiology*, vol. iii) has also shown that, when a rabbit is exposed to an atmosphere in which is diffused an irritant, it stops breathing; subsequently the heart ceases to beat, and the rabbit expires. Rutherford thus explains these results. He believes that the fibres of the inferior laryngeal nerves are induced to inhibit the action of the heart. In cases in which a preliminary division of the vagi had been performed, this stoppage of respiration did not occur, and of course the heart remained beating. Dr. Richardson found that quite the same phenomena showed themselves when chloroform was the irritant employed. I may also refer to the Research Committee of the British Medical Association on this point. In their fourth Report (*BRITISH MEDICAL JOURNAL*, December 18th, 1880), they describe a sudden fall of blood-pressure following administration of a heavily laden chloroform atmosphere, while, on withdrawing the anæsthetic, recovery took place, and they add, "This occurrence followed so uniformly upon certain stages of chloroform-narcosis, upon every approximation of the sponge containing the agent, even for a few seconds, to the animal's muzzle, that it was regarded as probably reflex."

But although these facts will, I submit, go far to explain the rationale of those melancholy cases of death when "only a whiff of chloroform" had been administered, we must bear in mind that deaths resulting, I think, from chloroform-irritation, occur at a somewhat later period; namely, within the first minute or two—certainly during the interregnum between volitional and unconscious life. Such deaths are far more common than are those of the preceding class. Dr. Brown-Séquard says, "It is by reflex influence due to the sudden irritation of the branches of the par vagum in the lungs, that chloroform has killed in the very rare cases in which the heart's action has been stopped before the respiration." Brown-Séquard proved that no sudden syncope could be induced in dogs after he had divided the vagi. He ascertained also that he could produce quite the same effect by galvanising the medulla oblongata, or the pneumogastric. In this way we see that chloroform-vapor produces death (1) by reflex inhibition of respiration, (2) by reflex inhibition of the heart; in the one case it is probable that the inferior laryngeal nerve (see Rutherford, *op. cit.*; also Rosenthal, *Automat. Nerven-Centra*, 1875), in the other, the pulmonary fibres of the vagus, are the efferent channels whereby the medulla and cardiac ganglia are acted upon.

Granting that these cases of fatal syncope owe their origin to chloroform, and I think we can hardly avoid such an admission, we discover that this agent transgresses one of the canons laid down as to the essentials of an ideal anæsthetic. In a certain number of cases, it invades areas other than sensory, and at a period when the sensory tracts are themselves still in function. Cannot we, however, lessen this evil? Is it not possible by a careful and skilled diagnosis to select such cases, and avoid giving them chloroform? Or, again, may we not so administer our chloroform as to obviate all possible risk of reflex syncope through stimulation of the vagal endings? I will not weary you with statistics, but will give you the result of careful observations and comparisons, which have led me to the conclusion that we cannot ever foretell such casualties. Those persons who seem most robust succumb, while the debilitated and feeble survive chloroform-narcosis; with, perhaps, the exception of persons possessed of a fatty heart, or those habitually liable to syncope. I think one would not be able in any manner to select cases which would *per se* be suitable or unsuitable for chloroform, or would give one either an inward assurance that the administration would be safe, or the converse.

But when we come upon the subject of the methods of administration, I think we have a more hopeful answer to record. The danger of reflex syncope arises from a sudden irruption into the lungs of concentrated vapour; and hence, I submit, any method which employs a large volume of chloroform, or prevents thorough and great dilution, adds to the danger. The method which Mr. Clover habitually employed effectually obviated overdosage; and so, whatever may be

the drawbacks urged against it, it certainly affords a sure and valuable means of avoiding such untoward accidents. However, we have yet to seek how far chloroform confines its action to sensory or harmless areas, when the patient, having passed through the first or syncopeal danger, has entered upon the true anæsthetic stage. And here I would be permitted to enter a protest against attaching the blame to chloroform in many cases when, the patient having been rendered unconscious while yet some reflexes persist, the operation is commenced. It happens only too often that "the shock" in even trifling operations—e.g., circumcision, or for paraphimosis, or the extraction of a tooth, occasions death. These deaths are to be explained (Dr. Lauder Brunton, *Pharmacology and Therapeutics*, p. 174) by remembering that, the vaso-motor centre being lulled to sleep before the vagal centre is affected, the tendency to syncope is not in this case, as in the sentient being, prevented by a reflex constriction of the arterioles.

It is notorious among those who have employed this agent at all largely, that even among individuals there is a marked difference in the dose required to obtain anæsthesia. When operations on the different parts of the body are undertaken, far deeper narcosis for safety is required in some than in others; for instance, excision of the eyeball, and operations about the genital organs. If we be content with a light narcosis in such cases, we subject our patients to grave danger.

Now, returning to the order of the advance of chloroform-narcosis: there is gradual loss of voluntary movement, the reflexes disappear one by one, all the intellectual centres are blocked, and the subject under anæsthesia is simply living, i.e., has only just so much nervous action as will maintain in due working order the vital requirements of the organism. These vital requirements are readily grouped under two classes; circulation, for which we need a healthy heart-muscle, a due correlation between it and its nervous mechanism, a certain maintenance of blood-pressure and respiration, for which is required the function of the respiratory centre, and correlation between it and the mere mechanical actions involved in respiration.

Chloroform, as was shown by Dr. Glover (*Edinburgh Medical Journal*, 1842) can affect the heart-muscle itself, although large doses are needed to obtain such a result, at all events in the case of healthy heart-muscle. Ringer (*Practitioner*, vol. xxiv), who compared the effect upon the heart-muscle of frogs when using chloroform, ether, or ethidene-bichloride, found that chloroform possessed the power of rapidly knocking down the heart, causing it at first to beat more and more feebly, until at length it was alike incapable of beating spontaneously, or yet of responding to excitation. The muscular irritability persists longer after death from ether than after fatal chloroform-narcosis. Dr. Richardson (*Medical Times and Gazette*, 1867, vol. ii, p. 481), who instituted careful experiments upon this, showed that the irritability appeared to persist longer, the smaller the equivalent of chlorine in the molecule; and Wood (*Therapeutics*, p. 217) points out that vermicular movements persist after death from ether. Hence, anticipating a point we shall have to again broach, we may say that chloroform is certainly inimical to protoplasm at the least in a higher degree than is ether.

The action of chloroform upon circulation and respiration was shown by Snow to depend upon the strength of the atmosphere used. Clover, following up the teaching of Dr. Snow (*Proceedings of the Odontological Society*, March, 1868), shows that, if a vapour of over the strength of five per cent. be employed, it caused stoppage of the heart before cessation of respiration; when he worked with a lower percentage vapour, the heart beat for a considerable time after respiration had ceased. Mr. Clover, in making these statements, hazards the view that the human heart is probably more liable to chloroform-poisoning than is that of the lower animals.

In profound narcosis, the heart-rate slows (Committee of Royal Medical and Chirurgical Society, *Transactions*, vol. xlvii), a fact too well known to need my repeating the results of the numerous observers who have experimentally shown its truth. Dogiel (quoted by Wood, *Therapeutics*) believes that this slowing is constant, and the result of irritation of the pulmonary terminations of the vagi by the chloroform-laden blood. When preliminary section of the vagi is performed, the slowing does not, he asserts, take place. But, following upon this slowing, there is a lowering of arterial pressure (Committee of Royal Medical and Chirurgical Society, *Transactions*, vol. xiii, and Grants Committee of British Medical Association, *BRITISH MEDICAL JOURNAL*, 1879).

The importance of these facts cannot easily be over estimated. They reveal that the heart is, so far, working under a disadvantage, and hence will be less able to recover should danger arise from the breathing. Such conditions of the circulation are, I think, strong presumptive evidence against chloroform as an ideal anæsthetic. We are seeking

simple loss of sensibility, and we find that the agent employed attacks the vital centres. The respirations, after an initial retardation, are found to become more shallow; their rhythm may be increased, but, whether or not, there is lessening of amplitude and depth, and, at length, respiratory movements cease. It has been shown (Sir Joseph Lister, in Holmes' *System of Surgery*, third edition) that movements of the trunk, wholly ineffectual as far as respirations are concerned, often persist after respiration proper has ceased, and there is danger lest these should be mistaken by the inexperienced for true respiratory movements. Consecutive upon the cessation of respiration, we find that the pulse weakens and intermits, the heart eventually stopping. It has been found that the deoxygenated blood collects in the right heart; its power, as I have shown, being already lessened by the action of chloroform, now ceases, the muscle being unable to put forth an increased effort in response to the increased call upon it.

None will deny that such deaths occur; about the exact etiology we cannot be so sure. Snow, Clover, and others, have taught that in percentage dosage we find the answer to our question. Given, say they, a dose less than four parts of chloroform-vapour in 100 of air, and you are safe; increase that percentage, and danger impends. Paul Bert (*Comptes Rendus*, November, 1881), on the other hand, proposes to recognise three zones; one, when a chloroform-atmosphere is too dilute to promote anæsthesia; a second, in which the vapour produces anæsthesia and never kills; and a third zone, when the chloroform-vapour percentage is always lethal. Dr. Richardson (*On Death from Chloroform*, *Med. Times and Gazette*, 1870) does not recognise the validity of the percentage doctrine, leaning rather to the view that the chloroform tends to accumulate in the blood, and so exerts at first a deleterious, at last a fatal effect, paralysing the sensory motor areas, at length, the sympathetic ganglia and medullary centres. In each person, it would seem to him, there exists a certain resistive power to chloroform; and in those in whom this is least, fatal issues occur, their vital centres being early invaded, and being unable to resist an influence practically inoperative in other cases.

Whether such views do more than "dimly figure out a distant truth," I cannot pretend to say; the proofs appear unsatisfactory in some particulars. However, there seems to me no doubt at all that chloroform is a powerful protoplasm-poison, and as such its use must be fraught with danger. That chloroform is much maligned, I believe; but I venture to think that the dread of it is wholesome. Another point telling against chloroform as an ideal anæsthetic is that it depresses the bodily temperature, and so conduces to promote the effect of shock (Dumeril et Demarquay, *Archives Gén. de Méd.*, 1848).

We have yet to consider whether any other agent fulfils the canons requisite for the ideal anæsthetic.

Ether, now widely used, may be taken first. Ether, if properly administered, will produce profound anæsthesia more rapidly than chloroform. Ether has been accused (1) of killing patients by asphyxiation from spasm of the glottis; (2) of killing by provoking pulmonary mischief, bronchitis, pneumonia, etc.; (3) of paralysing the respiratory movements; (4) of inducing syncope. Syncope does certainly occur during ether-administration, although very rarely. Gosselin (*Clin. Chirurgicale de la Charité*) cites a case which occurred where an attempted reduction of a dislocated thigh was proceeding. Amidon (*New York Medical Record*), in describing the condition, believes he has succeeded in avoiding this danger by injecting small doses of atropin. One or two cases have since been recorded (*BRITISH MEDICAL JOURNAL*, 1878, vol. ii, p. 602). It is probably doubtful whether these cases are due to ether-inhalation, as we shall see the heart is practically uninfluenced for evil by ether. Ringer has shown how hardly ether will affect the heart-muscle of frogs; and Wood, after noting the same fact, mentions that, when it is injected into the veins of animals, the heart's action remains uninfluenced. While it is easily demonstrable that, when the mammalian heart is watched, artificial respiration being maintained, it will be found practically unaffected by the most enormous doses of ether. When death does occur from cessation of respiration, the heart beats for a considerable time. Moreover, the heart-muscle being intact, it readily resumes its functions when artificial respiration is performed. The action of ether upon the vaso-motor system has been carefully worked out. Arterial pressure is always increased in ether-narcosis.¹

The death from spasmodic closure of the glottis is so rare as practically to be unimportant, save as a means of pointing a moral: for such cases are certainly due to the administration of too powerful a blast of ether to a timid patient. He holds his breath as long as

¹ Chloroform Committee, Royal Medical and Chirurgical Society. Scientific Grants Committee, British Medical Association. Anstie, *Stimulants and Narcotics*. Sanson on *Chloroform*. Bowditch and Miao (Boston Medical and Surgical Journal, 1874; quoted by Wood).

nature permits him; and then, with the attempt at a deep-drawn inspiration, inhales a supersaturated ether-atmosphere. The delicate mucous membrane rebels, and so arises the spasm. Even in such cases, admission of air and pressure on the chest will set matters right. Such accidents, I think, rarely, if ever, occur when Clover's inhaler is employed by one accustomed to its use.

Death from chilling of the pulmonary mucous membrane, giving rise to pneumonia, or, through the direct irritation by the pungent ether-vapour, causing tracheitis and bronchitis, does in a certain number of cases occur. Sédillot (Péan, Clinique Chirurgicale à l'Hôpital St. Louis, 1882, *De l'Anesthésie Chirurgicale*, 1882) found, experimentally, that dogs got pneumonia when ether was introduced through an opening in the trachea. Mr. Lawson Tait (*Practitioner*, March 1876), recognising this danger, invented an apparatus for preventing cold air from entering the lungs. That there is a considerable danger of these occurrences in the case of young and delicate children, I am pretty certain; and I should be glad to learn the experiences of others on this subject.

We now have to deal with the last and most important danger—invasion of the medullary centre and stoppage of respiration. Ether there falls short of the ideal as an anæsthetic, in so far as it travels beyond merely annulling sensation, and attacks vital centres. However, considering the great volatility of ether, and that the advent of apnoea is heralded by marked signs, while the heart remains in active function even after apnoea, we have, I submit, a far less alarming symptom with which to deal than in the case of chloroform-apnoea.

Among the anæsthetic agents belonging to this group, but few, save chloroform and ether, are widely known or largely employed. Methylene, or bichloride of methylene, ethidene, and amylene, have been received with some favour.

Methylene was carefully studied by Dr. Richardson, who gave it a very high commendation. His views were early called in question by Nussbaum in Germany, and Tourdes and Hept and Péan in France, while Sir Spencer Wells took up the cudgels in defence in this country. Subsequently, several deaths occurring, the belief in this agent became shaken. It was further objected by the Anæsthetic Committee of the British Medical Association that the methylene was probably not a simple body. Two years ago, MM. Regnaud et Villejean (*Journ. de Pharm. et de Chim.*, 1883) undertook a research which has recently been completed, and which led them to the following results: that the commercial methylene, obtained through agents accredited by Sir Spencer Wells, and therefore genuine, was a mechanical mixture composed of four parts of chloroform and one of methylic alcohol. Their proofs I cannot detail. They next investigated true methylene dichloride—that is, methene bichloride—a substance very difficult to prepare pure, and very costly. In some comparative experiments, they administered the two agents, finding that, while the commercial agent behaved precisely like chloroform, the genuine methene bichloride produced choreiform and epileptiform convulsions. Unless any flaw can be shown in the work of these gentlemen, methylene cannot, I take it, be accredited with any virtues greater than belong to the long known mixtures of chloroform and alcohol. Obviously, no further discussion on my part is needed.

Ethidene and amylene have, unfortunately, been discredited, as deaths have occurred during their use. Those attributed to amylene are, according to M. Péan, attributable to causes other than the agent employed; and the same may well be said of several, notably the one recorded by Mr. Clover (*BRITISH MEDICAL JOURNAL*, 1878), with regard to the fatalities of ethidene. The behaviour of the group before us reveals, in a striking degree, the working of laws which connect their behaviour towards the organism with the molecular weight of the agent. Thus, Dr. Richardson, comparing a number of them, says: "There appears to be reason for the belief that the lethal energy of an anæsthetic is clearly related to the molecular weight of the substance, increasing directly as its weight increases." However, in summing up the case of the various members of the carbon-series in which chlorine occurs, I think we must admit that, as far as the evidence is now before us, they are all dangerous anæsthetics. But we must remember that the danger of which I speak must, in some cases, be a necessity; and, as a practical anæsthetist myself, I should not hesitate in many conditions to administer chloroform, or a congener, rather than ether.

The thoroughgoing advocates of ether will tell you that ether can and should be administered in all cases, or, practically all cases. They would commend rectal etherisation when faucial etherisation was impracticable. The practice I deem too dangerous for general use, but we must consider it as a possibility.

Turning, however, from the broad issue as to which agent among the general anæsthetics is the safest, we must answer the question—

May not a truly local medication be effectual in promoting an absolute anæsthesia?

Time will not allow me to enter upon the subject; it alone remains for me to ask you to consider how far a local ether spray, the use of rhigolene, or the employment of cocaine, will fulfil the duties of the ideal anæsthetic. I should, from my experience of the former two methods, relegate their use to the most trifling operations of minor surgery, as their powers of promoting anæsthesia are very small, very limited, and very transitory; while, at least with ether-spray, its use is attended with inconvenience to patient and operator.

Of cocaine I will say little; there are others here, far more competent than I am to expound its uses and extol its merits; I will only say that cocaine has probably achieved a position from which it will be hard to oust it. It does not appear to have answered in every case, and its range of usefulness must, of necessity, be restricted within narrow limits.

In summing up, then, I would venture to ask for a careful consideration of the physiological bearings of the question before us; let us take, step by step, the evidence and weigh it in the balance of experience; let us dispassionately judge between the substances under review; and, having arrived at some decision, let us then inquire into the best methods whereby the selected substance can be most advantageously administered. In conclusion, I would remind the Section that I have been, on this occasion, able only to compare the physiological actions of ether and chloroform, so that I must reserve to myself to resume the inquiry into the physiological behaviour of other substances used for producing anæsthesia, upon another occasion.

ON ANÆSTHESIA.

Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Cardiff.

By R. MILNE MURRAY, M.B., Edinburgh.

HAVING been engaged on a series of experiments, for some time past, on the action of the uterus in rabbits, I have been able to make some observations on the action of chloroform on these animals which seem to me of some practical interest; and I venture to take this opportunity of drawing attention to two points which appear to be of chief importance in connection with this debate.

First, as regards the cessation of the air-current under chloroform. Surgeons are already well aware that mere movement of the walls of the chest or abdomen is no proof of the existence of an air-current during anæsthesia. It is known that these movements may exist apparently in normal rhythm and amount, and yet there may not be a particle of air entering or leaving the chest.

The occurrence of this phenomenon in the human subject is most usually explained by supposing that the tongue falls back on the glottis, and in some way blocks the air-passage; and the treatment recommended, and which seems to be successful, is to pull the tongue forward, either directly by dragging on it with forceps, or indirectly by pressing forward the lower jaw, which movement is followed by an action on the tongue through its extrinsic muscles. The explanation of this cessation of the air-current is thus purely mechanical, and its treatment mechanical likewise.

The chloroform in the experiments referred to was administered through a tube tied into the trachea. This tube communicated at its further end with the reservoir containing the chloroform, and, by a side T-tube, with the recording instrument, tambour, manometer, etc. The relative rate and amount of the air-current were thus recorded during the experiment on continuous or smoked paper, as was convenient.

I made a large number of observations regarding the action of different degrees of saturation, as well as on the constant and intermittent administration of such vapours. I do not at present refer to these in general, but wish to confine myself to the following observations.

An animal which had been kept more or less deeply under the influence of the anæsthetic for two hours or thereby by the intermittent administration of a dilute vapour, was breathing in the usual manner, rate and volume being normal. Quite suddenly, on the re-introduction of the chloroform-tube into the reservoir, it was noticed that the pen of the tambour traced a straight line on the drum, showing the cessation of any air-currents in the tubes, while the thoracic and abdominal walls continued to move at their previous rate, and to their usual extent. After a certain length of time the pen of the tambour again began to move, the thoracic and abdominal walls continuing their ordinary movements.

In five different animals this phenomenon was recorded, and I have seen it in others occurring at a time when the recording apparatus was not in action. In one case, the record shows a sudden increase of the respiration-waves, and, following it, an equally sudden diminution, while light levers laid on the chest and abdomen showed no change in the extent of their movements.

In the five cases to which I have referred the cessation of the air-current, as shown by the recorder, lasted for 16, 44, 21, 32, and 28 seconds respectively.

Now such a cessation of the air-current, occurring as it did along with the persistence of the respiratory movements, cannot be accounted for by any obstruction at the glottis, such as the falling back of the tongue, seeing that the air was admitted by a cannula inserted into the trachea; and seems to me only capable of explanation in one of two ways.

1. Either a plug of some sort was formed in some portion of the apparatus, so as to cut off the air from the recorder; or,

2. It must be accounted for by some alteration in the action of the breathing apparatus, by which, while still continuing to move, it failed to effect the regular inflation and compression of the lungs, so that the air-column came to a standstill; that, in fact, while the thoracic walls seemed to be performing their natural movements, no air was passing out and in.

Now I believe I am justified in excluding the plug as an explanation of these tracings, on the following grounds. 1. Dipping the chloroform-tube under the level of the liquid was followed by nearly an almost imperceptible rise of the fluid in the tube. This showed that the plug was not simply in the tambour tube, there being no current in the main tube. 2. The tracheal tube was made of glass, and any plug or obstruction there could be seen. 3. Had the current been cut off by a plug, while the normal movements continued, it is obvious that the latter would have been much exaggerated from the dyspnoea induced. 4. The mechanical closure of the air-tube for even a few seconds, in an animal breathing in the ordinary way, is always followed by violent thoracic movements, which at once attract attention.

I can only explain this cessation of the air-current just described, by attributing it to a failure in the co-ordination of the muscles of expiration and inspiration, so that, in fact, a respiratory stammer is induced. Thus it might come about through the action of the anæsthetic on the centre of respiration, that the action of the diaphragm might be antagonised by the action of the muscles of expiration, and *vice versa*. Further, this inco-ordination might equally apply to the muscles of forced respiration, were these called into play. Thus rhythmic movement of the chest might continue to the eye; and even though a tendency to dyspnoea were induced it would find no expression in the disordered mechanism.

It seems to me no great straining of our experience to suppose that a powerful drug like chloroform, circulating in the blood for a lengthened time, might be quite capable of disturbing the rhythmic action of the centres of expiration and inspiration. We are familiar with the action of alcohol on an associated centre, that of speech, and I see no reason to doubt that a comparable effect may be produced by chloroform on the respiratory centre. If this be so, it bears on an important practical point, and seems to accentuate the importance of disregarding abdominal and intercostal movements, as an indication of the continuation of respiratory currents during anæsthesia, and of the administrator making certain, by actually feeling it, that air is passing in and out of the lungs.

Another observation in connection with this is worthy of note. In an experiment in which the animal had been under chloroform for several hours, the paper web ran out, and while it was being readjusted the tambour ceased working, while the movements of the chest continued. On pinching the eyelid with a pair of pointed forceps, the movements of the tambour at once recommenced. Some time afterwards the tambour again stopped, and again began to move when the eyelid was pinched. It seemed natural to suppose that the shock of the afferent impulse, in some way or other, served to harmonise the disturbed action of the centre of respiration; and it might be worth while considering, in this connection, how far the resumption of natural respiration, after the dragging forward of the tongue in certain cases, may not be the result of a similar reflex, and not merely a removal of an obstruction to the entrance of air.

At the same time, I cannot press this explanation as absolutely proved. I have had no opportunity of determining all its elements. Yet I think it is much the most likely, and bring it before the Section as worthy of consideration, and perhaps of further investigation, by those who have the opportunity of doing so.

In the second place, I venture to draw attention to a mode of resuscitating animals after respiration has ceased under chloroform,

which is attended with marked success in the case of rabbits, and which, I believe, could equally well be applied to the recovery of the human subject.

Experiments on animals, and accumulated experience on the human subject, have gone to show that, of all means which have been recommended with this object, artificial respiration is the most efficient.

I need scarcely say that my own observations tend entirely in the same direction. The method of carrying out such artificial respiration is usually one of three: 1, Marshall Hall's or Silvester's; 2, tracheotomy and insufflation of the lungs through the opening; 3, in simple cases, especially children, mere compression of the chest, allowing it to be filled by its own resiliency. There is no doubt that a very considerable number of lives have been saved by the timely adoption of one or other of these methods. Unfortunately, however, cases occur from time to time in which the patient employment of one or all of these methods fails, and the cessation of respiration becomes permanent. In the series of experiments on the uterus to which I have alluded, my observations were frequently interrupted, owing to inadvertence in administering too much chloroform. Accordingly, I had frequently to practise artificial respiration, with the view of resuscitating the animals. This was effected by simply blowing into the tracheal tube at intervals, and so distending the lung and allowing the air to be expelled by its collapse. Such a process I have found successful in perhaps two animals out of three; but if the same accident happened twice in the same animal, resuscitation was, if successful, a second time effected only with great difficulty, and in most cases it entirely failed.

While performing the insufflation in some of these animals, I was struck by the large quantity of the vapour, which smell and taste showed to be present in the air expelled from the chest at each recoil of the lungs. It was obvious that the saturation of the air in the lung-cells with chloroform must be a serious bar to the re-establishment of respiration, and that the first indication was, therefore, to endeavour to get rid of this vapour as quickly as possible. For, consider for a moment the sequence of events, when we forcibly inflate the lungs of an animal which has stopped breathing under chloroform. Experience has shown that the heart almost invariably continues to act after respiration has come to a standstill. Moreover, in those cases in which the heart has already stopped, it recommences its beat before the first resumption of spontaneous respiratory movements. Accordingly, the increase of tension in the lung following the first forcible inflation, must inevitably result in the diffusion of another dose of the fatal vapour into the blood, which sweeps it on to the centre, and there extinguishes any beginnings of renewed action.

I venture to think that nothing more than this is needed to account for the "few spasmodic" gasps, which, we repeatedly read, have followed attempts at re-animation by Silvester's or Hall's method, in the account of fatal cases of chloroform-poisoning. The statistics of the Committee of the Royal Medical and Chirurgical Society contain the record of many such cases. In such cases, it seems to me likely that the movements of the lungs, caused by the commencement of artificial respiration mechanically or otherwise, excites the heart to somewhat more vigorous action. The respiratory centre is excited by the increased blood-pressure, and a few discharges occur; but its activity is soon extinguished by the stream of blood now coming from the lungs, laden with the deadly vapour which has been forced into it in the way I have indicated. Accordingly, acting on this idea, I commenced attempts at resuscitation by sucking air out of the lung through the tube, and simply allowing the lung to fill with air by its own recoil. This process was aided by compressing the chest-wall gently while sucking the air out. In the course of a few seconds the nostrils began to move, and, after five or six such aspirations, the natural breathing re-appeared, and soon passed into gentle respiration. After a little time the respiration was again stopped by means of chloroform, and again resuscitation was effected by a similar method, this time requiring a little longer for its accomplishment. The same process was repeated twice again—four times in all on this animal; the last experiment commenced twenty-five seconds after breathing had ceased, and occupied about one-and-a-half minutes before breathing was fairly established. Since that experiment, I have made a large number of observations on this method, and certainly have found it most efficient. In only one case have I found it fail in adult rabbits, resuscitation being readily effected four, five, or six times, even after the animal had been upwards of two hours under the influence of the vapour, and in deep anæsthesia all the time.

The successful repetition of the experiment oftener than four or five times was, however, usually prevented by the air-passages becoming obstructed by a pink frothy exudation which developed in them; and I attributed this to the strain on the blood-vessels caused by the

frequent exhaustion of the air-cells. I never saw this appear until after the third or fourth time.

The desire to avoid this, however, caused me to hit upon the following modification, which I have employed recently, and with greater success than simple inflation. This process, which I may term "perflation," I carry out in the following way.

Disconnecting the rubber-tubing, I take the end of the T-tube attached to the tracheal cannula in my mouth, and, closing the branch with the finger, I make one or two aspirations of the lungs, compressing the chest gently at the same time. This removes a considerable quantity of vapour from the upper passages. Then, opening the branch, I make a series of deep inspirations. The air rushes in by the branch, and no doubt the greater part of it passes into the mouth. Yet some of it enters the lung, and a current is thus established by which a very large quantity of the chloroform is rapidly expelled, as can be proved by the taste of the air coming through the tube. After two or three such inspirations, the taste of the vapour becomes fainter; and, as soon as this is noticed, I reverse the process, now blowing air into the tube with force just sufficient to cause the chest-wall to move in the slightest possible degree, the branch-tube being open all the time. Generally, after one or two such perflations, the heart shows signs of vigorous action, and shortly thereafter breathing commences, and continues in a perfectly natural manner. Should it not return so rapidly, and after I am assured, by the absence of taste or smell in the expired air, that the chloroform has been almost entirely removed, then I close the branch-tube, and commence gentle inflation of the lung in the ordinary way.

By such a method, I have resuscitated animals as often as ten times after cessation of respiration, and in these I have little or no indication of the production of the pink froth to which I referred.

Of course, in order to accomplish resuscitation so frequently as eight or ten times, it is necessary, in the later stages, to lose no time between cessation of movement and commencement of the effort; but the mere fact that it can be effected, under any conditions, so frequently, speaks strongly, I think, for the efficacy of the method. In the earlier resuscitations, we may safely wait thirty to sixty seconds before beginning the attempt, provided the animal have not been for a long period under the influence of the vapour. The time occupied in the operation is much less when we begin before the heart has ceased to beat; but I have repeatedly waited until all indication of the heart's action had ceased, both as indicated by the apex-beat and the pulsation in the carotid. But, in such cases, it has been an invariable experience that the heart resumed beating a considerable time before breathing commenced.

Speaking broadly, as regards the difficulty of resuscitation, as indicated by the time required to effect it, I have observed that *the time required to restore respiration varies inversely as the concentration of the dose, and directly as the time required to stop respiration*. That is to say, the more concentrated the dose, the easier was the re-animation; and the longer respiration continued under the action of the vapour, the more difficult was the re-animation. This observation corresponds with that made on the same point by the Committee of the Royal Medical and Chirurgical Society.

Thus the greatest difficulty was experienced in re-animating animals which had succumbed under the long action of dilute vapour intermittently administered. This appears to me to be explained by the fact that chloroform is primarily a respiratory poison, and that, if given in sufficient quantity, it stops the action of the respiratory centre before it affects the heart. Accordingly, the heart may be beating vigorously some time after the respiration has ceased under the concentrated vapour. On the other hand, the prolonged circulation of the vapour in the blood ultimately affects the cardiac action, and consequently, under dilute chloroform, the heart may stop with, or immediately after, the respiration, and hence the difficulty of resuscitation.

It is with diffidence that I venture to offer any suggestion whatever on so grave a matter as the method of re-establishing respiration in such cases; and this all the more, when the suggestion refers to a mode somewhat different from that ordinarily employed and sanctioned by experience. But the fact remains, that the ordinary method sometimes fails in its object, which failure may, in certain cases at least, be accounted for by a defect which I have indicated. Encouraged then by the success of the experiments on animals peculiarly susceptible to the action of chloroform, which has followed the method I have described, and convinced of the physiological soundness of the principles involved in it, I would venture to suggest that in any case of respiratory cessation under chloroform (with the heart beating after respiration has ceased), and where the removal of the vapour from the face, the drawing forward of the chin, and compres-

sion of the chest, have failed to restore breathing, the method of "perflation" should be tried without delay. It might be done, in lieu of a better means, by a gum elastic tracheal tube, provided with a conical collar to make it fit tightly into the glottis, and prevent it from slipping too far in. This could be slipped over the tongue and into the glottis, and the collar pressed down into the rima. The mouth is applied to the tube, and several deep inspirations made. The mouth is withdrawn from the tube after each aspiration, in order to let the lungs of the patient fill with pure air by the recoil. When this has been repeated several times, the tube might then be slightly withdrawn, so as to separate the collar from the glottis, and the process of perflation commenced by making deep and forcible inspirations. Air will rush into the trachea by the side of the tube, and a current will be established which will tend to carry air into the lung and sweep out the vapour. So long as any distinct odour of chloroform accompanies the air withdrawn, the process should be continued, provided the natural respiration do not return. When all indications of the presence of the vapour in the lung have disappeared, then the inflation of the lung may be commenced, either by forcing air in through the tube, or by Marshall Hall's or Silvester's method. I should expect that most frequently the natural efforts would show themselves before this was necessary.

Mr. BAILEY (London) would confine any remarks to the practical side. Dr. Milne Murray had spoken solely of chloroform; and he thought he understood him to say that chloroform had its principal effect on the respiration. But he (Mr. Bailey) thought it had been always understood that respiration was primarily affected by ether, while chloroform affected the heart in the first instance. That being the case, ether must be a less dangerous agent than chloroform; at any rate, here was a very important thing to remember. Mr. Clover was probably the best anaesthetist in the world, and he invented the best instrument for giving chloroform. Mr. Clover had 5,000 recorded cases without a death; but soon after that he had two. Mr. Bailey had never had one. Now, if Mr. Clover had deaths from chloroform given as he gave it, it might be certain that other men would have more. Clover finally gave up using chloroform. There was another important result. All Scotch surgeons liked chloroform; and it was the same in London among Scotchmen. Writers in the BRITISH MEDICAL JOURNAL had, for the last few years, constantly upheld ether as a safer anaesthetic than chloroform. Dr. Buxton said nothing about nitrous oxide. This was a most useful agent; but it could not be kept for very long with advantage; and it did not do for long operations. For short operations, so perfect was it, that Mr. Bailey was constantly telling medical students that, before long, every medical man would keep it in his house and use it with no more hesitation than he would about any other drug. It was the first of anaesthetics. The next, in his opinion, was unquestionably ether. He always preferred to use ether, giving, perhaps, a little nitrous oxide first. Ether could be given in nearly all cases where one did not use the actual cautery about the mouth or face. His own practice in these cases was to keep up the anaesthetic by blowing, over a Clover's apparatus, chloroform into the mouth. Ether, again, should not be used whenever there was anything the matter with the lungs—phthisis, pneumonia, etc.; there chloroform was preferable. There were mixtures of chloroform and ether. Bichloride of methylene was only a mixture of chloroform and alcohol, and was an unreliable preparation. Nor did he think very highly of the mixture of ether and chloroform; the ether evaporated and left pure chloroform in a week. In eye-cases, he was in the habit of giving four parts of ether to one of chloroform; and this did very well, too, in cases of ovariectomy and abdominal surgery generally. The reason why ether was not more used was doubtless that the apparatus was rather difficult to get. It was very important to know what dose of chloroform or ether was being given; and many of the contrivances were absolutely wanting from this point of view. Chloroform was much easier of administration, and there was an absence of the suffocation which attended the usual administration of ether, though the latter was due to unskilful manipulation; hence it was not to be wondered at if chloroform were generally preferred. In the earlier models of Clover's apparatus, there was no valve to the mouth-piece; and this was apt to give rise to a sense of suffocation from breathing the same air over again; but latterly a respiratory valve had been added, which was quite under control. No other valve was necessary; because, if fresh air were desired, one had only to lift the mouth-piece. With this apparatus he generally got his patient under in five minutes, and that was as rapidly as could be done with three per cent. of chloroform. His advice was, give your anaesthetic boldly, but not rashly; simply do not be afraid of it, and give it profoundly. Semi-anaesthesia was the very worst thing possible;

it was then that the patient was in danger of dying from syncope. In fatal cases, death took place in a very short time, and for this reason the pulse should never be left. Should this falter or stop, the mouth-piece must be removed, and Howard's plan tried; the chest should be immediately clutched, and the resiliency of the chest-walls would fill the lungs with fresh air. This must be done three or four times; then artificial respiration must be kept up for half an hour or so. It was not persons who had heart-disease or lung-disease who died off abruptly; indeed, as to why they died, nothing was known. It was the healthy man who had been taking chloroform a minute, and then suddenly died. It was very essential to empty the lungs of the poisoned atmosphere, followed, if possible, by the subcutaneous injection of ether. He thought it might be assumed that chloroform was decidedly more dangerous than ether; and it ought to be placed prominently before the profession that deaths from ether were almost unknown. Again, it was very much easier to do something useful when it was the breathing which ceased, then when it was the heart that suddenly stopped. He used pure ether, of specific gravity 723; and he used this because it was the only one that mixed with chloroform.

Mr. MARCUS GUNN (London) said that, in connection with the subject of general anesthesia, the first great desideratum was efficiency. Numerous agents were known to produce the desired effect, chief among these being chloroform, ether, bichloride of methylene, and nitrous oxide gas. Next to efficiency, safety was desired, and this division of the subject might be considered in three parts. 1. The anæsthetic agent. A perfectly safe anæsthetic had not yet been found, nor was it likely ever to be obtained. For very short operations, nitrous oxide was probably the safest agent; but its field of usefulness was extremely limited. Where the anesthesia had to be maintained for some time, Mr. Gunn agreed with Mr. Jonathan Hutchinson, that chloroform was most suitable for very young children and for adults over 60, while ether was preferable for patients between these extremes of life. It was most convenient to be able to give either of these separately, or to combine them at will in proportions varying according to the necessities of the case. In all people with a tendency to bronchitis ether must be given with caution, as it had been known to induce an acute attack of that affection. Whatever agent were employed, perfect anesthesia should be produced before the operation was commenced. In giving chloroform to very young children, especial care should be taken not to push the anæsthetic far after the stage of unconsciousness had been reached, as there was then liability to long-continued profound stupor, with exceedingly weak cardiac action. 2. Condition and preparation of the patient. As a general rule, in the case of adults, no food should be given for four hours previous to the operation. Where there was great prostration it might be advisable to give egg-flip, or beef-tea, a couple of hours before; but a nutrient enema was probably preferable in such cases, followed by a stimulant just before beginning the anæsthetic. Very young children might be allowed nourishment two hours before operation. It was well to examine the condition of the heart in all cases, taking care not to cause alarm by so doing. Generally, the patient was much more satisfied when this examination had been made. If he were aware of, and anxious about, the existence of valvular disease, he must be reassured, since such a condition was not an evident source of danger. Again, when there was reason to suspect the presence of fatty heart, it was well for the administrator to be put on his guard, so that every precaution might be taken, and ether used in preference to chloroform. Where shock was to be apprehended, from the nature of the operation, or the condition of the patient, it was advisable to inject subcutaneously about $\frac{1}{16}$ th of a grain of sulphate of atropine, with or without a small dose— $\frac{1}{16}$ th of a grain—of the hydrochlorate of morphia, a quarter of an hour before giving the anæsthetic. Care must always be taken that there was nothing tight pressing on the abdomen, chest, or throat, and any artificial teeth present must be removed. The patient should be recumbent, with the head slightly raised. If his mind dwelt on the danger of the anæsthetic, every endeavour must be used to put him at his ease, and, if possible, to direct his thoughts into some other channel. 3. Method of administration. Mr. Gunn's opinions on this subject were mainly founded on experience gained while house-surgeon at Moorfields Hospital some years ago. The apparatus which he found most satisfactory, was Clover's small ether-inhaler. By the addition of a valve on the tube connecting the ether-chamber with the bag, he was able to empty the latter without moving the face-piece, and he found that chloroform-vapour could be conveniently added to the ether by the same means. The index on the ether-chamber being placed at zero, a double layer of lint, with a few drops of chloroform on it, was placed above the valve, and the latter opened by means of finger-pressure. The face-piece was next adjusted, and the patient desired to breathe quietly. The first few inhalations of air, mixed

with chloroform-vapour, were sufficient to dull the sensibility of the larynx to ether, and pave the way for this more irritating agent. The index was now gradually moved onwards, so as to give more and more ether, until anesthesia was produced, more chloroform being poured on the lint, if judged advisable. Just after commencing the ether-inhalation, it was well to encourage the patient by telling him that he was doing very nicely, as at this stage there was apt to be a disagreeable choking sensation, which might cause alarm. The contents of the bag might be renewed at will by simply squeezing it, and keeping the valve open until it was re-filled. By the above method, perfect anesthesia could generally be induced without any struggling or other bad symptom. The movements of the bag were a good indication of the breathing, both as to depth and to regularity; and one finger of the left hand, placed over the temporal artery, would keep the heart's action under observation. Any change in the appearance of the face must be noted. Complications must be met as they arose. If there were struggling or coughing, the amount of ether should be lessened, and more chloroform given, until the tendency passed off. If there were vomiting, the patient should be turned on one side, until it ceased. Collections of mucus in the back of the throat might be removed by means of small pieces of sponge, held in a long slender pair of forceps. The most common cause of difficulty in the breathing was the falling back of the tongue, and this could generally be overcome by placing the fingers behind the angles of the lower jaw, and tilting it well forward. If this proved insufficient, the tongue should be grasped with forceps, and dragged forward and slightly upwards. On serious failure of respiration the anæsthetic should be removed, and the finger passed into the pharynx, so as to make sure that no vomited matter or other foreign body was lodging there. If there were no such local obstruction, recourse should at once be had to artificial respiration, and the naked chest flicked with a wet towel. In cardiac failure, the patient's head must be placed low, and the anæsthetic removed promptly. Artificial respiration should be employed, if necessary, and flicking with a wet towel, and a drop or two of nitrite of amyl given by inhalation, followed by a little carbonate of ammonia. Mr. Gunn had never seen any benefit from the use of the continuous or interrupted current. All anæsthetics were apt to cause sickness in some individuals. The most important factor in relation to after-sickness seemed to be age, the liability being at a maximum about the commencement of puberty, and decreasing gradually towards each end of life. Ages being equal, the tendency to after-sickness was nearly the same with ether and chloroform; but the nature of the sickness differed in the two cases. Ether-sickness seldom lasted long after the stomach was emptied, though there might be complaints, for some time, of a nasty taste in the throat. Chloroform-sickness often continued for several hours, and led to great exhaustion. Apparently, the only precautions that could be taken against it were abstinence from food for a few hours before the administration, and giving as little of the anæsthetic as possible. Chloroform was by far the most pleasant anæsthetic to most patients, but the excitement produced was considerable, and this often led to a good deal of shouting and struggling. The smell and taste of ether were exceedingly disagreeable to many. It was apt also to cause much secretion of mucus in the throat, and to irritate the air-passages, thus occasioning coughing and spitting, with restlessness. By a regulated combination of the vapours, as by the method already described, the disadvantages of both were in great measure avoided, and full anesthesia could generally be induced without any struggling. Rapidity of effect was a comparatively unimportant characteristic of an anæsthetic; but, other things being equal, was by no means to be disregarded. In the case of young children, chloroform produced anesthesia with great rapidity, and it was generally satisfactory in this respect also in adults. Ether given on the sponge required a longer time; but when a bag-inhaler was used the quickness of its effect was markedly increased. The average time taken by Clover's apparatus, employed as described, was about four minutes for adults, and considerably less for children and young adolescents. Ease of administration was especially important when the administration had to be conducted by one unaccustomed to giving anæsthetics. Ether, given on the sponge, was decidedly more difficult than chloroform; indeed, it was probably from the ease with which it could be administered that the latter was usually chosen in general practice, where the ad-

2 For several years past nearly all the patients requiring anæsthetics at Moorfields have been treated in the manner here described. While anæsthetics have been given about 15,000 times during this period, only one death has occurred during administration. This small death-rate is probably partly due to the usually good general health of ophthalmic patients, and to the comparatively short nature of most of the operations; but Mr. Gunn believes it is mainly owing to the anæsthetics given, and the manner of its employment. It must be remembered that many of the out-patients are quite unprepared for an operation, that the anesthesia required is profound, and that each new senior house-surgeon conducts the administration during his period of office.

ministrator had too frequently had few opportunities of giving anæsthetics. An apparatus of any sort was often avoided, because it was believed to increase the risk, and add to the difficulty, whereas in reality both were much diminished with an inhaler such as Clover's. In regard to cocaine, to no department of surgery had it proved so important as to that of ophthalmology. A two per cent. solution of the hydrochlorate was dropped into the conjunctival sac, with the effect of rendering the cornea and conjunctiva completely anæsthetic, and of blunting the sensibility of the iris and the subconjunctival tissue. Two facts must be borne in mind in its use: that repeated instillations increased the effect, and that the anæsthesia soon passed off. From ignorance of these characteristics, Mr. Gunn was disappointed with it on the first occasion on which he employed it; it was then only once dropped into the eye, and fifteen minutes were allowed to elapse before the operation was performed. Since then he had used it for operations on the eye, including iridectomy, cataract-extraction, tenotomy, and even excision of the globe. In the two latter operations it should be dropped again into the eye, after the conjunctival sac had been opened. For iridectomy, a stronger solution than that usually employed (15 per cent.) should be used. When the eyeball was acutely inflamed, cocaine only produced an imperfect anæsthesia. Soon after its introduction into this country, Mr. Collins, junior house-surgeon at Moorfields Hospital, found, by experiment on himself, that a subcutaneous injection of this drug produced anæsthesia in the immediate neighbourhood of the puncture. Acting on his suggestion, Mr. Gunn shortly afterwards removed a long-embedded foreign body from beneath the skin of the eyelid, without causing any pain. Many other surgeons had employed it in this manner, and had recorded their satisfaction with the result, and it was even asserted that, when it was injected along the trunk of a nerve, the area of distribution of the latter was rendered anæsthetic.

Dr. REDWOOD (Rhydney) offered the suggestion (which he thought he had seen made before) that the explanation of some sudden deaths from chloroform might be found in the quality of the chloroform used, as he had often noticed that the freshness, or perhaps purity, of the chloroform had a marked influence on the rapidity and ease with which patients were brought under its influence. Four years ago, he had three cases—two women and a man—one after the other. Death in the latter case occurred before the operation had been begun, but the first two cases recovered with the usual remedies. There were change of colour, stoppage of pulsation, and cessation of breathing; in each, the chloroform was given under his supervision, as he had always been in the habit of giving it, on a double piece of lint held not too close. In each, the quantity used was small; and the chloroform used was out of the same stock-bottle, which, however, was kept in a cool dark place, but had been in his possession for some time, and was therefore old. The first patient was a remarkably strong healthy old woman; the other was not so strong, but had a healthy heart. In thinking over these cases, the only conclusion to which he could come was, that something was wrong with the chloroform; but what that was he could not say.

Mr. J. HANCOCKE WATHEN (Clifton) said that no reference had been made to the mode of resuscitation advocated by Dr. Sims by inversion of the body. Dr. Marion Sims told his tale in a very glowing manner, and referred to a case where he passed a very bad quarter of an hour; and Mr. Wathen was glad to say he owed at least two persons' lives to this method. He would like to ask the opinion of those more experienced than himself in the matter as to the long retention of chloroform in the system. A child had undergone some operation for which chloroform was administered. Six or seven weeks after the operation, Mr. Wathen's father was called to see the boy, who was somewhat jaundiced; and the first thing he said when he entered the room was, "What a smell of chloroform there is here." The mother, moreover, stated that the same odour had attracted their attention. The boy was not diabetic. Whether the chloroform had anything to do with the jaundice, he could not say; but his father assured him that the odour was unmistakable.

Dr. TALFOURD JONES (Brecon) was glad to hear from Dr. Buxton and Mr. Bailey that it was well to push the chloroform. He had seen many men go to work too carefully; they thought the danger was all in giving too much. He thought that it was in the second or intermediate stages more especially, when the bystanders were holding the limbs, all muscular exertion being very bad, that death was apt to supervene. The proper course in the second stage was to push it boldly. After that we must watch with care, and use it in moderation. In looking over the paper of Professor Chiene, he saw that he mentioned that, in order to relieve the sickness which followed ether, he used morphia beforehand; but Dr. Jones had always heard that it was not proper to use morphia alone, on account of its depressing action

on the heart; and he had advocated a mixture of atropine for that very reason. Dr. Fraser had told him he used the atropine in the proportion of five to one. It rather surprised him that no mention had been made of nitrate of amyl in cases of chloroform-poisoning. He thought it the most useful remedy at our disposal. It had been the means of saving a good many lives. Perhaps he was a little enthusiastic about it, possibly because, he believed, he was the first to suggest, in a paper in the *Practitioner* in 1871, that it might be of use in such cases. It had a tendency to obviate the condition of cerebral anæmia. He had observed, on several occasions, that it had undoubtedly been very beneficial. A bottle of ammonia was another very useful adjunct to have at hand. Of course, inversion was the most useful means of all. There were remarkably few deaths from chloroform in obstetric cases, and this was most probably due to the congestion which prevailed at this time. He had lately used the mixture of alcohol, chloroform, and ether in the proportion of one, two, and three, and found it a very useful preparation.

Dr. HAMPTON (Plymouth) administered anæsthetics in a hospital where methylene had been used ever since its introduction, and the practitioners had been very well satisfied with it. Although it had been given many times and for many years, only one death had occurred in the district. It was said that the Scotch school were very well satisfied with chloroform, and he was not aware that the percentage of deaths from ether in Scotland was greater than in London. The greater number of deaths from chloroform might be due to its being used more frequently than any other anæsthetic; and ether was almost invariably given by means of an apparatus, while this was not the rule with chloroform. Again, statistics of the percentage of deaths from particular anæsthetics were of no value, unless the conditions under which they were administered were known. He saw a paper not long since in which it was said that it was absolutely useless to invert the patient, because, on account of the valves in the veins, it was impossible that any blood could regurgitate into the brain; but in practice it was really useful, for example, in faintness.

Mr. MORGAN said that his brother, the late Dr. Morgan of Dublin, had gone very systematically into the matter, and had found that chloroform was five times more dangerous than ether. He invented an inhaler, which was as good as any he had seen.

Mr. WEBSTER (Merthyr) said that doubtless a good deal depended on the habit of the individual practitioner as to his choice of anæsthetics. Personally, he always used chloroform. Cocaine was very valuable, even deep sensation being often annulled. He operated lately for empyema, and had painted a five per cent. solution on the line of incision five minutes before the operation; and the patient complained of no pain whatever throughout the operation.

Mr. MAKUNA (Ystrad) asked whether, when a mixture of chloroform and ether was recommended, the primary action of the chloroform on the heart, or of the ether on the lungs, was noticed at all, or what was the object of the mixture. He had seen it used very largely in India, and had administered it in Bombay in 1,300 cases; and, as far as he could remember, the experience of surgeons who gave it in some thousands of cases simply on a piece of lint was without a single death. He had always been satisfied with chloroform.

Professor FRASER expressed his surprise at hearing that patients could be anæsthetised with ether in five minutes. He did not believe in the difference alleged to exist in the relative mortality of chloroform and ether. Nothing he had ever heard would lead him to believe that ether was distinctly preferable to chloroform. There had been a few fatal cases lately: but, during ten years, there had been scarcely any. Ether was only now commencing to extend in this country, and it might happen that, although at present there existed a comparative immunity, in the next year that immunity might no longer exist. There was one point which had been alluded to by one or two speakers, and by such an authority as Claude Bernard, that nitrous oxide, as generally administered, was the safest of anæsthetics, and it would be the more useful if it could only be given under pressure. At present, it required cumbrous apparatus; but he had no doubt this would soon be overcome; though even then the question occurred as to whether it could be given for so long a time as to justify its expense. Dr. Fraser was not disposed to attach much importance to atropia, except as a prophylactic agent. He raised the question as to whether the administration of morphia and atropia beforehand was really of practical value. He himself thought it might be, by preventing shock; but inasmuch as the action of morphia was somewhat analogous to that of the anæsthetic, there was a danger of an overdose of the latter. He thought, too, that the mental condition of a patient who was taken, while conscious, into an operating theatre with many onlookers, was decidedly prejudicial.

Dr. DUDLEY BUXTON said that he had intended to deal, had time allowed, with many of the points which had arisen in the discussion.

He did not think, at any rate in the lower animals, that the prior administration of atropine and morphia had any effect in preventing death through stimulation of the vagi and inhibition of the heart. He was of opinion that the administration of morphia undoubtedly possessed some advantages, as in avoiding shock; but the resulting narcosis was often very prolonged, and might cause alarm. He was of opinion that Dr. Ormsby's ether-inhaler, as used by Professor Chiene, was a very poor improvement on the cone used in America. Of course, if the ether were badly administered, one had no right to complain of what happened. In the case of children, years ago, he had attempted perfusion after tracheotomy through the wound, with only slight success; but in the rigid chests of elderly people, when calcification of the ribs had occurred, the method would probably be useless. He had not noticed nitrous oxide, because he was tied to time; however, anaesthesia had been maintained by this agent for twenty minutes or half an hour without danger. Mr. Bailey alluded to the inapplicability of ether in operations about the mouth, and where the actual cautery was used, but there was another way of giving it, namely, by the rectum. In some cases this plan had answered admirably; in other cases, dysenteric diarrhoea had occurred, with bleeding from the rectum. In one case, the child's abdomen became suddenly very distended, and the child ultimately died; so that he had no doubt that it was, on the whole, a dangerous practice. The method of resuscitation was too wide a subject to enter into in any detail. Mr. Wathen had alluded to inversion, and it certainly did answer in some cases; but it had been shown by Dr. Eben Watson that, in the condition of chloroform-poisoning, there was too much blood in the heart, and, by inversion, a still greater supply was sent to an already overburdened organ. Dr. Talfourd Jones said, very rightly, that one ought to push chloroform narcosis in the stage of excitement, and Dr. Buxton was always impressing this on students. As to nitrite of amyl, he could not agree with Dr. Jones as to its usefulness. A great many cases had been recorded where no recovery had followed its administration, and he thought it possible that those cases where it did good were cases which would have recovered anyhow. With regard to deaths from chloroform in obstetric practice, a speaker seemed to think they did not occur; but in the *Medical Times and Gazette*, as far back as 1860, Dr. Kidd said: "I can no longer say that deaths have not occurred from chloroform in obstetric practice"; and since then, no doubt, the list had been swollen by those who used chloroform pure and simple. Methylene was more dangerous, and many deaths had already occurred from its use, two of them quite recently. He did not attach more importance to statistics than anybody else; but in America, where ether had been used almost exclusively—and the Americans even went so far as to say that the administration of chloroform was practically a criminal act—the deaths from ether were far behind those occurring from the use of chloroform. The apparatus might not be without some influence; but in America, where the cone was used, a most unscientific way, the returns were much more favourable than those of chloroform.

Mr. ALFRED S. GUBB (London) said that the advantages claimed by Mr. Bailey for the gradual administration of ether to the patient were, to some extent, counterbalanced by the stage of excitement which generally accompanied it. Its irritating action on the lungs, too, was a great drawback. A very good practice was that, often followed, of getting the patient rapidly under with chloroform, and then continuing with ether. He spoke strongly of the apparent benefit which had followed inhalations of nitrite of amyl in cases where both pulse and breathing had ceased, provided precautions were taken, by means of an artificial respiration or two, to ensure its entrance into the lungs, the amelioration in such cases being immediate and striking. The negative results quoted by Dr. Buxton simply proved nothing at all. As to cocaine producing temporary anaesthesia of deeper parts, this, he was sure, was not the case generally, as even reiterated applications never annulled sensation sufficiently to secure the painlessness of an operation for squint. It answered well enough for cataract, though patients often winced when the iris was touched; and, if any inflammation, or increased tension, were present, cocaine was absolutely without effect, except on the most superficial structures.

ON ANÆSTHETICS.

Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Cardiff.

By JOHN CHIENE, F.R.C.S. Ed., F.R.S.E.,

Professor of Surgery in the University of Edinburgh; Surgeon to the Edinburgh Royal Infirmary.

THE following paper is a reprint of a lecture delivered to my class of surgery in 1876, which was published in the *Practitioner* in January,

1877. This lecture was the result of ten years' experience in giving chloroform, following closely the instructions of the late Mr. Syme, received from him during my student-days. Looking over that paper to-day, I have nothing to retract, and very little to add; what I do add is in brackets inserted in the text, and is the result of a second decade of experience in the administration of chloroform.

During these twenty years, I have been present at one death, which undoubtedly occurred in consequence of severe stretching of the second division of the fifth nerve, acting reflexly and suddenly stopping the heart. Looking back on that case, I am of opinion that, if the patient had been more deeply under the influence of the drug, the death would not have happened. I felt at the time that I was greatly to blame, as I was standing beside the administrator. My house-surgeon had a fatal accident when amputating a finger, in January, 1880. This case is described in the *Edinburgh Medical Journal*, May, 1880. No death has occurred in any patient on whom I have myself been operating. I have every now and then been very anxious, but forcible pulling forward of the tongue has dispelled the dangerous symptoms, and artificial respiration has not been found necessary. The main danger encountered has been difficulty of breathing from laryngeal obstruction, accompanied by lividity, in which the methods described in the paper have not been adopted sufficiently early, and in which engorgement of the blood-vessels in the lungs and the right cavities of the heart has resulted secondarily. Occasionally, there has been pallor, indicating weakness of the heart's action, either from loss of blood or from shock, due to an imperfect abolition of the reflexes, from an insufficient quantity of chloroform having been administered. I have never had a case in which the cardiac centres have been directly acted upon by the chloroform. I have never required to bleed from the external jugular vein in cases of secondary engorgement of the heart mentioned in the paper. I have on several occasions, however, found great good from encouraging venous bleeding at the wound in such cases.

After the death which occurred in my wards, I gave ether a trial for one year, with Ormsby's inhaler; one of my patients died on the day after the operation, with severe bronchial symptoms, referable, in my opinion, to the ether. Ether had also this disadvantage, that the patient often suffered from continuous sickness for two or three days after the administration. I then returned to chloroform, using an injection of atropine and morphine twenty minutes before administration. My attention was directed to the value of this combination by my house-surgeon, Mr. W. H. Dobie, now of Chester. He learnt it from Professor T. R. Fraser's lecture. It was first used in this form, September 1880: Solution of hydrochlorate of morphine $\frac{5}{16}$, solution of sulphate of atropine (freshly prepared) $\frac{1}{16}$. Ten minims for hypodermic injection.

The prescription now in use, since January 1883, is—Atropine $\frac{1}{16}$ th of a grain, hydrochlorate of morphine 2 grains, distilled water 1 ounce. For hypodermic use: Ten minims—atropine $\frac{1}{16}$ th of a grain, morphine $\frac{1}{16}$ th of a grain.

My head nurse, an experienced woman, whose duty it is always to be beside the patient after his or her return to the ward, and who has been with me since I became a surgeon in the infirmary, has observed that the patients complain greatly of thirst and dryness of the mouth, undoubtedly due to the atropine; even with this disadvantage, I am inclined to persevere with the preliminary injection of atropine and morphine, because physiologists speak so decidedly about the value of the drug in lessening the tendency to reflex inhibition of the heart's action. The after-sickness is unaffected by the use of atropine and morphine. I do not use the injection in children; it frightens them, and probably is not required. At one time, I used to give brandy before an operation, to try to prevent after-sickness. I could not satisfy myself of its value. I still, however, give it occasionally in nervous and weakly people; it gives them courage, and has perhaps some effect in lessening the after-sickness. There is no fact which strikes me more than the great difference in different people as regards the after-sickness; in those in whom one might expect it, it does not occur at all, and *vice versa*. The same patient is sick at one time and not at another. I think that the more chloroform is given the greater is the sickness, although this is by no means a general rule. One reason why I have persevered with the inhaler, described in the text, in hospital-practice, is with the hope of lessening the after-sickness, because with it undoubtedly less chloroform is required than with the towel. It is a question, however, whether the patient really gets less; the waste certainly is lessened.

As regards the treatment of the after-sickness, avoid giving any nourishment for some hours before the operation; after the operation, give the patient ice to suck, apply a mustard-poultice over the stomach; and, if the retching is severe, the greatest comfort will be experienced

by giving the patient large quantities of water, as hot as possible, to drink. The first tumblerful is vomited, the second often remains down, and acts as a distinct sedative. This valuable suggestion I learned from Mr. A. G. Miller, surgeon to the Edinburgh Infirmary. Even at the worst, chloroform-sickness is nothing compared with the persistent nausea, lasting often for two or three days, after ether has been administered.

I have never systematically used a mixture of ether and chloroform, nor have I tried any of the new anæsthetics lately introduced. I am of opinion that no form of anæsthesia is safe, and to aim at obtaining an absolutely safe anæsthetic is to follow a shadow. There is this danger in lauding any anæsthetic as safe: it will certainly make the average administrator careless.

Lastly, an occasional editorial article in some of the leading medical journals, pointing out the lives that are saved by the administration of chloroform, would do good, and would, to a certain extent, neutralise the effect of those editorial remarks [which find their way to the public prints] often headed "Another death from chloroform." Very frequently, the sad accident is the result, not of chloroform, but of improper or imperfect administration. The surgeon is afraid to give a sufficient quantity; he is in dread of a coroner's inquest. He examines the heart before administering the drug, to protect himself from a verdict of negligence in the discharge of his duty. He examines the heart at the *post mortem* examination, and is relieved to be able to say that there were evidences of fatty degeneration present. The cases which most urgently require anæsthetics are the cases of weakened heart. These are the people who died from shock in the days before anæsthetics were given. In them it is of paramount importance to give chloroform to such an extent, that all the reflexes are abolished. The number of lives saved infinitely exceeds the cases of fatal accident; very rarely are the fatal cases really deaths from chloroform; they are deaths occurring during the administration of chloroform. In the first case in which chloroform was to be administered by the late Sir James Simpson, in the Edinburgh Infirmary, he did not arrive in time; the patient died of shock before the operation commenced. Some one said: "It is as well Simpson did not come; if he had, there would have been an end to chloroform." Not so; if Simpson had given chloroform, the patient would have been saved from shock, and his life preserved. At a dinner-table recently, at a discussion about football accidents, a wise lady, the mother of a distinguished Scottish player, made the remark: "No one ever seems to think of the number of young men who are made stronger by playing football; people only think and speak of the evil and forget the good results." For football, read chloroform; for dinner-table, read medical societies. It is well to dwell on the lives saved in discussing the rare accidents which may occur during the administration of the drug.

The following is the paper to which I have referred.

The present outcry against chloroform is the result of an imperfect understanding of (A) its physiological action; (B) the proper method of administration; (C) the dangers which may accompany its use, and their treatment; (D) the dangers which follow its abuse, and their treatment.

The more perfectly the surgeon understands these considerations, the greater will be his confidence when called upon to give the drug. Confidence on his part will impart confidence to his patient; knowledge of the dangers may make him more anxious at first, until he gains experience, but this is surely safer for the patient than the ignorant confidence of the administrator who has not this knowledge. Ignorance may be bliss; knowledge certainly is power.

A. Its Physiological Action.—Chloroform is, first, a stimulant; second, a sedative; when inhaled, it passes into the blood and poisons in a certain order the nervous centres.

Its effects may be classed under five heads: 1, Abolition of voluntary motion; 2, Abolition of sensation; 3, Abolition of reflex action; 4, Stoppage of respiration; 5, Stoppage of the heart's action.

Our object is to obtain the first three effects, and to avoid the fourth and fifth. It is not necessary to discuss the exact order in which these effects take place. The great practical fact is this, that the first three always precede the fourth and fifth when the stoppage of the respiration and heart's action is due to the chloroform. It is to be remembered that, when laryngeal obstruction occurs, respiration may cease from faulty or delayed treatment on the part of the administrator. The heart's action may cease from shock, too little chloroform having been given before commencing the operation. The action of the heart may also cease, in consequence of engorgement occurring secondarily to a delay in the treatment of laryngeal obstruction. These dangers are preventable accidents which may occur during the administration, and are in no way to be confounded with stoppage of the

respiration and heart's action, directly due to a poisoning of the respiratory and cardiac ganglia by an overdose of the drug.

Chloroform is a cumulative poison; after a person is once fully under its influence, a very little more is required to place the patient in a dangerous condition.

Chloroform is also a volatile poison; and even after the respiratory and cardiac ganglia are affected, if the patient is kept alive for a time by artificial respiration, the effects of the drug will pass off, unless the overdose has been excessive.

B. Proper Method of Administration.—Simple means are the best. A towel, or handkerchief is better than any apparatus. If any apparatus is used, then the administrator trusts to the apparatus. The only sure trust is knowledge of the action of the drug, its dangers and their treatment. It is a matter of no importance how much is poured on the towel, except as a matter of economy; what has to be carefully attended to is the effect of the drug upon the patient. The administrator has to give his entire attention to the effect of the drug; as in all drugs, so in chloroform, different patients require different doses in order to attain the proper effect. The administrator must use his brains, and have his catch-forceps attached to his coat. He must have confidence in himself.

The flannel cap covering the nose and mouth, as first recommended by Dr. Skinner, of Liverpool, and as used in the eye-wards in the Edinburgh Royal Infirmary, is not so good in general surgical practice as the towel or handkerchief; because, as will be afterwards explained, it is by the sense of touch that we best judge of the respiration, and the cap over the nose and mouth prevents the hand from being next the mouth for this purpose.

[In hospital-practice, for the last eighteen months, I have used Allis' ether-inhaler, which was strongly recommended to me by Dr. George Beaton, of Glasgow. It is also used by Dr. Renton, of Glasgow. By it chloroform is saved, and it is a convenient method of administration. As a rule I think the patient drops more quickly under the influence of the drug. I understand it is to be shown at the Cardiff meeting.—See *Glasgow Medical Journal*, January, 1885.]

The administrator must watch the breathing and the appearance of the patient. The sense of feeling with the hand between the towel and the mouth is the best guide to the breathing. The heaving of the chest is also to be watched. The heaving of the abdominal walls is deceptive, as this may be due to contractions of the diaphragm, which may continue for some time without any air entering and being expelled from the chest. Voluntary stoppage of the breathing frequently occurs early in the administration. Experience will soon enable the administrator to understand this, and to distinguish it from stoppage of respiration, due to the action of the drug on the nervous centres which govern the muscles of respiration. The sense of hearing may also assist in enabling the administrator to judge of the breathing. In antiseptic surgery, the use of the steam-spray, accompanied by a hissing noise, interferes with the sense of hearing; in such cases, the surgeon must trust to the senses of touch and sight. If the breathing become shallow or irregular, accompanied by gasping or sighing, then the towel must be at once removed from the patient's face. When the breathing becomes deeply stertorous, then the patient has as a rule had sufficient; the towel must be at once removed. Stertorous breathing is not in itself an evidence of danger.

The appearance of the patient's face is also to be watched. As long as the lips are red, the blood is being properly aerated, the circulation and the heart's action are unaffected. If the patient become livid, or unnaturally pallid, then there is danger.

Tell the patient that he is to take long breaths. Give the drug slowly at first, in order to prevent a choking sensation. Do not let the towel rest on the face, because it is apt to cause blistering. After a time, the patient struggles involuntarily. Do not fight with him; guide his movements; and, as the drug takes effect, they will soon subside.

How are you to know when the patient has had enough? There are three signs, all of which should be made use of.

1. By touching the conjunctiva. If the patient do not contract his orbicularis palpebrarum, then he is generally sufficiently under the influence. Sometimes, however, this is not a certain sign. The action on the nervous centres is progressive; although sufficient for an operation in the region of the eye, the drug may not yet have affected the whole of the spinal cord, and reflex action in the limbs may not be abolished.

2. Muscular relaxation, judged of by raising the arm and seeing if it fall heavily by the side.

3. Local sensibility at the seat of the operation. This is to be estimated by the surgeon pinching the part to be operated on with a pair of artery-forceps.

These three signs are all useful, and experience will enable the administrator to estimate their proper value in each case. Take away the towel the moment the patient is under the influence. A very common mistake is to suppose that, if the patient be breathing, then all is right. When the breathing stops, then the patient is on the point of death.

No attention is to be paid to the pulse; it is the last thing that stops. When the stoppage of the heart's action is due to the drug, then the patient is dead. Fortunately, the poison is a volatile one; and if, from ignorance, too much has been given, interfering with the action of the heart, either directly by acting on the nervous centres which govern the heart's action, or indirectly by stoppage of the circulation, the heart may recover itself if the patient be kept alive by artificial respiration until the poison, in consequence of its volatility, is dissipated.

The administrator has to devote his attention to other things; and, if he attend to the pulse, he cannot pay sufficient attention to the more important signs—important because they occur earlier in the administration. Attention to the pulse by a second person is not necessary, because the signs which I have already given will be quite sufficient to prevent danger. There is a division of responsibility. Assistance is apt to make the administrator trust to his assistant, and not to be sufficiently watchful himself of the other signs which guide him in the administration. It is not necessary to use the stethoscope in order to test the propriety of giving chloroform. If there be heart-disease, or weak action of the organ, then these are the very cases in which chloroform is most useful, because they are most liable to the occurrence of shock, which the drug prevents by abrogating sensibility.

c. The Dangers which may accompany its Use, and their Treatment. We must always be prepared for these. They may occur in any case, because the drug acts with much greater rapidity in some cases than in others, and we can never in any case foretell how rapidly the drug may act. The frontier-line between the abolition of sensation, voluntary motion, and reflex action, and stoppage of the circulation and heart's action, is often very indistinctly marked. In old people, this is the case; in them, the drug must be administered with the greatest caution.

[I have occasionally seen troublesome symptoms in young children; and, while I say that in old people the drug must be given with the greatest caution, I do not wish it to be understood that children can take it without risk.]

We may reach the dangerous effects earlier in some than in others; hence the great care necessary in every case. The order in which the effects take place is the same in all. This must be distinctly understood.

These dangers may be classed under four heads.

1. *The tongue falling back* and closing the glottis, in consequence of paralysis of the muscles which hold the tongue forwards. The signs of this are lividity of the face and shallow breathing, as the air does not enter and leave the chest in sufficient quantity. The patient is in the same state as if a piece of meat had stuck in his pharynx, closing his glottis. The piece of meat is his tongue.

2. *The glottis closing*, due to paralysis of the intrinsic muscles of the larynx. The signs of this are lividity and a crowing sound, as heard in a case of croup, acute laryngitis, or laryngismus stridulus.

3. *Fainting*.—This is due to an imperfect supply of blood to the brain, the result of either the sitting posture during administration, as the dentist's chair, or to a naturally weak heart in the aged or prematurely aged person. The sign of this is unnatural pallor of the face, judged of more especially by the paleness of the lips. The faintness may be due also (at the commencement of the administration) to fear on the part of the patient. It may also be due to any cause which may give rise to faintness in general. In this case, the chloroform has nothing whatever to do with the faintness; it may be associated with, but in no way due to, the chloroform. The faintness may also be due to want of confidence on the part of the administrator. He fears the drug, from ignorance of its physiological action. He commences the operation before the patient is sufficiently under the influence. The patient is then in a condition which renders him most liable to shock. He is unable to brace himself up to bear the pain; his nervous centres are in a semi-paralysed condition. The unfortunate result may follow, namely, imperfection or stoppage of the heart's action, followed by syncope.

4. *Vomiting*.—This is only dangerous if there be food on the stomach. The food passes into the pharynx, and may pass through the semi-paralysed larynx, and cause suffocation by passing into the bronchi. If the stomach be empty, this danger cannot occur.

The treatment of these dangers is as follows.

1. *The Tongue falling back*.—The head is to be turned on one side, in order that, by its weight, the tongue may pass to one side, and the opening of the glottis may be free for the entrance and exit of air. If this do not at once effect the object, then the tongue must be removed from its dangerous position, and for the same reason that, if a person be choking from a piece of meat lying on his glottis, the proper treatment is to remove the obstruction. The best way to do this is to seize the tongue with the catch-forceps and pull it forwards, so that the tip of the tongue appears between the teeth.

2. *The Closure of the Glottis*, due to paralysis of the intrinsic muscles of the pharynx.—To remedy this danger, the tongue must be pulled forcibly out of the mouth. By so doing, the epiglottis is pulled forwards by stretching the ligaments which unite it to the tongue; the epiglottis, passing forwards, stretches the aryteno-epiglottidean ligaments, and separation of the vocal cords follows. The action here is purely mechanical, and was first explained to me by Dr. John Wyllie, who first described this effect of forcible traction on the tongue. This can be verified on the dead subject.

[From further experience, I am inclined to lay greater stress now than I did in 1876 on the view of Lister, published in Holmes's *System of Surgery*; namely, that the forcible pulling forward of the tongue acts reflexly, stimulating the respiratory centres. I cannot, however, lay altogether aside the mechanical theory described in the text. Lister's theory has strong corroboration in what I have seen of Mr. Joseph Bell's practice in the Royal Infirmary here. In cases of shallow respiration with or without lividity, in which the forcible pulling forward of the tongue has no immediate effect, he at once pushes his finger into the glottis; here the action, undoubtedly most beneficial, is twofold, mechanical in opening the glottis, but mainly, as Mr. Bell holds, and I think truly, by irritating an excessively sensitive surface, and in this way reflexly stimulating the respiratory and cardiac centres.]

If these two dangers, the tongue falling back and closure of the glottis, be not treated at once, the result is that respiration does not proceed, the blood is improperly aerated, the lungs become gorged, the heart becomes gorged, and the result is, stoppage of the heart's action. If a rabbit be killed with chloroform and the chest opened, the heart will be found to be gorged with blood, and the contractions of the heart will be in abeyance; prick the heart with a needle, allow some blood to escape, and the contractions of the heart are re-established. This experiment seems to show that if, by striking the chest and by artificial respiration, the action of the heart be not quickly re-established, then bleeding from the external jugular vein should at once be resorted to. I have never yet required to have recourse to this remedy, artificial respiration having been sufficient. It must be remembered that it should never occur unless by a fault on the part of the administrator in not using at once the proper remedies—either removal of the tongue if it be acting as a mechanical obstacle to the admission of air, or forcible traction of the organ if the obstruction be in the larynx itself, in consequence of paralysis of the intrinsic muscles of the organ.

3. *Fainting*.—The treatment is preventive and curative.

a. *Preventive*.—Never give chloroform in the sitting posture. Never commence any operation, however trivial, until the patient is fully under the influence of the drug; it is far better not to give chloroform at all than to use it imperfectly.

b. *Curative*.—If it occur as a result of a weak heart, or in consequence of an excessive loss of blood during the operation, or as a coincidence during the administration of the drug, then the head must be at once placed at a lower level than the body, the arms and legs must be raised to the vertical, or the patient may be held up by the heels, as recommended by M. Nélaton. The effect in all these ways is attained of restoring a sufficient supply of blood to the brain.

The good effects of Nélaton's practice are, in my opinion, of a two-fold nature; first, by restoring the proper supply of blood to the brain in the most efficient and quickest manner; second, in many of the cases the danger may have been at the opening of the glottis, due to obstruction by the tongue; inverting the patient will at once remedy this by causing the tongue to fall forwards. It will also be useful in cases in which blood, in operations about the mouth and nasal cavities, has passed into the bronchi, or in cases in which vomited matter has passed into the larynx, the foreign body being removed by inversion, as Brunel removed the half-sovereign from his bronchial tubes. The frequency with which Nélaton's practice has been attended by good results in cases of apparent death from chloroform, seems to show that inversion may act in this twofold manner, because obstruction of the glottis is a much more frequent danger in the administration of chloroform

1 For an account of the valvular action of the glottis, see paper by Dr. Wyllie *Ed. Med. Journal*, Sept. 1886.

than faintness, which, as far as my experience shows, is comparatively rare.

4. *Vomiting*.—Do not give any solid food for four hours before the operation. In railway accidents and other sudden injuries in which it is necessary to give chloroform, the greatest care must be taken; if vomiting occur during the administration, turn the patient on his side, in order to allow the vomited matter to escape from the mouth, and prevent any regurgitation into the bronchial tubes. In such cases, the administration of the chloroform should be abstained from until the stomach is empty.

When the act of vomiting takes place, the stomach being empty, then the administration of more chloroform is required, in order to stop the abnormal contractions of the muscular walls of the stomach. There is in such a case no danger from vomited matter passing into the larynx.

d. *The Dangers which accompany its Abuse, and their Treatment*.—If an overdose of chloroform be administered—and it must be remembered that some patients are very susceptible to the action of the drug—the nervous centres which rule the muscles of respiration are poisoned; then the treatment required is to pull the tongue forwards, in order to allow air to enter or leave the chest by artificial respiration. It is a volatile poison, and perseverance in artificial respiration must be continued until the volatile poison passes away. A case recorded by Dr. J. J. Brown, in the *Edinburgh Medical Journal* (Nov., 1874) well illustrates this important fact. By artificial respiration, kept up continuously for two hours and three-quarters, he saved a patient in whom complete paralysis of the respiratory ganglia had occurred, but the cardiac ganglia were unaffected. The case also shows that the respiratory ganglia are poisoned before the cardiac ganglia. When the overdose is excessive, then the heart's action is interfered with; by artificial respiration, striking the chest-wall with a wet towel, and the use of the galvanic battery, it must, if possible, be restored.

A NEW WASHABLE TRUSS: WITH REMARKS ON THE TREATMENT OF CONGENITAL HERNIA IN CHILDREN.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By J. WARD COUSINS, M.D. Lond., F.R.C.S.,

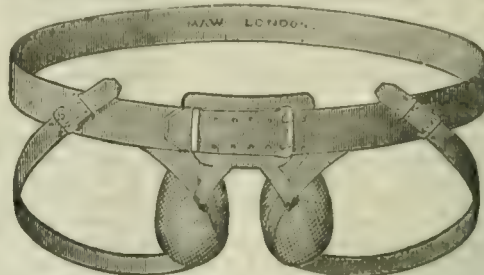
Senior Surgeon to the Royal Portsmouth Hospital, and to the Portsmouth and South Hants Eye and Ear Infirmary.

A RADICAL cure of infantile hernia can fortunately be obtained in a large proportion of cases by simple mechanical treatment. This, of course, involves the persevering application of some kind of truss for a considerable period, and also the unremitting and intelligent attention of the nurse. The instrument selected for the purpose ought to be of very simple construction, and be made so as to fit securely around the pelvis. It must effectually prevent the descent of the rupture, and well support the lower part of the abdominal wall. Care must be taken that it does not chafe the skin by injurious pressure in any direction, and that it is protected by some suitable material which can be readily removed whenever it becomes foul and irritating by contact with the secretions.

Now the instruments which are generally employed in the treatment of infantile hernia do not possess all these essential qualifications; at the same time, they are often costly, and are therefore quite out of the reach of the poorer class of patients. In many cases in which they are applied, they are very imperfectly adjusted, and are constantly prone to get out of position. The surgeon is informed that the truss has been regularly and carefully put on, when by a moment's inspection he discovers that the support is really doing no good at all. Sometimes the tender skin is irritated by the pressure of the pad, and at other times the truss is insufficient, and allows the rupture to slip down behind it, thus causing constant fretfulness and straining, which issue in an increase of the protrusion. In this way, mothers become much disheartened with their efforts, and the treatment is at length discarded altogether. In some cases, the successful application of a truss is attended with considerable difficulty, owing to the large size of the hernia and the relaxed condition of the abdominal walls; and under these circumstances, without the constant supervision of a skilled attendant, it becomes useless to anticipate any satisfactory result.

For some years past, I have been on the look out for an efficient

and simple truss suitable for infants and young children; and I have tried a great variety of instruments made up of springs and pads, but unfortunately they have all proved in my hands very imperfect contrivances, troublesome to adjust, difficult to keep in position, liable to irritate the tender skin by pressure, and to get foul and unwholesome through constant use. By the help, however, of the new washable truss, all the difficulties which surround the management of these cases are entirely removed, and I can confidently recommend it to the notice of any of my professional brethren who are troubled with the treatment of infantile hernia.



The instrument is represented in the engraving, and consists of an elastic air-cushion, which is shaped to support evenly and comfortably the lower part of the abdominal surface, and also the inguinal region on each side down to the fold of the thigh. In form, the cushion is cordate, with a deep notch at the lower border, into which the external organs are received. On the centre of the upper border, the inflating tube is fixed. The pad is protected by a linen cover, and is securely fixed by a belt of webbing, fastened in the middle line by two surgical safety-pins. The belt is held in position on each side by a narrow band, which passes through a loop attached to the lower end of the pad, and then encircles the thigh. By this light and simple contrivance, which requires no skill in its adjustment, the hernia is very efficiently kept up, and the relaxed walls of the abdomen are equally supported at every part without discomfort or undue pressure.

It, moreover, does not require constant attention to keep it from slipping out of position. It can be easily put on and taken off by the nurse; at the same time the belt can be removed, and a clean one substituted for it whenever it becomes soiled. A daily change of belt will be generally found sufficient with ordinary care. The new truss is made for me by Messrs. Maw, Son, and Thompson, and each cushion is supplied with several washable belts and pad-covers.

The treatment of infantile hernia is thus reduced to a matter of great ease and simplicity; and, in a large proportion of cases, the persistent and careful application of the support will prove sufficient to produce a radical cure in a few months. The nurse must be directed to prevent as much as possible the reappearance of the protrusion. When washing the child, she should always carefully support the whole inguinal region with her left hand. The skin must be dabbed dry with a soft towel, and dusted occasionally with a mixture of finely powdered starch and oxyde of zinc. The cushion should then be slipped under the fingers, and the belt and bands fastened on, with a pressure just sufficient to prevent the descent of the rupture, and to diffuse an even resistance over the abdominal surface. The little patient is always composed and comfortable as soon as the truss is efficiently applied. Of course, in every case the general condition of the child must be considered, and any existing disorder of the secretions corrected by remedies and appropriate feeding. Every source of irritation and straining must, as far as possible, be removed. The condition of the prepuce always demands special attention, and, in a large proportion of my cases, circumcision is a preliminary proceeding.

There are, however, a few cases of severe congenital inguinal hernia, which cannot be satisfactorily treated without surgical operation. The protrusions are large and tense, the abdominal parietes relaxed, and the inguinal orifices distended; at the same time, these unfavourable conditions are aggravated by the constant screaming and straining of the child, so that it is impossible to succeed with any sort of mechanical support.

After the failure of ordinary means, there can be no doubt as to the legitimacy of surgical interference; and, fortunately, this can be undertaken with very little risk by the aid of strict antiseptic precautions. There are now many recognised operations for "radical cure"; but in every case, before selecting any form of procedure, it is essential to take into consideration the size of the hernia, and the general condition of the system. I have performed Spanton's opera-

tion six times successfully, and it appears to me to be admirably adapted for the cure of inguinal hernia of moderate size occurring in otherwise healthy children. But in large scrotal protrusions, associated with depressed vitality and impaired nutrition, I prefer to ligature the neck of the sac; and in this way several bad cases have been very successfully treated.

As regards the management of double scrotal hernia in infants, it is desirable to perform the operation on the worst side first, and then to carefully support both sides with the antiseptic dressings. As soon as the healing process is sufficiently advanced, the washable truss and pad can be regularly applied. Recently, in two very bad cases of congenital hernia, an operation on one side resulted in permanent cure simply by suspending the straining of the child. When the little patient cried, it was only a subdued effort, as any jerking movement of the abdominal walls excited pain in the wounded region. By this voluntary suppression, the opposite rupture was kept in position, and the tendency to protrusion was slowly overcome by contraction and growth; thus, an operation on one side, followed by truss-treatment, issued in a radical cure of both sides. It is a good practical rule, in all cases of double infantile hernia, to operate on the worst side, and then to try persevering support on both sides before having recourse to a second operation.

One word in conclusion upon the operation itself. The radical cure of even the worst cases of congenital inguinal hernia can be accomplished by the simple method of placing a ligature around the neck of the sac. Many surgeons recommend, in addition to the application of the ligature, that the pillars of the ring should be brought together. It is true, that the abdominal walls are always much relaxed and the inguinal canals widely open; still, in operations upon young children, stitching up the ring can be safely dispensed with. It is a good plan, at the onset, to reduce the hernia, and then to expose the sac as far as the margin of the external ring, taking care to disturb the tissues as little as possible during the proceeding. The neck of the sac is now separated, gently drawn down, and secured, the vas deferens being protected by the fingers of an assistant. A little of the structure of the cord is generally involved in the grasp of the ligature, for its complete separation is a very difficult matter; yet, after all, this is of no practical importance, provided the duct be not injured. The sac is divided three-quarters of an inch below the ligature, and the lower part closed by a continuous suture of catgut in the manner recommended by Mr. Mitchell Banks. The wound is then antiseptically dressed, and some vaseline rubbed over the outer layer of gauze, to prevent the secretions from saturating the bandages. As soon as the healing process is complete, the air-cushion and belt are applied; and, before the little patient is discharged from the hospital, the mother is taught the way to put them on; at the same time her energy is stimulated with the assurance that her child will grow out of the trouble by careful and persistent treatment, so that, in a few months, the cure will be complete on both sides, without any repetition of the operation.

THE RADICAL CURE OF INGUINAL HERNIA BY INJECTION, AND BY THE SAME COMBINED WITH SUTURE OF THE CANAL: ALSO ON THE APPLICATION OF SIMILAR METHODS TO UMBILICAL HERNIA.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By C. B. KEETLEY, F.R.C.S.,

Senior Surgeon to the West London Hospital; Surgeon to the Surgical Aid Society.

To what extent are we to credit the good reports of the treatment of hernia by injection which come to us from America and Germany, and what are the best methods of carrying it out? These are the questions I propose to bring forward in this paper.

Bearing in mind that the present great interest in operations for radical cure of hernia is mainly due to the introduction of the procedure of antiseptic excision of the sac, one is tempted to begin with a reminder of the really serious mortality of that plan, by way of excusing oneself for trying another less fashionable one; but such a preface might widen the field of discussion too much.

My own operations for the radical cure of hernia by injection number only eleven, and the first was done less than twelve months ago; so that I beg of you to remember that I am not claiming any value for them, except when considered in connection with the recorded experience of others.

My patients, nine in number, include one man, aged 50, with double inguinal hernia; three young men, between 20 and 30, one with double inguinal hernia; two girls of 11, and three infants, one with umbilical, the others with inguinal hernia. The dates of operation are scattered pretty regularly over the past twelve months, and all the patients have occasionally returned to report progress. One is still in hospital, having been operated on only a fortnight ago.

With regard to final results, the time is obviously too short to give them, but it is well known that, if a good result persist for a few months after an attempt at radical cure, it is more likely to last than otherwise. Now, only two of my cases have so far fallen short of complete success, and those two almost the last operated on. In each of these two cases, no pains were taken to back up the operation by the careful use of a truss. But, in spite of this carelessness, each patient is greatly improved, and herniae, which used to be almost always down, now only slip down exceptionally. One of these "semi-failures," as they may be called, is a male infant, whose rupture only recurred when he was attacked with severe bronchitis. He was without a truss, because I happened to be on the Continent when he left the hospital, and his mother did not bring him back until the rupture recurred. This used to be a very large rupture, almost always down, and coming through a very large ring. I have no doubt that his mother is correct in saying it came down again during the attack of bronchitis, but neither she nor I can now make it come down at will, and I am convinced that the steady use of a truss will eventually turn this failure into a success.

My first case was double inguinal hernia, in a very stout man aged 50. The reason for operating was that his ruptures used to come down at night when he was in bed, and often cause him pain and illness. The patient is an intelligent gentleman, able and willing to second the treatment. The result is a complete, and, so far, enduring success.

Upon the whole, therefore, I am disposed to believe the statements of Janney and Warren in America, that they get 70 or 80 per cent. of complete cures.

My only umbilical case, operated on six months ago, remains a lasting success, although it is a child with unexampled powers of howling and screaming. It has been for two months without a truss.

Before describing the course of the cases towards recovery, it would be well to give the mode of operating.

I have not attempted the subcutaneous method. I cannot believe it to be either surgical or safe to thrust into the inguinal canal any instrument sharp enough to pierce the skin, and afterwards to blindly inject an irritant through it. Indeed, serious accidents have attended this proceeding. Warren himself, the chief exponent of "subcutaneous" injection, writes:

"I know of no operation in the annals of surgery that requires a more delicate touch, and finer manipulation in all its details, or a steadier and firmer hand in the operator, not even excepting the fine and graceful operation of cataract in the eye. What operation demands more care than passing a sharp pointed instrument through the living tissue into the hernial ring, among numerous tissues, vessels, nerves, and surrounded by the peritoneal membrane?"

If this be true, operations such as those of Warren and Heaton stand condemned by their own advocate. Of course, it is not altogether true, but it contains an important degree of truth, half buried in absurdity.

I adopted the method of Velpeau, who conceived the idea of attempting radical cure by injection nearly fifty years ago; only, whereas he used iodine, I use a freshly prepared concentrated decoction of oak-bark. Heaton used this, made from the bark of *quercus alba*, a tree whose bark is not to be got in England. Warren uses a compound of Heaton's fluid with alcohol, morphia, etc. (see p. 372 of his treatise).

Operation for Inguinal Cases.—The parts being shaved and aseptically, make an incision over the external ring by pinching up skin and fat, and transfixing. The operating-table should slope, with the foot higher than the head, so that the hernia may keep up, and out of the way. Secure any bleeding points with catch forceps. Thrust a probe through the intercolumnar fascia, and pass it up the canal as far as the internal ring, move it about in the canal so as to make a little cavity for the fluid to be injected. Slip a small cannula over the probe. Withdraw the latter, leaving the former. Fit your syringe, ready charged with injection, to the cannula, and inject. Place a finger on the point of entrance of the cannula, and cover that point as you withdraw the instrument. Then, with the forefinger of the other hand, rub over the site of the fluid, so as to diffuse it.

Having got so far, and the parts being exposed, it has seemed to me a pity not to take the opportunity of putting a couple of strong catgut sutures into the pillars of the external ring, and adjacent parts

of the canal. Accordingly, ten out of my eleven operations have been compound, including both injection and suture. But, having had some experience of simple suture, I have no doubt in my own mind about the value of the injection.

Dressing and After-Treatment.—These consist of the use of a drainage-tube, suture of the skin-wound, an iodoform pad, and antiseptic packing. The dressings are fixed by strips of adhesive plaster, and a rubber-bandage is put over all. Generally there are pain and a rise of temperature for a few days; an ice-bag is applied locally. The foot of the bed must be raised on blocks, and pillows placed beneath the knees. The horizontal position must be maintained until the parts will bear a truss (about three weeks or a month).

Once there has been suppuration. This was in the last case operated on. A rather large abscess formed. It has been opened and drained, and has healed rapidly.

This patient had an extra quantity of the injection (about a drachm), and no drainage-tube was left in. Several of the other patients did well without a drainage-tube.

I hesitate to give a positive opinion about the anatomical changes which take place. There is, at first, the formation of a great mass of thickening, apparently due to serous effusion. After a few weeks, more or less according to the case, this disappears. The ring can then be plainly felt contracted, perhaps to half the size of the ring of the opposite side. Not only does the rupture cease to come down, but there is no longer any hernial impulse.

One of the best cases was the umbilical, an unusually large hernia in an infant. Here the astringent fluid was brushed and swabbed over the parts, before the sutures were inserted. The usual thickening appeared, and I believe that the fluid, as well as the sutures, had a share in the result. This case was exhibited at one of the meetings of the West London Medico-Chirurgical Society.

I have not tried the operation in femoral cases. For these, ligature of the sac is not only effective, but reasonably safe. It is for reducible inguinal and umbilical hernia, that I believe we are called upon to seek for a safer plan of proceeding than that which involves excising or even opening the sac.

Mr. EDMUND OWEN (London) thought that it was unnecessary to have operated in the case of congenital umbilical hernia. These cases were due, for the most part, to arrest of development, and were always cured by steady and continuous pressure of a properly applied pad.

Mr. GEORGE BROWN (London) said he considered the profession much indebted to Mr. Keetley for bringing forward the cases operated upon by him by this revived method of injection, which, in his hands, had been so successful. The operation was certainly a more simple and less formidable operation than the usual one, and he hoped that surgeons would be induced to try Mr. Keetley's method in preference to the serious cutting operation, and he trusted they would meet with as much success as he had done. No doubt, patients would more readily submit themselves to the comparatively safe operation by injection, than face the operating-knife.

Mr. KEETLEY, replying, said that the infant with umbilical hernia, on whom he operated, had a very large hernia, which was liable to attacks of obstruction.

SUCCESSFUL EXTRACTION OF A DENTAL PLATE FROM THE OESOPHAGUS.

Read before the Midland Branch.

By T. SYMPSON, F.R.C.S.,
Surgeon to the Lincoln County Hospital.

ON February 3rd, 1885, at 10.30 P.M., I received an urgent message to visit E. R., a needle-woman, aged 31. I found her breathing stridulously, and with extreme difficulty, her countenance indicating great distress. She could only articulate in a hoarse whisper, and was constantly retching, and hawking up quantities of frothy fluid tinged with blood.

The history I obtained of the case was, that the patient was subject to epileptic fits, that upon recovering from one that evening, the persons with whom she lodged noticed that she respired with difficulty, that she had lost her voice, and that she made signs of there being something wrong about her throat. They then discovered that a metal plate, containing artificial teeth, was absent from its usual position in her mouth.

By external examination, I detected a hard substance in the oesophagus, below and behind the larynx, and by digital investigation through the mouth, I was enabled just to touch one extremity of the

plate with my forefinger. After several failures to seize the plate with throat-forceps, I placed the patient under the influence of chloroform, and then contrived to insert my finger-nail under one of the hooks. Thus I was enabled so to direct the forceps as to obtain a firm grip with them, when, by gently moving the foreign body, first from side to side, and then from below upwards and forwards, I succeeded in eventually extracting it.

The plate was composed of "dental alloy;" it measured one inch and a half by three-quarters of an inch, had five teeth fixed in it, and projecting from its extremities were five sharp hooks.

For a few days the throat remained so very sore that the patient was unable to swallow. She was consequently nourished by enemata of pancreatised milk; but within a week she took food by the mouth, and soon regained her usual state of health.

On my relating the case to the dentist from whom the plate was procured, he expressed it as his opinion that the accident arose from the dental fasteners having lost their hold, through decay of those teeth which they were intended to grasp.

REMARKS.—The difficulties met with in extraction arose from the violent struggles of the patient, spasm of the throat and larynx, and the impossibility of grasping the artificial palate, due to the ends of the forceps gliding over its convex surface. The anæsthetic rendered invaluable service by relieving spasm, and thus enabling the necessary manipulations to be conducted with comparative ease and comfort.

OBSTETRIC MEMORANDA.

RENAL HÆMORRHAGE COMPLICATING PREGNANCY: SYMPTOMS SIMULATING LABOUR.

ON the 11th of January last, a woman 35 years of age called on me, in company with a friend, in reference to a bloody discharge which, she said, came from the womb. She stated she was unmarried, but she had the appearance of being far advanced in pregnancy; and, on applying the stethoscope, I easily detected the pulsation of the fetal heart. She then admitted that she might be pregnant. I thought it probable that a miscarriage was impending, and made a digital examination. The os uteri was undilated, and I noticed, on withdrawing the finger, that no signs of blood were left on it, whilst a good deal was smeared on the hand. Further investigation showed that this had come from the urethra; and, on passing a catheter, a good deal of bloody urine escaped. I prescribed tannin. Two days afterwards (13th), she again visited me, and stated that labour had commenced; that she was suffering from severe pains in the back, shooting round to the groins, with a good deal of bearing down, and a bad-smelling bloody discharge. On examination, I found no evidences of labour; and further investigation showed me a clot hanging out of the meatus urinarius. On pulling this, a large semiorganised coagulum, weighing about half an ounce, came away. The catheter was then introduced, and about a gill of bloody urine streamed out, and then abruptly ceased. The withdrawal of the catheter was followed by a large clot, and the instrument itself was blocked up by coagula. Having cleared and reinserted it, I threw in about a pint of warm water, and removed a good deal of clot in the course of about an hour. The same performance was enacted at night, and even then I had not completely freed the bladder from its sanguineous contents. I gave gallic acid in ten-grain doses every four hours.

On the 14th, she had strong bearing-down pains, and severe back-ache. A coagulum protruded from the urethra. The bladder was washed out, as before, with warm water and boracic lotion. In the evening, the urine was but slightly tinged with blood, and next morning its colour was normal, but it was highly albuminous. I prescribed nitro-glycerine in minim-doses of 1 per cent. strength. On the 16th, the back was relieved; there were no pains; micturition was free. The urine was scanty and albuminous. On the 17th, the urine was highly sanguineous, but without clots. Then nitro-glycerine was omitted; the gallic acid resumed. From this date no further emission of blood took place. The albumen gradually disappeared from the urine; and on February 2nd labour set in, and was easy and quick. The mother and child are at the present time in good health.

REMARKS.—This case, in addition to the interest pertaining to such a rare complication of pregnancy as renal hæmorrhage, presents for consideration a variety of symptoms so closely simulating labour that it is quite within the bounds of probability to assume that mistakes have occurred in point of non-recognition of the real state of affairs in cases of this nature, and in this way that terrible, but fortunately rare, phenomenon—rupture of the bladder—may have been produced.

JOHN MULVANY, M.D., 381, Holloway Road, N.

THERAPEUTIC MEMORANDA.

TREATMENT OF HABITUAL CONSTIPATION.

I HAVE recently been using the Friedrichshall water in a variety of cases, in hospital practice, and I find it to possess the same valuable therapeutical qualities which explain and enhance its long established reputation as a favourite aperient in habitual constipation, and in the wide range of cases in which it is desirable to employ a laxative of mild character, and fitted for continued use. Friedrichshall has a special constitution, which secures to it marked preference over the ordinary sulphate of magnesia waters, and over the ordinary in general use. Its special advantages are probably largely due to its combination of chlorides with sulphates. It is not merely a saline aperient, but it has valuable properties in influencing tissue-change and promoting excretion of uric acid. Thus its use is attended with excellent results in cases of congestions of the liver and kidney, as a corrector of the digestion, and as what may be familiarly described as a tonic-aperient. Friedrichshall realises in practice the valuable curative powers ascribed to it by the eminent German physician with whom it has long been a standard prescription. I hope, shortly, to publish, in a more detailed form, the results of clinical experience, which indicate the special advantages of Friedrichshall to which I refer.

WILLIAM MURRELL, M.D.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

LEPER ASYLUM, TRINIDAD.

TWO CASES OF ACUTE ABSCESS OCCURRING IN ANÆSTHETIC
LEPROSY: AMPUTATION.

(Under the care of Dr. BEAVEN RAKE.)

CASE I.—J. L., a negro, aged 30, was admitted on April 14th, 1882. No note of importance was made until June 5th, 1884, when he had hæmoptysis, with dulness and bronchial breathing at the left apex. The hæmoptysis soon ceased, and, with the exception of occasional fever, he went on well till February 5th, 1885, when the left wrist was found to be swollen and painful, and the left toe ulcerated.

On February 7th, the swelling had extended to the elbow, where there was localised pain and deep fluctuation. Two incisions were made, but no pus escaped. Much pus had escaped from an ulcer on the index-finger.

On February 11th, the temperature was 96.1° Fahr., and the pulse 100. The left arm and forearm were enormously swollen, and extremely painful to the touch, especially about the wrist and elbow. There was no enlargement nor tenderness of the axillary glands.

On February 14th, the temperature was 98.8° Fahr., and the pulse 100. The swelling was about the same, but the arm was intensely painful on the least movement.

On February 17th, the temperature was 102.8° Fahr., and the pulse 128. The pain was less. A fluctuating swelling on the flexor surface just above the wrist was incised; about six ounces of fetid pus escaped. He was eating well, and there was no vomiting.

On February 24th, the temperature was 102° Fahr., and the pulse 112 and weak. Pus was still flowing freely from the incision. Another abscess had also pointed and burst in the radial side of the forearm. A fresh incision just above the elbow evacuated some ounces more of fetid pus.

On February 25th, the temperature was 102° Fahr., and the pulse 120. His sleep was disturbed, and his appetite failing. The urine was normal. He expectorated thick yellow sputum, but there were no morbid physical signs in the chest or abdomen. The tissues of the upper limb were brawny and infiltrated as far as the upper third of the arm. As he was becoming steadily weaker, the arm was amputated at the upper third. He took chloroform well. Dissection of the limb showed an abscess extending about two-thirds down the front of the forearm, deep down below the flexors, burrowing between and into them, giving them a honeycombed appearance. There was another abscess between the palmar tendons, and another in the dorsum of the

hand. The abscesses were lined with thickened membrane, and contained fetid pus, and, in some cases, clots of blood from half an inch to an inch in diameter. The elbow and wrist joints were healthy, and no disease of bones or peritoneum could be found. At 8 P.M. on that evening, the temperature was 96.1° Fahr., and the pulse 100. He was sweating, but only complained of some burning at the sutures.

The stump was quite healed by March 24th, the temperature never rising above 99° Fahr. A globular abscess, about one inch in diameter, was opened above the right eye on March 2nd; thick odourless pus escaped.

A deep abscess, about two inches in diameter, and situated on the left side of the neck behind, was incised on March 31st. Several ounces of thick yellow pus escaped.

On April 21st, the temperature had risen to 100.6° Fahr., and the pulse was 96. The abdomen was swollen. There was localised pain below and to the left of the umbilicus. He was constipated.

On April 23rd, there was severe pain in the abdomen; and on April 30th, there was localised hardness below and to the left of the umbilicus. The localised hardness disappeared, and the pain was much relieved by May 5th. At the same time, a little pus escaped from the stump. By June 23rd, the stump was quite firm, and he felt strong and well.

CASE II.—A., a Hindu, aged 27, was admitted on July 16th, 1877. He was a well made active man, constantly engaged in gardening and tending cattle about the asylum. There was no medical history till early in 1885, when he suffered from ulceration from the right cornea and occasional fever.

On May 30th, there were pain and swelling of the right forearm. On squeezing the wrist, a bubbling sound was heard, exactly like water in an India-rubber ball. On removing a small scab on the ulnar side of the wrist, a few drops of pus escaped; and, on enlarging the aperture with a scalpel, and pressing downwards from the wrist, three or four ounces of pus and blood escaped. Three other incisions were made between the wrist and elbow, and syringed with carbolic lotion.

On June 2nd, the temperature was 101° Fahr.; the swelling was less. Much pus had escaped. The patient had wasted very much. He was ordered egg-flip and quinine.

On June 4th, the temperature was 99.6° Fahr.; the pulse was 100. There was less pain and swelling; but pus appeared to be burrowing, so the incision over the middle of the forearm was enlarged.

On June 11th, there was increased discharge of thick yellow pus. The patient was very exhausted and wasted, with a thick furred tongue and hardly any appetite. The arm was amputated through the middle. Whilst compressing the axillary artery, pus was seen to ooze out by the side of the vessels. There was a good deal of hæmorrhage, the blood appearing to coagulate feebly. Dissection of the limb showed the muscles honeycombed and matted together by deep burrowing suppurative inflammation, which extended the whole length of the forearm, and reached to the periosteum; but no disease of it or of the bones could be found. In some of the abscess-cavities were clots of blood about half an inch in diameter. Above the elbow, a small tract of suppuration extended upwards along the bronchial vessels. The median and ulnar nerves were covered with granulation-tissue, and matted to surrounding tissues; but no intrinsic disease could be found. He came round from the chloroform, but died about five hours after the operation.

The necropsy was made sixteen hours after death. The body was much wasted. On dissecting the stump, the suppuration was found to extend along the course of the vessels into the posterior triangle, which it converted into an abscess-cavity. The nerves of the brachial plexus were dissected out by the suppuration; and the pus had also travelled down along the scalenus anticus, and was pointing over the apex of the right lung. The pleura was bulging at this point, and pus escaped into its cavity on piercing it with a scalpel. The spleen was very adherent to the diaphragm, and there was an old thickened scar on its outer surface. The other viscera were healthy, but anæmic. The spinal cord was removed, but no disease could be found.

REMARKS BY DR. BEAVEN RAKE.—I can find no published accounts of such cases as the above. They are markedly different from the ulceration and gangrene common in anæsthetic leprosy. The causes were obscure. The first case the patient attributed to a sprain. In the second, the suppuration came on so insidiously, that it was far advanced before the patient complained to me. In the first case, judging from the superficial abscesses and abdominal symptoms after the operation, there appears to have been some subacute pyæmia; but, in both cases, amputation seemed to give the best chance to the patient, and I regret that in the second case it was not performed earlier.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC IN IRELAND.—This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, and the Professor of Medical Jurisprudence, being appointed by the latter. The departments of Medicine and Surgery are presided over by the Regius Professor of Physic, Dr. J. T. Banks; and the Regius Professor of Surgery, Dr. W. Colles. The teaching staff is as follows. University Professor of Anatomy and Surgery, Dr. D. J. Cunningham, junior, M. W. F., 12; Senior, Tu. Th. S., 2. University Professor of Chemistry, Dr. J. E. Reynolds, Tu., Th., 2; S., 11. University Professor of Botany, Dr. E. P. Wright. Professor of Surgery in Trinity College, Dr. E. H. Bennett, M. W. F., 1. University Anatomist, Dr. T. E. Little, Practical Anatomy, Tu. Th. S., 12. Professor of Comparative Anatomy, Mr. Mackintosh, M. Tu. Th. F., 11. King's Professor of Institutes of Medicine, Dr. J. M. Purser, M. W. F., 12. King's Professor of Practice of Medicine, Dr. J. M. Finny, Tu. Th. S., 1. King's Professor of Materia Medica and Pharmacy, Dr. W. G. Smith, W. Th. F. S., 12. King's Professor of Midwifery, Dr. J. R. Kirkpatrick, M. W. F., 4. Professor of Medical Jurisprudence, Dr. R. Travers, M. W. Th. F., 3. Erasmus Smith's Professor of Natural Philosophy, Mr. G. F. Fitzgerald, M. W. F., 2.

The Winter Session commences on October 1st by the opening of the Dissecting Room. Lectures commence on November 1st. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two Lectures in each course is required. The Summer Session commences April 1st. The Courses in the Summer (except those of Materia Medica and Medical Jurisprudence) consist of Laboratory Instruction and Practical Demonstrations.

The Dissecting-room is open from 11 A.M. to 5.30 P.M. in the winter, and from 8 A.M. to 5 P.M. in the summer. Instruction is given daily by Professor Cunningham, Dr. Little, and three Demonstrators. A Course of Laboratory Instruction in Histology will be given in the Physiological Laboratory. On Mondays, at 3 o'clock, a Lecture will be given in the Theatre; after which, illustrative preparations will be shown in the Laboratory. For practical work, the Class will be divided. One division will work from 3 to 5 o'clock, on Wednesdays and Fridays; the other from 3 to 5 o'clock, on Tuesdays and Thursdays. Each Student will have his own place in the Laboratory, a Microscope, and a full set of Apparatus and Reagents. The Laboratory will be open to members of the Class from 11 to 5 o'clock daily, except Mondays. The Chemical Laboratories are open daily, under the supervision of Professor Reynolds. Professor Bennett gives a complete course of Demonstrations in Operative Surgery during April and May, at 8 A.M. on Mondays, Wednesdays, and Fridays, and 11 A.M. on Tuesdays, Thursdays, and Saturdays. Professor Fitzpatrick gives Demonstrations in Obstetric Medicine and Surgery on Thursdays and Fridays at 4 P.M. Practical Botany is taught in the Botanic Garden and the Herbarium by Professor Wright.

The Museums of Anatomy and Zoology, of Pathology, of Materia Medica, and of Midwifery; and of Botany, are open to the students of the School of Physic.

Scholarships, Prizes, etc.—Two Medical Scholarships, value of each £20 *per annum*, tenable for two years, are awarded annually; one for Anatomy and Institutes of Medicine; the other for Chemistry, Physics, Botany, and Comparative Anatomy. A Medical Travelling Prize and a Surgical Travelling Prize, value of each £100, are also awarded in alternate years. The Professors of Chemistry, Botany, Materia Medica, and Midwifery each give Prizes amounting to £5.

Fees.—For Anatomy, Medicine, Materia Medica, Midwifery, Medical Jurisprudence, Institutes of Medicine, Practical Chemistry, Obstetric Medicine and Surgery (at Sir P. Dun's Hospital), Ophthalmic Surgery (at St. Mark's Hospital), each £3 3s.; Demonstrations and Dissections, each year, £8 8s.; Surgery and Chemistry, each £2 2s.; Botany, £1 11s. 6d. Students dissecting during the fourth year pay £2 2s.

SCHOOL OF SURGERY: ROYAL COLLEGE OF SURGEONS IN IRELAND.

—Lectures will be given as follows. *Winter Session*: Physiology, Dr. Mapother, M. W. F., 3; Systematic Anatomy, Mr. Stoker and Mr. A. Fraser, M. W. F., 12; Practical Anatomy, Mr. Stoker and Mr. Fraser, Tu. Th. S., 12; Surgery, Mr. W. Stokes and Mr. E. Hamilton, Tu. Th. S., 1; Medicine, Dr. A. W. Foot, M. W. F., 1; Chemistry, Sir C. Cameron, M. W. F., 2; Midwifery and Gynaecology, Dr. Roe, Tu. Th. S., 2. *Summer Session*, commencing April 1st, 1886: Materia

Medica, Dr. R. Macnamara, daily, except S., 1; Medical Jurisprudence, Dr. Davy, Tu. Th. S., 1; Botany and Zoology, Mr. Minchin, M. W. F., 2; Practical Chemistry, Sir C. Cameron, M. W. F., 11; Ophthalmic and Aural Surgery, Dr. Jacob, Tu. Th., 3; Practical Physiology, Dr. Mapother and Mr. Fraser, Tu. Th. S., 11; Operative Surgery, Mr. Stokes and Mr. Hamilton, daily, 11; Hygiene, Sir C. Cameron, M. W. F., 3. There is a Laboratory for the Study of Practical Physiology. The Dissecting-rooms open from October 1st, and are available from 8 A.M. to 10 P.M. during the session; also from 8 A.M. to 5 P.M. in the summer. The dissections are under the direction of the Professors of Anatomy, assisted by eight Demonstrators.

Fees.—Each course of lectures, excluding the practical courses, is £3 3s.; Dissections with Demonstrations, Practical Physiology, Operative Surgery, and Practical Chemistry, £5 5s. each. Students requiring an extra course of Dissections without a Certificate, and who have taken their previous Anatomical Courses in the School, are charged £2 2s.; other Students, £3 3s. Additional Courses of Practical Histology, when a Certificate is not required, £2 2s. each. The fees for all lectures and dissections for the Diploma in Surgery amount to £63; hospital attendance, £37 16s. At the termination of each Session, medals are awarded in the various classes. The dissecting-rooms will open on October 1st; and the lectures will commence on October 26th, when an introductory address will be given by Mr. Hamilton, at 1 P.M.

ADELAIDE MEDICAL AND SURGICAL HOSPITALS.—*Consulting Physician*, Dr. J. F. Duncan. *Consulting Obstetric Surgeon*, Dr. Lombe Athill. *Physicians*, Dr. Henry H. Head, Dr. James Little; *Assistant Physician*, Dr. Wallace Beatty. *Surgeons*, Dr. John K. Barton, Dr. Kendal Franks, Mr. F. W. Warren; *Assistant Surgeon*, Mr. J. H. Scott. *Obstetric Surgeon*, Dr. R. D. Purefoy. *Ophthalmic and Aural Surgeon*, Mr. H. R. Swanzy. *Dental Surgeon*, Dr. R. T. Stack.

The hospital contains 140 beds. There are wards for infants and children, and there is a large detached fever hospital. Special hours are devoted to Clinical Instruction for the Diseases peculiar to Women, and in the Diseases of the Eye, Ear, Throat, and Skin; and students are individually instructed in the uses of the Stethoscope, Ophthalmoscope, and Microscope, in their application to Clinical Medicine. Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, in Obstetric Medicine, and Ophthalmic Surgery, will be awarded. In addition, the Hudson Scholarship (£30 and a gold medal), and a prize of £10 with a silver medal, will be awarded for proficiency in the subjects of clinical instruction.

Fee for nine months' hospital attendance, £12 12s.; six months', £8 8s.; summer three months, £5 5s.

Further particulars may be obtained from any of the members of the medical staff.

CARMICHAEL COLLEGE OF MEDICINE.—The Dissecting Rooms will be opened on October 1st. Lectures will commence on November 3rd. The following are the Courses: *Winter Session*: Medicine, Dr. J. W. Moore, M. W. and F., 12; Surgery, Dr. H. Corley, Tu. Th. and S., 12; Systemic Anatomy, Dr. McVittie, M. W., and F., 12; Anatomy, Dr. F. Heuston, M. Tu. W. Th. F., 1; Physiology, Dr. J. A. Scott, M. W. F., 2; Midwifery, Dr. W. B. Jennings and Dr. A. V. Macan, M. W. and F., 3; Chemistry, Dr. C. R. C. Tichborne, Tu. Th., 3; S., 11; Ophthalmic Surgery, Dr. C. E. Fitzgerald, W., 1.—*Summer Session*, 1886: Botany and Zoology, Dr. Cosgrave, daily, except S., 11; Pathology, Dr. Wallace Beatty; Materia Medica, Dr. G. F. Duffey, M. W. Th. F., 12; Practical Chemistry, Drs. Tichborne and Falkiner, Tu. Th., 1.30; S., 11.30; Medical Jurisprudence, Mr. Auchinleck, M. W. and F., 1; Practical Physiology, Dr. J. A. Scott, daily, 3; Practical Surgery, Dr. Corley, daily, 3. There are nine Anatomical Demonstrators, who superintend the dissections. The Physiological Department comprises a Histology Room, a room for Physiological Chemistry, and one for Physiological Apparatus. The Museum comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica. A Students' Reading Room has been added. **Fees**, for each course of lectures, £3 3s.; for each course of Practical Instruction, £5 5s. A second practical course can be attended for £3 3s., if no certificate be required. Systemic Anatomy and Ophthalmic Surgery are free, if no certificate be required. The Carmichael and Mayne Scholarships, each £15 in value, and Prizes, are awarded annually. For information, apply to Dr. Heuston, at the College, Aungier Street, or to any of the lecturers.

CATHOLIC UNIVERSITY MEDICAL COLLEGE.—*Winter Session:* The dissecting-rooms will be opened on October 29th. The lectures will commence on November 3rd. Anatomy and Physiology, and Anatomical Demonstrations, Dr. Nixon, M. Tu. W. Th. and F., 12; Dr. Coppinger, daily, except S., 1; Chemistry, Dr. J. Campbell, M. W. and F., 11; Surgery, Mr. P. J. Hayes, M. W. and F., 3; Medicine and Pathology, Dr. R. D. Lyons, M.P., Tu. Th., 3, and S., 12; Ophthalmology, Mr. D. D. Redmond, S., 2; Midwifery, Dr. J. A. Byrne, Tu. Th., 2, and S., 1; Demonstrations in Dissecting Rooms, Mr. Redmond, Mr. McDonnell, Mr. McCullagh, Mr. McArdle, Mr. Chance, Mr. J. F. O'Carroll. *Summer Session, 1886:* Practical Chemistry, Dr. John Campbell, M. W. and F., 11 A.M. to 1 P.M.; Materia Medica and Therapeutics, Dr. F. J. B. Quinlan, M. Tu. W. and Th., 1; Medical Jurisprudence, Dr. S. M. MacSwiney, M. Tu. W. and Th., 12; Botany, Dr. G. Sigerson, M. Tu. Th. and S., 2; Zoology, Dr. Sigerson; Histology, Dr. Nixon and Dr. Coppinger; Operative Surgery, Mr. P. J. Hayes; Natural Philosophy, the Very Rev. Gerald Molloy, D.D., Tu. Th. S., 11.

The school is within a few minutes' walk of the principal hospitals of the city. It includes a complete chemical laboratory, and a well supplied students' library.

The *Fees* are for Anatomy, Physiology, Surgery, Medicine, Midwifery, Materia Medica, Medical Jurisprudence, and Botany and Zoology (together), each £3 8s.; Operative Surgery, £4 4s.; Practical Anatomy, Practical Chemistry, Histology, each £5 5s.

Prizes.—At the termination of the winter and of the summer sessions respectively, public examinations are held in each class, and prizes are offered for competition.

CITY OF DUBLIN HOSPITAL.—*Consulting Physicians,* Dr. Apjohn, Dr. Banks. *Consulting Surgeon,* Mr. Joliffe Tufnell. *Physicians,* Dr. Hawtrey Benson, Dr. Duffey. *Surgeons,* Mr. H. G. Croly, Dr. W. I. Wheeler, Dr. H. Fitzgibbon. *Ophthalmic and Aural Surgeon,* Mr. A. H. Benson. *Gynaecologist,* Dr. W. J. Smyly. The Hospital is visited at 9 A.M.; after the visit, Clinical Lectures are delivered, and Pathological Specimens exhibited. There are special wards for Fever and other Contagious Diseases, Ophthalmic and Aural Diseases, and Diseases of Women and Children; also a Daily Dispensary, and Special Dispensaries for Diseases of the Skin, Throat, Eye, and Ear, and for Diseases peculiar to Women.

Clinical Assistants to the Physicians, and Dressers to the Surgeons, are appointed from the most deserving of the class, and certificates awarded for the faithful performance of their duties, Medical and Surgical Resident Pupils are appointed by examination, and Special Certificates awarded if merited. A House-Surgeon is appointed annually.

The Winter Session commences in October and terminates in April; the Summer Session commences in April and terminates in July. *Fees:* Nine Months' Hospital attendance, £12 12s.; Six Months, £8 8s.; Three Months, £5 5s. For further particulars, apply to Mr. Wheller, 27, Lower Fitzwilliam Street, or at the Hospital, or to Mr. Pratt, 27, Lower Fitzwilliam Street.

COOMBE LYING-IN HOSPITAL.—*Consulting Obstetric Surgeon,* Dr. G. H. Kidd. *Master,* Dr. S. R. Mason. *Assistant Masters,* Mr. F. W. Kidd, Mr. J. C. Hoey. *Pathologist,* Dr. J. M. Redmond. The hospital contains sixty-five beds, in two divisions, one devoted to Midwifery, and the other to Diseases of Women. Students can enter for six months at any period of the year. Clinical Instruction is given daily, and Lectures are delivered on the more important cases. Two Paid Pupil Midwifery Assistants and one Clinical Clerk are selected half-yearly from among the pupils. Certificates of attendances are accepted by the Examining Boards; and the diploma of the hospital is recognised by the Irish Local Government Board and the Army and Navy Boards as a qualification in Midwifery. *Fees:* For six months' courses, extern pupils, £8 8s.; intern pupils, £18 18s. Particulars may be learned on application to the Master at the Hospital.

JERVIS STREET HOSPITAL, DUBLIN.—*Physicians,* Dr. S. M. MacSwiney, Dr. W. J. Martin. *Surgeons,* Mr. A. Meldon, Dr. W. Stoker, Dr. J. J. Cranny, Dr. R. McDonnell, Mr. J. V. Lentaigne, Dr. C. Gunn, Mr. A. G. Chance.

Clinical Instruction is given by the Physician and Surgeon on duty on alternate mornings, between 9 and 11. Two Clinical Lectures are delivered each week, and Pathological Specimens are exhibited. Surgical Instruments and Appliances of all kinds are made the subject of Special Instruction.

Surgical Operations are performed on Tuesdays at 10 A.M., except in cases of emergency.

Resident Pupils and Dressers are selected from amongst the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special Certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

LEDWICH SCHOOL OF MEDICINE.—The following courses of lectures will be delivered. Anatomy, Dr. Thomas P. Mason, Mr. E. Ledwich; Surgery, Mr. F. Alcock Nixon, Mr. William Stoker; Physiology, Dr. M. A. Ward, Mr. Thomas Mason; Ophthalmic Surgery, Mr. J. B. Story; Medicine, Dr. C. F. Knight, Dr. J. M. Redmond; Midwifery, Dr. Samuel R. Mason; Materia Medica, Dr. R. D. Purefoy; Chemistry, Mr. Edwin Lapper; Zoology and Botany, Dr. E. M. Ward, Mr. C. H. Robinson.

Certificates of attendance on these lectures are accepted by all licensing bodies.

Dissections commence on October 1st. Demonstrations are given from 7.30 A.M. to 10 P.M., by the Lecturers in Anatomy, assisted by seven Demonstrators. Special Demonstrations in Medical and Surgical Anatomy will be given by the Lecturers in Medicine and Surgery respectively.

The School contains a Dissecting Hall, a new Physiological Laboratory, a fully fitted Chemical Laboratory, a Room fitted for Operative Surgery and Surgical Appliances, a Pathological Museum, and a Bone-room.

Information may be obtained from, and entries will be received by, Dr. T. P. Mason, 74, Harcourt Street; Dr. M. A. Ward, 9, Rathmines Road; Mr. F. A. Nixon, 33, Harcourt Street; and Mr. W. Stoker, 32, York Street.

MATER MISERICORDIÆ HOSPITAL.—*Consulting Physician,* Dr. F. R. Cruise. *Physicians,* Dr. C. J. Nixon, Dr. J. M. Redmond, Dr. M. A. Boyd. *Assistant-Physician,* Dr. John Murphy. *Surgeons,* Mr. P. J. Haynes, Mr. C. Coppinger, Mr. M. J. Kilgariff. *Assistant-Surgeon,* Mr. H. Kennedy. *Obstetric-Physician,* Dr. T. More Madden. *Dental Surgeon,* Mr. D. Corbett.

This Hospital contains 230 beds, including 50 beds for Fever and other Contagious Diseases. There is a ward for Ophthalmic Diseases.

Two Clinical Lectures are given every week, in addition to bedside instruction. A special Course of Lectures and Instruction on Fever will be given. Special courses of lectures on Medical and Surgical Diseases, and on Clinical Gynaecology, will also be given. Surgical Operations are performed at 10 A.M. on Thursdays.

Six resident pupils are elected without fee for the winter, and six for the summer session. Dressers are also appointed in the out-patient department.

Four Clinical Prizes (the "Leonard Prizes"), two of £10 and two of £5, will be given at the end of the winter session, for reports of medical and surgical cases.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.

Further particulars may be learned on application to Mr. Hayes, 18, Merrion Square, North, or to any of the other medical officers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—*Physicians,* Dr. A. W. Foot, Dr. J. W. Moore. *Surgeons,* Sir G. H. Porter, Mr. J. H. Wharton, Dr. P. C. Smyly, Mr. R. Macnamara, Dr. L. H. Ormsby, Mr. W. J. Hepburn.

The Hospital contains 120 beds for the reception of medical and surgical cases. An extensive dispensary, lending library, and physical laboratory, are attached. An additional ward has been erected for the reception of children.

Four Clinical Lectures will be delivered weekly, and instruction in Medicine and Surgery will be given on alternate days. The Physicians and Surgeons on duty visit the Hospital at 9 A.M.

Prizes will be given at the termination of the winter course to the best answers in their respective classes. The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to Mr. V. J. Hepburn, 53, York Street, Dublin; or at the Hospital.

MERCER'S HOSPITAL.—*Physicians,* Dr. T. P. Mason, Dr. C. F. Knight. *Surgeons,* Mr. E. S. O'Grady, Mr. F. A. Nixon, and Mr. M. A. Ward.

Special instruction is given in Cutaneous, Gynæcological, Infantile, and Ophthalmic Diseases. Lectures upon Clinical Medicine and Clinical Surgery are delivered weekly.

Resident Pupils and Clinical Clerks are appointed half-yearly, and Dressers are selected each quarter. Prizes in Clinical Medicine and Clinical Surgery are awarded at the termination of the winter session.

Fees for the winter and summer session (nine months), £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital; or from Mr. James Shaw, Secretary to the Medical Staff.

QUEEN'S COLLEGE, BELFAST.—The following courses are delivered at 4 P.M. on each alternate Friday. Anatomy and Physiology, Dr. Redfern, M. Tu. W. Th. F., 2; Practical Anatomy, daily, except Sat., 12; Practical Physiology and Histology, Saturdays and alternate Fridays (winter); Medicine, Dr. James Cuning, M. T. W. Th., 4; Surgery, (vacant), M. Tu. W. Th., 1; Materia Medica and Therapeutics, Dr. J. Seaton Reid, M. Tu. W. Th., 4; Midwifery, Dr. R. F. Dill, M. Tu. W. Th., 3; Chemistry, Dr. Letts, M. Tu. W. Th. F., 3; Medical Jurisprudence, Dr. J. F. Hodges, M. Tu. W. Th., 2 (summer); Practical Chemistry (winter), M. W. F., 10; (summer), M. Tu. W. Th. F., 12; Natural Philosophy, Dr. J. D. Everett, first year, Tu. Th.; second year, M. W. F., 11; Zoology, Dr. R. O. Cunningham, M. Tu. W. F., 1; Botany, Dr. Cunningham, M. Tu. W. Th. F., 11 (summer).

Clinical instruction is given at the Belfast Royal Hospital. The Ulster Hospital for Diseases of Women and Children, and the Lying-in Hospital in Belfast, are open to students. Instruction is also given at the Belfast District Lunatic Asylum.

Fees.—Anatomy and Physiology, first course, £3; each subsequent course, £2. Demonstrations and Practical Anatomy, and Practical Chemistry, each course, £3. Practical Physiology and Histology, £3 3s. Other Medical Lectures, first course, £2; each subsequent course, £1. Belfast Royal Hospital, Clinical Fees, winter session, £5 5s.; summer session, £2 2s.; Perpetual Fee, payable in two instalments, £10 10s.; Hospital Fee, half-a-guinea for each winter or summer session. Ulster Hospital for Diseases of Women and Children, and Midwifery Dispensary, six months, £3 3s. Lying-in Hospital, six months, £2 2s. Belfast District Lunatic Asylum, summer session, £3 3s. Eight Junior Scholarships, of the value of £25 each, are awarded annually, after examination, to students of the Faculty of Medicine; two being awarded for each of the four years of study.

QUEEN'S COLLEGE, CORK.—The following courses of lectures are given. Anatomy and Physiology, Dr. J. J. Charles, daily, except S., 1; Histology and Practical Physiology, Tu. S., 2; Anatomical Demonstrations, five days weekly, 12; Medicine, Dr. D. C. O'Connor, M. W. S., 12; Surgery, Dr. S. O'Sullivan, M. W. F., 4; Operative Surgery, Dr. S. O'Sullivan, Tu. Th., 12; S., 1, in March, April, and May; Materia Medica, Dr. C. Y. Pearson, Tu. Th., 3; S., 12; Midwifery, Dr. H. Corby, Tu. Th. S., 4; Medical Jurisprudence and Public Health, Dr. Pearson, M. F., 3; Natural Philosophy, Mr. J. England; Chemistry and Practical Chemistry, Dr. M. Simpson, M. W. F.; Zoology and Botany, Dr. M. M. Hartog, M. W. S.; Modern Languages, Dr. O. O'Ryan.

The building in which the Medical School is located is provided with a large, well lighted, well ventilated dissecting-room, with Physiological and Toxicological Laboratories, Materia Medica, Anatomical and Pathological Museums, as well as a room for surgical and obstetrical instruments and appliances. There are well appointed Physical and Chemical Laboratories, and a large Natural History Museum in the adjoining building; and there is also a Botanic Garden. The College Library is open daily to students of the school.

Fees.—For Practical Anatomy and Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 for first course, and £2 for subsequent courses. Other Medical Classes, £2 for first course, and £1 for second course. Eight scholarships (value £25 each), as well as several exhibitions and class prizes, are awarded every year to the most deserving students.

Clinical Instruction is given at the North and South Infirmaries (each 100 beds). Students can also attend the Mercy Hospital (60 beds), the County and City of Cork Lying-in Hospital, the Maternity, the Hospital for Diseases of Women and Children, the Fever Hospital, the Ophthalmic and Aural Hospital. Fee for Clinical Lectures and attendance at either the North or South Infirmary, £8 8s. for twelve months; £5 5s. for six months; at the Lying-in Hospital and the Maternity, for six months, each £3 3s.

A course of Clinical Lectures will be delivered on Tuesdays, Thursdays, and Saturdays, during the first three months of each winter session, in the Cork District Lunatic Asylum, by Dr. Eames, Resident Medical Superintendent. The fee is £3 3s.

QUEEN'S COLLEGE, GALWAY.—Professors: Anatomy and Physiology, Dr. J. P. Pye, M. Tu. W. Th. F., 3; Anatomy, Dr. Pye, same days, 1; Medicine, Dr. J. I. Lynch, Tu. Th. S., 2; Surgery, Dr. J. V. Browne, M. W. F., 11; Materia Medica, Dr. N. W. Colahan, Tu. Th. S., 3; Medical Jurisprudence, Dr. R. J. Kinkad, and Dr. Rowney, M. W. F., 12; Midwifery, Dr. R. J. Kinkad, M. W. F., 2; Chemistry, Dr. T. H. Rowney, M. W. F. S., 12; Practical Chemistry, Dr. T. H. Rowney, M. W. F., 2; Botany and Zoology, Dr. R. J. Anderson, Tu. Th. S., 11; Experimental Physics, Dr. Larmor, Tu. Th., 12; Modern Languages, Dr. C. Geisler. The College Library is open daily to students; also the Museums of Human and Comparative Anatomy, of Physiological Instruments, of Pathology, of Materia Medica, of Natural History, of Chemistry, and of Natural Philosophy; and the Montgomery Obstetric Collection.

Prizes.—Attached are eight scholarships of the value of £25 each; four exhibitions of the value of £12 each; two exhibitions of the value of £16 each; and sessional prizes in each of the subjects of the curriculum are awarded annually. All scholarships and exhibitions of the second, third, and fourth years may be competed for by students who have attained the requisite standing in any Medical School recognised by the College Council, and have passed the Matriculation Examination in the College.

Clinical Lectures are delivered on Tuesdays and Fridays, and practical teaching at the bedside on other days of the week, at the Galway County Infirmary and the Galway Town Hospital.

Fees.—Matriculation, first year, 10s.; each subsequent year, 5s.; Anatomy and Physiology, first course, £3; each subsequent course, £2; Practical Anatomy and Practical Chemistry, each course, £3; other courses, of one term, £1; of more than one term, £2; re-attendance, £1. Clinical Instruction, six months, £4 4s. Resident Clerkship, six months, £15 15s.

RICHMOND, WHITWORTH, and HARDWICKE HOSPITALS.—Physicians, Dr. J. T. Banks, Dr. B. G. McDowell, Dr. S. Gordon, Dr. R. D. Lyons, M.P. Assistant-Physician, Dr. G. P. L. Nugent. Consulting Obstetric Surgeon, Dr. G. H. Kidd. Surgeons, Dr. William Stokes, Dr. William Thompson, Dr. W. Thornley Stoker, Dr. Anthony H. Corley. Ophthalmic Surgeon, Dr. A. H. Jacob. Assistant-Surgeon and Curator of Museum, Mr. Burgess.

These hospitals contain 312 beds; 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases.

There will be a distinct Course of Lectures and Clinical Instruction in Fevers. Operations are performed on Monday and Wednesday mornings, except in cases of emergency. A course of Practical Instruction in Ophthalmic Surgery will be given; fee, £3 3s. Practical Pharmacy is taught under the superintendence of the Apothecary of the hospitals. A Resident Surgeon is appointed every alternate year, receives a salary, and holds office for two years. Eight Resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, fuel, etc. These appointments are open not only to advanced students, but also to those who are qualified in Medicine and Surgery. The dressers are selected from among the best qualified of the pupils, without the payment of any additional fee.

The Richmond Lunatic Asylum, containing over 1,000 patients, adjoins these hospitals, affording every facility for the study of mental diseases. The hospitals are visited at nine o'clock by the physicians and surgeons on alternate days. Two Clinical Lectures are delivered in each week, in addition to the usual daily bedside instruction.

Fees.—For the winter and summer session, £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident Clinical Clerks, winter, nine months' certificate, £12 12s.; summer, three months' certificate, £5 5s.; winter or summer, six months' residence, £8 8s.

ROTUNDA HOSPITALS.—Master, Dr. A. V. Macan. Consulting-Physician, Dr. J. Little. Consulting Surgeon, Dr. W. Colles. Assistant-Physicians, Dr. J. L. Lane and Dr. R. H. Fleming.

This institution consists of two distinct hospitals—namely, the Lying-in Hospital, for labour-cases, and the Auxiliary Hospital, for patients suffering from uterine and ovarian disease. There are also a large extern maternity in connection with the hospitals, and a Dispensary for Diseases of Women.

Clinical Instruction in Midwifery and the Diseases of Women

is given daily; and the Lectures are delivered regularly during the session.

The Diploma from this institution is granted to pupils after a six months' attendance, and on their passing an examination. It is recognised by the Local Government Board in Ireland, as a qualification in Midwifery.

Accommodation is provided for a limited number of Intern Pupils. Pupils can enter at any time.

Fees.—Intern Pupils: six months, £21; three months, £12 12s.; two months, £9 9s.; one month, £6 6s.; Extern Pupils: six months, £10 10s.; three months, £6 6s.

SIR PATRICK DUN'S HOSPITAL.—*Consulting Physician*, Dr. J. T. Banks. *Consulting Surgeon*, Dr. W. Colles. *Physicians*, Dr. J. M. Purser, Dr. J. M. Finny, Dr. W. G. Smith, Dr. J. R. Kirkpatrick. *Surgeons*, Dr. E. H. Bennett, Dr. T. E. Little, Dr. C. B. Ball.

The physician on duty visits the wards, with his class, at 9 A.M. on Mondays, Wednesdays, and Fridays; and the surgeon on duty, with his class, at 9 A.M. on Tuesdays, Thursdays, and Saturdays. There are separate wards for Infectious Diseases, and for Diseases of Women and Children. The Hospital Dispensary is open from 9 to 11 daily.

Two resident pupils are appointed annually.

Fees.—Silver Clinical medals in Medicine and in Surgery are awarded to the students who pass the best examinations on the Medical and Surgical cases treated in the hospital during the year. The payment of £12 12s. to the hospital, entitles the student to hospital attendance and clinical teaching during the winter and summer sessions. For the winter session alone, the fee is £8 8s.; for the summer alone, £5 5s. For twelve months' instruction in Practical Midwifery, students of Trinity College, £3 3s.; other students, £6 6s.

DR. STEEVENS'S HOSPITAL.—*Consulting Physicians*, Dr. H. Freke and Dr. T. W. Grimshaw. *Consulting Surgeons*, Mr. S. G. Wilmot and Sir G. H. Porter. *Physicians*, Dr. H. C. Tweedy, Dr. R. A. Hayes. *Surgeons*, Mr. W. Colles, Dr. E. Hamilton, Dr. R. McDonnell. *Obstetric Physician*, Dr. A. Duke.

The Hospital contains 250 beds. There is a ward entirely devoted to Syphilitic Disease, and also a detached building for Fever cases; also an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Teeth, and those peculiar to women.

Arrangements have been made that each pupil shall be assigned one or more beds, for the care of which he will be responsible; and he will be expected to keep accurate notes of the cases. At the end of each hospital-year Gold Medals will be awarded for general attention and proficiency in Clinical work and Case-taking.

The Hospital is visited by the Physicians and Surgeons at 9 A.M. Clinical Lectures are given by the Physicians and Surgeons. Surgical Operations are performed on Saturdays, at 10 A.M., except in cases of emergency.

The Museum is open daily to the Pupils of the Hospital. There is also a Lending Library.

Fees.—Hospital Practice: Nine months, £12 12s.; six months, £8 8s.; three months, £5 5s. Dressership: Winter, six months, £21; summer, £15 15s.

ST. VINCENT'S HOSPITAL.—*Physicians*, Dr. F. J. B. Quinlan and Dr. M. F. Cox; *Assistant Physician*, Dr. M. McHugh; *Surgeons*, Dr. E. D. Mapother and Dr. J. S. McArdle; *Assistant-Surgeon*, Mr. R. F. Tobin. *Gynaecologist*, Dr. J. A. Byrne. *Ophthalmic and Aural Surgeon*, Mr. D. Redmond. *Surgeon-Dentist*, Mr. E. J. Corbet.

The Hospital contains 160 beds. Attached to the Hospital is a General Dispensary, also a Convalescent Home at Linden, Blackrock. There are special wards and dispensaries for Ophthalmic, Aural, and Gynaecological cases.

Medical and Surgical Clinical Lectures are delivered twice a week during the Session, and clinical instruction is given daily. Operations admitting of delay are performed on Fridays.

Arrangements have been made for giving Special Clinical Instructions in infective fevers. Practical Instructions in Medical Chemistry, Spectrum-Analysis, and in the use of the Microscope, and of the other Scientific Instruments applicable to Clinical Investigations, are given in the Medical Laboratory of the Hospital.

At the commencement of every Winter and Summer Session Resident Pupils are selected from the previous classes. A House-Surgeon is appointed yearly and receives £100, with board and apartments.

Fees.—Winter and Summer, nine months, £12 12s.; Winter, six months, £8 8s.; Summer, three months, £5 5s.

Certificates of attendance on the practice of this Hospital are recognised by all the Licensing Bodies. For further particulars, apply to the Secretary, to the Medical Board, Mr. McArdle, 7, Upper Merion Street, Dublin; and at the Hospital.

INSTRUCTION IN HOSPITALS, ETC.

IN addition to the hospitals mentioned in the JOURNAL of September 12th, instruction is given in the following general and special hospitals, etc., in London and other parts of the Kingdom.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—*Consulting Physicians*, Dr. C. J. B. Williams, Dr. W. H. Walshe, Dr. Richard Quain, Dr. James E. Pollock. *Consulting Surgeon*, Mr. John Marshall. *Physicians*, Dr. E. Symes Thompson, Dr. C. Theodore Williams, Dr. R. Douglas Powell, Dr. John Tatham, Dr. Reginald E. Thompson, Dr. Frederick Roberts. *Assistant-Physicians*, Dr. T. Henry Green, Dr. J. Mitchell Bruce, Dr. J. Kingston Fowler, Dr. Percy Kidd, Dr. Cecil Y. Biss, Dr. T. Dyke Acland. *Dental Surgeon*, Mr. Charles J. Noble. There are 331 beds in the two buildings constituting the hospital. Lectures and Demonstrations are given by members of the medical staff, at times of which notice is given. Members of the medical profession are admitted on presentation of their cards. Pupils are admitted to the Hospital; *Fee*, including Clinical courses, three months, £3 3s.; six months, £5 5s.; perpetual, £10 10s. Certificates of attendance on the Medical Practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Boards.

SEAMEN'S HOSPITAL, GREENWICH.—*Consulting Physicians*, Dr. Robert Barnes, Dr. Richard Quain. *Visiting Physicians*, Dr. John Curnow, Dr. R. E. Carrington. *Consulting Surgeon*, Mr. George Busk. *Visiting Surgeon*, Mr. G. R. Turner. *Medical Officers*, Mr. W. Johnson Smith, and Mr. E. M. Little. The hospital contains 300 beds. Apartments are provided in the house of the surgeon for students and others who may be desirous of studying diseases incidental to tropical climates before entering the services or going abroad. There are resident House-Physicians and House-Surgeons.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—*Consulting Physicians*, Dr. G. O. Rees, Dr. Cream, Dr. Blakely Brown, Dr. Brodie. *Consulting Surgeon*, Mr. H. Lee. *Physicians to In-Patients*, Dr. Hope, and Dr. W. C. Grigg. This Hospital, which has been recently enlarged, receives nearly 800 patients annually, besides having a large out-patient department. Medical Pupils are received at all times of the year. Pupils have unusual opportunities of seeing Obstetric Complications and Operative Midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical Instruction is given on the more important cases that present themselves. Certificates of attendance at this hospital are recognised by all Universities, Colleges, and Licensing Bodies; and a Diploma in Midwifery is granted. Monthly Nurses and Midwives are received for training. *Fees.*—Medical Pupils, from £3 3s. for one week, to £26 5s. for three months, exclusive of board and lodging; Pupil Midwives, £26 5s. for three months; and Pupil Nurses, £10 10s. for two months, both inclusive of board and lodging. For further particulars, application should be made to the Secretary, at the hospital.

HOSPITAL FOR WOMEN, SOHO SQUARE.—*Consulting Physician*, Dr. Protheroe Smith. *Physicians*, Dr. Heywood Smith, Dr. Carter, Dr. R. T. Smith, Dr. Holland. *Assistant-Physicians*, Dr. Mansell-Moullin, Dr. Bedford Fenwick, and Dr. James Oliver. *Surgeon*, Mr. Reeves. *Assistant-Surgeon*, Mr. S. Osborn. In connection with this Institution there is now an organised School of Gynaecology open to qualified medical men and students after their third year. A limited number of Clinical Assistants to the Physicians and Surgeons in the In-patient and Out-patient Departments are appointed every three months. A course of Lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter by Dr. J. Mansell-Moullin. Clinical Lectures are given on alternate Thursday afternoons at 3.30 P.M. throughout the Winter Session. Prizes are given annually after examination, open to past and present Clinical Assistants. *Fee* for the three months' course, £5 5s. Further information can be obtained by letter, addressed to the Dean at the Hospital.

CHELSEA HOSPITAL FOR WOMEN.—*Consulting Physicians*, Sir A. Clark, Bart., Dr. R. Barnes. *Consulting Surgeons*, Sir T. Spencer Wells, Bart., Mr. J. Hutchinson, F.R.S. *Physicians*, Dr. J. H. Aveling, Dr. A. W. Edis, Dr. Fancourt Barnes. *Assistant-Physicians*, Dr. J. Phillips, Dr. P. Horrocks, Dr. W. Travers, Dr. T. V. Dickinson, Dr. J. Mackern, Dr. M. Handfield Jones, Dr. G. Harper, Dr. W. H. Fenton Jones. *Pathologist*, Dr. R. W. Burnet. Qualified medical men are admitted to the practice of the hospital, which has 63 beds, and to the consultations and operations, which take place at 2.30 p.m. on Mondays, and 2 p.m. on Thursdays. A course of post-graduate lectures on Diseases of Women, free to qualified medical men, is delivered yearly in February and March by the physicians of the hospital.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.—*Physicians*, Dr. W. B. Cheadle, Dr. O. Sturges, Dr. T. Barlow. *Assistant-Physicians*, Dr. R. J. Lee, Dr. D. B. Lees, Dr. Montagu Lubbock, Dr. J. Abercrombie, Dr. A. Money. *Surgeons*, Mr. T. Smith, Mr. Howard Marsh, Mr. Edward Owen, Mr. J. H. Morgan, Mr. B. Pitts, and Mr. W. A. Lane. *Ophthalmic Surgeon*, Mr. R. Marcus Gunn. *Surgeon-Dentist*, Mr. A. Cartwright. There are 121 beds in the hospital at Great Ormond Street, and 52 at Highgate. The physicians and surgeons of the hospital will give clinical instruction in the wards, and deliver lectures during the ensuing winter session in rotation. The medical visits are at 2.15 p.m., on Tuesday and Friday; the surgical visits at 9 a.m. on Wednesday and Saturday. The practice of the out-patient department is to be seen daily at 9 o'clock: for medical patients, on Monday, Tuesday, Thursday, and Friday; and on Wednesday and Saturday, at the same hour, for surgical patients. The practice of the hospital is open free to practitioners, and to students after their first year, on presenting their cards.

ROYAL LONDON OPHTHALMIC HOSPITAL.—*Consulting Physician*, Dr. F. J. Farre. *Consulting Surgeons*, Mr. J. Dixon, Mr. W. Bowman, Mr. J. Hutchinson, Mr. Wordsworth. *Surgeons*, Mr. Streetfield, Mr. Hulke, Mr. Lawson, Mr. Couper, Mr. J. E. Adams, Mr. Warren Tay, Mr. Nettleship, Mr. Tweedy, Mr. Gunn. There are 100 beds for in-patients. Operations are performed daily, from 10.30 until 1 p.m. Gentlemen are admitted to the Practice, and to Lectures and Demonstrations in the Winter Months. Fees for six months, £3 3s.; perpetual, £5 5s. Students of the Hospital are eligible for the office of House-Surgeon, and may be appointed Clinical Assistants.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—*Consulting Surgeon*, Mr. J. Hogg. *Surgeons*, Mr. Power, Mr. Rouse, Mr. Macnamara, Mr. Cowell. *Assistant-Surgeons*, Mr. Juler, Mr. Frost, and Mr. Hartridge. The Hospital contains 60 beds. The Practice is open to practitioners and students from 1 to 4 p.m. daily. Special instruction is given in the Diagnosis, Pathology, and Treatment of all Eye Affections, including the Operations on the Eye, the Treatment of Errors of Refraction, and the use of the Ophthalmoscope. Operations daily at 2 p.m. Fees: Six months, £3 3s.; perpetual, £5 5s. For particulars apply to Mr. Juler, 77, Wimpole Street.

ROYAL ORTHOPEDIC HOSPITAL.—*Surgeons*, Mr. B. E. Brodhurst, Mr. H. A. Reeves, Mr. C. Read, Mr. W. H. Balkwill. Operations are performed at 2 p.m. on Mondays. The hospital is open to all legally qualified practitioners, and students are admitted on payment of the following fees: six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

CENTRAL LONDON THROAT AND EAR HOSPITAL.—*Consulting Surgeon*, Mr. Sidney Jones. *Surgeons*, Mr. Lennox Browne, Mr. F. Hamilton, and Dr. A. W. Orwin. *Assistant-Surgeons*, Dr. J. Dundas Grant and Mr. P. S. Jakins. *Dental Surgeon*, Mr. G. Wallis. *Registrar and Pathologist*, Mr. P. Jakins. The Hospital contains accommodation for twenty in-patients, and has an extensive Out-patient Department, which is open to all medical practitioners and students for the purpose of Clinical Demonstration and Instruction. Fee for three months' attendance, £2 2s.; for six months, £3 3s.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.—*Medical Officers*, Mr. J. L. Milton, Dr. P. Oates, Mr. Vincent Ambler, Mr. James Startin, Dr. Tom Robinson. *Assistant-Physician*, Dr. H. B. Dow. *Assistant-Surgeon*, Mr. A. C. Butler-Smythe. *Assistant-Surgeon at Chelsea* (in charge of the Out-patients' Department), Dr. A. Harries, Mr. J. Foster Palmer. *Surgeon-Dentist*, Mr. J. Holland. The medical officers attend at Leicester Square every week-day (except Saturday) at 2; and on Monday, Wednesday, and Friday, at 7 p.m.; at Markham Square, Chelsea, on Monday and Thursday mornings at 10; also dental cases on Saturdays at 9. The practice of the hospital is open at the above times to medical men and students; and instruction

is given in the Diagnosis and Treatment of Skin-Diseases. In addition, two courses of Lectures are given during the year. At present no fees are charged.

BETHLEM ROYAL HOSPITAL.—*Medical Superintendent*, Dr. G. H. Savage. Two Resident Clinical Assistants are appointed twice a year for six months from recently qualified medical students. Students can attend the hospital practice for three months for £3 3s. Students of Guy's Hospital and St. Thomas's Hospital during the summer can attend special afternoon ward-instruction.

SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY.—The school opens on Wednesday, October 1st. Lectures on Chemistry and Pharmacy by Professor W. K. Dunstan; Botany and Materia Medica, by Professor Bentley. The Laboratories for Practical Chemistry are open daily from 10 a.m. to 5 p.m. *Director*, Professor Atfield. *Demonstrator*, Mr. F. W. Short. *Assistant-Demonstrator*, Mr. E. J. Eastes. They are fitted up with every convenience for the study of Chemistry by personal experiment. Application for admission to the school, or for further information, may be made to the professors or their assistants in the lecture-theatre or laboratories, at 17, Bloomsbury Square.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—*Consulting Physician*, Dr. G. E. Paget. *Consulting Surgeon*, Mr. Lestourgeon. *Physicians*, Dr. P. W. Latham, Dr. J. B. Bradbury, and Dr. D. MacAlister. *Surgeons*, Dr. G. M. Humphry, Mr. E. Carver, Mr. G. Wallis, and Mr. G. E. Wherry. The hospital contains 120 beds. Clinical lectures are delivered twice weekly during the academical year; and practical instruction is given daily throughout the year. Clinical clerks and dressers are appointed without payment.

CUMBERLAND INFIRMARY.—*Consulting Surgeons*, Mr. William B. Page, Mr. Herbert W. Page, Dr. J. A. Macdougall. *Physicians*, Dr. Lockie, Mr. Barnes. *Surgeons*, Mr. MacLaren, Mr. Lediard. *Dental Surgeon*, Mr. Warwick Hele. The infirmary contains 100 beds. Pupils are admitted on such terms of payment as the committee may fix. In-door pupils reside at the infirmary; out-door pupils visit the infirmary at such hours as the medical officers shall approve. The pupils are entirely under the control of the medical officers.

DERBYSHIRE GENERAL INFIRMARY.—*Consulting Physician*, Dr. G. Taylor. *Physicians*, Dr. W. Ogle, Dr. C. A. Greaves, Dr. W. Benthall. *Consulting Surgeons*, Mr. D. Fox, Mr. Gisborne, and Mr. J. W. Baker. *Surgeons*, Mr. A. H. Dolman, Dr. W. G. Curgenvin, and Mr. C. H. Hough. There are 175 beds. Pupils are admitted to the practice of the infirmary at £5 5s. a year.

DEVON AND EXETER HOSPITAL, EXETER.—*Consulting Physician*, Dr. Drake. *Physicians*, Dr. Lewis Shapter, Dr. H. Davy. *Consulting Surgeons*, Mr. A. Cumming, Mr. T. W. Caird. *Surgeons*, Mr. Bankart, Mr. Budd, Mr. Harris, Mr. Domville. The hospital contains 214 beds (including a special children's ward). There are a good Library, Museum, Dissecting and Post Mortem Rooms. Attendance on the practice at this hospital qualifies for all the examining boards. Arrangements may be made by which students can attend Midwifery. For further particulars as to fees, etc., apply to the House-Surgeon.

WEST OF ENGLAND EYE INFIRMARY, EXETER.—*Surgeons*, Mr. Bankart, Mr. Tosswill. The infirmary contains 50 beds. Arrangements can be made for students of the Exeter Hospital to attend the practice of the Eye Infirmary.

ROYAL ALBERT HOSPITAL, DEVONPORT.—*Consulting Surgeons*, Mr. May, Dr. F. Row, Mr. Laity. *Surgeons*, Mr. C. Bulteel, Mr. J. May, jun., Mr. Leah, and Mr. Gard. *Provident Dispensary Surgeons*, Mr. M. H. Bulteel, Mr. J. R. Rolston, Mr. E. W. Paul, Mr. F. E. Row, Mr. J. Harrison. The hospital contains 218 beds. The pupils of the medical staff are allowed to attend the hospital-practice and to learn Pharmacy, on payment of a fee of £2 2s. to the dispenser.

GLOUCESTERSHIRE GENERAL INFIRMARY.—*Consulting Surgeons*, Mr. Wilton, Mr. T. S. Ellis. *Physicians*, Dr. B. Washbourn, Dr. R. W. Batten. *Assistant-Physician*, Dr. H. Peacock. *Surgeons*, Mr. H. E. Waddy, Mr. R. M. Cole, Mr. Sydney Turner. *Ophthalmic Surgeon*, Mr. E. D. Bower. *Assistant-Surgeon*, Dr. J. J. S. Johnstone. The Hospital contains 140 beds. Resident and non-resident pupils may be admitted by the General Committee on the recommendation of a member of the Medical Board. Each pupil pays in advance £10 for the first half year, and £5 for every subsequent quarter, or portion of a quarter, of a year. Each resident pupil has board and lodging in the house, for which he pays in advance 26 guineas for the first half-year, and 13 guineas for every subsequent quarter, or portion of a quarter, of a year. Each pupil pays in advance to the

House-Surgeon a fee of £5 5s. for instruction, and a further fee of £3 3s. for every subsequent year or portion of a year. One year passed at this Hospital, after passing a Preliminary Examination, is recognised by the Royal College of Surgeons.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—*Physician Extraordinary*, Dr. T. Hitchcock. *Physicians*, Dr. W. A. Richards, Dr. B. N. Earle. *Surgeons*, Mr. T. C. Langdon, Dr. W. England. The hospital contains 118 beds. Apprentices are received by the Committee on payment of £75 per annum, and are bound to the House-Surgeon for five years. During the first two years they are chiefly employed in dispensing; afterwards, they may witness the practice, and attend clinical lectures and operations, and *post mortem* examinations. The Physicians and Surgeons are allowed to introduce a certain number of pupils; the House-Surgeon may also receive a pupil, on payment of a sum to be determined by the Committee. Pupils of qualified medical practitioners not belonging to the staff of the Hospital may, with the consent of the Committee, become out-pupils, and see the practice of the Hospital under the direction of the House-Surgeon, on the payment of £10 10s. for one year, or £21 for unlimited attendance. Out-pupils are permitted daily (Sundays excepted) to read in the Library on payment of £1 1s.

ROYAL SOUTH HANTS INFIRMARY, SOUTHAMPTON.—*Physicians*, Dr. G. Scott, Dr. Broster. *Assistant-Physician*, Dr. J. L. Thomas. *Surgeon-Extraordinary*, Mr. J. K. Sampson. *Surgeons*, Dr. G. A. K. Lake, Mr. G. King, Mr. W. Sims. *Dentist*, Mr. C. H. Bromley. The hospital contains 100 beds. Pupils, duly qualified by examination and registration, are received, and pay a fee of £10 10s. for a perpetual ticket, and £5 5s. for six months. These are under the care of the House-Surgeon. After three months in the Dispensary, they see all the practice, operations, etc., and may act as Clinical Clerks and Dressers. There being a good many surgical cases in this place, they gain a good all round knowledge before proceeding to a regular Medical School. There is a good supply of modern books, and a collection relating to Osteology, and specimens of *Materia Medica*.

KENT AND CANTERBURY HOSPITAL.—The hospital contains 102 beds. *Consulting Physician*, Dr. Loché. *Physician*, Dr. Gogarty. *Consulting Surgeon*, Mr. J. Reid. *Surgeons*, Mr. Holtum, Mr. Wachter, Mr. T. W. Reid, and Mr. Greasley. *Dental Surgeon*, Mr. M. L. Bell. *Fees* for hospital attendance, £7 7s. Lectures are delivered weekly to the students of St. Augustine's Missionary College on Practical Medicine by Dr. Gogarty, and on Surgery by Mr. T. W. Reid. Courses of lectures are also delivered by the medical staff for the instruction and training of the nurses and probationers of the Kent and Canterbury Nursing Institute.

LINCOLN COUNTY HOSPITAL.—*Physicians*, Dr. G. Mitchinson, Dr. C. Harrison. *Surgeons*, Mr. T. Symson, Mr. C. Brook, and Mr. T. M. Wilkinson. *Assistant Medical Officers*, Dr. W. A. Carline, Mr. C. G. Dalton. The hospital contains 120 beds. The House-Surgeon is allowed to take two pupils, on terms arranged by the weekly board, himself, and the pupils. A fee of not less than £10 10s. is paid by every pupil to the hospital. The House-Surgeon is responsible for the conduct of his pupils. The pupils remain in the hospital only when occupied in performing or observing the actual work of the hospital.

LIVERPOOL NORTHERN HOSPITAL.—*Physicians*, Dr. Dickinson, Dr. Caton. *Consulting Surgeons*, Dr. Chalmers, Mr. Manifold, and Mr. H. Lowndes. *Surgeons*, Mr. C. Puzey, Dr. W. M. Campbell, Mr. D. Harrison. *Dental Surgeon*, Mr. Lloyd. The hospital contains 147 beds. There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. *Fees*.—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. Practical pharmacy, three months' fee, £2 2s.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—*Physicians*, Dr. Cameron, Dr. Carter, Dr. W. Williams. *Consulting Surgeon*, Mr. Nottingham. *Surgeons*, Mr. Hamilton, Mr. Little, Mr. Paul. *Dental Surgeon*, Mr. R. E. Stewart. The hospital contains 200 beds. Clinical lectures are given by the physicians and surgeons during the winter and summer sessions. Clinical clerkships and dresserships are open to all students. There are special wards for accidents and diseases of children; also rooms for a limited number of resident students. *Fees* for hospital practice and clinical lectures: Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. The practice of the hospital is recognised by all examining bodies.

LIVERPOOL EYE AND EAR INFIRMARY.—*Consulting Surgeons*, Dr. R. H. Taylor, Dr. Nevins. *Surgeons*, Mr. T. S. Walker, Mr. E. A. Browne, Mr. R. Williams. *Assistant-Surgeons*, Mr. C. G. Lee, Mr. G. Stone. The Infirmary contains 43 beds. Evening courses of lectures on Refraction and Medical Ophthalmoscopy are delivered at this Infirmary during the winter months by Mr. Edgar Browne. Students of Medicine of University College, Liverpool, have free access to the practice of the Infirmary.

ST. MARY'S HOSPITAL, MANCHESTER.—*Physicians*, Dr. Lloyd Roberts, Dr. C. J. Cullingworth. *Consulting Surgeons*, Mr. Henry Winterbottom, Dr. S. Nesfield. Mr. G. W. Pettinger, Mr. Robert Heslop. *Surgeon*, Dr. William Walter. The accommodation for in-patients comprises 50 beds, of which 35 are set apart for the treatment of women, 12 for children, and 3 for the reception of exceptional lying-in cases, attended with special difficulty or danger. Out-patients are attended every day at 9 A.M. by the honorary staff, assisted by the resident medical officers. In the out-patient department students are taught the various methods of examination and diagnosis, and the use of gynecological apparatus; while, in the wards, they have an opportunity of becoming familiar with the diagnosis and treatment of graver cases, and of witnessing the more important gynecological operations, which take place on Wednesdays at half-past ten. The large number of maternity cases attended annually in connection with this hospital, affords ample opportunity to students for receiving instruction in practical midwifery. Every student, on registering himself as a midwifery-pupil, is supplied with a card, on which must be filled in the particulars of every labour at which he is present, each entry being attested by the initials of the medical officer or certified midwife in charge of the case. The hospital possesses a library, presented by the late Dr. Radford, consisting of nearly 4,000 volumes, chiefly on subjects connected with obstetrics and gynecology. There is also a museum, containing a large number of pathological specimens, and a valuable collection of deformed pelvises, casts, obstetric instruments, and anatomical models. The gynecological practice of the hospital is free to third and fourth years' students. The fee for the midwifery-practice, which includes attendance upon twenty cases of labour, as required by the examining bodies, is £2 2s. Application must be made to the House-Surgeon at the hospital.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—*Physicians*, Dr. H. Ashby, Dr. Hutton. *Surgeon*, Mr. G. A. Wright. The hospital at Pendlebury contains 140 beds, including 26 for fever. The medical staff see out-patients daily at the Dispensary, Gartside Street, at 9 A.M., and visit the hospital at 10 A.M. The practice of the Hospital and Dispensary is free.

ROYAL EYE HOSPITAL, MANCHESTER.—*Medical Officers*, Dr. Little, Dr. Glascott, Dr. Mules, Dr. Emrys-Jones, Dr. Hill Griffiths. The hospital contains sixty beds. The medical staff attend daily from 9.30 to 1. Clinical instruction is given (in connection with Owens College) on Mondays, Tuesdays, Thursdays, and Fridays, at 9.30 A.M., by Dr. Little and Dr. Glascott, free to advanced students. Dr. Mules and Dr. Emrys-Jones, visit the hospital at 9.30 A.M. on Wednesdays and Saturdays. Dr. Glascott gives a special course of Ophthalmoscopic Demonstrations on Mondays, at 3.30, during the summer session.

NORFOLK AND NORWICH HOSPITAL.—*Physicians*, Sir Peter Fade, Dr. Bateman, Dr. Taylor. *Surgeons*, Mr. Cadge, Mr. Crosse, Mr. C. Williams. *Assistant-Surgeons*, Dr. Beverley, Mr. Robinson. The hospital contains 150 beds. One year's attendance is recognised by the Examining Boards. Clinical lectures are given by the Physicians and Surgeons. *Fees*: Physicians' practice, six months, £5 5s.; perpetual, £10 10s.; surgeons' practice, including dressership, three months, £10; six months, £15; one year, £20; two years, £30; perpetual, £40. Pupils, resident and non-resident, are admitted.

NORTHAMPTON GENERAL INFIRMARY.—*Physicians*, Dr. Buzzard, Dr. Jones. *Surgeons*, Mr. G. H. Percival and Mr. R. A. Milligan. There are 144 beds and a large out-patient Department. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given, by the House-Surgeon, in Anatomy, *Materia Medica*, and Pharmacy. *Fees*: 25 guineas a year; perpetual £50. Arrangements for board and residence, etc., can be made.

NEWCASTLE-ON-TYNE DISPENSARY: EAR DEPARTMENT.—*Surgeon*, Dr. Lucius Holland, and Clinical Assistant, Monday and Saturday, 2 P.M. *Dental Surgeon*, Mr. R. Markham. The dispensary has an extensive out-patient (Ear) department, which is open to medical practitioners and students, for Clinical Demonstration and Instruction, at and a ter

the hours of the surgeon's visits. A course of lectures on the special Diseases of the Ear and Throat is also delivered, with the Comparative Morphology of the Auditory Apparatus. *Fee* for three months, £1 1s.; six months, £2 2s.

GENERAL HOSPITAL, NOTTINGHAM.—*Consulting-Physicians*, Dr. W. T. Robertson and Dr. Storer. *Physicians*, Dr. W. H. Ransom, Dr. B. R. Morris, Dr. J. O. Brookhouse, Dr. E. Seaton. *Consulting Surgeon*, Mr. J. White. *Surgeons*, Mr. T. Wright, Mr. L. Littlewood, Mr. J. Beddard, and Dr. A. C. Taylor. The hospital contains 180 beds. The Honorary Staff introduce Pupils to witness the Practice of the hospital, on payment of £10 10s. annually. The pupils receive instruction from the Resident Surgeon.

ROYAL UNITED HOSPITAL, BATH.—*Consulting Physician*, Dr. Coates. *Physicians*, Dr. Goodridge, Dr. Cole, and Dr. A. E. W. Fox. *Surgeons*, Mr. Stockwell, Mr. Fowler, Mr. Freeman. *Assistant-Surgeons*, Mr. Green, Mr. Scott, Mr. Ransford. *Medical Officers for Out-Patients*, Dr. Field, Mr. Cowan, Mr. Craddock. *Dental Surgeon*, Mr. Gaine. *Pathological Registrar and Curator*, Mr. H. Culliford Hopkins. The hospital, which contains 120 beds, is recognised by the Royal Colleges of Physicians and Surgeons, etc., and is licensed for Dissection. It has a good Library and an excellent Museum, containing a large number of interesting specimens, both in Pathology and in Comparative Anatomy. *Fees* for attending the Hospital Practice: six months, £5 5s.; twelve months, £10 10s. Instruction in Practical Pharmacy, £5 5s. Pupils entering in October can, if desired, be instructed in the subjects required for the First Professional Examination of the Royal College of Physicians, which can be passed during the year spent at the hospital. The subjects are Chemistry and Chemical Physics, Materia Medica and Pharmacy, Medical Botany, and Osteology. For further particulars, apply to the Registrar and Curator.

NORTH STAFFORDSHIRE INFIRMARY.—*Physicians and Medical Officers*, Dr. J. T. Arlidge, Dr. C. Orton, Mr. Ashwell, Mr. J. G. West. *Surgeons*, Mr. W. H. Folker, Mr. J. Alcock, Mr. W. D. Spanton. The Infirmary has accommodation for nearly 220 patients, including detached fever-wards, children's wards, and special ovarian wards. The attendance of pupils at this Infirmary is recognised by all the examining boards. Particulars as to fees, etc., may be obtained from the secretary, Mr. R. Hordley, Hartshill, Stoke-on-Trent.

STAFFORDSHIRE GENERAL INFIRMARY.—*Physicians*, Dr. Crawford, Dr. Reid, Dr. Monckton. *Surgeons*, Mr. Watson, Mr. Greaves. There are 120 beds. The pupils of medical practitioners resident in the county of Stafford are allowed to witness the Medical and Surgical practice of the Infirmary, and to be present at Operations. The pupils of the Officers of the Institution are admitted to these privileges gratuitously, those of other practitioners on the payment of £10 10s. with each pupil. The assistants of a medical practitioner, having gone through a complete curriculum, are admitted on the annual payment of £5 5s.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—*Consulting Physician*, Dr. Topham. *Consulting Surgeon*, Mr. Newnham. *Physicians*, Dr. Millington, Dr. Totherick. *Physician to Out-patients*, Dr. Malet. *Surgeons*, Mr. Vincent Jackson, Mr. Kough, Mr. F. E. Manby. The hospital contains 210 beds, and is a preparatory School of Medicine and Surgery. The pupils see the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. Attendance at this hospital is recognised by all the Examining Boards. *Fees*: six months, £6 6s.; twelve months, £10 10s.; perpetual, £21.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—*Physicians*, Dr. Kellbell, Dr. Withers Moore, Dr. J. Rutter. *Assistant-Physicians*, Dr. W. A. Hollis, Dr. H. S. Branfoot. *Consulting Surgeon*, Mr. E. J. Turner. *Surgeons*, Mr. F. W. Jowers, Mr. F. A. Humphry, Mr. N. P. Blaker. *Assistant-Surgeons*, Mr. W. Furner, Dr. J. C. Uthoff. The hospital contains upwards of 160 beds, with separate wards for Children and for Fever-cases; and the Out-patient Department is attended by 600 to 700 patients weekly. It is recognised by the College of Surgeons and by the Conjoint Board as a Hospital where part of a Medical Course may be spent; and special Classes are held by Members of the Honorary Staff and by the House-Surgeon, in Osteology, Anatomy, Physiology, Materia Medica, Pharmacy, and Elementary Clinical Medicine and Surgery. In-pupils are received in adjacent houses under supervision of the Assistant House-Surgeon, and have rooms in hospital in rotation as "Resident Pupils;" inclusive fee, £84 per annum. Out-pupils are admitted to the Clinical Teaching and the Classes at a fee of £21 for two years. The Ormerod Exhibition, of

the average value of £30, is awarded annually, after examination, to the best Student of those leaving to pursue their studies at a Medical School. A Prize of £25 will be awarded in the first week in October to the Student who shall pass the best Examination in Classics, Mathematics, and French or German, on his entrance at the Hospital. Further information may be obtained from the House-Surgeon or the Staff.

BRADFORD INFIRMARY AND DISPENSARY.—*Physicians*, Dr. R. G. Alexander, Dr. H. C. Major. *Surgeons*, Mr. H. Meade, Mr. H. M. Spencer, Dr. A. Rabagliati, Mr. J. Appleyard. *Medical Officers*, Dr. J. H. Bell, Dr. D. Goyder. The hospital contains 132 beds. Non-resident pupils are received, and have every opportunity of acquiring a practical knowledge of their profession under the superintendence of the House-Surgeon. One year's attendance is recognised by the Examining Boards. *Fee*: perpetual, £10 10s.

JESSOP HOSPITAL FOR DISEASES OF WOMEN, SHEFFIELD.—*Consulting Medical Officers*, Dr. Aveling, Dr. E. Jackson, and Dr. Hime. *Medical Officers*, Dr. Keeling, Mr. Woolhouse, Mr. R. Favell, Mr. Laver. An obstetric dressership is attached to the hospital. Students can attend the practice of the hospital, and be supplied with cases of midwifery.

SWANSEA HOSPITAL.—*Consulting Physicians*, Dr. G. Padley and Dr. J. Paddon. *Physicians*, Dr. J. Rawlings, Dr. D. A. Davies. *Consulting Surgeon*, Mr. J. G. Hall. *Surgeons*, Mr. J. Thomas, Mr. H. A. Latimer. *Ophthalmic Surgeon*, Dr. T. D. Griffiths. *Medical Officers for Out-door Patients*, Mr. J. F. Fry, Dr. A. D. Davidson. *Surgeon-Dentist*, Mr. F. C. Scott. The House-Surgeon is permitted to take two articulated pupils, whom he binds himself to transfer to his successors in the event of his leaving the hospital during the term of their apprenticeship. The premium or fee on the introduction of pupils is such a sum as the Committee may consider reasonable. It is apportioned between the House-Surgeon and the Institution, as the Committee for the time being may determine.

GLASGOW HOSPITAL FOR SICK CHILDREN.—This hospital, containing 57 beds for the Non-Infectious Diseases of Children, is open for Clinical Instruction. *Physicians*, Dr. James Finlayson, Dr. Samson Gemmell. *Extra Physician*, Dr. G. S. Middleton. *Surgeons*, Dr. Hector C. Cameron, Dr. William Macewen. *Extra Surgeon*, Dr. W. J. Fleming. *Oculist*, Dr. Thomas Reid. *Aurist*, Dr. T. Barr. *Pathologist*, Dr. Joseph Coats. *Dentist*, Mr. Rees Price. Students, by paying the fee of one guinea, are entitled to the practice of the hospital for twelve months from the term of entry, which may be at the beginning of February, May, or November. Further particulars may be had by applying to the Resident Medical Officer.

DENTAL SURGERY.

REGULATIONS OF THE MEDICAL COUNCIL.—The following are the regulations of the Medical Council regarding the registration and education of Dental Students. 1. The registration of Dental Students shall be carried on at the Medical Council Office, London, in the same manner as the registration of Medical Students, and subject to the same regulations as regards Preliminary Examinations. 2. Students who commenced their professional education by apprenticeship to Dentists entitled to be registered, or by attendance upon professional lectures, before July 22nd, 1878 (when dental education became compulsory), shall not be required to produce evidence of having passed a Preliminary Examination. 3. Pupils who have been articulated to their fathers, or to brothers, with whom money transactions would be nominal, shall, in all other respects, be considered to be in the same position, in regard to registration, as those pupils provided for in the first part of Section 37 of the Dentists' Act, who have paid premiums for instruction. 4. Candidates for a Diploma in Dental Surgery shall produce certificates of having been engaged during four years in Professional Studies, and of having received three years' instruction in Mechanical Dentistry from a registered practitioner. 5. One year's *bona fide* apprenticeship with a registered Dental Practitioner, after being registered as a Dental Student, may be counted as one of the four years of Professional Study. 6. The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the Dental Student either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of Professional Study unless taken after registration. 7. The privilege provided by the first clause of Section 37 of the Dentists' Act, for persons whose articles of apprenticeship expired before January 1st, 1880, shall be extended to all persons whose articles had begun two years before that period.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND grants a Diploma in Dental Surgery under the following regulations.

Candidates must produce certificates: 1. Of being 21 years of age. 2. Of having been engaged, during four years, in the acquirement of professional knowledge. 3. Of having attended not less than one of each of the following Courses of Lectures: Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica. 4. Of having attended a Second Winter Course of Lectures on Anatomy, or a course of not less than twenty Lectures on the Anatomy of the Head and Neck. 5. Of having performed Dissection during not less than nine months. 6. Of having completed a Course of Chemical Manipulation. 7. Of having attended, at a Hospital or Hospitals in the United Kingdom, Surgery and Clinical Lectures on Surgery, during two Winter Sessions. 8. Of having attended two Courses of Lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one course on Metallurgy. 9. Of having been engaged, during not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. 10. Of having attended at a Dental Hospital, or in the dental department of a General Hospital, the Practice of Dental Surgery during two years. The courses of instruction and hospital practice must be by lectures or in institutions recognised by the College.

All candidates who commence their Professional Education on or after July 22nd, 1878, must, in addition to the certificates enumerated above, produce a certificate of having, prior to such commencement, passed a Preliminary Examination in General Knowledge recognised by the General Medical Council.

Candidates who were in practice as Dentists, or who had commenced their Education as Dentists, prior to September, 1859, and who are unable to produce the certificates required by the foregoing regulations, must furnish the Board of Examiners with a Certificate of Moral and Professional character, signed by two members of the College, together with answers to certain inquiries. In the case of candidates practising in, or educated in, Scotland or Ireland, the certificate of moral or professional character may be signed by two Licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland.

The examination is partly written and partly oral. The written examination comprises General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to Dental Practice. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, have to answer only those questions set by the Section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination are examined only by that Section. A rejected candidate is not admitted to re-examination within six months, unless the Board otherwise determine. Examinations are held in February, June, and October. The fee for the Diploma is £10 10s., over and above any stamp-duty.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The Examinations are written and oral, and consist of two separate sittings. Candidates must apply to the Secretary of the College on or before the Saturday preceding the ordinary examination, and must produce all the required certificates.

Candidates who commenced their professional education on or after August 1st, 1878, must produce evidence of having attained the age of 21 years, and of having passed the Preliminary Examination in General Education required for the ordinary Licence in Surgery, or an equivalent examination. They must also produce certificates of having been engaged, during four years, in the acquirement of professional knowledge, and of having been, during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a registered dental practitioner.

The following Lectures and other courses of instruction must have been attended at a recognised medical school or schools: Anatomy, one winter course; Dissection and Demonstration, nine months; or Dissection, nine months; and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, Surgery, Medicine, each one winter course; Materia Medica, and Practical Chemistry and Metallurgy, each one course of three months; Clinical Instruction in Surgery at a recognised Hospital, one course of six months, or two courses of three months; also the following special courses by recognised teachers: Dental Anatomy

and Physiology, Dental Surgery and Pathology, Dental Mechanics, one course of each; two years' attendance at a Dental Hospital, or the dental department of a General Hospital.

Licentiates of the College, or registered medical practitioners, must produce certificates of attendance on the special subjects only, and are examined in these only.

Anatomy, Chemistry (with Metallurgy), and Physiology, will form the subjects of the first Examination; Surgery, Medicine, Materia Medica, and Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, those of the second.

The fee is £10 10s. Each candidate for the first Examination must pay to the Secretary of the College £4 4s. not later than 9 A.M. of the Saturday preceding the Examinations; and if the candidate be unsuccessful, £2 2s. are returned to him. Each candidate for the second Examination must pay £6 6s. not later than 9 A.M. of the Tuesday preceding the examination; and if he be unsuccessful, £3 3s. will be returned to him. No unsuccessful candidate will be re-admitted for less than three months.

Examination sine Curriculo.—Candidates who were in practice before the first day of August, 1878, or those not in practice, but who had commenced their apprenticeship as Dentists before the first day of August, 1875, and who are unable to furnish the Board of Examiners with the certificates of lectures and hospital attendance required by the foregoing regulations, must produce: 1. A certificate of moral and professional character, signed by two registered medical practitioners, together with the full name, age, and address of the candidate. 2. The date of commencing practice or apprenticeship as a Dentist, and whether, if in practice, such practice has been carried on in conjunction with any other business, and, if so, with what business. 3. Whether he has any degree or diploma in Medicine or Surgery, and, if so, from what College or University, or other body, and at what time, it was obtained. 4. The particulars of professional education. The President's Council shall determine whether the candidate is entitled to be admitted to Examination; and such examination shall, with the exception of the Preliminary Examination, and the exemption in favour of registered medical practitioners, as before explained, be passed on the same subjects and in the same manner as is required for other candidates, and will confer the same privileges.

Every candidate, before being admitted as a Licentiate, must subscribe a declaration engaging not to advertise or pursue any other unbecoming mode of attracting business.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The regulations as to certificates, curriculum, number of examinations, fees, and examinations *sine curriculo*, are in effect similar to those of the Royal College of Surgeons of Edinburgh. A special course of Metallurgy is required, unless included in Practical Chemistry.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Every candidate for Licence in Dentistry of the College must produce evidence of having been registered by the General Medical Council as a student in medicine, and must pass a Preliminary Examination and three Professional Examinations.

The regulations of the College which refer to the Preliminary Examination of the candidate for the Letters Testimonial apply to the candidate for the Dental Licence. Candidates are strongly advised to pass in Physics at the Preliminary or Equivalent Examination.

Professional Examinations.—The First and Second Professional Examinations will be held in July and October of each year. Should the student fail to pass in July, he may present himself in October. The Examination of each year must be passed before a new session can be entered on; but, in special cases, it shall be in the discretion of the Council of the College to permit the student, for what appears to them sufficient cause, to commence a new year of study, and subsequently present himself for a supplemental Examination.

The candidate must, before admission to the First Professional Examination, produce evidence of having been registered as a medical student; also certificates of having subsequently attended the Surgical department of a General Hospital, nine months, and winter courses of Practical Anatomy, with Demonstrations and Dissections; Physiology, Surgery, and Chemistry; and a summer course of Practical Chemistry, Practical Physiology, and Materia Medica.

The fee for this examination is £5 5s. Candidates who are rejected will be admitted to re-examination on paying an additional fee of £2 2s.

Before admission to the Second Professional Examination, the candidate must produce evidence of having passed the First Professional Examination; also certificates of having attended subsequently the Surgical department of a General Hospital, nine months, and winter courses of Demonstrations and Dissections, Practical Anatomy, Surgery, and Medicine.

The fee for this examination is £5 5s., and for re-examination, if rejected, £2 2s.

The Third Professional Examination will be held in April, July, and October. The candidate must, before admission to the Final Examination, produce evidence—*a.* Of having passed the Second Professional Examination; or of having obtained a diploma in Surgery recognised by the College. *b.* Of having attended, subsequently to registration by the General Medical Council, the following courses of Lectures recognised by the College: Dental Surgery and Pathology, Dental Mechanics, of each two courses; Dental Anatomy and Physiology, Dental Metallurgy, of each one course. *c.* Of having attended for two years the practice of a Dental Hospital recognised by the College. *d.* Of having been engaged in acquiring a practical knowledge of Mechanical Dentistry, for at least two years, in a public Laboratory recognised by the College; or for at least three years under the instruction of a Registered Dentist. The candidate must also submit a piece of mechanical work certified to be of his own making.

A candidate holding a diploma in Surgery recognised by the College must produce certificates of one course of each of the above special dental subjects, and of half the Hospital attendance and half the Laboratory work required from other dental students. In this case, the special Dental courses, Hospital attendances, and Laboratory work, must all be taken out after the date of the diploma in Surgery.

The fee for the Final Examination is, in the case of Licentiates in Surgery of the College, and for Dental students, £7 7s.; for re-examination, if rejected, £4 4s. For candidates holding a Surgical diploma other than *in h.c.* of the Royal College of Surgeons in Ireland, £12 12s.; for re-examination, if rejected, £6 6s.

Candidates will be examined in—1, Dental Surgery—Theoretical, Clinical, and Operative; 2, Dental Mechanics—Theoretical and Operative; 3, Dental Anatomy and Physiology; 4, Metallurgy and Physics. The Examination, which will last four days, will be by printed questions and oral; and the candidates' knowledge of Operative Dental Surgery and Mechanical Dentistry will be tested in a Hospital, and in the Dental Laboratory.

Examinations sine Curriculo.—Candidates who were in practice before 1878, whose names are on the *Dental Register*, and who are unable to furnish the certificates required by the foregoing regulations, may be admitted to examination if they shall fill in the schedule of application as follows: 1. The name, age, and address. 2. A certificate of moral and professional character, signed by two Registered Medical Practitioners and by two Registered Dentists. 3. The date of commencing practice, and whether such practice has been carried on in conjunction with any other business, and if so, with what business. 4. Any certificate of general education, or degree in Arts and Medicine. 5. The particulars of professional education. The schedule of application, containing these particulars, must be sent to the Registrar of the College, at least three weeks before the date of the examination; and the Council of the College will then determine whether or not the candidate shall be admitted to examination for the Dental Diploma. Such examination shall comprise the same subjects, and be conducted in the same manner as the Second and the Final Professional Examinations.

The fee for this examination is £21; re-examination, if rejected, £10 10s.

An enrolment fee of £1 1s. is payable to the Registrar of the College on the issue of the diploma.

The following provision is made for instruction in Dental Surgery. **NATIONAL DENTAL HOSPITAL AND COLLEGE.**—*Consulting Physicians*, Dr. B. W. Richardson and Dr. W. H. Broadbent. *Consulting Surgeons*, Sir Spencer Wells, Mr. Erichsen, and Mr. Christopher Heath. *Consulting Dental Surgeon*, Mr. J. Merryweather. *Dental Surgeons*, Mr. F. H. Weiss, Mr. A. Smith, Mr. G. A. Williams, Mr. A. F. Canton, Mr. T. Gaddes, Mr. H. Rose. *Assistant Dental Surgeons*, Mr. W. Weiss, Mr. R. G. Bradshaw, Mr. M. Davis, Mr. H. G. Read, Mr. W. R. Humby. *Lecturers*, Dental Anatomy and Physiology: Mr. Gaddes, Tuesdays and Thursdays, 7 p.m., in October, November, and December. Operative Dental Surgery and Therapeutics: Dr. St. George Elliott, Wednesdays, 7 p.m., in November and December. Dental Materia Medica and Therapeutics: Mr. C. W. Glassington, Mondays, 7 p.m., in November and December. Dental Mechanics: Mr. H. Rose, Mondays, 7 p.m., in January, February, and March. Demonstrations in Dental Mechanics: Mr. Humby, Wednesdays, 7 p.m., in January, February, and March (in 1886 and alternate years). Dental Metallurgy: Mr. A. Tribe, Tuesdays, 9 a.m., in January, February, and March. Dental Surgery and Pathology: Mr. W. Weiss, Mondays and Thursdays, 6 p.m., in May, June, and July. Elements of Histology, Mr. Gaddes, Wednesdays and Fridays, 7 p.m., May and June.

Clinical Lectures and Demonstrations are given from time to time.

Dresserships in the extraction-room are held for three months by six senior and six junior students of the hospital.

Prizes.—Five Prizes in Medals are open for competition at the end of each course of lectures required. Certificates of Honour are given in each class. A Prize will also be given for Dental Materia Medica. The Rymer Medal for General Proficiency, value £5, with books or instruments, is awarded annually to the most meritorious student.

Fees.—General Fee for Special Lectures required by the curriculum of the Royal College of Surgeons of England, £12 12s. For the Two Years' Hospital Practice required, £12 12s. Total Fee for the Special Lectures and Hospital Practice required, £25 4s. Perpetual Fee to all Lectures, or to Hospital Practice, £15 15s. Single courses: Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, each, one course, £3 3s.; two courses, £5 5s.; Operative Dental Surgery, Dental Materia Medica, each, £2 2s.; Demonstration of Dental Mechanics, Elements of Histology, each, £1 1s.; Hospital Practice, to Registered Practitioners, six months, £7 7s.; twelve months, £9 9s.

Information respecting the Hospital Practice and the College, may be obtained from the Dean, Mr. Gaddes, at the Hospital, Great Portland Street.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY.—*Consulting Physician*, Sir J. Risdon Bennett, M.D. *Consulting Surgeon*, Mr. Christopher Heath. *Consulting Dental Surgeons*, Mr. S. Cartwright; Mr. John Tomes. *Dental Surgeons*, Mr. Hepburn; Mr. R. Woodhouse; Mr. Gregson; Mr. S. J. Hutchinson; Mr. Moon; Mr. F. Canton. *Assistant Dental Surgeons*, Mr. S. Read; Mr. A. S. Underwood; Mr. C. E. Truman; Mr. Storer Bennett; Mr. G. Parkinson; Mr. C. Rogers.

Lectures are given at this School on Mechanical Dentistry, by Dr. Walker, at 5 p.m. on Wednesdays in October, November, and December; on Dental Surgery and Pathology by Mr. Hutchinson, at 8 a.m. on Tuesdays and Thursdays in May and June; on Dental Anatomy and Physiology (Human and Comparative), by Mr. A. Underwood, at 8 a.m. on Wednesdays and Fridays in May and June; on Metallurgy in its application to Dental Surgery, by Mr. A. K. Huntington, at 5 p.m. on Tuesdays in October, November and December.

Six senior dressers for extraction, and eighteen junior dressers, are appointed annually.

The Saunders Scholarship of £20 is awarded to the student who has obtained the largest number of first class prizes in the winter and summer session. A prize, value £5 5s. is given for the best essay on some Surgical subject connected with Dental Surgery. First and second prizes are given in each class.

Fee for two years' hospital practice or lectures, each £15 15s.; for hospital practice, perpetual, £21. Single courses: Dental Anatomy and Physiology, Dental Surgery, Dental Mechanics, and Metallurgy, each one course, £3 3s.; two courses, £5 5s.

Further particulars may be obtained on application to the Dean, Mr. Morton Snale, at the Hospital.

QUEEN'S COLLEGE, BIRMINGHAM.—The teaching of Dentistry is undertaken by the Queen's College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that students may fully qualify themselves for the dental diploma of the Royal College of Surgeons. The Dental Hospital is situated near the College, and is opened daily (Sundays excepted).

Lectures on the special subjects are delivered as follows: winter session: Anatomy and Physiology, by Mr. F. R. Batchelor, Thursday, 5 p.m.; Dental Surgery and Pathology, Mr. T. Hawkins, Friday, 5 p.m.; Dental Metallurgy, Dr. Tilden, at the Mason College. Summer session: Dental Mechanics, Mr. C. Sims, Wednesday, 5 p.m.

The Birmingham Dental Hospital is open daily at 9 a.m. The staff is constituted as follows: *Consulting Physician*, Dr. James Sawyer. *Consulting Surgeon*, Mr. Furneaux Jordan. *Consulting Dentists*, Mr. T. R. English and Mr. Adams Parker. *Dental Surgeons*, Mr. C. Sims, Mr. H. B. Neale, Mr. F. R. Batchelor, and Mr. F. E. Huxley.

Clinical Demonstrations are given from time to time by the staff upon cases of particular interest; also upon the preparing and filling of cavities, and other operations upon the teeth and contiguous structures.

Dresserships in the Extraction-room are held for three months by senior and junior students at the hospital.

The fee for each of the special courses in Queen's College is £4 4s.; for Dental Hospital Practice, two years, £14 14s.; one year, £8 8s.; six months, £5 5s.

BRISTOL GENERAL HOSPITAL.—Mr. Parsons gives practical instruction in Dental Surgery, at 9 a.m., on Mondays and Thursdays.

OWENS COLLEGE, MANCHESTER.—Arrangements have been made

for Dental Students to attend the hospital-practice at the Manchester Royal Infirmary, and the practice at the Victoria Dental Hospital. Lectures on the special subjects will be given in the College as follows. Winter Session: Dental Mechanics, Mr. Tanner; Thursday, 5 p.m. Summer Session: Dental Anatomy and Psychology, Mr. Collier; Monday and Friday, 2 p.m. Dental Surgery, Mr. Matheson; Monday and Friday, 4.30 p.m. Dental Metallurgy, Dr. Burghardt; Thursdays, 2.30 p.m.

Fees.—For course of Metallurgy, £3 3s.; other lectures, one course, £3 3s.; two courses, £4 4s. Dental Practice for two years at the Manchester Royal Infirmary, £10 10s.; at the Victoria Dental Hospital of Manchester, £12 12s., paid in advance.

At the Victoria Dental Hospital patients attend at 8.30 in the morning daily, and at 7 p.m. on Monday, Wednesday, and Friday. The staff of the hospital is as follows. *Consulting Physicians*, Dr. W. Roberts, F.R.S., Dr. H. Simpson, Dr. J. E. Morgan, Dr. D. J. Leech, Dr. Lloyd Roberts. *Consulting Surgeons*, Mr. E. Lund, Mr. A. Heath, Mr. W. Whitehead, Mr. T. Jones, and Mr. J. Hardie. *Consulting Dental Surgeons*, Mr. H. Campion, Mr. S. A. Rogers, Mr. Parsons Shaw, Mr. G. W. Smith. *Dental Surgeons*, Mr. P. Betts, Mr. T. Buckley, Mr. G. Crocker, Mr. L. Dreschfeld, Mr. J. W. Dunkerley, Mr. W. Dykes, Mr. W. Headridge, Mr. H. A. Mann, Mr. L. Matheson, Mr. J. H. Molloy, Mr. H. Planck, Mr. H. C. Smale, Mr. W. Smithard, Mr. T. Tanner, Mr. J. Williams.

UNIVERSITY COLLEGE, LIVERPOOL.—The lecturers in the Schools of Dental Surgery in connection with this institution are as follows: Dental Surgery, Mr. E. J. M. Phillips; Dental Mechanics, Mr. E. A. Councell; Dental Anatomy and Physiology, Mr. F. T. Paul; and Dental Metallurgy, Mr. J. Royston. Lectures are given once or twice weekly, by arrangement. The fee for each course is £3 3s.; for a second course, £2 2s.

The curriculum in Dental Surgery includes Lectures and Demonstrations on all the subjects required for the Licences in Dental Surgery of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, and of the Faculty of Physicians and Surgeons of Glasgow.

Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant. The fee is £3 8s. for the two years' course.

GLASGOW DENTAL HOSPITAL.—Dental Anatomy (summer), Dr. J. C. Woodhouse, Wednesday and Saturday, 8 a.m.; Dental Surgery (summer), Mr. J. R. Brownlie, Tuesday and Friday, 8 a.m.; Mechanical Dentistry (winter), Mr. W. S. Woodburn, Friday, 7 p.m. Dental Metallurgy (winter), Mr. R. Price, Wednesday, 7 p.m. *Fees*: Each course of lectures, £3 3s.; this includes two summer sessions. Hospital Practice, two years, as required for the Licence in Dental Surgery, £12 12s. Composition fee for Hospital and lectures, £23 2s.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—Dr. J. C. Woodburn attends at the Royal Infirmary, at 3 p.m., on Mondays, Wednesdays, and Saturdays, and gives a course of Dental Surgery on these days in summer. The following course in the curriculum can be taken at this school: Anatomy, six months; Practical Anatomy, nine months; Physiology, six months; Chemistry, six months; Practical Chemistry, with Metallurgy, three months; Surgery, six months; Medicine, six months; *Materia Medica*, three months; Clinical Surgery, six months; Dental Surgery, six months; and attendance for two years on the Dental Department of the Hospital. The attendance on the dental clinic is free to students of the Hospital; to Dental Students, one year, £5 5s.; perpetual, £10 10s. Lectures on Dental Surgery, £2 2s.

DENTAL HOSPITAL OF IRELAND.—*Consulting Physicians*, Dr. R. D. Lyons, M.P.; Dr. J. W. Moore. *Consulting Surgeons*, Dr. E. H. Bennett, Mr. W. Stokes. *Consulting Dental Surgeons*, Mr. R. H. Moore, Mr. D. Corbett. *Dental Surgeons*, Mr. J. A. Baker, Dr. R. T. Stack, Mr. A. W. W. Baker, Mr. D. Corbett, jun. *Pathologist*, Mr. P. S. Abraham. All Dental Students who have passed their Preliminary Examination are admissible to the Clinical Instruction of the Hospital, after paying Fees and subscribing to the conditions prescribed by the staff. It addition to Clinical Instruction, Courses of Lectures will be given through the year on Dental Surgery, Dental Anatomy, Mechanical Dentistry, and Metallurgy, by the following Lecturers: Dental Surgery, Mr. A. W. W. Baker; Dental Anatomy, Mr. Daniel Corbett, jun.; Mechanical Dentistry, Dr. R. T. Stack; Metallurgy, Dr. C. Cameron. The lectures on Mechanical Dentistry and Metallurgy will be given during the winter; those on Dental Surgery and Anatomy during the summer months. In addition to the longer courses, special courses, of three months' duration, will be given to Surgeons about to join the Army and Navy, or to practise in the Colonies. Amongst the advantages of the School is the Mechanical Laboratory, where each Student is allotted his own bench, and every

effort is made to assist him in Mechanical Dentistry. Regulations as to Fees and other conditions are the same as the Dental Hospital of London. Any further information can be obtained from Mr. William Shea, Registrar of the Hospital, 20, York Street, Dublin, or from Dr. R. T. Stack, the Dean.

REVIEWS AND NOTICES.

HANDBOOK FOR THE INSTRUCTION OF ATTENDANTS ON THE INSANE; prepared by a Subcommittee of the Medico-Psychological Association appointed at a branch meeting, held in Glasgow, on February 21st, 1884. London: Baillière. 1885.

WE are willing to take this little book as an indication that the superintendents of the Scottish asylums are not content to dwell in appearances for ever. We hold that the "efficiency" of an asylum depends upon the manner in which the care, nursing, and treatment of the insane is conducted, and not upon shallow devices intended to strike the eye, and look vaguely grand in reports. The *Handbook* is designed to teach attendants how to behave towards the insane, how to nurse the sick, and what observations they are expected to make upon the symptoms and mental condition of those under their charge. It has been prepared by four medical superintendents of Scottish asylums, and has received the benefit of the suggestions of many of the other members who attend the northern branch of the Association.

The handbook contains sixty-four pages, neatly bound in cloth of arterial red. The headings of the chapters give an outline of the contents: "The Body, its General Functions and Disorders;" "The Nursing of the Sick;" "Mind, and its Disorders;" "The Care of the Insane;" "The General Duties of Attendants."

The first chapter has been thought too scientific and fragmentary in some of its parts; but an attempt to give, in nineteen pages, any idea worth having of the general functions and disorders of so complicated a machine as the human body can hardly be successful, treat it as one may. On the whole, it may be said that the authors have succeeded in presenting, in a clear and concise form, a great deal of information which a new attendant would either need to be taught orally, or would have to pick up gradually in the course of his work, and that his duties would be imperfectly done till he learned, in one way or another, what is written in the *Handbook*. We think that this little manual might advantageously be distributed in all asylums and hospitals for the insane. No doubt, superintendents will have something of their own to add, possibly something to modify, but they will find much of their work in training new attendants already done to their hands in this little book. The authors will, we dare say, receive farther suggestions as the work is tried; let us here give one. We are told: "Great difficulty is frequently experienced in teaching patients to gargle properly. An attendant may learn to do it himself, and thus teach them by gargling in their presence, and explaining how it is to be done." It seems to us that, whenever the patient is willing to listen to a lecture on the theory and practice of gargling, he will be willing to open his mouth to allow medicated spray to reach his throat. This is much preferable to gargling for the insane. We have only to add the names of the joint authors, Drs. A. CAMPBELL CLARK, Convener of the Subcommittee, C. McIVOR CAMPBELL, A. R. TURNBULL, and A. R. URQUHART, and to compliment them on the execution of their useful work.

—EPHEMERAL EDEMA OF GOUTY ORIGIN.—Dr. Negel (*Le Progres Méd.*, No. 43, 1884) relates the case of a rather stout lady, aged 41, subject to rheumatoid pains in the joints, but not to chilblains, who on two occasions, the last time in 1881, had noticed, after bathing in a river, swelling of the whole body, accompanied by violent itching and burning. Since the last occurrence, she became liable, whenever she washed her hands in cold water, to swelling, redness, and violent itching and burning of the fingers. Similar swelling might attack the feet, the arms, the nose, or the ears, under the influence of cold air or contact with a cold body. Her nose and ears often became swollen when she went out of doors without taking proper precautions to protect them. The parts, when affected, looked red, shivering, and distended. In from one to three hours, they returned to their natural state. Under treatment by salicylate of soda and liquor arsenicalis, with two alkaline baths a week, she became completely cured, none of the above named causes being capable of producing a return of the swelling. Dr. Negel regarded these phenomena as depending upon constitutional gout.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 19th, 1885.

SCIENCE AND EDUCATION.

SIR LYON PLAYFAIR'S presidential address, delivered at the Aberdeen meeting of the British Association for the Advancement of Science, was an eloquent appeal to the public of the British Empire in the cause of science as a feature in general education. The President may have drawn too gloomy a sketch of the present attitude of teachers towards science; still it cannot be denied that he chose a subject which is of high importance, and upon which authoritative opinions remain greatly divided. The supporters of science as a branch of education will be found amongst scientists, enthusiastic lovers of nature and physics, and those people who believe in all that is new, from a mental habit of distrusting all that is old. This third class must be taken into consideration, but should bear in mind that nothing is gained by abusing Latin and mathematics. The first class, the professional scientists, naturally support the cause; their authority gives them the right of being first heard, and their only weak point is the fact that their opponents can always point to self-interested motives. The strongest argument in favour of the consultation of scientists by educationalists is the fact that scientists alone can teach science properly, or even know what is science and what is not. Is this self-evident proposition necessary? Certainly, for in an already established branch of education do we not still hear of Englishmen teaching French? If Sir Lyon Playfair's views be ever adopted at great educational foundations, we may be sure that there will remain a certain risk that unscientific men may be made teachers of science. In a candidate for a scientific appointment at a school, the true scientific spirit cannot be so readily proved as a Parisian accent can be detected in a French master. Still the risk is not without numerous safeguards; and no such candidate, if worth election, need be without guarantees and testimonials from experts.

The enthusiastic lovers of nature, as well as amateur mechanics and hygienists, form a large body in this country, a valuable party who may render great services in favouring the cause, and who are, above all, ever honest in intent. This class, however, includes many who forget that the increased pleasure in the very fact of existence which their particular taste never fails to afford them, though most noble, is not purely scientific, and cannot be handed down to the young by lessons at school. Hence, they lose heart when any difficulty appears. They forget that, though a youth or a man who has kept

newts and sticklebacks for some time in an aquarium, may be much interested to hear or read about the position of those animals in nature, it is quite a different thing to teach those who do not possess such specimens that there are Urodele Amphibia, and that *Gasterosteus* is a remarkable genus of the Acanthopteroous Teleostei. Yet this aspect of the whole subject is a point never to be lost sight of. Science-teaching, to be of the least value, must be eminently practical, and must absolutely be made interesting. It may be a whole-some duty to compel youth to learn rules about genders, even if such rules be forgotten, but this principle can never apply to scientific education.

The opponents of scientific education comprise the homologues of a class that are in its favour, namely, those who from caprice distrust all that is new, and believe in all that is old. Such persons are not of great weight, but must be taken into account. Then come the invincibly ignorant, or prejudiced individuals, who hate science for any reason or no reason, who believe that a scientist is necessarily a blood-thirsty atheist, and who lie beyond the powers of argument.

Lastly come the old school-teachers, who, being essentially educationalists, deserve and rightly demand consideration in all educational questions. The schoolmaster is ever prejudiced against innovations for he relies chiefly on order and discipline, and is greatly averse to experiments on his pupils. A scientific curriculum is out of the regular order of studies; it demands a different kind of discipline from that which is needed to make youth learned in declensions and vulgar fractions and, as it may fail through the inexperience of a teacher, such an accident appears hard both to head-master and pupils. Society, however, must not leave everything educational to the discretion of the schoolmaster. Had it done so for the last century, school would now mean little but Eton Latin Grammar, and perhaps elementary arithmetic; but very improbably would the higher mathematics be taught, and we certainly should hear nothing of French or German. Other important members of society distrust change, as does the schoolmaster, but must be urged forwards. Many gallant officers believed in "Brown-Bess" and wooden three-deckers; but both have been, through necessity, superseded.

The signs of the times point to an ultimate solution of the question entirely favourable to science. It once was considered no anomaly that a young gentleman should leave school with a fair amount of knowledge (perhaps) about concords and prosody, but without having acquired the accomplishment of reading a line of French. Some day it will be thought odd that a boy, on leaving school, should be entirely ignorant of the way in which steam is utilised for the locomotive and the steam-ship, or of the relation of carbon and oxygen to the animal and vegetable kingdoms. One practical benefit of education in biology will be the knowledge, not yet acquired by the non-medical public, that anatomy and physiology do not mean disease, but health. It will be a great gain when society understands the true meaning of the word "nerves," and ceases to look upon "mucous membrane" as the name of a disease. Lastly comes the question, how is scientific education to be organised? There is only one answer: by a loyal understanding between competent schoolmasters and competent scientists. All previous educational reforms have been brought about in a similar manner, and the teacher must never forget, when inclined to ask "*Cui bono?*" how Sir Lyon Playfair has shown that "abstract discovery in science is the true foundation upon which the superstructure of modern civilisation is built."

THE HIGHER EDUCATION OF ARMY MEDICAL OFFICERS.

THE letter of our correspondent, I.V.R.C., published in the JOURNAL of September 5th, deserves serious notice. The object of this letter is to advocate, for army medical officers, a secondary course of instruction in London for six months, by four professors paid by the State, to be given between the eighth and twelfth years of service. Our correspondent makes use of the following argument in support of his proposition. "Were I a gunner, I could go through any number of artillery classes when of senior rank. Were I a sapper, I could go, at Government expense, to visit every great engineering factory at home or abroad. Were I in the infantry, I could spend two years at the staff college, learning the higher branches of the military art." Now, the answer to this is, that the mere fact of his being a "sapper" would not entitle him to any privilege of the kind. An engineer officer of known capacity is, as all the world knows, from time to time sent on the duty indicated; but it is not the case that every officer belonging to the Royal Engineers has any such roving commission given to him at the public expense. Our correspondent is, however, no doubt aware that the fact of his being an "infantry officer" would not entitle him to admission to the staff college. The number of admissions is strictly limited, and those only are admitted to the study of the "higher branches of the military art" who give evidence of superior capacity, and can pass a strict competitive examination.

It was not left to these later days to discover that the medical service is before all things "a preventive medical service." I.V.R.C. appears to have passed through the course of instruction at Netley. What was it that Dr. Parkes taught there, if not this truth? What does his successor teach now? Military medicine has been taught at Netley since the Army Medical School was opened. Was the teaching on this subject confined to a mere description of disease and treatment? It is well known that the best means of prevention formed the very back-bone of the instruction given. Then it is urged that hospital-administration is not taught there. By this, we presume, is meant military hospital-administration. No special professor is appointed for this purpose; but the school has its home in the largest military hospital in the kingdom; and it might be well worth considering whether such an appointment might not be made. Surely, however, a man engaged for four months on duty in its wards, seeing the routine of daily duty constantly before his eyes, may pick up, if he have open eyes and ears, a great deal of knowledge of this kind. This will be supplemented by eight years of practical experience afterwards in various climates, with the aid of the medical regulations, which clearly define the duties of officers of all ranks, from that of the surgeon to the highest position in the administrative grades. A man must be dull indeed if he cannot master most of the principles of the details of hospital-administration years before he is likely to be called upon to act as an administrative officer.

Is it, however, the case that hospital-administration, in the widest acceptance of the term, is not taught? The man who has mastered all that is comprised within the bounds of Parkes's famous text-book, and has diligently followed the instructions given by the professor of military surgery on the organisation of fixed hospitals, the position of dressing-stations, and field and base-hospitals, and the modern system of hospital-evacuation along the lines of communication, has gained a knowledge of hospital-administration of

much value. We may point to the splendid results obtained in our recent wars, in proof that knowledge of this kind is now pretty extensively diffused among army medical officers. If, with such means as we have indicated, I.V.R.C. cannot acquire a sufficient knowledge of military hospital-administration, there may be room to doubt whether the four civil London professors at £500 a year each, who never, probably, entered a military hospital, will be able to help him much.

Military medical officers have, in the literary and practical sense, the same means of improving themselves and keeping up their knowledge as the great bulk of civil practitioners have. No "post-graduate" teaching at the cost of the State is open to them. They have to keep themselves abreast of advancing knowledge by a careful study of the journals and text-books devoted to the advance of their profession in all its branches; and, in the present day, we all know that there very few "outlandish colonies" or "remote Indian garrisons" that are cut off from such means of instruction.

One word more. Our correspondent says his scheme will cost only £8,000 a year. That will be a serious obstacle. It was with the utmost difficulty that Lord Herbert, with all his immense influence, obtained from the Treasury the modest sum required for the Army Medical School; and it is notorious, among well informed people, that the school has, on many occasions, been attacked by financial reformers of great influence, and was finally saved from extinction, on the score of expense, by the interposition of a few persons of recognised authority in educational matters.

We are as anxious as any one can be to see army medical officers advancing in the knowledge of their profession, and we are among those who hold that they are, as the matter stands, the equals of those in civil life. This was the often expressed opinion of Parkes.

It is very doubtful whether the proposal for the foundation of further endowed educational establishments will help them more than, or as much as, self-help and self-reliance. We should be glad to see much more definite encouragement and reward given to continued study and research by army medical officers, and that would probably be the best way to further their continuous advances to higher platforms of knowledge, usefulness, and credit. We have but a moderate belief in the efficacy of the multiplication of State establishments.

ABUSE OF MEDICAL CHARITY.

To "give nothing for nothing" may be accounted a narrow and selfish maxim, but the giving of a something of value for nothing is a principle of action commendable under many circumstances, but condemnable in many others. It may be an act of charity, or one of lavishness and folly; or, possibly, it may partake of a mixed character. If it be the first named, the action has the approval of the conscience; but this blessed reward in respect of the other two alternatives is either wanting, or, otherwise, enjoyed in only a modified degree. To which category belongs medical charity? We fear it must be admitted that only a comparatively small proportion ranges itself within the first. No profession does so large homage to real charity; but none is the victim of charitable schemes to a like approachable extent. Many influences seem to impel medical men to be lavish of their professional wealth. Ambition for a higher status, or the lower aim to secure a speedy and lucrative practice, or even, now and then, other motives even less defensible, cause members of the profession to surrender

the just rewards of their services. So it happens that any philanthropic individual, ambitious of vicarious charity, may always reckon on the gratuitous co-operation of the medical man.

It must, indeed, be admitted that an apology is to be found for much of the gratuitous medical aid dispensed by our charities. Hospitals have acquired the position of institutions inseparable from our social organisation. The same may be said of dispensaries in general. Nevertheless, there is a point at which free hospital and dispensary relief becomes prejudicial to the community. The question of the day is, Have we not already reached that point? Are not medical men unwisely lavish of their services to the multitude, and unjust to themselves? Do they not, by the reckless manner in which they employ their stock-in-trade—their acquired knowledge and skill—depreciate the value of that commodity, and bring it into contempt? Do they not, by their readiness to distribute it at the bidding of any association or organisation, calling itself charitable, positively invite further demands for it? Do not some, at least, by their heedless institution of special hospitals—too largely connected with their own self-interests—inflict special injury upon their own professional brethren by catering for patients who have no claim to charity?

To these several questions we are persuaded an affirmative answer, more or less distinct, must be given. Medical charity has become an abuse. It is a social malady, and, unfortunately, we discern no adequate cure for it. We see, year by year, an ever increasing number of medical charities; and the inventive faculties, both of non-professional and of professional people, seem exercised in the devising of new forms. Viewing the prospect before us, it would seem that, with the exception of the wealthier classes, to whom to appeal for aid may be felt derogatory, or to be attended by tangible inconveniences, our gratuitous services will be called into requisition by the bulk of the population. Yearly every medical institution in town and village reports an accession to the previous numbers of applications for its help, and practitioners throughout the country have to bemoan the loss of paying patients by their conversion into medical paupers.

There is no denying the good done by medical charities, but it is largely mixed with evil. This may be inevitable in this world of commingled good and evil, and, to a certain degree, it would be a condition of things endurable; but the present aspect of the matter is that the evil is fast outrunning the good, and the manliness and independence of society, in its middle and lower grades especially, are sapped by the lavish distribution of medical assistance. The present generation is freely lectured on the virtues of thrift, and Government incentives are lent thereto by facilities given for saving; but what will all this avail, if the people be encouraged to rely on the bounty of others, or to pauperise themselves by resort to the public relief-funds when sickness overtakes them? As a demoralising influence, it stands on a par with the free distribution of food, by which temporising Governments have at times sought to obtain the goodwill and support of the masses.

We have been led to these remarks by a letter from Dr. Rentoul, of Liverpool, published in the *JOURNAL* of September 5th. Commenting upon a resolution of the Council of that city, to give a large sum in money to one of the hospitals, he points out that, by the returns of the public hospitals and dispensaries, as many as 298,269 persons have been under treatment in the course of the preceding year, at the cost of £77,737. These figures are independent of 40,701

patients treated by the poor-law medical officers. Regard being had to the population of Liverpool, this indicates, as he insists, a gross abuse of medical charity. Dr. Rentoul propounds, as a remedy, the establishment of a provident society. This is an excellent proposal, though not a new one. It affords a remedy, but not a perfectly satisfactory one. It cannot be made compulsory. Free physic will be preferred by the multitude to the cost of doctoring, even at the modest rate at which Dr. Rentoul would offer it; and so hospitals and hospital-demands for funds will go on. And, to note one point more, hospitals will attract by the reputation of their staffs. On the other hand, provident dispensaries themselves are not free from abuses. Over-reaching medical men can find scope in their working to subserve selfish ends; lay committees do not always work with sufficient consideration of the interests of the medical officers; and many members gain the benefits of the dispensaries who, by position, are not entitled to them, particularly where collectors are shrewd in the matter of commission on subscriptions.

Although we allude to these defects in the provident system, we desire to see its extension, as well in the interests of the operative classes as of the members of the profession.

If there is to be an arrest of the growing abuse of medical charity, or a diminution of its present extent, it must follow general action on the part of the profession; an event, when we look upon the rivalry of medical men, and the fierce competition among them to give their time and talents to every kind of charity devised by philanthropists or by ingenious schemes, of which we perceive no present prospect of realisation.

AN assistant in the Halle Clinic has been found dead in bed, from an overdose of morphine self-administered hypodermically.

PROFESSOR LEUBE's posts as Professor and Hospital-Physician in Erlangen are filled by the appointment of Dr. Penzoldt.

A CONGRESS of Russian alienist physicians is arranged for February, 1886.

DR. LUDWIG STIEDA of Dorpat has been appointed to the chair of anatomy in Königsberg, vacant by the appointment of Professor Meckel as successor to Professor Henle in the University of Göttingen.

THE Harveian Lectures will be delivered by Dr. Buzzard, at the Harveian Society, on November 19th and 26th, and December 3rd, the subject being "Some Forms of Paralysis Dependent upon Peripheral Neuritis."

At a meeting of the Health Committee of the Cardiff Town Council, in reference to a complaint on the subject recently made by the Committee, it was announced that a constant look-out for ships from infected ports would now be kept, the Customs having ordered a second quarantine-boat for the purpose.

THE dinner of the past and present students of St. Mary's Hospital Medical School will be held in the Venetian Room, Holborn Restaurant, on Thursday, October 1st, at 6, for 6.30, p.m.; Dr. Cheadle in the chair. A *conversazione* will be held in the Hospital and New School Buildings, on Friday, October 2nd, at 8.30.

HABITS OF AGED PERSONS.

THE short notice given in another page by Professor Humphry of the elder sister of the founder of the British Medical Association, who, in her 104th year, is in the enjoyment of good health, will be

read with interest by the members of the Association, especially as there is the hope of its being the precursor of more full details. Our readers are aware that the Collective Investigation Committee is carrying on an inquiry respecting aged persons; and we are sure that they will cheerfully respond to the Professor's request for information with regard to any centenarians whom they may happen to know, as well as with regard to persons who have reached the age of 90.

THE TEMPERANCE CONGRESS.

THE International Congress on the Abuse of Alcoholic Drinks has closed its sittings at Antwerp, after a thorough discussion of the means adopted in various countries for combating drunkenness. The Congress will meet again two years hence.

PRIZE COMPETITION FOR MOVABLE HUT-HOSPITALS AT ANTWERP.

THE prize of 5,000 francs and a gold medal offered by Her Majesty the Empress of Germany for the best form of movable hut-hospital for use in time of war has been allotted to a hut-hospital of Danish construction. In consequence of the large number of competitors, sixty in number, and the great merit of some of the hospitals of full size and models exhibited, her Majesty was induced to add to the original prize a second gold medal and ten silver medals. The following is the list of successful competitors. First prize, MM. Christoph and Unmarck, Doeckersystem, Copenhagen. Second gold medal, Society of Construction on the Tollet System, Paris. Silver medals: A. For hut-hospitals of full size, M. Frères Adt, Forbach (Germany); Rev. Mr. Berthon, Romsey (England); M. Danley, engineer, Belgium; Mr. Duckee, New York; M. E. Putzeys, engineer, Belgium. B. For models one-fifth of full size, Deputy Surgeon-General Dr. Innes, M.S., London; MM. Close, engineers, Belgium; MM. F. de Maessen-hauden and P. Frédéric, Alsace; Oberstabsarzt Dr. Port, Munich (Bavarian army); and M. Rivolta, Milan (Italy). In addition to the medals, sixteen certificates of honourable mention were awarded by the jury. The plans, drawings, and special descriptions of all the exhibits have been forwarded to Berlin, and it is expected that the whole will be published in a volume specially devoted to the subject.

THE ACCIDENT AT BOULTER'S LOCK.

DEEDS of exceptional daring should not fail to receive recognition, even in a journal devoted to matters purely medical, and the gallant and successful attempt of Mr. Henry S. Wellcome to rescue a lady from drowning in one of the locks on the Thames calls for more than passing notice. The story is an old one perhaps—a canoe engulfed by the sudden rush of waters; but the coolness and courage displayed were of no mean order, and served to avert what must otherwise have been a terrible catastrophe. We learn from the local papers that Mr. Wellcome dived no fewer than four times before he succeeded in finding Miss Wakeman; and that it was only after a terrible and desperate struggle that he was enabled to bring her safely to land. Boulter's Lock has long enjoyed an unenviable reputation, and those sucked down by the boil and rush of the intake rarely live to tell the tale. The Thames, year after year, claims its quota of victims, and the only effective means of reducing this mortality is to teach our young men and maidens the lesson which Mr. Wellcome has evidently learnt so well.

VACCINATION FROM THE CALF.

WE see that, at a recent meeting of the Derby Board of Guardians, the Board adopted, on the motion of Mr. G. Rice, one of the medical members of the Board, a resolution that "in the opinion of this Board, the public vaccinators should each week be supplied with calf-lymph." It will be remembered that at the Medical Conference on Vaccination from the Calf, summoned a few years since by the Metropolitan Counties Branch, at the instance of Mr. Ernest Hart, and presided over by him, the complete success of the system

of public vaccination by calf-lymph in Belgium and Holland was demonstrated by Mr. Hart in his report on the subject, and Dr. Warlomont explained the system pursued and its singularly successful and beneficial results. As the result, with the powerful co-operation of Dr. Cameron, M.P., in Parliament, the objections previously entertained by the medical department of the Local Government Board, on the score of alleged administrative difficulties, were overcome, and a State institution for the supply of calf-lymph was established. This has worked satisfactorily, but it is very inadequate, and the supplies obtainable are, as was complained at the Derby Board, insufficient and sparingly administered. We have no doubt that the future of vaccination lies in the generalisation of the use of calf-lymph, which is greatly extending in this country. It is largely used in America, Belgium, and Holland, and it is about to be generally introduced in Germany, where it is already prevalent. It removes far more administrative difficulties than it creates.

A TEMPERATURE OF 122° AT NIGHT.

ADVICES from the Red Sea continue to describe the discomforts experienced at Suakin as very serious. The English soldiers, it is said, are "a pitiful sight," not one man in fairly healthy condition, while even the Indian troops are grumbling bitterly, and almost mutinous. The heat is tremendous, the frequent sandstorms most distressing, and the deaths very numerous. But if Suakin be bad, Massowah, which the Italians have occupied, is worse. A private letter says: "We called in at Massowah, and had to anchor for the night, and a more frightful, horrible night I never spent; not a breath of air, and the thermometer 122° Fahr. This is no exaggeration; we were panting about the deck; the heat seemed to choke you; sleep was out of the question. Some negroes seemed to feel the heat more than Europeans, and were groaning fearfully, and pouring buckets of water over their heads, which, however, was of very little use, as the water was between 95° and 100° Fahr. Five Italian officers have committed suicide, and no wonder! Aden, after Suakin and Massowah, is a perfect paradise."

A NEW PROCESS FOR SEWAGE-PRECIPITATION.

LUTON, one of the towns which is drained into the river Lea, has had for long under consideration the imperative necessity of increasing the existing means of dealing with its sewage. A system of sewage-precipitation, the invention of Mr. Cobley, of Dunstable, has recently been tried with successful results. The affluent is unusually difficult to deal with, as, in addition to ordinary town-sewage, it is dyed a dark blue-black colour by the refuse from straw-plait dyeing which is the staple industry of Luton. The precipitating material is an intimate mixture of clay and coke-dust, raised to a high temperature in retorts, and subsequently treated with crude sulphuric acid. The resulting black powder is thoroughly stirred up with water, and delivered into the sewage in a graduated stream; powdered chalk is also added at Luton in order to get rid of the colouring matters. After treatment, a copious precipitate falls in the settling-tanks, and the effluent water is clear, colourless, and odourless. The process is said by its inventor to be very economical as well as effective. The sludge, it is believed, can be baked, and used over again two or three times until a valuable manure is obtained. Provisional protection has been obtained.

ENLARGING THE PADDINGTON PLAGUE-SPOT.

THE well known dust-wharfs, on the north of the Paddington Canal Basin, behind Praed Street, have long been a scandal to the west end of London, for here, in the centre of the most crowded part of Paddington, is deposited and sifted the dust and other refuse from the parishes of Paddington, St. George's Hanover Square, Marylebone, and Kensington. As if this was not enough, an enterprising contractor has been employed in extending this plague-spot to the south

side of the Canal Basin; and now the surgeons of St. Mary's Hospital have their work of healing put in jeopardy, for the dusting business for the large parish of Marylebone is being carried on within sixty yards of the hospital, and the actual spot where the dust-carts discharge their contents is just eighty yards from the windows of the accident-ward; so that, at certain times, to ventilate this ward, means to admit dust of the most dangerous character. The question came before the Paddington Vestry, last Tuesday, September 15th, when the Sanitary Committee very properly recommended the Vestry to require the immediate removal of the nuisance. Dr. Stevenson, the medical officer of health, submitted a report, pointing out the necessity for this course. It was strongly supported by Dr. Danford Thomas and Mr. Mark H. Judge; Mr. Judge remarking that ere long the whole dust-business should be removed from the parish, and that to permit any increase in the area over which this business was carried on, would not only seriously neutralise the usefulness of St. Mary's Hospital, but would add to the vested interest to be satisfied when the authorities did their duty and cleared away those dust-yards. The contractor was not without his advocates, but ultimately it was decided, by a large majority, to insist on the removal of the dust-business from the south side of the canal, and the medical officer was instructed, if necessary, to take proceedings before a magistrate.

TWO CASES OF HERPES WITH MOTOR PARALYSIS.

DR. G. WALLER communicates to the *Weekblad* of Amsterdam, notes of two cases of herpes, in which motor nerves were affected. A widow-woman, aged 68, had a painful patch of herpes, covering the whole of the right side of the face, stopping abruptly at the middle line. After some weeks, the herpetic spots and the pain disappeared, being, however, replaced by paralysis of the same side of the face, with loss of taste on the right half of the tongue. The other case was that of an old man, who had a herpetic eruption situated on the anterior aspect of the upper arm on the right side; this was accompanied with severe itching and a pricking sensation. Eight days after the appearance of the eruption, he found himself unable to raise or extend the arm. There was no pain or swelling in the muscles or joints, and the electric reactions were normal. The herpes and the paralysis both indicated the circumflex and musculo-cutaneous as being the nerves affected. The treatment was electrical, and brought the case to a successful termination.

PILOCARPINE IN DATURA-POISONING.

DR. LADISLAS ROTH, of Nagy Bajour, Hungary, was called, at 1 p.m., to a little girl, aged 4, in a druggist's shop. She was quite insensible, with widely dilated and insensitive pupils, the face and body being swollen as if dropsical, and covered with a scarlatiniform rash. She was very restless, throwing herself about in all ways, groaning and gnashing her teeth; the pulse was 146, small and weak; the respirations 40, superficial, the temperature 39.5° Cent. (103.1° Fahr.). No urine or stool had been passed since the commencement of the symptoms. The mother said that other children had told her that the child had eaten two handfuls of sweet ripe stramonium-fruit, and, when she saw her at 11 o'clock, she had seemed ill, and unable to stand on her feet. She had called the Government medical officer, who prescribed a mixture containing two grains and a quarter of tartar-emetic. The druggist, however, being of opinion that that would not do any good, took upon himself to give a solution of sulphate of copper instead. In the vomit which the copper had produced a number of berries of datura-stramonium were seen. Dr. Roth, remembering a case of atropine-poisoning he had seen reported by Professor Purjek, which had been cured by pilocarpine given subcutaneously, administered, at 12 o'clock, half a centigramme (1-14th grain) of pilocarpine, in five centigrammes of water, by means of a Pravaz's syringe. No salivation or sweating followed, but no improvement was detected; and, at a

quarter to three, a centigramme was given. The red rash and the swelling diminished. At 3, another centigramme was given. The child cried, and shortly began to show various signs of improvement, even answering "Yes," when the mother asked if she were ill. The injections were continued. Up to 5 o'clock, 5½ centigrammes had been given. At 6, the pupils had become almost normal, and the pulse 120, and temperature 39.8°. She was able to speak quite plainly, and wanted something to eat. All this time, there had been no sweating. At 7 o'clock, as her condition appeared somewhat less satisfactory, half a centigramme more was given, and this brought on both salivation and sweating. She made a rapid recovery. Altogether, six centigrammes of hydrochlorate of pilocarpine were administered, five of which, the writer considers, were required to neutralise the datura.

MANCHESTER MEDICAL SOCIETY.

THE ordinary meetings of the Manchester Medical Society, which have hitherto been held at the Owens College, which is about a mile from the centre of the town, will, during the ensuing winter, be held in the new library which has recently been added by the Literary and Philosophical Society to their premises in George Street. It is believed that holding some of the meetings in the centre of the town, and establishing a central reading-room in telephonic communication with the library at Owens College, will prove a convenience for members of the profession, and especially for those who reside in the country round about Manchester. It is expected that the new library of the Literary and Philosophical Society, which is capable of seating about 150 persons, will be ready for the holding of meetings and the use of members by October 1st, and that the telephonic communication will also be established by the same date.

MEDICAL ACTION FOR LIBEL IN BELGIUM.

AN unseemly accusation made by one medical man against another, apparently for the purposes of shielding himself from a serious suspicion of malapraxis, has been for some time past before the Belgian courts of justice, in the form of an action for libel brought by the medical man who was accused. The facts of the case are as follows. The plaintiff, Dr. Quinet, was called in, on December 6th, to a child suffering from a contusion on the thigh, caused by a fall. The injury was not sufficiently serious to prevent his attendance at school for a fortnight after the occurrence. At the end of this time, the child complained of pain in the thigh and groin. Dr. Quinet prescribed fifty centigrammes of calomel, as the patient was rather feverish and constipated, with poultices, and an ointment of mercury and belladonna. The following day, the purgative having acted, three leeches were applied, followed by poultices. On December 8th, Dr. Quinet discontinued his visits, and saw and heard no more of the child until January 2nd, when he was told by Dr. Deglimes, the registrar of deaths, that Dr. Decorte had made a formal declaration that the child had died from mercurial poisoning. Dr. Deglimes examined the body, on which he found no traces of mercurialisation: neither ulceration of the gums, which were perfectly healthy, nor any signs of diarrhoea. The cause of death was, in his opinion, a traumatic inflammation of the hip-joint. In this, he was supported by two other medical men, professors at different universities. Dr. Decorte, the defendant, had been called in on December 12th, when he gave it as his opinion that the child was suffering from mercurial poisoning; at the same time affirming that there was a dislocation of the thigh, which he, in conjunction with the parents and friends, endeavoured to reduce. The result of this treatment was to set up severe inflammation, which increased so much that, on the seventh day, it was necessary to remove the bandages. The pressure had produced an ecchymosis and an ulcer on the buttock, the marks of which were visible on the body. In spite of his diagnosis of mercurial poisoning, Dr. Decorte took no steps to control it, giving only minute doses of chlorate of potash. The Tribunal of Charleroi decided that not only was there no mercurial

poisoning, but that the opinion expressed by Dr. Decorte could not have been given in good faith, and assessed the damages at 4,000 francs, with costs. The defendant, having taken the case to the court of appeal in Brussels, failed to obtain a reversal of the judgment.

SEXUAL IGNORANCE.

OUR recent article on the above subject has drawn forth many communications, which have had our best attention, but our correspondents will readily understand our motives in not printing all their letters. We are much obliged for their kind sentiments, and for the commendation of our views which many of them have expressed. It is evident that this important question is engaging many thoughtful minds, and we feel sure this aroused attention must be fruitful in good. We wrote on the subject not dogmatically, but tentatively, and are more anxious that the ablest and best minds in the profession should carefully weigh this difficult matter and give us the results of their reflections, than that our views should be hastily and unthinkingly adopted. Many difficulties beset any solution of the problem, but that does not justify us in refusing to solve it at all. We think it is plainly an evil that young men, at least, should have no lawful and innocent means of learning the functions of the sexual organs, and that they should be left to derive this knowledge from the most objectional sources, and in the most objectionable way. The case of girls is no doubt different, as several of our correspondents have pointed out, but even here the evil is felt. We see no solution of the difficulty except practical instruction in physiology for all boys and girls. Some of our correspondents have seen difficulties in this suggestion, which we think are wholly imaginary. No doubt the present class of teachers are ignorant of physiology. But they could learn. We assume that boys and girls would be instructed at the proper age, and by teachers of their own sex. Our present system of education, which preserves complete silence upon a vital portion of our nature, is unnatural, and, therefore, cannot be enduring. We invite all well-wishers to the morality of youth to assist in finding an adequate solution of a difficult and most important problem.

TREATMENT OF ACUTE PULMONARY GANGRENE.

PROFESSOR FENGER, of Chicago, has recently read, before the Illinois State Medical Society, a contribution on the surgical treatment of acute gangrene of the lung, and several transatlantic medical journals have reported this paper, which appears to be of considerable interest. Up to the present time, four operations for acute pulmonary gangrene have been performed. The first was undertaken in 1879 by Mr. Lawson, in a case of five weeks' standing, with temporary relief, but the patient died of exhaustion in four days. Dr. Solomon Smith, of Halifax, performed the second operation in 1880. The gangrene had occurred in the lower lobe of the left lung, in the second week of croupous pneumonia. The patient lived 10 days, with marked improvement in respect of amount of cough, dyspnoea, and fœtor. The third case was in the practice of Professor Bull, of Christiania, in 1880. Acute gangrene in the anterior portion of the left lung was the indication for operation. The patient recovered after prolonged convalescence. Professor Fenger undertook the fourth operation in April 1884. The patient was a man, aged 34, and was in the second week of croupous pneumonia. Signs of consolidation and formation of a cavity in the right inframammary region, extending into the right axilla, were elicited by auscultation and percussion. Cough was distressing and dyspnoea great; about one pint of extremely offensive sputa was daily expectorated. The patient lost all appetite, and progressive emaciation rapidly supervened. A cavity was found, upon the introduction of the needle of a hypodermic syringe, in the right inframammary region. An incision was made parallel to the clavicle; the ribs were resected to an extent sufficient to secure access to the part, and the needle re-introduced within the cavity, as a guide. The cavity was then cut down upon by the small platinum pole of a

Paquelin's thermo-cautery, and an opening sufficient to admit the index-finger was secured. Digital exploration revealed no detached gangrenous masses. Accordingly, the cavity was gently washed out, a drainage-tube inserted, and the usual antiseptic dressing applied. Hæmorrhage during the operation was trifling, but washing out the cavity produced very troublesome coughing. The patient speedily reacted from the shock of the operation, which was relatively slight. Five hours after the operation, appreciable diminution in the fœtor was noted; at the end of the first week, expectoration was very scanty, and fœtor could not be perceived; at the end of the second week, decided improvement, with return of appetite, was observed; the fourth week witnessed further progress; and at the end of the fifth the patient was out of bed. During convalescence, fragments of gangrenous lung-tissue were discharged though the external opening. In the performance of this operation, Dr. Fenger recommends that the incision be made parallel to the ribs, which must be resected to a degree sufficient to secure access to the part. In conformity with the suggestion of Albert and Mosler, the needle of a hypodermic syringe should be used as a guide into the cavity, or diseased lung-tissue, and the small platinum pole of Paquelin's thermo-cautery should be employed to effect the opening. The cavity must be washed out, if practicable. Due care must be exercised to prevent asphyxia, if the cavity be connected with a bronchus. Irrigation of the cavity was productive of no untoward effect in Bull's case, but was the cause of troublesome cough in Fenger's patient, and Mosler ascribes one death to poisoning from thymol-irrigation. Dr. Fenger believes that there is no danger of death from the operation, and that it is indicated in cases of acute circumscribed pulmonary gangrene.

ELECTRICITY IN SURGERY.

THE establishment of the extensive electrical department recently added to St. Bartholomew's Hospital is likely to be followed by some useful practical results. During the present vacation, Mr. Bruce Clarke and Dr. Steavenson have been trying the efficacy of the treatment of stricture of the urethra by electrolysis, a plan which has been adopted and followed in America for some years. The results have been most satisfactory and encouraging. Several cases have, to all appearances, been cured with the smallest amount of pain to the patients, and without the use of an anæsthetic. Some time, of course, will have to elapse before it can be determined what amount of contraction may follow this mode of treatment. It is said to be but slight. When this important point has been ascertained, a report of the investigations will be brought before one of the metropolitan medical societies. An attempt has also been made to dissolve the middle lobe of the prostate in a case of prostatic enlargement. Should this plan of treatment also succeed, one of the greatest opprobria of surgery will have been removed. What now is to be done in a case of complete retention from disease of the prostate, when catheterism fails? Temporary relief may be gained by tapping the bladder, but all attempts at radical cure have hitherto been failures. A more extensive use of electrolysis in surgery is likely to prove a most useful addition to the means now generally employed in the treatment of many troublesome affections. If stricture of the urethra can be so easily cured, we may look to electrolysis as likely to prove the most adaptable and promising mode of treatment for stenosis of the os uteri in cases of dysmenorrhœa and sterility, and also in all other abnormal contractions of natural passages. It is satisfactory that the whole subject is being thoroughly investigated at a large hospital, which offers a wide field for research of this kind.

SCOTLAND.

PROFESSOR GAIRDNER ON MEDICAL EDUCATION AT DUNDEE. A CORRESPONDENT writes:—The address delivered at the prize-giving of the University College of Dundee, on June 27th

deserves some careful attention as coming from so high an authority on matters of education as the Professor of Physic in the University of Glasgow. The University College of Dundee, as is fresh in all our memories, was the outcome of a most liberal gift of £150,000 from the late Dr. Baxter and his sister, Miss Baxter. It was inaugurated on October 3rd, 1883, and its future prophesied, in an eloquent speech by Professor James Stuart of Cambridge, as a fresh centre, not only of literary and philosophical education, but even more certainly of the technical and exact sciences. And such it has proved to be; and it has lived prosperously through two sessions with about 130 students. At first, no teaching involving the organic sciences was attempted; but, during the last year, Professor D'Arcy Thomson has been teaching some biology to twenty-nine students; and there is good hope of the number increasing. With these beginnings, Professor Gairdner now puts forwards the proposal of forming, in Dundee, a school of medicine. There is a nucleus of students such as may attract others; there are teachers in chemistry, natural philosophy, and biology; there is an infirmary with 250 beds, and a growing population of 153,000; and, beyond and beside this, there is what, perhaps, was most in Professor Gairdner's mind, the oldest university in Scotland, St. Andrew's, close at hand, eager for any to whom it may give the name and style of Doctor. There seem indications for a convenient arrangement between an university with no hospital, and a medical school with no power of making students into doctors. If the parliamentary elections of next November give such a vigour to our legislators that they actually pass a Medical Act Amendment Bill, such a mutual accommodation-system may be helped or hindered. That Dundee, which after all is a smaller town than Hull, should be allowed to have its own university, is only hinted at as yet, and would meet probably with opposition on the ground that Scotland has already four universities for a population about the same as that of London. The desire for being taught, which is a strong characteristic of the Scotch nature, might gather together a fair group of students at Dundee; but there is always an intelligible opposition to the multiplication of centres of medical education and graduation. In medical education, altogether it is not so much new schools that are wanted, as the organisation and combination of old ones. More money, on the whole, is earned by the profession, and it must pay more for its education, enough, in fact, to make it worth while for those few good surgeons and physicians, who are also good teachers, to give most of their time to teaching, and enough to secure the whole of the time of a few good teachers of the accessory sciences. London, with its eleven separate schools and eleven separate staffs of teachers in all subjects, from botany upwards, has certainly a good deal to learn in the art of combination, while Edinburgh probably suffers from excess of centralisation and defect of clinical material.

PUBLIC HEALTH, EDINBURGH.

AN important question came up for consideration at a meeting of the Public Health Committee of Edinburgh Town Council at its meeting on Tuesday, namely, the sum to be charged for each patient suffering from infectious disease sent to the City Hospital from the outlying district of St. Cuthbert. The terms agreed upon are eight guineas for each case, together with charges for fumigation and whitewashing of the infected house. These terms are the same as are charged by the Glasgow authorities for the same kind of case sent from outlying districts. This regulation is to be tried for six months in Edinburgh. At the same meeting, the important subject of various unsanitary houses was dealt with, and several proprietors of houses, of which the structural arrangements were such and defects so manifold, were called upon to show cause why such houses should not be shut up as unfit for human habitation. A statement as to the number of cases of infectious disease in the City Hospital showed that, on Monday, September 14th, there were 81 cases, of which 38 were enteric fever, 15 of measles, 18 of scarlet fever, 1 of small-pox, and 9 of erysipelas.

HEALTH OF EDINBURGH.

At a meeting of the Public Health Committee of Edinburgh Town Council, held last week, the medical officer of health reported that a severe case of small-pox had occurred in the city, and that the patient had been removed to the city hospital. Small-pox cases are happily so rare in Edinburgh, that there is generally little difficulty in accounting for them; and this patient, there is good reason to believe, acquired the disease when on a visit to some friends at Hartlepool. At the same meeting, it was reported that measles prevails to a considerable extent in Edinburgh at present, as 113 cases had been reported during August. No fewer than 21 cases occurred in the married soldiers' quarters in Johnston Terrace, and 23 of these cases had been removed to the city hospital, and were treated there. A question was raised as to whether a charge should be made for the maintenance of these cases against the Government, but it was pointed out that the War Office voluntarily paid the local assessments on Government buildings in the city, and it was resolved to treat the cases free of charge. It was also reported to the same meeting that 266 cases of infectious disease had been intimated during August, of which 5 were of typhus fever, 66 of typhoid fever, 16 of diphtheria, 66 of scarlet fever, and 113 of measles.

THE FORTH BRIDGE AND EDINBURGH INFIRMARY.

SINCE the erection of the gigantic Forth Bridge commenced in earnest, it has contributed to the Royal Infirmary, Edinburgh, a very considerable number of surgical cases, and from the nature of the work and the large number of men employed, this is likely to continue. It is pleasing to notice that the members of the Forth Bridge Working Men's Club have contributed to the Royal Infirmary, lately, the sum of £100.

EDINBURGH WATER-SUPPLY.

THE last of the new works which were planned some years ago for the efficient water-supply of Edinburgh, is about complete, and it is not likely the city will have to contemplate any further works for a considerable time. The last report submitted to the trustees showed that the average daily supply sent into the city and district was 14,896,418 gallons, equal to 42 gallons per head of a population of 354,200.

PUBLIC BATHS.

It will be remembered that the principal part of the site of the old Royal Infirmary, Edinburgh, is to be occupied by a public school. A proposal has been before the Town Council that the remaining portion might be suitably occupied in the interests of the health of the community by public baths, and plans are being prepared which, when finished, will show if the scheme be feasible architecturally and pecuniarily.

DUNDEE ROYAL INFIRMARY.

It was stated, at a quarterly meeting of the Dundee Royal Infirmary, held last week, that Mr. Charles Couper, in the name of his brothers, sisters, and self, and in memory of his mother, had given the sum of 200 guineas for naming a cot in the children's ward. At the same meeting, a bequest of 1,000 from the late Mr. Thomas Smith, was intimated.

IRELAND.

BELFAST ROYAL HOSPITAL.

FROM a recent quarterly meeting of the committee of the hospital, it is satisfactory to learn that all accounts due against the institution up to the end of July are paid. Up to the same date, last year, there was a sum of £2,295 due by the hospital. This amount has been paid off, and the institution is now out of debt. This gratifying result was brought about owing to the bazaar in November of last year, and the success of the Hospital Saturday movement. The committee, how-

ever, are by no means free from anxiety as to the funds of the hospital. The ordinary receipts show no elasticity, except in the contributions of the working classes. The general subscriptions up to the same date last year amounted to £1,560, this year to £1,526. The church-collections amounted to £531 10s. 3d.; this year, they only amount to £372 19s. 2d., being a falling off of £158 11s. 1d. The contributions from the working classes amounted to £1,345 9s. 6d.; this year, they amount to £1,466 16s. 11d., or an increase of £121 7s. 3d. It will be seen from these statements that the support received from the general public is not of as satisfactory a nature as it should be, and that the churches are not keeping up to the level of past years.

THE LORD-LIEUTENANT AT BELFAST.

THE Lord-Lieutenant visited Belfast last week, and, while there, inspected many of the charitable institutions of that town, including the Belfast Royal Hospital, and the Queen's College. From these institutions he received addresses, to which suitable replies were returned by His Excellency.

QUEEN'S COLLEGE, BELFAST: ANNUAL REPORT.

THE number of students who entered the college during the past session was 139, whilst the aggregate number enrolled was 449, of whom 245 were students in medicine. The President, in previous reports, has directed attention to the insufficiency of the buildings and laboratories. When the college was founded, thirty-six years since, the requirements of practical training in science were not fully understood, and probably it was not anticipated that the number of students should so largely increase in a comparatively short period. The average number during the first decade was 189, during the second 368, during the third 400, while during the past session 449 were on the books. Provision was, however, made, in the Act of Parliament which authorised the founding of the college, for all requisite enlargement. The President expresses the hope that, as the college has so signally prospered, as the number of students has far outgrown the capacity of the buildings, and as the professors have laboured with untiring faithfulness, immediate steps will be taken to provide such accommodation as the Act of Parliament contemplated and guaranteed. He considers it a positive injustice to professors and students to hamper their efforts, and retard their studies, by a refusal to provide those buildings and appliances without which satisfactory training is impossible. He shows that the chemical department, more particularly, is terribly overcrowded, and that the professor has a great deal of extra work thrown on him in trying to teach his classes under great difficulties. The position of the chemical laboratory, it also appears, is most dangerous to the college. It is in the main building, and being overcrowded with students, and containing inflammable and explosive materials, any accidental fire or slight explosion might set fire to the whole college. The propriety of removing the entire chemical department to a detached building has been recommended, and is provided for in the new plans, which also include a fully-equipped physiological and histological laboratory. The Commissioners, in their inquiry last year as to the condition of the Queen's College, report that the training in the medical school, Belfast, is in all respects admirable, but that the facilities for clinical instruction in the Belfast hospitals are not quite satisfactory. This defect, the President remarks, may be easily remedied. Judicious combination and united systematic training of students on the part of the medical staffs of the several hospitals would make Belfast one of the most complete centres of clinical teaching in the country. There are ample materials; the highest professional talent in every department of medical and surgical investigation and practical operation; and there are hospitals for the special diseases of women and children, of the eye and ear, and for consumption and chronic ailments. All that is required is a little more system and organisation among the medical men, and a closer connection between them and the college professors.

NORTH FEVER HOSPITAL, CORK.

A DEPUTATION from the governors of this hospital waited on the Cork Town Council, last week, to request the corporation to renew their half-yearly grant in aid of the institution. It was proposed that a sum of £700 be granted, but an amendment, reducing this amount by £200, and leaving it £500 for the half year, was adopted, after considerable discussion.

A MORGUE FOR QUEENSTOWN.

FOR a considerable time past, a dispute has existed between the Cork Guardians and the Queenstown Commissioners, as to which was the proper authority for erecting a morgue for this place. At a meeting of the Queenstown Commissioners, last week, Dr. O'Farrell, medical inspector, Local Government Board, waited on them to learn their views with reference to the matter. He considered it, he said, a crying evil for a town like theirs not to have a morgue for the reception of dead bodies found floating in the harbour, and also in case of a railway accident, or any fatal occurrence of that kind. The commissioners admitted the necessity for a morgue, but, as the Cork Guardians were the Port Sanitary Authority, they considered that body should defray the cost of its construction. They promised, however, that if the Local Government Board would make Queenstown a distinct union, and the commissioners the Port Nuisance Authority, the morgue would at once be commenced. A memorial will be presented to the Board, requesting this, and probably in a short time a morgue will be constructed, more especially as the subject is at present under the consideration of the Chief Secretary for Ireland.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

BREAKFAST OF THE ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

ON the invitation of the Medico-Chirurgical Society of Aberdeen, a number of the members of the British Association breakfasted, on September 11th, in the hall of the society. Professor STRUTHERS presided, and among the others present were—Sir Lyon Playfair, Professor Flower, London; Professor Williamson, London; Captain Douglas Galton, London; Professor Crum Brown, Edinburgh; Professor D'Arcy Thompson, Dundee; Dr. Aitken, Inverness; Dr. W. B. Carpenter, London, etc. After the usual loyal toasts,

Professor STRUTHERS proposed "Prosperity to the British Association," coupling the toast with the name of Sir Lyon Playfair, the president. In doing so, he remarked that a similar meeting had taken place in this hall when the Association met in Aberdeen twenty-six years ago. By referring to the minutes, he found that the chairman on that occasion was Professor Redfern, well known as an able teacher of anatomy and physiology, then in Aberdeen, now of Belfast. Such a meeting as the present was appropriate, when they reflected that the medical schools had long been the nurseries of science, of the sciences, especially of biology; and as the reward for this it was the scientific basis and method which leavened the medical profession and raised it above the level of the mere professional. He trusted it would ever continue to be so, and that no legislation would ever take place which would tend to divorce science from medicine, and reduce them all, by a so-called one portal system, to a dead level of mediocrity. Sir Lyon Playfair had referred in his able address to Aberdeen University as among the schools in some need of appliances. Sir Lyon meant to help them by that remark, but he (Dr. Struthers) would take exception to it if it meant to apply to the state of biological science and its appliances now in the University of Aberdeen. But they were in need of some extension of their buildings. A great change had taken place since the Association met in Aberdeen a quarter of a century ago. Only a couple of months afterwards, there appeared the great work of Mr. Darwin on the *Origin of Species*. The work and philosophy of that great man, the most illustrious of all in the long history of science, had given a new biology, a new psychology, and a new natural theology. He had, in fact, made science worth living for, and the influence of that change would be felt in every section of this Association. He coupled the toast with the name of Sir Lyon Playfair. The selection of Sir Lyon as president was peculiarly happy. He combined the man of science with the public man, and was at the same time an able expositor, and he was a Scotchman besides. He had, in his place in the House of

Commons, rendered important services to the medical profession and the public. Witness his great speeches on the vivisection question, on the importance of vaccination, and on many occasions in support of higher education. All politics apart, he took this opportunity of saying how great a matter of regret it was that Sir Lyon was severing his connection with the representation of our universities; but they would hope that, notwithstanding that change, he would look back with affection on his Scottish connection, and be in the future what he had been in the past. The presidential address of Sir Lyon was eloquent, not with strained efforts at empty rhetoric, but eloquent with facts and with argument bearing on the prosperity of the nation. He trusted that it might be the means of influencing British statesmen to set more value than they had yet done on the encouragement of science and the support of the universities as the instruments of the higher education.

SIR LYON PLAYFAIR, who was received with loud applause, in reply, said the hospitality of Aberdeen had been unbounded to the British Association; and this pleasant breakfast added very much to the enjoyment of scientific men, who knew how much science had depended in the past, and must depend in the future, upon its relations to medicine. The British Association had for one of its functions the diffusion of light throughout the country, and the desire to create a taste for science amongst the people. With reference to the relations of science and medicine, he thought all medical men should reflect with pride that the first systematic college which arose in Europe was the College of Medicine at Salerno, and that became the type of all the universities which afterwards spread over Europe, and led to its enlightenment. A very curious thing in connection with this old College was that at that time there were undoubtedly female graduates. Monk Rudolf, who visited it in the eleventh century, was surprised to find that the only one as learned as himself was a medical lady. Therefore, they saw these things rising and falling, and they need not be surprised, if the competition began in the eleventh century, that it should be so formidable in the present one. All those who knew what a medical education was, knew that it was broader and better in drawing out the true faculties of men than any other kind of education. He was not a medical man, but he was educated as a medical man, having gone through his four years' course, but, in the fourth year, he was drawn away from medicine to other subjects, particularly to those relating to chemistry. Therefore, any advantage which he had received in his education he always attributed to the fact that he passed through a medical curriculum, and obtained that broad knowledge of science which came from such an education. It was by the power of medical societies that they had been able to prevent very serious injury to the medical education of this country. He thanked Professor Struthers very much for connecting the toast with his name. Sir Lyon Playfair concluded by proposing the toast of "The Medical Profession," coupled with the name of Professor Gairdner of Glasgow.

Professor GAIRDNER, in reply, spoke of the importance of a knowledge of the natural sciences as the foundation of medical education, and went on to remark on the want of proper methods of imparting scientific knowledge in schools, instancing Hugh Miller as a striking example of one for whom a school-education had been of comparatively little benefit.

Dr. ARCHIBALD REITH gave the toast of "The Medical Members of Parliament," coupling it with the name of Dr. Farquharson, who suitably replied, hoping that, in the next Parliament, they would be largely reinforced by men of science competent to deal with the questions of social and sanitary reform, which were calling for attention.

Dr. BEVERIDGE proposed "the American Association for the Advancement of Science," to which Professor MARSH responded.

Dr. PRIESTLEY, London, proposed "Prosperity to the Aberdeen Medico-Chirurgical Society," and, coupled the toast with the name of Professor Struthers, the President. He said there would seem to be a certain fitness in his proposing this toast, seeing that he was one of the vice-presidents of the Royal Medical and Chirurgical Society of London, on behalf of which he desired to express gratitude for the kindness its representatives had received since coming to Aberdeen. His acquaintance with Dr. Struthers dated back more than a quarter of a century, and year by year he had watched the professional career of his friend till his reputation was now world wide.

Professor STRUTHERS, in acknowledging the toast, said that the president was sometimes apt to get credit which he did not deserve, for successfully arranging meetings of this sort. There was always an official who did that work, but who generally did not come to the front; and the success of the meeting was largely due to their able secretary, Dr. Rodger, and the members of Council who attended to the details. He had to thank the members of the British Association

for the honour they had done the Society; and he hoped it would not be twenty-six years again before the meeting of the Association took place in Aberdeen.

The meeting then separated.

SUBSECTION D.—PHYSIOLOGY.

Direct Action of Anæsthetics.—Dr. J. MCGREGOR-ROBERTSON gave a demonstration of the direct action of anæsthetics on the frog's heart. By means of an ingenious but simple apparatus, formed to permit a given quantity of fluid through the heart, Dr. Robertson showed how the heart behaved under ether, ethylene dichloride, chloroform, and other anæsthetics. Less than one per cent. of ether quickened the action of the heart; more than one per cent. decreased it; more than one-twentieth per cent. of chloroform stopped it. Both ether and chloroform were found, in their incipient stage, to cause tonic spasm of the heart, which condition might account for the occasional deaths from small quantities of chloroform.—Dr. STIRLING suggested the prosecution of the action of one drug on different tissues.—Dr. M'KENDRICK gave some facts on the action of ethylene. Other members suggested the determination of the special tissues acted on.

The Sense of Taste.—Professor J. BERRY HAYCRAFT expounded a new theory of the sense of taste. As in the senses of sound and sight, the sensation was determined by what we know objectively as vibrations, so also different tastes were determined by rates of vibration of the molecules of different substances. This law held of all the senses, the qualitative differences of particular tastes or sounds being due to compound vibrations. This was correlated with the periodic law that governed certain chemical elements. Thus sodium, potassium, and lithium formed compounds that were saline in taste. So, in the organic world, groups of elements took the place of simple elements. For example, in white of egg, starch and sugar, there was a group of carbon, hydrogen, and oxygen occurring in all. Each element, or group of elements, had a certain character due to certain molecular vibrations, and corresponding to timbre in sound. To this peculiar character was due the distinctness of tastes. Only one sense—the sense of temperature—was merely qualitative; in all the others were distinguished qualitative differences, and this is because the end-organs were all fundamentally the same. The exposition was illustrated by apparatus and diagrams.

THE CHOLERA.

Elaborate distribution of the inoculation virus in Valencia.

NEW VERSION OF THE STORY OF INOCULATION IN VALENCIA.

THE *Independencia Médica* is very angry with the BRITISH MEDICAL JOURNAL, because we publish a letter from our correspondent in Valencia, in which he gave an account of the disastrous effects of Dr. Ferran's cholera-inoculation in an asylum for the poor under the care of sisters of charity. The facts, as given, are entirely incorrect, according to the *Independencia Médica*. The true version of the story was related in an address by Dr. Gimeno, professor in the Valencia University, before the Madrid Scientific and Literary Institute, on July 10th. Dr. Gimeno asserts that, up to July 1st there had been, among the inmates, 63 seizures with 62 deaths, and, among the sisters, 10 seizures and 3 deaths. Eighty sisters were then inoculated, of whom 13 were already suffering from diarrhoea. Within the first five days (during which Ferran says his inoculation does not exercise any prophylactic influence) 30 were attacked, of whom 16 died. After the fifth day only one sister was attacked, and she had not been inoculated with the others, having been absent on the day on which the operation was performed. This sudden cessation of the seizures after the fifth day is, according to the lecturer, a grand proof of the wonderful efficacy of the inoculation. The medical man attached to the establishment complains that all the newspapers were in a great hurry to publish incorrect versions of the affair, none of them having consulted him who alone was capable of giving the true facts of the case.

THE CHOLERA IN SPAIN.

OUR correspondent in Valencia writes, on September 12th, 1885:—The best proof that I can send you from this city of the complete disappearance (I must not say extinction) of cholera is, first, that the great annual bull-fight, lasting three days, which was postponed (as well as the great annual fair, lasting fourteen days) in the beginning of July. The bull-ring holds 20,000 spectators, not including babies and children in arms, of which vast numbers are carried there. Also, a few days hence, the people are invited to a grand

Le Deu, which (the papers state) is being prepared with great pomp and splendour. Then comes the Great Fair, if not too late in the season. It is held in the Alameda, which is all lighted up with gas for the occasion. Holiday-folks and panic-stricken refugees are returning here in great numbers now, to enjoy the above festivals, which are called "Thanksgivings to the Almighty for the disappearance of cholera." The city has once more entered on its ordinary rounds of gaiety and folly, and no one visiting us would dream that any terrible disease had passed over the city or province; even the dead are utterly forgotten and unmentioned, while the bulk of the people are clothed in the meaningless black stuffs, revelling in theatres, *cafés*, promenades to churches and Alameda.

I am glad to say cholera is rapidly declining everywhere in the Peninsula, and have no doubt the reason Sevilla has escaped is owing to the excellent supply of pure water recently brought to that city by an English Company.

The weather is all that can be desired here, both for health and harvests; delightfully cool mornings and evenings, with strong easterly breezes. I have never known the death-rate lower here than it has been during the last twelve days. The daily cemetery-bulletin has ranged from eight to twelve deaths only (of all kinds).

What has become of the English Cholera Commission, about which so much was written, and which was looked for here with such pleasure? I have neither heard nor seen anything of or about them since their arrival in Madrid.

The official cholera-bulletin reports 981 cases and 364 deaths in Spain on Tuesday. Of these, five cases and six deaths occurred in Madrid capital; twenty-four cases and five deaths in Madrid province; and 136 cases and forty-five deaths in Granada.

THE CHOLERA IN FRANCE.

THERE were only four deaths at Marseilles from cholera between 5 o'clock on Tuesday and the same hour on Wednesday. The general sanitary condition of the city has greatly improved.

One death from cholera has been registered at Toulon since Tuesday night. The municipal ambulance-service will be discontinued henceforward.

No deaths from cholera occurred in Toulon on Wednesday. Twenty-nine patients remained under treatment at the St. Mandrier Hospital, and twenty-four at the Bon Rencontre.

A week's quarantine is now imposed here on arrivals at Alexandria from Brindisi.

Cholera has all but disappeared from Marseilles and Toulon; the universal joy caused by this happy occurrence is disturbed by the fear that it may reappear. A few deaths from cholera are spread about in the neighbouring communes and departments. At Galon, the epidemic diminished, but within the last few days has revived. A case is reported to have occurred at Bessèges. The Archbishop of Aix contracted cholera whilst visiting cholera-stricken localities, Saint Chamas, Salon, and Laucon. At Laucon, he fell ill, but continued his journey; on arriving at Aix, he consented to go to bed. Every measure was taken to arrest the disease, but he died the next morning. Two fresh deaths from cholera are registered at Saint Mandrier, and one at La Seyne, the wife of an Italian consul. Cholera has appeared at Saint Alban, in the Department of Ardèche; two deaths are reported, six or seven people are under treatment, and some are in a dangerous state. There are still a few deaths at Nîmes from cholera. The Marseilles Sanitary Commission have proposed that, as the cholera-epidemic has died out, the cholera-bulletin should be no longer communicated to the press. General Courcy telegraphs that cholera has disappeared from Tonkin. A correspondent from Obok writes that the sanitary condition of the transport-ship *Oruc* is very bad. Thirteen sick men have been landed at Port Said; one death has happened on board. A *bruit* has been spread that an epidemic had appeared at the Ecole Militaire. The truth has been greatly exaggerated. A dozen of the 7th Cuirassiers have been seized with dysentery. The *chef de corps* promptly enforced all the sanitary measures that were possible; unhappily, these barracks are in such a deplorable condition, that cleanliness is perforce an unknown quantity. The Help Committee that was organised last year, under the direction of M. Christophe, has been reconstituted. The Committee will send 10,000 francs (£400) to Marseilles, 3,000 francs (£120) to the communes of Bouches-du-Rhône, and 4,000 francs (£160) to Toulon. In consequence of the appearance of cholera at Dellys, a province in Algiers, the Dutch Government has declared that all the Algerian ports are to be considered as contaminated. The governor of Algiers has decreed that all importations from Sicily shall undergo three days' quarantine. Vessels from Marseilles that have a clean bill of health from a Corsican port will not be submitted to quarantine. M. Alain

Targé has described, before the Conseil d'Etat, the principal incidents of his visit to Marseilles and Toulon, and has indicated the steps to be taken. He will shortly make a statement concerning Government help for this object, and that of the departments and communes immediately affected in the proposed improvements. The Minister of War has consented to enlarge the fortifications at Toulon. M. Alain Targé has opened, at the Conseil d'Etat, subject to the approval of the Chamber of Deputies, an account of 500,000 francs (£20,000), for the benefit of the localities stricken by cholera.

THE CHOLERA COMMISSION OF THE FRENCH ACADEMIE DE MÉDECINE.

M. MAREY has read before the Académie de Médecine and the Académie des Sciences the result of his investigations on cholera, carried out under the directions of the commission of the Académie de Médecine. According to medical testimony from the cholera-stricken localities, the disease was ascertained to be imported into at least three-fourths, if not all, of those districts. According to M. Marey's report, the cholera epidemic was less intense in thickly populated towns than in small country places. Dirty habits, especially neglect in removing excreta, are the principal factors in the diffusion of the affection. During a cholera epidemic, the stools of a patient suffering from slight diarrhoea may contain the germs of the cholera. The specific germs are often diffused by water soiled by the excreta of cholera-patients, and drinking this impure water often provokes the malady. Storms which often precede or intensify epidemics are instrumental in rendering drinking-water impure, by carrying along excreta lying on the ground into rivers and other watercourses. In towns, water is better preserved from this contact, and thus cholera-mortality is lower. Some cities supplied by river-water instead of spring-water run the same danger as country places. The most dangerous localities during cholera epidemics are those which are situated low, or near rivers, or supplied with water of doubtful purity.

The disinfection of houses, according to the rules laid down by the Comité Consultatif d'Hygiène, is of the greatest importance, and has apparently, in some instances, averted the course of the epidemic. These measures should be adopted as soon as a case of cholera occurs. It is, therefore, necessary that medical men should be qualified to detect even the less typical forms of cholera. Slight choleraic affections often contaminate water, and provoke an outbreak of cholera. Debility, want of cleanliness, the habit of drinking, are all favourable to the malady. Old people and infants are specially liable to be attacked. One attack is no guarantee against recurrence, which is frequent during an epidemic.

WEDNESDAY's official bulletin from Rome shows a diminution in the number of cases of cholera during the previous twenty-four hours. It reports seven new cases and three deaths in the city of Palermo, and one case in the province. There were six new cases and five deaths scattered through five villages in the province of Parma, but none in the city. Two cases and one death have occurred among the workmen on the Parma-Spezia railway-line, and one fatal case is reported in the province of Reggio-Emilia.

COLLECTIVE INVESTIGATION COMMITTEE.

LIST OF RETURNS RECEIVED DURING AUGUST, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of August, 1885.

Cambridge and Huntingdon Branch: X, Professor Humphry, M.D., F.R.S. (9).
East Anglian Branch: Intemperance, H. Stear.
Gloucestershire Branch: X, E. T. Wilson, M.B.; Intemperance, F. J. Joyes.
Lancashire and Cheshire Branch: Bolton District: XIII, R. Clark; Intemperance, T. J. A. Mackenzie, M.B. Manchester District: Intemperance, J. Earle, B.A.
Metropolitan Counties Branch: III, V. G. Webb; X, H. Power, F.R.C.S.
North of England Branch: X, J. Coatsworth Watson, M.D.
North of Ireland Branch: II, Thomas Sinclair, M.D.; III (2), X (6), R. Esler, M.D.
North Wales Branch: III, D. C. Burlingham, M.D.; XIII, H. Lloyd Williams.
Shropshire and Mid Wales Branch: X, E. Burd, M.D.
South-Eastern Branch: West Surrey District: VI, C. E. Oldman, B.A., M.D.
South Wales Branch: XIII, R. E. Wormald Brower; XIV (a) (b) (c), T. Hall Redwood, M.D.
South-Western Branch: North Devon District: XIII, J. Elliott Square, F.R.C.S.
Southern Branch: Dorset District: XIII, W. V. Lush, M.D.
Thames Valley Branch: IV, F. T. P. Atkinson, M.D.; XIII, Stacey L. Burn M.A., M.B.
Worcestershire and Herefordshire Branch: Intemperance, O. Birt, M.B.
Yorkshire Branch: I, M. R. J. Behrendt.
Australia: Intemperance, S. Connor, M.D.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 14th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, September 17th, 1885.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The

Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the *Honorary Local Secretaries*, or to the *Secretary of the Collective Investigation Committee*, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the *Honorary Secretary*.—J. MAITLAND, M.B., *Honorary Secretary*, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Hastings, on Friday, September 25th. Dr. Cooke will preside. The following communications are promised:—The Chairman, A case of Perforating Ulcer of the Stomach; Mr. W. Grant Jones, A case of Chronic Ulcer of the Stomach. Notice of intended contribution of papers, or cases, should be sent to the *honorary secretary*, T. JENNER VERRALL, 95, Western Road, Brighton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Staplehurst on Thursday, September 24th, at 2.30 P.M.; Dr. Joyce in the chair. The following communications have been promised. 1. Dr. Edis: The Treatment of Miscarriage. 2. Dr. Joyce: On the Puerperal Pilegmiasis. 3. Dr. F. Eastes: A Case of Cherry-stone in Bronchus. 4. Dr. Tyson: A Case of Acute Glaucoma simulating a Bilious Attack. The dinner will take place at the South Eastern Hotel at 5 P.M.—W. J. TYSON, *Honorary Secretary*, 10, Langhorne Gardens, Folkestone.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held on Wednesday, September 30th, at Saltburn. Members are requested to inform the *Secretary*, at their earliest convenience, should they intend to read papers, show specimens, etc.—DAVID DRUMMOND, *Honorary Secretary*.—7, Saville Place, Newcastle-on-Tyne, September 8th.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at the Cock Hotel, Stony Stratford, on Tuesday, October 6th, at 2 o'clock P.M. The President kindly invites the members to luncheon at his house at 1 o'clock. Gentlemen wishing to read papers or cases are requested to communicate without delay with the undersigned.—CHARLES J. EVANS, *Honorary Secretary*, Northampton.

BORDER COUNTIES BRANCH.—The autumnal meeting will be held at the Golden Lion Hotel, Maryport, on Thursday, October 1st. The chair will be taken at 3 P.M.; a meeting of the Council at 2.45 P.M. The following papers have been promised. Dr. Eaton, Cleator Moor: Remarks on Hospitals, with special reference to those for Infectious Diseases. Dr. Black, Keswick: A case of Gastro-intestinal Hemorrhage in an Infant, with additional notes on the Disease. Dr. Crerar, Maryport, will show several patients. Dr. Muriel, Whitehaven: History of a Piece of Elastic Catheter broken in the Bladder. Dr. Welby, L'Anson: Fatal case of Carbolic Acid Poisoning. Dr. Highet, Workington, will show a Tumour of the Larynx. Members having any other communications, papers, specimens, or patients, for reading or showing, are requested to give immediate notice to the *Secretary*. Dinner at the Golden Lion Hotel at 6 P.M.; 5s. a head, exclusive of wine.—HENRY A. LEDIARD, Carlisle.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the *President-elect*, Mr. J. T. Hartill (Willenhall).—VINCENT JACKSON, *General Secretary*.—Wolverhampton, September 11th, 1885.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.

The summer meeting of this District was held at the Horn Hotel, Braintree, on Friday, August 7th, when the chair was taken by Dr. ELLISTON, of Ipswich, *President*.

The next meeting was arranged to be held at Brentwood, the end of January, 1886, and the *honorary secretary* was requested to invite Mr. A. W. Wallis, of that town, to preside at the meeting, provided the *President* of the Branch is unable to attend.

The *Treatment of Women after Childbirth*.—The *PRESIDENT* opened a discussion on this subject. The chief points in Dr. Elliston's paper were: 1. The advisability of the woman sitting up for a short time daily, after the first few days following her confinement; and Dr. Elliston demonstrated the advantage of this plan, with a special reference to its assisting the proper drainage of the vagina and uterus. 2. The time at which, after delivery, the placenta should be removed. The *President* stated his reasons for removing it soon after labour, only allowing the uterus a short time to recover itself. 3. The *President* advocated the patient being allowed to sit up to micturate and to pass her stools. 4. He advised that the patient be allowed to wash herself, and that this office should not be relegated to the monthly

nurse; also, 5, that in all cases the use of intra-vaginal disinfectant injections should be practised. The President supported this by some important statistics and facts. The first four propositions were not challenged, but an interesting discussion arose on the question of the use of disinfectants in all cases. The following members took part in the discussion. Mr. J. Taylor (Earl's Colne), Mr. R. C. Kellett (Halstead), Mr. J. H. Ashworth (Halstead), and Dr. Holden (Sudbury); and the general opinion of the meeting was in favour of the injections, in country practice, only in cases when the lochia became offensive.

Radical Cure of Hernia.—Mr. C. B. KEETLEY (London) read a paper upon this subject, in which he brought forward some valuable statistics as to the frequency of hernia, and the mortality due to hernia—the various operations for the radical cure of hernia were touched upon; but the paper dealt more particularly with the “open operations.” The following took part in the discussion upon it: the President, Mr. J. H. Ashworth, and Dr. Holden. In conjunction with the paper, Mr. J. Harrison (Braintree) showed a patient who had recovered from an artificial anus, occurring after an operation for a strangulated inguinal hernia.

Myxædema.—Mr. C. E. ABBOTT (Braintree) showed a well marked case of myxædema, and read a paper upon it.

Twin-Abortion.—Dr. J. SINCLAIR HOLDEN (Sudbury) read a paper upon twin-abortion, suggesting that twin-conception might be one of the causes of abortion. The author pointed out, in the course of his paper, reasons for believing that twin-abortion was much more common than was generally supposed. A discussion on the paper was maintained by Mr. J. Taylor (Earl's Colne), Mr. A. Goodchild (Little Waltham), Mr. R. C. Kellett (Halstead), Mr. R. Galpin (Kelvedon), Mr. J. Harrison, sen., Mr. J. Harrison, jun. (Braintree), and Mr. Taylor (Bocking).

Association of Members of the Royal College of Surgeons.—Mr. C. E. ABBOTT read a short account of the new Association of Members of the Royal College of Surgeons, setting forth its aims, and finished by proposing the following resolution: “That this meeting protests against the conduct of the Council of the Royal College of Surgeons of England in refusing all the demands of the Members,” which was seconded by Mr. R. C. Kellett, of Halstead, and, after a short discussion, unanimously carried.

Coxeter's Obstetric Vade Mecum was exhibited, and this brought a very successful meeting to a close.

The members afterwards sat down to a high tea.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Nicati and Rietsch on the Comma-Bacillus.—Landowsky on the *Alveloz* or Brazilian “Cancer Curing” Plant.—A Strange Discovery.—A Temperance Congress.—The Effect of Sunlight on Pathogenic Micro-organisms.—Pasteur on *Hydrophobia*.—General News.

MM. NICATI and Rietsch have published, in the June number of the *Archives de Physiologie*, the result of their researches on the comma-bacillus. The competency of these experimenters to work in this special field of research will be universally admitted. Their former researches were made on the vitality of the comma-bacillus in fresh water, sea water, and in the sewage of Marseilles and Toulon. In the present article they communicate the result of the necropsies which they made of cholera patients, in order to detect the presence of the comma-bacillus. At Marseilles they made thirty-one necropsies; in twenty-five they observed the comma-bacillus in the intestinal contents; in six they failed to detect its presence; in five of these six the malady progressed very slowly, death ensuing on the fifth, seventh, tenth, fifteenth, and nineteenth days. It was impossible to gather any information concerning the sixth death. According to MM. Nicati and Rietsch, towards the third or fourth day of cholera the comma-bacillus has a tendency to disappear from the intestines, but this is not invariable, because these authors have found it on the eleventh day. According to the same authorities, the bacillus always accompanies the algid condition, but does not always disappear when this condition passes off. MM. Nicati and Rietsch searched for the comma-bacillus in the stools of thirty-one cholera patients, and subsequently made their necropsies. In some, but not all of the stools, this parasite was present. The micro-organism, after the third or fourth day, became less and less frequently present. In vomit it was rarely observed, only in three out of eight examinations, and then the

comma-bacillus was present only in small numbers. The researches made by these scientists lead them to conclude that there is a close relation between the comma-bacillus of Koch and cholera. In order to detect the presence of this micro-organism, they adopted the following method. A small quantity of the stools, or of the scraping of the intestinal mucous-membrane, was spread out on a glass slide and dried, then steeped, during some seconds, in a solution of bi-chloride of mercury, at 1 part per 1,000, or in osmic acid, 1 per cent., in order to obtain a deep coloration. It was then immersed in a bath of Bâle fuchsin, made by dissolving one or two grammes of fuchsin in a saturated aqueous solution of aniline; the preparations were then washed, dried, and mounted in Canada balsam, dissolved in turpentine. When the comma-bacilli were not abundant, Nicati and Rietsch used Koch's method of cultivation, in order to multiply them. The intestines were opened and left in a damp room, and portions of excreta were next placed on a piece of linen, or on a fragment of intestine removed from a calf, sheep, or guinea-pig, also kept in a damp place. In twenty-four or twenty-eight hours, the substance thus treated presented innumerable comma-bacilli. The comma-bacillus of Asiatic cholera, cultivated in broth to which is added 10 per cent. of gelatine, differ in the aspect of their colonies from those of any other comma-bacillus observed in cholera nostras or in water.

M. Landowsky has carefully studied the Brazilian plant called by the natives *alveloz*, and believed by them to cure cancer. M. Landowsky believes this plant to be an euphorbia, discovered by Martin, and described by Muller under the name of *Euphorbia heterodoxa*. A preparation of its juice possesses the combined properties of a caustic and of papaine. It promptly destroys the affected tissues layer by layer. At Pernambuco, after it has been well painted on the tumour; it is covered with a tobacco-leaf. M. Landowsky, in his communication at the Grenoble Congress, stated that, after applying it, he places over it a sublimate of vaseline and borax dressing.

M. Gosse, at the Grenoble Congress, read a few notes on the importance of photography in medical jurisprudence. By placing a few drops of glycerine and water on the cornea of a dead man, the living expression is, he declares, reproduced, the exact position at the moment of death being represented in the photograph. This remarkable discovery at least deserves cautious consideration. It is hardly in accordance with current theories on the eye as an optical instrument, yet has been already suggested by other writers.

The following subjects will be discussed at the International Congress on the Abuse of Alcoholic Drinks, which will be held at Antwerp: the effect of legislation on drunkenness; the relation between drunkenness and fiscal measures applied to the trade in alcohol; the influence of temperance societies on the consumption of alcohol, on crimes and mortality in the countries where these societies exist (America, England, Denmark, France, Sweden, Norway, and Switzerland); report on the results of coffee-houses in England; the results obtained in England by “Inebriate Homes.”

M. Duclaux has studied the influence of sunlight on the vitality of micrococcus. A few hours of exposure to sunlight weakened the pathogenic micrococcus, and finally killed them; sunlight is therefore an universal hygienic agent, the most active and most powerful, common to both public and private sanitation.

A French contemporary announces that M. Pasteur, who is now in the Jura, will, on his return to Paris, organise a system for protecting animals from rabies. He has arrived at a prophylactic method applicable to man and beast. Before leaving Paris, M. Pasteur applied the process to a boy who had been bitten on both thighs, both legs, and hands. The child is as yet in perfect health.

M. Bouchez, Procureur of the Republic, in consequence of representations made by M. Gragnon, Prefect of Police, has decreed that every body removed to the Morgue, for the purpose of medical jurisprudence, shall be accompanied either by the Commissaire of Police, an inspector, or a detective. If a member of the family of the deceased desire to accompany the body, the permission is to be accorded, unless there be valid reasons for the contrary. The *Conseil d'Hygiène Publique et de Salubrité* of the Seine Department has supported the proposition made by Dr. Lancereaux, that the bodies of animals dead from charbon should be cremated. A recent death from the sting of an infected fly suggested the proposition.

The body of Louis Thuillier is to be brought to France, and buried at Amiens, at the expense of the French Government. A younger brother has started for Alexandria to fetch the remains. The Minister of Public Instruction has announced that there shall be forty-nine *Agrégés* attached to the French medical faculties. The extra *Agrégé* is to be at the Paris Medical Faculty and in the Section of Anatomy and Physiology.

CAIRO.

[FROM OUR OWN CORRESPONDENT.]

Of all the reforms instituted by Englishmen in the Egyptian sanitary service, none is so important, nor so generally recognised, as the improvements at the Cairo native hospital. These improvements, which are administrative, sanitary, and dietetic, as well as medical and surgical, are mainly due to the indefatigable energy of Mr. H. Milton, the director of the hospital. This gentleman not only administers the hospital (which contains 1,000 beds), but he also treats a considerable portion of the in-patients, and all the out-patients, and does all he can to educate the house-surgeons and house-physicians. With the latter end in view, he has commenced a house-surgeons' "mess," which he finds has considerable influence in refining these young men, and giving them some *esprit de corps*. The temperatures of the medical cases are taken twice daily by the house-physicians. This also is an innovation of the director, and is calculated to instruct both the house-physicians and physicians, who not unfrequently diagnose acute pneumonia as dyspepsia. Native medical men, indeed, are prone to attribute most diseases to the stomach.

Unfortunately, the Alexandria Hospital is not directed by such a hard working reformer. Its director is an able physician and surgeon, with a large private practice, and also a colleague of Dr. Mackie at the Deaconesses' Hospital. He is a German, but with much influence and support in high native quarters. Neither he nor his assistant resides at the native hospital; indeed, there is no resident medical man there. The sanitary directorate has sought for some time to replace the non-resident director of the hospital by a resident director, but has met with difficulties. This preface will explain the following remarkable paragraph which occurred last week in the *Egyptian Gazette*, an Alexandrian daily paper. "In consequence of certain reports which had reached the Khedive in respect of the Government Hospital at Alexandria, His Highness paid a visit to that establishment, and was painfully surprised to find that the reports which had reached him were well founded. The accommodation for the insane patients was found to be of a most disgraceful character, and the only bath-room in the building was filthy and out of order. His Highness expressed his mind very freely on the subject. He, however, found that the blame did not rest either with the director or the principal medical officer." This Khedivial inspection was made without the knowledge of the sanitary directorate, nor was the directorate informed officially of its having taken place. The fact is, that plans for repairs and rebuilding the hospital are in the hands of the Public Works Department, and the delay in executing them is due solely to that department. Nobody, of course, is to blame for the dirty bath-room but the medical officers of the hospital themselves. The original plans for some new buildings at the Alexandria Hospital contained an operating-room between a ward for infectious diseases on the one side, and a *post mortem* room on the other. It is not only the natives in Egypt, but the European medical men, who have to learn the first principles of sanitation.

Tantah Fair passed off very successfully this year as regards the sanitary arrangements. These were superintended by Mr. Hooker, who had under him a small army of scavengers. Visitors to the fair were allowed to deposit their excreta at large, as in former years; but the depositions were immediately gathered up, with all the other sweepings and refuse, and mixed with the drainage of the slaughter-house. The mixed product was taken by a Greek landowner, and used as manure. The result was, that although 600,000 people visited the fair, there was no increase in the mortality of the town, which averages five a day. Mr. Hooker's native assistant has since carried out similar arrangements at Dessouk Fair, with a like beneficial result.

The evenings in Cairo are now much cooler, with the consequence that rheumatism and catarrhs are common among both Europeans and natives.

I recently examined a strongly built young Swiss who had signs of commencing phthisis at the apex of the left lung. He had only been in Egypt about six months, and attributed the onset of his disease to a day spent in the desert under a hot sun performing police-drill, which, he said, brought on a hæmorrhage, the first notification of his illness. Whatever this instance may show, there is no doubt that phthisis is much commoner in Egypt, both among natives and Europeans, than is generally thought. In most cases, it is due to confinement in unsanitary dwellings, and its frequency by no means militates against the invaluable qualities of the climate for English

patients. Europeans with phthisis would, even at this time of year, be benefited, in all probability, by residing at Helouan, where the daily range of temperature is at present about 66° to 88°, and the air dry and stimulating. Cairo residents find a short stay at Helouan very invigorating. The profuse perspiration caused by the heat and dampness prevailing during high Nile very commonly produces a crop of what are called "Nile boils." Residence at Helouan is the best remedy for this unpleasant malady.

From a statistical essay just published, it appears that the mortality of Cairo from 1881 to 1884 was 46 per 1,000: that of Assiout being only 10 per 1,000.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Royal Infirmary Dispensary Appointments.—Death of the City Sanitary Inspector.—Iron and Steel Institute.—Mining Exhibition.—The City Population.—Purification of the Clyde.—University Observatory.

THE promotion at the Royal Infirmary of Drs. Anderson and Fleming to be respectively visiting physician and surgeon, necessarily created vacancies in the Dispensary staff of the hospital. There has been a good deal of competition for the appointments, as the recent changes in the working of the out-patient department have tended to improve the position of the medical officers who conduct it; and no doubt also the action of the directors, in promoting Drs. Anderson and Fleming, has materially tended to encourage the younger members of the profession to associate themselves with this important branch of the hospital work, it being thus indicated that it will serve, along with ability and faithful service, as a stepping-stone to the higher posts on the medical staff. The successful candidates in the present instance were Drs. Steven and Macintyre, both of whom are well known to the profession, the former in his connection with the pathological department of the Western Infirmary, and the latter with throat-work at the Anderson College Dispensary, and anatomical teaching at the Royal Infirmary School of Medicine. Dr. Steven takes up the medical work at the Dispensary, and Dr. Macintyre the surgical.

The sanitary department of the city has just experienced a loss in the death of its director, Mr. Kenneth McLeod, who died on September 5th of cancer of the stomach. Ever since the reorganisation of sanitary matters in Glasgow fifteen years ago, when they more or less passed out of the hands of the police and were made a separate and distinct department, Mr. McLeod has acted as chief inspector of this important branch, and there can be no doubt that the careful, intelligent, and efficient manner in which sanitary affairs, and everything connected with the welfare of the community, have been conducted, was largely due to his ability and industry. Nothing has as yet been decided as to his successor. There is no doubt that the post of sanitary inspector in a city like Glasgow is a most important position for any one to occupy; and it is possible that the Town Council may see its way, now that the opportunity has arisen, to bring the office more under the direct control of the medical officer of health than it has been in the past.

After a lapse of thirteen years, the members of the Iron and Steel Institute of Scotland assembled again this week in Glasgow for their autumn gathering. The meetings were held in the Corporation Galleries, under the presidency of Dr. Percy, F.R.S. Although our city is at present feeling, as much as any other, the great depression of trade that seems universal, it is so closely associated with the history of the iron industry that it was only natural a large and representative assemblage of members should come together; and the meeting that has just been held is regarded, not only as a most important one, but as in every way a successful one. The papers read were, of course, on subjects connected with the iron and steel industries. Of special interest was the one on the existing processes for the recovery of tar and ammonia from the gases of blast-furnaces, showing the extent to which the practice was being carried on, and the wide field of usefulness opened up for these hitherto wasted products. Thus, in the case of the creosote-oil from the coal-tar obtained in the making of ammonia, if recent experience be confirmed, there seems every prospect of its proving an excellent liquid fuel, and serving as an admirable substitute for coal in steamers, thus being a source of economy, and having the further recommendation of being quite free from smoke.

An exhibition, which has an air of novelty about it, has just been opened in Glasgow. It is under the auspices of the Mining Institute

of Glasgow, and it consists of specimens of the most improved appliances that modern science has brought to the assistance of the miner in his unhealthy and dangerous occupation. One gratifying feature brought out by this exhibition is that the greater perfection which the ruder mining appliances of earlier years have reached has materially tended to decrease the number of boys and young children that it is necessary to employ underground, so that we no longer find children between the ages of twelve and thirteen engaged to any extent in the close and unhealthy atmosphere of the mines. Efficient machinery, aided no doubt by the Education Act, has almost done away with what was an undesirable state of matters.

Dr. Russell, medical officer of health, has just made public his annual estimate of the city population, calculated on the yearly return (furnished by the assessor) of the inhabited houses, and on this basis he reckons it at 543,295 on June 1st, which is some 23,000 in excess of the Registrar-General's figures. This difference is sufficient to make the death-rates furnished by the latter 1 per 1,000 above Dr. Russell's. It appears that hitherto the yearly growth of the population has been in excess of the census-rate; but this year, instead of an increase, there has been a decrease. This is borne out by the number of unoccupied houses, which are greatly in excess of last year.

The last meeting of the Town Council seems to show that they are about to enter upon a little more vigorous action in reference to the prevention of the pollution of the Clyde by manufacturing works. It has been decided to open communication with those firms who were stated, in Dr. Wallace's recent report, to be the chief offenders in the matter, and ask them for a definite statement as to how they propose to purify the discharges which heretofore they have poured in large volumes daily into the public sewers. If the matter does not end with the replies received, this should be the commencement of a very decided improvement in the condition of the river, by freeing it from a vast amount of offensive refuse from chemical and other works.

There seems every prospect of Professor Grant's meteorological observations at the University observatory being carried on, as the Glasgow Town Council and the Chamber of Commerce have decided to give such annual monetary help as will to a certain extent take the place of the Government grant which has been recently withdrawn.

CORRESPONDENCE.

CENTENARIANS.

SIR,—The members of the Association will be glad to know that Miss Hastings, the elder sister of our founder, in her 104th year (she was born March 14th, 1782), is in good general health, clear and brisk in mind and memory, cheerful, contented, and happy, with a keen interest in passing events and an anxious desire for the welfare of others, to the promotion of which much of her long life has been devoted. I had the pleasure of a visit to her a few days ago; and Dr. Pike, of Malvern, her medical attendant, has been good enough to fill up, in a careful and complete manner, one of the collective investigation forms with the particulars of her state and history, which I hope will appear in the JOURNAL ere long.

But few reports of centenarians have hitherto been sent to the Collective Investigation Committee in reply to their inquiry respecting aged persons. Yet many persons who have reached the hundredth year must be known to members of the Association; and I shall be much obliged to any member who may be acquainted with such a person, if he will kindly send me a post-card notice to that effect. Indeed, I shall be glad to receive notice of persons who have passed the age of ninety.—I am, etc.,

G. M. HUMPHRY,

Chairman of the Collective Investigation Committee.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

SIR,—Will you kindly allow me a little space to bring before the members of the above Society a scheme for the better investment of the accumulated capital? We may, I think, congratulate ourselves on the satisfactory investments already made, by which we obtain rather more than three and a half per cent. interest; but as, during the next few years, we may expect a very large addition to our accumulated capital, and as the surplus profits of the Society will, in a very great measure, depend upon the rate of interest obtained, I venture to make a proposal with the view of eliciting opinions from members of the Society.

The idea is, in short, to establish a building society, for the purpose of making advances to those members who may be desirous of building houses for themselves, or purchasing the houses they occupy, but who may not have sufficient capital to pay the whole cost of building or purchasing at once.

To make the working of such a society clear, I may describe a hypothetical case. Suppose A. B. occupies a house for which he pays £70 *per annum*. The value of that house may roughly be estimated, if a freehold, at £1,000. Now A. B., in the course of fifteen years, will have paid in rent the sum of £1,050, or more than the value of the house.

Now, let us suppose that A. B. has, *e.g.*, three hundred pounds, and he wishes to purchase the house; the Building Society would advance him about three-fourths of the value, A. B. finding the remaining fourth. The advance, with interest, would be repaid by the borrower in instalments extending over a period of five, ten, or fifteen years, according to the scale he may select. If the longest period were decided upon, that is, fifteen years, on a loan of £750, he would have to pay about £77 5s. *per annum*. (These figures I have taken from a Building Society of good standing.) Should a shorter term be selected, a proportionately higher annual payment would be required. At the end of the term, the house would be the absolute property of the borrower. As to the profits of the Building Society, the figures quoted are from the Tables in use of a Society that has for many years paid 5 per cent. interest on capital invested, and a bonus of from 1 to 2½ per cent. Should the society be started in connection with the Medical Sicknes Society, I have no doubt even a better rate of interest would be obtained, as the expenses would be much lower than they can possibly be in any other similar society. We should require only a paid manager; the solicitor and surveyor would have their fees paid by the borrowers.—I am, sir, yours faithfully,

J. BAIN SINCOCK.

ON THE OPERATIVE CURE OF BLEEDING MYOMA OF THE UTERUS.

SIR,—I do not think that the opinion is dead, by any means, which refers to the partial arrest of the blood-supply as a factor in the results obtained by removing the ovaries in the above cases. I am not unmindful of the anatomy of the parts in question, and especially so when I remember that the inoculations with the uterine and ovarian arteries at the upper angle of the uterus are large and plentiful. When, too, there is increase in the size of the ovary, as there often is in these cases of fibromata, and, along with this increase functional activity, augmenting the blood-supply, I contend that it is quite reasonable to suppose that when this is curtailed, some of the results may be attributed to this cause.

Mr. Tait says, that "the beating of the uterine artery in the vagina is one of the pathognomic signs of uterine myoma, as he has repeatedly pointed out," and that he has never found it in any other form of tumour.

I may call attention to the fact that this pulsation is a common phenomenon in the later months of pregnancy, which may be easily verified. I have seen it also in a large hæmatocele, and in one instance was called to a patient where the surgeon in attendance cut it through in making an incision with a scalpel, the patient bleeding from it to the point of death.

If results which Mr. Tait describes as magnificent "in the arrest of hæmorrhage and menstruation, and diminution of the tumour, have been attained by snipping out a portion of the Fallopian tubes, dividing them, or even simply tying them, etc.; or without tying any vessel at all, though by no means so constant as when the tube is removed," it may be asked, why are more serious operations pursued? for surely this appellation is sufficient to satisfy most ordinary minds in the end sought after!

Mr. Tait objects to my use of the word "fibroma," and says: "I have never seen a fibroid tumour of the uterus, and I very much doubt if there is such a thing." I am afraid that not much good can be obtained from any comment on this point, for I think, as every student of pathology knows, the profession understand what is meant by fibroid tumours of the uterus, though Mr. Tait prefers not to recognise them.

One of the most recent works on pathology contains the following: "Myoma is a tumour consisting essentially of new formed muscular fibres. If the fibrous tissue forms a considerable part of the bulk, the tumour is described as a fibro-myoma; most of the uterine fibroid tumours are of this nature" (Ziegler, p. 20). Courty (p. 648) speaking of these, under the head of fibrous tumours, says: "The recent names of fibroids and fibromata designate the principal aspect under which they are usually seen." In my previous letter, I simply gave it as my

experience that these were the most common in the uterus, and that fibroid tissue predominated in those I had examined.

Cornil and Ranvier (p. 161) write, under the head fibroma, "These tumours have also received the name of fibroids.....Verneuil proposed the name fibroma, which is that generally employed to define the tissue."

With regard to the figures used by Mr. Tait, I may say that I have no confidence in statistics which can be evoked at will to prove any statements made on different occasions. I simply quoted that, in a former paper of his, he noted "removal of the appendages for myoma, ninety-nine cases; deaths, seven." The fact remains. I do not wish to underestimate the value of this operation, which I have described as most valuable in suitable cases; but, it should not be undertaken as a routine treatment or without a grave sense of responsibility. I said that uterine fibroids do not often cause death if left alone, upon which I am sure many will agree with me. When the mortality of an operation is in excess of deaths from the ordinary death-rate of the same disease, it becomes a question to consider how far we ought to submit the patients to the risk. Upon this point, the evidence is singular and contradictory. At a recent meeting of the British Gynecological Society, Mr. Tait said that, at the present time, he knew of thirteen cases dying of uterine myomata. It may be asked, have the resources of civilisation been exhausted, that, with his advocacy of operative measures, so large a number of extreme cases, which bear only a proportion to a total number, should be within his own personal knowledge? At the same meeting, Dr. Mackintosh, no mean authority, and whose experience must certainly be great, said that, although he had seen a large number of such cases, he had never known a patient to die from uterine fibroma. How can these statements be reconciled? They certainly offer ground for reflection in the minds of those dealing with patients suffering from this disease.—Yours faithfully,

EDWARD MALINS.

SIR,—Some time ago, Dr. Horatio R. Bigelow published a long and inconclusive article, in which he showed me completely that he had an aptitude for misinterpreting the views of other people, and no very great power of expressing his own. In the short article which you published, he has misrepresented me entirely in three different instances, and he puts in my mouth words and phrases which I not only never use, but to which I very strongly object. His paper is full of sentences which begin with such phrases, "I cannot see," "I cannot explain," "I cannot understand," and so on. Therefore, I have only to say that I regret very much that I cannot possibly take up your valuable space by reiterating the arguments I used in my paper, or in a further explanation of the views therein contained. I can supply the facts and arguments, but I cannot supply the intelligence necessary to understand them.

Dr. Bigelow seems to be enamoured of German surgery, but we have witnesses quite as trustworthy as he is who put another aspect on the matter altogether. I have before me a letter from an American surgeon, upon whose verdict I can put much more reliance than I can upon Dr. Bigelow's, who has written to the effect that, after a prolonged tour amongst German gynecologists, all that he has learned is how not to do it. When Dr. Martin and Dr. Schroeder see their way to publish a consecutive and complete list of all their cases, and full authentication of the results given, as is the fashion in England, then we shall see our way much more easily to pass a judgment upon their work. They will doubtless also discuss the question themselves, and not leave it to one who evidently has only a pen and paper knowledge of it.—I am, sir, yours, etc.,

LAWSON TAIT, Birmingham.

THE POOR-LAW MEDICAL SERVICE AND A STATE EXAMINATION IN MEDICINE.

SIR,—The Medical Reform Bill having failed to pass, and the probability being that, amongst the many questions to be dealt with by the new Parliament, a Bill affecting only a portion of the community may be lost sight of, it behoves us to see how we can secure some of the essential points of the Bill without passing any Bill whatever. The central point of the Bill to my mind, is some State-test, as to the knowledge of medical practitioners. We have lost confidence in the value of diplomas and degrees, and need some more perfect check on unfit men entering the profession. Within the army, so far as I know, we attach no value whatever to degrees. I do not know the medical or surgical qualifications, as far as mere diplomas are concerned, of any one of the twenty military surgeons in and about

Woolwich. It suffices for me to know that they have gone through their curriculum, passed our Army Medical State Examination, and, if surgeons-major, the second State-test. We are to my mind, within the medical service, thirty years in advance in general internal organisation over outside medical men. What we are to-day, as a body, the profession may be in thirty years' time as a body.

I maintain that, just as the War Minister of 1858 issued an order that after that date all medical officers entering the army should have double qualifications, and pass an open competitive examination, so the President of the Local Government Board can any day require that any medical man qualifying—say, after 1886—should, before obtaining any poor-law appointment, pass a State examination in medicine, etc. If the State ever offer to pay a grant in aid of the poor-law doctor's salary, the condition of that payment should be the passing of a State examination for all incumbents qualifying after a certain fixed date. The only way to raise the poor-law service is to raise its scientific attainments, and the State examinations alone could do that. Mere diplomas or degrees, which we cannot trust alone, will never do it.

I think any member of Parliament might almost force the hand of the President of the Local Government Board, and insist on a State examination for the officials entrusted with the lives of the people. But what machinery exists for the test? I reply, the Army Examining Board. They have the traditions, the experience, the system of State examination, and it can easily be extended, simply by causing them to report the list of candidates qualified, but not needed, in the army to the authorities of the Local Government Board. The fact of having passed this examination is a sufficient State-test.

If the examiners sit twice a year to examine us they can sit six times a year to examine poor-law candidates. A guinea fee from each would pay the cost, or the surplus funds of the Medical Council could be utilised.

We will have soon a Parliament in power pledged to a highly social programme. One of the very first social needs of the people is to have efficient medical men, and I maintain that if the Local Government Board once insisted on some special test for poor-law doctors, every one of us would be indirectly forced to pass it, as any one of us might one day have to take a poor-law appointment.

The double qualification required of us in the army since 1858 has practically forced the whole profession to qualify doubly ever since then, and thus raised the educational standard of the whole body. But take another point, we in the army are State examined; but why are prison surgeons, convict service surgeons, surgeons nominated to the colonial medical services, emigration surgeons, under the Emigration Act, all appointed by nomination, and without any State test? Simply because no one has ever raised the question, and because prisoners and emigrants do not command the attention given to soldiers in the army, or the sailor in the Royal Navy.

The systems of appointment could any day be stopped by any single member of Parliament determined to draw attention to the old world system of nomination. All the medical men appointed under this nomination may be excellent men. I say, who knows? and what is the test? The test is none, for we all regard testimonials and letters of recommendation as to-day very untrustworthy and really played out.

We want open, competitive tests for all these appointments, and the way to achieve them is this. We have army examinations every six months at least. If any jail appointment, or ship appointment, or colonial medical service appointment falls vacant do not fill it up permanently until after the next army examination is held. Offer it, then, for competition just as the navy commissions are offered at the same time. We will thus have abolished nomination in all Government medical posts, and have stopped up these little nooks and crannies where weakly qualified men perhaps hide.

To-day, when every petty tide-waiter is examined by competition, why not a jail-surgeon, or a Jamaica colonial service medical officer?

Even if vacancies do not exist at the time, it would be from the pass-lists at these examinations that candidates should be chosen. By killing out nomination we would, I think, on the whole raise the standard of education. Why does not a progressive borough like Birmingham give her municipal medical appointments by competition? Paris does so, I believe, in all her municipal hospital appointments. By the open publication of the marks gained by the competitors for prisons, colonial service, ship-surgeons, and the like, compared with ours in the army, we would know who competed for these appointments, and what was their scientific educational standard. Even the number of candidates competing would be an interesting test of popularity.

There may be difficulties as regards the examinations for poor-law appointments, but I can see none as regards the latter services referred

to. I think by such a line of action, which could easily be carried out if supported by our Medical Reform Committee, we could achieve a part of the original programme of the Bill without the Bill.—Your obedient servant,
G. J. H. EVATT, M.D.,
Woolwich. Surgeon-Major, M.S.

TAXATION OF THE MEDICAL PROFESSION IN CAPE COLONY.

SIR,—The Legislative Council of this colony last year passed a licence and stamp law, which requires a yearly payment of £5 from every medical practitioner in the colony. Under threat of legal prosecution, I paid the claim, the receipt of which payment I enclose. In answer to a question asked in the Legislative Assembly, it was elicited that forty-one practitioners had paid for the licence. This piece of legislation has given the greatest dissatisfaction in medical circles, payment generally being made, as legal prosecution was threatened unless the Act were complied with.

Will you give me your valued opinion, or will you elicit that of your correspondents, on the legality of this Stamp Law? In fact, is not a duly qualified and registered British medical practitioner legally entitled to practise, without any such annual licence, in any part of Great Britain or the colonies?—I am, sir, yours respectfully,
C. BEVISS, M.D.

Pinetown, Natal, August 4th, 1885.

"Licence or Certificate for a Medical Practitioner.—'The Licence and Stamp Law, 1885.'—I, P. C. Sutherland, M.D., in my capacity as chairman of the Medical Board of Natal, duly appointed under the said 'Licence and Stamp Law, 1885,' in this behalf, do hereby certify that C. Beviss, Esq., M.D., of Pinetown, having been duly licensed to practise in this colony as a physician, surgeon, and accoucheur, and to dispense medicine in terms of Sch. A, Law 37, 1884, has paid to me the sum of £5 sterling, being the licence duty payable on this certificate, in virtue whereof the said C. Beviss, Esq., M.D., is at liberty to practise as above in Natal from the date hereof to the 31st day of December, 1885, in conformity with the provisions of 'The Licence and Stamp Law, 1885.'—Given under my hand this 8th day of April, 1885. P. C. Sutherland, Chairman, Medical Board."

[So far as we know not only does no such practice as this prevail in any part of the British dominions, but it is unknown in any part of the civilised world, except, we believe, in Havana, where a very heavy annual fee is paid, amounting to £100 for each medical practitioner. The amount raised by annual licence at Natal appears in all to be about £200 per annum—surely a very trivial income to be raised, taking into consideration the great amount of annoyance caused to an important body of professional men.]

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRACTITIONERS AND NURSES.

H. T., M.D.—In requesting our advice in the matter of the proposed "certificated nurse," our correspondent would have facilitated the process had he defined the class of patients on whose behalf "the village clergy, visiting ladies, etc." are interesting themselves; whether the parochial poor, maternity-club, dispensary, or poor private patients, together with his own official (if any) position in relation thereto; and, also, as to the source or fund from which the fees are to be paid to the nurse, and likewise to himself, when summoned in cases of difficulty.

That "M.D." should hold a position subordinate to the "certificated nurse" is out of the question, and should not for a moment be entertained. To his conditional offer, however, "to supervise in any difficult cases, or after-treatment," it will, we think, be well to adhere, with exception of the part relating to "his discretionary division of the fee," between himself and the nurse. This proposal we regard as very objectionable, and calculated to lead to unpleasant and undignified disputes with the nurse, whose fee should, in our opinion, be distinct, and paid direct by the "certificated nurse" committee.

Possibly, with a knowledge of the details above alluded to, our suggestive advice would be more or less modified.

MEDICAL FEES.

JAMES SAVAGE, M.B.—The regular fee is, we believe, one guinea per day, and travelling expenses actually incurred, not exceeding sixpence per mile. If not satisfied with the amount allowed by the magistrate's clerk, you should have the matter settled by the clerk of the peace for the county. We do not know of any book which would give exactly the particulars for which you ask; but the scale of costs allowable to witnesses is given in several legal books of practice, such as Taylor, *On Evidence*, etc.

OBSTETRIC ETIQUETTE.

SIR,—Will you be good enough to give your opinion as to the etiquette that should be observed in the following case?

A. and B. are medical men in practice in the same town. They are on friendly terms. A lady (C.) has engaged B. to attend her in her confinement. B. goes

away for his holiday, leaving a *locum tenens* in charge of his practice. During his absence, C. is confined, and (presumably objecting to the attendance of a total stranger) sends for A. to attend, which he does. What course should A. have pursued with regard to the case and the fee? A. says that, if he had been asked by B. to attend, he would have done so for him; but argues that, as he was requested by the patient herself, the case belongs to him. Do you think so?—Yours faithfully,
A MEMBER.

* * The rule by which, in our opinion, "A Member" will do well to be guided in the above case, is to the following effect: "When a practitioner is called in, or otherwise requested, to attend at an accouchement for another, and completes the delivery, or is detained for a considerable time, he is entitled by custom (except in the case of illness, etc.) to one-half of the fee; but, on the completion of the delivery, or on the arrival of the pre-engaged accoucheur, he should resign the further management of the case. In a case, however, which gives rise to unusual fatigue, anxiety, and responsibility, it is right that the accoucheur in attendance should receive the entire fee. In either event, when the officiating accoucheur is a stranger, or a non-acquaintance of the family doctor, the full fee should be tendered to him." (*Code of Medical Ethics*, p. 36, s. 12.) That A., under the circumstances related, is, strictly speaking, entitled to the fee, we do not question. Nevertheless, with his admitted willingness to have taken charge of the case for B. had he been requested to do so, together with the desirability conjoined to the expediency of maintaining the good feeling heretofore existing between the respective practitioners, we would counsel, as sound policy, A.'s adherence to the principle laid down in the above-mentioned rule.

MEDICAL ETIQUETTE.

SIR,—Two medical men begin practice at the same time in the same suburb of a large city; A. by the purchase of a death-vacancy, B. without purchase. Neither calls upon the other; but, being members of the same club, they become acquainted, and thenceforward, so far as B. is aware, they hold each other in mutual respect until recently, when B. is asked by a patient of his own to see his son, who is supposed to be insane and is being attended by A., who has advised his removal to an asylum. B. writes a courteous note to A., informing him of the desire of the father of A.'s patient, and asking him at what hour they can meet. A. replies at once, naming 5 o'clock. B. leaves his house in time to keep this engagement; and, after waiting in the patient's home for a quarter of an hour, a note reaches him from A., which has been left at his house after 5 o'clock, the hour mentioned by the latter for the consultation. In this note he curtly refuses to meet B., stating that, having reconsidered the matter, he thinks a consultation unnecessary. A. is now making remarks about the case, which B. thinks uncalled for. He alleges that B.'s conduct in the matter was unprofessional, and was an attempt to deprive him of a patient. Will you therefore be good enough to state whether, in your opinion, B. has acted with a strict regard to professional etiquette; and, if so, how he is to behave in the future towards A. and his patients? I enclose my card and a copy of the correspondence, and am,—yours very truly,
B.

* * Our correspondent B. would have acted wisely if (instead of accepting a consultation-commission, so to speak, from his patient in the case of his married son, then under the care of A., and at once putting himself in direct communication with the latter to ascertain when it would be convenient to meet him in consultation), he had pointed out to Mr. H. the professional rule in such matters, and advised him to consult with Mrs. H., junior, relative to a "second opinion;" in which case, the father's wish would no doubt have been communicated to A., and the desired consultation arranged through him in accordance with the usual professional etiquette. While acquitting B. of any desire to supersede A. in the case, we are of opinion that his omission (which we attribute simply to lack of experience on the ethical point in question) to act in accord with professional rule, exposed him to a certain degree to the construction put upon it by A. At the same time, we consider that the latter, having assented to the proposed consultation and named the hour, should have fulfilled the engagement, or, on changing his mind, have notified it, either in person or by courteous note, with the least possible delay, and not by a curt missive left at B.'s residence somewhat later than the hour fixed by himself for the consultative meeting.

In answer to B.'s question as to what should be his future attitude towards A., we would simply reply, let it be in strict accord with the principle enunciated in the ethical motto of "Bear and Forbear."

ANNOUNCEMENT OF DISSOLUTION OF PARTNERSHIP.

DIGITALIS.—We fail to see any valid objection to our correspondent enclosing with the partnership accounts a private circular note announcing the dissolution thereof; but it should be strictly limited to *bond fide* patients of the dissolved firm. We would, however, advise that it be carefully lithographed from a written note, and not printed from the ordinary type. The wording, moreover, of the proposed note will, in our opinion, require careful revision, and especially that of the somewhat curtly expressed paragraph relating to the partnership accounts, for the payment of which it will be advisable to specify a later date.

UNPROFESSIONAL VISITS TO PATIENTS.

SIR,—Will you be good enough to express your opinion on the following? A lady patient of mine met with a very serious accident. I was sent for, set a couple of fractures, and attended to other contusions. A young surgeon living in the same neighbourhood, and only on speaking acquaintance with my patient, has made it his duty to call personally at the house daily to inquire after my case; and his visit consists in a prolonged conversation. I should like to know if this is fair or right.—Yours very obediently,
MEM. BRIT. MED. ASSO.

* * Our correspondent may justly take exception to the proceeding of "A Young Surgeon," which is contrary to all professional rules. It may be well to allude to the relative duties devolving alike on the patient and the non-attend-

ing professional visitor. In the *Code of Medical Ethics*, it is clearly laid down that "A patient should avoid even the friendly visits of a practitioner not in attendance upon him; and if constrained to receive them, he should never converse on the subject of his malady; for an observation might be made which, without any intention to professionally interfere, may weaken or destroy his confidence in the treatment pursued, and induce him to neglect the directions laid down for his guidance." Further, "A practitioner not in professional attendance upon the case should never, under any pretext, make friendly calls upon a patient, unless justified by previous personal intimacy; and such visits, even in the latter case, would be better omitted for a time."

MEDICAL ADVERTISING.

The following advertisement, which lately appeared in the *Selkirk Advertiser*, has been sent to us.

"Free Dispensary.—Dr. Evatt will visit and give consultations to working men and their families, free of charge. Medicines supplied at a moderate cost, for cash only. Messages to be left at 12, Tower Street, before 12 o'clock noon."
Dr. Evatt, who practises at Galashiels, is a Licentiate of the Royal Colleges of Physicians and Surgeons of Edinburgh. Our opinion of such advertisements is well known.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Brigade-Surgeon E. G. McDowell, C.B.	Aldershot	Woolwich.
" J. Warren	—	Gibraltar.
Surgeon-Major F. Pennington	Warley	—
" M. L. White	Madras	Dublin.
" F. A. Turtton, M.D.	Egypt	Edinburgh.
" J. S. M'Adam	Demerara	—
" G. Ashton, M.B.	Egypt	Salford.
" T. F. O'Dwyer, M.D.	Egypt	London.
" J. R. Greenhill	Ceylon	—
" S. Flood	Egypt	—
" U. A. Jenings, M.D.	Egypt	Dublin.
" E. M. D. Fitzgerald, M.D.	Canterbury	Ceylon.
" T. Kingston, M.D.	—	Dublin.
" E. V. MacSwiney, M.D.	Egypt	—
" J. Leader	Cahir	—
" J. A. M'Cracken, M.D.	Dublin	Queenstown.
" W. J. Fawcett, M.B.	—	Devonport.
" A. H. Anthonisz, M.B.	—	Demerara.
" C. E. Dwyer	Bengal	Dublin.
" W. B. Slaughter	—	Guildford.
" C. W. M. Keys, M.D.	Egypt	Woolwich.
" T. J. Galloway, M.D.	Egypt	—
" W. S. Pratt, M.B.	—	Woolwich.
" W. H. Briggs	Egypt	—
Surgeon G. B. Hickson	Egypt	—
" J. Prendergast	Dublin	Templemore.
" J. Hoysted	Colchester	Gibraltar.
" M. R. Ryan, M.D.	Egypt	Snakin.
" P. B. Tuthill, M.D.	—	Netley.
" J. I. Routh	Canterbury	Dover.
" S. L. O'Neill	Egypt	—
" M. D. O'Connell	Templemore	Jamaica.
" J. J. Falvey	—	Hounslow.
" D. L. Irvine	Egypt	—
" C. H. Clabburn, M.B.	Egypt	—
" E. R. Cree	Snakin	—
" M. O. Drury	Snakin	Egypt.
" G. E. Twiss	Egypt	—
" T. Moynihan	Egypt	Dublin.
" J. Osburne	—	Ballincollig.
" T. A. Dixon	Jamaica	—
" R. I. D. Hackett, M.D.	Snakin	—
" W. G. Birrell	—	York.
" A. V. Lane	Egypt	—
" J. Semple	Bermuda	—
" H. P. Birch	Egypt	—
" H. M. Sloggett	Egypt	Woolwich.
" S. F. Freyer, M.D.	Egypt	Curragh.
" R. S. F. Henderson, M.B.	Snakin	—
" C. Birt	York	Bermuda.
" S. Butterworth	Snakin	—
" C. J. Holmes, M.D.	—	Dublin.
" W. E. Berryman	Egypt	Snakin.
" A. De C. Scanlan	Shorncliffe	—
" J. Meek, M.D.	Dublin	Hong Kong.
" A. O. Fitzgerald	Dublin	Belfast.
" F. D. Elderton	Dublin	Limerick.
" J. H. Curtis	Dublin	Curragh.
" J. M. F. Shine, M.D.	Dublin	Cork.
" C. T. Blackwell	Dublin	Formoy.
" N. C. Ferguson, M.B.	Dublin	Curragh.
" S. R. Willis	Colchester	Shorncliffe.
" M. L. Hearn	Dublin	Newbridge.
Quarter-Master J. Horn	—	Western District

Surgeons B. F. Zimmermann and R. Crofts have joined the African Medical Service, and gone, the former to Sierra Leone, and the latter to Cape Coast Castle.

THE RECENT ARMY AND NAVY EXAMINATIONS.

Sir,—In a Dublin medical journal of August 26th, page 193, there is a notice and criticism of the examination-papers in Surgery and Medicine given at the recent competitive examination for medical commissions in Her Majesty's army and navy. As a competitor at the examination in question, I may be permitted to offer a few remarks on the subject.

The writer of the article says: "Mr. Pollock's paper on surgery is in all respects a fair practical test of knowledge, such as a sufficiently educated surgeon ought to be able to answer, but an ignorant or stupid candidate could not deal with." With this I perfectly agree; but would venture a little further, and say that the surgical questions involved many nice points and considerations, and though a "sufficiently educated" surgeon should easily be able to obtain qualifying marks, yet high marks could only be attained by a sound and accurate surgical knowledge.

I cannot agree with his criticism with regard to Dr. Aitken's paper. He calls it "a model of what an examination-paper ought not to be." I have the paper before me now, as I had on the 11th August, and I still consider it a model of what an examination-paper, under the circumstances, should be.

In these high-pressure days—days of severe competition and growing knowledge—it would be absurd to suggest that easy papers in scientific subjects should be the rule. Moreover, the system of cramming is one which examiners in all subjects are endeavouring—and very properly so—to crush out. A candidate goes up, say, for the medical service of the army; he can tell you a dozen causes, a dozen symptoms, a dozen different modes of treatment for most diseases. He has these at his fingers' ends, at the tip of his tongue, picked up by attending an energetic grinder for two months; but bring him face to face with the disease he is describing, and not improbably he will fail to recognise it. He studies disease, pathology, everything, from text-books, not from cases which come under his notice, or perhaps under his care. Such are not the men that the examiners for Her Majesty's medical services are disposed to select for commissions. Now, I would venture to say, not all the cramming in all the cities of the world would enable a candidate to answer, correctly, the first two questions given by Dr. Aitken. These are the questions railed at; the remaining three are described as "fair tests." In my opinion, these latter are such as any moderately well examined man could answer.

As an Irishman, I am proud that a fellow-countryman once again gained first place, as I also regret that only seven Irishmen got places. Seven out of thirty-five candidates educated in Ireland is indeed a poor percentage, and that something wrong exists I am willing to admit. But I fail to see that something in the examinations conducted at Burlington House. Perhaps the root of the evil is planted, and should be sought for, nearer home. I think it is unjust, as it is ungenerous, to growl at the examination-papers because we, at this side of the Channel, have not been particularly successful in the competition on the present occasion; and, believing such, I humbly raise my voice in protest against the criticism preferred.—I am, sir, faithfully yours,

FREDERICK SKERRETT, L.R.C.S.I., L.K.Q.C.P.,

Medical Officer, Ardahan District, Co. Galway.

* We publish this sensible letter with pleasure. If its author were an unsuccessful candidate, his defence of the fairness of the examination is creditable to him. It is much to be regretted that some of his countrymen, more particularly those writers in Irish journals who can find in the failure of their compatriots at competitive examinations for the public services only evidence of national prejudice and ill-will, cannot bring themselves to give credit to gentlemen who have to discharge a difficult and responsible duty, for sound judgment, common honesty, and fairness.

INDIAN MEDICAL SERVICE.

Sir,—Would some of your readers kindly answer the following questions with regard to the Indian Medical Service? 1. Is the pay on joining (286 rupees per mensem) sufficient to cover all expenses and to enable a man to save? and, if so, how much per annum could he save? 2. Could a man of temperate habits stand the climate with impunity for twenty years? 3. Is promotion, as a rule, sure to a steady man? 4. Are the duties severe? An answer from an ex-Indian officer will much oblige, yours faithfully,

PROBABLE CANDIDATE.

* 1. A prudent man can live on his pay. The cost of living in India has increased, and much in the way of "saving" cannot be done until a young surgeon attains to an independent charge, civil or military, as the case may be. 2. Hundreds do. 3. It is.

NAVAL MEDICAL SERVICE.

THE following qualified candidates for the Naval Medical Service have been appointed to be Surgeons in Her Majesty's Fleet: William Edward Home, M.B., Richard Aubrey Fitch, Henry Bullen Beatty, William Spry, Percy Edmund Maitland, George Hamilton Henry Symonds, M.B., William Joseph Winkler, James Joseph Walsh, M.B., John Moore, M.D., B.A., Cyril James Mansfield, M.B., Robert Hickson, Herbert Parke Shuttleworth, John Lowney, George Deane Trevor-Roper, Octavius Stephens Fisher, John Samuel Fogarty, M.D.

Staff-Surgeon BRIEN PATRICK SARGFIELD M'DERMOTT, B.A., M.D., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

The following appointments have recently been made at the Admiralty: N. T. CONNOLLY, Fleet-Surgeon, to the *President*, additional; W. P. M. BOYLE, Staff-Surgeon, to the *Garnet*; F. J. LILLY, Surgeon, to the *Rifleman*; G. A. DRAPEY, Surgeon, to the *Alceto*; H. E. SOUTH, Surgeon, to the *Impregnable*, additional, for service in the *Nautilus*; S. H. YOUNG, Surgeon, to the *Thunderer*; W. E. HOME, M.B., R. A. FITCH, H. B. BEATTY, WILLIAM SPRY, P. E. MAITLAND, G. H. H. SYMONDS, M.B., J. J. WALSH, M.B., and W. J. WINKLER, Surgeons, to the *Duke of Wellington*, additional, for Haslar Hospital; JOHN MOORE, M.D., B.A., Surgeon, to the *Duke of Wellington*, additional, for disposal; C. J. MANSFIELD, M.B., Surgeon, to the *Asia*, additional, for disposal; ROBERT HICKSON, H. P. SHUTTLEWORTH, JOHN LOWNEY, and G. D. T. ROPER, Surgeons, to the *Royal Adelaide*, additional; O. S. FISHER, Surgeon, to the *Impregnable*, additional; J. S. FOGARTY, Surgeon, to the *Cambridge*, additional; M. O'C. M'SWINEY, Surgeon, to the *Pembroke*, additional; JOHN JENKINS, Surgeon, to the *Impregnable*; J. H. MARTIN, Fleet-Surgeon, to the *Duncan*; CHARLES STRICKLAND, Fleet-Surgeon, to the *Monarch*; FLEETWOOD BUCKLE, M.D., Staff-Surgeon, to the *Active*; HENRY BEAUMONT, Staff-Surgeon, to the *Rover*; W. B. DREW, Staff-Surgeon, to the *Village*; R. D. WHITE, M.D., Staff-Surgeon, to the *Culpo*; MATTHEW DEGAN and A. G. ANDREWS, Surgeons, to the

Monarch; J. C. Dow, M.B., Surgeon, to the *Active*; E. B. TOWNSEND, Surgeon, to the *Rover*; J. B. WRAY, Surgeon, to the *Folage*; JAMES PORTER, M.B., Surgeon, to the *Calypso*; A. M. FRENCH, Surgeon, to the *Pembroke*; A. G. WILDEY, Surgeon, to the *Boscawen*; E. C. WOOD, M.D., Surgeon, to the *Banterer*; E. R. D. FASKEN, Surgeon, to the *Duncan*, additional.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON J. MACKENZIE, M.D., serving in Madras, is directed to do general duty, Bangalore Division.

Brigade-Surgeon E. J. HOPWOOD is granted retired pay, with the honorary rank of Deputy Surgeon-General. He entered the service January 29th, 1855; became Surgeon, December 7th, 1867; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, June 9th, 1880. He does not appear to have seen war-service.

The Indian troop-ship *Serapis* left Portsmouth on Wednesday, September 9th, with a large number of officers on board for India, among whom were the following: Brigade-Surgeon W. Graves, and Surgeons R. H. Forman, M.B., G. G. Adams, W. T. Swan, M.B., R. L. R. Macleod, M.B., D. R. Hamilton, M.B., C. L. Josling, and J. Bullin, M.B. On arrival at Queenstown, Surgeons E. O. Milward, R. G. Thompson, M.D., R. I. Power, E. Cormack, M.B., W. B. Day, M.B., and C. T. Blackwell, also embarked.

Surgeon N. CAMERON, M.B., died at Sierra Leone on the 9th of July last, in the 35th year of his age. He entered the service as Surgeon on March 6th, 1880, when he joined the African Service, and continued in it up till the time of his death.

Surgeon C. L. YOUNG, who was placed on half-pay on the 6th of February last, on account of ill health, died at Bath on August 9th, at the age of 27. He joined the Army Medical Service on February 5th, 1881, when he was sent to Devonport; in 1882 he went to India, and returned in the following year, and was stationed at Aldershot.

SURGEON LUKE FISHER, M.D., of the 3rd Lancashire Rifle Volunteers, is granted the honorary rank of Surgeon-Major.

Surgeon-General Sir W. GUYER HUNTER, M.D., K.C.M.G., has been appointed Honorary Surgeon-Commandant to the Volunteer Medical Staff Corps.

By a circular recently issued from the War Office, the establishment of the Volunteer Medical Staff Corps is fixed as follows: 1 surgeon-commandant, 12 surgeons, 1 quartermaster, 4 first class staff-sergeants, 8 second class staff-sergeants, 18 sergeants (including a sergeant-bugler), 8 buglers, 34 corporals, 314 privates: 400 of all ranks; with an adjutant and 4 sergeant-instructors (including an acting sergeant-major), who constitute the permanent staff.

INDIAN MEDICAL SERVICE.

SURGEON J. F. MACLAUREN, Bengal Establishment, is appointed to the officiating medical charge of the 15th Native Infantry at Suakin, *vice* Surgeon D. B. Spencer.

Surgeon W. A. SYKES, Bengal Establishment, is appointed to the officiating medical charge of the 17th Native Infantry at Suakin, *vice* Surgeon MacLauren.

Surgeon S. H. BROWNE, Bengal Establishment, civil surgeon, Betul, on being relieved by Mr. Apothecary Mitchell, is posted to the Nimar District.

Surgeon-Major J. J. MONTEATH, M.D., Bengal Establishment, who is absent on sick furlough, is transferred to the medical charge of Seesaugor.

Surgeon S. LITTLE, M.D., Bengal Establishment, is appointed to act as Civil Surgeon of Beerhloom during the absence, on deputation, of Surgeon-Major G. C. Roy, M.D.

Surgeon C. G. W. LOWDELL, Bengal Establishment, in medical charge of the 20th Native Infantry, is appointed to the 2nd Bombay Grenadiers, at Ahmedabad, *vice* Surgeon-Major C. T. Peters, M.B., who has been transferred to the Civil Department.

Surgeon M. B. BRIGGS, Bombay Establishment, Acting Civil Surgeon at Sattara, is appointed Medical Officer to the 12th Native Infantry at Poona, *vice* Surgeon H. P. Jervis, who has been appointed to the medical charge of the 7th Native Infantry at Ahmednugger.

Surgeon-Major H. ATKINS, Bombay Establishment, on general duty, Sind Circle, is appointed to the medical charge of the 20th Native Infantry at Thull Chotiali, in the place of Surgeon Lowdell, appointed to the 2nd Native Infantry.

Brigade-Surgeon C. JOYNT, M.D., Bombay Establishment, is transferred from general duty Poona Circle, to general duty Sind Circle.

Surgeon JOHN MACGREGOR, M.D., Bombay Establishment, is transferred from Ahmednugger, to general duty Sind Circle.

Brigade-Surgeon R. ROUSE, Bengal Establishment, has retired from the service, which he entered December 20th, 1854, attaining the position of Brigade-Surgeon November 27th, 1879. He is not credited in the Army Lists with any war-service.

Brigade-Surgeon JAMES ROSS, M.B., Madras Establishment, has also retired from the service. He entered as Assistant-Surgeon, January 29th, 1857, and attained to Brigade-Surgeon, October 11th, 1884. Mr. Ross served in the Crimea in 1858, and was engaged at the battle of Balaklava, and at the capture of Kerch, Yenikale, Kinbourne, and Sebastopol. He has the Crimean medal and two clasps. He was also in the Indian Mutiny in 1857-58.

Deputy Surgeon-General J. M. JOSEPH, Madras Establishment, who retired from the service on the 1st of July last, is now granted the honorary rank of Surgeon-General.

Surgeon S. C. NANDI, M.B. (not WANDI, as misprinted on September 5th), of the Bengal Establishment, has passed the higher standard in Sanscrit.

Surgeon R. J. FOLDEN, M.B., Bengal Establishment, officiating in medical charge of the 30th Native Infantry at Peshawar, is temporarily appointed to act as Medical Officer Punjab Northern State Railway, *vice* Surgeon S. Little.

Surgeon J. MULLANE, M.D., Bengal Establishment, officiating in medical charge of Kanroop, is confirmed in that appointment, *vice* Surgeon-Major E. G. Russell, M.B., who has been transferred to Bengal.

The services of Surgeon G. T. THOMAS, Madras Establishment, are replaced at the disposal of the Commander-in-Chief.

The furlough for six months granted to Surgeon T. S. WEIR, Bombay Establishment, Health-Officer to the Municipality of Bombay, is extended for a further period of three months.

Surgeon-Major R. CALDECOTT, Bombay Establishment, Medical Officer 2nd Central India Horse, and of the Goona Political Agency, is appointed to officiate as Residency Surgeon at Indore, and as Civil Administrative Medical Officer in Central India, during the absence on privilege leave of Surgeon-Major D. F. Keegan, M.D.

Surgeon J. W. EVANS, Madras Establishment, is appointed to the officiating medical charge of the Queen's Own Sappers and Miners, pending the arrival of Surgeon-Major M'Carthy.

Surgeon A. J. O'HARA, Madras Establishment, is directed to do general duty under the orders of the Deputy Surgeon-General of Her Majesty's Forces, Eastern District.

The undermentioned gentlemen have been granted leave of absence for the periods specified. Surgeon A. C. THOMPSON, Bombay Establishment, for 163 days on medical certificate; Surgeon F. R. SWAINE, M.B., Bengal Establishment, for 30 days in extension; Surgeon-Major R. T. LYONS, M.D., Bengal Establishment, Medical Officer 17th Native Infantry, for 270 days in India on medical certificate. The leave recently granted to Deputy Surgeon-General A. J. DALL, M.B., Bengal Establishment, is cancelled.

The Government of India have decided upon granting horse-allowance to surgeons of the British army when doing duty with troops marching from one station to another, or encamped on account of sickness among the troops, or for musketry or artillery practice, or employed on active service in the field, in camps of exercise, or during peace manoeuvres. The allowance will be granted on the condition that no Government horse is available for their use; and the charge must be supported by a certificate from the officer commanding the troops: 1, that a Government horse was not available; 2, that the surgeon was employed on the duty specified. On field-service no certificate will be required.

OBITUARY.

W. A. GUY, M.D., F.R.C.P., F.R.S.

THIS distinguished physician and scientist died at his residence in Gordon Street, Gordon Square, on September 10th, having nearly reached the age of 80 years. Dr. W. A. GUY was born at Chichester, and educated at Pembroke College, Cambridge, and at Guy's Hospital. In 1831, the Fothergillian prize medal of the Medical Society was awarded to him for an essay on Asthma. In 1837, he took the degree of M.B., and in the following year was appointed Lecturer on Forensic Medicine to King's College, becoming physician to out-patients at the hospital in 1842. From 1846 to 1853, Dr. Guy was Dean of the Medical Department, and was appointed Professor of Hygiene in 1869. In 1855, 1856, and 1866, he held office as Censor at the Royal College of Physicians, where, in 1861-63, he was examiner. In 1860, he delivered the Croonian Lectures on "The Numerical Method, and its Application to the Science and Art of Medicine;" in 1868, the Lumslean Lectures on "Factors of the Unsound Mind, with special reference to the Plea of Insanity in Criminal Cases;" and in 1875, he delivered the Harveian Oration. Dr. Guy was for many years officially connected with the Statistical Society, of which he was President in 1873. In 1862, he was appointed Examiner in Forensic Medicine at the University of London. In 1876-77, he was Vice-President of the Royal Society. To the profession, the deceased physician is probably best known as the author of a highly popular text-book on forensic medicine, and as the editor of Hooper's *Physician's Vade-Mecum*. The general public probably knew him better through the attention which he devoted for many years to questions of sanitary reform and social science. In 1878, he was chosen as one of the Royal Commissioners to inquire into the working of the Penal Servitude Acts, and, in 1879, he became a member of the Criminal Lunatic Commission. Besides the text-book, and the lectures which appeared in the pages of the JOURNAL, or were published separately, Dr. Guy was the author of several pamphlets on subjects connected with medicine, physiology, and medico-legal and sanitary questions.

B. G. MACDOWEL, M.D.,

PHYSICIAN IN ORDINARY TO THE QUEEN IN IRELAND.

WE greatly regret to announce the death, on Tuesday last, after a very short illness, of this distinguished and genial member of the profession, one of the physicians in ordinary to the Queen in Ireland. Although his numerous friends had noticed with apprehension that he showed signs of failing health during the past year or two, yet he was so bright and cheery in himself that the news of his alarming illness, and its rapidly fatal termination, came as a blow to all who knew him, for to know him was to esteem and admire him. A week before his death he was seeing patients; but a few days previously he had got wet, and had to remain in his wet clothes waiting for a train. This was followed by a severe rigor, and an acute attack of broncho-pneumonia, with failure of the heart, which the patient himself but too acutely recognised as the *primum moriens*. We append the following extract from an obituary notice of Dr. MacDowel, which was communicated to all the Dublin daily papers. Words, however, fail to convey any idea of the charm of his character and manner, his large-heartedness, and unvarying good temper. He was never heard to say an unkind word of anyone, and his death leaves a gap in all circles of society in Dublin which it will be hard indeed to fill.

"Born some five-and-sixty years ago, Benjamin MacDowel may be said to have been cradled in the profession of medicine. His father

towns, 3 occurred in London (exclusive, however, of 6 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), and 1 in Bristol. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the fourteen preceding weeks from 1,389 to 810, further fell during the week to 213; the admissions, which had been 43 and 47 in the two previous weeks, declined during the week to 32. The death-rate from diseases of the respiratory organs in London was equal to 2.2 per 1,000, and slightly exceeded the average. The causes of 59, or 2.0 per cent., of the 2,960 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending September 5th, 832 births and 487 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 20.4, 19.6 and 18.0 per 1,000 in the three preceding weeks, rose again to 20.0, and exceeded by 2.0 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the death-rate was equal to 12.7 in Greenock, 15.0 in Dundee, 15.2 in Leith, 16.5 in Aberdeen, 16.6 in Edinburgh, 24.1 in Glasgow, 24.9 in Perth, and 29.0 in Paisley. The 487 deaths registered during the week in these towns included 84 which were referred to the principal zymotic diseases, against 81 and 66 in the two preceding weeks; of these, 51 resulted from diarrhoea, 14 from whooping-cough, 7 from scarlet fever, 6 from "fever," 3 from measles, 3 from diphtheria, and not one from small-pox. These 84 deaths were equal to an annual rate of 3.4 per 1,000, which corresponded with the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates during the week in the Scotch towns were recorded in Glasgow, Perth, and Paisley. The deaths from diarrhoea, which had been 64, 53, and 41 in the three preceding weeks, rose again to 51, but were 17 below the number recorded in the corresponding week of last year; 29 occurred in Glasgow, 3 in Edinburgh, and 4 in Paisley. The fatal cases of whooping-cough, which had declined from 23 to 9 in the three previous weeks, increased to 14, and included 10 in Glasgow, and 2 in Greenock. Of the 7 deaths referred to scarlet fever, 5 occurred in Glasgow. The 6 deaths from "fever" were within one of the number recorded in the preceding week; and included 3 in Glasgow, where 2 of the 3 fatal cases of diphtheria were also registered. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 2.0 per 1,000, and corresponded with the rate for the same period in London. The causes of 73, or 15.0 per cent., of the 487 deaths registered during the week in these Scotch towns were uncertified.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 733 births and 419 deaths were registered during the week ending Saturday, September 12th. The annual rate of mortality, which had been equal to 18.0 and 20.0 per 1,000 in the two preceding weeks, declined to 17.2, and was slightly below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 9.6 in Aberdeen, 12.9 in Edinburgh, 14.1 in Greenock, 16.6 in Perth, 16.7 in Leith, 16.7 in Dundee, 20.6 in Glasgow, and 25.5 in Paisley. The 419 deaths registered during the week in these Scotch towns included 29 which were referred to diarrhoea, 11 to whooping-cough, 10 to "fever," 8 to scarlet fever, 4 to measles, 3 to diphtheria, and 1 to small-pox; in all, 66 deaths resulted from these principal zymotic diseases, against 66 and 84 in the two preceding weeks. These 66 deaths were equal to an annual rate of 2.6 per 1,000, which was slightly below the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns were recorded in Leith, Paisley, and Glasgow. The deaths from diarrhoea, which had been 41 and 51 in the two preceding weeks, declined to 29, and were as many as 26 below the number registered in the corresponding week of last year; 18 were returned in Glasgow. The fatal cases of whooping-cough, which had been 9 and 14 in the two previous weeks, fell to 11 last week, of which 7 occurred in Glasgow, and 3 in Paisley. The 10 deaths referred to "fever" exceeded by 4 the number in the preceding week, and included 6 in Glasgow, and 2 in Edinburgh. Of the 8 fatal cases of scarlet fever, which showed a slight increase upon those recorded in the previous week, 7 were returned in Glasgow, where all the 4 deaths from measles were also returned. The fatal cases of small-pox occurred in Glasgow. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.3 per 1,000, against 2.2 in London. As many as 58, or 13.8 per cent., of the 419 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending August 22nd, the number of deaths registered in the sixteen principal town-districts of Ireland was 378. The average annual death-rate represented by the deaths registered was 22.8 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 10.3; Belfast, 22.4; Cork, 20.8; Drogheda, 4.2; Dublin, 26.6; Dundalk, 8.7; Galway, 10.1; Kilkenny, 21.1; Limerick, 24.3; Lisburn, 14.5; Londonderry, 19.6; Lurgan, 20.5; Newry, 14.0; Sligo, 4.8; Waterford, 30.1; Wexford, 21.4. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.0 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, Sligo, Lisburn, and Lurgan, to 10.3 in Armagh; the two deaths from all causes registered in the last named being from diarrhoea. Among the 94 deaths in Belfast were 4 from measles, 1 from scarlatina, 1 from typhus, 3 from whooping-cough, 2 from diphtheria, 2 from simple continued fever, 1 from enteric fever, and 6 from diarrhoea; and the 32 deaths in Cork comprised 2 from scarlatina, 1 from whooping-cough, and 1 from diarrhoea. Two deaths from diarrhoea were registered in Londonderry, and 2 from the same disease in Waterford. In the Dublin Registration District, the deaths registered during the week amounted to 184. Twenty-two deaths from zymotic diseases were registered in Dublin, being equal to the number for the preceding week; they comprised 4 from scarlet fever, 2 from typhus, 3 from whooping-cough, 2 from enteric fever, 7 from diarrhoea, etc. Thirty-one deaths from diseases of the respiratory system (including 18 from bronchitis and 9 from pneumonia) were registered. The deaths of 14 children (including 13 infants under one year old) were ascribed to convulsions. Four deaths were caused by apoplexy, 5 by other diseases of the brain and nervous system (exclusive of convulsions), and 11 by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 23 deaths, mesenteric disease 6, and cancer 7. Two accidental deaths were registered. In three instances, the cause of death was "uncertified," and in 29 other cases there was "no medical attendant."

In the week ending August 29th, the number of deaths registered in the sixteen principal town-districts of Ireland was 329. The average annual death-rate represented by the deaths registered was 19.9 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 5.2; Belfast, 21.9; Cork, 20.1; Drogheda, 29.6; Dublin, 19.3; Dundalk, 8.7; Galway, 33.6; Kilkenny, 8.5; Limerick, 16.2; Lisburn, 14.5; Londonderry, 26.7; Lurgan, 35.9; Newry, 17.6; Sligo, 14.4; Waterford, 11.6; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.4 per 1,000, the rates varying from 0.0 in twelve of the districts to 5.7 in Belfast; the 92 deaths from all causes registered in that district comprising 2 from measles, 3 from scarlatina, 8 from whooping-cough, 1 from diphtheria, and 10 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 136. Only 13 deaths from zymotic diseases were registered in Dublin; they comprised 1 each from scarlatina, whooping-cough, diphtheria, enteric fever and dysentery, and 6 from diarrhoea. Thirteen deaths from diseases of the respiratory system (including 7 from bronchitis and 5 from pneumonia) were registered. The deaths of 17 children (including 16 infants under 1 year old) were ascribed to convulsions. Two deaths were caused by apoplexy, 12 by other diseases of the brain and nervous system (exclusive of convulsions), and 5 by diseases of the circulatory system. Phthisis caused 17 deaths, mesenteric disease 3, and cancer 2. Four accidental deaths and 1 case of suicide were registered. In 1 instance the cause of death was "uncertified," and in 24 other cases there was "no medical attendant."

REPORTS OF MEDICAL OFFICERS OF HEALTH.

WITHINGTON.—Dr. Railton is able to record the low general death-rate of 13 per 1,000 in his annual report for 1884. This is satisfactory, especially in view of the fact that the rate has not exceeded 14.3 during the last six years. The zymotic death-rate was 1.4 per 1,000, and Dr. Railton remarks that if the deaths from diarrhoea were omitted from the reckoning, the rate would be only 1 per 1,000. The health-officer favours this omission of infantile diarrhoea from the list of zymotic diseases, as he considers it, without doubt, due to a great extent to improper feeding, and not as a rule dependent on sanitary conditions. "No amount of legislation," he says, "can prevent the improper feeding of infants, which is the cause of so many cases of diarrhoea, or the mixing together of children, one of whom is suffering from infectious fever." Sixteen cases of scarlet fever were removed to the Monsall Hospital during the year, and the early removal of these cases seems to have greatly limited the spread of the disease in the district. Dr. Railton, speaking of scarlet fever, gives several instances of gross carelessness on the part of persons who had had the disease in their houses. In one case, he found that a little girl was allowed to go about the streets while she was peeling; whilst in another case, the patient, who was in a highly infectious condition, was found sitting downstairs with a neighbour. In both these cases, printed precautions had been supplied. General sanitary matters, the health-officer seems to have kept well under supervision; and the local board, by issuing an useful circular, has endeavoured to induce householders to ascertain that their dwellings are in such a satisfactory sanitary condition as would defy any extension of cholera, if that disease appeared.

BLACKPOOL.—The two annual reports which Mr. Henry Welch has had to make, as medical officer of health, for this rapidly growing borough and seaside resort, give evidence of considerable activity, on the part of the sanitary officers, and also of the Town Council, in promoting the sanitary improvement of the town. There are still, however, unwholesome conditions which require the constant attention of the Sanitary Committee. Accumulation of refuse in receptacles of too large a capacity, defective drainage of the older houses, insufficient ventilation of the town sewers, and the nuisance from private slaughter-houses, are all important questions that the Council have in hand. It is to be hoped that the cause of the delay that has taken place in the provision of the much needed new sanatorium, will, ere long, be overcome by the Town Council. During 1883, scarlet fever was the most prevalent of the infectious diseases in the town, 44 cases occurring, with 6 deaths. Enteric fever caused 23 cases, and 5 deaths; measles 16 cases, with 1 death; and diphtheria 8 cases, with 3 deaths. In 1884 diarrhoea was the most fatal disease, causing 22 deaths, of which 18 were of children under 5 years of age, and 17 under 1 year. This high infantile mortality has not passed unnoticed by the health-officer. The cases occurred in the latter part of the summer, and, in the opinion of the health-officer, "were partly due to the heat of the weather, and partly, no doubt, to the overcrowding of the town at that time, causing neglect in feeding and domestic cleanliness at the time when the food so easily becomes tainted and cleanliness is most needed." Apart from these matters, Mr. Welch considers that a polluted filth-sodden soil around dwellings produces a kind of malaria which is intensified by the summer heat, and influences the annually recurring summer diarrhoea of children. He also considers ignorance of the principles of good cookery, and in the proper feeding of infants, to be largely responsible for the fatal diarrhoea of children, and he advocates the giving to children in our schools a few lessons on pure air, water, and food, and on the principles of domestic sanitation. In

1883 the death-rate per 1,000, from all causes, was 19.5, including deaths among visitors, or 16.6, if those deaths be excluded. In 1884 the rates were 19.0 per 1,000, including visitors, or 17.1 excluding them. The deaths from zymotic diseases were 1.6 per 1,000 in 1883, and 2.14 per 1,000 in 1884.

AYLESBURY RURAL DISTRICT.—Dr. Harvey Hilliard thinks that the past year must be distinguished for the comparative immunity which the district enjoyed from diseases of the zymotic class, as well as for a considerable diminution in the total mortality. There were two separate outbreaks of small-pox at widely distant localities, the infection in each case being imported from London. In both instances, the disease was confined to the initial cases, a result which is attributed to the extensive revaccinations that were immediately practised, and to the adoption of stringent measures for securing disinfection and isolation. Scarlatina and diphtheria were somewhat prevalent during the earlier portion of the year. Although admitting that there may be some analogy between the two diseases, Dr. Hilliard believes them to be distinct in their germ-origin, neither being capable of producing the other. On the other hand, the conditions which favour the germination of the scarlatina-spore are equally favourable to the development and support of the seeds of diphtheria, so that the two diseases often flourish contemporaneously. The prompt remedial measures adopted by Dr. Hilliard, on the occurrence of a case of zymotic illness, were attended with the happiest results, the spread of contagion being arrested in each case; and it is satisfactory to learn that the general death-rate (16.2 per 1,000), was below that of the two previous years.

SCARBOROUGH.—In his annual report for 1884, Dr. J. W. Taylor observes that, during that year, the town was not visited with any serious epidemic disease of a destructive character. In the first quarter there were a few cases of scarlet fever, two of which proved fatal; but, apart from these, the three remaining deaths were of a very isolated character. All proper precautions as to disinfection, etc., were taken to prevent the disease spreading; but Dr. Taylor remarks that, in spite of all that has been said and written, especially with reference to scarlet fever, it seems almost hopeless to make parents and guardians of children realize the fact that mild cases of that and other infectious diseases are capable of producing, and do produce, the most destructive results in the next individuals who fall victims to them. The third quarter of the year produced, as usual, the greatest mortality from diarrhoea among children under one year of age, a subject into which Dr. Taylor entered at some length in his report for 1883. He points out that the greatest concentration of deaths occurs in the localities most thickly populated and occupied by the poorest classes. "It is in these localities that the strictest vigilance has to be exercised; but, in spite of all that, filth, improvidence, and the neglect of the proper precautions for maintaining health, prevail." The general death-rate of the borough was, for 1883, 18.84 per 1,000, and, for 1884, 17.31 per 1,000. Zymotic diseases produced for 1883 a rate of 1.3 per 1,000, and, for 1884, 1.8 per 1,000, reckoned on a permanent population of a little over 32,000.

ISLE OF WIGHT RURAL DISTRICT.—The report by Mr. Joseph Groves, on the health of this district during 1883, was the first made by him as medical officer of health for the whole rural sanitary district; and he has taken the opportunity of reviewing in it the general geological formation of the island, as well as the several directions in which the sanitary authority would do well to take action. His main object seems to have been to impress upon the authority that sewage, discharged into the fissures which abound in the chalk and upper greensand, may pass through unchanged into water-wells, with obviously dangerous results; that incalculable mischief has already been done in this manner in the Undercliff, and that the drainage of the buildings which are being erected there should be carefully controlled; that it is not safe to drink from any of the island streams; and whilst, as regards the wells (which are mostly surface ones), "the instances are rare in the district in which even the most elementary precautions are taken to protect the water—it is simply a matter of haphazard whether it becomes polluted or not." Plenty of good water seems, however, to be easily available throughout the district; and it is astonishing to the health-officer "that, almost within stone's throw of the Downs, there should be a famine of water, and that Government establishments and considerable towns should have gone to enormous expense in providing themselves with a supply of surface-water, uncertain in quantity and purity, when the chalk was within a comparatively short distance of them." After entering into this subject in considerable detail, Mr. Groves urges upon the sanitary authority "the importance of more strictly enforcing the provisions of the Public Health (Water) Act, 1878 (Section 6), with reference to the water-certificate." Where sewers exist in the district, their frequent effectual flushing seems to be urgently needed, whilst the improper construction of cess-

pits is one of the most serious defects of the island, and requires the sanitary authority's careful attention. Mr. Groves, in this report, has provided his authority with a very useful sanitary hand-book to their district. If the generally good and practical advice therein contained be adopted by the authority, the sanitary condition of the Garden of England cannot but be materially improved. The death-rate from all causes for 1883 was 15.2 per 1,000, including visitors, or 13.6 per 1,000, excluding visitors. Zymotic diseases—measles, scarlet fever, diphtheria, and whooping-cough—produced a rate of only 1.2 per 1,000. The need for an isolation-hospital for infectious cases has not been overlooked by the health-officer.

CARLISLE.—The principal zymotic diseases with which Mr. Brown had to contend during 1884, as medical officer of health, were typhoid fever and diarrhoea, the former causing 7 and the latter 23 deaths. The diarrhoea was of more than ordinary severity among children, and a great many adults who were attacked with the disease exhibited the symptoms of English cholera. On the whole, the zymotic death-rate was lower than it had been for several years past, being only 1.0 per 1,000. The general death-rate was 21.0 per 1,000. The slaughter-houses were again the chief sources of nuisance, to which Mr. Brown draws attention in his report. Several cases of fever were found by him to have been related to the improper disposal of animal refuse in connection with a certain slaughter-house, and Mr. Brown adds, that accumulations of such refuse in the middens are frequently causative of typhoid fever in the city. He also very properly condemns the practice of allowing blood to enter the drains and sewers.

TROWBRIDGE.—In his report for 1884, Dr. G. C. Taylor, the medical officer of health for this district, bewails the want of hospital-accommodation for infectious cases. He points out that, had there been such accommodation for the isolation of the first case of measles in the recent severe epidemic, the spread of the disease would probably have been prevented, and the 23 deaths which actually occurred, together with their accompanying suffering and expense, might have been averted. The general death-rate was 20 per 1,000; the zymotic rate being 3.1 per 1,000.

GREAT YARMOUTH.—Mr. John Bately has prepared a very useful report on the health of this borough during 1884. He is somewhat unhappy about the high rate of mortality which he is obliged to assign to the town, but he finds some consolation in the gradual decline in the death-rates during the last ten years. Except for one death in February, small-pox was absent from the town throughout last year; a fact which the health-officer considers to be very satisfactory, having regard to the enormous number of visitors, mostly from London, who flocked into the town during the summer. For several years past diarrhoea has been prevalent and very fatal in Yarmouth in August and September, especially among young children. Of sixty-four deaths last year, only two were of children over five years of age. The cause of this persistent prevalence of diarrhoea is puzzling the health-officer, but we presume it is included in the more extensive researches concerning autumnal diarrhoea which Dr. Ballard is conducting on behalf of the Local Government Board. Typhoid fever claimed eighteen victims during 1884, and towards the end of the year quite an epidemic of this disease prevailed in the town. The cause of the outbreak seems to the health-officer very obscure, but the complaints of bad smells from the sewers, and the drinking of impure water associated with some of the cases, are put aside by him for a far more general cause, namely, unwholesome food, especially bad herrings. Mr. Bately observes that, as typhoid fever was prevalent in other towns last winter, it would seem as if a common cause were operating: "but whether the present typhoid sickness is the prelude to cholera or not, seems a moot point." He believes, however, "that persons whose healths are weakened by typhoid, diarrhoea, or other bowel-complaints, are the more likely ones to fall victims to cholera." He therefore gives his sanitary authority the excellent and practical advice to prevent, by increased vigilance over the shipping of the port, the introduction of cholera at Yarmouth. The death-rate from all causes is estimated at 21.34 per 1,000, including a zymotic rate of 3.31 per 1,000.

HASTINGS.—The low rate of mortality which characterised the health of this borough in previous years continued during 1884, being 15.93 per 1,000, inclusive of the deaths amongst "visitors" and "non-residents." Zymotic diseases produced a death rate of 1.81 per 1,000, and included two deaths from small-pox, fifteen from measles, five from diphtheria, twenty-eight from whooping cough, three from fever, and thirty-one from diarrhoea. The inspection of food in the borough was carefully carried out during the year; and quantities of fish and of vegetables were on various occasions condemned and destroyed as being unfit for human consumption. In his annual report, Mr. C. Knox Shaw records an interesting case of contamination of milk that came under the notice of himself and the public analyst. A milk-pur-

veyor, not being satisfied with the appearance of the milk supplied to him, had it analysed, when it was found to bear signs of disease. It contained micrococci and some "abnormal corpuscular bodies," but nothing to indicate that the cows were suffering from any known cattle-disease. After a careful examination of the animals, and the place where they were kept, it was found that, owing to the dry weather, the cows were drinking water most woefully contaminated with sewage. This was remedied, and, after the cows had been "doctored" and for some time properly watered, further samples of the milk were found to be normal. Fortunately, no illness was traceable to the use of the milk. The water-supply from Filsham continued satisfactory, whilst additional sewerage works were carried out with advantage. Mr. Shaw has given a useful analysis of the Bill which the Hastings Corporation are promoting in Parliament, especially of the proposals to provide for the appointment of a Building Surveyor, the regulations of new streets, buildings, etc., the notification of infectious disease, the erection of a refuse "destructor," the establishment of public slaughter-houses, and other matters.

WEST DERBY.—Dr. W. Carter is able to report that, during 1884, the sanitary condition of this district was fairly satisfactory; for, though the inspector of nuisances had brought to light a good many individual defects, yet there had been no serious and general unsanitary influence in operation. As regards disease, the year was marked by an unusual prevalence of measles, whooping-cough, and diphtheria. Diarrhoea was more fatal than in 1883, but scarlatina was much less so. The mortality from the entire group of zymotic diseases was much greater in 1884 than in the previous year, the number of deaths being 125, as compared with 95 in 1883, or 3.6 per 1,000, as compared with 2.7 per 1,000. The general death-rate was 18.5 per 1,000, reckoned on an estimated population of 34,800.

WORCESTER.—The most important portion of Dr. Strange's annual report for 1884 is that which deals with the water-supply of the city. The Severn is the source from which the supply is derived, and as regards quantity, softness, and general absence of saline impurity, it appears to be open to little objection. But all rivers with towns on their banks are exposed at times to pollution by sewage-matter. This occurred, as regards the Severn, on at least two occasions, in the months of September and October last, when, through breakdowns at the Sewage-pumping Works at Kidderminster, the sewage of that town was discharged into the Stour, and thence flowed into the Severn, about 14 miles above the intake of the Worcester Water-works. At that time a serious epidemic of enteric fever was at its height in Kidderminster, and a considerable outbreak (or, as the medical officer of health says, "exacerbation") of the disease took place concurrently at Worcester. Strong suspicion was at once directed against the water-supply, owing to the possibility of the fever-poison having been conveyed from Kidderminster in the way already referred to. But this supposition does not seem to find much favour with Dr. Strange, who appears to attach greater blame to defects in the sewerage arrangements, and the ventilation of the sewers, and also to the bad sanitary circumstances of the infected houses. The facts of the outbreak have, however, afforded him a fresh opportunity of urging his sanitary authority to greatly increase and improve their filtering arrangements for the water-supply, and also to make more perfect the ventilation of the public sewers, and secure the better ventilation of house-drains. We note that these recommendations have been put forward in previous reports of this medical officer of health. It is to be feared that the sanitary authority are too slow in moving in these pre-eminent important matters. The death-rate of Worcester during 1884 was 20.9 per 1,000, as compared with 20.72, the average for the preceding five years. The zymotic death-rate was 1.7. Among this latter class of diseases were 13 deaths from fever, and 33 from diarrhoea. The infant mortality was not so great as usual.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 3rd, 1885.

Adams, Charles Albert, 53, Devonshire Street, N.
Andrews, Richard, M.R.C.S., Chestnut Grove, New Malden.
Brown, William Henry, Oxburgh Rectory, Brandon.
Labey, Julius, 84, Palace Road, Upper Norwood.
Little, Arthur Nicholas, M.R.C.S., 1, Highbury Place, Cotham, Bristol.
Postlethwaite, Frank, M.R.C.S., 41, Oxford Road.

On the same day, the following gentlemen passed their Examination

in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise.

Holtom, Charles John, Stoke Hall, Stoke-upon-Trent.
Pockett, Lewis Walter, Belgravia, Goolie, Yorkshire.

The following gentlemen, also on the same day, passed their Primary Professional Examination.

Creagh, Arthur George Mellefont, University College.
Hearden, Ernest Morgan, Guy's Hospital.
Hook, William, Westminster Hospital.

At the recent Examination for the Prizes in Botany given annually to medical students by the Society of Apothecaries, the successful candidates were

1. Deansley, Edward, University College, the Gold Medal.
2. Lewitt, Frederick William, St. Mary's Hospital, the Silver Medal and Books.

MEDICAL VACANCIES.

The following vacancies are announced.

ABINGDON UNION.—Medical Officer. Salary, £130 per annum. Applications by September 19th.

BEDFORD GENERAL INFIRMARY.—Surgeon. Applications by October 8th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by September 22nd.

CANCER HOSPITAL (FREE), Brompton, S.W.—Resident House-Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of the Weekly Board by September 21st.

CANCER HOSPITAL (FREE), Brompton, S.W.—Assistant House-Surgeon. Salary, £35 per annum. Applications to the Chairman of the Weekly Board by September 21st.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by September 23th.

MALE LOCK HOSPITAL, 91, Dean Street, Soho.—House-Surgeon. Salary, £50 per annum. Applications to the Secretary, Lock Hospital, Harrow Road, W., by September 30th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Board of Management, 34, Craven Street, Charing Cross, by September 26th.

ST. BARTHOLOMEW'S HOSPITAL, Chatham.—Assistant House-Surgeon. Salary, £100 per annum. Applications by September 19th.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Applications to the Secretary.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications by October 14th.

MEDICAL APPOINTMENTS.

DAY, Percy Howard, L.R.C.S., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Stalmine District of the Garstang Union, *vice* H. T. Barton, M.R.C.S.Eng., resigned.

HINOSTON, William F., M.B., M.Ch., B.A.T.C.D., appointed Medical Officer for Deptford East, *vice* Dr. Long, resigned.

HUMBLE, G. A., M.D., M.R.C.P.Lond., appointed Physician to the Italian Society of Mutual Help, Patagones, Argentine Republic, South America.

PEDLEY, Newland, F.R.C.S., L.D.S., appointed Assistant Dental Surgeon to Guy's Hospital.

ROXBURGH, David, M.B., C.M., appointed House-Surgeon to the Isle of Man General Hospital and Dispensary.

WARNER, F. A., M.R.C.S., L.S.A., appointed House-Surgeon to the Belgrave Hospital for Children, S.W.

WILSON, Arthur H., M.R.C.S., L.R.C.P.Lond., appointed Honorary Assistant-Surgeon to the Stanley Hospital, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

OXLEY.—At Conisbro', on September 8th, the wife of A. J. Rice Oxley, M.A.Oxon., M.B., of a son.

TYLECOTE.—On September 9th, at Landon, Staffs., the wife of J. H. Tylecote, M.D., of a daughter.

MARRIAGES.

CATCARTH-TAIT.—At St. Andrew's Episcopal Church, St. Andrew's, on the 10th September, by the Rev. Dr. Porter, Master of Peterhouse, uncle of the bride, assisted by the Rev. L. Tuffett, the Incumbent, Charles Walker Cathcart, F.R.C.S.Eng. and Edin., second son of the late James Cathcart, Edinburgh, to Mary Guthrie, younger daughter of Professor Tait, Edinburgh.

HARRIS-BAYLEY.—At St. Mary's, Plaistow, on September 10th, by the Rev. Seymour F. Harris, M.A., B.C.L., Vicar of St. Michael's, Blackburn, assisted by the Rev. W. Hodgson, M.A., Vicar, James A. Harris, M.D.Lond., of St. George's House, Chorley, Lancashire, to Amy Stewart, only child of E. H. Bayley, Esq., of Bromley, Kent.

SOMERVILLE-HUTTON.—At St. Andrew's Presbyterian Church, Swansea, on the 15th September, by the Rev. A. N. Somerville, D.D., of Glasgow, father of the bridegroom, William Francis Somerville, M.A., B.Sc., M.B., to Janet Wilson Hutton, daughter of the late William Hutton, Esq., of Glasgow.

TO NEW MEDICAL STUDENTS.

SIR,—In your issue of August 29th, I noticed a letter addressed to "New Medical Students." As it contains several statements tending to mislead, rather than direct, those for whom it is intended, it seems to me only fair that these gentlemen should notice some facts adduced for the other side of the question. In the first place, your correspondent asserts that, in Scotland, "men obtain degrees after often little more than a three years' course." In the Calendar of the University of Edinburgh (against which institution your correspondent mainly directs his enmity), it is expressly stated that the course of study "shall not be less than the minimum course of four years." Similar rules are in force at the Universities of Glasgow, Aberdeen, and St. Andrew's. I find, however, on turning to the regulations for the license of the Royal College of Physicians of London, the following statement: "(a certificate) 'of having been engaged in professional studies at least forty-five months.'"

The statement that examinations are conducted in Scotland by professors of their own schools, is misleading; the truth being that each professor, together with an outside co-examiner, conducts the professional examination in his particular subject. This co-examiner, in many cases, I believe, sets the questions himself. He also examines orally, the professor in some cases being absent. I may add that at the last examination the four "outside examiners," in the various subjects, had me before them at the "orals," and with the result I had every reason to be satisfied. It is surprising that the very people who want the title of "Dr." to be conferred on them, without an university examination, are the first to rail against certain universities that go more than half-way to meet them. I will not insult the Scottish universities by supposing that their careful and efficient training, backed by their examinations for the degrees of M.B. and C.M. can be put on a level with the education and examinations of "Colleges," as required for their diplomas, except the F.R.C.S. (examination) and M.R.C.P. London.

If, as Surgeon Deakin says, "English students are not ashamed of the term 'Surgeon,' why this unseemly and unreasonable agitation for 'M.D. Angl.?' If 'English students' want the M.D. or M.B., surely they have the means of getting it in London, Oxford, Cambridge, and Durham. Why do they not go there, instead of coming to Scotland? The fee for M.B. Lond., is £5 for each of three examinations—not much, one would think. The reason why the degree costs so much is this—the hospital fees are high, and, to pass the examination, "cram classes" have to be resorted to in most cases. On looking at the advertisements of any of the good London hospitals, notices of "special classes for the London University and F.R.C.S." are invariably found. Surely this means that the hospital teaching alone is not sufficient, and that the system of cramming must be resorted to.

No Scotch university has any such machinery for turning out medical men, but its training seems to be quite sufficient. It does not leave its prime object—that of education—to numberless hospitals, and stamp their heterogeneous product with its approval, but it gives each individual the same education and the same chance.

Surgeon Deakin's remark "that the mental capacity of the English, even when measured by Scotch standards, cannot be very far inferior" (because the Edinburgh honours list was mainly composed of Englishmen) is based on a wrong conclusion. The true conclusions are that the best English students come to Edinburgh, and that our training is so good and thorough, that it enables them to take a high place.—I am, sir, yours faithfully,

A SENIOR STUDENT OF EDINBURGH UNIVERSITY.

SEXUAL IGNORANCE.

SIR,—In your able and interesting article under the above heading, in your issue of August 15th, you suggest that one way to remove the ignorance of the above sort is to make "elementary physiology an integral part of every education." This is the only suggestion "to meet the case" that you propose; "but fortunately," you say, "it meets it most thoroughly." Will you pardon me for saying that I do not think it does? Who, may I ask, is to teach the young, the young of either sex, this "elementary anatomy and physiology," and explain to them "when the suitable age arrives, the structure and functions of the several organs?" Many schoolmasters and schoolmistresses are unmarried, while few of them know, themselves, elementary physiology and anatomy well enough to teach it, or skilfully and wisely to explain to their all-attentive curious pupils "the structure and functions of the sexual organs." An ignorant inexperienced lecturer on such a subject might obviously, you will admit, do a vast deal more harm than good. In regard to teachers who are unmarried, there are surely many of them, especially among the female teachers, who would far rather at once resign their offices than instruct the young in such extremely delicate matters. Indeed, I doubt if anyone who was not married could lecture wisely and delicately on such matters. In short, the practical difficulties in the way of giving effect to your suggestion are, according to the existing state of things, so numerous that, unless you point out some practical way by which these difficulties can be removed, your suggestion must seem to me to be to some extent Utopian. I write as a practical schoolmaster. I have no desire whatever to take exception to your excellent article, the whole tone of which I much admire. My only object is to induce you to throw further light upon this most momentous, but wholly neglected, part of education.

I have directed my publishers to send you for review a book recently published by me, titled *A Schoolmaster's Retrospect of Eighteen and a half Years in an Irish School*. In it I strongly advocate the importance of all men intending to become schoolmasters taking out their M.B. degrees before undertaking the education of boys. Were this done, then, of course, the difficulty which I have indicated in the way of carrying out your suggestion would at once vanish, and your suggestion would in this case become, at least so far as the teaching of boys is concerned, practicable and worthy of the utmost consideration.—Yours very faithfully,

MATRICE C. HIME.

THE ETYMOLOGY OF DOCTOR.

SIR,—"M.D.'s" criticism on "Philologist's" etymology of Doctor confirms, rather than disproves, his position. The translators of the New Testament certainly never intended to imply that the διδάσκαλοι were "university graduates like themselves;" but, by translating διδάσκαλος "doctor," they showed that that term was not restricted to university graduates; which was that for which "Philologist" contended. The remainder of "M.D.'s" letter needs no comment.—Yours truly,

PHILOLOGIST.

RIDING LEGGINGS.

SIR,—In reply to "Eques Rusticus," I should recommend him to get a pair of good fitting jack-boots, which would do equally well for either summer or winter; also, a waterproof cover-all. It is a coat and overalls combined; the overalls fasten up in the inside of the coat, and are not seen at all; and, in case of a heavy shower coming on, all that is required is to undo a couple of buttons on each side on the inside of the coat, and the overalls would fall down over the tops of the jack-boots, and by fastening a button or two he could defy the greatest storm that ever blew, and look well and comfortable. The above coat is used by pad-grooms and second horsemen in the hunting field. They have it strapped to the pommel of the saddle, and if there happen to come on a down-pour of rain, they can undo the strap and put it on in less time than I can tell you. I have found the above by far the best means of keeping myself clean and dry, especially in long journeys during the winter. It may be had from any large waterproof-manufacturer.—Yours truly,

CHEVALIER.

SHOULD OLD ULCERS BE HEALED?

SIR,—Having treated above 900 cases of ulcers of the leg, may I contribute my share of answer to the query of Jacobus, "Should old ulcers be healed?" Of these 900 cases, a few were of more than twelve years' standing; several were of ten years'; a considerable number between two and ten years'; the rest, under two years'. Fully half the cases were dressed by me, the rest under my supervision. In treating them, I always bore this question in mind, and was on the watch for any sign of mischief produced by healing the ulcers. No harm was ever observed, though some of the patients were old, infirm, or insufficiently fed, or otherwise in bad health. Patients with large chronic ulcers, discharging profusely, found that their health improved as the ulcers healed. Whatever medicine was seen to be required was given, but that was very little. Almost all the ulcers healed, some thoroughly, some in a less satisfactory manner. In very few instances did they refuse to heal. I regret not having followed some short easy plan of taking notes, so as to be able to give exact numbers. My treatment comprised careful bandaging; strapping, whenever practicable; sometimes zinc or chalk ointment, lead-lotion, or black wash; avoiding poultices, caustics, incisions, the administration of mercury or strong purgatives, and confinement to bed, in almost every instance; and renewing the dressings not oftener than every three or six days; the precise materials employed being of less importance than the right and persevering use of them. The patients mostly went about as usual during treatment, following their ordinary avocations. The treatment may by some be considered old fashioned, as including neither skin-grafting, India-rubber bandages, nor antiseptics; but it was very successful, and was a great contrast to what was done in my student-days, when patients with bad legs were confined to bed, the sores poulticed or dressed with unguentum resinae, disturbed every day for fresh dressings, and the patients dosed with mercury, repeated purgation, or opiates to lull pain. On the whole, I think that, with proper attention to the state of the patient, there is nothing unsafe in healing old ulcers. The closing of an ulcer, under means used by a careful surgeon, is widely different from the spontaneous healing of an ulcer suddenly in the course of acute or serious disease. Here the ulcer is healed, not by outward means, but by an inward condition. In a case of acute spinal meningitis (recorded by me in the *Lancet* for 1859), an ulcer of the leg of some years' standing healed spontaneously at the commencement of the illness, which was severe. It was easily reopened by the application of poultices, and was thus kept discharging until the patient's recovery.—I am, sir, yours faithfully,

W. E. C. Nourse, F.R.C.S.

Exeter.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.

SIR,—Under the above heading, your correspondent Mr. J. L. Nevin speaks in laudatory terms of Leishman's *System of Midwifery*, and then, in describing his method of dealing with this stage of labour, says: "When the child is born, I gently grasp the uterus with the left hand." Should he have occasion to refer again to this work, he will find that Leishman directs that the fundus uteri should be followed with the hand, and firmly compressed at the termination of the second stage, and states that, "if this be done, little difficulty will be experienced in regard to the speedy and satisfactory termination of the case." And this, sir, is, I think, a direction with regard to the management of this stage of labour which should not be lost sight of.—I am, etc.,

GILBERT RICHARDSON, M.A., M.D., M.R.C.P.

SIR,—In the JOURNAL of August 22nd appears an interesting letter on the above important subject from the pen of Mr. J. L. Nevin, of Ballymoney. That the subject is important, and very serious to deal with, is admitted by everyone, and still it is surprising that nearly all the books on midwifery pass over it rather lightly, and give very imperfect instructions about its proper management. At the meeting of the British Medical Association held at Belfast last year, the subject was warmly discussed by some of the leading physicians then present. Among these was the Professor of Midwifery in Queen's College, Belfast, a very experienced and prudent accoucheur. On that occasion, I was much astonished that the gentlemen disagreed widely in their opinion on the management of cases of frequent occurrence, and with which everyone is expected to be not only familiar, but to understand their most suitable treatment.

I make no reference to the mode of cutting the cord as described by Mr. Nevin, that is all right; it is the placenta that should engage our attention. He says: "At once he gently grasps the uterus," and "if he do not entirely express the placenta . . . he partially does so." To this no one could object; and if the hand were applied over the uterus at the moment of the birth of the child, and kept applied till after the expulsion of the placenta, it would be still better. Mr. Nevin further says: "He almost invariably brings away the placenta by the end of twenty minutes." What I question in this gentleman's practice and recommendation is "the steady traction of the cord." He does not say at what time he commences this, but anyone reading his letter would conclude that he begins, as he says himself, "at once." For obvious reasons, I consider much traction on the cord at all times hazardous and objectionable; but, immediately after birth, I believe, everyone would say it is most dangerous. I also question the prudence of placing a "soft pad" over the uterus before the placenta is removed; I prefer the hand in that situation, and if there have been hemorrhage, replace it by a hard, and not a soft, pad. My idea is that the expectant treatment, in these cases, is the best; to wait in ordinary cases for twenty or twenty-five minutes, keeping the hand over the uterus during that time; and, if nothing appear alarming, I should wait even a few minutes longer, and then act according to circumstances, or as the case might demand. Up till this, I should neither use traction, nor try whether there was placenta or not.—I am, sir, your obedient servant,

ABRAHAM KIDD, F.R.C.S.I.

Ballymena.

A MEDICAL ACCOUNT OF THE LAST CENTURY.

The following is a copy of a medical account in Scotland of 120 years ago.

Acctt.—Mrs. Dalziel, in Gateside, Dr. to James and Robt. Kirklands, Surgeons.		£ s. d.
1764.		
Deer. 5.	Impr. your daughter, a box of cerate to her finger	0 0 2
	To your son John, three doses of mercurial pills	0 1 6
	To materials to foment his neck	0 0 6
	To a large pot of green ointment to it	0 1 2
	To your self, a box of ointment to your finger	0 0 2
13.	To your daughter, bleeding	0 0 6
	To a vomit	0 0 4
	To a dose of purging tincture	0 0 10
	To your servant James Gray, a dose of pills, per order	0 0 6
	To a pot of ointment for pains	0 1 0
19.	To your daughter, two doses of sacred elixir	0 1 6
	To your son John, a pot of digestive ointment	0 1 0
	To James Gray, two mercurial purges per order	0 1 0
28.	To your daughter, two doses of purging pills	0 1 0
1765.	To a pot of anodyne ointment to her neck	0 1 0
June 5.	To your self, three doses of mercurial purging pills	0 1 6
	To discussing plaisters	0 0 10
	To your daughter, a vomit	0 0 4
Augt. 13.	To a cordial julep, 8 oz.	0 2 0
18.	To the same repeated	0 2 0

Sum: £0 18 10

Westerton, Deer. 17, 1765.

Then received from Mr. Thomas Young full payt. of the above acctt., and discharges the same and all proceedings.—J.A. KIRKLAND.

Docketed: Acctt. Mrs. Dalziel, in Gateside, to James and Robt. Kirklands, Surgeons. Discharged. 1766.

ROYAL UNIVERSITY OF IRELAND.

UNDERGRADUATE.—Experimental Physics is not mentioned in the Regulations of this University as a subject of the first professional examination.

NURSES.

SIR.—Would you kindly inform me how some properly educated nurses may be obtained under the following circumstances?

We live in a town of 50,000 inhabitants in the Argentine Republic; and, although the climate is good, we have more than an average amount of sickness, because of the extremely bad hygienic conditions which prevail. In my opinion, many cases are lost for want of intelligent nursing; and I have been asked by our most influential English residents as to the possibility of obtaining nurses from home. Our idea is to start a small English hospital for those who have not comfortable homes, and have a few extra nurses for outside patients. Funds are already forthcoming, and I feel sure we shall not fail for want of support. I would feel thankful for the above information, and, at the same time, should be glad of any advice as to what kind of hospital would be most suitable for, e.g., ten patients to commence with.—I am, sir, yours truly, J. A. FRENCH.

Rosario, Argentine Republic, South America.

INFECTION PERITONITIS IN VIRGINS.

SIR.—In the JOURNAL of August 29th, it is stated that Dr. Syners, of Liege, records the deaths of two virgins of puerperal peritonitis. This recalls to my recollection having, many years ago, been called to see a monthly nurse with erysipelas of the arm, ending in a large abscess above the elbow. She had come from nursing a lady who died of puerperal fever. The servant-girl had also left with a poisoned hand. My patient was nursed by her daughter, a healthy young woman under twenty years of age. She had just menstruated, was attacked with peritonitis, and died in two days.—I am, etc., B. BLOWER.

REMOVAL OF THE HAIR BY ELECTROLYSIS.

SIR.—Have any of your readers ever tried electrolysis for the removal of hair, as recommended by Duhring in his work on *Diseases of the Skin*? An unlimited command of galvanic power fails altogether to produce any of the effects described there, in my hands; and I shall be obliged to hear that anybody else has been more fortunate.—I am, yours obediently, H.

TRAINING OF NURSES.

SIR.—In reply to "G. W. S." I beg to say that the Zenana and Medical Mission School and Home, 58, St. George's Road, S.W., is a medical school for distinctly missionary purposes, and a Christian Home wholly unsectarian, where ladies can acquire a knowledge of, and practical skill in, medicine, surgery, and midwifery. I am of opinion that this institution will meet "G. W. S.'s" requirements.—I am, etc., E. M. S.

SIR.—Will you kindly inform me what are some of the best books, scientific and popular, on spirits, wines, and other beverages, as regards their manufacture, effects on the system, their use and abuse, etc., and oblige, yours truly, M.R.C.S.

JAHNCKE'S POCKET HYPODERMIC SYRINGE-CASE.

NEMO.—The above can be obtained from Jahncke's Patent Metallic Box Manufactory, Canonbury Works, Dorset Street, N.

THE CASE OF DR. CROSSKEY.

We are asked to state that the funds raised in Lewes will be sufficient to meet the legal expenses of the action in which Dr. Crosskey is concerned, and that, in consequence, no further appeal need be made to the profession generally for this purpose.

R.—The agents for the parquet flooring are Messrs. Schiebler, Brothers, and Co., 23, New Broad Street, E.C.

PORTABLE OR POCKET FILTERS.

MR. DE VERE HUNT'S remarks under this heading in the JOURNAL of September 5th, p. 474, were sent in answer to Dr. Farrar's question under the same head in the JOURNAL of August 22nd, p. 375.

INCONTINENCE OF URINE.

SIR.—Can any of the readers of your valuable paper recommend some remedy to stop the above in a girl 15 years old? She is regular and does not suffer from any kind of worms, etc. Belladonna, iron, buchu, and ergot, have all been tried, but to no effect.—I am, etc., M. B., M. A.

COMMUNICATIONS, LETTERS, etc., have been received from:

The President of St. Thomas's Hospital, London; Mr. A. Finegan, Castlebar; Dr. Mackey, Brighton; Dr. Lindsay, Belfast; Mr. T. Bell, Sunderland; Mr. Jacobson, London; Mr. D. Roxburgh, Harrogate; Mr. G. Ellington, Edgbaston; Dr. J. A. Adams, Glasgow; Mr. T. Corey, Chatham; Mr. T. Walby, Liverpool; Dr. Fraser, Edinburgh; Our Cairo Correspondent; Mr. W. T. Jackman, Coggeshall; Mr. G. Smith, Bristol; Mr. W. Budd, Exeter; Mr. J. Fletcher, Heaton Norris; Mr. D. F. Bennett, Cairo; Mr. T. E. Tannahill, Borsal; Dr. Willoughby, London; Mr. J. Oliver, London; Mr. O. Williams, Barry Port; Dr. Steele, Wenington; Dr. J. McNaughtan, Perth; Mr. L. Humphry, Cambridge; Mr. H. W. Belew, Panjab, India; Dr. Ewart, Woolwich; Mr. J. Vesey Fitzgerald, London; Mr. E. Heard, Truro; Mr. H. Norris, South Petherton; Dr. G. A. Abrath, Sunderland; Dr. Maxwell, Woolwich; Mr. H. Saxon Snell, London; Mr. D. Sale, Hfracombe; Dr. J. J. Ridge, Enfield; Dr. J. W. Hunt, London; Mr. F. A. Warne, London; Dr. Norman Kerr, London; Dr. Styrap, Shrewsbury; The Reverend W. Jones, London; Mr. W. C. Jeffries, London; Our Correspondent in Valencia; Dr. F. J. Sandford, Market Drayton; Dr. A. T. Sloan, Edinburgh; Mr. D. Hardie, Forres; Dr. Hugston, London; Mr. Arthur Roberts, Keighley; Mr. B. Roth, London; Mr. J. G. Bride, London; An Old Member; Mr. H. Wood, Dublin; Dr. T. Churton, Leeds; Mr. W. W. Wagstaffe, Sevenoaks; Mr. P. H. Day, Poulton-le-Fylde; Dr. Sheen, Cardiff; Mr. V. Jackson, Wolverhampton; Mr. A. J. Pepper, London; Dr. de Burgh Birch, Barnard Castle; Mr. R. J. Fye-Smith, Sheffield; Mr. E. White Wallis, London; Mr. T. Halclock, Birmingham; Mr. J. P. Furvis, Greenwich; Dr. G. A. Humble, Patagonia, Buenos Ayres; Mr. E. S. Watson, St. Helena; Mr. Alfred Williams, Swansea; Mr. D. McGregor, London; Mr. R. N. Browne, King's Lynn; Mr. J. J. Marsh, Ormskirk; Mr. Andrew Arnold, Bishop Auckland; Mr. C. Johnson, Kirkby Overblow; Mr. J. Marshall, Hawkhurst; Mr. J. A. Frenel, Rosario, Argentine Republic, South America; Mr. W. F. Walker, Weobley, Hereford; Dr. J. Tatham, Salford; Mr. J. J. Lamprey, Southend; Our Aberdeen Correspondent; Our Glasgow Correspondent; Our Farns Correspondent; Mr. Timothy Holmes, London; Mr. C. Lammiman, Tunbridge Wells; Our Dublin Correspondent; Dr. Joseph Rogers, London; Mr. J. D. Campbell, London; Dr. J. Hight, Worthington; Mr. S. N. Scott, Greenwich; Mr. Mark H. Judge, London; Mr. John Gay, Hampstead; Mr. W. Jones, Edmonton; Mr. J. Hutchinson, junior, London; Mr. Walter Fowler, Birmingham; Mr. Carl Scowers, London; Dr. Buzzard, London; Mr. Henry Murphy, Bedale; Mr. A. H. Martin, Evesham; Dr. Whiteford, London; Dr. MacCombie, London; Dr. Tibbits, London etc.

BOOKS, ETC., RECEIVED.

Lectures on Dietetics and Dyspepsia, Delivered at the Owens College of Medicine. By William Roberts, M.D., F.R.S. London: Smith, Elder, and Co. 1885.
Money Mocks at Justice: the Abrath-McMann Case. By Gustav Adolph Abrath, M.D. Sunderland: Herald and Daily Post General Printing Works. 1885.
Mother's Manual of Children's Diseases. By Charles West. London: Longmans, Green, and Co. 1885.
Report on the Mortality and Vital Statistics of the United States as Returned at the Tenth Census (June 1st, 1880). By J. S. Billings, Surgeon, United States Army. Part I. Washington, United States: Government Printing Office. 1885.
A Treatise on Amputations of the Extremities and their Complications; Illustrated. By B. A. Watson, A.M., M.D. Philadelphia: P. Blakiston, Son, and Co. Edinburgh: Young J. Pentland. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

HYPODERMIC OR SUBCUTANEOUS MEDICATION.

Introduction to a Discussion in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association, in Cardiff.

By TALFOURD JONES, M.B.Lond.,

University Medical Scholar; Filler Exhibitioner; Fellowes Medallist;
Physician to the Brecon County and Borough General Infirmary;
Member of the Council of the South Wales Branch;
Vice-President of the Section.

WHEN I agreed to open the discussion on hypodermic medication in this Section, the Section of Pharmacology and Therapeutics of the British Medical Association, I did not then appreciate the difficulty of the task. The subject is one of vast extent, and one of daily increasing importance, and I shall find it no easy matter to say enough, and yet not weary you with too much. My thoughts, too, on this subject have been jotted down in the midst of the constant interruptions of a busy practice; hence, I pray you to accord me your most patient indulgence.

It is to me an additional honour that I am privileged to address you in the presence of the two distinguished colleagues with whom I am in this Section associated.

Science is immensely indebted to Professor Fraser and to Dr. Murrell for innumerable physiological and therapeutical investigations; and I trust they will pardon me if, in their presence, I remind you of a curious coincidence in their careers. Dr. Fraser obtained, in 1868, the Barbier Prize of the French Academy of Science, for his work on the *Physiological Action of the Calabar Bean*; and Dr. Murrell has just been awarded the prize of the French Academy of Medicine for his investigations on nitro-glycerine.

It is now thirty years since Dr. Alexander Wood, of Edinburgh, in 1855, published his account of his method of introducing liquor morphiae into the system by subcutaneous injection, and it is to him, undoubtedly, that mankind is indebted for the discovery of hypodermic medication. A few years later, in 1859, Mr. Charles Hunter published his important paper on the hypodermic treatment of disease. Since then, thanks to the labour of Lawson, Clifford Allbutt, Spender, and a host of others, the method has become widely known and practised. Dr. Wood advocated and practised the direct application of opiates to the painful points in neuralgic diseases. Hunter established the general fact that, for the relief of local pain, the injection of the remedial agent need not be made at or near the painful spot, but anywhere, at a distant part, provided it be fairly introduced beneath the cutis into the cellular tissue.

Dr. Henry Lawson, whilst believing in the general views of Hunter, was firmly convinced that, in most local neuralgia, a local injection answered best. Lawson was himself a martyr to sciatica, and was unable to move. He had tried nearly every remedy in vain; at last, however, under advice, he was treated hypodermically with morphia, and with signal and immediate success, and in a few months he was restored to perfect health. He tried the effect of distant injections on himself, and on patients, in cases of sciatica; and always with the same result, that there was far less immediate relief from pain. In brachialgia and lumbago, too, he was of opinion that local injections were best.

Anstie taught that Hunter's plan of injection at an indifferent spot was, in the great majority of instances, as effective as local injection; but, in instances of old-standing neuralgia, with development of tender points and centres of pain, it was advisable to inject at those points.

Rynd teaches that, in neuralgia, the nearer the injected fluid is brought to the nerves of the affected part, the better the result.

Von Graefe is especially careful to distinctly localise his injections. Sommerbrodt has described a case of bilateral sciatica, in which the injection made on one side always resulted in the abatement of pain on the side of the injection, but not in the opposite limb.

Eulenberg has published a case of double sciatica, where the injection

made at the painful spot always resulted in complete analgesia on that side, of two or three days' duration, whilst, on the other side, after the general narcotic effect had passed away, the pain immediately returned.

The evidence is such that it is almost impossible to deny that certain remedies do, when injected, produce, in addition to their general effect, a distinct local anæsthetic action. There are, however, some good authorities who still doubt the occurrence of any medicinal local action.

In my own practice, I have always proceeded in the belief that local neuralgia, and many local troubles, can be better treated by local injections. In lumbago and in sciatica I always inject, if possible, into the lumbar and gluteal regions; and, in brachialgia, I have followed Lawson's plan of injecting the biceps, but I endeavour to avoid, if possible, the insertion of a needle into the face, the scalp, and the front of the neck, and my rule is only to inject at those sites when the local trouble is very severe, and of some standing.

You will see, if you look at the printed heading of this subject in our list of proceedings that the term hypodermic is used, and not hypodermic. Personally, I disclaim all responsibility for the use of this expression, and beg leave to shift it on to the shoulders of our two very excellent and energetic secretaries, though I have reason to think that Mr. Hancocke Wathen is the real culprit. But although I say this, I feel that Mr. Wathen, who is clearly a disciple of Bartholow, has acted wisely in thus giving us an opportunity of passing an opinion on it. Dr. Bartholow, of Philadelphia, in the last edition of his valuable work on *Hypodermic Medication*, has substituted hypodermatic for hypodermic; and philologically he is correct, and there are probably few, if any, scholars who would dispute it. The word is properly derived from the adjective *Δερματικός*, and not directly from *Δέρμα*. But even *Δέρμα* makes in the genitive *Δέρματος*, and it is clear that the stem is *Δέρμα*, and I am myself convinced that hypodermatic is correct. But if we give up hypodermic for philological reasons only, and substitute for it hypodermatic, we must also be prepared to substitute dermatic for dermic, endermatic for endermic, epidermatic for epidermic, and so on with numerous other adjectives, and, indeed, similarly with the adverbs of like origin; and we should therefore have to give up hypodermically, and say hypodermatically. But, to my mind, the old word hypodermic, like the corresponding term subcutaneous, is already too long a word, and if there be any change at all, I should prefer to see a shorter one employed. It has struck me that such a word as sublermal might be coined. It would be short and expressive. It might be objected that sublermal is a hybrid word; but so, too, is the common word suboxide, which is similarly made up of a Latin preposition and a Greek root. For the sake of brevity, I should prefer sublermal, and for a similar reason I hold that hypodermic is preferable to hypodermatic; but I do not advocate a change, for I doubt the wisdom of making an alteration now, and I am inclined to hope that you, too, out of respect to the memory of Charles Hunter, who introduced the word hypodermic, will think it well to avoid altering a phrase which has endured so long, and which is so universally accepted. And now let me return to more practical matters.

In subcutaneous injection, the fluid is rapidly absorbed by the lymph-vessels, the tissue-fluid canals, and the blood-vessels of the cellular tissue. Absorption is more rapid if the fluid directly enter open stomata of any of these canals. It is still more rapid if the fluid be accidentally injected into a vessel of perceptible calibre. Eulenberg uses the term intravenous infusion for those cases of intravascular injection in which the fluid is injected into a vein, and lymphatic infusion when it is thrown into a lymphatic. He has never seen a good example of the direct penetration of a subcutaneous vein of any calibre, and my own experience is similar, though I have seen several cases in which, judging from the rapid effects which followed, I believed that some minute vessels had been wounded; and in most of these cases I noted a drop or more of blood at the site of the puncture.

In Professor Hay's translation of Eulenberg's treatise on *Endermic and Hypodermic Medication*, which has just been published, he offers some important evidence on the quickness of elimination of drugs hypodermically injected. Thus administered, drugs pass more rapidly into the urine than after administration by mouth or rectum; their elimination begins sooner; their elimination also ends sooner, and the whole stay of the drug in the organism is shorter; and the inference is, that every single dose given hypodermically corresponds to a more intense, but yet a more evanescent, effect; and that a cumulative result is more difficult to obtain by subcutaneous injection than by a succession of doses, than it is from administration by mouth.

Before proceeding further, I wish to offer some remarks upon

hypodermic syringes, and then we will discuss the question of hypodermic remedies, and consider as many as time permits. The syringe which I use has been my pocket-companion for about eighteen years. I have used it thousands of times, and it is still in perfect working order. It was made by Weiss. The barrel is made of glass; the piston-rod and the fittings of silver. The piston-rod is graduated into half minims, and is furnished with a screw stopper, which can be twirled rapidly up and down the piston-rod, and which can be so fixed as to stop the movement of the piston at any required point. Many of the syringes now in use are based upon this principle; yet there are many practitioners who, possessing such a syringe, do not seem to appreciate the value of the stopper, and do not use it. When this is so, I have found that it is due either to a want of a clear perception of the proper way to use it, or to the fact, which is exceedingly common, that the piston-rod and the stopper are so badly made that the latter will not work properly on the former. It is essential that the stopper should be so adjusted that it can be made to run up and down the rod with the slightest touch or flip of the finger. When such is the case, no time is lost; indeed, time is saved.

I have dwelt on this point, because it is one which appears to me to be of much practical importance. Those only who are thoroughly conversant with its use can fully appreciate the many advantages of the stopper. With it, the injection can be introduced with greater rapidity, greater nicety, and greater accuracy. Twice in eighteen years it has been found necessary to put a fresh piston-leather to my syringe. On the last occasion, Messrs. Weiss fitted on one of their patent hard rubber pistons, which answers very well. I have not unfrequently seen a syringe brought out for immediate use in which the piston-leather, from its dry and loose state, rendered the syringe temporarily useless.

I have other syringes with plain leather pistons, that I keep for certain special purposes, which would, if not attended to, become invalidated. To obviate this tendency, we should examine all our syringes from time to time, and, if the piston-leather be dry and loose, all that is needed is to suck up some water into the syringe, and replace the syringe in its case. Allow me to add that our hypodermic syringes are not the only syringes that require to be kept in working order; and it will not uncommonly be found that the man who has a hypodermic syringe that will not work has most likely an aspirator or an ear-syringe that will not act, and a stomach-pump that fails him when perhaps it is most urgently wanted.

The hypodermic syringe which I have described possesses nearly all the good qualities possible, and it is the type of syringe I advise all to possess. There are many similar ones now to be got, and some are graduated on the glass barrel as well as on the piston-rod, and this is an additional advantage. The syringe of Messrs. Burroughs and Wellcome is so graduated, and I find that the graduation of one that I possess is accurate on piston-rod and on barrel. Let me advise those who have not yet done so to examine and look for themselves into the graduation of their syringes, for in my experience the markings are more frequently wrong than right.

The hypodermic needle should be one that fits easily and yet firmly on the nozzle of the syringe, and it must not screw on. The screwing and unscrewing take up time, and there is no corresponding gain. The needle should be of the smallest calibre, and of the best steel. A steel needle penetrates more readily, with less force, and with less pain, and is less easily broken than gold or silver. For all general purposes, a short needle is best. It should measure about three-fourths of an inch, and should not exceed an inch. A short needle is less apt to break or bend, and it is easier to keep clean. For injecting deep tissues a second and longer needle is required, one about one inch and a quarter to one inch and a half in length. Instrument-makers have not paid sufficient attention to this matter. Those who supply hypodermic cases containing syringes, needles, and bottles, have overlooked an important point to which I desire to direct your attention. In all that are known to me, there is a want of due relationship between the length of the needle and the depth of the bottle. You see some cases with a long bottle and a short needle, others with a shallow bottle and a long needle. The needle, when affixed to the end of the syringe, ought to be shorter than the bottle which holds the remedy, so that it may be freely plunged to its full length without having its point injured by coming into contact with the bottom of the bottle; and yet it must be sufficiently long to reach nearly to the bottom, or it will not be able to suck up fluid when the bottle happens to contain very little of it. To meet this requirement, the needle should be one-eighth of an inch shorter than the bottle.

It occurred to me last month that I might design a hypodermic pocket-case, based on the principles I have just enunciated, that

would be more generally useful than those at present in use. I wrote to Mr. Jahncke, of the Canonbury works, the maker of nickel-plated bottle cases, and sent him a plan of such a pocket-case, and he has successfully carried out my idea. He has taken pains to obtain a reliable syringe, and proper needles and bottles, and I trust he will be compensated and rewarded for the trouble he has taken in following my directions. The case is a shallow one, and measures only four inches by one inch and seven-eighths, and contains a syringe, two needles, and five bottles. Two of the bottles, which are larger than the remaining three, are intended for the solutions most commonly used, namely, morphine, and mixed morphine and atropine; the others will do for, e.g., atropine, apomorphine, and pilocarpine. Another and similar case is fitted up with bottles only, seven in number, and this I have dubbed a "supplementary hypodermic case." It is intended to hold those hypodermic remedies that are not wanted every day. Any one who possesses both cases will have bottles for twelve different medicines. The hypodermic case is intended to be a pocket-companion; the supplementary one is also intended for the pocket, but usually it will be kept in the doctor's bag; but since the bottles are alike in each it will be easy to take, for any special use, a bottle out of the supplementary case, and put it into the one containing the syringe. I may mention that the cases will exactly accommodate the bottles in which Messrs. Burroughs and Wellcome send out their hypodermic tabloids.

Before concluding my remarks on syringes, allow me to call your attention to the useful hypodermic injector of our most inventive associate, Dr. Ward Cousins. It consists of an elastic measuring ball and an injecting syringe. Balls are made in various sizes, each ball holding only one definite quantity of fluid. It is safe, cheap, and handy, and is the only syringe that ought ever to be left in inexperienced hands.

Let me now direct your attention to the solutions used for hypodermic purposes. A typical solution should be absolutely pure, as nearly neutral in reaction as possible, free from solid particles and fungoid growths, and not too concentrated.

Bartholow states that the most carefully prepared solution rapidly deteriorates by keeping, and that, although antiseptics may be useful in preserving them for awhile, he thinks it far better to make extemporaneous solutions. I acknowledge that weak solutions of most alkaloids soon undergo a change, and become cloudy or turbid from the growth of mould-fungus; but this, according to my experience, is not the rule with strong solutions. In many instances, alkaloids are themselves destructive to such low forms of life as bacteria, vibrios, and mould-fungi; and I find this to hold good with a strong solution of morphine, or a strong solution of mixed morphine and atropine, the very two solutions above all others that we most frequently use. There are many authorities now-a-days who seem to think it quite impossible to keep a so-called permanent solution for any reasonable time, unless it be mixed with an antiseptic.

By a permanent solution, I simply mean a ready-made solution that will keep from a few weeks to a few months; and, by an extemporaneous solution, one that can be made by dissolving the remedy in water at the bedside of the patient. For the latter purpose, Messrs. Burroughs and Wellcome make small tabloids which contain a definite and reliable dose of the remedy, which keep well, and are readily and entirely soluble in water. They are much superior to the old gelatine-discs, and, for extemporaneous purposes, I know nothing better. But it is indisputable that reliable permanent solutions are preferable, in most cases, for reasons which it is quite unnecessary to discuss.

Morphine.—Let us proceed to inquire into the question of permanent morphine-solutions; but, before I forget, let me bear testimony to the very valuable standard solutions of Messrs. Allen and Haubury. They are uniform and permanent, and they have the special feature of being made to a standard dose. The ordinary dose of each solution is five minims. This is undoubtedly an advantage, and especially for those who do not often use hypodermic remedies, and cannot bear in mind the different doses. The solutions that I have tried act well, and much wisdom has been shown in fixing upon the dosage, with the exception of the morphine-salt, which, at a quarter of a grain, is fixed, as I shall attempt to show presently, too high. Mr. Martindale's solutions have been longer known, and are always reliable.

Of permanent solutions, the first that claims our attention is that of morphine. The injectio morphine hypodermica *P.B.* contains, or is supposed to contain, 1 grain of acetate of morphine in 12 minims. The process of making it is tedious, and the result is somewhat uncertain. Various statements have been made, not only about this solution, but also about differently made solutions of the acetate. Many speak well of it; others say it is liable to change after a very

short time, that fungoid growths soon appear, that the solution quickly becomes turbid, that it throws down much deposit and becomes weaker, that it becomes very brown, that it is irritating to the tissues, and that it is often followed by sores and indurations, that the needle becomes clogged, and that for these reasons many prefer to use the neutral tartrate or the bimeconate, and some prefer the sulphate, but still more, I fancy, use the hydrochlorate.

My own experience of the acetate is quite the reverse of all this; but then it is only right to add that I have never used the pharmacopœial preparation, nor have I ever used an acetate of morphine solution that has not been made by myself: and I would strongly advise all those who practise hypodermic medication to make for themselves as many as possible of the solutions they use.

Of all the salts of morphine, there is not one, in my opinion, equal to the pure and freshly made acetate. The acetate contains 10 per cent. more morphine than the sulphate, and 6 per cent. more than the hydrochlorate, and I will endeavour to prove to you that it is the best salt of morphine for making a hypodermic solution. For twenty years, I have used no other form of morphine-solution than the acetate, and I have never had occasion to be dissatisfied with it.

With your permission, I will relate my own experience of this solution, and explain my method of making it. For about sixteen years, I have invariably made it in one and the same way, and of the same strength. I believe I was a good deal influenced by Anstie, whom I admired and respected, in fixing upon the strength and upon the form of the solution itself. The strength is the same as that adopted some years after by the Pharmacopœia Committee, namely, 1 in 12.

The acetate of morphine to be used for making a solution must be pure and fresh; the fresher the better. To make an ounce of the solution, proceed as follows: procure a stoppered bottle that holds exactly one fluid ounce; half fill this with water, which I never use distilled; then put into the bottle 40 grains of acetate of morphine, and drop into it exactly 4 minims of acetic acid (*B.P.*). Shake, and the salt will instantly dissolve; then fill the bottle with water. The resulting solution will be pale and clear. Such a solution, if properly kept, will not in six months throw down more than a fraction of a grain of the acetate. It will perhaps become darker in colour, but this is immaterial. It should be kept in a cupboard or in a case, away from the light; and this bottle should be treated as a stock-bottle, and should not be opened except for the purpose of supplying the smaller bottle of the hypodermic case.

It may be as well to point out, for the sake of those who use very little morphine, how to make a small quantity, say a fluid drachm. Take a drachm bottle, and use five grains of the morphine salt, and half a minim of acetic acid, and fill as before with water. If a dropping pipette be used, it will be easy to deliver half a minim, which is represented by an ordinary drop from the point of a medium-sized pipette; or if this be not at hand, it may, perhaps, be easier to measure out four minims of the dilute acetic acid (*P.B.*), which exactly represents half a minim of the strong acid. No more acetic acid should be used than is required to make the solution perfectly clear. The injection thus made contains only a fraction more than eight minims of acetic acid in 1,000 of the solution. A fluid ounce of this injection can be made for eightpence, that is, a penny a drachm, and each drachm will suffice for twenty quarter-grain injections; yet a very well-known London chemist the other day charged no less a sum than twenty-five shillings for a single ounce of a morphine solution. In making my solution, I have invariably used a morphine acetate prepared by the eminent chemists, Messrs. Battley and Watts. I have brought with me for your inspection, a few solutions made exactly in the way described. I regret that I have not a specimen of one older than six or seven months. Here is one that was made in January this year. I examined it on June 28th, and found that it was perfectly clear, of a pale sherry brown colour, with only a small fraction of a grain of deposit, partly amorphous, but chiefly crystalline, and no trace of mould-fungus. Here is another solution made on June 26th from a morphine salt some months old; and one made on July 6th, from a perfectly fresh salt. You will perceive that the last one is very free from colour. Here is a specimen of the Pharmacopœia injection which was given me by a friend; and which looks ill indeed by the side of my solutions. But I have this week seen in a chemist's shop a good specimen of the British Pharmacopœia solution, about three years old, clear, of a brown sherry tint, and with only a trace of deposit.

In spite of the introduction of many new remedies, morphine is still the most generally useful of our hypodermic agents. It is only eighty-one years since this, the first known alkaloid, was discovered. Since then, our knowledge of active principles has been ever increasing. New natural alkaloids are constantly being added to our list, and chemists have already made some of them synthetically,

and will, probably, soon find out the way to make most of them by artificial means.

The number of active principles which can be utilised for hypodermic purposes is, consequently, increasing, and the practice of hypodermic medication is, in this sense, becoming more difficult; and it requires from the practitioner a deeper and a more precise knowledge of physiology, pharmacology, and therapeutics.

One of the most important points we can consider is that of dosage, and especially the dosage of morphine injections. A moderate dose of morphine is soon followed by a feeling of rest, contentment, and well being, and pain will be lulled or abolished, and later on this condition will in most instances be succeeded by drowsiness or sleep. But, if the dose be large, deep coma may occur almost immediately, without any preliminary stage. It should be our aim so to apportion the dose, that this too rapid onset of narcosis may be prevented. We should be doing good service if we could, in this Section, agree upon a fairly wide and yet a safe dosage for hypodermic morphine, and, if time permit, the dosage also of the more important of our other subcutaneous remedies. Lawson's advice was not to begin with a larger dose than one-sixth of a grain. In three of his cases, the largest dose that could be given without exciting vomiting was one-twenty-fourth of a grain. Anstie used to say, never commence with a larger dose than one-sixth of a grain; often one-twelfth of a grain will give effective relief. With one-sixth of a grain, as a rule, no distinct narcotic effects are observed, no contraction of the pupil, no heavy stupor; and, though the patient falls asleep, on awaking he has no headache, or furred tongue. Dr. H. C. Wood says, "I have seen alarming results from the injection of one-sixth of a grain, and half a grain has produced death." He advises that in females, unless very robust, the maximum dose should be one-eighth of a grain; in men, one-sixth to one-fourth of a grain. Ringer says, "A larger quantity than one-sixth of a grain sometimes produces serious consequences."

I remember, when first reading, in 1874, Dr. Spender's Fothergillian prize essay on the relief of pain, noting with satisfaction his wise remarks on the necessity of great caution in administering hypodermic morphine. I will quote his own words. "Even by esteemed authorities the initial dose of morphia under the skin is announced too high; it is prudent for this never to exceed one-tenth of a grain for an adult female, and one-eighth of a grain for an adult male." A few weeks before reading this, I had myself witnessed most alarming symptoms from an injection which I had administered to a lady. She was a thin delicate woman, suffering from severe facial neuralgia. I very carefully measured out one-twelfth of a grain of morphine, and injected it into her arm; and with complete relief to her pain, but, with such general ill results, that I was unable to leave her for many hours, and was obliged to administer frequent doses of strong coffee and ammonia. This lady had informed me that she was very susceptible to the action of opium, but I then thought that one-twelfth of a grain of morphine could not possibly hurt her. Afterwards I felt thankful that I had been so far cautious about the dose. Please note that this lady was rather small in build, and light in body-weight. This reminds me, that I should not forget, whilst discussing this question of dosage, that it is of vital importance that we should bear in mind that, other things being equal, the dose of a drug must be apportioned according to the body-weight of the patient; due allowance being made, of course, for much fatty tissue.

I have never administered morphine hypodermically to young children. It ought, if possible, to be avoided. It can rarely be found indispensable; and, under the age of 5 or 6 years, other means should be employed. If ever used, we should bear in mind the relatively larger brains of children, and, after having made due allowance for body-weight, give no more than half the otherwise proportional dose. It is scarcely necessary to allude to other conditions affecting the dosage of morphine, for in other respects we should be guided by the rules that apply to the administration of morphine by the mouth.

Properly, we ought, in considering this question of morphine dosage, to be guided by our official pharmacopœia. In the *British Pharmacopœia*, the dose of the morphine-salts is fixed at one-eighth to half a grain; but the dose of the morphine-solutions which are made from these salts is fixed at ten to sixty minims—that is, one-twelfth of a grain to half a grain. I regret to add that this want of uniformity between the doses of these salts and their corresponding solutions is only one of many similar errors which may be found in our official guide.

Given by the mouth, several instances are recorded in which one grain of hydrochlorate of morphine has caused death in adults. The half-grain maximum dose, therefore, of the *Pharmacopœia*, for ordinary internal administration, may be put down as corresponding to half a lethal dose. Now, what is the pharmacopœial dose for hypo-

dermic morphine? It is fixed, most strange to say, at one-twelfth to half a grain, which is precisely the dose laid down for administration by mouth. What do we learn from looking over the records of death from the hypodermic administration of morphine? We find that numerous cases have been recorded, in which half a grain of hypodermic morphine has caused death in adults. Cases have been reported in the first volume of the *Medico-Chirurgical Transactions*, and in the *Medical Times and Gazette* for 1868, in which a quarter of a grain or a somewhat greater quantity of subcutaneous morphine has been followed by syncope, with struggling for breath, and apparent imminent or even present death. I am myself aware of a case in which death was caused in a male adult, by a dose stated by the operator to have been only a fourth of a grain. From inquiries I have instituted, cases have been brought to my knowledge in which half, one-third, and even one-sixth of a grain of morphine has caused death. The half-grain maximum dose of the *Pharmacopœia* is, therefore, without a doubt, a lethal dose for many adults. Authorities agree that morphine injected subcutaneously is at least twice as potent as morphine given by the mouth; but evidently the framers of the *Pharmacopœia* were either not alive to this, or did not believe it.

Unluckily, most chemists label their morphine-solutions with a dose based upon the pharmacopœial authority; and many persons have been led astray, and have given dangerous and fatal doses. For most of this, for many accidents, and, I fear, for many deaths, we have to thank the *British Pharmacopœia*. We can come, I think, to no other conclusion than that the official dose of hypodermic morphine ought to be reduced to one-half, and, which comes to the same thing, should be definitely fixed at half that now authorised for administration by mouth; and the dose then would be from one-twenty-fourth to one-fourth of a grain. This would be a safe guide for the inexperienced; it would especially assist in making men cautious about their first or initial doses. Those who care to exceed a quarter of a grain must do so on their own responsibility. We know, of course, that in many cases of extremely acute pain, and in many painful chronic diseases, it is absolutely necessary to push morphia to the extent of half a grain or more. The practitioner must, in such cases, judge for himself; but, for all first or initial doses, it would be well to make it a rule never to exceed one-eighth of a grain for an adult female, and one-sixth of a grain for an adult male.

Atropine is the remedy that I rank next in importance to morphine. A hypodermic solution of atropine is one of the easiest possible to make. The sulphate is the best salt to use. Martindale, who is a good authority, recommends the crystalline sulphate. I have always used the amorphous salt of the *Pharmacopœia*. For fifteen years, I have used a two-grain-to-the-ounce solution, and I have found it a very convenient strength. It is exactly half the strength of the liquor atropiæ sulphatis of the *British Pharmacopœia*, and can be made by simply mixing equal quantities of that solution and water.

But, in order to have a really fresh solution, proceed as follows. Put into an ounce stoppered bottle two grains of the sulphate, and fill the bottle with water. The salt will instantly dissolve, and the solution is made. If chloroform-water or camphor-water be substituted for plain water, the solution will keep a little better. This injection contains one grain in four drachms, or in 240 minims; therefore

1 minim contains	...	...	...	$\frac{1}{240}$ grain
2 minims contain	...	...	...	$\frac{1}{120}$ "
3 " "	...	...	...	$\frac{1}{80}$ "
4 " "	...	...	...	$\frac{1}{60}$ "
5 " "	...	...	...	$\frac{1}{48}$ "
6 " "	...	...	...	$\frac{1}{40}$ "

This is also a convenient strength for ophthalmic purposes. The hypodermic dose that I can recommend is from $\frac{1}{240}$ th to $\frac{1}{40}$ th of a grain; that is, from one to six minims. A fair initial dose is $\frac{1}{120}$ th of a grain. Beyond $\frac{1}{40}$ th of a grain, the remedy, if used at all, must be used with increasing caution and watchfulness. In some people, atropism is induced by doses of even $\frac{1}{120}$ th of a grain.

I think I have noticed that those who are most susceptible to atropine are the least influenced by morphine, and *vice versa*. This is certainly so in children. Patients are very apt to be frightened when, after an injection of atropine, the physiological effects are at all marked, and the practitioner himself may become needlessly alarmed. *Apròpos* of this, let me quote an aphorism of Bartholow, that "severe physiological effects do not necessarily imply a condition in which life is endangered." The maximum fatal dose of atropine is unknown to me. The dose has often been pushed to one-twelfth or to one-tenth of a grain, but one-twentieth of a grain or less has been known to produce alarming symptoms. I have only once given as much as one-thirtieth of a

grain, and the case in which it was used was alluded to by me in a paper on nitrite of amyl, which appeared in the *Practitioner* in 1871. It was the case of a man who suffered severe colicky pains due to faecal accumulation, and one injection of one-thirtieth of a grain of atropine relieved the muscular spasms, and caused within an hour a free action of the bowels. This dose produced very distinct, but no ill, symptoms. We cannot discuss the uses of atropine without glancing, however briefly, at its physiological action. Small doses do not appear to affect the respiration, whereas full medicinal doses accelerate it; and very large doses stimulate, and then paralyse, the respiratory centre. With regard to this point, we have chiefly to bear in mind that it is a respiratory stimulant, and that full medicinal doses strengthen and quicken the respiration. On the circulation, it also produces varying effects, according to the dose; but again we must chiefly bear in mind that it is a cardiac stimulant, and that in full medicinal doses it causes increased rapidity and force of the circulation. On the sensory nerves, it induces lessened sensibility, and on involuntary muscular fibre it causes varying states, according to the dose.

It will be sufficient for our purpose if I give you a slightly condensed summary of Brunton's views of its action on the intestines. He says: 1. Small doses increase peristaltic movements. 2. Moderate doses arrest them, but the muscular fibres of the intestine retain their irritability. 3. Large doses stop peristalsis, and also paralyse the muscular fibres of the intestine.

Again, I would have you chiefly to bear in mind that, on unstriated muscular fibre, medicinal doses cause relaxation and muscular quietness, and full doses paralysis. Atropine also checks the secretions of the salivary and sweat-glands, and the secretions of most other glands. It is well to note that atropine is very rapidly eliminated from the system, and chiefly by the urine.

Let us, now, consider the medicinal uses of atropine, under four headings.

1. *As an Anodyne and Antispasmodic.*—Its action on sensory nerve-endings and on involuntary muscular fibre teaches us that it possesses anodyne and antispasmodic qualities. Anstie held that belladonna was the best medicine for every kind of pain in the pelvic viscera. He believed it was far inferior to morphia as a speedy and reliable reliever of neuralgic pain, but, for all forms of pelvic neuralgia, it surpassed morphia.

As a general pain-reliever, no one would think of comparing atropine with morphia; but, in certain painful conditions, its value is beyond question. The chief indication for its hypodermic use is painful muscular spasm; and, for this purpose, a local injection is better than a distant one. It has been found useful in painful spasms of the intestines, bladder, uterus, urethra, and bile-ducts. Hence its value in spasmodic intestinal colic; in the passage of gall-stones, or renal calculi; and in laryngismus stridulus and spasmodic asthma.

2. *As an Anhydrotic or Sweat-lessener.*—Here its use is indisputable. The general hyperidrosis occurring in phthisis, in debility, or in women during the climacteric, is always much relieved by atropine. An injection of $\frac{1}{120}$ th of a grain, or sometimes $\frac{1}{100}$ th of a grain, will stop the sweating, and put the patient into a comfortable state. It is similarly useful in salivation, and as a local injection in a painfully distended or inflamed mamma.

3. *As a Respiratory and Cardiac Stimulant.*—It is useful in depressed or paralysed conditions of the centres, regulating the breathing and circulation; and it has been thus used with advantage in pulmonary congestions, and to counteract heart-failure in syncope, in shock, and in typhus fever. But these stimulating properties are best considered under a fourth heading.

4. *As an Antidote.*—It is here that we see its astonishing value, when subcutaneously employed. In the February number of the *Practitioner* for 1870, Professor Fraser, in discussing atropine as an antidote to physostigma, made the following remark. He said that "no investigation could possibly be undertaken that would more certainly advance the science of therapeutics, increase its resources, and remove irrational scepticism, than that of the antagonism of remedies." I am a firm believer in the soundness and the wisdom of this opinion. It has been demonstrated by our President that, within certain limits, a very marked antagonism exists between atropine and eserine.

Atropine is also antagonistic to morphine and opium, muscarine and poisonous mushrooms, aconite, pilocarpine, chloral-hydrate, quinine, gelsemine, and nitro-glycerine, and perhaps to prussic acid; but this does not exhaust the list. Bartholow says it is antagonistic to tartar emetic and veratrine.

Atropine, as a respiratory stimulant, is especially useful as an antidote to morphine or opium; but it is also well to bear in mind its additional value as a cardiac stimulant, for, as mentioned by Ringer,

patients may die after opium, in a state of collapse, and not from asphyxia, though death, as we know, usually happens from paralysis of respiration.

But death, too, may occur after morphine from syncope. To avoid the chance of such an occurrence, it is well always to give the injection in the lying or sitting posture, and, if possible, in the former. In all susceptible or weak people, and in women especially, the patient should always be made to lie down, and should be kept in the recumbent posture, and under observation for at least ten minutes; and ammonia, nitrite of amyl, and atropine should always be at hand.

I will conclude the subject of atropine by giving you some brief details of a case in which it was necessary to inject atropine to counteract the effects of pilocarpine; and they will, to a certain extent, serve to illustrate Dr. Fraser's aphorism which I quoted just now. Three years ago, I had occasion to use a hypodermic injection of pilocarpine, in a woman, a chronic sufferer from asthma. She had tried almost every remedy, and was willing to submit to any treatment. I explained that she would perspire profusely, would perhaps secrete a lot of spitte, and would probably bring up mucus from her chest, and that in this way she might expect to get some benefit; and she was informed that, if she should feel exhausted by it, these effects could be stopped in a few minutes by the help of another and counteracting remedy.

I injected one-sixth grain of hydrochlorate of pilocarpine, which quickly caused intense perspiration; saliva soon began to trickle from her mouth; her sight became so dim that she could not distinguish anything, yet her pupils were scarcely at all contracted. In a quarter of an hour, retching set in, and some bronchial mucus, but not much, was expectorated; then vomiting occurred. Her pulse became very feeble, and, though feeling hot, she shivered. At the end of thirty minutes, she was so exhausted and pale, and so inclined to faint, that I felt somewhat anxious, and immediately injected $\frac{1}{100}$ th of a grain of atropine. At that time she was sweating profusely. In five minutes the perspiration had nearly ceased, her pulse rallied, and she began to feel easy; and, in another few minutes, the skin was quite dry, and she was feeling quite herself, and much relieved in her breathing.

This patient was so much benefited by the pilocarpine that, in some subsequent asthmatic attacks, she begged for a repetition, saying: "It made me feel very distressed and faint, but the other medicine put me all right." On these other occasions I used a smaller dose, one-eighth of a grain, and this acted sufficiently well, and no atropine was needed.

I have no personal experience of the hypodermic use of those other alkaloids that much resemble atropine. Duboisine is stated by Eulenburg to be twice as strong as atropine. Daturine is probably a mixed alkaloid. Hyoscyamine can be given in the same dose as atropine. Homatropine is given in smaller hypodermic doses, though its local ophthalmic effects are milder and of shorter duration than those of atropine. I have by me a solution of the hydrobromate of homatropine, four grains to the ounce, made by Corbyn more than two years ago, which is now perfectly clear and pure.

Morphine and Atropine combined.—Having discussed morphine and atropine separately, we have now paved the way for the consideration of the conjoint use of morphine and atropine. We have not, to my knowledge, any name for mixed morphine and atropine, and it has just occurred to me that we might call it atropo-morphine. Atromorphine would do, and is shorter, but it is not so expressive, and it is, too, like in appearance and in sound to apomorphine. If we use atropo-morphine, we must pronounce the *o* short, as in the Greek. It was about twelve or thirteen years ago that I began to use atropo-morphine, and I soon decided to employ a solution that would correspond to my morphine and atropine ones; and ever since I have used no other.

This atropo-morphine solution is made by simply adding two grains of sulphate of atropine to an ounce of the hypodermic solution of the *British Pharmacopœia*, or to an ounce of my morphine-solution already described. We thus get a solution that contains one grain of morphine and one-twentieth of a grain of atropine in twelve minims.

Those who care to adopt the three different solutions of morphine, of atropine, and of atropo-morphine, which have now been described, and which I have found generally convenient and suitable, will possess in three bottles two solutions of morphine and two of atropine, and in each couple the morphine and the atropine will be of the same strength, and it is, therefore, easy to remember the quantity of alkaloids in them; for it is only necessary to bear in mind the strength of the atropo-morphine solution, namely, that one minim contains one-twelfth of a grain of morphine, and $\frac{1}{120}$ th of a grain of atropine. This mixed solution, you will note, contains morphine and atropine in the ratio of twenty to one; and some good observers quote this proportion as being the proper one for bringing out the best conjoint results of atropo-morphine.

It may not be inappropriate here to state that for many years I have also used this same proportion in all my atropo-morphine suppositories; and one of the most generally useful suppositories I know is made for me by Messrs. Battley, with one-quarter grain of acetate of morphine and one-eighth of a grain of sulphate of atropine, namely, twenty to one. The atropo-morphine solution keeps very well. Here is one made in February of this year: I examined on June 23rd the stock-bottle from which it was taken. It was clear, of a pale sherry colour; and, just as in the accompanying morphine-solution, there was a fraction of a grain of amorphous and crystalline deposit; no trace of mould-fungus. The solution is now clear and pure.

Let us now consider the conditions that indicate the use of atropo-morphine in preference to morphine.

The conclusions at which I have arrived are these.

1. Fairly small and moderate doses of atropine slightly increase the hypnotic properties of morphine. This is a matter of doubt with many; some deny that atropine does this, while others even say it very decidedly lessens the hypnotic action.

2. Atropine in medicinal doses increases the anodyne properties of morphine, and this increased anodynia is more marked in local than in distant injections.

3. Atropine in moderate doses counteracts the depressive action of morphine on the heart, and lessens the tendency to sickness, giddiness, and faintness; and, by its influence on the circulation and on the skin, it also tends to prevent the clammy sweat, the pallor, and the coldness that morphine not unfrequently induces.

4. In small doses it does not influence, to any appreciable degree, the action of morphine on the respiration; but when given in fair medicinal doses, and, *a fortiori*, in larger doses, it increases the number of respirations per minute, and augments their depth.

We may now apply the preceding conclusions to practical medicine. In a weak, a fatty, or a dilated heart, we incur the risk of inducing a syncopal state by hypodermic morphine; hence it must be used with extreme caution in such conditions, and it is safer to make it a rule to use not morphine alone, but atropo-morphine in such cases. Of course, there are many cardiac troubles and forms of cardiac dyspnoea in which morphine can be used alone with infinite benefit; and this was pointed out long ago by Allbutt and Ringer; but in the preceding states alluded to, and especially in women, it is better to use atropo-morphine. In hepatic, renal, and intestinal colic, in spasmodic asthma, and in ovarian and uterine neuralgia, and in the painful spasms of tetanus, atropo-morphine is better than morphine; and similarly, in all these conditions, but especially in the last three, atropo-morphine suppositories are much better than those of morphine.

In most neuralgias, and especially in ophthalmic neuralgia, atropo-morphine is the better remedy.

In sciatica, lumbago, brachialgia, and in most forms of myalgia, and in cramp of muscles of the limbs, atropo-morphine is preferable to morphine.

In muscular cramps, I have obtained better results when the atropine has been used in greater relative strength than one in twenty.

For that peculiar condition of breathing called "Cheyne-Stokes," I have found atropine alone decidedly useful; and if morphine for any reason be needed in such a condition, it should be combined with a preponderating dose of atropine.

I find that, during recent years, I have been using atropo-morphine more and more, and I now use it more frequently than morphine, and I rarely use atropine by itself.

The mixed solution already described answers very well for most purposes, but when the dose in chronic cases, or by reason of habit, has to be increased beyond six minims, the corresponding dose of atropine has occasionally to be diminished. Conversely, there are some so very susceptible to small doses of morphine, that they need a proportionately larger dose of accompanying atropine.

It is easy, having the three different solutions in one case, to adjust for any special occasion any combinative dose of the alkaloids that may be deemed desirable.

I will now ask your attention to a class of troubles in which I hold that it is advisable to give morphine without atropine, or, if the latter be combined with morphine, the morphine must be in sufficient excess to exert a preponderating influence over the atropine.

This class of painful troubles includes pleurisy, fractured ribs, and wounds of the chest-walls, abscess of the thoracic walls, cancerous infiltration of the chest-wall, pleurodynia (that is, thoracic myalgia) and intercostal neuralgia. In all these cases, though only in a slight degree, perhaps, in intercostal neuralgia, we wish to lessen or modify the chest-movements, both those of expansion and elevation; we wish to prevent, as much as possible, the stretching of the intercostal

muscles and of the pleura; and, in these conditions, patients make voluntary efforts to restrain the breathing. In adult females, this need is all the more felt, because their respirations are chiefly thoracic.

Let us take pleurisy as the most common member of this class. We know that the pain of the early stages of acute pleurisy is intensified by respiration, and is often rendered agonising by a deep breath or a cough. What is the treatment?

I will mention two proceedings that are almost indispensable if we desire to give the maximum of relief. The first thing to do is to give, as quickly as possible, some hypodermic morphine; and the next is to bandage, or rather strap, the chest-wall after the fashion suggested by my friend, Dr. Frederick Roberts. The morphine will ease the pain and quiet the breathing, and the plaster will lessen the movements of the thoracic walls. It is in this class of cases that I have found it better to give morphine alone, or morphine with a minimum quantity of atropine.

If atropine be allowed in these cases to exert a preponderating influence, its stimulating effect on the heart and lungs is decidedly prejudicial. Again, in painful affections of the diaphragm, the more rest we can secure for it the better. For this reason, phrenic or diaphragmatic pleurisy may be included in the preceding class. The paroxysmal dyspnoea, and the agonising pain of a deep inspiration in this affection, can best be treated by morphine alone.

Peritonitis is another disease that ought to be, and indeed generally is, treated on similar principles. The patient assumes naturally a position best suited to relieve abdominal tension, and tries to restrain abdominal respiration by exerting its influence to lessen the depressive movements of the diaphragm. In this disease, atropine is contra-indicated. The respirations are already too hurried, and the heart's action too rapid. The one remedy is opium, which is best given in the form of hypodermic morphine.

Apomorphine.—An important derivative of morphine next deserves our attention. Hydrochlorate of apomorphine is not yet as widely known and appreciated as its merits deserve. It stimulates the vomiting centre of the medulla oblongata, and acts as a rapid, certain, and safe emetic. It has been used hypodermically to produce emesis in cases of poisoning, alcoholic intoxication, and the like. A fellow student of mine, Dr. Samuel Gee, was the first to announce its prompt emetic action, and he gave it in doses of one-tenth of a grain hypodermically.

Other and later observers found that one-fifteenth of a grain sufficed in almost all cases to induce vomiting in five to ten or twelve minutes. One-tenth of a grain usually causes vomiting in three to five minutes. Until the last year, this is the dose I have usually administered to adults; but now I use a smaller one, and find that one-twentieth of a grain suffices to cause a sufficiently speedy, and a less prolonged emesis. A common strength is 1 in 50 solution, but a still better for a permanent solution is 1 in 100, or 1 in 120. One advantage of this weakened preparation is, that a definite dose for administration by the mouth can be more easily measured out and used out of the same bottle for children. I would suggest the following dosage for hypodermic apomorphine; for adults, one twenty-fifth to one-tenth of a grain; the 1/25, four to ten minims of a one per cent. solution. In a few very exceptional cases, sudden collapse has occurred after one-twentieth of a grain. Still, no one need have the slightest hesitation in injecting one-twentieth of a grain into an average sized adult, whenever the symptoms warrant its use, and, if need be, the dose must be repeated. Of course there are cases in which a larger dose can be, and ought to be, administered at once. For children, a fourth of the adult dose may be used, that is, one-hundredth to one-fortieth of a grain, that is, one to two and a half minims of the one per cent. solution, more or less according to the body weight. But, except in cases of urgent necessity, it is better not to use it hypodermically in children. I will quote two cases illustrative of its use.

D. E. was suffering from a severe and prolonged epileptic attack. On two former occasions I had roused him out of his fits by nitrite of amyl, but amyl failed now. His friends were very uneasy, and finding, at the end of an hour, that he was no better, I gave him a hypodermic injection of one-tenth of a grain of apomorphine. In three minutes vomiting set in, and he then became conscious, and had no relapse. In this instance the vomiting lasted off and on for half an hour; he was then put to bed, and went to sleep, and awoke in the morning fit for work. Last month, I saw a man in a state of hysterical epilepsy. He had been drinking freely of beer. Fits began at 9 p.m. I was sent for some time after midnight. The face was not flushed. Several men were holding him down. He kept putting out his tongue to its full length towards the right side, and then withdrawing it, repeating this movement every three or four seconds. He never bit

it. Hypodermic injection of one-twentieth of a grain of apomorphine caused vomiting in four to five minutes; a quart or more of beery fluid came up, and he at once answered questions. The vomiting was all over in fifteen to eighteen minutes, and then he went to sleep, and awoke quite well.

Apomorphine is very soluble in water, but after a time an aqueous solution changes to a deep green colour. Last year I had occasion to use, in the absence of a fresher solution, one made by myself two years previously. It had a dirty blackish green tint, and was somewhat muddy, yet it answered perfectly well; but Dr. Loch is reported as having described a case in which alarming symptoms were caused by the use of an old solution. This may or may not have been the cause; but perhaps it will be better, until an improved method of keeping this solution be found out, to make a fresh solution every now and then, which can be done in a few seconds by putting one grain of the salt into 100 minims of water.

We may now, having discussed the use of apomorphine, enter into the question of the vomiting which is often stated to follow the use of hypodermic morphine. Some months ago, I saw in one of the journals—in the *Lancet*, I believe—a note saying that after a time solution of morphine underwent a change, and that apomorphine was generated, and that, in consequence of the presence of apomorphine, such a solution would give rise to sickness. If such be the case, the vomiting is readily accounted for, and it would be our duty to avoid using old solutions of morphine. But is this so? The matter is one of extreme importance to us, and to our patients, and I would beg you to give it your careful consideration, and to express your opinion when I have concluded.

Morphine is, as you know, one of the remedies that lessens the irritability of the vomiting centres, and, like the generality of such remedies, it depresses the activity of the respiratory centre; hence morphine has been found a valuable medicine in vomiting of various forms. Yet it has also been freely credited with causing nausea and vomiting. That it does so occasionally is quite true, but that it does so often is, in my opinion, a fallacy.

I am now, of course, referring to the action of the pure morphine salts. It does not follow, because sickness comes on immediately after a morphine-injection, that therefore the sickness is due simply to the morphine. We know that very slight causes will occasion faintness in some persons, and, similarly, that very slight exciting causes will give rise to vomiting in susceptible people. The prick of a hypodermic needle may occasion faintness and sickness, and so may the sight of one speck of blood at the site of a hypodermic injection. We must, therefore, take into account individual peculiarities, the state of the heart and the nervous system; and bear in mind that a drop of water subcutaneously injected may give rise, in some nervous persons, to very unpleasant symptoms.

But, though we may make due allowance for idiosyncrasy, we have still to account for the morphine-vomiting often alluded to by skilled observers. I would ask you to consider whether any one morphine-salt more than another predisposes to vomiting. Mr. Thomas, of Liverpool, in a paper published in the *Liverpool and Manchester Reports*, many years ago, claimed for sulphate of morphine that its use was never attended by sickness, and this statement has been corroborated.

To the best of my belief, other observers have claimed exemption for the neutral tartrate, and for the bimeconate of morphine, and I now claim a very considerable exemption for the pure acetate. In twenty years of hypodermic practice, I have noted that the occurrence of vomiting has been quite exceptional. I do not believe it has happened in more than about one per cent. of all my cases, and the only morphine-injection I have ever used has been the solution of the acetate, and that always made by myself.

When we speak of apomorphine, we mean the hydrochlorate of apomorphine, $C_{17}H_{17}NO_2 \cdot HCl$, which is an artificial alkaloid made by heating morphine with concentrated hydrochloric acid.

It is quite certain, however long we keep our solutions of the sulphate, tartrate, bimeconate, or the acetate, that no chlorine can, by any possibility, be generated in them; therefore the formation of a hydrochlorate in them is impossible. But whether the base apomorphine ($C_{17}H_{17}NO_2$), which is simply morphine minus a molecule of water (H_2O), can be developed, in course of time, out of a solution of the four preceding salts in question, I can not answer with certainty in the negative; but it appears to me highly improbable that the base could thus be formed, because chemists, in order to obtain it, are obliged to treat the alkaloid with strong hydrochloric acid or a chloride.

So far, I have intentionally omitted all mention of the hydrochlorate of morphine. Let us now consider this salt.

In Lawson's work on *Sciatica*, he states that, in 5 per cent. of his cases, vomiting occurred, and he mentions that he always used the hydrochlorate. In this country, and up to a very recent time, the hydrochlorate was the salt generally used, but of late the acetate and the sulphate have been gaining ground. In Germany, the hydrochlorate is still in pretty general use.

I cannot help thinking that vomiting has been more associated with the hydrochlorate than with the other morphine salts. If so, it may possibly be due to the gradual formation of apomorphine in old solutions of the hydrochlorate.

Those of you possessing old solutions had better test them for apomorphine; and, meanwhile, I would recommend those who now use the hydrochlorate to give it up in favour of the acetate, which, without any doubt, is the very best morphine-salt we can use for hypodermic purposes.

Gentlemen, I thank you for the patience with which you have listened to my address. I have endeavoured to lay before you the chief points of interest in connection with the four most important of our hypodermic remedies.

I have made no attempt to enumerate all the painful troubles and complaints for which hypodermic injections of morphia can be used; but I trust I have succeeded in making clearer, than has hitherto been done, how and when morphine by itself, or atropine by itself, and atropine and morphine combined, can most advantageously be employed in the lessening of pain and the curing of disease.

You will probably agree with me that in many, if not in most cases, a local injection is better than a distant one; and I trust that the solutions which have been handed round to you, have made it very evident that there is no difficulty in making and keeping some hypodermic solutions. But I shall have failed in one of the chief objects of this address, if I have not succeeded in convincing you that there is need for increased caution in the administration of hypodermic injections, and need for greater judgment, care, and nicety in deciding upon the proper dosage for each individual patient.

DR. SPENDER (Bath), after thanking Dr. Jones for his exhaustive paper, alluded to the extreme desirability of letting the initial dose be very small, such as one-tenth of a grain for an adult man, and one-twelfth of a grain for an adult woman. Unless this precaution were observed, a misfortune, he said, would surely happen sooner or later. Moreover, an accident of this kind was ruinous in its consequences to a country practitioner; it was worse than a chloroform-accident, because there several persons shared the responsibility. It was, in Dr. Spender's opinion, always well to tell the patient, when administering morphine for the first time, not to expect much effect from the first dose. Should any effect be apparent, the patient had an unexpected pleasure, and the medical man was saved from the risk of untoward symptoms or a possible mishap. A long time since he had read of strong black coffee as being an excellent remedy to have by one when administering morphine; and now he always took care to have some strong hot coffee at hand whenever he had reason to think a mishap possible. The worst of these accidents was, he said, that they might happen with all the organs apparently in perfect condition, and with the individual in the best of health; and, therefore, they were apt to come without the slightest warning, and quite unexpectedly.

DR. SHEEN (Cardiff) said it was probably only too true that morphine was often given in doses far too large, and sometimes, possibly, with fatal results. There could be no doubt that morphine, when injected subcutaneously, was absorbed into the system, and did not act simply locally. He was glad to hear what Dr. Jones had said as to the greater stability of the stronger solutions; his own was 1 in 6.

HYDROBROMIC ACID IN EPILEPSY.—Dr. H. C. Wood, of Philadelphia, reports excellent results with hydrobromic acid in the treatment of epilepsy. He thinks that too small doses have been given hitherto—one dram of a ten per cent. solution (*U.S. Pharmacopœia*) is only equivalent to nine grains of the potash salt. He has given as much as three ounces a day to robust patients, and half-ounce doses to a delicate girl. The acid should be freely diluted, to avoid the production of gastric irritation. He finds that symptoms of bromism are less liable to occur than with the potash or soda salts.

BEQUESTS AND DONATIONS.—Mr. Stephen Cooke, of Buckingham, has bequeathed £300 to the Cancer Hospital, Brompton, £200 to the Horton Infirmary, Banbury, and £100 each to the following: St. Bartholomew's Hospital, Guy's Hospital, the Vincent Square Hospital for Women and Children, the new Hospital for Women, the Hospital for Consumption, etc., at Brompton, the Royal Hospital for Diseases of the Chest, the National Hospital for the Paralyzed and the Epileptic, the Royal London Ophthalmic Hospital, St. Peter's Hospital, and the Buckingham Nursing Hospital.

ON THE PROPER SPHERE OF CONSTITUTIONAL AND TOPICAL TREATMENT IN CERTAIN FORMS OF UTERINE DISEASE.

Introduction to a Discussion in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

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THE subject which has been selected as the topic for discussion in this Section is one, the importance of which to all who are interested in gynaecological work it would be difficult to exaggerate. Ever since modern gynaecology became a serious study, a time within the memory of the older amongst us, there has been a tendency amongst those of our brethren who are known as general physicians, not only to depreciate the accuracy of our conclusions, but to attribute to us the grave fault of overestimating the influence of uterine disease on the health of our patients, and, worse still, of doing many of them serious injury by unnecessary and injurious local treatment. Only last year, this feeling found caustic expression in the admirable Gulstonian Lectures of my friend, Dr. Clifford Allbutt, in which so bitter and scathing a censure was passed on the practice of gynaecologists, that he will not be surprised at it having given rise to much annoyance, or even something stronger. This feeling induced Dr. Routh to read an excellent paper at the Medical Society of London, in which he ably, but, I think, from rather too one-sided a point of view, controverted Dr. Allbutt's statements, and, carrying the war into the enemy's camp, showed how often the physician who is ignorant of gynaecology falls into grave error by overlooking the origin of some diseases that come under his observation. The fact is undoubted, and it would be easy for me to point out many lamentable errors of this kind that have come under my own observation; but I have no wish to enter into any such discussion. My object is not to remove the beam from my neighbour's eye, but rather, if I may adapt the simile with reverence, to see how best we may take away the mote which has been pointed out as existing in our own eyes. Dr. Allbutt talks to us of women who become "entangled in the net of the gynaecologist, who finds that her uterus, like her nose, is a little on one side; or, again, like that organ, is running a little, or it is as flabby as her biceps, so that the unhappy viscus is impaled upon a stem, or perched upon a prop, or is painted with carbolic acid every week of the year, except during the long vacation, when the gynaecologist is grouse-shooting, or salmon-catching, or leading the fashion in the upper Engadine;" and he then proceeds to tell the College of Physicians that it is time that "we complete our reaction from this gynaecological tyranny, and that we of this College no longer permit ourselves to be snubbed by these brethren of ours, who calmly tell us, with their superior airs, that our use of such expressions as uterine neuralgia, neurasthenia, and the like, comes of a shallow sciolism, and is grounded on the emptiness of our knowledge of uterine diagnosis." Now, this is undoubtedly very smart writing indeed, and I will venture to repeat here, what I have elsewhere said in Dr. Allbutt's presence, that he has been tempted by his admirable mastery of English to indulge in the use of epigrammatic language, the force of which he can have hardly appreciated; and, indeed, he has already made the *amende honorable*, so far as to explain that it was not intended to apply to the practice of the instructed and scientific gynaecologist, but to that of men who do not understand thoroughly the class of disease they profess to treat. It certainly does not bear that limitation upon the face of it; but, so explained, it comes to little more than this: that the man who does not understand what he is doing, is likely to make a muddle of it, a truism which unquestionably holds good with regard to many other departments of medicine besides the one we are considering. Dr. Allbutt has done me the honour of claiming me as a supporter of his views on these points.

It is true that I have paid considerable attention to the neurotic complications of uterine disease, and it is also the fact that I have pointed out what I believe to be a matter of vital importance, which should never be lost sight of, that, in consequence of the intimate relations of the uterine organs with the whole female economy, there is a grave risk of developing or intensifying neurotic complications, which in time may, and often do, completely overshadow the original local disease; and that these, in their turn, become the leading features of the case, and call for our chief attention. But, while I have certainly done this, no one can possibly attribute to me any want of

appreciation of the value of gynecological work. In season and out of season, I have maintained, what I believe to be a certain fact, that there is no department of medical science in which, within the last quarter of a century, more real and solid advances have been made, with greater gain to suffering humanity, than in that which comes under the head of gynecology. Within that time, or little more, all that we know of such topics as ovarian and uterine tumours and their operative treatment, hamatocoele, pelvic inflammations, and much more equally important, has been made out, and placed on a solid basis, both as regards diagnosis, pathology, and treatment. This is a record of which we may well be proud. As regards the proper management of such diseases, there can be no question, and there is little room for difference of opinion. Even Dr. Albutt will admit that, with regard to topics such as these, the College of Physicians has no need to dread the influence of "gynecological tyranny." But that, beyond these and such diseases, there are some of a less determinate character, in the management of which there is much room for difference of opinion, and in which errors of practice are very apt to prevail, is a fact which, I think, it is our duty to recognise. It is very difficult, indeed, from the inherent and somewhat vague character of these diseases, to lay down any definite rules for our guidance, and I am not without hope that the discussion I am now inaugurating may be of some use to us in this respect.

Let me say at once that, while I am prepared to admit that many of us commit errors of judgment, and that the fault of overmuch topical treatment in such diseases is far from uncommon, and often leads to very deplorable results, I strongly repudiate the assumption that such errors are in any way intentional. This I deem it necessary to insist on, for I regret to say that the contrary impression is not unknown. That many commit mistakes in their management of uterine cases, I freely allow; that these are due to any cause but want of judgment and error of judgment, with rare exceptions, such as may occur in the hands of the base and unscrupulous in any other department as well as in this, I entirely disbelieve. Moreover, there is the opposite evil not to be overlooked, and by no means a trivial one, of underestimating the importance of these less determinate uterine conditions. There exists a certain school of gynecologists who have allowed the pendulum to swing much too far in the opposite direction, and who have come almost to formulate the theory that no woman ever has anything the matter with her. Case after case has come under my notice, in which women with the plainest evidence of local disease have been sent away with advice not to have anything more to do with "womb-doctors," and told that their pains and sufferings are purely imaginary; while, as a matter of fact, they were intensely real, and quite capable of relief. Whether the error of overestimating or of underestimating the influence of such conditions is the worst, I shall not take upon myself to determine.

Now, the class of cases in which such differences of opinion and practice are most apt to prevail are, as you are all aware, those conditions in which the uterus is deviated from its normal axis, and those in which there is either some morbid state of the endometrium leading to catarrhal discharges, or those frequently associated abraded and altered conditions of the cervix that, in the early days of pathology, used to be described as "ulceration"—a term which was a complete misnomer, and which, I hope, is now almost entirely banished from use. It is to the limits of topical treatment in such cases alone that I shall direct my observations, for it is in them only that the errors of treatment referred to are apt to be met with. I cannot venture to lay down any fixed rule as to how much topical treatment is justifiable or necessary, nor can I do more than describe my own opinion and practice, as a basis for discussion. Before doing this, let me say, as to constitutional treatment, that, in my judgment, it is quite impossible to overestimate its importance in the management of uterine disease. If you bear in mind the highly developed nervous organisation of our patients, the fact that, in most of them, real or imaginary inability to take proper exercise has existed for a length of time, you will not be surprised that the general health has almost always suffered; and that, in many, it has done so to an extent, as I have already remarked, which completely overshadows the original local complaint. In fact, I take it that the most difficult problem with which the gynecologist has to deal, is to know how to combine the attention to nutrition, exercise, and the like, which is essential for the maintenance of the general health, with the general and physiological rest which is often very important in his management of the local ailment. In the face of a problem so complex, surely it is not surprising that error is often committed, and that the patient lapses into the melancholy condition of neurosis which is frequently associated with uterine disease. I have more than once had occasion, and probably shall have again, to break a lance with my friend, Dr. Graily

Hewitt, as to the excessive importance in the causation of uterine disease which he attributes to deviations of the uterus; but I thoroughly endorse what he has said as to the necessity of attending to the general nutrition of the body in their treatment. Now, in the first place, as to the local and mechanical treatment of uterine deviations; it is certain that, of late years, we have been passing through an era of flexions, which for long have been the fashionable female complaint; and the first question our patients put to us, after a vaginal examination, is, "Am I displaced?" Not unfrequently, indeed, they are told, *faute de mieux*, and because their attendant finds himself unable to arrive at a more accurate diagnosis, that "the womb is a little displaced"—a dictum which often carries with it to the mind of the patient horrors innumerable, which weigh on her like a nightmare. This is not the time, nor have I the inclination, to discuss here the real pathological importance of flexions. Since, however, I must be brief and dogmatic, I may say that it is impossible for me to understand how any close student of female disease can arrive at the conclusion that they are of no importance. The striking and immediate relief which follows the adjustment of a well selected pessary, in a suitable case, is a fact I have so often observed, that it is as sensible a proposition, to my mind, for a man to say that castor-oil never acts as a laxative, as for him to contend that pessaries never do good. I am quite satisfied that there are many well marked cases of flexion which produce no symptoms; and, therefore, call for no treatment at all. Given, however, a case in which a pessary is indicated, in which it is well fitted and gives relief, is it necessary to subject the patient to frequent examinations and much topical treatment? Most certainly not. If, as we are told occasionally happens, such patients be obliged to visit their physicians once or twice a week for a succession of months, then I do not hesitate to say that a gross abuse is being committed. There may be one or two visits at most, to see that the pessary is producing no irritation; and it may be that, for many weeks or months, no further topical treatment is required. In saying this, however, I would guard myself from the error of underestimating the concomitant lesions of uterine flexions, which are often as of much consequence as the flexions themselves.

The next great class of uterine diseases, in which errors of overmuch topical medication are apt to be made, are those which come under the head of the so-called "ulceration" of the cervix, which, properly speaking, are mere abrasions, or results of intra-uterine or cervical catarrhs, or endometritis, which generally produce them. In the early days of gynecology, when the speculum was first introduced into practice, the former were the lesions most spoken of; and I believe it to be an undoubted fact that their importance was vastly overestimated, and great errors committed by much too frequent, and altogether unnecessary, topical medication, in the way of applications of caustic to the surface of the cervix, which, at the best, could only have a quite temporary effect. I suppose every well instructed gynecologist will admit that such abraded states of the cervix, even when most marked, are of no importance whatever *per se*, and are only of consequence as evidences of some more important condition—such as endometritis, or a lacerated cervix with ectropion. Frequent cauterisation, therefore, cannot be a legitimate practice under any conditions. If it ever occur, of which I have no personal knowledge, it must be from ignorance, and from a mistaken view of the importance of the lesion, for which there was a tolerable excuse some twenty or more years ago, when the speculum was first introduced into this country. I am disposed to think that the assumption that such errors are now committed is merely a survival of prejudices, which might have had some foundation in the past, but which have no real basis in the present day. As to the more deep-seated lesions referred to, they certainly do not call for any amount of topical medication that can fairly be deemed excessive. Even in a case of endometritis, adapted for intra-uterine medication, the value of which I am the last to question, one, or at the most two, applications in the week immediately following menstruation, for two or three consecutive months, is, I believe, the very utmost that is ever necessary or justifiable.

Beyond the diseases which I have mentioned, I know of none in which gynecologists can fairly be accused of the error of overmuch topical treatment; and, if the view I have taken of them be correct, it is obvious that they can, and ought to, be treated without any amount of attendance or frequency of visits, at which any one should cavil. The conclusion of the whole matter, so far as a very close study of it has enabled me to form a conclusion at all, is, that in this, as in every other department of medicine, the *via media* is the safest and the best. Let every case be studied in its integrity; let us endeavour neither to over estimate the importance of the local lesion, nor of the disturbance of the general health. In arranging a plan of treatment, let us carefully remember the risk, and it is a very serious one, of de-

veloping a neurosis; bearing in mind that topical treatment, fairly justified by the local state in a patient of a certain type, may be positively contra-indicated by the highly strung and mobile nervous organisation of another; above all, let us be sure that we have accurately diagnosed the nature of the ailment, and not started some plan of treatment merely for treatment's sake—an error certainly not limited to gynaecological practice.

Guided by principles such as these, the gynaecologist may fairly claim for his work a success, in alleviating human suffering, that will justify him in passing by unheeded any amount of prejudice and misrepresentation.

ON LOCAL AND CONSTITUTIONAL TREATMENT IN UTERINE DISEASES.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.¹

By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S.,
Consulting-Physician to the General Infirmary, Leeds.

For many reasons, I found it would be impossible for me to attend the Cardiff meeting of the British Medical Association; but Dr. Playfair, hearing of my engagements, offered, with great courtesy, to submit to me, before the meeting, the arguments which he intends, on that occasion, to advance in the discussion on the treatment of the diseases of women. Dr. Playfair's address to the Section will consist of two parts; in the first part, he will repel certain accusations which I laid in my Gulstonian Lectures against the uterine specialist; in the second, he will set forth his own method of uterine medication. He will rightly take a stand upon his own rules of practice as invulnerable against any attack; and he will, with the practised art of the debater, endeavour to make it appear that, because his withers are unwrung, my blows are beating the air. Following the example of Dr. Routh and other controversialists, Dr. Playfair extracts from the context of my lectures a passage in which I did not shrink from the expression of a judgment upon "gynaecologists," which judgment, in its broader applications, was constantly upon the lips of the profession at large before my lectures were delivered, and which has been enthusiastically welcomed by the profession at large since the publication of them. My judgment, however, would have been less welcome to the world of medicine, had it not been stringently qualified by certain sentences in the same context, which Dr. Routh and Dr. Playfair have overlooked.

In the same pages from which my adverse words are taken, the following sentences are to be found among many others like them: "The more I learn of gynaecology, the more gladly and intelligently I recognise the extensive and dexterous attainments of those who work in that department, and who can deal with such cases better than I can" (p. 18). Again (p. 19): "To underdate our debt to gynaecologists, to forget the great work they have done in the past half-century, were as foolish as ungracious." Again (p. 20): "The wisest and most disinterested of gynaecologists now know well how lamentable have been the exaggerations, how narrow the views, and how deceptive the data of many opinions which have passed current in their school;" and so on. Three or four of the very best gynaecologists of the day have written to me cordially approving my lectures, and perceiving that my blame was discriminate.

One of the wisest and most disinterested of gynaecologists has now found in me that which he would contest, and has read to this Section a paper which, I believe, will work an epoch in gynaecology. Dr. Playfair is, indeed, a Daniel come to judgment; let us hear what this learned judge saith in our court. He says: "The fault of over-much topical treatment in such diseases is far from uncommon, and often tends to deplorable results." He says again: "Many flexions produce no symptoms, and call for no treatment."

"Ulceration of the womb," Dr. Playfair sponges out altogether; he attacks "too frequent and altogether unnecessary topical medications," such as caustics to the cervix, etc. Even in endometritis, he says, "one, or at most two, applications monthly, for two or three months, is the utmost needed," and he admits and warns against the "very serious risk of developing a neurosis," and provides that, in "mobile temperaments, even needful interferences may be postponed and cautiously undertaken." Pessaries may or may not be required in flexions, and, if required, one or two visits only are needed for their introduction and adaptation.

Speaking generally, he says: "If a woman visit a gynaecologist once or twice a week for months, an abuse is being committed." Now,

I have had the advantage of Dr. Playfair's help in many cases, and it has certainly never occurred to me to keep any watch upon his management of such patients. I am convinced that his treatment has been, and will always be, as economical and wise as that which he describes, and I have equal confidence in sending patients to three or four men like him walking in his own branch of the profession. But the general practitioners of England who tell me I have spoken out what they have been muttering under their breath for twenty years, will smile an incredulous and bitter smile if Dr. Playfair attempt to represent the practice of other gynaecologists as he may justly represent his own. Provincial medical men know well what, up to the present, they have had to expect when one of their lady-patients migrated to the "London gynaecologist." It meant too often the very reverse of Dr. Playfair's description; it meant lodgings in town, the doctor's brougham at the door three or four times a week, sixty or seventy guineas to pay at the end of the season, and a deluded and neurotic patient as the end of it all.

If, as Dr. Playfair says, "to suppose such things of gynaecologists is a mere survival of old prejudices," I am most thankful to hear it. But a couple of years then must have sufficed to make the change, for it is no longer than that since two eminent gynaecologists supplied the material for my reference to the curious cessation of treatment during the long vacation, in both cases to be assiduously renewed in October. Both ladies were connections of my own, and their husbands began to compare notes upon this odd feature of disease, intermittent with the sessions of the schools of medicine and of the London season. Again, I would ask Dr. Playfair in what works on gynaecology these anxious warnings of his are to be found, and in which of them these strictures on the excesses of topical medication are laid down in his definite language of to-day. I have not his own work just now at hand, but I will assume that these warnings and limitations are to be found there, as well as in the works of the new or *laissez aller* school of gynaecology; but that such warnings and limitations are to be found in the writings of gynaecologists generally, I venture to deny. Fortunately, there have always been men at the head of this branch of medicine to whom we could, in all fashions, trust absolutely in their wisdom and in their honour, and I wish it were proper gratefully to name some of them.

To deny the achievements of modern gynaecology would be ungrateful and absurd, as absurd as at the other extreme to deny that modern gynaecology has led to, or has suffered, most direful abuses. The fruit of to-day's discussion should be, thankfully to know from the lips of one of the first English gynaecologists how far fanatical practice is to be curbed, and specious pretences to be quenched, so that we may know on the highest authority where uterine medication begins to be an abuse, and in what way it may generate hypochondria and delusion.

But between these extremes of scrupulous and lax treatment there lie many very interesting problems, which, had I the time to discuss, I am unable to decide. Among the chief of these is the strange influence of the mind upon the pelvic organs, and the reverse. Dr. Routh twits us with cases in which a group of symptoms, pelvic and other, are at once removed, say, by the insertion of a pessary.

Let me tell the following story in place of an argument, and with it I will conclude these somewhat irregular remarks. A lady was under the care of a Yorkshire medical man for pelvic pain, utter inability to walk or to bear the jolting of a carriage, for some general nervous symptoms also, and in particular for a strangely intermittent melancholy. Her medical attendant found a large, congested, retroverted uterus. With much patience and mechanical skill, he restored the organ from time to time, and from time to time it relapsed. She would exclaim, the moment the uterus was replaced and supported, how instant was the relief to her pains, to her gait, and, above all, to her nervous and mental discomforts. I saw her with my friend; and I, at least, shall not be accused of error in that direction when I verified the diagnosis, and helped to perfect the same line of treatment. At last, the husband, being weary of the relapses, took his wife to an eminent gynaecologist, to whose house she was unable to walk. The latter gentleman removed all pessaries, declared to her that she ailed nothing but the vapours, and, in fine, gained so strong an ascendancy over her, that she walked from his house, travelled home, and set about the duties and pleasures of an active life. This is now quite two years ago, and she has enjoyed perfect health ever since, though still childless. What her womb is now like, I know not, for we barely escaped much reviling in the matter. I would ask Dr. Playfair and Dr. Routh carefully to consider this complex problem of mind and pelvis, and to weigh well how much of the sudden relief given by uterine medication is due to imposition upon the mind of the patient. There, says the medical man, the part was displaced; I have just put it right, and you are well;

¹ In the absence of Dr. Allbutt, this paper was read by Dr. Berry Hart, one of the Secretaries of the Section.

get up, and walk. In future, let the medical man avoid any such words, or the production of any such impressions, and let him see what silent manipulations will do for the still ignorant patient.

With these few and imperfect words, I take leave of a controversy which has had, at least, this great result—that it has produced so invaluable an *apologia* from Dr. Playfair.

Dr. EDIS (London) thought the profession at large was indebted to Dr. Playfair for bringing the subject forward in such an able paper. The mere position of the uterus was, in many cases, comparatively unimportant, whereas the condition of the organ might be of serious moment; and, by consequence, the constitutional treatment was of equal importance with the local, if not far greater. But for any one individual to assert that local treatment was unnecessary, or even dishonest, was calculated to do harm, and bring unmerited odium upon those practitioners who conscientiously believed they were doing right in resorting to local treatment. It was notorious that some special men were so ignorant of their art that, when patients went to them complaining of local symptoms—inability to walk or stand, dyskesia, dysmenorrhœa, and other distressing discomforts—they were sent off with the advice to forget all about their wombs, and told that there was nothing whatever the matter. On appealing to another authority, some local mischief requiring treatment would not only be found, but relieved or cured, as the case might be, by a combination of appropriate constitutional and local treatment.

Dr. AUST LAWRENCE (Clifton) thought the subject called for more than special knowledge of diseases of women. It demanded a certain general knowledge, as a protest against too narrow a view of the diseases in question. Cases of uterine and pelvic disorder often remained without improvement, with tenderness on examination, difficulty and pain in walking, etc.; and yet, on local treatment being given up and general treatment adopted, a cure was effected. But the fact must not be overlooked, that in some women a local condition might produce symptoms which in others it would not. It was extremely difficult to estimate, in uterine displacements accompanied with secondary changes, how much might be due to the reduced conditions, and how much to the primary disease. Dr. Lawrence referred to the great value of continuous douches of hot water, and of local remedies which might be applied by the women themselves. All pessaries should be examined at least once in three months. Before any treatment was adopted, the general history of the patient should be obtained, and her temperament ascertained.

Dr. J. MEREDITH (Wellington) fully appreciated the views expressed in favour of inquiring into the sanitary surroundings of a patient. He gave instances of cases where noxious air—for example, slight escape of gas, sewer-air—also impure water which the family-pump yielded, were, in his opinion, the causes of the uterine disorder for which he was consulted. It was an invariable rule of his to look closely into the various influences which affected patients in the condition now discussed by the Section.

Dr. IMLACH (Liverpool) thought that Dr. Clifford Allbutt had not been more happy in his second than in his first attack. As regards "tinkering practice," Dr. Imlach fully agreed with Dr. Allbutt's remarks; but they might be applied in other departments of medicine. It had been said that topical treatment was necessary in uterine flexions and catarrh of the endometrium. Although he admitted this, he did not think that either pessaries or probes were very successful instruments. With uterine catarrh, there was generally lacerated cervix, which could be repaired in a few days. Topical treatment failed where wrong methods were employed, and he did not think that the proper treatment for antelexion and chronic sub-involution had yet been discovered. The application of pessaries for retroflexion, when the tubes and ovaries were also diseased, was worse than useless; and consequently these cases were apt to be subjected to lengthened and injurious local treatment. When there was general ailing, without definite uterine disease, Dr. Allbutt's new system of medicine was a capital one. No matter whether the patient had a girdling pain about the waist, a dilated stomach, or only a dilatory one, a symptomatic cough, or a headache, she had a "visceral neurosis." The position was unassailable, and the treatment was *nuxvomica*. As the neurosis was constitutional and hereditary, it could not disappear, and general remedies must be continued for an indefinite time.

Dr. BERRY HART (Edinburgh) thought that the difficulty in gynecological treatment was, that it had to be undertaken while our knowledge of uterine pathology was imperfect. Such a criticism as that of Dr. Clifford Allbutt should make all gynecologists carefully consider their treatment and their knowledge of pathology. Thus, for instance, it was unfortunate that flexions of the uterus had such

importance attached to them, and that their causation by cellulitis was not sufficiently recognised. They were, in most cases, secondary to cellulitis, and then it was the cellulitis that needed treatment. It was also of the highest importance for all to make a thorough bimanual examination of the pelvis, to base treatment on the conditions of the uterus and appendages, to make that simple, and not to neglect constitutional treatment.

Dr. H. P. C. WILSON (Baltimore, U.S.A.) could endorse every word uttered in the paper, particularly Dr. Playfair's views as to the necessity for paying particular attention to the constitutional treatment of all cases of uterine disease. Such cases could never be cured by local treatment alone. Every such woman was averse to exercise, to taking fresh air, and to seeking recreation for the mind. Nearly all these women were obstinately constipated. These conditions must be rectified, or the patient would never recover, however skilfully they might be treated locally. Fatigue and rest, from day to day, was what he insisted upon to secure good digestion, good innervation, good circulation, and good defecation. With all these functions properly performed, the patient must improve with much greater rapidity than if otherwise. With regard to Dr. Allbutt's paper, where he said that many poor women recovered when they were deserted by their physician in vacation-time, Dr. Wilson would say, that no woman ought to be under continuous treatment for uterine disease for any great length of time. She only improved after she had been treated for a limited time, and then left absolutely alone. The results of previous treatment would then be seen, and how much had been gained in the case; and if she were not perfectly well, then she might require more treatment, and be left alone a second time, till she went on to recovery; for all cases of uterine disease which came under medical men were chronic, and could not be disposed of at once. He was glad to see that English and American gynecologists were in perfect accord.

The PRESIDENT, in thanking Dr. Playfair for his interesting and valuable paper, wished very briefly to say that, while believing there was some limited foundation for the allegations of Dr. Allbutt, too much and too exclusive attention had been given by some practitioners to local treatment. He had no hesitation in expressing the opinion that these allegations were far too wide and general in their character; and he believed still further that, in many cases in which there had been too much local treatment, it arose simply from misconception and error of judgment. He thought that Dr. Berry Hart had struck the right note, in urging the special importance of developing the study of uterine pathology. With increased knowledge, improved treatment would follow. And, in the meantime, he would urge the present importance of pursuing the *via media*, equally removed from the tendency to exaggerate which existed among some few on one side, and the equally grave tendency to minimise the importance of local treatment where there was local disease, which characterised some few on the other side.

ON THE CORRELATION OF CONSTITUTIONAL AND LOCAL TREATMENT IN GYNÆCOLOGICAL PRACTICE.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By THOMAS MORE MADDEN, M.D., F.R.C.S.E.,

Obstetric Physician to the Mater Misericordiarum Hospital; Vice-President of the British Gynecological Society; Consulting Obstetrician National Lying-in Hospital, Dublin, etc.

Few gynecological questions better deserve reconsideration than the respective importance of local and constitutional treatment in certain utero-ovarian diseases. Having formerly brought this matter before the Obstetrical Society, I again venture to take part in its discussion, mainly with the view of urging the desirability of conjoining constitutional remedies with the necessary local measures generally relied on in such cases. I need hardly, however, disclaim any intention of undervaluing that topical treatment which, as a gynecological practitioner and clinical lecturer, I have for several years had daily occasion to employ, and to teach the uses of to others.

This subject, apart from its great practical importance, is also of interest as illustrating the periodicity with which various medical questions, long since debated and apparently settled, after a lapse of time again crop up in new guise, and are re-discussed with all the interest of novelty. To some extent this is probably due to the progress of medical science being now so rapid, that most of us have as much as we can do to keep pace with its almost daily advances, and

have little leisure for any reference to the older literature of our profession.

I have elsewhere enlarged on this topic, and have shown that some of our most valued improvements in gynecology and surgery, such for instance as the rapid mechanical dilatation of the cervical canal for intra-uterine exploration or treatment, the local application of nitric acid in uterine diseases, the use of the vaginal speculum, and the employment of anesthetics before surgical operations, are all instances of the revival of old and disused practices as modern discoveries and improvements.

For out of the olde felkdis, as men saieith.
Comith all this new corne, fro' yere to yere;
And out of olde bokis, in good faith,
Comith all this newe science, that men lere."

Upwards of forty years ago the discussion we are now engaged on was anticipated, and the comparative utility of local and general remedies in uterine disorders was disputed in the medical journals of that time by Dr. H. Bennett, Mr. Acton, and other pioneers of the then infant science of gynecology on the one side, and Dr. Robert Lee and others, not less strenuous adherents of the older school of constitutional treatment, on the other, with an amount of warmth, somewhat similar to that displayed by some abdominal sectionists of the present day, on any reflection being made on the line of practice in which they excel.

Within the last few years the same subject of contention has been repeatedly introduced on the arena of medical debate. As already mentioned, I was myself responsible for raising a discussion some years ago on the "constitutional origin and treatment of uterine disorders," in the Obstetrical Society. Recently, this question has been handled from a different point of view, by Dr. Clifford Allbutt and others, and lastly, it has again been brought under the notice of the British Medical Association by Dr. Playfair.

I may here observe that it appears an utter waste of time and energy to declaim, even as eloquently as Dr. Clifford Allbutt and Dr. Donkin do, against that prevailing tendency to specialism in all branches of the healing art, of which they seem to consider gynecology the most reprehensible outcome. This subdivision, in the existing development of medico-chirurgical science, is not only inevitable in all large centres of population, but is also desirable in the interests of the profession, as well as of the public, by whom it is fairly concluded that physicians confined to a limited field of special practice will probably possess more experience therein than those whose vocation extends equally over every department of the wide domain of medicine, surgery, and obstetrics. Under these circumstances, they who now seek to resist specialism in medicine are attempting a task as vain as was Dame Partington's effort to keep back the Atlantic with her broom. At the same time it is equally obvious that no man can ever successfully or efficiently pursue gynecology or any other specialism, who, as a well educated medical practitioner, is not thoroughly conversant with the general principles of medico-chirurgical science.

Of all the many subdivisions of medicine, ours is unquestionably the most unstable in its routine-practice. Not only does it vary from time to time in this respect in accordance with the progress of the sciences on which it rests, but, moreover, it appears to undergo, at frequent intervals, other changes of a purely arbitrary character. Thus the influence of fashion is hardly more marked in the changing modes of dress of our clients than it is in our methods of dealing with their utero-ovarian complaints, in which we have daily illustration that,

"In physic, as in fashion, we find
The newest has the run of womankind."

Hardly a decade passes in which the practice of gynecology is not revolutionised by some theory which, however loudly heralded into existence, has its brief day, and having, perhaps, served its purpose, is as quickly hurried into the limbo of oblivion.

A reference to some of the doctrines which, within the recollection of many of us, have ruled our branch of practice, may serve to show why it is that such misconceptions have prevailed, and to some extent still exist, with regard to the constitutional and local treatment of utero-ovarian disorders. Thus, when I entered the profession, a little more than twenty years ago, Dr. Henry Bennett's theory concerning "chronic inflammation and ulceration of the cervix uteri" was almost universally adopted. At that time, hardly a female patient whose symptoms could possibly be perverted into any evidence of opposed uterine disease escaped the almost diurnal vaginal examinations and local application to the cervix of nitrate of silver or other uterine escharotics then in vogue.

In this way it was that, in those halcyon-days of early gynecology,

many a practitioner speculated his easy way to fame or fortune. At last, however, this facile line of practice became played out, and the cylindrical speculum and stick of caustic alone ceased to draw crowded consulting rooms. There was started the no less generally accepted, and, perhaps, better grounded doctrine of ortho-uterine therapeutics, acting on which, for the last fifteen years, the followers of Dr. Graily Hewitt have found the evidence of some uterine displacement or flexion in every variety of pelvic ailment, and exhausted their inventive fertility in the designing of new pessaries or the remodelling and renaming of old instruments.

This mechanical theory of uterine pathology has not, however, had as undisputed a supremacy as that which it displaced, being interfered with, first, by Dr. Emmet's widely accepted, and, in many cases, well founded, views concerning the influence of cervical lacerations in the causation of uterine hyperplasia; and, secondly, by the revival, in recent practice, of the old doctrine of the ovarian origin of many of the diseases peculiar to women, and their curability by oöphorectomy. The latter idea, originally suggested by Dr. Blundell, was resuscitated by, and has received its fullest development from, American practitioners. Now, however, it has recrossed the Atlantic, and, in the hands of English surgeons, Dr. Batty's operation is at present employed with a frequency, and in cases in which, however great may be the special skill of the operator, its practice appears to be hardly justified either by the necessity for its performance or by its results.

The foregoing summary of the principal theories that have influenced gynecological practice during the past twenty years, all pointing to different forms of local treatment, all of which, however unquestionably applicable in certain cases, have as unquestionably been pushed beyond their legitimate application, affords, I think, a sufficient explanation of the present general neglect of constitutional remedies, and the undue dependence on mechanical or other local measures in this special branch of practice.

Of the extent to which this is occasionally carried, there can be no question. In my hospital, cases almost daily come under observation in which the patient, having been elsewhere treated locally for supposed endometritis, or for flexions, of which it sometimes happens that I can see no evidence, and in which I, therefore, think local treatment unnecessary, to the manifest annoyance of these patients, who are apt to be dissatisfied, and consider themselves neglected. Yet, in a large proportion of such cases, by simply paying attention to the general health of the patient, ordering the free topical use of either hot or cold water, and enjoining total abstinence from marital relations, all the symptoms subside, and the invalid regains perfect health, the *mens sana in corpore sano*, far more completely and rapidly than if we subjected the parts to the mechanical irritation of repeated examinations and local treatment, and so aided in keeping up that morbid concentration of the imagination on the supposed seat of the disease, which is so common in gynecological complaints. Hence, though for many years I have had as frequent occasion as others, in hospital and private practice, to employ topical examination and treatment, I never think of doing so as a mere matter of routine-practice; nor, more especially in the case of young unmarried patients, without distinct evidence of its necessity.

Putting aside, for the present, those numerous cases in which local treatment is obviously indicated, and in which of course it should be unhesitatingly and thoroughly carried out, there remains an almost equally large proportion of gynecological patients in whose cases the question as to whether local or constitutional treatment, or both, are indicated, fairly arises. These may be divided into three classes. In the first are includable all cases of utero-ovarian hyperæmia, or congestive hypertrophy of the uterus and its appendages. Secondly, in this connection, and generally consequent on the former, are all the obscure cerebroneurotic and hysterical disorders peculiar to women; and, thirdly, are many uterine neoplasms or fibromyomata.

Chronic hyperæmia, leading to hypertrophy or chronic inflammation, or endo-metritis, as areolar hyperplasia of the uterus was formerly called, deserves special consideration in this connection with regard to its constitutional origin. For, if I can persuade other practitioners to accept the view which clinical experience has impressed on my mind, namely, that the strumous diathesis is a very general predisposing cause of chronic congestive hypertrophy of the uterus, then, as I believe, the treatment of this condition will be materially altered, simplified, and improved.

Several years ago, my attention was first called to this point by noticing that amongst the patients brought under observation in the gynecological department of the Rotunda Hospital, a large proportion were of well-marked strumous habit; in many instances they suffered

from unmistakably scrofulous disease of other parts, and others I was able distinctly to trace in the local uterine disorder the influence of an hereditary strumous taint. Since then, the accuracy of this observation has been confirmed by my clinical experience in other hospitals with which I have been and still am connected.

In these cases, the general symptoms, the character of the local complaint, and the nature of the utero-vaginal discharges, were all impressed with the scrofulous type. For whether the cases in question were instances of endo-cervicitis, or congestive hypertrophy of the uterus, with consequent secondary derangements of the utero-ovarian functions, in one and all the hypertrophic congestion was as inviolable, in its first encroachment, as chronic in its course, and as obstinate in its resistance to local treatment, as is the case with all other local manifestations of constitutional strumous disease. As in other cases of similar origin, congestive hypertrophy of the uterus, more especially when limited to the cervix, is apt to lead to ulcerations which cannot possibly be confounded with the result of the traumatic injuries of this part described by my friend Dr. Emmet, but which unquestionably present a characteristic strumous appearance, being irregularly circular in shape, superficial in depth, pale and flabby in aspect, possessing little natural sensibility, but occasionally angry and irritable, tedious beyond patience when neglected or maltreated, and best cured by the treatment appropriate to strumous diseases.

Besides scrofula, other constitutional cachexias, such as gout and rheumatism, or more commonly the gouty or rheumatic diathesis, as well as neuralgia, must also be recognised as frequent causes of chronic uterine disorder.

Another not uncommon constitutional cause of uterine disease is syphilis. For although primary syphilitic ulcerations of the cervix uteri are somewhat exceptional, and may be readily recognised by the well defined, excavated, and hard character of the sore, and the history of the case, secondary syphilis is very frequently traceable as the cause of chronic uterine disorder, manifesting itself by superficial abrasions of the mucous membrane, uterine catarrh, and hypertrophic congestion of the cervix, which, in such cases, presents a peculiar piebald vitreous hue.

All these symptoms, however, may also occur without syphilitic disease, and in doubtful cases, the diagnosis will be greatly aided by the history of the case: whether the patient has ever suffered from a primary sore on the external genitals, or from any suspicious cutaneous disease or form of ulcerated sore-throat; or, when none of these symptoms can be traced, by the fact that the person has repeatedly aborted, or given birth to immature and putrid children. Under such circumstances I should never hesitate to regard any obscure uterine disease as syphilitic, although I should be very cautious in imparting my diagnosis.

The constitutional symptoms of chronic congestive hypertrophy of the uterus, and of the peri-uterine lesions with which this is generally associated, point very clearly to the necessity for something more than merely topical treatment in such cases. In nearly every instance of this kind, there is some marked derangement of the digestive functions, the appetite is impaired or capricious, the bowels are torpid, the intestines are distended by flatulency, which is especially troublesome after food, and a sick stomach is frequently complained of.

Cardialgia, palpitation, and pain in the left submammary region are occasionally symptomatic of uterine disease. In such cases, the patient generally seeks medical advice under the impression that she is suffering from heart-disease, and will hardly allow any reference to the uterus as the seat of her complaint. In fact, the majority of instances of supposed cardiac trouble occurring in females, and especially when any evidence of hysteria can be detected, may, *a priori*, be set down to chronic uterine hyperplasia, on the cure of which all the cardiac symptoms will subside.

The same observation applies to the chronic and intense headaches to which women suffering from congestive hypertrophy of the uterus are peculiarly subject. Similar connection between this condition and various forms of ophthalmic disease has been recently demonstrated as a fact beyond controversy by Mr. Fitzgerald, and other oculists.

The effect of chronic uterine disease on the general health and condition is manifest. As the local complaint progresses, the patient loses flesh, becomes pale, sallow, or cachectic, her personal appearance being thereby, after some time, invariably altered for the worse. Her appetite is unhealthy, her tongue furred, and her breath offensive. She is weak and languid, and cannot take exercise without fatigue. The mind soon begins to sympathise with the body, and the patient becomes nervous, desponding, excitable, anxious, or irritable to the verge of insanity.

The constitutional influence of long standing utero-ovarian disorders, functional or organic, and consequently the necessity for constitutional as well as local remedies in their treatment, is strikingly evinced by the general concurrence of gynecological complaints with nearly every variety of cerebro-nervous derangement to which women are liable, from the most trivial manifestations of hysteria to the gravest forms of cerebro-nervous disease, namely, insanity and epilepsy.

Of the certainty of this connection there can be no question. Thus, in one of the hospitals to which I am attached, upwards of 30 per cent. of 5,000 patients treated in our gynecological department during the past seven years, suffered from some nervous derangement which, on examination, was found traceable to reflex irritation of utero-ovarian origin, on the removal of which, by appropriate local and constitutional treatment, the secondary or nervous disturbance generally subsided.

In such cases, our primary care should be the removal, by either local or constitutional treatment, of any ovarian or uterine disease, or uterine displacement, of which the nervous disorder is symptomatic. In the majority of the complaints under consideration, local treatment is only necessary for the purpose of rectifying somewhat marked flexion or displacement of the uterus. Foremost amongst the remedies by which we may hope to diminish the morbid nervous susceptibility or perverted molecular activity of the nerve-centres in hysterical cases, are the various bromides, and nerve-tonics, such as the valerates of zinc and quinine. Mere hypnotics, such as hyoseyamus and chloral, are of comparatively little value; and narcotics, particularly opium and its alkaloids, are generally worse than useless for this purpose.

In instances of hysteria, connected with amenorrhœa, ferruginous tonics may be prescribed in accordance with the special requirements of the case. If the patient's circumstances admit it, a trial should be made of some foreign chalybeate water taken at the source, and preference should be given to a distant spa.

The curative effects of change of climate, and the utility of mineral and thermal waters, although obvious in all chronic complaints, are in none so marked as in the nervous and hysterical mental disorders connected with chronic utero-ovarian disease. In such cases, by the very journey to a distant health-resort, the patient has the benefit of change, not only of climate, but also of occupation and habits of living. The new scenes and variety of places suggest new thoughts, by which the attention of the hysterical and often semi-insane victim of chronic uterine disease is diverted from her morbid and exaggerated sensations, and, ceasing to dwell on her complaints, they gradually cease to trouble her.

It may be again observed that no cases so much demand the exercise of the highest qualities of the physician as the treatment of the nervous and mental complications of disease or functional derangement of the female reproductive organisation. In such cases, the gynecologist must rise above a narrow specialism. He must primarily remove the local disease or displacement, or restore the normal state of the disordered function, of which the nervous or mental disturbance is a result; but in doing this he must, as far as possible, avoid increasing the existing vaginal, uterine, or ovarian hyperæsthesia, by any local treatment which is not absolutely indispensable.

In the treatment of the perverted mental conditions, which have been referred to in the preceding observations on the hysterical complaints associated with sexual disorders, the physician should strive to act upon the moral as well as the physical constitution of his patients. He must insist on healthy occupation of mind as well as body, and fit the latter for this by appropriate remedies called for by the special exigencies of each case. If the nervous derangement be consequent on disordered menstruation, this must be, if possible, restored to its normal functional activity. If it results from undue or premature stimulation of the sexual organs, he should point out clearly the physical and moral evils consequent on such abuses.

Scrofula, although the most frequent, is, as has been just observed, by no means the only predisposing constitutional cause and accompaniment of the diseases we are discussing, and hence, in a large number of cases, we must have recourse to other constitutional treatment to alter that morbid state of the system which is the remote cause of the existing uterine congestion or hyperplasia. This must be effected by a modified anti-strumous regimen and treatment, conjoined with rest, tonics, and sedatives, as well as the local use of baths or injections, caustics, astringents, counter-irritants, or local depletion, and, above all, the administration of any supposed specific remedy that may be indicated by the special requirements of each case. Thus, in cases of gouty origin, the preparations of colchicum,

and alkaline remedies, especially the mineral waters of Vichy, may be employed; in rheumatic uterine disease, iodide of potash should be resorted to; in that dependent on constitutional syphilis, the remedies appropriate in other venereal affections must be tried; and, in neuralgic uterine complaints, our chief reliance will be placed on the preparations of quinine and iron.

As a rule, chronic congestive hypertrophy of the uterus, whether limited to the cervix or affecting the entire organ, when not of scrofulous origin, requires the administration of mercury, which is best given in the form of small doses of the perchloride—one twenty-fourth of a grain three times a day, in the tincture or infusion of bark.

The prevailing type of chronic uterine complaints, like that of all other general diseases of the present time, is essentially asthenic, and requires the administration of tonics in almost every instance, and more especially the preparations of steel, iodine, and quinine, combined, when circumstances admit of it, with change of air and mineral waters.

The curative effect of change of climate, and of mineral and thermal waters, in cases of chronic uterine disease, as well as in other disorders, is a subject on which I may with some confidence speak, having given my attention to it during several years of travel and clinical observation in the health-resorts of the Continent and the Mediterranean, as well as at the spas of Germany, France, and Italy, of which I have published the results in my works *On Change of Climate* and *The Health-Resorts of Europe and Africa*.

No class of remedies is so useful and so generally appropriate in all chronic uterine diseases as mineral and thermal waters used at their sources, and hence conjoined with change of climate. The use of the waters is not the only service which a patient suffering from chronic uterine disease derives from a visit to some continental spa. The journey to the foreign watering-place, as already observed, involves a change of air, occupation, and living. But, entirely apart from the happy moral effect produced by a change from the routine drugging and dosing of an English valetudinarian lady's accustomed mode of life which takes place when she leaves home for the gay atmosphere of any of the German *Brunnen*, or French *salles des eaux*, or even the comparatively sombre existence of an English watering-place, the action of certain mineral and thermal waters on many of the diseases of women produced by hyperæmia or congestion of the womb is unquestionable.

Three distinct classes of mineral waters may be used in the treatment of these complaints. The first are the iodated and bromated saline springs, the "iod-und-bromhaltige Kochsalzwässer," containing iodine and bromine, generally in the shape of bromide of manganese and iodide of sodium dissolved in a muriated saline water. Springs of this kind are seldom thermal. The most important of these iodated or bromated spas are Wildeg, Kreuznach, and Salzhausen. These waters stimulate the action of the mucous membranes, promote absorption, occasion pytalism and diuresis, quicken the appetite, and act as powerful resolvents on all glandular enlargements; hence their efficacy in the treatment of the diseases of women produced by chronic uterine hyperæmia.

The second class of mineral waters applicable to the treatment of the diseases now under consideration are the chalybeates, both simple and saline. The action of the simple chalybeates is tonic and stimulant in proportion to their strength, exciting the nervous, circulatory, and digestive functions, and, at the same time, improving the quality of the circulating fluid, by increasing its fibrine and red corpuscles. Hence these springs are specially adapted for the treatment of chronic local hyperplasia of the cervix uteri, and uterine or vaginal leucorrhœa, associated with anæmia, as well as in the constitutional debility and loss of tone so frequently produced by, as well as conducive of, chronic uterine irritation. Chalybeate waters also exercise a marked curative action in cases of hysteria dependent on these causes, as well as in certain instances of sterility. The principal simple chalybeate waters suitable for such cases are Spa, Ems, and Schwalbach.

The saline chalybeate springs, according to my experience, are particularly serviceable in the chronic uterine disorders so commonly caused in European women by tropical climates, and especially by long residence in India. These springs generally contain the salts of soda in combination with iron, and, amongst them, those most suitable for the cases we are now considering are the Stahlbrunnen of Homburg, Franzensbad, and, at home, Tunbridge Wells and Cheltenham.

Sulphurous mineral waters are the third class which I regard as applicable for the treatment of the uterine diseases above referred to. The activity of such springs is mainly influenced by their temperature. All thermal sulphurous waters are strongly stimulating, acting on the nervous as well as on the vascular system, and can only be

safely used in cases where there is no tendency to hæmorrhagic disease. The warm sulphurous waters available for the treatment of chronic congestion of the womb are Schinznach, Aix-les-Bains, Eaux-Bonnes, and Amelie-les-Bains. Cold sulphurous waters may also be employed in some cases of the same kind, and are far less stimulating than the thermal water of the same class. We possess, in these countries, two of the most powerful cold sulphurous waters in Europe, namely, those of Harrogate and Lisdoonvarna, which may as advantageously be used in many cases of chronic uterine disease as any of the continental spas of the same class.

Whenever uterine and ovarian dysmenorrhœa, pain, or any other evidence of active local congestion is present, there is no remedy of such universal applicability as the prolonged use of warm or tepid baths. Nature has given us a wide choice of such baths, suitable for almost every form of chronic uterine and ovarian disease, in the natural thermal springs, of which we have at home, perhaps, the most generally useful in these cases, namely, the waters of Bath. The waters which are used for this purpose are generally so feebly mineralised as to lead many to suppose that their effects are due to their mere temperature.

Be this as it may, however, the fact remains that thermal waters exercise a remarkable sedative action on the nervous and vascular systems. Under their use, the frequency of the pulse is diminished, pain insensibly disappears, and nervous irritation is gradually allayed. Effects such as these point them out as especially suitable for cases of chronic uterine disease, leading, as is generally the case, to general as well as local hyperæmia, together with more or less hysteria or nervous irritability. Under these circumstances, the effects of prolonged immersion of the body for hours together, in water at the temperature of from 87° to 98°, is peculiarly sedative. The spas which are employed in this way, and from which I have seen most advantage in cases of uterine disease, are those of Pfeffers, Schlangenbad, and Wildbad. To be of use, these thermal baths must be employed for long periods at a time, though it would be hard to persuade ladies of the present day to remain in their baths as long as was formerly the case at Pfeffers, when, as an old author assures us, they remained in the water for whole days together: "Multa dies noctesque thermis non egredientur; sed cibum simul et somnium in his capiunt."

Besides these, the thermal arseniated waters of Royat, Mont Dore, and St. Nectaire, in the volcanic district of Auvergne, may be used in uterine disorders of scrofulous or neuralgic origin. The warm mineral waters of St. Sauveur, in the Eastern Pyrenees, which, in addition to their high temperature, contain a large amount of the peculiar pseudo-organic unctuous substance termed "glairine" or "barégine," have a well established reputation in France in the treatment of scrofulous, rheumatic, and neuralgic affections, as well as in hysteria, leucorrhœa, and other complaints peculiar to women, resulting from chronic uterine disease.

With regard to the correlations of local and constitutional measures in the treatment of uterine fibro-myomata, I may venture to add a few words. By the majority of gynaecologists no dependence whatever is placed in anything but operative procedures in such cases. For my own part, I am as sensible of the importance of the surgical treatment of uterine tumours, as any other surgeon can be, having had frequent occasion to resort, in such cases, to operative procedure, whether by hysterectomy, oophorectomy, or preferably by that improved method of enucleation, the utility and advantage of which, in all appropriate cases, I have elsewhere endeavoured to demonstrate. Still, I cannot but think that the passion for acquiring character in this branch of operative surgery is one that requires restraint, rather than encouragement, at a time when operations of the gravest kind, such as hysterectomy and oophorectomy, are apparently so lightly undertaken. The boldness and dexterity described by the classic writer, with whom doubtless modern surgeons are familiar, the "manu strenuâ, stabili, nec unquam intermiscente; animo intrepidus, immisericoors," are all very well in their way, but, in my humble opinion, there are other qualities, namely, judgment, prudence, and patience, which are no less necessary for the welfare of those committed to our care. And hence it should not be lost sight of that in many cases of fibro-myomata operative treatment is by no means as indispensable as it is generally considered; and, moreover, that in some cases, however otherwise desirable such operations might be, they are either not feasible or may not be submitted to.

It is therefore important to know that, notwithstanding the incredulity even of Mr. Lawson Tait and Dr. Bantock, we may frequently be successful by purely medical treatment in tiding patients suffering from myomata over the dangers that otherwise await them before the occurrence of the menopause, when some arrest in the development of the disease, or some abatement of its most formidable symptoms, may naturally be anticipated. I shall, therefore, here briefly recapitulate the

principal purely medical remedial measures which I have elsewhere more fully described, and the utility of which, in many cases of uterine fibro-myomata, have been proved by clinical experience.

The most prominent symptom of fibromata, especially if sub-mucous, and occurring before the menopause, being uterine hæmorrhage, the arrest of this must be a primary object of treatment. For this purpose, the patient should be kept at perfect rest from the time when the recurrence of the hæmorrhage is expected until the menstrual period has completely passed over. In the way of medicine, sulphuric acid, with liquor ergotæ or Dover's powder and gallic acid, may be given, or hazeline may be tried. In any serious case of hæmorrhage thus caused, however, it will be better at once to resort to the only reliable styptic remedy for such cases, namely the free hypodermic use of either ergotine, or, preferably, of the ordinary liquor ergotæ. During the past eight years I have employed either liquor ergotæ or ergotine in this way in nearly every case of this kind treated in my gynecological wards, and I have no hesitation in saying that we may generally thus control any hæmorrhage caused by uterine fibro-myoma. Moreover, by the continued employment of these hypodermic injections in some instances, such a marked diminution in the size of the tumour may be occasioned as to render further treatment unnecessary.

Amongst the means by which the congestive hypertrophy or general areolar hyperplasia of the uterus, always attending the development of fibro-myomas, may be diminished, and thus the consequent hæmorrhage be lessened, none are so invariably beneficial as the persistent and judicious use of hot water uterine irrigations or injections. For this purpose, the cervical canal must be previously dilated, and the irrigation persistently employed, not only at regular intervals, but also for a lengthened period on each occasion.

Our second therapeutic aim, in such cases, should be to stimulate the activity of the local absorbents; so as, if possible, to induce the diminution of the tumour.

Foremost amongst the remedies available for this are iodide of potassium and small doses of tincture of iodine. Chloride of calcium, or the old solution of the hydrochlorate of lime of the Dublin *Pharmacopœia*, has again come into favour in such cases, and probably acts by inducing a certain amount of calcification, and consequently diminished vitality in neoplasm. By far the most useful, however, of all drugs in such cases, is iodide of potassium, given in as large doses and for as long a period as it can be safely administered. I have had so many proofs of the diminution in size thus caused in large myomata, in patients of otherwise robust constitution, that I can only account for its failure in the hands of other practitioners from its injudicious administration in persons of 'broken-down' constitution, or in cases otherwise unsuitable.

Lastly, I may again here observe that, in cases of uterine myomata in which, for any reason, operative interference is not available, we may possibly succeed in arresting the development of the disease by sending our patient to a suitable iodated or bromiated spa, such as Kreuznach, or by the conjoint internal administration and external use of this water.

As this paper has reached a greater length than was intended, any further reference to the manifold correlations of constitutional and topical treatment in other gynecological complaints must be here omitted. I may, however, add that if, in the course of the foregoing observations, I may have seemed to lay undue stress on constitutional measures in the management of various diseases peculiar to women, this is merely because the value of such remedies is too generally ignored, the possible utility of constitutional treatment being now almost crowded out of notice by the attention given to mechanical expedients for the correction of flexions or displacements, or other more recent forms of local uterine therapeutics. Therefore, whilst the importance of each of these, in all appropriate cases, is manifest and unquestionable, I may, in conclusion, again venture to point out that those gynecologists who, in conjunction with whatever local measures may be found necessary in the special cases with which they have to deal, also at the same time most fully avail themselves of the resources of constitutional treatment which I have already indicated, will, generally, best succeed in curing their patients—*cito, tuto, ac jucunde*.

UNIVERSITY COLLEGE.—The annual dinner of the old and present students of the Faculty of Medicine will be held on October 1st, at 6.30 P.M., at the Freemasons' Tavern. Professor John Marshall, F.R.S., will preside, and many distinguished former students (including Sir William Jenner) have expressed their intention of being present. Tickets (12s. each) may be obtained from the honorary secretaries, Dr. Poore and Mr. Stonham.

OUTBREAK OF YELLOW FEVER IN SIERRA

LEONE, 1884.

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THERE are few places in the tropical world which at first sight present to the traveller a picture of greater magnificence, than the lofty range of mountain scenery which gives its name to the peninsula of Sierra Leone. To those who are unfamiliar with the peculiarities of the climate of Western Africa, a scene of such natural beauty becomes at once enchanting. For a moment home is forgotten, or, if remembered, the remembrance is accompanied by a desire that it should be situated in such a paradise. Seen as the traveller draws close to the shore from the north, on the deck of the mail-steamer, on a clear bright morning, when the atmosphere is comparatively devoid of malaria, there is nothing wanting in beauty that nature has not supplied in abundance. Should the arrival, however, happen at another period, when the rains are deluging the face of the country, and swelling the rivers and mountain-streams, then Sierra Leone presents a different picture. There is little or nothing to excite pleasant anticipations, but rather much to depress and awaken melancholy fancies. The realities of the scene are unaltered, for the two periods are the property of the climate, and must be endured by the native and European in due season.

Freetown, which is the capital of this settlement, is situated about five or six miles from Cape Sierra Leone, on the banks of the river Roquette, on the north of the peninsula, and stands in latitude 8° 29' N. and longitude 18° 14' W. The town is admirably laid out in fine wide streets of good dimensions, running from the water's edge inland, and intersected, at right angles, by other streets of similar size. The mountains form the background, and sweep, in horse-shoe shape, round the town, which stands on a gradual acclivity, and occupies a space about two and a half miles in circumference. In the middle ground stand the various government offices, and the residence of the governor. Behind, are the military barracks and hospital. On the water's edge, and in the foreground, are the residences of the various European and native merchants, the colonial hospital, the prison and market, the cathedral and Wilberforce memorial, the custom-house and the battery. Bishop's Court and Fourah Bay College complete the picture.

The native population is composed of many tribes of west African origin, and for the greater part inhabits Freetown; the rest are distributed in many small villages in the hills and along the coast. The Europeans seldom number more than two hundred, and, with few exceptions, are male adults. Women and children seldom resist the influence of the climate for any extended period. The climate of Freetown has decidedly proved unfavourable to the human constitution in general, although there are no marked peculiarities which distinguish it from the climate of the other parts of the western coast of Africa, extending from the river Senegal in the north, to the river Congo. Some modifications will of course be found in particular localities, where the coast is flat, low, and marshy—as at the mouths of rivers; or where the land is high and exposed to the pure sea-breeze, or removed from malaria by elevations, such as are found in the mountains of Sierra Leone or the Cameroons. The seasons have much to do with malaria; they seem earlier in the south than they do in the north, and may be said to commence first on the equator and work gradually along the coast to the Senegal. To describe the climate of any one locality on the coast of Africa is to divide the seasons of the year into two, and call the period of rain the "wet" season, and that of the greatest heat the "dry" season. Putting aside the calendar year, we commence with the natural, when nature puts forth her creative powers, and vegetation assumes its greenest vigour, as at the commencement of the rains. The revolution of the seasons of the year at Sierra Leone may thus be described. The months of September and October may be compared to the spring of the more northern climates. The wind is variable, the weather showery and unsettled. The average maximum temperature is about 82° Fahr. From November to January the wind is light and variable, and the weather settled; the sun is bright, and vegetation reaches maturity. The greatest average temperature is 86° Fahr. This is the summer of the natural year. In February the weather again becomes unsettled, and an average temperature of 85° Fahr., until April, and shifting winds and dull, heavy weather marks this period with tornadoes and terrific storms, and occasional showers. In May the rain sets in, and August marks the end of this season by an abatement of the rains and an average temperature of 80° Fahr. At the commencement, and for some time after the setting in of the rains, fever is most frequent and fatal.

The causes of the fever, which has produced such mortality and

sickness amongst the native and European population of Sierra Leone, and occurs epidemically at certain periods, may be given under the following headings.

Definition.—The character of the fever which occurred in Freetown during the months of May, June, July, and August, 1884, in a limited area extending along the riverside, and confining itself particularly to Westmoreland Street, Rawdon Street, and Howe Street, was pernicious remittent, or yellow fever of a very malignant type. There was yellowness of the skin and conjunctive; pain in the back, loins, and limbs; with pains in the chest, and a burning sensation along the œsophagus; supra-orbital pain, pain in the head; distressing vomiting; great thirst; dark coloured albuminous urine containing blood-casts; a quickened pulse, 110 to 120; and a persistently high temperature, ranging from 102° to 105° Fahr. The tongue was hard and dry, or of a dark brown colour; or it might be red at the tip and edges, with a furred centre; in other cases, it was large and flabby, and of a deep blood-red colour. The vomiting was, at first, very distressing; the vomited matter occasionally had a dark coffee-ground appearance, and at length became absolutely black. The duration of the fever was from three to four days; in less severe cases, from five to seven days; and nearly all attacked died.

Cause.—The city of Freetown is situated in an amphitheatre, surrounded on three sides by a range of hills rising from 500 to 3,000 feet above the town. In this circumscribed area, a large and dense population are crowded together; their habitations are, for the greater part, not well constructed, and the houses surrounded by privies and cesspits, and, in many places, wells, from which impure drinking-water is drawn. The natural slope of the ground, and the heavy fall of rain, filled these cesspits to overflowing, so that the sewage overflowed, and gave out noxious exhalations, whilst the water in the wells was poisoned by an admixture with the fecal products. The pollution of the atmosphere by the emanations from these cesspits and closets, situated in the back yard of every block of ground on which a habitation stands, could not fail to be injurious to health.

During the prevalence of the rainy season, the air becomes highly saturated with vapour, and the destructiveness of this was obvious on clothing, leather, and other perishable articles. The putrefaction of animal and vegetable matter, when saturated with moisture, becomes very rapid, more especially when there is persistent heat.

The soil, exhaling telluric poison, the product of the decay and decomposition of putrid matter, exercises a deleterious constitutional effect on the system of those exposed to its influence, which cannot but produce a state most favourable to the development of diseases of the typho-malarial type.

Heat and moisture acting together in a modified form, as at the commencement and ending of the rainy season on the west coast, are factors most favourable to the evolution of that product to which has been given the name malaria. The European, after many years' residence in parts of India, does not present the same appearance as a European after a few months' residence in Freetown, particularly should he suffer now and then from remittent fever. The skin and complexion of the former is tanned and healthy, whilst that of the latter is, in texture, like a boiled orange, and the face pale and sallow-looking. This is not surprising, considering the condition of seldom varying heat and moisture, resembling, for many months in the year, the interior of an orchid-house, heated by a furnace like a vapour-bath, which debilitates and physically and mentally weakens all who reside in such a climate for any length of time. Frequent exposure to this vapoury heat produces frequent attacks of bilious remittent fever, causing anæmic and splenic diseases, dyspepsia, and derangement of the liver and kidneys.

Intemperance has always been brought forward, and described as if it has been the cause which produces the frequent attacks of African fever amongst the Europeans visiting the coast. It is an easy method of disposing of a sore point, more particularly when an epidemic attacks the Europeans with greater force than the natives, and affords a feeling of glorification to all temperate survivors. As a rule, persons of intemperate habits possess good constitutions, and stand the climate quite as well as their more temperate companions. No person of intemperate habits, however, should come to the coast of Africa, any more than a youngster who was not physically and mentally strong, and his character formed, so as to resist the inducements to drink which the climate may produce.

Origin.—On every outbreak of yellow fever in Sierra Leone, it has always proved of sporadic origin, the undoubted product of Freetown itself, as all attempts to trace its origin to a non-sporadic origin have totally failed.

History.—There may be stated to be three forms of fever commonly met with on the coast of Africa, namely, ague, bilious remittent fever,

and pernicious or yellow fever. The first named is not of frequent occurrence; the second is the commonest; and the third the most fatal. Though the characters of these fevers, when developed, show a distinctiveness of type one from the other, yet so alike are they at the commencement of being first attacked, that it requires some experience to define them. It was found expedient to carefully watch the various symptoms of a suspicious case, before absolutely pronouncing the disease to be yellow fever.

Yellow Fever.—The Sierra Leone fever has always had seasons of exacerbation, during some years assuming a mild form, at others a most severe, the mortality at times being appalling. The earlier years of the existence of the colony were marked by seasons of extreme unhealthiness to Europeans and natives, especially in 1807, 1809, 1812, 1815, and 1819. In 1853, yellow fever was epidemic; it commenced at the close of the "dry" season, continued through the "early rains," and ended with the "heavy rains." In 1825, yellow fever became epidemic, and, out of 902 persons known to have been attacked with fever, 263 succumbed. In 1829, during April and May, Freetown was again visited, and yellow fever then confined itself principally (as in 1884), in the months of May and June, to the low levels of the town. This epidemic attacked 150 Europeans, and 11 perished.

Yellow fever again appeared in 1837 amongst the Europeans engaged in the shipping. In January of this year, two very suspicious cases died of the so-called African remittent fever. In April, many cases of yellow fever occurred, and two died, having distinct black vomit. In March, yellow fever was reported prevalent. On May 11th, a case occurred amongst the troops. The disease declined with the maturity of the rains, but appeared again in a malignant form in October, and disappeared in December. In 1838, yellow fever appeared in February, and ended in March. In 1839, a severe form of remittent fever caused the death of 6 officers of the garrison at Tower Hill barracks. During the months of July, August, and September, every man of the Royal African Corps in the barracks at "King Toms," Freetown, suffered from the fever, and the mortality amongst that corps is stated to have been appalling. There were 7 officers and 13 men of the Royal Navy attacked with yellow fever, and every one died. In 1845, yellow fever appeared amongst the crew of the squadron at anchor off Sierra Leone. The *Elclair* sailed from the river on July 23rd, 1845, and 60 of her crew perished from yellow fever. One fatal case occurred in September from malignant remittent fever. In 1847, yellow fever was epidemic in Freetown in June, July, and August, and the "rainy season" was marked by great heat and little rain. In 1859, yellow fever again became prevalent during the months of April, May, and June, and 106 Europeans died during the year. The rains are recorded as being very slight. In 1865, yellow fever was epidemic in Freetown. In 1866, yellow fever was again epidemic, and 100 Europeans died between the months of April and October in that year. In 1872, fever appears to have been of a malignant type, and the mortality was particularly high during the months of May, June, and July, and ended in 9 persons being attacked with yellow fever in December, of which number 6 died of that disease. It is recorded that the average death-rate during the year at Freetown was 250 per 1,000. This appalling mortality did not include all the victims, as others died on shipboard, trying to escape from the colony. The years 1863 and 1882 were both noted for seasons of unhealthiness.

The epidemic of yellow fever in 1884 was marked by an increased mortality. The average death-rate amongst the native population was 35 per 1,000, whilst the death-rate amongst the Europeans was at the rate of 6 per cent. per month. The epidemic commenced early in May, was most severe in June and July, and declined with the maturity of the rains in August, and gradually decreased with the saturation of the ground and the atmosphere with moisture, until it finally ceased, merging again into the ordinary endemic remittent. In December, all trace of the epidemic had disappeared.

The following is a description of the symptoms and progress of several cases which proved fatal amongst the Europeans and natives.

The first case was that of M. L., aged 24. He was taken ill on May 6th, and died on the 10th. His illness commenced by a feeling of depression, and a loss of activity and mental energy. He had shivering, frontal headache, pain in the eyeballs and over the orbits, and vomiting. His temperature rose to 103° Fahr., and never went below. His pulse was full and bounding, the eyes suffused and inflamed. There was great restlessness, subsultus tendinum, and black vomit. He died comatose.

The next case was that of Dr. W. H. H., colonial surgeon at Sierra Leone. He was taken ill on Sunday morning, May 11th. His temperature was 104° Fahr.; pulse 120, full and strong. The skin was

dry, the tongue large and flabby, and of a deep blood-red colour; the eyes congested. He had frontal headache, and deep-seated pain in the eyeballs, and above the orbits. There was occasional vomiting, and a gradual increase of the intensity of his fever until the night of the 16th, when he expressed himself as feeling better. On the morning of the 17th, he was carried on board the mail-steamer *Calabar*, as the only prospect of his recovery depended upon immediate change of climate. Unfortunately, the steamer had to call at the Gambia, and after leaving this port his condition appeared to become worse. There were pain in the abdomen, much vomiting, and delirium. He died on the morning of May 29th, and was buried at sea a few hours' sail from Madeira. The purser of the steamer *Calabar* contracted the disease, and died after a few hours' illness, and was also buried on the morning of May 29th, at 3 o'clock.

The fourth case was that of Mr. W. M., an agent for a trading-house in Freetown. He was taken ill on May 10th, and died on the 20th.

The fifth case was that of the Rev. C., of the Roman Catholic Mission. He was taken ill on the 20th, and died on May 25th. He had black vomit.

The sixth case was that of Mr. D., a clerk, living in the house with Mr. W. M. He was taken ill on June 7th, and died on the 11th. His temperature ranged from 102° to 104° Fahr. He had black vomit.

The seventh case was Mr. L., a young clerk to a trading company. He was ill only three days, and died on June 16th. He had black vomit.

The eighth case was Mr. M., a man of intemperate habits, who had resided many years on the West Coast of Africa. He died on June 18th of yellow fever.

The ninth case was a soldier, Lance-Corporal W., 2nd West India Regiment, who died in the military hospital on June 20th, 1884, of enteric fever.

The tenth case was a negro soldier, Private R. C., 2nd West India Regiment. He was admitted into the military hospital on June 23rd with the symptoms of coast-fever. The eyes were much congested, and the temperature 102° Fahr. On the morning of the 24th, he complained of very great weakness; the temperature was 100° Fahr. His conjunctivæ were tinged a deep yellow. He had great frontal and supra-orbital pain, and vomited a quantity of dark coffee-coloured fluid. The urine contained traces of albumen, as shown by the nitric acid test; on applying heat, the albumen became almost solid. The urine was acid in reaction, very offensive, and dark in colour; the specific gravity was 1014. He passed a very restless night, and in the morning jumped out of bed, vomited a large quantity of black fluid, became comatose, and died at 9.30 A.M. on June 25th, 1884, of yellow fever. He was buried immediately, in a coffin coated on the inside with coal-tar and carbolic acid. His clothing and bedding were burned; and the case was reported to the sanitary authorities.

The eleventh case was that of a Roman Catholic nun, Sister T., aged 30, who died of enteric fever on June 24th, after a prolonged illness and much suffering.

The twelfth case, Mrs. H. P., aged 20, died on June 25th of yellow fever.

The thirteenth case was a clerk in a merchant's office, Mr. C. J. R., aged 19. He died of yellow fever on June 28th, after three days' illness. He had black vomit.

The fourteenth case was J. J. M., a clerk in the Colonial Secretary's office, who died of yellow fever, after four days' illness, on June 28th, 1884. He had black vomit.

The fifteenth case was that of the Rev. P. S., aged 29, colonial and garrison chaplain, who died at Bishop's Court, on July 2nd, of yellow fever.

The sixteenth case was that of Mr. H. M. T., aged 35, the Queen's Advocate, and Registrar-General of the West African Settlements at Sierra Leone. He died at sea on July 9th. There were yellowness of the skin, congestion and inflammation of the eyes, bleeding from the mouth, nose, and gums; and, shortly before death, there was black vomit. He sailed from Sierra Leone on July 2nd, and at the time presented all the symptoms of remittent fever. He complained of pains in the head and deep-seated pain in the eyes, and above the orbits. His tongue was red, large, and flabby, and he suffered from nervousness and want of sleep.

The seventeenth case was M. C., aged 41, the manager of the West African Hotel in Freetown. He died, after a very short illness, on July 6th, of yellow fever. He was many years in the Senegal Colony, and had a severe attack of fever there, which he considered made him proof against the Sierra Leone fever. Shortly before his death, he stated that to live was quite impossible, because "he felt as if his

heart was failing, and he had no strength left in his body to resist the vomiting" and the fever. It is worthy of remark that the disease amongst the Europeans confined itself, in a great measure, to the merchants' clerks and agents, who either took their meals at this hotel, or who spent much of their spare hours in that part of the lower levels of the town in which their houses were situated, close to this building.

The eighteenth case was that of a child named Miriam V. P., who died on July 2nd of yellow fever.

The nineteenth case was Sabina D., aged 21, who died of yellow fever on July 6th. She was a few days ill.

The twentieth case was Charlotte T. W., aged 40, who died of yellow fever on July 8th. She was four days ill before black vomit set in.

The sad events thus recorded are described with a view to refer to the particular facts which were noted during the occurrence of these calamities, and which tend to illustrate and confirm the conclusions naturally arising during the prevalence of an outbreak of yellow fever.

The European and native population suffered together from this fever; although the newly arrived, the robust and the plethoric, and those of unbroken constitution amongst the Europeans, appeared to suffer most. In all, the symptoms, from the period of being attacked until the end, were identical. These were roving pains in the muscles of the limbs; distressing pain in the head and across the loins; supra-orbital pain and suffusion of the eyes; irritability of the stomach, and a feeling of uneasiness; the tongue was often tremulous, and very red in colour; the pulse was quick and full; the skin was dry, and communicated a harsh sensation to the hand. These symptoms lasted for a day or two days; and medicine failed to bring about the slightest change. The bowels were moved, and the skin acted; but quinine failed in every case. A peculiar yellow appearance took place on the neck, face, and chest. The eyes looked bright; and the urine, profuse at first, now became scanty, dark in colour, and, on the application of heat, was found thick with albumen. The evacuations downwards were becoming darker. The vomiting, at first profuse and watery, now was scanty, and very distressing. There were great weakness, and a torpidity which deluded; and the third day ended with an apparent improvement in the patient's state, to be followed by low muttering delirium, great restlessness, and vomiting, until the fourth day, when the invariable forerunner of a fatal termination—the black vomit—made its appearance, and was ejected from the stomach with a spasmodic effort and force which once seen could never be forgotten. It had a peculiar odour, stained linen black, and was nearly always prognostic of approaching death. The three most diagnostic symptoms of this disease occurring in Sierra Leone amongst all who suffered from the fever raging amongst the native and Europeans were: 1, pain in the muscles of the arms and legs, in the head, in the eyes and above the orbits; 2, albumen in the urine; and 3, black vomit about the fourth day. There was a peculiar pain in the chest, of which many complained, and which was intensified when the vomiting was persistent. This was accompanied by a red flabby tongue.

The Treatment adopted consisted in saline purgatives, diaphoretics, and diuretics; quinine in large doses; turpentine-injections; Warburg's tincture; nourishing soups, good nursing, and stimulants. The intensity of the malady resisted the remedies prescribed, and quinine appeared to completely fail to act. Warm baths and mustard-poultices relieved the pain over the stomach and præcordia, and checked for a time the pain in the chest and the distressing vomiting. Carbolic acid, morphine, and chloroform, controlled the irritability of the stomach for a time only. Liquor ammonia acetatis gave great relief in many cases, but completely failed in others. Jaborandî appeared to debilitate, and Warburg's tincture was vomited up almost as soon as swallowed. The prompt and immediate removal out of the area in which yellow fever is prevalent should be effected before the severity of its type has had time to take firm possession of the system, and before the blood has become hopelessly saturated by that which generates this disease. Immediate removal to the higher elevations, to a pure atmosphere, or to sea, on the open ocean, appears the most reliable method of reducing the severity of an attack, and changing the character of the disease. The majority of the cases which were sent early to the top of the mountain at Leicester Peak, 1,500 feet above the sea, recovered under the treatment usually adopted for the ordinary endemic remittent fever of the country; because it appeared as if the severity of the fever expended itself on the third or fourth day, and the period of convalescence, although in these cases protracted, yet ended in recovery. Three cases, having all the early symptoms of yellow fever, were removed,

on the first day of being attacked, to the hills, and all recovered. A fourth was greatly benefited by the change, and for a few days showed decided improvement; but, unfortunately, perforation of the intestines occurred, hæmorrhage came on, and death took place from enteric fever after a prolonged illness and much suffering.

One case of yellow fever, and one of enteric fever, having occurred amongst the soldiers of the 2nd West India Regiment, careful investigation showed that the men had contracted the disease in the lower levels, and in the unhealthy quarters of the town. At once the troops were confined to barracks, at Tower Hill, standing on an elevation, and distant from the town where yellow fever was raging epidemically. No fresh cases occurred amongst the soldiers; and, although many were admitted into the military hospital suffering from a severe form of remittent fever, yet none died. Preparations were made for an immediate exodus to the open on the top of the Leicester range of mountains, at an elevation of 1,000 feet, where the troops were to have encamped. The wooden huts used as a sanatorium on Leicester Peak, 1,500 feet high, were at once placed in a habitable condition, and accommodation provided for twelve beds in the large hut, three in another, and two in the smallest. The "Hospice," a house the property of the Roman Catholic mission at Leicester Peak, was used by the sick during the epidemic, and here were treated some of the cases which recovered. The soldiers, after treatment for fever, were frequently sent, until convalescent, to the sanatorium, from which they returned in health to duty.

Communicability of Yellow Fever.—The most elementary laws of sanitation are almost unknown amongst the natives on the West Coast of Africa, and the inhabitants of Sierra Leone are alike uninformed on the elementary rules of hygiene, on the most important facts concerning food, on the dangers of defective drainage, the contamination of water and the atmosphere, and the ways and means to health. They are as primitive to-day as they have been since 1838-39, and yellow fever is still of frequent occurrence.

If it be true, as some experimenters have shown, that the earth taken from a cemetery of persons dead from yellow fever, and mixed with fluid, and inoculated into the blood, is capable of producing all the most fatal symptoms of yellow fever; and, again, if further evidence prove that, if the blood of a person dead from yellow fever be inoculated into that of a living person, yellow fever is transmissible through the circulation; then it will have been proved that yellow fever is a transmissible disease, and is capable of being communicated. From a health-officer's point of view, considering the effects of this disease upon the human race, it must ever be the prominent aim to prevent the spread of this most malignant disease. Allowing that yellow fever is capable of being transmitted, and admitting that there are laws governing the growth of the smallest living organisms as well as of trees, plants, and insects, and being aware of the presence of certain noxious and invisible microzymes, bacteria, vibrios, monads, and bacilli in the atmosphere, and that these organisms are the product of animal and vegetable life in the presence of heat, moisture, and certain atmospheric conditions in localities such as are existing in Sierra Leone, that yellow fever is a preventable disease there appears no doubt, and this may suggest at length some method of applying a destroying power so as to prevent and destroy the growth of the yellow fever bacillus by chemical agency or by inoculation.

Concluding Remarks.—There is no question that, in the matter of sanitation, we must decide between standing still and doing nothing, or in making a general improvement by directing attention to the defects which are most obvious and demanding their removal. Within the last half century sanitation has taken the first place, and land-drainage, ventilation, and town-sewerage have developed into a science. Town-sewerage and the enforcement of other social regulations, vaccination, and sequestration, have contributed to prolong life from five to fifty per cent.

The improvement in a certain town in Wales, during the past thirty years, has reduced the death-rate from 332 per thousand to 232, while the average at death has been raised from 17½ to 27 years. If so much can be effected in a single generation, what may not be done when the bases of sanitation become better understood, and more scientific in character? There is ample room in Sierra Leone for sanitary improvement, and the most important requirements demanding the attention of the proper authorities are the disposal of sewage, ventilation, and a constant and unstinted supply of water. There can be no question that an immense amount of disease is due to perfectly removable causes; but there is little use in isolated studies of facts and possibilities. Scarcely anything short of a sweeping reform will suffice to bring about the desired improvement in the health of a community, where so many valuable lives have been lost by the most culpable negligence, and the grossest ignorance of the commonest laws of

cleanliness, such as existed during the prevalence of the yellow fever epidemic at Sierra Leone in 1884.¹

REMARKS ON THE BRITISH PHARMACOPEIA OF 1885.

By ROWLAND H. COOMBS, M.D.,
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THE new edition of the *British Pharmacopœia* may be pronounced to be a great improvement on its predecessor. It contains many new and valuable drugs; and, whilst omitting a very few that have for the most part fallen into disuse, it supplies us with fresh preparations of undoubted utility and convenience. The definitions of the various chemical substances seem to have been revised with great care, and, in the majority of instances, to have been amplified. The botanical terms and definitions have likewise been much extended. The materia medica teacher and student will not perhaps greet with unqualified approval the numerous instances in which the names of the plants, etc., of the vegetable materia medica have been changed. On taking twenty-seven infusions of the edition of 1867, and comparing them with the same twenty-seven infusions of the present *Pharmacopœia*, we find that the botanic name of the plant used has been entirely altered or varied in about one-third of the cases; the same proportional change will be found by comparing the botanical source of twenty-eight oils of the 1867 edition with the same substances in the present one.

The Latin terms appear to have been carefully revised, and a strict adhesion to a literal etymology has been secured when we find the fruit from which we derive elaterium, known as the squirting cucumber, described as "*Ecballium elaterium*" (*ἐκβάλλω*) and not "*Ecballium* (*officinarium*)," as in the former edition. Here we rightly gain a letter, but under *Elemi* we lose one. *Elemi*, which used to be described as coming from Manila, in the Philippine Islands, is now described as "*Manila elemi*." This is the Spanish spelling of the name. The "*Emplastrum calefaciens*," translated into English in the *Pharmacopœia* of 1867 as "warm plaster," is more correctly given as "warming plaster;" and an old friend, brown soap cerate plaster, formerly known as "*Emplastrum cerati saponis*," gets the name "*Emplastrum saponis fuscum*."

The use of a synonym for many of the substances in the *Pharmacopœia* shows unequal handling. We find "*Epsom salt*" as a synonym of "*Magnesium sulphas*," "*Fowler's solution*" for "*Liquor arsenicalis*," "*Donovan's solution*" for "*Liquor arsenii et hydrargyri*," yet we miss "*Dover's powder*," "*Grey powder*," "*Laudanum*," under the headings of the official names for these common drugs.

The doses are not satisfactorily given. The argument that the *Pharmacopœia* is not a treatise on therapeutics will be put forward, but, admitting this, the principle of authoritative direction in dose has been adopted; and to find "*tartarated antimony*" described as a diaphoretic in the dose of one-sixteenth to one-sixth of a grain, and as an emetic in the dose of one to two grains, and to turn to the salts of quinine, and to find a bald statement of a dose of one to ten grains, without any allusion to the highest value of the drug as an antipyretic, is disappointing. Why sulphate of copper, ipecacuanha, tincture of rhubarb, sulphate of zinc, should have their therapeutic use scantily indicated, and quinine, aconite, arsenic, and other drugs should be denied similar notice, is difficult to appreciate. In a book, too, of such authority, a table to calculate the dose of medicines for infants and children, or a statement of what such doses should be, is surely required. A curious want of method is shown in the doses of the three highly useful and important drugs (apomorphine, ergotine, and morphine) contained in the hypodermic injections. The dose of hydrochlorate of apomorphine is not given at all, and we are left to calculate what proportion of a grain we are administering when we employ the "*Injectio apomorphine hypodermica*" in a dose varying from two to eight minims. The dose of ergotine is stated at two to five grains; but under the "*Injectio ergotini hypodermica*" we are left to make an arithmetical calculation as to how much ergotine we are administering in the extremes between three and ten minims. In the hypodermic injection of morphine, the strength is clearly stated

¹ Since the above was written, news has come from Sierra Leone of the death of two distinguished medical officers in Freetown; Surgeon Nathaniel Cameron, Army Medical Staff, who died on July 9th, of typhoid fever, at Tower Hill Barracks; and Dr. Robert Smith, the Acting Colonial Surgeon of Sierra Leone, who died on July 4th, 1885, of pernicious remittent fever, after a short illness, at his residence, in Freetown. He was born in Freetown, in 1840, and was appointed assistant-colonial surgeon in 1866. There has been much sickness this year in Sierra Leone, and general unhealthiness still prevails in the colony.

in two lines as "a solution of acetate of morphine containing one grain of the acetate in ten minims of the injection." It is hard to see why the same definite statement of strength should not have been given for the other solutions.

The adoption of a magistral formula as an imitation of the well known and widely used patent medicine chlorodyne in the "Tinctura chloroformi et morphine" will doubtless give rise to much criticism; it will be favourably viewed by those who would see in the *Pharmacopœia* a large extension of formulae for drugs in combination; whilst, on the other hand, many will hold that the introduction is unscientific and undesirable. This new compound tincture contains all the ingredients usually assigned to it (Squire's *Companion to the British Pharmacopœia*), but omits one at least (Indian hemp), which has been stated to enter into its composition. Probably Dr. J. S. Bristowe would describe it as "a kind of blunderbuss which scatters its shot and hits other objects beside that at which it is aimed." (BRITISH MEDICAL JOURNAL, August 22nd, 1885, p. 383.) This combination of fractional doses of many drugs may possibly afford grounds of experimental inquiry to the therapist; but it may not be amiss to quote an eloquent passage in one of Dr. Peter Mere Latham's articles contributed to this JOURNAL, where, after reasoning that no sound experience is attainable but by experiments with the simplest medicines, he says: "With all the credit due to pharmaceutical chemistry, and all our obligations to it, I doubt whether, in one chief respect, it has not done some harm. To bring many important remedies together, and unite them by a lucky combination, and compress them within a small compass, and so place them within the common reach, all this gives a facility of prescribing which is hurtful to the advance of medical experience. The facility of prescribing is a temptation to prescribe; and, under this temptation, there is a lavish expenditure continually going on of important remedies in the mass, of which the prescribers have made no sufficient experiment in detail. A simple implement or two, which a man has well proved for himself, is worth a whole armoury of famous compounds taken upon the general credit. A few thousand years ago, a whole people was in fear and trembling. Their enemy was at the gate; their hope was turned to a single champion; all weapons of war were at his service; the king's own armour was offered him—his helmet, his coat of mail, his sword. He did not (how could he?) resist the vanity of putting them on; but soon he put them off again; for 'he had not proved them'; and 'he chose him five smooth stones out of the brook,' and with one of these he did the deed which saved his country" (Latham's *Clinical Medicine*, vol. ii, p. 514, Sydenham Society).

THERAPEUTIC MEMORANDA.

TREATMENT OF RHEUMATISM.

Now that most of us have come to look upon salicin and salicylic acid as a very close approach to specifics in the treatment of acute articular rheumatism, the following notes of an exceptional case may not be without interest.

On July 21st I was called to see a young man, whom I found suffering from this troublesome ailment. About two weeks before, when attending another member of the same family, I was informed that Mr. J. had come home for a time, in consequence of recurrent relapses of rheumatic fever, which followed a wetting. I ascertained that he was taking forty-grain doses of salicin, thrice daily; but he had instructions to take the dose every two hours, if the pain and swelling of any of the joints recurred. At this time he had been taking it about six weeks, and was better. As I have considerable faith in salicin, I advised him to continue it.

I did not hear of him again until July 21st, I then found him very restless after two sleepless nights. Temperature, 101°; pulse, small, soft, and frequent. One knee-joint was acutely affected; the pain was subsiding from the ankle, and other joints were becoming involved. The conjunctivæ were yellow tinted, and the skin of a pallid yellow colour. From his great restlessness and sense of extreme illness, I feared the approach of hyperpyrexia.

I gave him 5 grains of quinine and 25 grains of bicarbonate of potash, four times daily, ordered a blister to the affected knee, and a purgative dose of calomel every second night. After this, he had a good night. On July 23rd the knee was not painful, but the vertebral and one sterno-clavicular joints were involved. I continued the same treatment, blistering each joint successively attacked, in addition to putting a blister over the heart, the beat of which became thumping and much diffused, and in marked contrast to the small and

feeble pulse; after two days, a systolic murmur became audible at the apex.

After the first blistering, none of the joints became so severely inflamed, and at the end of four days the arthritis had ceased to recur to any marked extent; but the fever continued four days longer; the temperature varying on my visits between 101° and 102°. The icteric tint gradually disappeared. I kept him on the potash and quinine, and milk-diet, until the *bruit* had disappeared, and ultimately put him on large doses of perchloride of iron.

The peculiarities of the case are these. 1. Articular rheumatism recurred in an acute form, involving also the heart, when he must have been saturated with salicin, which he had been taking for eight weeks, in forty-grain doses. 2. The vitality of the nervous system was profoundly depressed, as the blisters did not rise well in fifteen hours at first, though they subsequently rose after only seven hours' application of the same vesicating material (this I have observed in other cases). 3. The affection of the joints had quite ceased for some days before the fever, which was not markedly influenced by sulphate of quinine, in small doses, daily. 4. He has had no further relapse, though often recurring during the previous eight weeks; and I may add he felt such rapid relief from the blisters, that he was only anxious to have them applied on any slight indication of returning pain.

I, in common with many others, am in search of some indication to guide us in the administration of salicin or salicylic acid, and feel sure that the experience of most medical men will corroborate mine, that there are cases in which salicylic acid and salicin fail to cure, and therefore it becomes of importance to recognise, as early as possible, those in which it is indicated, or the reverse.

I have had another case of acute migratory articular rheumatism, in which I had to lay aside the treatment with salicylate of soda for other remedies; and these two cases suggest to me the question—Is the migratory form less amenable to salicylic acid than the stationary, or can we derive any guidance from the degree of febrile temperature? My patient had a prolonged attack of rheumatic fever thirteen years ago, when a boy.

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ARSENIC IN LYMPHADENOMA.

DURING the first week of March, 1885, James G., aged 57, married, a gentleman's servant, of sober and healthy antecedents, presented himself to me as an out-patient at the West Kent General Hospital. As I had known him before, it could be seen at once that he was thin and sickly. At first, no definite complaint on his part could be elicited, but mention was made of a swelling in the armpit. This led to his being completely stripped, when a considerable bunch of enlarged glands was seen at once above each collar-bone, in each armpit, and in each groin. He did not think they could have existed more than six or eight weeks, but this was doubtful. Our district meeting was to come off at the hospital on March 27th. I persuaded him to come for exhibition, and he was willing enough to do so; on that occasion, being again stripped, he was examined by twenty or thirty medical friends. The gland-bunches stood out even bigger; in average bulk, they may be spoken of as a large handful each.

At the same meeting, our attention was called to a new form of pill-preparation carried out at Hamburg, the principle being to invest the drug in keratin, or horn-gelatin, in such a way as to render the pill insoluble in the acid fluids of the stomach, while it becomes readily dissolved in the alkaline contents of the upper bowel. It occurred to me that the delayed solution ought to be advantageous when applied in the case of arsenic, and also that arsenic was the most hopeful remedy for the patient with lymphadenoma. I procured a supply of the pills through the firm of Bell and Co., Oxford Street, each pill being stated to contain one-thirteenth of a grain of arsenious acid. The pills were commenced about the 4th or 5th of April, and continued, one thrice daily, till June 4th. No disturbance of any sort resulted; he came once a week to the hospital, declared that he was being cured, and, to my eyes, and to those of a colleague and the house-surgeon, it was certain that every bunch of glands steadily and considerably diminished.

On June 4th, he came, a stricken and altered man, having been seized forty-eight hours before with pleuropneumonia, then fatally rife. He was sent back to the care of his country medical man, and died within a fortnight. That gentleman remarks that, at the last, the bunches of glands had almost disappeared.

Whether the fatal attack was an accidental episode, or whether it was based on intrathoracic glandular mischief, cannot be known. Whether, if he had escaped the pulmonary attack, the original dis-

case would have continued to yield constitutionally and locally is equally uncertain.

I ask the publication of the case on two grounds alone: first, because in no other case in my life did I ever see lymphadenomatous masses diminish under any treatment whatever; and, second, because, as two or three other recent cases have also done, it illustrates the tolerance of arsenic which this special mode of administration seems to confer.

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CLINICAL MEMORANDA.

A CASE OF PERIOSTITIS OF THE SPINE, ACCOMPANIED BY TETANIC SPASMS.

R. M., a gentleman of active habits, had been affected for the last nine months with symptoms of periostitis. The spine and the bones of the pelvis were the parts chiefly affected. When he consulted me, there was much tenderness on the spinous processes of the third and fourth dorsal vertebrae, and also on the sternum. He had also suffered from severe pains in his limbs and trunk generally, which the least motion aggravated; coughing, sneezing, or laughing, produced agonies of pain in the back and ribs. The pains were greater at night. A few days before applying to me, a new symptom came on. He became affected with sudden attacks of tetanic spasms, which fixed his limbs and extended his trunk, throwing his head back. It was a sudden shock, which relaxed again instantly. He found that the best way to avoid their recurrence was to lie on his back, and remain perfectly still. On inquiring into his past history, he told me he had had a sore on his penis seven years previously, accompanied by bubo, which was followed by nodes on the shin-bone. He experienced salivation from the treatment pursued at that time. Feeling sure that his symptoms were a manifestation of the syphilitic virus, I ordered him a mixture containing five grains of iodide of potassium and five grains of Plummer's pill every night at bedtime. After taking these for a fortnight, he was greatly relieved in all his symptoms. The tetanic spasms had not returned since taking the medicine. A fortnight later, he was entirely relieved from his symptoms, and had gained strength and flesh. The next time I saw him, he expressed himself as perfectly cured.

WM. BUDD, M.D. BRUX., M.R.C.S.,
23, Southernhay, Exeter.

DISPLACEMENT OF THE LIVER.

I HAVE at present under my charge a case of apparently spontaneous displacement of the liver. The patient is a woman, aged about 45, and a free drinker. I have been attending her for some time for ascites, flatulence, etc., arising from her habits. Five days ago I saw her for the first time in bed, and she then called my attention to a hard swelling in the abdomen, which she told me she had first noticed two or three days previously. I found on palpation that this was a rather enlarged liver, with a somewhat nodulated surface. It appeared to be lying diagonally with the anterior border in the right inguinal region, the upper surface of the right lobe being distinctly to be made out in the right lumbar and umbilical region; the left lobe projected partly below the ribs, but was not so completely displaced as the right lobe. As there was tenderness about the (normally) posterior border, I was not able to satisfy myself whether this part of the liver was entirely clear of the ribs, but it seemed to lie just free of them. Percussion over the natural position of the liver gave a clear, somewhat tympanitic note. There was no pain nor tenderness, except just about the lower right ribs. I found that with gentle pressure I could partly restore the organ to its proper position.

The patient had not felt the liver slip from its place; and, as I have had no previous opportunity of making an examination, I am unable to say how long the viscera has been in its present position. The patient had had a severe bronchial cough for some time, but that has been less troublesome for about a fortnight; she has also suffered from vomiting and severe retching, but this had also improved some days before she first noticed the swelling. The walls of the abdomen are thin, and the shape of the liver and its present lower border can be distinctly made out with the fingers. There is some tenderness, though slight, about the gall-bladder. The skin is decidedly jaundiced, but the yellow colour is not so deep as I have seen it. The conjunctivae are, if anything, less yellow than I have seen them previously. The bowels act regularly, and flatulence is considerably less than it has been. Appetite has been bad for a long time.

I think it probable that, the intestines being no longer distended

with gas, the liver has fallen, through its own weight, into the abdomen, during an attack of vomiting and retching.

HERBERT W. SEAGER, M.B., Hampton Court.

OBSTETRIC MEMORANDA.

ON THE USE OF ANTISEPTICS IN MIDWIFERY.

At the recent meeting of the Association at Cardiff, the value and importance of antiseptics in ordinary, as well as in operative, midwifery were strongly advocated. That the hands of the accoucheur should be washed in antiseptic fluid before making a vaginal examination, and that all instruments should be similarly treated before use, were clearly and forcibly enjoined by Dr. Gervis. Beyond this preliminary washing, the use of some lubricant for the hand of the operator, as well as for any instruments that may be employed, is generally considered necessary.

In order to carry out fully the principle of cleanliness, the lubricant itself should be antiseptic. I should like to suggest for this purpose the following: Hydrarg. perchloridi, gr. ii; olei eucalypti, 3j; adipis benzoati, 3j. This combination has the advantages of thorough antiseptic, a right consistence for lubricating purposes, and a pleasant odour. Its use may be extended with great advantage to the hospital out-patient room, where the examining hand is much more frequently itself infected than the source of infection to the patient.

S. H. OWEN, M.D.,

Assistant-Physician to the Manchester Clinical Hospital.

SUCCESSFUL CASE OF CESAREAN SECTION.

Mrs. C., aged 32, pregnant with her eighth child, was taken in labour on August 7th, 1885. Upon calling to see her, she informed me that, of her seven former confinements, six required craniotomy, and one was premature. At each, so much difficulty was experienced in effecting delivery that on several occasions she was from six to eight hours under chloroform. On August 10th, the os being fully dilated and the membranes ruptured, after satisfying myself the child was alive, I determined, with her consent and that of her husband, to perform Cesarean section. The pelvis was so much contracted at the brim, that I considered it would be quite as dangerous, for her, to extract even a mutilated child *per vias naturales* as by abdominal section. With the assistance of my partner, Dr. Grigor, and Dr. Watson, another local practitioner, the patient was placed on the table, and chloroform administered. Commencing with the usual incision along the linea alba, from umbilicus to pubes, I carefully cut down to the uterus, opened it, and extracted a large healthy male child, which soon cried. After removing the placenta, and clearing out all blood and clots, a bougie being previously passed through the os, I closed the wound in the uterus with three strong silver wire sutures, cutting the ends off short. For the abdominal wall, I used carbolised silk. The following dressing was then applied, lint soaked in carbolised oil (1 to 20), strapping, wool, gauze-bandage, and a flannel roller. When the patient was replaced in bed a half-grain morphine-suppository was passed *per anum*. Her diet for four days was confined to strong beef-tea, given by enema, for the first twenty-four hours, with thirty drops of laudanum every eight hours. As a drink, she was allowed ice-water, slightly flavoured with brandy. During the operation comparatively little blood was lost, the bleeding being readily controlled with ice and pressure. What was of much more importance, no blood entered the peritoneal cavity. This I attributed to the thighs being carried well over the end of the table, throwing the spine forward, and thus causing the uterus to fill the abdominal opening. From the first, neither sickness nor any other bad symptom troubled her, and her pulse and temperature never exceeded 101. On the eighth day I removed the stitches, when the wound was completely closed, and, as she continued to do well, she was allowed to leave her bed on the sixteenth day.

R. H. A. HUNTER, M.R.C.S., and L.R.C.P.

TOXICOLOGICAL MEMORANDA.

CASE OF POISONING BY CORROSIVE SUBLIMATE.

POISONING by corrosive sublimate being uncommon, the following case seems to be worth recording. At 8 P.M., July 5th, I was summoned to see William Booth, aged 76, a builder. I found him sitting on a chair, extremely pale, and sweating profusely. He stated that two hours ago he had swallowed a large quantity of corrosive sublimate in a glass of water, having determined to destroy himself. He was

immediately seized with violent pain in the epigastrium, vomiting, and purging, which had ceased a short time before my visit. He complained of severe frontal headache, pain in the epigastrium, and great weakness. Unfortunately, his wife had thrown away the evacuations of both stomach and bowels. The pulse at the wrist was extremely weak, and could not be counted. There was no salivation. He was treated with white of egg, mucilage, brandy, prepared chalk, and chlorodyne. He never rallied from his collapsed state, and died at 11.30 P.M. He had been out of health for some months, suffering from colicky pains in the abdomen.

Necropsy, thirty-six hours after death. Rigor mortis was present. The body was very fat. There was no staining on the lips and tongue. On opening the abdomen, the coils of the small intestine in the neighbourhood of the stomach were slightly adherent. The external surface of the stomach showed some congestion, especially at the cardiac end. On laying it open, it was seen to contain an ounce and a half of a slate-coloured material, which could not be removed by washing or gentle scraping. The œsophagus presented similar appearances at the lower part. The small intestines were slightly congested at the upper part, but did not contain any material like that found in the stomach. Connected with the pancreas and duodenum was a hard globular mass of new growth, as large as a small orange, which, on microscopic examination, was found to be a scirrhus cancer in a pretty actively growing state. There were no secondary growths in any other organs. The heart and lungs were normal. The arch of the aorta was atheromatous.

The fluid, on analysis, was found to contain a large quantity of perchloride of mercury. The stomach, pancreas, and duodenum (Nos. 2,274a and 2,043a), and a water-colour drawing of the stomach (No. 221a), are preserved in the museum of St. Bartholemew's Hospital.

C. ROTHERHAM WALKER, M.D.Brussels, L.R.C.P.Lond.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NEWCASTLE-ON-TYNE INFIRMARY.

SUPPURATION CYST OF BROAD LIGAMENT: REMOVAL: FÆCAL
FISTULA: FORMATION OF A PHLEGMON: RESOLUTION:
RECOVERY.

(Under the care of Mr. PAGE.)

[Reported by Mr. W. BAIGENT, Acting House-Surgeon.]

M. G., aged 30, was admitted on December 20th, 1884, complaining of abdominal enlargement. The swelling, first noticed in April, 1883, now occupied both iliac regions, and reached as high as the umbilicus. It was dull on percussion, and fluctuation could be felt in it. For some weeks before admission, patient suffered much from dragging and stabbing pains in the tumour, and lost flesh rapidly. She was in very low spirits, restless, pale, and careworn.

January 10th, 1885. On opening the belly, a large cyst was exposed. It contained stinking pus. Several smaller cysts were tapped, clear, viscid, but not purulent fluid escaping. The tumour was situated between the folds of the left broad ligament, adhering to the great omentum, sigmoid flexure, and cæcum. A small portion, closely adherent to the sigmoid flexure, was left *in situ*. On separating the cæcal adhesions, a small abscess was opened, and a ragged ulcer, the size of a shilling, exposed on the peritoneal covering of the gut, leading into a cavity in the cellular tissue behind the cæcum, from which pus welled, but between which and the interior of the cæcum no communication could be found on careful and gentle examination with the finger. Gas, however, bubbled through the ulcer. The hemorrhage was considerable. A drainage-tube was passed through the ulcer into the abscess-cavity, and secured in the abdominal wound. There was no pedicle. The incision was closed with interrupted sutures of silkworm-gut.

January 12th. The wound was dressed. The discharge was considerable, and had a distinctly fecal smell. Gas escaped through the tube.

January 13th. During the night, patient experienced a feeling of something giving way. A large quantity of feces was found in the

dressings that day, and continued in decreasing quantity till January 20th, when the drainage-tube was shortened. On January 30th, the temperature rose from 99° to 103° Fahr., and she had several severe rigors, followed by profuse perspiration; a hard tender swelling appeared in the left iliac fossa. The belly was covered with a linseed-poultice.

February 4th. Gas was still passing through the tube. The iliac swelling was painful, but not increasing in size.

February 15th. The wound had healed, and the swelling in the iliac region was slowly decreasing.

March 1st. The patient was discharged cured.

BOROUGH HOSPITAL, BIRKENHEAD.

HYDROPHOBIA COMMENCING ON THE TWENTY-THIRD DAY AFTER
THE BITE.

(Reported by Dr. H. E. RICHARDSON, Senior House-Surgeon.)

ROBERT L., aged 17 years, a healthy country-lad, was bitten by a terrier-dog, on July 18th, 1885, on the right thumb. He stated that the dog had entered the farm-yard, and was worrying the geese, and on attempting to drive it away, it flew at him and bit him. He was taken to Dr. Lamb, who thoroughly cauterised the punctured wounds, which soon healed up, and no more was thought about the incident until Monday, August 10th, 1885, when he began to complain of a stiffness in his right hand, and said that he felt a peculiar twitching sensation in two of his fingers.

He was given a dose of salts, and in the evening was taken to Dr. Lamb, who prescribed for him. That night he was freely purged, and had very little rest. The next day he was seen by Dr. Lamb again, who diagnosed incipient hydrophobia, and sent him to this hospital.

On admission, at 5.30 P.M., on August 11th, 1885, the patient was brought up in a cab, but walked up from the door into the room prepared for him, and undressed himself, lay quietly in bed, and answered questions quite rationally; he asked for a drink, which was given to him; it was swallowed with difficulty, and provoked spasm of the pharynx and neck. He remarked, "how strange it is, I cannot drink, it almost takes my breath away in trying to swallow; it has only been so since this morning." He complained of thirst and a stiffness of the right hand; but not of pain. The pupils were slightly contracted; this was due to a hypodermic injection of morphine he had two hours previously. At 7 P.M., the temperature was 100.4° Fahr.; the pulse 90. He had just taken a cupful of bread, soaked in milk, with some difficulty. He said that he could not take any fluid. At 11 P.M. he was getting restless; he complained of a choking feeling now and again; and wanted to get out of bed. Several times, on account of the thirst he experienced, he had made attempts to swallow fluid, carrying it hurriedly to the mouth, but the spasms of the muscles caused great distress, so that he has been obliged to give up the attempt; he had now a great dread of any fluid, and would not allow it to be brought near him. The bowels were opened two hours earlier, and he had passed urine. Morphine-hydrochlorate, one third grain, was injected under the skin of the forearm.

August 12th, 1885, 2.20 A.M.—He had slept for two hours after the injection. He was now very restless, and movement produced violent spasms of the muscles of the throat, and the muscles of respiration. He had commenced to expectorate frothy saliva. The hypodermic injection was repeated. He slept 1½ hour after the injection. He then became very restless, spasms came on more frequently, until at last he began to beg for the morphine. His elder brother (who was with him), together with the nurse, had great difficulty in keeping him in bed. At 4.30 A.M. his pupils were widely dilated, and he expectorated saliva freely. The hypodermic injection was repeated. At 9.30 A.M. the temperature was 102.8° Fahr., and the pulse 120. He only slept ten minutes after the last injection, but lay quiet for an hour after. Since then he had been very restless, continually getting in and out of bed. The spasms were distressing, and came on a vessel near he moved. There was a quantity of frothy saliva in a vessel near the bed, also about the floor. He frequently spat, as though afraid to retain it in his mouth. He had not taken anything all night. A little beef-jelly was taken to him, but the sight of it made him jump out of bed, and rush across the room in great terror. He readily held out his arm to receive the injection of morphine, which was repeated. It had not the slightest effect; the pupils at noon were widely dilated, and he was getting quite exhausted; the hands and feet were cold, as he continually kicked off the bed-clothes. Any attempt to pull them over him brought on violent spasms; he begged not to be touched, and with great caution pulled them over himself. With some difficulty, by holding him down, an enema of strong beef-

tea was administered, but not much was retained; another hypodermic injection of morphia, one-third grain, was given. At 2.15 p.m., the right side of the face, neck and chest, were observed to be emphysematous, the right eye being closed by swelling of the lids. Evidently some air-tube had given way on that side, in one of the spasms, allowing the air to escape into the cellular tissue. He was gradually sinking from exhaustion; the pulse was very feeble. A hypodermic injection of brandy was given, and the injection of morphine repeated. At 5 p.m. he lay back, supported by pillows; he was quite exhausted and the pulse could not be felt; the spasms continued. Frothy saliva came away from the mouth; the pupils were widely dilated; he was quite conscious. He gradually sank, and died at 6.20 p.m.

REMARKS.—The only treatment adopted in this case was the hypodermic injection of hydrochlorate of morphine, one-third grain, given frequently. It was evident that at first it relieved the spasms for a time, and gave him sleep, and that was shown by his craving for it. The pupils were only slightly contracted after the first injection, but subsequently they dilated and continued so to the last. The patient spoke quite rationally, and was conscious, to not many minutes before his death.

In conclusion, I may mention that the dog was not shot until he had killed a number of geese, and bitten another dog, which afterwards showed symptoms of rabies, and had to be destroyed.

BRISTOL GENERAL HOSPITAL.

RUPTURED UTERUS: RECOVERY: SUBSEQUENT PREGNANCIES.

(Under the care of Dr. A. E. AUST LAWRENCE, Physician-Accoucheur.)

A. II. APPLIED as an out-patient; stated that she was pregnant, and wished to have a living child, as she had been confined of dead children in five instances, and the only living child was one born rather before its time, and brought into the world by forceps, the marks of which were even then distinctly visible after six years had elapsed since its birth.

Examination of the pelvis indicated that the difficulty lay in the antero-posterior diameter being lessened about three-quarters of an inch. Dr. Aust Lawrence therefore advised that labour should be induced at the end of the eighth month. This was done, but the child was again still-born, owing to the great difficulty in delivery-turning. In the course of another year she became pregnant again, and Dr. Aust Lawrence advised labour to be brought on at seven and a half months; but, owing to a miscalculation on her part, it was eight and a half months before it was done. On attending to induce labour at the appointed time, it was found that, owing to a very severe dose of castor-oil she had taken, labour-pains had set in; the right hand and cord presented by the side of the head. The hand and cord were pushed up the ruptured membranes, and the head engaged well at the brim of the pelvis. A binder was put on, and the case was left in the charge of the obstetric clerk. Labour-pains set in very violently for about two hours, then suddenly ceased, and the woman complained of tenderness over the whole abdomen, but only when touched; she had no symptoms of attack, or collapse, or hæmorrhage. Dr. Aust Lawrence now found the hand and cord down again; he therefore turned, and delivered without difficulty, the only abnormality noticed being that, as the hand was passed into the uterus, a slight rush of blood took place. After about twenty minutes, the finger was passed into the vagina to remove the placenta. As the uterus was small, and firmly contracted, it was thought that the placenta would be lying in the vagina, but it could not be felt. The hand was then introduced, and the cord followed up through what appeared a partly contracted os uteri, and it was found that the placenta was free in the abdominal cavity, lying in the left iliac fossa. On withdrawing the hand into the vagina, a hard, solid, round body, with a canal in it, which admitted the finger for its full length, was found; this was the firmly contracted body of the uterus. It was now evident that what had taken place was that the lower segment of the uterus had been fixed between the pelvic walls and the head, so that the force of the uterine contractions had torn away the body of the uterus from the cervix on its anterior aspect.

The hand on being passed through the rent, with its palmar surface directed backwards, could feel the fundus uteri above the small intestines. At the back of the hand was the bladder, fortunately distended with urine, so that it lifted up the intestines, and prevented them falling into the rent. The placenta was removed, the woman placed on her left side, with the hips well raised to prevent the intestines prolapsing; this position, together with the distended condition in which the bladder was kept, entirely prevented the intestines from falling through the rupture.

The treatment consisted in keeping the woman well under morphine, and giving only ice and milk as food. The pulse never went above 90; the temperature reached 101.8° Fahr. on the third day, but was normal on the sixth. On the fourteenth day she got up, perfectly well, but with a hard mass of cicatricial tissue in front of the uterus, and an aperture in the upper part of the vagina which ran up parallel to the cervix, and opened into it half an inch inside the os uteri. It was noticed during labour that the uterine walls were very thin.

REMARKS BY DR. AUST LAWRENCE.—Here was a case of ruptured uterus, and yet no symptoms were present to indicate such a serious condition. Her recovery was very remarkable. I have delivered her since at the end of seven and a half months of a child that lived only a few hours, and she is now again pregnant six months. An interesting point in connection with this present, and also the last pregnancy, is that she has suffered from retroflexion of the gravid uterus, and has had to come into the hospital to have it put right. The cicatricial tissue in front of the uterus evidently has pulled the cervix upwards and forwards, and then the increased weight of the pregnant uterus has caused the fundus to fall backwards. The uterus was not retroflexed in the unimpregnated condition. In reference to the entire absence of the main symptoms of ruptured uterus, namely, shock and collapse, I might mention a case I was asked to see by a medical friend, where the labour had been going on for about twelve hours, and the head had arrived low in the pelvis, when it was noticed to have receded almost out of touch. There was a good pulse, no symptoms of shock or external hæmorrhage, yet, on examination, I found half of the child had escaped into the abdominal cavity, and a large quantity of blood had also accumulated there. The patient I delivered by the vagina, removing both child and placenta through the rent; and although the abdomen was opened by my colleague, Mr. Dobson, and the rent in the uterus stitched up, yet she sank from the loss of blood into the abdominal cavity prior to delivery.

One other case with absence of the ordinary symptoms was recorded at the meeting of the Bristol Medico-Chirurgical Society, by Mr. Griffiths, and the specimen, a ruptured uterus, a full-term milk or fibroid tumour in wall, shown. The patient died of pulmonary embolism a few hours after delivery. These cases are instructive, inasmuch as the ordinary symptoms were absent, and I certainly think that cases of ruptured uterus may be more common than we generally are aware of, and that a certain number recover without our even knowing that they were in such a serious condition.

REPORTS OF SOCIETIES.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

SEPTEMBER 3RD, 1885.

J. HARRIS ROSS, M.D., Vice-President, in the Chair.

Pseudo-Hypertrophic Paralysis.—Dr. UTHOFF showed a case of pseudo-hypertrophic paralysis in a boy, aged 8. There was no family history of the disease; the boy had never walked well, and was now getting worse. The calves were hypertrophied; the buttocks had been small, but were now increasing in size; the pectorals, latissimi dorsi, and scapular muscles were markedly wasted. When placed on his back on a table, he could not raise himself without rolling round on to his face; and in picking anything off the ground, he could only resume the erect posture by pushing himself up with his hands over his thighs, an almost pathognomonic symptom, well named by Dr. Gowers "climbing up the thighs."

Lichen.—Dr. MACKEY showed a case of lichen urticatus in a baby fifteen months old, who had a papular pruriginous eruption, with patches like nettle-rash, the day after lymph had been taken from his arm after vaccination at three months of age. Another child, with precisely similar history, had attended hospital on the same day; neither child had been free from eruption since its commencement, but they were only just presented for treatment, and were improving under sulpho-carbolate of soda. Another case of lichen circumscriptus, in a girl, was remarkable for the size of the papules, its resemblance to psoriasis in parts, its relapsing character, and the dusky colour of the general surface associated with such relapse.

Blindness following the Sting of an Insect.—Dr. UTHOFF read notes of this case. The patient, who was a man about 40 years old, and whose sight had previously been good, was stung on the right eye by a "wasp-fly." Much swelling followed and loss of sight, and in two days the sight of the left eye failed. He was seen on the third day, when there was only perception of light with either eye. The right eye was generally congested, and the eyelids swollen.

Nothing unusual was noted by the ophthalmoscope. A week after, there was perception of light with the right eye, and he could count fingers at a yard with the centre of the field of the left eye. There was then some dead whiteness of the outer part of both discs, and some haziness of the margin.

Detachment of the Retina.—Dr. UTHOFF read notes of cases of detachment of the retina complicating high myopia, and pointed out the necessity of recognising the disease as early as possible, with a view to its arrest.

Bleeding in Over-Distension of the Right Heart.—Dr. MACKEY read a paper on this subject. After referring to several sudden deaths occurring in the course of bronchitis, he argued that when there were physical signs of such distension, for example, increased area of cardiac dulness, diffused labouring or feeble impulse, and pulsation of jugular veins, accompanied with dyspnoea, some cyanosis, and perhaps oedema, then leeching or venesection might with much advantage be employed, and should always be carefully considered. He related a case of this character in which the conditions supervened within a few hours, in the course of pneumonia following abscess of the cervical glands, and in which the application of six leeches to the præcordia seemed of marked service, though other remedies, such as pilocarpine and expectorants, were ordered; the patient rallied from a critical condition. Another case was one of broncho-pneumonia in a rachitic child at two years, admitted to the Alexandra Hospital with a severe attack—a temperature of 105.6°—and slight cyanosis. On the fourth day there were evidences of distension of the right cardiac cavities, but the child being feeble, only one leech was applied, and this without definite effect. At the necropsy, two days later, great distension was found, dependent on filling of the cavities with dark but fluid blood, and after section of the right jugular veins this emptied itself, and the heart resumed its average size. Although in this particular case the prognosis was unfavourable, it was suggested that opening the external jugular vein might sometimes be of more advantage. An additional point of interest in this case was the use of prolonged warm baths, twenty to forty minutes, at from 90° to 96° F., whenever the temperature rose to 105° F. (taken in the rectum). These baths always reduced the temperature for the time from 2 to 5 degrees, and the child breathed better and was much more comfortable when in the bath.—Dr. ROSS referred to several striking instances of sudden death during attacks of bronchitis. He had found dry cupping very serviceable in cases of the kind described, and thought it preferable to bleeding.—Dr. WHITTLE, in whose practice one of the cases occurred, had reason to think bleeding from the arm much more effective than leeching, and practised it occasionally, but thought it contra-indicated when the body-temperature was very high.—Mr. WILLOUGHBY FURNER pointed out that bleeding would relieve the congested lung, as well as the right side of the heart.—Dr. FUSSELL mentioned some instances of its value, and referred especially to Dr. Richardson's experiments, in which bleeding brought to life animals apparently asphyxiated.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, AUGUST 7TH, 1885.

J. B. BRADBURY, M.D., President, in the chair.

Antipyrin in Hectic Fever.—Dr. MACALISTER gave an account of the nature and uses of this drug, and showed the temperature-charts of two patients recently treated in Addenbrooke's Hospital. Both suffered from phthisis, apparently limited to the apices of the lungs. In one case, that of a man, aged 25, hectic fever appeared; the morning temperature was 98°, the evening temperature 102°. Antipyrin in fifteen-grain doses, administered twice in the course of the afternoon, promptly reduced the range of daily oscillation to 1°, about the normal temperature. An omission of the drug was followed by recurrence of the hectic, but again the temperature fell, and was maintained low by five-grain doses given thrice a day. At the same time, the patient became more comfortable and slept better; some tendency to sweating was checked by minim-doses of liquor atropiæ sulphatis. The other case, that of a woman, aged 44, with still more urgent symptoms, and a temperature ranging from 98° to 103°, was treated in a similar way, with equally good results. In neither patient was any rash or marked nausea produced, and both were in little more than a fortnight so much better that they were transferred to the out-patient department. Dr. MacAlister thought that, in many affections in which fever was a symptom, it was sound practice to attempt to reduce the temperature for its own sake. Antipyrin, of all the antipyretics he had tried, seemed to be the most powerful with the fewest disadvantages.—A discussion followed, in which the PRESIDENT, Mr. HOUGH, and Mr. LAURENCE HUMPHRY, took part.

Inflammation of the Brain and Meninges following Otorrhœa.—Mr. HYDE HILLS said he was called on July 16th to see a young man, aged 23, who had scarlatina ten years ago and mumps four years ago. Since the first event, he had occasionally suffered from otorrhœa of the left ear. He saw him at 11 o'clock in the morning, when he had been suffering from ear-ache and a slight discharge from the left ear for five days. He was then suffering a good deal of pain in the left ear, with pains running up the side of the head. There was a slight muco-purulent discharge from the ear. He complained of want of sleep. The pupils were equal and acted well. He was and had been perfectly clear-headed. The temperature was 100.5°, pulse about 84. He told him to foment the ear, and ordered him one-sixth of a grain of morphine every four hours whilst the pain lasted. At 8 p.m. the same evening, he was found rolling on the bed, raving, and evidently in great pain. Temperature 105°, pulse full and quick, pupils equal. The morphine was discontinued, and two leeches applied behind the ear, and Dr. Humphry saw him in consultation at 9 p.m., when he was calm and clear-headed. Temperature 101°. Some antimony and acetate of ammonia was ordered every four hours, and more leeches to be applied if the pain returned. On the 19th, at 9.30 a.m., he had had a good night, and his temperature was 97.5°, pulse about 80, pupils acting and equal. In the evening, his temperature was 101°. There had been some pain during the day, which the application of a leech seemed to relieve. At 3 a.m. on the 20th, Mr. Hills was called to him, as he had a good deal of pain, and was wandering. He gave him 30 grains of bromide of potassium, which had a good effect. During this day he was aphasic and rambling at times, but this passed off by the next day (21st), and he was on the whole very clear-headed. He complained of a dull pain on the left side of the head, and the temperature varied from 100° to 102°, pulse about 80. On the morning of the 22nd, he complained of the pain, but his general condition was much the same. He was ordered a blister to the back of the left ear, and one-sixth of a grain of morphine every four hours if the pain were great. On the morning of the 26th, he was fairly comfortable, and was quite rational. At 3.30 p.m. on that day, he complained of much more pain, more especially in the body. His right pupil was fully dilated. The left was normal. Temperature 105.2°, pulse quick and feeble. He died at 5 p.m. A *post mortem* examination, made twenty-two hours after death, showed extensive meningitis at the base of the brain, with purulent fluid and deposit of lymph, extending into the lateral ventricles, and inflammation and softening of the brain-substance in the lower part of the left temporo-sphenoidal lobe, in which was an abscess-cavity. There was no evidence of disease in the third left frontal convolution. On removing the dura mater from the left temporal bone, a small aperture was found, through which pus issued from a small cavity between the dura mater and the bone, at the bottom of which was a tiny loose sequestrum; the part of the brain above this being the seat of the abscess above described. The tympanum contained much turbid fluid.

Fracture of the Astragalus.—Professor HUMPHRY showed the outer half of an astragalus which had been separated by a longitudinal fracture traversing the middle of the bone, and which had been removed successfully. The patient was under the care of Mr. J. B. Cross, of Scarborough, who had presented the specimen to the Pathological Museum at Cambridge. H. W., aged 16, was cleaning the drawing-room floor windows (about 16 feet from the ground) on May 1st, 1883: losing his balance, he fell into the road, coming down in the gutter with his left foot under him. When seen, half an hour afterwards, the left foot was much discoloured, bruised, and distorted, owing to the projecting astragalus on the left side of the dorsum; there was also crepitation over the left internal malleolus, but the skin was whole. Chloroform was administered, and with great difficulty the bone was reduced, and the leg put up in splints. After a fortnight, the bone seemed to slip out again gradually, and pressed against the skin, causing a small slough to appear over the projecting articulation for the cuboid. On May 26th, chloroform was again administered, and the opening in the skin, caused by the slough coming away, was enlarged, in a curved manner, for about 2½ inches. On manipulating the bone, the fractured surface was found, and the outer half of the astragalus, being loosely attached, was removed by lion-forceps, after division of the interosseous ligament going to the os calcis. The other ligaments having been torn by the fall. No other fragments could be felt, and the broken surface remaining seemed healthy. The wound was partly closed by one stitch, and the cavity packed with lint steeped in carbolic oil, and the limb put in a MacIntyre's splint. By July 10th, the wound was quite healed, and the swelling of the ankle much reduced. He went home on crutches on July 17th, and was able to walk about with a stick.

REVIEWS AND NOTICES.

CANCER: A STUDY OF THREE HUNDRED AND NINETY-SEVEN CASES OF CANCER OF THE FEMALE BREAST. By WILLARD PARKER, M.D. New York: Putnam. 1885.

It is a pleasure to see a surgeon of large experience endeavour, after his work is done, to put that experience into a lasting and useful form. Too much is often lost, and we sometimes have to begin at the bottom of the ladder without being able to utilise the rounds which might have been left for us. Doubtless, the rounds must be trustworthy to be of real use, and, to make them trustworthy, it is as well to know the material of which they are made.

In the present "study," we find the cases carefully tabulated as to whether married or single, what number of children, which breast was implicated, and whether the glands were affected. Under the head of family history, the questions of cancer and of phthisis are alone referred to, and only in relatives of near kin. Then the author takes the relation of menopause, the age at which the cancer probably commenced, the age at the time of operation or observation, the number of operations, duration of disease, and the time the patient lived after operation. Under the heading of variety, we find only "hard," "soft," "mixed," and "scirrho-cystic." The physical condition of the patient, the assigned exciting cause, and general remarks, complete the table.

The questions considered from these tables are essentially the author's conclusions as to the probable causation of the disease, and for this purpose he groups the cases in different ways, many of the groups overlapping the others. The numbers seem to us large enough, in many cases, to have adopted a percentage scale which would have conveyed the results more readily.

The main point of the "study" is the strongly expressed opinion that cancer is not hereditary. We wish we could accept the author's conclusion with the same readiness as he does, but even from his own tables the evidence is painfully strong against him. Sir James Paget, in the discussion on cancer at the Pathological Society, gave his experience as being that, in his early practice, which was chiefly hospital-work, he could reckon the proportion as about one in six, but, in private practice, he could now reckon not less than one in three in whose families the occurrence of cancer was well known; and internal cancer was often unknown or unrecorded. Dr. PARKER argues that internal cancer is nearly always secondary, and that, if we examine back for three generations, we shall find our relatives so numerous, that they would necessarily include the proportion of cancer which exists in the population. This is an argument which is more specious than trustworthy. In his own tables, the relationship mentioned is that of "parents," "brothers," "sisters," and occasionally "family," but certainly the three generations do not appear to have been inquired into, and yet the proportion given is about one in seven.

He puts aside the relationship of phthisis to cancer as not proven, and cannot find that the geographical distribution of cancer throws any light upon its causation. However much we may fail to trace from his data the same conclusions as those to which he has arrived, we may take notice of his convictions. Heredity he "rules out," and then sets himself the inquiry—What prepares the system for the disease, and why is it that, in one case at a given period, a frequently exciting cause may be entirely inoperative, and, at another time, the disease may follow the cause? In his opinion, the tissues must have undergone some unknown transformation which will permit the possibility of cancerous development. This condition, he considers, depends upon (1) luxurious living, and particularly excess in animal food; (2) local irritation of an epithelial surface; (3) mental affliction; and (4) dysmenorrhœa and other uterine irregularities, owing to their interference with the nervous system, and its normal control over growth and development.

These being the causes he assigns for the development of cancer, he naturally advocates the avoidance of these in cancer-patients. And, after operation, he would adopt the same precautions to prevent a second development, to change the diathesis, to modify the patient's constitution, so that it will be no longer prone to reproduce the disease.

The conclusions are occupied so entirely with the causation of cancer in the author's opinion, that other questions of pathology are not referred to which might have been of value from a practical surgeon of such large experience. And we feel hardly satisfied with the crude distinctions of hard, soft, mixed, and scirrho-cystic, as the varieties of cancer met with. But, as we have remarked before, the record

is valuable as a carefully kept account of a large number of cases of cancer of the female breast, and shows that an American surgeon in active work has, through great foresight, put to a practical use an experience lasting over so long a period as fifty years. Pathology has advanced materially in that time, and many of the cases here recorded would now be classed under headings of more definite nomenclature, but we do not think that, in its broad clinical features, the disease presents itself differently to the surgeon of to-day. All honour to the memory of a veteran who has kept his records so carefully, and can give us the results of so large and long an experience, and, in his last days, tries to throw some light upon the causes of so terrible a disease as cancer.

ON SOME COMMON INJURIES TO LIMBS. By EDWARD COTTERELL. London: Lewis. 1885.

THIS small work is a very practical and useful one. Its object is to urge attention to the treatment and after-treatment of simple injuries to limbs and joints, and it is especially directed against the evils of what is called bone-setting. In this matter, the author indulges in righteous indignation against the evils which have been done by some of that rough fraternity, and credits them with sins of commission which we are surprised to find are not more frequent than they have been shown to be. But, after all, are these sins the fault of a system, or are they not rather the faults of the individuals, and do they equal the faults of omission and commission seen among the ignorant and careless of our own body? The evidence given, even in this work, of the reported misdoings of bone-setters, hardly equals the good acknowledged to have been done by one indeed of that craft. Thanks to Mr. Wharton Hood, we have obtained some useful instruction from one of that rough but practical class. Mr. COTTERELL quotes freely from that author, and gives some practical advice from his own experiences which will be useful to practitioners. We welcome the work as a really useful one; for the neglect of after-treatment, and the ignorance of the proper principles to apply in it, are serious blemishes, and some of these matters are skillfully handled here. The object to be aimed at should be more knowledge, better recognised principles of treatment, and more practical carrying out of them for the good of those who have met with the "common injuries," rather than to oust the "bone-setter flourishing in our midst."

This work is confined to the treatment and after-treatment of sprains, dislocations, and simple fractures. In the treatment of sprains, Mr. Cotterell recommends elevation of the limb for five minutes to reduce all swelling, then to strap up evenly and firmly, and to insist upon the limb being used at once. This plan he has adopted with great success, and he acknowledges that he has obtained the idea from Mr. Wharton Hood's treatment of ruptured plantaris tendon, which now is dignified by the name of lawn-tennis leg.

Dislocations he would have treated by rest for a few days only after they have been reduced, and then limited movement be insisted upon.

Simple fractures are discussed *seriatim*, and the treatment recommended is very practical, and, in most cases, the forcible flexion of joints is urged after rest has been given for any length of time. How to effect this movement of the joint is well described, and the splints and apparatus recommended are very simple and good, particularly so those for the common, but often troublesome, fractures of the clavicle and of the forearm.

We miss the reference to principle in recommendation of treatment, and it is principle, rather than special means and appliances, that should be in the mind of the surgeon in treating his case. A so-called practical work has too much tendency to ignore principles, and deal with the actual materials and methods which the author prefers in particular cases, and we find this failing in the book under review.

We are inclined to notice the absence of reference to what should, we think, be advocated in the after-treatment of many of the injuries discussed. Massage, and friction of various kinds, should often be made use of rather than the violent breaking down of supposed adhesions, or the two may be usefully combined. This massage, and the different kinds of what is termed Swedish movement, ought to be better known by English surgeons, and would be appropriately described in such a work as this. And can we accept as proved the pathology here referred to frequently as that of adhesions between joint-surfaces after prolonged rest? And before forcible breaking down of the adhesions inside or outside a joint, would it not be wise to use some preparatory means of softening tissues by warmth and moisture, and of giving tone to parts by friction and manipulation?

We fail to find any mention of these useful helps, and we should be

glad to see some good account of the mechanism of the joints, so as to guide a surgeon to the best method of restoring motion in them. This is necessary before any scientific manipulation can be properly learned, and before any sound system of treatment for these slight but troublesome injuries can be formulated.

Small practical handbooks like the present, of personal advice and experience, might well be the forerunners of a thorough exposition of the principles, as well as the practice, of treatment in these cases.

A SYSTEM OF OBSTETRIC MEDICINE AND SURGERY, THEORETICAL AND CLINICAL, FOR THE STUDENT AND PRACTITIONER. By ROBERT BARNES, M.D., and FANCOURT BARNES, M.D. Vol. ii. London: Smith, Elder, and Co. 1885. Pp. 738.

THIS second and larger volume contains the history of labour; the mechanism of labour; the accidents of labour, including ruptures and hæmorrhages; the physiology of the newborn infant, and its management; the puerperal process; the accidents of puerpery; the description of the diseases to which the puerpera is liable; lactation; and the description of the operations.

"To write a fairly complete systematic treatise on any branch of medicine demands from the writer a very wide experience of his own, a large acquaintance with the work of others, considerable industry, and a critical faculty that will enable him to draw sound conclusions and precepts from his survey of the subject." Few authors possess these requisites; but we may safely say, after a careful perusal of the work before us, that the difficulties foreshadowed in the opening lines of the preface have been most satisfactorily overcome, and the result is one eminently praiseworthy. The association of father and son, of teacher and pupil, has resulted in a work, essentially a joint production, which embodies the life-long experience of the senior author, together with a description of all that is most recent in operative midwifery by the junior author. "Utinam in tali amicitiam tertiam ascriber!"

Having thus given an idea of the scope of the work, we shall proceed to notice a few parts more particularly.

The management of the third stage of labour has lately been occupying the attention of the profession. It would be well if every practitioner would study carefully this first chapter. This evils attending undue haste in separating the placenta, and the mechanism of its expulsion, are here fully given. Objection is taken to the administration of ergot at this stage, as being likely to defeat the very object in view, by exciting irregular spasmodic or tetanic contractions, which lock up the placenta and render all attempts at manual extraction abortive, even dangerous.

The mechanism of labour in head-first presentations, forming, as it does, a most important guide to practice, is given in a most lucid manner, the illustrations helping materially the student's comprehension of what is too frequently a little understood subject.

It is interesting to note how ROBERT BARNES, who had, on physiological and clinical evidence, anticipated Bandl's anatomical demonstration differentiating the two regions of the uterus, divided the body of the uterus into three zones: 1, the upper, or fundal; 2, the middle, or equatorial; and 3, the lower, or cervical zone—this last zone being identical with Bandl's lower segment. This is the region of dangerous placental attachment. A due recognition of this fact is essential to a proper understanding of the management of cases of placenta prævia. "When the dilatation of the cervix has reached the stage at which the head can pass, and when all that part of the placenta which had been adherent within the lower zone is detached, and if, as is the constant tendency of Nature to effect, the intermitting active uterine contractions arrest the hæmorrhage, a stage is reached when the labour is freed from all previous placental complication; the lateral or equatorial portion of placenta retains its connection, supporting the child's life. The labour henceforth is a natural labour. The bleeding stops, owing partly to the tonic continuous retraction of the lower uterine segment, which closes the mouths of the vessels, and favours thrombotic plugging."

In speaking of *post partum* hæmorrhage, we fully agree with the authors in their statement, "We can hardly form a useful judgment of the extent to which the hæmorrhage has affected the patient from noting the quantity of blood lost. It is not easy to measure or to estimate this loss, and the effect upon the system has no constant relation to the quantity of blood lost. But there are certain physiological data, not difficult to note, which mark with sufficient accuracy the successive stages of danger. Hæmorrhages may be divided into three stages or degrees, marked by the fall of the reflex function. In the first degree, the diastaltic function is maintained in its integrity,

but it is disordered in its action. There is, however, ready response to the ordinary irritants. In the second degree, there is a sensible loss of reflex activity. The response to ordinary, and even to extraordinary, irritants is feeble and uncertain. In the third degree, there is suspension, or nearly extinction, of the diastaltic function. In this degree, vomiting, yawning, rapid, feeble, intermittent, vanishing pulse, syncope, loss of temperature, may be the forerunners of death." The treatment based upon this division is then given in a most practical and comprehensive manner.

The chapter on puerperal fevers is singularly clear and comprehensive. Hecatombs of women and children have been its victims; yet, in the vast majority of instances, it is emphatically a preventable disease. The various theories of puerperal fever are reviewed: 1, that it is a disease *sui generis*; 2, that it is a putrid fever due to the absorption of foul matters from the uterus; 3, that it is the result of traumatism; 4, that it is a form of septicæmia, analogous to surgical fever; 5, that it is due to the invasion of the system by microscopical organisms. The characters of the best marked forms of puerperal disease are, in the next place, traced succinctly, and then the relations of the zymotics to the puerperal fever. The various modes of infection are then examined, and subsequently the symptomatology. A condensed summary of the treatment, prophylactic and therapeutical, forming a practical conclusion to the whole subject, which is given in a most masterly and comprehensive manner. The opinion of all the leading obstetric writers are stated and discussed. We know of no treatise upon the subject which gives such a lucid exposition of what is admittedly a most difficult question, involved in almost chaotic confusion. The chapter occupies just upon one hundred pages, and, we venture to assert, is one of the most valuable contributions in our language to a right understanding of the subject.

The chapters upon forceps, version, embryotomy, Cæsarean section, and the premature induction of labour, are already familiar to the practitioner in the senior author's *Obstetric Operations*. Suffice it to say, they are eminently practical, including all the most modern improvements in the way of Porro's operation, Tarnier's basiotribe, lamination, etc. The junior author is, we understand, responsible for bringing the operative portion of the work completely up to date, and this has been done most effectually.

We can with confidence recommend the volume to the student and practitioner alike. The precepts inculcated are eminently practical and reliable. The description of the operative procedures leaves nothing to be desired. The illustrations are good and plentiful. The science as well as the art of midwifery cannot fail to be advanced by the publication of such an exhaustive treatise; and we congratulate alike the authors upon the completion of such an arduous task, and the profession on their possession of such a practical exposition of the subject.

REPORT ON THE LUNATIC ASYLUMS OF THE COLONY OF NEW ZEALAND FOR 1884. 1885.

FROM the Report by Dr. G. W. GRABHAM, the Inspector of Lunatic Asylums in New Zealand, it appears that, at the close of the year 1884, the total number (with some exceptions yet to be specified) of persons of unsound mind, under detention in the asylums of that colony, was 1,452, an increase of 77 in the course of the year.

The proportion of insane under detention to the general population of the colony, is 1 to 390 persons—a somewhat lower proportion than obtains in England and Wales. But the proportion, to the general population, of new cases of insanity admitted for the first time into the asylums of the colony during 1884 is higher than that usual in England and Wales. Yet the conclusion that might be drawn from this is reversed, when allowance is made for the large number of persons of unsound mind who, in England and Wales, are detained in workhouses, etc., or who are included under the heading of "out-door paupers," and who, together, number many thousands. And thus, upon closer examination, New Zealand is seen to compare favourably with the mother-country in regard to the low proportion becoming insane in the former; inasmuch as, in New Zealand, there are no groups of persons of unsound mind corresponding to those just mentioned in England and Wales; and the only persons registered as insane are the inmates of the seven public asylums and the one private asylum of the colony. To this there are two exceptions: one, an insignificant number confined in the asylums under the provisions of the "habitual drunkards" statute-clauses; and, secondly, a number placed in the asylums on remand, and without any medical certificate of insanity. This latter practice is disapproved of by the inspector, and his disapproval gains force from the fact that, of 63 persons so remanded in the year 1884, only 30 were afterwards certified as of un-

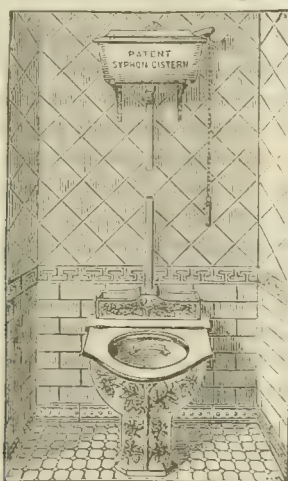
sound mind. The "habitual drunkards," and those persons in asylums, on remand, are not included in the above numbers.

The admissions during the year were 391; the discharges, 222; the deaths, 92; and it is satisfactory that the death-rate, calculated on the average number resident, was so low as 6.53 per cent. (or only about two-thirds of that of the mother country), which speaks well for the general vitality of the insane asylum-population of the colony.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE "UNITAS" CLOSET.

MR. THOMAS TWYFORD, sanitary potter, Hanley, Staffordshire, is the manufacturer of the "Unitas" closet, which differs in some important particulars from the closets generally in use, and which unites or combines in one a complete water-closet basin,



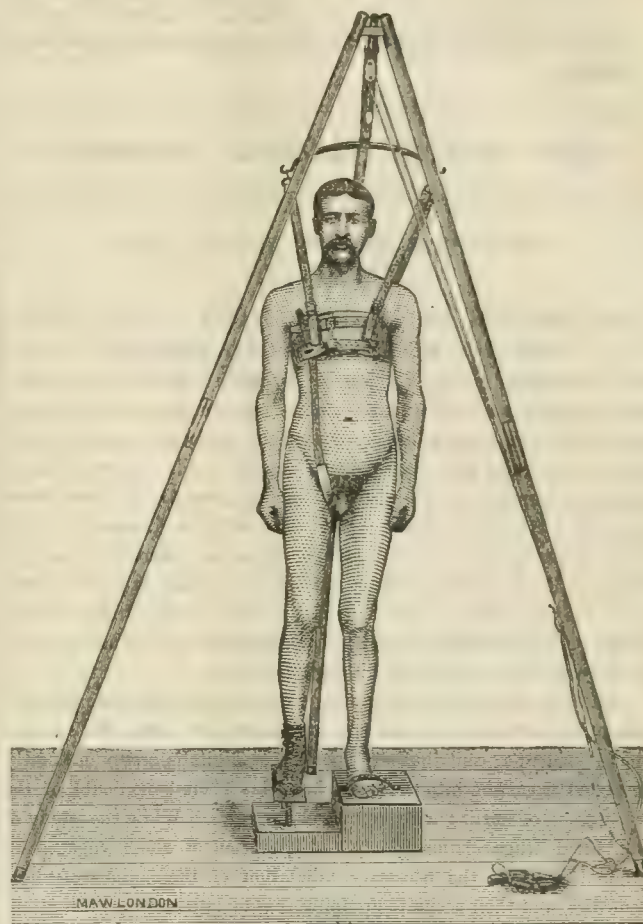
and trap, urinal, and slop-sink. The advantages claimed for this closet are that, unlike ordinary water-closet basins, it is not enclosed with woodwork, but is fully exposed, so that no filth, nor anything causing offensive smells, can accumulate or escape detection. The outside of the basin and trap having raised ornamentation, plain or coloured, the appearance presented is pleasing and artistic. No wood fittings are required, except a hinged seat, which being raised, the basin can be used as a urinal or slop-sink, the "wetting" so objectionable in closets having permanent seats being avoided. Free access can thus be had to all parts of the basin and trap, so that everything about the closet can be easily kept clean. All joints and connections being in sight, any leakage or other defect can be easily detected and remedied. The flushing arrangements are said to be so perfect that, with a flush of two gallons of water, all the soil and paper will be completely removed from the basin and through the trap, the whole of the inside of the basin being washed, and sufficient water left therein to receive soil. It is recommended that this closet be used with a siphon-cistern, chain-pull and handle, as shown, and not less than an inch and a quarter flushing-pipe.

At the half-yearly meeting of the General Board of Governors of the Wolverhampton and Staffordshire General Hospital, on Tuesday, the 8th instant, upon the announcement of the resignation of Dr. Millington as physician, a vote of thanks to him, for his valuable services for thirty-two years, was passed unanimously; and it was resolved to have his portrait taken and placed in the board-room, and to present him with a silver salver, towards which handsome subscriptions were promised in the room.

EXAMINATION FOR TRICHINÆ.—In Prussia, more than 20,000 meat-inspectors are employed, who examine about two million carcasses of swine yearly. In Berlin alone, 237,593 carcasses were examined last year, at a cost of 237,000 marks.

APPLICATION OF PLASTER-OF-PARIS CASE IN FRACTURES OF THE FEMUR.

THE illustration here given is an explanation of an adaptation of Sayre's suspension-apparatus, devised by Mr. E. Cotterell, with the object of treating fractures of the shaft of the femur, in the adult, on the principle of an immediate encasement in plaster-of-Paris, a treatment which has been long well recognised as being applicable to children.



It will be seen that the patient is partially suspended by the chest, and by a perineal band on the side of the injury, but not so completely but that he is able to lean some weight upon the sound limb. When the suspension is adjusted, the foot belonging to the broken limb is inserted into a boot attached to the platform on which he stands, by means of adjusting-screws, which permit it (the boot) to be raised or lowered, or rotated inwards or outwards. The procedure of setting consists in making extension by means of these screws from the foot and ankle, and counter extension by the perineal band from the crutch, until the limb comes to be of a proper length. A plaster case is then applied, from just above the foot upwards to the pelvis, being strengthened with strips of tin over the fracture and the groin. When this has set, the patient is removed from the suspending apparatus, laid down, and then the splint is completed over the foot and ankle, joining the part already put on. It is stated that this plaster-boot serves to maintain the necessary extension during the process of union; and while this is in progress, that is, for six or seven weeks, the patient is able to get about on crutches, wearing a four-inch clog on the foot of the sound side.

THE sanitary authorities of the Anglesey United District, on re-appointing Dr. William Evans medical officer of health, passed a resolution thanking him for his detailed and interesting reports, and expressing entire satisfaction with the manner in which he had discharged the duties of his office.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 26th, 1885.

THE SECTION OF PHARMACOLOGY AND THERAPEUTICS AT THE ANNUAL MEETING.

THE proceedings of this Section of the British Medical Association were naturally watched with especial interest at the annual meeting. Apart from the obvious importance of the subjects upon which the Section's energies were engaged, its recent foundation, and the remarkable prominence into which it sprang, almost at a bound, have made it a cynosure of many eyes. The subjects discussed by the Sections at Cardiff were not lacking either in interest or variety. Professor Fraser, as President, contributed a closely reasoned paper upon the properties of strophanthus, a drug which, although little known among the general run of practitioners, yet promises to be no insignificant a member of the digitalis group.

The wide reaching theme of diuretics occupied a considerable portion of the Section's time, as, over and above Dr. Long Fox's paper, the President's contribution upon the digitalis-group naturally attracted discussion into the same channel. There is no doubt of the importance of dealing with groups of remedies. While the study of individual drugs claims widely the attention of those engaged in original research, the necessary tabulation of the actions of allied remedies, and their accurate grouping, has of late received less attention. The saline cathartics were ably dealt with by Dr. Matthew Hay some years ago; and, in the recent session of the Section of Therapeutics and Pharmacology, the allied subjects of the digitalis group and the diuretics were brought into prominence. The importance of Professor Fraser's communication cannot, however, be estimated simply by what he said, but rather by the way he marshalled his facts, and so demonstrated in what manner a research in pharmacology should be conducted. For, while the pharmacology proper of strophanthus was enunciated, there were shown to demonstration the results of clinical experience derived during the employment of the drug. The action of strophanthus upon the heart itself was, during the course of the session, actually demonstrated upon the frog's heart. The heart, fed with poisoned blood, was shown, by kymographic tracings, rapidly to undergo declension, and, finally, to cease beating. Thus the Section enjoyed the opportunity of learning the trustworthy methods employed by pharmacologists in their researches.

Hypodermic medication, a subject introduced by Dr. Talfourd Jones, whose paper appears in the present number of the JOURNAL, as received more attention in America than in this country.

The study of the alkaloids and kindred substances naturally lends itself to subcutaneous medication, while it reveals the importance of more than usual exactness in the use of the hypodermic method. Collective Investigation, as applied to the special study of drugs, became a subject of discussion. The President of the Council suggested a conjoint research in this direction, to be undertaken by the Collective Investigation Committee and a special Subcommittee applied by the Section of Pharmacology and Therapeutics.

The introduction of a discussion upon anæsthesia, (see JOURNAL, Sep. 19th), was of especial importance, as the presence of many adherents of the Scotch school of thought, vigorously adopted by Sir Joseph Lister, gave the discussion a thoroughness otherwise unattainable. The opener of the discussion, Dr. Dudley Buxton, pointed out that, experimentally, chloroform is unquestionably a far more dangerous agent than ether. It was a novel method of demonstration adopted by Dr. Buxton, and one strictly in harmony with philosophical lines. As was indicated, the only possible manner of setting at rest the *questio vexata* under discussion was to attack it solely from the experimental side. The grizzly record of deaths which year by year is recruited by chloroform, amply proves the high importance of the subject. The good work which Mr. Clover did during his useful life, Dr. Buxton, his successor in University College Hospital, appears anxious to continue; and certainly the profession owe a debt of gratitude to workers in this field. The very practical address of Mr. Bailey was a feature in the discussion.

It would be absurd to shut one's eyes to the fact that the session of the Pharmacology Section was a distinct success. It has, during its brief existence, brought home to the profession the vitality and robustness of pharmacology as a science, and has inculcated the necessity for more work and further research. The Scientific Grants Committee have already voted large sums for the prosecution of pharmacological research, and we are beginning to see the wisdom of this proceeding. The steady progress of research in this direction will in time build up a rational and scientific basis of therapeutics, such as may fitly replace the agnostic tendencies of the therapeutics of a certain class of physicians and surgeons which at the present time is rampant. It may be accepted as a sign of the times, that the Address in Therapeutics attracted a large and enthusiastic audience, while every day the sectional meetings were well attended. The conflict of the new with the old order of things must always be keen. Pharmacology will, we do not hesitate to assert, ere long be taught in our schools, and upon it students will be examined. Even the adherents of the old system, with its "dryasdust" pharmacy and empiricism, are beginning to learn pharmacology; and even the most sceptical are beginning to recognise in the Section devoted to Pharmacology and Therapeutics one of "the powers that be."

THE WARNINGS OF HEREDITY.

It is hardly any longer necessary to take pains to prove the existence of a general law of heredity. Medical readers, at least, do not require to be convinced that children as a general rule, the exceptions to which are readily explicable, resemble their parents in physical characters, intellectual aptitudes, and moral propensities. The broad law of *similia ex similibus* is written upon the face of biology, in plain and obvious characters, which no fine observation or nice discrimination is required to recognise. It is important, however, to be thoroughly convinced that heredity is not a mere vagrant principle,

operating here and inoperative there, in an apparently uncertain and hap-hazard fashion, but a fixed law always in action, but liable to be frequently obscured, owing to the extreme complexity of its conditions.

A distinguished man has a foolish son, and a careless observer sees a breach of the law of heredity. It is forgotten that the folly may have been inherited from the mother, or from the grandfather, according to the well recognised principle of atavism or reversion. The fact that the tendencies of the two parents are always to some extent different, and may vary from close harmony to complete opposition, introduces an infinite variability into the result. If it be thought strange that children of the same parents should differ so much in appearance, and in mental and moral characters, it should be borne in mind, first, that family resemblances of feature and of disposition are rather the rule than the exception; secondly, that the parents differ at different ages, and consequently transmit diverse qualities to their offspring; and, thirdly, that each child inherits something, but usually a different thing, from previous generations, by the law of atavism already mentioned.

It does not require much reflection to recognise how numerous and how vital are the inferences deducible from the law of heredity. We live in an age of education and culture, and we are apt to fall into the error of looking upon children as so much raw material, which can be moulded into any shape by means of training, like clay in the hands of the potter. This is a serious miscalculation, which may be fruitful in vast mischief. Education can do much, but the limits of its powers are inexorably fixed by heredity. If a child possess a brain small in size and poor in convolutions, all the culture in the world will not enable him to achieve results comparable with those which the naturally gifted can attain almost without effort. The diversity of natural talent is enormous, although the attempt to educate all our youth up to some arbitrarily fixed standard may serve to obscure this obvious fact.

It is in the realm of disease that the warnings of heredity become most numerous and most solemn. We know that most constitutional diseases which permanently modify the structure or functions of the body are hereditary. Phthisis, scrofula, cancer, syphilis—these are merely the most terrible instances of a widespread phenomenon. In nearly one half the recorded cases of gout there is evidence of a hereditary taint. In phthisis, the proportion has been put down at one third, but in many cases the absence of proof affords no assurance that heredity was inactive. The extent of the hereditary character of cancer is one of the disputed points of pathology, but few doubt that the predisposition to the disease frequently exists, however much it may often have been fostered by local irritations. That syphilis, in certain of its stages, is almost inevitably transmitted, does not admit of any doubt or dispute.

The deductions from such facts are sufficiently obvious. The subject of phthisis should be earnestly dissuaded from marriage. If a predisposition to this disease exist on the side of either parent, the children should, as far as possible, enjoy abundant fresh air, sunshine, nutritious food, and the hygienic conditions which experience has shown to be most efficient in checking the development of phthisis. In the case of syphilis, the surgeon will often be consulted, and his advice, if based on adequate knowledge, will be the means of averting evils which are terrible to contemplate.

The principle of heredity will often afford valuable aid in the for-

mation of a correct prognosis. A lingering bronchitis, or a slow-resolving pneumonia, excite widely different feelings of apprehension, according as the patient comes of a healthy stock, or of one tainted with phthisis. An enlargement of joint or bone has a widely different significance in a healthy and in a strumous subject. A doubtful tumour becomes much more grave if there be a clear record of cancer in the patient's family.

In the department of therapeutics, heredity may often give valuable guidance. A morbid condition which we are at first disposed to regard as purely symptomatic and trivial, may stand revealed in the light of heredity as a radical vice of constitution, demanding widely different treatment. The tendency to obesity may admit of ready counteraction, but, if it be clearly hereditary, it will probably resist our most patient endeavours. A little persistent oozing of blood from the gums may seem trifling, but it will tax our best efforts if the patient have inherited a tendency to hæmophilia.

Many facts are on record showing curious morbid tendencies running in families. Darwin relates a case of a woman who died of apoplexy at the age of 63. Her two daughters succumbed to the same disease. One of these had a family of twelve children, who all died of tubercular meningitis. Esquirol records a case of father, son, and grandson all becoming insane at the age of 50. Sir Henry Holland records cases of three brothers who had hemiplegia at the same age; of three sisters who each became epileptic at the age of 24; of three cases of diabetes in brothers under the age of 10, and a number of parallel instances. The important deductions which the medical practitioner must draw from such facts hardly require to be shown at length.

One caution must be added in conclusion. Heredity is a tendency, not an unalterable fate. The strongest family tendency, say to phthisis, can often, under favourable circumstances, be averted, but only on condition that it is early recognised and vigorously combated by all the means at our disposal. By the early recognition of morbid tendencies in families, and the resolute adoption of preventive measures, the medical practitioner will enormously benefit his patients, and win for medicine another claim upon the respect and gratitude of mankind.

INTERNATIONAL LEGISLATION ON ADULTERATION OF FOOD.

THE question of an international agreement on the legislative measures, to be taken for the repression of adulteration of food, was raised by Professor Fiukelnburg, at the International Congress of Hygiene, held at Amsterdam in 1879, and again at that in 1882, at Geneva, by M. Brouardel, when the representatives of the several nations were requested to send to the following Congress the texts of the laws in force in their respective countries. This was done last year, when the Congress was held at the Hague; but the further consideration of the question was again postponed, one of the delegates, M. Belval, being, at the same time, instructed to draw up a report on the documents presented, to be finally submitted to the Congress to be held in 1886.

M. Belval, meanwhile, believing that the discussion of its contents by the Pharmaceutical Congress might facilitate the deliberations of the hygienists, had his report printed and circulated among the members of the former Congress, and has favoured us with a copy of what is certainly a most useful compendium of the adulteration-laws. The

full text, rendered into French, of the sanitary laws of every country in Europe, so far as they relate to the question of foods, is given in an appendix; except in the case of Switzerland, where, as in the United States of America, each constituent member of the republic has its own local regulations, the more important of which only are mentioned.

In the report itself, M. Belval compares and criticises the laws and procedure adopted in each country with judgment and impartiality, mentioning with approval the precise definition of what constitutes adulteration, laid down in our Sale of Food and Drugs Act. He deprecates, however, the plea of ignorance on the part of the vendor, who should be, in his opinion, held morally and legally bound to ascertain, either from his own knowledge or by recourse to more competent assistance, the true nature and quality of his wares, as a contractor is held responsible for the quality of his materials, and the stability of works erected by those whom he employs. He maintains the utter inadequacy of the penalties usually imposed, on the ground that, for one fraudulent act detected, a number, how great can never be known, have doubtless been already committed; adding that tradesmen rely on their calculation of chances.

M. Belval strongly condemns the mode of obtaining samples, by what he calls "clandestine purchase," as is practised in this country. "*La ruse n'est pas convenable en pareille matière.*" An inspector of cattle does not take one animal by chance, and, because it happens to be sound, assume that all the rest are equally healthy. All shops, markets, and warehouses for articles of consumption, should, he insists, be open to inspection, and the examination should extend to everything on the premises. So far from injuring, the result of such a comprehensive inspection would be a positive benefit to, an honest tradesman, while it would ensure the conviction of the dishonest one. To encourage the public to avail themselves of the advantages of the Acts, no fee, he maintains, should be charged, the expense being met by the State. A clause in the Austrian law of June 21st, 1880, deserves mention; by it, vendors of fictitious or sophisticated wines are bound to describe their true nature, as either artificial beverages into which the juice of the grape does not enter at all, or as wines diluted, fortified, sweetened, etc. As such, they may be legally sold, without contravening the Act.

The whole report is well deserving of study by all interested in the question, though space forbids us to enter into further details, but we may conclude with a sentence quoted by our author from Alphonse Karr. "A thief is no less a thief because he stands behind a counter instead of hiding behind a hedge, and, from the social position occupied by the former, he ought, on the contrary, to be considered infinitely the more culpable of the two."

CHARING CROSS HOSPITAL.

THE students' annual dinner has been fixed for Friday evening, October 9th, at the Holborn Restaurant. Sir Joseph Fayrer, M.D., K.C.S.I., F.R.S., will take the chair; and Sir Guyer Hunter and many old students of the hospital have already signified their intention of being present.

HEALTH OF WIESBADEN.

A NOTICE, signed by Dr. B. von Langenbeck and Dr. von Ibell (Mayor), states that, according to a statement issued on August 25th by the Board of Health of Wiesbaden under Government sanction, the epidemic which has prevailed in Wiesbaden for some weeks is to

be regarded as extinct. No returns have been made since the above date, nor will any be made henceforth. The official statistical returns show that the health-condition of Wiesbaden compares most favourably with that of other German towns.

ST. MARY'S HOSPITAL.

WE are informed that the authorities of the St. Mary's Hospital Medical School, understanding the difficulty which students experience in finding suitable lodgings near to their work, have established a residential college in connection with their school. A large house has been taken in Westbourne Terrace, and has been placed under the superintendence of Dr. Robert Maguire, as warden. Each student will have a comfortable bedroom, which may also be used as a study, while he will also have the use of a large public study, a laboratory and other rooms. The rules for the government of the college are not unnecessarily strict, and the fees to be paid, which include assistance by the demonstrators of the school, are exceedingly moderate. The establishment of such a college supplies an undoubted want.

DEATH OF A FRENCH PSYCHOLOGIST.

M. LUDGER LUNIER died a few days ago from pneumonia. M. Lunier was inspector-general of the houses for the insane, and expert to the Tribunal de la Seine for mental diseases. He recently investigated and wrote on the "*Rôle des Boissons Alcooliques dans l'augmentation du nombre des cas de Folie et Suicide.*" M. Lunier organised a great many temperance-societies. He was created Officer of the Legion of Honour for services rendered during the siege of Paris.

MECHANICS IN PRELIMINARY EXAMINATIONS.

DR. F. DE HAVILLAND HALL, in his capacity as Dean of the Westminster Medical School, writes: "I find that students about to enter do not appear to be aware of the fact that, on and after October 1st, no person will be allowed to be registered as a medical student unless the subject of Elementary Mechanics has been included in the preliminary examination. Heretofore students could pass in this subject after registration."

NEPHROLITHOTOMY.

NEPHROLITHOTOMY is still a new operation on its trial, but there can be no question that, if it could be established as a reasonably safe procedure, it would be a very valuable means of treating, and perhaps curing, a small but important class of cases. It is, therefore, of interest to record that, on September 16th, Mr. Victor Horsley removed from the kidney of a middle-aged woman, a patient in University College Hospital, a stone weighing two ounces and a quarter. Symptoms of renal calculus had been present for four years. Since the operation the urine, which was before fetid, has become normal, and the whole of the operation-wound, with the exception of the track of the drainage-tube, healed by first intention within five days. This result is the more gratifying and encouraging, as the stone is, we believe, the largest ever yet removed from the pelvis of the kidney.

PREHISTORIC DENTISTRY.

THAT the Romans of the Augustan era were acquainted with the art of replacing lost teeth by means of artificial substitutes, is clearly established by passages in Martial and Cicero, but recent investigations show that this mode of remedying personal defects is of considerably earlier origin than has hitherto been supposed. A few months ago Dr. Van Martor, a dentist practising in Rome, published in an American journal an illustrated description of a partial upper denture found in an Etruscan tomb, dating from about B.C. 600, and now preserved in the museum at Corneto-Tarquinius, near Civita Vecchia. It carries a first bicuspids and two central incisors, skilfully carved from the teeth of some animal, and was secured to the adjoining natural teeth by rings of soft gold. The journal of the British Dental Association for September contains well executed drawings of two similar specimens also found in Etruscan tombs, and presumably of about

the same date, which were recently discovered in the Brown Museum at Liverpool by Dr. W. H. Waite of that city. One of these consists of a gold band, which was attached to the two upper lateral incisors, and carries two artificial centrals; the other carries an artificial right lateral and central, and was secured to the right upper canine and left central incisor. The specimens are of great interest as further indications of a high condition of civilisation amongst a people of whom comparatively little is known.

A DANGEROUS TOY.

THE French police have forbidden the sale of a dangerous toy known as the "bombe Courbet." It resembles a thimble, and is filled with powder; when thrown on the ground it explodes. In fact, it is a form of the detonating balls familiar to the youth of our country. It has caused several accidents, and the authorities have seized every sample that they could find for sale, and have forbidden any further manufacture of these bombs.

THE FLOATING WASHHOUSES OF PARIS.

IN consequence of a report drawn up by M. Pérouse, engineer to the Seine Navigation Bureau, the prefect of the Seine has decided to suppress the floating washhouses moored in the river along the quays of Paris. Thus, for the sake of the health of the Parisians, and their numerous visitors, one of the last of the characteristic and picturesque features of Old Paris will shortly be swept away.

THE DALRYMPLE HOME FOR INEBRIATES.

A LITTLE less than two years ago, we chronicled the opening of this Home, and, at a recent visit, could not but notice the improved state of the house and grounds. The Home is not based on a profit system; consequently, whatever profits there might be are expended in adornments and improvements of the institution generally. It is sad to reflect that, although this and four other Homes have been licensed under the Act for the treatment of male patients of means, there has so far been no Home licensed for females, nor impecunious males. In a few years, the present Act will expire; but, before that date, a permanent and improved Act may be anticipated. The difficulties now thrown in the way of any one desirous of entering such a retreat should be minimised, instead of being made very real, as they are at present. Mrs. Lucas, President of the British Women's Temperance Association, and other persons, fully recognise the desirability of founding a Home for Inebriate Women, on the model of the Dalrymple Home. For those who are unaware of its character, we may say that the Dalrymple Home is a bright and pleasant mansion, standing in about five acres of lovely grounds, studded with noble cedars, on a terrace overlooking the river Colne, close to Rickmansworth. Its situation renders fishing, boating, and bathing available for the patients, who have also at command, winter and summer, tennis, bowls, a gymnasium, and a workshop, in addition to billiards and other amusements. This ample provision for occupying the time of the patients has been furnished by the managing committee, in order to keep the patients away from all temptation to drinking; for, as the Home is licensed under the Habitual Drunkards Act, no intoxicating drinks are allowed. The Home has been unusually successful in the treatment of inebriety. The Government Inspector says, "its success has been very marked;" and he thinks "it may well form a model for similar establishments." He also notes "the very liberal scale" on which it is conducted. The Home has always been well filled with patients, many of whom have been of the wealthy, educated classes. Of those discharged, one-half have been fitted creditably to resume their duties in life, and twenty per cent. more have been improved.

INTERNATIONAL CIVILITIES AT THE DALRYMPLE HOME.

ON Saturday afternoon last, at the invitation of the President (Dr. Norman Kerr) and Council of the Society for the Study and Cure of Inebriety, over one hundred guests left London by special train for

Rickmansworth, to welcome Dr. Joseph Parrish, President of the American Association for the Cure of Inebriates. At Rickmansworth, carriages were in waiting to convey the guests to the Dalrymple Home for Inebriates, a mile from the station, where the party were received by Dr. Kerr, and by the Medical Superintendent, Dr. R. Branthwaite, and Mrs. Branthwaite. After an elegant lunch, served in the dining-hall, the company assembled in the spacious concert-hall in the grounds, under the presidency of Dr. Kerr. The chairman said it afforded him much pleasure, in the name of the council of the Society for the Study and Cure of Inebriety, to offer a reception, in so appropriate a place, to Dr. Joseph Parrish, whose labours of love on behalf of the inebriate were well known, and whose evidence before the late Dr. Donald Dalrymple's Committee had been most valuable. Dr. Parrish was president of the American Association for the Cure of Inebriates. Dr. Kerr congratulated Dr. Parrish on the decided advance since his last visit to this country. They had now an Act which, though temporary and very incomplete, was yet the legislative affirmation of a principle, and had been of some service, as the experience of the Dalrymple Home had shown. Five retreats had been licensed under the Habitual Drunkards Act. The auspicious first year's work of the Society for the Study and Cure of Inebriety showed also steady and genuine progress in the acknowledgment of the truth that inebriety was a physical disease, demanding treatment as such. There remained, however, much to be done. For, not till the Church and the State saw this fundamental truth, would intemperance be effectually grappled with. It was disgraceful that, while in America the poorest inebriate could be treated in a home, in England there was no home under the Act for females, and no home, licensed or unlicensed, for impecunious males. In America, also, any confirmed inebriate could enter a home of his own desire without let or hindrance. Here there had to be an appearance before two justices, and other humiliating barriers. All such restrictions should be swept away, the risk of unlawful detention being easily guarded against. The Act, too, should be made permanent as well as improved. Other amendments were needed, and Dr. Kerr hoped that the proceedings of that day would hasten the advent of better legislation. The resolution of welcome was seconded by Dr. Langdon Down, who, in the course of his remarks, contended that drunkenness was a disease, and that people suffering from it should be able, at their own discretion, to place themselves in such an institution as the Dalrymple Home, where control and treatment were procurable; and that such homes, particularly for the poor, should be multiplied. Several other advocates of temperance also spoke, amongst whom were Mr. J. Hilton, Mr. F. Sherlock, Mr. A. Gunn, Mrs. Lucas, the Rev. G. M. Murphy, Dr. H. W. Williams, Mr. R. C. Morgan, Surgeon-General C. R. Francis, Surgeon-Major Poole, Mr. T. Hudson, and Mr. J. W. Leng, all of whom advocated, in various ways, the utility and necessity of such homes. The resolution was unanimously adopted by the meeting with applause. Dr. Parrish, in acknowledging it, said that any scourge which killed from 50,000 to 100,000 people a year must be a disease, so that there was a physical as well as a moral aspect to the question of intemperance which should be treated by religious and moral as well as by physical means. In America no law interfered with a man's personal right to go to an institution such as the Dalrymple Home, and commit himself, for a given time—six months or a year, as the case might be—and agree, during that time, to comply with all the rules and regulations of the institution. And when a man had the craving for drink upon him, and felt that unless he was protected from himself he would come to ruin, it was very hard that he should have restrictions placed in his way for the obtaining of such shelter. Dr. Parrish was glad that the cause of temperance was progressing in England, as well as in America. Dr. Danford Thomas proposed a vote of thanks to the chairman for organising the reception, and for presiding at the meeting, and trusted that Parliament would adopt measures for multiplying retreats, and for the arrest of the temptations to drink, Consul-General Waller, in seconding the resolution, which was carried

with much enthusiasm, remarked upon the unsectarian character of the meeting and its unanimity. The guests then returned to town by special train.

ON SOME NEW MEDICAMENTS.

At the recent meeting of the Society of the Medical Staff of the Royal Charité Hospital, Professor Senator gave a summary of newly discovered medicaments, reported in the *Berliner Klinische Wochenschrift*. He drew a comparison between the innumerable medicines as such and their value as medicaments, and pointed out that, although the advance made with regard to specific medicines for directly curing diseases was small, yet great progress has been made with regard to those which act symptomatically. This, he said, was of great value, for by their means the pains of many incurable diseases can now be diminished, and troublesome and threatening symptoms in curable diseases can be prevented or removed. Dr. Senator then gave a brief account of his own experiences of some exotic medicaments, that have as yet received little attention in Germany. Of purgatives, he mentioned tincture of cascara sagrada, euonymin, and trisin. The tincture of cascara sagrada he considers a non-irritant and very certain remedy. One great advantage it possesses is, that it can be taken for a long time without disadvantage. Dr. Senator prefers it to senna, because it is effective in smaller doses. With regard to euonymin, Dr. Senator refers to Rutherford's valuable experiments on its physiological effects, and mentions that it is used both as an aperient and as a cholagogue; but as a cholagogue he says it is difficult to form an opinion. At any rate, it is a certain and very drastic remedy, and for this reason cannot be taken continuously for a long period. From his own experience, Dr. Senator said he had nothing to communicate about trisin, but he considered there was not much reason for introducing it. He then mentioned two narcotics, extract of *pidisia erythrina* and hydrochlorate of *eucaïne*. The extract of *pidisia erythrina*, recommended since 1845 in America as soporific, he has found very useful for neuralgic pains in the head, given in an evening in doses of about four and a half to eight grains. Hydrochlorate of *eucaïne* he had applied with success to the mucous membrane of the urethra and the rectum, especially in connection with diseases of the bladder. As a remedy against the immoderate perspiration of phthisical patients, Senator mentioned picrotoxin, which he tried on the recommendation of Dr. W. Murrell. He had tried it in forty cases, in two-thirds of them with success. On the whole it was found to be almost as certain, as a remedy, as atropin or agaricin. Agaricin was used in the Giessen clinic as a substitute for atropin in 1883, and found to be preferable to the latter in this respect, that it could be used for a longer time.

THE MICRO-ORGANISM OF RHINOSCLEROMA.

MANY medical men know only by name the rare affection called rhinoscleroma by Hebra and Kaposi, who have described it for the first time. It consists of a progressive thickening and induration of the tissues of the nose, lips, pharynx, and larynx, with formation of hard patches and tumours, which often recur after removal. Microscopical examination shows that in the affected parts the cutis is transformed into a fibrous tissue, infiltrated with round cells, and also with large cells containing colloid granulations, which are stained deeply by aniline dyes. The disease is very chronic, and quite distinct from syphilis and scrofula; anti-syphilitic remedies have no action upon it. Several authors, and amongst others Pellizari and Chiari, have maintained that it is caused by a micro-organism, but other observers have disputed this statement. In the case recently described by Drs. Payne and Semon, at the Pathological Society, no micro-organisms were found by them. The same patient had also been previously examined by Messrs. Cornil and Alvarez, with negative results. It seems, however, that by means of slight modifications in the process of staining, they have succeeded in discovering characteristic micro-organisms in this case and in four others. The process described by the authors at the Académie de Médecine, on March 31st, consists

in leaving the tissues for forty-eight hours in a 2½ per cent. solution of aniline violet, after which they are discoloured by absolute alcohol and essence of cloves. The micro-organisms present themselves under the shape of dark-coloured rods, measuring about 3 micro-millimètres. They are surrounded by an oval, transparent capsule, composed of a structureless material which appeared to be hard and unyielding. The rods are either isolated or united on masses which are deeply stained by the dye. These micro-organisms have been found by Messrs. Cornil and Alvarez on all their preparations, and sometimes in very large numbers. They may be contained in the cells, in the lymphatics, or in the blood-vessels of the patches and tumour. No cultivations could be made, as there was no fresh material at hand. Frish states that he has succeeded in cultivating the micro-organism of rhinoscleroma, but his experiments on animals have given no positive results.

LEEDS SCHOOL OF MEDICINE.

ARRANGEMENTS have been made for the delivery of a series of special clinical lectures at the Leeds Royal Infirmary by Dr. Clifford Allbutt and Mr. Wheelhouse and Mr. T. Pridgin Teale, consulting physician and consulting surgeons to the infirmary. Medical practitioners, as well as students, are invited to attend. The lectures will be as follows. Dr. Allbutt, October 14th, the Nature of Disease; November 25th, Glosso-labio-laryngeal Palsy; February 17th, 1886, Desquamative Enteritis; Mr. Wheelhouse, October 28th, Recent Advances in Abdominal Surgery; December 9th, the Surgery of the Male Perinæum; February 24th, 1886, Osteotomy for the Restoration of Malformed Bones; Mr. Teale, November 11th, the Local Treatment of Constitutional Diseases; January 20th, 1886, the Treatment of Stricture by Lister's Solid Metal Sounds; March 10th, the Value of Dry Cupping to the Artificial Leech.

THE MEDICAL DEFENCE ASSOCIATION OF HOLLAND.

THE Dutch anti-quackery or Medical Defence Association held its fourth annual meeting at Amsterdam on September 1st. The number present was not very large; but the roll of members now amounts to 1,158, 150 of whom have recently joined. The Association is also supported by the Society for Advancement of Medicine and Pharmacy, and by the Railway Surgeons' Society. During the year, 635 francs have been expended in legal proceedings. It was reported that communications had been opened with the members of the general press, with the view of stopping the advertisements of quack medicines. The publishers, while declining to prohibit such advertisements, have assured the Defence Association that they are quite willing to co-operate in the attempt to put down quackery. It was decided to arrange to hold a conference with the members of the press, with the object of putting restrictions on quack advertisements.

THE TREATMENT OF ASIATIC CHOLERA.

MR. VAN DER SPIL, of Samarang (Java), has tried the injection of a 0.5 per cent. solution of salt into the pleural cavity of several patients suffering from Asiatic cholera. The fluid was maintained at a temperature of 38° Cent., and injected by means of a pointed cannula, measuring two or three millimètres in diameter. The puncture was made in all cases immediately above the fourth rib of the right side, a little to the outer side of the maxillary line. In order to avoid wounding the lung, the fluid was allowed to escape from the cannula while it was being thrust through the thoracic wall. The pressure of the fluid separated the two layers of the pleura as soon as the instrument had penetrated into the cavity. The quantity of fluid used for each operation was about 700 grammes. According to Mr. Van der Spil, the compression of the lung thus produced had no injurious effect on the patients, because their circulatory system contained much less blood than under normal circumstances. The salt-solution appeared to be quickly absorbed; and the results were, on the whole, satisfactory, but one patient died of paralysis of the heart.

FEEDING AND STARVING IN THE TREATMENT OF DISEASE.

DR. YANDELL, of Louisville, gives (*American Medical Practitioner*) some interesting notes of personal experience of a severe attack of typhoid fever. He says: "During nine weeks, I was delirious. Those weeks remain to this day a total blank, except in one particular, and that related to food. The recollection of my aversion to that is distinct. My nurse told me that I took food at no time without a remonstrance; that I not unfrequently flatly refused to have it, giving always as a reason that it was exceedingly distasteful to me. I made the same objection to every kind of drink other than water. I got no medicine, but was required to take milk, at first every three hours, then every two hours. I had frozen champagne, at about the same intervals of time. Three weeks after the delirium subsided, I stood on my feet for the first time. I am just as sure that food was given in this case oftentimes to my hurt, as it was always given against my inclination. Yet this was the practice of the time. And I fear it is far too much the practice of the present day. Since Tanner's protracted fast, I have been much less disposed than before to force food upon patients against their wishes. I have made some short fasts myself, in the hope of wearing out a rheumatism. My first attempt I continued for eleven days, taking in that time but three glasses of water a day. I felt no particular inconvenience from my abstinence. Last winter, I fasted twenty-one days, also in a rheumatism, in which time I had not more than a quart of milk, which I took hot. I cannot say that my disease was benefited in the least. But I was without appetite, was averse even to food, and, if I got no good from fasting, I at least escaped any of the inconveniences which might have ensued had I taken nourishment. In the last year, I have treated five cases of typhoid fever practically without food, that is, without food except when called for, or when delirium was present, and then only when it was not refused. One of these cases occurred last July, in the person of a young man. His case began much as mine did. He got quinine, as I did. He had the same aversion to food that I had. He was not a milk-drinker when well; the suggestion of milk when sick was distasteful to him. Daily I asked him if he wished food, and daily he answered 'No.' He went seventeen days on two or three glasses of water each twenty-four hours. His bowels acted with some regularity. On the twelfth day, he had a little diarrhoea, which was checked by bismuth and chalk-mixture. On the morning of the eighteenth day, his pulse was somewhat weak, and I said, 'You must have some food.' He replied that he had dreamed the night before of eating a broiled partridge. Partridges not being in season, he got chicken-soup instead. A day or two after his appetite returned, and he made a good recovery. He went through four weeks of fever without a single unpleasant symptom. In the remaining four cases, the abstinence in none was so protracted, but food was given to none until it was acceptable, and all went through their attack with seemingly less trouble than those who were plied with food. When food is given, milk peptonised by Fairchild's process is more digestible than plain milk. I have also found that the beef peptonoids of Reed and Carnrick are usually both an acceptable and easily assimilated food."

HESLOP MEMORIAL AT MASON COLLEGE, BIRMINGHAM.

At a public meeting held in Birmingham on July 3rd, 1885—the Mayor (Alderman Martineau) in the chair—it was resolved, "That it is desirable to commemorate the services rendered to Birmingham, and especially to its charitable and educational institutions, by the late Dr. T. P. Heslop, F.R.C.P.," and a subscription-list was opened. It was also resolved that the subscriptions, to the amount of £1,000, should be applied to the formation of a scholarship at the Mason College, and tenable by pupils from the schools on the foundation of King Edward VI; and that any surplus beyond £1,000 should be appropriated to the purposes of the Mason College Library. Subscriptions have been received to the amount of £757. The Mayor of Birmingham is treasurer of the fund, which will close on the 30th instant.

CUCAINE IN SEA-SICKNESS AND CHOLERA NOSTRAS.

PROFESSOR MANASSEIN, of St. Petersburg, has been making observations on the value of cucaine in sea-sickness and in cholera nostras. Amongst his fellow-passengers during a voyage he took this summer, were a lady and gentleman who always previously suffered severely from sea-sickness. A teaspoonful of a solution of cucaine, of the strength of one in a thousand, was administered, as a prophylactic, every two or three hours, from the commencement of the voyage. Although for forty-eight hours the weather was very stormy, they, for the first time in their lives, were entirely free from sea-sickness, and were able to enjoy their meals thoroughly. A child of 6, who had begun to be sick, was given half-drachm doses of the cucaine-solution. After having taken two doses within half an hour, the child recovered completely, and played about all day in spite of the storm, taking a half-drachm dose every three hours. To a girl of 18, who suffered very severely, two-drachm doses were given, at first every half-hour. After the second dose, she began to improve; and, after she had taken six drachms, was able to laugh and joke, and began to feel hungry; she continued well the whole voyage. The supply of cucaine not being large, Professor Manassein was unable to give it to all his fellow-passengers; but its effects were so marked on the seven cases in which he employed it, that he is convinced that it is a most valuable remedy for this affection. He has also given cucaine with complete success in two cases of cholera nostras, in which dangerous collapse had already appeared.

ACTION OF CUCAINE ON THE FROG.

DR. HERMANN M. BIGGS, of New York, has just completed an enquiry into the physiological action of cucaine on the common frog, and has arrived at conclusions which may be summed up as follows. 1. It has a powerful local anæsthetic action on the skin, mucous membrane, and eye. It usually produces mydriasis. 2. It has a depressant action on the heart, reduces the force and frequency of the pulsations, and finally paralyses it (first the ventricle and then the auricles) in diastole. 3. In small doses, it at first slightly increases the number of the respirations, then decreases them; but, in large doses, from the first rapidly diminishes them, finally causing death from a paralysis of respiration. 4. Small doses at first slightly heighten, and then greatly depress, the reflex action of the spinal cord. Large doses depress from the first. 5. Small doses at first slightly increase the irritability of the sensory nerves, then depress it; and large doses depress it from the first. 6. Both large and small (not very small doses) have a depressant action on the motor nerves. 7. It paralyses the pneumogastric nerves. 8. Doses of moderate size diminish the excitability of the striated muscles. 9. The local application of cucaine to any of the most highly constituted organs or tissues, causes a temporary cessation of their functional activity. As a result of these observations, Dr. Biggs concludes that cucaine would be of value in the treatment of tetanus, and in poisoning by strychnine.

URETHRAN, THE NEW HYPNOTIC.

DR. VON JAKSCH, of Vienna, having been struck with the description given in the *Yearly Report on the Progress of Pharmaco-Therapeutics*, by Dr. Kobart, of a substance named urethran ($\text{NH}_2, \text{CO}, \text{C}_2, \text{H}_5$), determined to make trial of its hypnotic effects, with the hope of being able to replace morphine, chloral, and paraldehyde, by a drug which would ensure sleep without causing any of the disagreeable or dangerous effects which are liable to follow their use. He first of all made experiments on animals, and found that no toxic action occurred in rabbits, even when the drug was administered in the proportion of .5 gramme for each kilogramme of the animal's weight. He therefore commenced his clinical observations by giving .25 gramme (3.85 grains) doses to patients. This, however, was insufficient to produce any distinct hypnotic action. He therefore raised the dose to .5 gramme (7.7 grains), and found this usually produced some hours' comfortable sleep. In a case of hemiplegia, with endocarditis and

stenosis, and insufficiency of the mitral, where the patient had long complained of sleeplessness, but whose condition contra-indicated the employment of morphine and chloral, two doses at 7 and 8.30 P.M., given every night, produced a really good night's rest, without the least disagreeable effect. Again, in a case of a painful aortic aneurysm with insomnia, a dose given at 6 P.M. producing no effect, another was given at 11 P.M., which gave calm sleep till 3 A.M. The next night doses were given at 6.30, 9.0, and 11 o'clock, and a calm sleep was induced, lasting from 11 to 4. The following evening the first dose, at 6.30, produced a little sleep; another dose, at 8.45, gave sleep from 9 to 4.30, with a slight intermission; the third night two doses were given, resulting in six hours' sleep; the fourth night the patient slept without the drug. It had, however, to be again resorted to on the sixth and seventh nights. Altogether, Dr. von Jaksch employed urethran 110 times in twenty different cases, and is highly satisfied with the results he obtained.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of the session 1885-6 will be held at the West London Hospital on Friday, October 2nd, at 8 P.M. The President, Mr. W. B. Hemming, will deliver an address, and several surgical cases will be shown by Mr. Keetley. The following members will be officers of the Society during the ensuing session. *President*: Mr. Hemming. *Vice-Presidents*: Dr. Alderson, Dr. Pickett, Mr. E. C. Barnes, Dr. Campbell Pope. *Council*: Dr. Clippingdale, Mr. Swinford Edwards, Mr. J. R. Lunn, Dr. Hart Vinen, Mr. R. F. Benham, Mr. C. B. Keetley, Dr. Owles, Dr. Thudichum, Dr. Travers, Dr. Bullock, Mr. F. C. Dodsworth, Dr. Wells. *Treasurer*: Mr. Lawrance. *Secretaries*: Mr. Gunton Alderton, Mr. H. Percy Dunn.

RARE SYMPTOMS OF LOCOMOTOR ATAXY.

M. CHARCOT has recently had under his care, at the Salpêtrière Hospital (*Journal de Médecine et de Chirurgie Pratique*), a man, aged 52, who was suffering from locomotor ataxy. Besides the usual symptoms, the patient presented the peculiar deformity known as tabic foot. The right foot was broader and thicker than the left, and the arch much less marked. There was neither cedema nor pain. Professor Charcot is of opinion that the absence of pain and inflammation is a most important point in the diagnosis of all diseases of the joints caused by locomotor ataxy. M. Charcot's second case was that of a man with symptoms of tabes and anesthesia of the face; the loss of sensibility had begun in the upper lip, and invaded gradually the whole of the face, the mouth, and the soft palate; but the sense of taste was still retained. There were patches of anesthesia on the chest, and of hyperesthesia on the back. The patient presented also some remarkable trophic lesions; he had lost nine teeth without pain in one month, and at the same time small pieces of the inferior maxilla had become detached. The disease of the jaw showed, however, a decided tendency to spontaneous cure.

POSITION DURING PARTURITION IN ANCIENT ROME.

DR. E. J. MILES of Brighton writes:—As the subject of position during labour is occasionally discussed in medical periodicals, and referred to in works on midwifery, it may not be without interest to some of your readers to give them some recent evidence on the subject as to the custom existing in ancient Rome. Several marble sarcophagi have just been discovered a few yards within the modern Porta Salaria at Rome. They were found about twenty-five feet below the present level of the ground, and in a position indicating the usual site of the hypogeum of an ancient tomb. On the face of the most beautiful one (considered, on the best authority, to be the work of the third century A.D., or earlier) are depicted, in the finest style of Greek art ever beheld, scenes representing the Triumph of Bacchus. Leaving the details to be read in the graphic letters of the *Times* correspondent at Rome, I would direct your readers' atten-

tion to the left-hand corner of the frieze (which is devoted to details connected with the birth of Bacchus), where, in a space measuring about twelve inches in height and twenty-three inches in length, is represented the moment immediately following the birth of the infant god. Whereas, in Italy and some other countries in the present day, the mother, during parturition, lies on her back, the goddess-mother Semele is here shown to be lying on her left side, as is the practice with us. She lies on a bed or couch, with the face and body directed towards the spectator, in an attitude of exhaustion, with her hands and arms hanging helplessly over the side of the couch, and directly beneath them a basin of similar shape to the ordinary English ewer. Immediately behind, is seen the accoucheur (a female), about to hand the newly born god to an attendant, and close at hand are the figures of other female attendants; and it may be noted, what is so often observed by us in the present day, that, whereas the greatest interest and attention is being exhibited towards the new-born child, the mother at that moment is lying altogether unnoticed. Mercury stands close to the head of Semele's couch; but, regardless of her, the messenger of the gods is awaiting with evident interest to carry off the infant to Jupiter. These sarcophagi are still *in situ* where they were recently discovered; and I should not have been able to see them, excepting through the auspices of the British Archaeological Society at Rome, the meetings of which all visitors to Rome, having any real interest in archaeology, should not fail to attend.

THE TREATMENT OF THE INSANE.

THE International Congress of Physicians engaged in the Cure of Mental Diseases has been opened, during the past week, at Antwerp, under the presidency of M. Victor Desguin, President of the Belgian Society for Mental Diseases. Among the members of the Congress are several from the United Kingdom. In his reply to the burgomaster's speech of welcome at the Hôtel de Ville, the president explained that the scope of the Congress comprised the following two subjects: 1. The bases of good international statistics concerning the mentally diseased; 2, the relations between criminality and mental disease. The Congress has charged an international committee with the duty of determining the headings for the bases of statistics regarding mental diseases.

RESEARCHES ON YELLOW-FEVER.

DR. CASTILLO, after vainly endeavouring to find Freire's micro-organism, took two drops of blood from the body of one of his patients who had succumbed to the disease, mixed them with ten drops of distilled water, and injected the mixture under the skin of a rabbit. The contents of the stomach and of the bladder were then used for the same purpose on two other animals. The rabbit injected with the contents of the stomach died after 24 hours. *Post mortem*, the liver was found discoloured, and the bladder empty; the stomach had partly disappeared, as if the tissue had been dissolved. The lesions presented a striking resemblance to those produced by phosphorus. The walls of the stomach contained a large quantity of uric and phosphoric acid. The other two rabbits did not seem much affected by the operation.

DISEASE IN SOUTHERN CHILI.

DR. C. MARTIN has recently prepared a valuable work on the sanitary condition of a part of the world little known to Europeans, excepting to those that have gone thither as emigrants. The mainland of Southern Chili, and especially the island of Chiloe, "enjoy" an exceedingly moist climate, with a heavy rainfall, and a relatively equable temperature, ranging from 23° to 68° Fahrenheit. The population consists of three races—namely, 10,000 aborigines, 81,000 Spanish Chilians and half-breeds, and 2,000 foreigners, more than half of whom are Germans. The Indians are very subject to skin-diseases, chiefly scabies, and to acute pneumonia. The Chilians are not

particularly subject to any disease; in fact, as usual with acclimatised Europeans in all temperate climates, they are harder than the aborigines, and less liable to minor diseases than emigrants, who suffer to a great extent from pulmonary catarrh, pneumonia, and whooping-cough. Struma is only found amongst these emigrants, and the disease is said to be unknown in the wet and dreary island of Chiloe, though the inhabitants are mostly poor and ill fed. Typhus fever was observed by Dr. Martin on several occasions when famine existed, and was generally followed by enteric fever. The patients stricken with the latter disease frequently complained of "puntada," a severe stabbing pain in the side of the chest, caused by bronchitis, with localised bronchitic foci. Syphilis is common; and Dr. Martin found that, as in the case of tuberculosis and vaccinia, it ran a very long course, which is not the case in hot climates. After vaccination, no signs that the lymph had taken could be seen till the ninth day. Liver-abscess, common and deadly in Northern and Middle Chili, never appears to be acquired here; and infantile diarrhoea is extremely rare. Coryza proves very troublesome to emigrants. Hernia and ileus are decidedly unfrequent, which Dr. Martin considers as remarkable, since the rural population work very hard in the backwoods. Phthisis is almost confined to towns, and is more often complicated with tubercular diarrhoea, and less frequently with hæmoptysis, than in Europe; yet hæmoptysis, independent of phthisis, is often observed. Heart-affections are very common, owing to the frequency of rheumatism. The dampness, high winds, and impregnation of the air with salt, cause skin-diseases to be very intractable. Dr. Martin did not observe a single case of cancer of the breast; yet other malignant diseases were very common, chiefly amongst immigrants, then amongst Spanish Chilians in Chiloe, less amongst half-castes in the mainland backwoods, and least amongst the Indians. Contracted pelvis is almost unknown; and diphtheria, cholera, yellow fever, and puerperal fever are exceedingly uncommon.

THE ETIOLOGY OF GOÏTRE.

DURING the past two years, our knowledge of the functions of the thyroid gland has been materially increased; we have learnt that the gland has an important influence on the whole economy, and that the suspension of its functions is followed by a peculiar form of degeneration, which shows itself by a variety of apparently dissimilar symptoms, the most conspicuous being a mucoid degeneration of the connective tissue, a condition of anæmia, and a progressive mental hebetude. Dr. Thursfield has opportunely come forward with a thoughtful paper on the Etiology of Goitre in England, read before the Society of Medical Officers of Health. He has not, it is true, made as much use of recent observation and experiment as might have been anticipated, but he has succeeded in looking at the subject from a larger point of view than has usually been reached by writers on the subject. Starting from the known fact that the thyroid is a highly expansible organ, liable to become larger under various physiological conditions, he has looked to the causes which might tend to perpetuate a state which in health is short and intermittent. First of these causes, he places a diminished atmospheric pressure; in hilly districts, therefore, enlargement of the thyroid appears at an early age, and is, according to Dr. Thursfield, even more common below the age of puberty than above; at puberty, the enlargement usually ceases, but occasionally it becomes more marked, whence has arisen the impression that the enlargement is connected with the first appearance of catamenia. Given, then, a tendency towards enlargement of the thyroid, owing to the low atmospheric pressure of hilly regions, he argues that the habit of carrying weights on the head strongly re-inforces the tendency by interfering with the cerebral circulation. He confirms the statement that this practice, if it come into operation about the time of puberty, leads to a greater prevalence of goitre in a hilly region; and that, after its abandonment, goitre is less often met with. Dr. Thursfield is inclined to minimise the importance of drinking water in the production of the disease; the extraordinary discrepancies

between the various theories and statements on this head have never been reconciled, and appear to show that the influence thus exerted is not great. He supports the view that the injurious ingredient is iron, and argues that a long continued excessive ingestion of this food might, by throwing additional work on the thyroid, which has probably for one of its functions depuration of the blood, if not hæmatopoiesis, lead to hypertrophy of the gland. The most valuable part of the paper is the discussion of the influence of the habit of carrying weights on the head, and the facts adduced ought to be sufficient to give the theory a place in the text-books. Endemic goitre is believed to be diminishing, even in the districts in England where it was once most common. The habit of carrying water, baskets, and bundles on the head was picturesque; but, if its abandonment be followed by the disappearance of the hideous deformities which goitre used to produce, the abandonment will be a gain, even from the æsthetic point of view.

SULPHUROUS ACID AS A DISINFECTANT.

AT a recent meeting of the Académie de Médecine (*Jour. de Méd. et de Chir. fran.*), M. Dujardin-Beaumetz gave an account of some experiments made by him at the Cochin Hospital. He says that sulphurous acid is the best disinfectant, and that it destroys all the organisms contained in the rooms, with the exception of the bacillus anthracis. He has tried the bottles of compressed sulphuric acid recommended by M. Pictet, of Geneva, but their high price is a serious obstacle to their use. It is better to burn, in the closed room, about one ounce of sulphur for each cubic metre of air. The sulphur is mixed with a little alcohol on a saucer placed on sand. Sulphurous acid spoils many colours, and all metals, but the latter can be protected by a thick layer of grease.

TRIGGER-FINGER.

ACCORDING to M. Marcano (*Journ. de Méd. et de Chir. fran.*, 1884), the curious phenomenon called *doigt à ressort* by Notta and Nélaton is the result of a knotty swelling of the flexor tendon by which the peculiar jerk is produced. During flexion and extension, the movement of the finger is suddenly stopped for a short time, and then completed very quickly and violently, as if a spring had been put into action. The jerk can be reproduced experimentally on the dead body by surrounding the flexor tendon with a string, so as to increase its volume. The *doigt à ressort* is observed chiefly in people subject to rheumatism, but an injury may also cause it. In all cases the swelling of the tendon can be made out by careful palpation; it is the rubbing of the nodule against the sesamoid bones, or the sheaths of the tendons, which is the cause of the jerk. In the JOURNAL of July 4th, page 28, will be found some interesting statistics of this rare affection.

CHIARI ON ACCESSORY SUPRARENAL CAPSULES.

IN a recent number of the *Zeitschrift für Heilkunde*, Dr. H. Chiari has described four cases of accessory adrenals, or bodies bearing the characters of the suprarenal capsule, and growing between the kidneys and the sexual glands. These anomalies are not peculiar to infants and children, but have been found in adults; there is no evidence that they undergo atrophy in youth, as has been asserted, and they have been found in man. Dr. Chiari also gives an account of a peculiar new growth, developed in the hypogastric region, which he believes to have developed from an accessory adrenal. We may here observe that the term adrenal is more suitable for the present purpose than "suprarenal," which can hardly be applied to structures below the level of the kidneys. In Dr. Chiari's case, the patient was a man aged 44; the tumour was removed by abdominal section. It was "nearly the size of a man's head," extending from below the right kidney to the brim of the pelvis, and lying on the quadratus lumborum and iliacus internus muscles, behind the cæcum and the peritoneum, covering the iliac fossa, and external to the psoas. It was invested with a capsule intimately connected with neighbouring struc-

tures. The tumour recurred, and invaded several adjacent organs. Its tissue, on microscopical examination, closely resembled that of the normal suprarenal capsules; pigmented cells, infiltrated with fat, were abundant.

GERMAN OPINION ON THE INDEX MEDICUS.

REGARDING the American *Index Medicus*, a current index of medical subjects throughout the world, the *Berlin Klinische Wochenschrift* of this week says, "The cost of producing this unremunerative work, 40 shillings yearly, has caused the price to be too high for many people. This price is now to be reduced to 20 or even 12 shillings, as soon as an increase of subscriptions renders this step possible, and the publisher is prepared, thereupon, to refund the difference of price. It is sincerely to be hoped that such a meritorious work as the *Index Medicus* may not lapse after all, for want of support."

SCOTLAND.

PUBLIC BATHS FOR EDINBURGH.

THE notice in last week's JOURNAL can now be supplemented by the satisfactory intelligence that the scheme has been before the Edinburgh Town Council, and has by that body been approved. The report by the Lord Provost's Committee recommended that on part of the Old Infirmary grounds public baths should be erected, at a probable cost of £8,700, exclusive of the cost of the site, which was estimated at £2,380 (but which site is the property of the Town Council). Also that Mr. Mesham be appointed auditor. There will be two departments, male and female, each provided with a large swimming-bath and twelve plunge baths. The proposals of the committee were most favourably received and commented upon, and altogether Edinburgh is to be congratulated on this important addition to its practical sanitation, while the numerous members of the profession who received their hospital-instruction in the old infirmary, will have the satisfaction of knowing that the scene of their former profitable labours has been devoted to worthy purposes, in some of its parts being utilised as an effective fever-hospital, part of the ground on which it stood occupied by a public school, and a considerable part of the same site occupied by the baths which are the subject of this notice.

APPOINTMENT OF SURGEON-OCULIST TO THE QUEEN.

THE many professional and personal friends of Dr. D. Argyll Robertson will be gratified by learning that he has been appointed surgeon-oculist in ordinary to Her Majesty the Queen, for Scotland, in place of the late Mr. William Walker, deceased.

THE NORTHERN INFIRMARY, INVERNESS.

LIKE a good many other medical charities, the Northern Infirmary, Inverness, has been suffering from the increase of appreciation of its usefulness without an adequate increase in the subscriptions to the funds for its maintenance. A bazaar was therefore projected, and was successfully held in Inverness on Thursday, Friday, and Saturday, and resulted in a sum of £1,670 being raised, to which will fall to be added various other sums. In declaring the bazaar open, Lord Lovat stated that the infirmary was opened in 1803, and that there had been treated in it more than 25,000 patients, which gave an average of rather more than 300 cases seeking its benefits; that, lately, the expenditure had exceeded the income by about £500, and hence the bazaar. He himself intimated a subscription of £50, which would constitute Lady Lovat a life-member of the infirmary. The bazaar could scarcely have been held at a more propitious time, as the northern capital was full of people able and willing to help the scheme, and many local notabilities and distinguished strangers were present.

IRELAND.

CORK WORKHOUSE.

A NOTICE of motion for next week has been given, by a member of the Cork Board of Guardians, to the effect that all students be permitted to attend the hospitals in connection with the workhouse, subject to the supervision of the medical staff.

KINSALE DISPENSARY.

DR. DORMAN, medical officer of Kinsale Dispensary, has resigned, after a service of thirty-three years. Dr. Dorman is in his sixty-ninth year; and, after his long and faithful services, is justly entitled to the highest superannuation-allowance in the power of the guardians to grant.

COUNTY AND CITY OF CORK HOSPITAL FOR WOMEN AND CHILDREN.

THE new building of the County and City of Cork Hospital for Women and Children, situated in Infirmary Road, is now open for the reception of patients, and is capable of accommodating fifty-three inmates.

HEALTH OF IRELAND: ANNUAL REPORT.

FROM the annual report of the Registrar-General for Ireland for the past year, we learn that the number of births registered was 118,875, being 1 in 41.7, or 24.0 per 1,000, which is considerably under the low average rate of 25.3 for the past ten years, and less than the rate in any of those years, except 1883, when it fell to 23.6 per 1,000. The deaths registered amounted to 87,154, or 17.6 per 1,000, the death-rate being somewhat under the average rate (18.3) for the preceding ten years. According to the returns obtained by the Royal Irish Constabulary and the Metropolitan Police, who acted as enumerators at the several Irish seaports, the number of emigrants who left Ireland during 1884 amounted to 75,863; of these, 38,054 were males and 37,809 females.

THE LATE DR. MACDOWELL.

THE remains of this deeply lamented physician, an obituary notice of whom we published last Saturday, were interred in Dublin upon the same day, in the family vault under St. Michan's Church. A very large number of persons, including representatives of the universities, colleges, and other public and private institutions with which he was connected, attended the funeral. By Dr. MacDowell's death, a number of important professional appointments become vacant. Owing to the imminence of the examinations for medical degrees in the Royal University, the Standing Committee had to make immediate arrangements for temporarily filling up his examinership. They accordingly requested Dr. Gordon, a hospital colleague of Dr. MacDowell's, to act in his stead. This Dr. Gordon has consented to do; and, if he cares to accept the examinership, the Senate would probably elect him to it at their next meeting. The profession in Dublin would, as a body, we believe, be glad to see Dr. Gordon succeed also his late colleague in the honourable position he held as Physician-in-Ordinary to the Queen in Ireland; but for this post two or three other names are mentioned. The assistant-physician of the Whitworth and Hardwicke Hospital, Dr. G. P. L. Nugent, who has done most of the clinical work there since his appointment, should get the vacant physiciancy.

MEDICAL HONOURS FOR THE PROFESSION IN IRELAND.

FRESH rumours are current in Dublin as to the speedy bestowal of a baronetcy on one of the leading physicians and one of the leading surgeons in that city. As to the recipient of the medical honour, there is no second opinion; but there seems to be some doubt as to which one of two eminent surgeons will be selected.

VACCINATION GRANT.—Dr. Forsyth, North Bierley Union, has been awarded the Government grant for efficient vaccination in his district for the third time.

VITAL STATISTICS OF MANUFACTURE AND MINING.

WHEN the vital statistics of the United Kingdom are rightly analysed, a very important position must be occupied by those representing the proportion of accidents and loss of life yearly among persons employed in our mines and factories. Copious repertoires of such statistics are now before us, in the form of the Reports, for 1884, of the inspectors of mines and the chief inspector of factories. In the first place, we learn from the mining documents that the getting of coal and of metalliferous ores occupies 564,496 persons of both sexes, and of all ages from above ten. Of this total, by far the major part are engaged in and about coal-mines, namely, 520,376, leaving only 41,120 to be accounted for in metalliferous mines. No females are allowed to work underground in mines, yet as many as 4,458 find employment upon the "banks" of coal-mines; and 1,788, or rather more than one-tenth of the whole number, 17,506, gain a livelihood in metalliferous mines above ground.

It has been greatly to the credit of British legislature to have, many years since, made it illegal to employ women underground, a course not yet adopted in the mining regions of the Continent.

Manufactories figure yet more largely than mines in the proportion of the population they give employment to. The total of miners is somewhat above half a million, but factory-workers number 975,546, or nearly a million. Of these last, 250,000, or one-fourth of the total number, are under 16 years of age, whilst among miners we find only 54,489, or not quite one-tenth. This circumstance we should have anticipated, although, until we had the official figures before us, we did not look for so large a number under 16 years old engaged in mining operations.

There is much of mystery and dread in the aspect of a coal-mine when a stranger looks down its deep, dark shafts; when he witnesses the rapid ascent and descent of men and material, and thinks of the long passages beneath, in the bowels of the earth, often charged with death-working gases and impalpable coal-dust, almost as destructive. Nor are such impressions of dread and danger without too large justification, for the newspapers ever and anon have to record sad, and, at times, overwhelming accidents, destroying numerous lives, and bringing misery to still more numerous survivors. Nevertheless, it must be admitted that sentimentality rather unbends itself in reviewing the conditions and risks of the collier's life. Underground work has some compensating circumstances about it, and it secures a higher rate of payment than most unskilled labour. Moreover, under the operation of the Mining Acts, the condition of the miners has been vastly improved, and the dangers of their occupation greatly lessened. The chapter of accidents in the mining reports holds, however, the first place, and is used in illustration of the working of those legislative measures which, indeed, if not proved capable of bringing about the ameliorations intended, would call for repeal, as costly and burdensome to mine-proprietors.

Happily the statistical tables the inspectors furnish do show a material reduction in the number and fatality of accidents since the Acts were passed. For example, in 1884, there was one death by accident to every 565 persons employed; whereas the average of the ten preceding years was one to every 458.

The public mind is especially impressed and shocked by the great accidents from explosions, but the records of the inspectors prove that these heartrending casualties are not nearly so serious in the sacrifice of life as the every day lesser and unheard-of accidents which beset the miner below and above ground, and also in his unavoidable transit in and out of the pit. Thus, of the 942 deaths in coal mines during 1884, only 65 were owing to explosions of fire-damp, whilst as many as 492 were caused by "falls in mines," including falls of roof and falls of sides of the workings.

The two next most prolific classes of casualties are crushings by trams and tubs (which reached 100), and accidents on inclined planes (numbering 40). Twenty-two deaths resulted from explosions of gunpowder, and 19 men were suffocated by mephitic gases. Of accidents in the shafts, 21 happened in ascending or descending, and the like number from the breaking of ropes or chains. As to this last description of accident, it is only right to remark that the year 1884 was very exceptional, counting 21 in place of 7 the previous year, chiefly owing to two deplorable accidents in South Wales, one causing the loss of 10 and the other of 4 lives.

Those sources of accident now referred to are accountable for 761 of the total number of 942. The rest were of a very varied character, including 94 met with on the surface, 2 from overwinding, 25 from falls down shafts, 19 from machinery above and below ground, and others, few in number, from causes not necessary to

enumerate. A review of the whole of the causes of fatality in coal-mines shows that "falls in mine" are the most to be apprehended. They were the cause of more than one-half of the whole mortality in the year 1884; whilst the dreaded explosions of fire-damp—which, in popular belief, occupy the first place in the black list—were accountable for little more than one-fifteenth part of it. Looking at these facts, it is a fair inference, and one sanctioned also by the particulars of the several accidents as detailed by the inspectors, that the safety of colliers is primarily and chiefly to be secured by their own watchfulness, and by their obedience to the provisions of the Acts of Parliament, and to the special rules, sanctioned officially, made to secure their safety. Were those rules observed, a very great reduction of the loss of life would follow; and the only suggestion, by way of remedy, a few of the inspectors have to make, is, that a hard and fast rule for "propping and spragging" the working places should be laid down—a proposition that other inspectors discountenance, on the ground of the very different character of mines in different localities.

Strict and minute legislation may be overdone. It entails immense cost and trouble to make it at all operative; and, after all, it is but a mechanical substitute for the more valuable qualities of caution and good sense of the employed, from whom it likewise removes another salutary influence—that of responsibility. We would rather await the effects of education, in its widest meaning, to bring about amelioration in the working of mines, than encumber the statute-book with additional compulsory clauses.

These opinions find support when an examination is made of the lists of prosecutions and of the grounds taken. In almost all cases, it is the colliers themselves who are the transgressors, by direct contravention of known laws and special rules; by actions, at times, of recklessness savouring of insanity, because charged not merely with danger to themselves as individuals, but likewise to all their fellow-labourers in the mine. The law is not in fault in such instances. It is minute enough in its directions, and clear enough in its object; but it fails, and ever will fail, to make men careful, or even rational.

It would take us far beyond the due limits of this notice to illustrate further the character and causes of the accidents reported. We have confined our observations almost exclusively to the reports on coal-mines, because these mines are very far more important, by reason of the numbers employed in them, and at the same time more productive of accidents, than metalliferous mines. We will now turn to the records of factory accidents.

The manufactories of the United Kingdom employ, as before stated, nearly a million hands, or about double the number engaged in mining operations of all kinds; but, notwithstanding the superior number of hands, and the vast, complicated, and dangerous machinery in work in the 7,105 factories under the supervision of the inspectors, yet the total deaths by accident are less than one-half those happening in mines, being, in 1884, 403, as against 942.

Of the total number of accidents in coal-mines, other than fatal ones, no summary is given, but in the case of factories we are told that, including the 403 fatalities, there were in all 8,964 accidents "arising from machinery," for these alone are reported to the chief inspector. An analysis shows the loss of a hand or arm in 111 persons, of a portion of the hand in 1,185, and of a part of a leg or foot in 41; the "fracture of the limbs or bones of the trunk" in 538 individuals, the fracture of a hand or foot in 209; injuries to the head or face in 891. The remaining accidents, amounting to no less than 5,413 of the sum total 8,964, are not to be classified under the preceding heads, but include bruises, lacerations, and miscellaneous injuries.

When the bare statement is made, that the manufacturing processes of the kingdom cost 403 lives in the course of one year, it at once suggests a terrible destruction of life, exceeding, in fact, that in many important battle-fields. But when we view the fact in relation to the half-million people engaged in these processes, its sacrifice of life, however regrettable, cannot be pronounced large, being equivalent to only 4 deaths in 10,000 employed. Moreover, when commenting upon this loss of life, we must bear in mind the very miscellaneous industrial processes brought under the supervision of the factory-inspectors, including not only textile factories, potteries, brickyards, and workshops of all kinds, but also quarries, chemical works, ship-building yards, corn and saw mills, iron and engineering works, and others not necessary to enumerate, where danger to life is threatened by ponderous and complex machinery, by boilers and furnaces, by lofty scaffolding and dangerous heights, by falls of rock and other circumstances which will at once suggest themselves to everyone who reflects on the character and conditions of the work carried on. Indeed, we feel sure that if the Factory Office supplied an analysis of the fatal

accidents, showing in what industries and from what causes they arose, it would be manifest that the larger proportion happened in such places as quarries, shipbuilding yards, chemical and engineering works and flour-mills.

In point of fact, a quotation given in the Factory Report for 1884, from the experience of Mr. Inspector Richmond, who has the Liverpool and North Wales district under his charge, fully bears out this conclusion. During the year he had reported to him 51 fatal accidents, and of these no less than 28 occurred in slate-quarries, 8 in chemical works, 5 in shipbuilding yards, 3 in corn-mills, and 2 in ironworks. Here it is seen, therefore, that within the district of this one inspector one-tenth of the whole number of deaths from accident in the United Kingdom was encountered, and the majority of them in slate-quarries, which, only by a stretch of legislative imagination, could have been placed within the category of factories.

It is also further worthy of remark that, with regard to slate and other quarries, the functions of factory and of mining inspectors overlap, whence it happens that the Blue-books of each of those departments refer to matters in common between them, and, among such, the accidents that occur in quarries. For instance, Dr. le Neve Foster, who is inspector of the metalliferous mines of North Wales, recounts the accidents happening in the quarries therein situate, and we gather from his tables that the ratio of deaths by accidents in those places was, in 1884, 2.76 per 1,000 persons employed. These references prove how greatly the mortality-list of factories is swollen by the fatal casualties of quarries.

Foremost in point of number among factory accidents specially designated, are injuries of the right and left hands, especially of the former, requiring partial or complete amputation of the limb. Happily complete amputation was only needed in 111 instances, but partial amputation took place in as many as 1,185. This heavy list of injuries to the hands is not a matter of surprise, although one of great regret. We need only note the fact that there are 725,714 power-looms in the United Kingdom, besides miscellaneous machines larger and smaller and almost as numerous, mostly working at a rate that the skill of an onlooker cannot measure, and all requiring the tending power and dexterity of the hands; we say that when these things are duly weighed and reflected on, the marvel is rather that so few are maimed as the figures show.

It is but fair to add that a much larger number of accidents figure under the heading of "Lacerations, contusions, and other injuries, not enumerated" in the preceding lists of injuries specially defined. This group is, indeed, a very heterogeneous one, comprising all hurts which "prevent the injured persons from returning to their work for forty-eight hours after the accident," and not placed in either category above quoted. Hence it contains instances of severe accidents causing lacerations and contusions, scalds and burns, injuries to the eyes, and a multitude of minor misfortunes, caused by machines and tools, chiefly to the hands. Here, again, in part explanation, we have to remember the very large number of young children employed in factories, and especially in the textile works; half-timers alone counting as many as 111,000. The inexperience and carelessness of such a juvenile host will of themselves account for a large proportion of the injuries that happen; and, when we search the returns made by the inspectors, we are sorry to find allusion to the great prevalence of preventable accidents, the consequence of carelessness and recklessness. Very much good has been accomplished by the strict rules laid down by law, and admirably enforced by the factory-inspectors, for "fencing" machinery of all kinds; but the good intentions of the Acts are frustrated often by the folly of the workpeople themselves; and one way in which such folly is particularly displayed is in the cleaning or oiling machinery when in motion.

At this point in the examination of the reports before us, we must stop, though many additional facts of interest and importance might be culled from them. We conclude with the conviction that official supervision has been extended as far as it should be, both in respect of mines and of factories. Disasters will happen, and some of them will be inevitable; but the far greater proportion are doubtless preventable, and their prevention is chiefly an affair of the workpeople themselves. An analysis of the circumstances and causes of accidents, in whichever report we take up, proves that, in the vast majority, they proceed from the folly or carelessness of those employed. An inspector appointed to each and every mine or factory would not ward off such injuries. The prudence, intelligence, and common sense of artisans must be cultivated, and they must be taught to look to the exercise of these qualities for protection, and not to the intervention of State-appointed officers, and to meddlesome interference and coddling in their supposed interests, though actually to the destruction of manliness and independence.

THE SANITARY CONGRESS.

THE annual Sanitary Congress of the Sanitary Institute of Great Britain began at Leicester on Tuesday. The Exhibition, which was held in the Floral Hall, was formally opened by the Mayor, Alderman Hart. The Exhibition comprised the usual class of exhibits; namely, building material, construction, and machinery; water-supply and sewerage; heating, lighting, and ventilation; personal hygiene, foods, and disinfectants; and miscellaneous articles of sanitary interest.

The inaugural address was delivered in the Lecture Hall of the Town Museum, by Professor de Chaumont. Captain Douglas Galton, the retiring President, occupied the chair.

Professor DE CHAUMONT, after thanking the Mayor and Corporation for their invitation to Leicester, and the hospitable reception extended to the delegates to the congress, said they did not wish the congress to be a mere meeting of experts in the various branches of hygiene, but to make it the occasion of bringing home the subject to the community at large, and of bringing the knowledge already acquired to the amelioration of existing evils, and for the prevention of others. The beneficial effects of sanitation were nowhere more evident than in the army. Thirty years ago, the soldiers at home died at the rate of 18 per 1,000, whereas now the rate was only 6.28; so that, instead of having a higher mortality than the filthiest and most poverty-stricken parts of crowded cities, the army had now a mortality of 40 per cent. less than the most healthy districts in England and Wales. The result was that, calculating sickness and death, there was a saving in the home army of two battalions *per annum*. The case was made even more startling when he stated that, at the time he entered the army, there were dying of consumption alone more men in two years than now died from all causes whatsoever in three years. Equally valuable results had followed good sanitary measures in India and the West Indies, and, putting on one side some pestilential spots which were specially dangerous to human life, they might confidently say that there was hardly a spot on the globe where men might not be kept in health and vigour by proper attention to hygiene. The Sanitary Institute was already in close connection with the Parkes Museum, and they hoped soon to be able to make the union permanent, so that really a great central institution might be formed which should be a centre of instruction, and sufficiently powerful to make its views and opinions heard and respected by the State and among the people. In the meantime, the Sanitary Institute was doing an important work in granting certificates of competence on passing examinations to those officials who are intrusted with the carrying out of local sanitary work. It was a remarkable fact that at present there was no official recognition of the competence, or the necessity for the competence, of any of the officers connected with sanitary work. The medical officer of health, the local surveyor, and the inspector of nuisances might each and all be appointed without showing any proof of sanitary knowledge, and were, indeed, sometimes appointed without the possession of it. He earnestly hoped that the time was not far distant when it would be compulsory on all sanitary officials to show undoubted proof of their competency for office before being intrusted with the health of the people and the expenditure of their money. The present system of uncertain tenure must be abolished, as well as the practice of appointing men in medical practice to small districts at a nominal salary. The country must be divided into large combination districts sufficient to occupy the entire available time of a competent medical officer, who should be well paid and irremovable except by the Local Government Board, on good cause shown and ample inquiry. The importance of a Health Department of the State was becoming more and more evident, and the success which had attended its labours up to the present time demonstrated the propriety of advancing its position to that of one of the great departments of Government. They had now in the office of the President of the Local Government Board a *quasi*-Minister of Health, but as sanitary knowledge progressed the position must be vastly increased in power and in importance. There could be no question that unity in administration would add greatly to the efficiency and materially diminish the expense of sanitary work. A premature death was reckoned overhead as a loss of £100, and if it was the head of the house and the breadwinner it was evidently much more. There were 750,000 deaths every year in the United Kingdom, about one-half of which were deaths of children or of persons in the unproductive periods of life, and of the remainder nearly one-third were distinctly preventable. Could those deaths be prevented they would save, he calculated, a sum of £25,000,000 per annum, or little short of the amount they paid yearly for the interest on the national debt. Other calculations had brought

out even higher figures, but they all agreed in one thing, that we, as a nation, were paying yearly an enormous sum for our sanitary shortcomings. It was the aim and object of their sanitation to reduce, and if possible extinguish, this gigantic burden, which represented about one-sixteenth of the entire taxable income of the country, in addition to the remoter effects of weakened health and enfeebled offspring. Most sanitarians agreed that the death-rate was capable of being reduced to 15 per 1,000 by the reduction of preventable disease, and in that case the mean duration of life would be 54 years instead of 41, while a reduction to 12 per 1,000 would raise the mean duration of life to 65; 11 per 1,000 would raise it to 70; while a ratio of 8 per 1,000—a rate seriously contemplated by Mr. Chadwick—would bring it up to 93; and a fractional amount below 8 would establish the ideal 100 years which was now held to be the normal life of man. Having shown the reduction in the mortality in specific diseases by means of improved sanitation, Professor de Chaumont proceeded to deal with the question of cholera. Epidemic cholera, which had lately committed such ravages in Spain, and might possibly reach our shores by-and-by, was a disease which carried great dread to the public mind. The terror which cholera inspired was due to the appalling suddenness of its invasion, as well as to its great proportionate mortality. He had known 22 cases die out of 24 attacks, or about 92 per cent.; but his experience as a whole had been that about 63 per cent. died, or very nearly 2 out of 3. In the recent epidemics in Italy, France, Spain, and he thought he might also add in Egypt, the death-rate had been much less. In Spain, it had only been 1 in 3; but even this was bad enough, and they might get some idea of its ravages in this way. Supposing Spain to have a normal death-rate of 22 per 1,000, then there would be about 1,000 deaths per day as the usual death-rate; but from 1,500 to 2,000 lives had been lost daily from cholera alone, and altogether, up to the end of August, about 80,000 persons or more had perished in a population of 16,000,000, so that the death-rate was being more than doubled. In this country, our normal death-rate was about 16,000 a week; if cholera prevailed in the same ratio as in Spain, we should be losing about 25 lives per week from that cause alone, and the total death-rate would be between 40,000 and 50,000. This naturally led them to consider what condition we were in to resist this formidable invasion. Cholera had visited Europe six times, including the present epidemic, namely, in 1832, 1849, 1854, 1866, in which years it prevailed in this country; but in 1878, and up to the present time in the existing epidemic, it had not been able to make a footing. It was chargeable with the death of 180,000 or 200,000 persons in the United Kingdom, and this number divided by the fifty-four years gave 3,700 a year. But in those fifty-four years the deaths from fever were higher in the aggregate, and even in epidemic years the deaths from fever sometimes equalled those from cholera. For instance, in 1854, there died in England and Wales from cholera 20,000 persons, and 19,000 from fevers, while in the two last epidemics the total cholera deaths were 88,000, while the total fever deaths were 40,000, without including scarlet or other eruptive fevers. Altogether, the deaths from fever in the United Kingdom during these 54 years could not have been less than 1,500,000, or eight times the mortality due to cholera. They had thus had a constant enemy to deal with, the mere familiarity with which had bred a certain amount of contempt; while, on the other hand, the impressive onslaught of cholera had roused them from time to time to more vigorous action, to such an extent, indeed, that they might say that cholera had been more of a blessing than a curse, and that it had saved many more lives than it had killed. The utter futility of quarantine by land or sea had been proved most clearly, and they had wisely in this country devoted an expenditure to internal sanitation, to the provision of good water, and good drainage. They must remove dirt where they could, and generally wash and be clean; and he thought, judging by the past, they had good hope for the future, for we were better situated for resisting an epidemic than we ever were before. It was well not to boast, but he thought they might look upon the progress of cholera with calmness, feeling assured that the chances of its spreading among us were but few. In conclusion, the President referred to the question of vaccination; and he wished it to be distinctly understood that, in his judgment, vaccination was one of the greatest boons ever conferred upon humanity. Leicester had constituted itself a principal centre of opposition to vaccination, and he believed that it was insisted that sanitation was sufficient to prevent small-pox. With special regulations and strict isolation, they had been able to keep the town very free from this disease, and he should be a bad sanitarian if he did not recognise the value of both these measures; but he would point out that they were now working with a population that was for the most part already vaccinated. What it might be, when an unvaccinated population had accumulated, was a

very different thing, and he feared they would have a rude awakening. It was an entire mistake to suppose that a prophylactic measure, such as vaccination, was antagonistic to general hygiene.

Breakfast to Delegates—Discussion on Temperance.—The delegates were entertained at breakfast by the Leicester Temperance Society, at the Temperance Hall, on Wednesday. Dr. HENRY LANKESTER presided.

Dr. ALFRED CARPENTER, Croydon, stated that he had been enabled to treat disease far more effectually, and with greater advantage to the patient, by eschewing alcohol than by admitting it into his prescriptions.

Professor DE CHAUMONT was of opinion, and his experience in the army had confirmed him in the view, that if they abolished drink altogether in the service they would be doing a great benefit. He was certain that nine-tenths of crime in the army were due entirely to drink, but great improvement in the drinking habits of soldiers had taken place during recent years.

Local Sanitary Association.—The Section for Sanitary Science and Preventive Medicine afterwards met at the Museum Lecture Hall, when Dr. ARTHUR RANSOME, President of the Section, delivered an address, in which he said it was desirable that, in its brief periodical visits to the principal cities and towns of the country, the Institute should, if possible, leave behind it some abiding and growing influence. He advocated the establishment in each town visited of a local sanitary association, which would carry on the work of the Sanitary Institute by means of permanent organisations. In his opinion, few places in England would be so likely as Leicester to benefit from the establishment of such an institution in its midst. From the Registrar-General's last annual return, it appeared that the mortality in Leicester of infants under five years of age was over 500 per thousand deaths, more than one-half of the total mortality. During the month of July, the *Sanitary Record* noted no fewer than 100 deaths from diarrhoea, an eminently preventable disease. Such a fearful mortality as that must be due to something wrong in the place itself, and it surely behoved the inhabitants of Leicester to take measures to remove such a reproach to their humanity as soon as possible. Alluding to vaccination, Dr. Ransome spoke at some length on the horrible and destructive character of small-pox, and gave facts and figures to show the inestimable benefit which had been derived from Dr. Jenner's system for the prevention of the malady. Speaking on the effect of compulsory vaccination of adults in Germany, Dr. Ransome said it had almost stamped out small-pox altogether. It was noteworthy that, since the year 1874, no deaths from small-pox had occurred in the Prussian army, while both the French and Austrian armies still showed, by comparison, quite a considerable mortality from this disease.

Professor DE CHAUMONT proposed a vote of thanks to the President of the Section, which was carried.

Infantile Diarrhoea.—Dr. E. W. BUCK next read a very interesting paper on this disease, the prevalence of which in Leicester in an epidemic form he attributed to water-logged subsoil, which was rendered impure by decomposed organic matter, which gave vitality to a specific organism which caused the disease. The long discussion which followed occupied the remainder of the morning sitting.

Vaccination.—At the afternoon session, Surgeon-Major PRINGLE read a paper on "Vaccination *versus* Isolation as a Preventive Against Outbreak of Small-pox." He gave some very interesting details of how he stamped out small-pox in India by isolation, but he preferred vaccination of a thoroughly efficient character, for which each medical man should be held personally responsible. Where ill effects followed vaccination, the State ought to furnish full and efficient medical attendance.

Alderman WINDLEY described the methods by which Leicester was kept free from small-pox. Whenever a case occurred by importation from other towns, the patient was at once isolated, and the house disinfected at the public expense. Before this system of isolation was enforced, there were outbreaks of the disease with 52 deaths in 1852, 53 deaths in 1858, 104 deaths in 1864, and 346 deaths in 1872. Since the isolation system had been enforced, the town had been almost entirely free from small-pox. As a contrast to the state of things prevailing at Leicester, he read a letter from Dr. Seaton, of Chelsea, which stated that small-pox had been worse than ever in its ravages in Chelsea. They had vaccination there but no power of isolation.

Professor CORFIELD admitted that the belief in the efficacy of vaccination had led sanitary authorities to be negligent of precautions for the prevention of the spread of small-pox; but his opinion was that the two things ought to go together, so that they should have both isolation and vaccination.

Mr. F. T. MOTT (Leicester) pointed out that it was contended by anti-vaccinationists that small-pox, like some other diseases, had almost practically disappeared from Europe, and it had never been shown that this was due to vaccination.

Dr. CAMERON pointed out that Ireland was one of the best vaccinated countries, and they had practically no small-pox, while typhus fever had not been affected by the improved sanitary measures.

Dr. ALFRED CARPENTER said vaccination furnished those who were vaccinated with an unflammable garment which effectually protected them against small-pox. In Leicester they kept powerful sanitary fire engines, but he preferred to have vaccination in addition. He and twenty-five other medical gentlemen had visited a small-pox hospital in London, and had conducted investigations there which exposed them to the infection, but had any other twenty-five men visited the hospital unprotected by vaccination, at least four of them would have had to be put into their coffins.

Mr. J. THOMAS STEPHENS pointed out that when Leicester was well vaccinated, and there were very few objections to the operation, there was frequently a heavy mortality; whereas now, with isolation and very little vaccination, small-pox did not exist. The people of Leicester were determined to resist the operation, and warmly thanked the Sanitary Committee for what had been achieved by means of sanitation.

Professor DE CHAMMONT congratulated the Leicester Corporation on what they had done, and they had set an example to the whole country which he hoped would be speedily followed.

Dr. PRINGLE having replied, the discussion was closed.

Mr. LEWIS ANGEL afterwards read a paper on "Impediments to Sanitary Progress."

Local Government Reform.—The lecture to the Congress was given on Thursday evening, by Mr. ERNEST HART, the chairman of the National Health Society, who dealt with the subject of the Essentials of Local Government Reform, in an exhaustive paper of considerable interest and value.

THE CHOLERA.

THE CHOLERA IN FRANCE.

THE improvement still continues at Marseilles and Toulon. The Council of Administration of Toulon has shut the Bon-Rencontre Hospital. The ambulances are also closed. No fresh cases have occurred in the Ardèche since September 13th; but three, previously ill, have died from cholera. There are now seven in the commune stricken by cholera. Two fresh cases have occurred at Vallon. A considerable number of the inhabitants of St. Alban, in the Ardèche Department, emigrated when cholera appeared; one of them died at Joyeuse, another at La Blachère. Two of the Marseilles Municipal Councillors, M.M. Moulin and Giry, have proposed that, as the cholera epidemic has passed away, the Municipal Council should strenuously urge the sanitary authorities to abolish quarantine in the foreign ports, now inflicted on vessels from Marseilles. M. Alain Targe, Minister of the Interior, has published his report concerning the sanitary improvements necessary to be made in Toulon and Marseilles. In Toulon, they are the following: a sewage-system that will carry the matter far out into the sea, and thus preserve the old port from being converted into a cesspool; to alter the fortifications, in order to fill up the ditches, which now are open cesspools; the city to be supplied by water conveyed by pipes; also to retreat the ramparts, which shut out light and air; whole streets to be constructed in the east end of the city. At Marseilles, the sewage-system must also be reformed. It is necessary to construct two systems of sewage-pipes—one to carry the matter to La Joliette, the other towards the south ports—in order to prevent excrement from being emptied into the old port. It is also important to construct large wide streets behind the Stock Exchange; this cannot be done unless the church of St. Martin is pulled down. The State will facilitate these improvements by money-grants, sanctioning the alteration of the fortifications, also improvements being made on ground included in the area. The Minister of the Interior will confer with the War Minister and the Minister of Public Works.

HISTOLOGICAL EXAMINATION OF DR. FERRAN'S VACCINE FLUID.

Dr. CHAUMESSE read before the Académie de Médecine a description of the results obtained by a histological examination of Dr. Ferran's vaccine fluid. This fluid is variable in its composition. Sometimes it is a cultivation of impure comma bacilli, sometimes it contains masses of micro-organisms, and the comma-bacilli is barely present. In either case hypodermic injections of this vaccine fluid is not a prophylactic against comma-bacilli, cultivated according to the known methods and administered intestinally. In all the experiments made by Dr. Chaumesse and Dr. Rumme, Dr. Ferran's vaccine was inefficacious. Several cubic centimetres of it were injected under the skin of guinea-pigs, but symptoms of cholera were not provoked. According to its

composition and the strength of the dose it produces phlegmons, which are subsequently covered by an eschar, or is perfectly inert. The different micro-organisms possess special morphological and pathogenic properties, when cultivated separately. Some are fatal to guinea-pigs, if administered in sufficiently strong doses.

DENTAL SURGERY.

THE subjoined was accidentally omitted last week.

EDINBURGH DENTAL HOSPITAL AND SCHOOL.—*Consulting Physician*, Dr. Alex. Peddie. *Consulting Surgeon*, Joseph Bell. *Consulting Surgeon-Dentist*, Dr. John Smith. *Dental Surgeons*, Mr. C. Matthew, Mr. W. Bowman Macleod, Mr. M. Finlayson, Mr. A. Wilson, Mr. Malcolm Macgregor, Mr. G. W. Watson, Mr. Edwin A. Cornack. *Assistant Dental Surgeons*, Mr. J. S. Durward, Mr. James Mackintosh, Mr. James Lindsay, Mr. W. Forrester, Mr. J. S. Amore, Mr. J. G. Munro.

The School is in close proximity to the University, the Royal Infirmary, and the other Medical and Surgical Schools of Edinburgh. In addition to the Honorary Hospital Staff, the Directors have appointed a Tutorial Dental Surgeon, who attends every day from 9 to 11 o'clock, and superintends, controls, and advises, and, when necessary, assists the Students in the treatment of cases. He likewise, from time to time, at least once a week, gives a special demonstration in gold-filling or the preparation of cavities.

The Hospital Practice includes Extractions, Stoppings, Regulating Cases, etc., which will be undertaken by the Students, under the supervision of the Dental Surgeons in attendance.

Two Deputy-Assistantships have been appointed. Senior Students only are eligible for appointments, and, when appointed, will hold the appointment for three months. They will act as Assistants to the Dental Surgeons in the absence of the regular Dental Surgeons of the day. Students must provide their own stopping-instruments.

The following courses of Lectures, etc., will be delivered. Dental Anatomy and Physiology (Human and Comparative), twenty-four lectures: Mr. Andrew Wilson, Tu. F., 8 p.m. (winter). Dental Surgery and Pathology, twenty lectures: Mr. G. W. Watson, Tu. T., 8 p.m. (summer). Mechanical Dentistry, twelve lectures: Mr. W. B. Macleod, W., 8 p.m. Practical Mechanics: Mr. J. S. Durward.

Fees.—Hospital Practice, £15 15s. Dental Anatomy, Dental Surgery, and Mechanical Dentistry and Demonstrations, each £3 5s.; for second courses, each £2 4s.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 14th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

161A, Strand, September 17th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research.

Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of
CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held on Wednesday, September 30th, at Saltburn. Members are requested to inform the Secretary, at their earliest convenience, should they intend to read papers, show specimens, etc.—DAVID DRUMMOND, Honorary Secretary.—7, Saville Place, Newcastle-on-Tyne, September 28th.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at the Cock Hotel, Stony Stratford, on Tuesday, October 6th, at 2 o'clock P.M. The President kindly invites the members to luncheon at his house at 1 o'clock. Gentlemen wishing to read papers or cases are requested to communicate without delay with the undersigned.—CHARLES J. EVANS, Honorary Secretary, Northampton.

BORDER COUNTIES BRANCH.—The autumnal meeting will be held at the Golden Lion Hotel, Maryport, on Thursday, October 1st. The chair will be taken at 3 P.M.; a meeting of the Council at 2.45 P.M. The following papers have been promised. Dr. Eaton, Cleator Moor: Remarks on Hospitals, with special reference to those for Infectious Diseases. Dr. Black, Keswick: A case of Gastro-intestinal Hemorrhage in an Infant, with additional notes on the Disease. Dr. Cregar, Maryport, will show several patients. Dr. Muriel, Whitehaven: History of a Piece of Elastic Catheter broken in the Bladder. Dr. Welby, L'Anson: Fatal case of Carbolic Acid Poisoning. Dr. Highet, Workington, will show a Tumour of the Larynx. Members having any other communications, papers, specimens, or patients, for reading or showing, are requested to give immediate notice to the Secretary. Dinner at the Golden Lion Hotel at 6 P.M.; 8s. a head, exclusive of wine.—HENRY A. LEDIARD, Carlisle.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the President-elect, Mr. J. T. Hartill (Willenhall).—VINCENT JACKSON, General Secretary.—Wolverhampton, September 11th, 1885.

EAST SURREY DISTRICT: SOUTH-EASTERN BRANCH.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 8th, at 4 P.M.; Dr. Holman, of Reigate, in the chair. The following papers, etc., have been promised. Dr. Holman (Chairman): A Case of Cystinuria. Dr. Milner Fothergill: "Our Means of Affecting Arterial Tension." Mr. F. B. Hallows: A Case of Passage of a Large Number of Gallstones. Dr. Stone: A paper. Dinner will be served at 6 P.M. precisely; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to be present, and to introduce professional friends.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Acute Meningitis and Catalepsy, immediately following Removal of a Cancerous Cervix Uteri.—Treatment of Cholera.—Intrapulmonary Injections of Bichloride of Mercury.—Water Analysis.—Sanitation in France.—General News.

M. DEPRÉS, of the Charité Hospital, has published a case of acute meningitis, accompanied by catalepsy, which appeared after removing a cancerous cervix uteri. The patient was a boxkeeper at a theatre, aged 36. Six months before seeking advice, symptoms of epithelioma of the cervix became manifest. M. Després, on examining the patient, ascertained that the seat of the tumour was circumscribed, and that the neighbouring regions were uninvolved. The general condition was excellent, and all signs of cancerous cachexia were absent. The patient's antecedents were satisfactory; neither arthritis nor cancer had appeared in any branch of her family. She was healthy, but nervous, a condition inherited from her mother. The cervix uteri was removed by the galvanic caustic loops. On July 25th the operation was successfully performed. On the night of the second day, the patient was seized by a fit of coma, and next morning she was found lying on her back perfectly unconscious, with a small quick pulse, and irregular breathing. During the day the pulsations were reduced to fifty a minute; respiration was assisted, and then recommenced; this phenomenon frequently recurred. No morbid symptoms were discovered on auscultation or percussion; pressure on the abdomen (which was flat) was painless. On July 29th, the patient groaned on being pinched, and turned round in her bed; the pulse and respiration were more regular. It was also observed that the limbs remained in the position in which they were placed, which indicated catalepsy, especially as convulsions were absent, and the patient was apparently insensible. This condition continued during two or three days; afterwards she became conscious, and tried to answer questions, but her utterance was slow and evidently difficult; she barely understood what was said to her; the pulse and respiration improved. The temperature fell to 33° C. but this improvement was transitory. A few days subsequently she became comatose, and died. At the necropsy, lesions were observed, proving the presence of acute meningitis. The brain was red, congested, and adherent to the meningeal membrane, principally at the base; the pia mater was especially inflamed. The lungs were congested, the heart normal, neither was there any trace of peritonitis. Near the remainder of the neck of the uterus there was a slight non-purulent exudation. The uterus was perfectly normal, without any indications of pregnancy. The right ovary had undergone cystic degeneration, forming a tumour in the hypogastric region, which had been observed during life-time. There were no metastatic abscesses observed, therefore the patient did not die of pyæmia. The lesions of the meningeal membranes explained the cause of death.

M. Bouley, at a recent meeting of the Académie des Sciences, presented a memoir by M. Arsène Drouhet, of Paris, on the treatment of cholera. He recommends painting the abdomen over with collodion. M. Marius Partrité, who practises in the War Department, appends a few pages to M. Drouhet's pamphlet. Last year he treated a great many cholera-patients, and affirms that he effected some unexpected cures with M. Drouhet's remedy. M. Bouley said he should not criticise M. Drouhet's work, but could vouch for his honest intentions and scientific knowledge.

M. Lépine, professor at the Faculty of Medicine, in a memoir presented to the Académie des Sciences by M. Marey, states that intrapulmonary injection of solution of bichloride of mercury in pneumonia arrests the progress of the malady, and suppresses the

ronchi almost instantaneously. Dr. Truck, a pupil of M. Lépine's, has obtained important results by locally treating cases of tuberculous phthisis according to this method.

M. Ch. Girard has made a biological examination of water at the Paris Municipal Laboratory. He dissolved forty grammes of white gelatine, and two centigrammes of sodium phosphate, in 1,000 grammes of water. The mixture was then clarified with white of egg, and boiled, filtered, and sterilised at 115° Cent. When used, a definite quantity of the water under examination is then added, and the germs that develop are examined as to nature and quantity.

M. Trasbot, at a recent meeting of the Société de Médecine Publique, stated that the well organised system of inspecting the slaughterhouses and markets of Paris prevents unhealthy meat from being introduced into them; but, in the suburbs of Paris, the butchers have private slaughterhouses, where animals dead from any kind of disease can be slaughtered. Some butchers have carts, with a sort of crane in front, in order to remove dead or dying animals to the slaughterhouse. M. Vallin, in his yearly report to the Minister of Commerce, always dwells on the danger to public health attending private slaughterhouses. M. Napias reminded the meeting that, according to royal decree of April 15th, 1838, the fact of a public slaughterhouse existing in a locality rendered the suppression of private slaughterhouses legal. M. Ulysse Trélat, the President of the Society, appointed a commission, composed of MM. du Mesnil, Gunier, and Trasbot to study the question.

M. Ch. Herscher, in a paper read before the Société de Médecine et d'Hygiène Professionnelle, classified workshops and workrooms in the following manner: those that may be overcrowded, those in which the atmosphere becomes vitiated from the nature of the work done, and those in which the substances prepared on the premises required a special hygrometric or thermometric condition of the atmosphere. These may be again subdivided. A commission, composed of MM. Blaise, Gariel, Ch. Herscher, Hudelet Livache, and Pouchet, has been appointed by the Société de Médecine Publique to collect information concerning the ventilation of workshops and workrooms.

The body of Louis Thuillier was a few days ago publicly interred at Amiens. The Minister of Instruction was present at the ceremony, as well as the Prefect of the Somme, the Mayor of Amiens, and M. Dastein, who made a touching and suitable address. The Minister of Instruction also delivered an eulogistic oration.

CORRESPONDENCE.

OVERCROWDING OF THE PROFESSION.

SIR,—A great many statements have of late been made as to the crowded state of the medical profession. It has also been asserted that the number of students entering the medical schools of recent years far exceeds the legitimate measure of supply and demand. Sir Lyon Playfair, in his place in Parliament, made a distinct statement as to the annual diminution in the ranks of the profession which has to be filled up with new recruits. That statement has been criticised and discussed, one writer agreeing with him, and quoting his figures in support of one aspect of medical reform; another alleging that the figures are quite fallacious, and taking a wholly opposite view of the question.

The truth is, it is exceedingly difficult to obtain correct arithmetical statistics, even when limited to a very narrow inquiry. I know that there is a very general impression among young practitioners that the number of medical men practising in a district is much greater than it was some years ago, in proportion to the population. But I question if this will bear inquiry. I am aware that that is the idea in Glasgow; and I have always given rise to great surprise when I have, in conversation, quoted the figures to be obtained from the Post-office directory of different years.

As the subject is interesting to others than those in this locality, I shall conclude by giving the figures relating to the number of medical practitioners in Glasgow in proportion to the population.

Year.	Population.	Number of Practitioners.
1851	255,000	231
1861	329,000	226
1871	477,000	231
1881	511,000	294
1885	543,000 (estimate)	312

G. BUCHANAN, Glasgow.

OPERATIVE TREATMENT OF UTERINE MYOMA.

SIR,—I can only reply very briefly to Dr. Malins' second letter, because the really important points upon which he touches are being dealt with in a series of papers, which will appear as soon as the enormous mass of evidence now at my disposal can be properly sifted and arranged. I am glad, however, to see, on comparing his letter of August 22nd with that in the JOURNAL of September 19th, that he holds very different opinions concerning the inclusion of the uterine arteries, the possibility of doing this, and the results to be derived from it, even if it were possible, than he did a fortnight ago. I think probably enough has been said on this point to render further discussion of it wholly unnecessary. I may also just say that I do not regard pregnancy as an uterine tumour, as Dr. Malins seems to do. The only other point requiring allusion is the statistics. What Dr. Malins says is perfectly true. I did say, at the conclusion of my "One Thousand cases of Abdominal Section," that I had removed the appendages for myoma in 99 cases, with 7 deaths. But surely that is not to be regarded as final. After nearly a year's more work, I could say that I had removed the appendages for uterine myoma 129 times, with still the same 7 deaths, showing conclusively that experience helps me greatly in diminished mortality. Dr. Malins is rude enough to say that, "with regard to my figures, he has no confidence in statistics which can be evolved at will to prove any statements made on different occasions." Dr. Malins will shortly have an opportunity of defending his own statistics; and, until he has done that satisfactorily, it probably may be advantageous that he should refrain from any such improper criticisms on the statistics of other people.

It is also true that I knew, at the time I spoke before the British Gynaecological Society, of thirteen women who were dying from uterine myoma. I am very glad to be able to say that that list is now materially diminished, and I hope shortly to publish a striking illustration of the advances we are making—an illustration which will also afford a fairly strong proof of some of the positions which I have taken up concerning these operations.—I am, Sir,

Birmingham, September 19th, 1885.

LAWSON TAIT.

COMPETITIVE EXAMINATIONS IN THE CIVIL SERVICE.

SIR,—In 1884, I published a pamphlet on the "Poor-law Medical Service: its Past, Present, and Future." Apropos the letter of Surgeon-Major Evatt, A.M.S., in the JOURNAL of September 19th, the following extract proves how the same idea may occur to different minds.

"The competitive examinations for the army have proved a success. They have opened out a field for work to men who had no interest or relations in high position; to men whose only passports have been brains and education. If a civil medical service could be established on the following lines, then the competitive system might be applied.

"1. The civil service should embrace the sanitary service, Poor-law service, lunacy service, factory service, education service, police service, and prison service. 2. The officers of these branches should be divided into grades, the same as in the army. 3. All grades should be filled up by a mixed method of competition and selection; thus, for instance, promotion might proceed by selection and by competition. 4. The country would have to be mapped into districts not according to rateable value or parish boundaries, but according to situation, density of population, number of institutions, etc. 5. The first appointments should be filled up by competition, the tests being physical and educational, the same as in the army. The candidates would select which branch they wished to enter. The number of vacancies should be announced by advertisement in our medical journals, just as is now done for army and navy. 6. In certain cases, combined appointments might be held. For instance, if the district had a small prison, a few police, and a moderate number of sick poor, one medical officer could fill all the offices, his total emoluments would compensate him, where, if divided amongst several men, the emoluments would be insignificant to each. Chadwick says in his Report (On the Condition of the Working Classes, 1844): 'The multiplication or the maintenance of such fragmentitious professional service is injurious to the public and the profession: it is injurious to the profession by multiplying poor, ill paid, and ill conditioned medical men.' 7. The large sanitary districts and the lunacy appointments at the present time are filled by local authorities. The emoluments of these offices are sufficiently attractive to draw able men, but there are certain disadvantages under the present method. The medical officer has too many masters; he is to a certain extent influenced by his boards. In a certain case, well known, where the medical officer spoke openly his mind on the insupportable state of his district, his resignation soon followed his impolitic avowal. The competitive system under a central authority would remedy this evil: the officer would be unfettered by fear or favour; the class of inspection would be improved. 8. A stimulus would be given to scientific medical work by such a civil service. Those who belonged to it would have an incentive to work, and they would be kept well up to their work. Let us confess it: we all want a little stimulating and a little supervision. The present Poor-law system, says Chadwick, 'only suffices to sustain needy competition for practice in narrow fields. Out of such competition, the public derive no improvements in medical science, for science comes out of wide opportunities of knowledge and study.'

"Such a civil service would be worthy of this great country. I have here only sketched an outline of my plan, but hope shortly to more fully develop it. Its applicability to the conditions of our English institutions I have no doubt of."

—Yours truly,
Horton House, September 19th, 1885.

TH. M. DOLAN.

UNIVERSITY COLLEGE ANNUAL DINNER.

SIR,—Will you allow me to correct an error which appeared in your JOURNAL of the 12th instant with regard to the above, and to state that the annual dinner of the old and present students of the Faculty of Medicine will be held (at the Freemasons' Tavern) on October 1st, at 6.30, under the presidency of Mr. John Marshall, F.R.S.? Tickets, 12s. each, may be obtained up to the morning of October 1st, either from Mr. Stonham or from your obedient servant,
30, Wimpole Street, W. I am, Sir, yours truly, G. V. POORE.

MEDICAL WOMEN FOR INDIA.

SIR,—It is hardly possible to exaggerate the importance of the movement set on foot by Lady Dufferin for the supply of medical women for India. For many years past, lying-in hospitals have been supported by Government in connection with the medical colleges of the Presidency towns, under the superintendence of the professors of midwifery in the colleges. An immense amount of good has been done in these hospitals, not only to the pupils in the medical schools of India, and in training nurses, mostly of Eurasian birth, for the European community in the cities and military cantonments of India, but also to the native women of the poorer class, who receive the benefit of scientific and humane treatment in the hospitals. It is needless to say that the benefit to be derived from such hospitals is almost entirely confined to the poor native women of caste, as Mahomedan families of rank cannot enter our hospitals without degradation. In the chief cities of India they can have the services of well trained nurses, and in some places perhaps even properly qualified medical women; and I have no doubt they avail themselves of such aid to a considerable extent. But in other parts of India, where no such assistance can be obtained, pitiable in the extreme is the case of unfortunate women of all ranks when they are the subjects of any of the so-called "accidents" of childbirth. For more than ten years of my service in India, I was attached to the Political Residency of Hyderabad, in the Deccan, close to the great city of that name. I had too many opportunities of becoming acquainted with the enormous amount of suffering, and the great mortality among lying-in women of all ranks. It is not too much to say that in nine cases out of ten death follows every such "accident." The native midwife is invariably a woman of the lowest class, and profoundly ignorant of the science she professes. In my time it was an event of weekly occurrence that a poor woman brought to the Residency Hospital, mostly in a moribund condition, frightfully injured by the violent attempts at delivery on the part of their ignorant attendants. On many occasions I have found the uterus ruptured from cervix to fundus, and the foetus in the abdominal cavity. Of those who escape death during or immediately after delivery, numbers perish from tetanus, the outcome of the violence used. Very little better is the fate of women in the zenanas of men of rank. Everyone knows of their jealous seclusion. It is true that in most cases if a physician be asked to prescribe for a Hindoo woman of rank he is expected to do so after a few questions addressed to her behind the *purdah*, with, perhaps, permission to feel the pulse of the patient. This no doubt is the rule among high-caste Hindoo women, who would, in most cases, die rather than allow a man to assist them in labour. In the city of Hyderabad I have, in a few cases, been called in the darkness of night, and introduced, by private doors, into the zenanas of Mahomedan noblemen, to render assistance to favourite women in difficult labour; but in not a single instance in time to save life. With such experience of the crying need for duly qualified medical women for India, I hail, with the utmost satisfaction, the movement now being carried out under the powerful auspices of the wife of the Viceroy of India. Lord Dufferin is one of the ablest of the many able men to whom England has committed the government of India, and we look confidently for wise measures of administration at his hands; but of this I am sure, if success crowns Lady Dufferin's efforts to mitigate the terrible sufferings of Indian women "labouring of child," her name will be gratefully remembered when that of many an ambitious governor-general has perished.

It is with great pleasure I note that the municipality of Lahore has appointed a medical woman (Elizabeth Bintley) to the charge of a lying-in hospital, on a liberal salary, with permission to engage in private practice. This is probably the first fruit of Lady Dufferin's scheme, and I hail it with pleasure.—I am, Sir, yours etc.,
W. C. MACLEAN, M.D., Surgeon-General.

THE FEVER OF WIESBADEN.

SIR,—During a recent holiday excursion in the Rhine district I visited Wiesbaden, and was painfully impressed by the deserted condition of that charming watering-place. When I left London, about

three weeks earlier, contradictory paragraphs were appearing in the general and medical press. One writer asserted that the fever was typhus, another that it was typhoid, while a third boldly denied the existence of an epidemic altogether. I made inquiries of Dr. Max-collm, one of the leading local physicians, and a member of our Association, also of Herr Ludwig Israel (the town surveyor), of the chief officer of the local police, and of others. All were most courteous, and seemed very willing to state all the facts known to them; but, for a full and authoritative statement of all the circumstances of the epidemic, we must await the report of the Government Commission of Inquiry, which commenced its labours on September 7th.

It appears that, in the season of 1884, cases of enteric disturbance in excess of the normal were observed; but no public action was taken, and, with cooler weather, the malady subsided.

On the occurrence of hot weather, towards the end of May last, many cases of gastric and enteric disturbance, some of severe character, were again noted. The cases increased in numbers in June, when some well marked cases of typhoid fever occurred. In explanation of some of the seemingly contradictory statements, it may here be pointed out that what we know as typhoid is called typhus by our German brethren, who distinguish as typhus exanthematicus the disease which we call typhus.

Though the great majority of the cases were mild, the numbers soon attracted the attention of the hospital and of the civil sanitary authorities, who acted with promptitude and energy. The condition of the water-supply was examined; printed instructions relating to the malady, the use of disinfectants, and the interment of the dead, were freely circulated, and all the schools were closed by police-order. The water-supply had been of late years insufficient for the rapidly increasing population, with its large annual influx of visitors, and a new reservoir was recently constructed in the Taunus hills to the north of the town. As the ordinary water-supply was becoming exhausted, the new reservoir was used before it was quite finished. Some Italian workmen were engaged on it, and they seem to have polluted the water, for faeculent matter and a free crop of bacilli were found in it, but I am not aware that any of the workmen were suffering from typhoid fever, or from diarrhoea of a severe type. The reservoir was promptly emptied and cleaned. Meanwhile, the energetic police-measures had caused a panic amongst visitors and a considerable number of the residents, which resulted in a general exodus from the town, and prevented the arrival of any more visitors. The epidemic subsided rapidly, and, by August 25th, the authorities pronounced it to be at an end. Awaiting the official report, the following circumstances are of special interest.

1. At the commencement of the outbreak, cases occurred simultaneously in all parts of the town, but some quarters suffered more than others, particularly a newly built district to the west of the town, known as the Wellritz quarter.

2. No case is reported to have occurred in any of the large hotels.

3. With very few exceptions the cases were confined to the domestic servants of residents, and to artisans and their families, that is, to persons who passed the greater part of their time in basements.

4. Unpleasant odours proceeding from the drains are often observed, and the drains cannot be freely flushed by reason of the inadequate water-supply.

Serious as was the condition of the new reservoir, the foregoing considerations strongly indicate that the defective state of the drainage and the inadequate water-supply were the main factors in the recent trouble. In a word, the town has overgrown its sanitary conditions. To remedy the state of things it is proposed to provide an additional water-supply from the Rhine, to enlarge and improve the drainage-system of the town, to provide larger and improved clearing-trunks for the subsidence of the solid sewage, and a large sewage outfall to discharge the deodorised liquid contents into the Rhine. Whatever the measures sanctioned by the Commission, it is to be hoped they will be effectual in securing the public health and confidence. Meanwhile, it is only fair to say that the extent of the epidemic has been immensely exaggerated. There were in all forty-five deaths to about 800 cases in a population of about 60,000. In its vital statistics, Wiesbaden compares favourably with any of the German spas. Its average rate of mortality is 21 per 1,000. The self-denying action of the local authorities in publishing daily bulletins of the state of the public health, and in taking vigorous measures to grapple with the epidemic, cannot be too highly commended, and the knowledge that the sanitary condition of the town is in the hands of conscientious advisers ought to do more to restore public confidence abroad than could be effected by attempts, however ingenious, to gloss over or explain away the facts.—I am, yours truly,

ALBERT KISCH.

THE STATUS OF THE ARMY MEDICAL OFFICER AND MEDICAL STUDENT LIFE IN LONDON.

SIR,—In any discussion on the status of the army medical officer it is to be remembered that there is an immense solidarity between the medical profession as a whole, whether in civil or military life. Any defects of status of which we complain are equally felt probably in the civil profession, although the remedy in the one case may not be so easy as in the other.

We can select our officers in the army, we can get rid of undesirable members of the corps, but the civil profession as yet apparently cannot do so. It is too loosely organised. In all our efforts for equality within the army, we are handicapped by the small bad residuum in the civil profession.

A foreign physician, who had studied the social side of the profession in England, said, "Although in England he found the very highest types of physicians, he found there also the lowest types in the world."

I would like to draw attention to one point which seems to me to weaken the recruiting of our profession very much. I mean the dread which many good people of excellent social status have of allowing their sons to go through the four years of the London students' life. They are haunted by the old-fashioned idea that this life is one of undisciplined Bohemianism, and injurious, in a measure, to the social side of a young man's life. They think that the surveillance is weak and feeble, and that the pursuit of the students' fees is more the aim than any general interest in the students' welfare.

Is there any ground for this condition of thought, or is it a mere survival of old stories of the past? Medicine has been forced to move away from the older universities, with their discipline, their *esprit de corps*, their interesting and civilised and civilising social life, and, stripped of all endowments, has had to come up to the great cities in pursuit of the surgery and the medical experience not always available in the university towns. Allowing, then, for all this, has enough been done to develop, amid the new surroundings, the social training and protection of the old college life? Is there to-day, in London, any single medical school to which a father in the country can send up his son, quite confident that every side of his son's life will be cared for, where, besides receiving accurate scholastic training, he will be decently and healthily lodged; where his food will be served with the same social surroundings as in his own home; where his absence from lectures and demonstrations and hospital will be at once found out, rigidly inquired into, and reported to his parents or relatives, and where due hours of rest and study will be assured by definite regulations? Putting on one side the college at St. Bartholomew's, some residential arrangements at King's College, and some visited lodgings at other schools, I do not know any such medical school.

We see from time to time police-scandals in the papers where medical students, or so-called medical students, are taken up for drunken rows in music-halls or in the streets. These rows and drunken fights may, as we know, occur in any set of men, even the best. But what we want to know is, are the students who get drunk and commit those offences reported to their guardians, or rusticated, or in gross cases expelled, and are their names sent to the General Medical Council, to be removed from the *Students' Register*? Is there any proctor free from special financial school-interests, or other official, charged with investigating such matters and seeing discipline enforced? The common opinion is that no such discipline exists; but common opinion may be quite wrong.

An officer at my club in London said to me, "Many an evening passing down to my club some drunken fellow, calling himself a medical student, disturbs the place." To this I reply that every young fellow who is in trouble calls himself a medical student, knowing that he will be lightly dealt with by the police, who know the kindly services rendered by the student at all the hospitals.

But surely there must be some way of vindicating the students' good name, either by the combined schools agreeing to appoint a proctor, and charging for his pay some extra fee to the student, or by some one school boldly acting on its own behalf, and developing and publishing a series of rules as to reports to parents, and rustication and expulsion. With railways running to all the suburbs, why should not each school have a residence or hostel in the suburbs, where students could live in common under discipline, and come in daily to study, and work at their schools? Such a place should certainly pay its way. Unless I very much err, the school that first does this will secure an extra good class of pupils; and they will do well in the examinations.

The proportion of failures at the examinations now going on argues some weak point in the students' training.

I feel certain that if once the State founded a medical school for

the Army, Navy, Indian Service, Colonial Service, Prison Appointments, etc., and added on to it the special charges and social surroundings now existing at the military schools or at Cooper's Hill, we would never want for pupils in it; but it will not be needed if gradual progress is made in developing the social side of the students' life. Excellent men I know are coming daily to Medicine, but the development would be more rapid if the social side of their life was better cared for.

This subject lies deeply at the root of all status-questions, and should not be ignored.—Yours, etc., G. J. H. EVATT, M.D.,
Woolwich. Surgeon-Major A. M. Staff.

NAVAL AND MILITARY MEDICAL SERVICES.

RANK AND TITLE OF MEDICAL OFFICERS.

SIR,—This question is one of the most important of those which for some time have agitated the ranks of the profession connected with the army. It would be useless to repeat the many cogent reasons advanced with so much ability in the pages of our JOURNAL for a more defined title. I can only say, as the result of many years' practical experience as a military surgeon, that our present titles fall to give us our proper status; and until a change takes place, we will not be looked upon as officers of the army. We must have each grade defined by a military designation. Relative rank is a pure sham; and the assertion made by some that, because we desire a change, we want to sink our profession, is not founded on a single fact. I have never desired to sink my profession. I am as proud of it to-day as I ever was; yet I desire this change in common with the great majority of our officers.

I hope, sir, that you will continue your powerful aid in this direction, so that pure non-combatants may no longer swagger over the Medical Staff with their honorary rank, and talk of "our doctors" in a depreciatory tone, as they so frequently do since it has been conferred upon them. I would prefer the titles Surgeon-Captain, Surgeon-Major, Surgeon-Lieutenant-Colonel, Surgeon-Colonel, and Surgeon-Major-General, against which not a single argument can be advanced, for they do not sink our profession, but define its military status better; but that is no reason why we should not be Captains, Majors, Lieutenant-Colonels, and Major-Generals of the Medical Staff.—I am, etc.,
LIEUTENANT-GENERAL J. H. EVATT, M.D.

MILITARY TITLES FOR ARMY MEDICAL OFFICERS.

SIR,—As I presume from the tone of your article in the JOURNAL of August 22nd, my letter on military titles did not have your approval, I can scarcely hope for the insertion of this letter, which shows the necessity of Surgeon-Major Evatt's suggestion of a journal that would at least be likely to see both sides of a military medical question, namely, the military as well as the medical. This, sir, with all due deference to your opinion, I submit that the writer of the article referred to fails to do. The very heading of the article shows a bias, for it would appear unreasonable to say that, for military medical officers to wish for military titles, shows that they have mistaken their profession. But what is the profession of a military surgeon? Is it not a combination? This appears to me to be overlooked when you say that their status in the army does, and ought to, depend on their skill, etc., thereby ignoring all the disadvantages of a military life. Though without the advantages of the civil practitioner, military surgeons must not look for any status or consideration for a lifelong military service; and this injustice, as you afterwards partially admit it to be, should be submitted to until some impossible scheme can be devised, which would not awaken the jealousy of the combatant; and yet I suppose you are aware that paymasters and commissariat officers have this status afforded to them without reference to their skill? but enough to prove, at least to one's own satisfaction, that it is not conclusive, that I have mistaken my profession, because I should wish, instead of signing myself Surgeon-Major Medical Staff Corps, to have the right to sign MAJOR MEDICAL STAFF CORPS.

"We did not insert the letter to which our correspondent refers, because we thought it calculated to injure the cause he has at heart. We shall be among the first to give a hearty welcome to Dr. Evatt's proposed journal, when it sees the light. If it proves even more successful than the BRITISH MEDICAL JOURNAL in advocating the just claims of our military brethren, we shall sincerely rejoice."

INDIAN MEDICAL SERVICE.

SIR,—In reply to "probable Candidate" (JOURNAL, September 19th, p. 572), I can inform him (1) that the pay on joining now is Rs. 317, not Rs. 286, the pay having been recently equalised with that drawn by the Army Medical Service. It is sufficient for a man to live on quietly; but he cannot save much during the first two years; and it is not improbable that Rs. 450 will not be exceeded during the first five years, after which furlough is due, though few men can afford to take it, paying his passages home and out.

2. A man of temperate habits can, of course, stand the climate, though the risks of life for a medical man may be roughly estimated at double those of a medical man serving at home.

3. Promotion is a very uncertain factor in the future, as tested by recent promotions.

4. The duties as a rule are at first almost nil, treating sepoy fever, dysentery, and blistered feet in poor hospitals, with few comforts or appliances beyond a pocket-case, instruments of all kinds having been taken away from native hospitals. The contrast between the arrangements made for European and native troops is enough to make the Indian surgeon burst with envy, and bury his head for chagrin.

After two years in military employ, the Indian surgeon may be fortunate enough to obtain a civil charge; he will then see general native practice, and obtain operative work. A small civil station is, however, nothing better than passing the best years of one's life in exile. No man who can afford to stay in a British regiment would think of joining a native one. It is nonsense to say

that Europeans prefer serving with natives to serving with their fellow-countrymen; *esprit de corps* is nil; the fleeting rupee is the sole attraction.

Unless "Probable Candidate" has considerable "interest" in India, and is not an European, I would unhesitatingly advise him to go in the Medical Service, as, were I joining the service myself to-day, I would do. Five years in India at a time quite rids one of a desire for the glamour of the gorgeous east, and three years at home or on European stations is a welcome change, especially if a man's health does not stand India. After twenty years' service, many Medical Service men are as well off as Indian Service men; so that the idea that the majority of Indian men save more than Medical Service men is a mistake. Of course, the 20 per cent. of Indian men who hold good appointments are an exception; on the other hand, the many staff, embassy, and the depot appointments for retired Medical Service men at home, are a good set off against these. A large income in Calcutta means killing work in a vile climate, closely approximating to a vapour-bath during the monsoon; and I doubt if there is a man there now making more than £5,000, and not four making £3,000, a year. Native practitioners are securing more and more of the lucrative Indian practice every year.

The imperial tendencies of the present day render the amalgamation of the two services, in my opinion, notwithstanding the native member difficulty, a certainty in the no distant future. When amalgamation does come, the Indian Service is as certain to go to the wall and to get unfair treatment; therefore I should urge all men now joining to get into the best boat.—I am, etc.,

INDIAN SURGEON.

Approximate Pay and Expenditure of an Indian Surgeon (unmarried) during First Two Years of Service.

Income.		Expenditure.	
	Rs.		Rs.
Pay, at 317 per annum	7,608	Furniture	200
Extra pay for officiating appointments for half of period, difference between 286 + 100 and 317 = 69	828	Uniform and outfit	1,000
		Cost of horse (a necessity in India) .. .	350
		Mess-donation to first mess	80
		Family Pension Fund, monthly Rs. 4 .. .	
		Mess-subscription, including periodicals and billiard-table	20
		Share of mess-guests	9
		Messing-bill	60
		Wine, spirits, and tobacco	20
			Rs. 113 2,112
		Rent	30
		Table and bearer-servants	16
		Groom and grascuit	9
		Horse: corn, shoeing	7
		Share of other servants	6
		Washerman	5
			73 1,152
		Travelling expenses; loss on furniture incurred by change to take up officiating appointment ..	500
		Expenditure on books and medical periodicals ..	300
		Sporting tackle, etc.	600
		Four months at hotels, while travelling on duty with troops, etc.; extra messing expenditure, exclusive of wine, etc., additional	480
			9,774
		Excess of income over expenditure	1,662
		Total	8,436

(Here no allowance is made for personal expenditure or for entertaining guests. Matrimony is misery and suicide if there be no private income.)

NAVAL MEDICAL SERVICE.

THE following appointments have been made at the Admiralty during the past week. A. B. TROUSDELL, M.B., Staff-Surgeon, to Bermuda Hospital; R. B. BROWN, M.B., Staff-Surgeon, to the *Tenedos*.

ARMY MEDICAL SERVICE.

SURGEON C. E. HARRISON, M.B., has been promoted Surgeon-Major to the Grenadier Guards, in the place of J. H. C. Whipple, M.D., who has retired. Surgeon Harrison entered the service September 30th, 1874, and was appointed to the Grenadier Guards, March 10th, 1875. He was engaged with his battalion in the Egyptian war in 1882, and was at the battle at Tel-el-Kebir; he has the medal and clasp and Egyptian bronze star for that campaign.

Surgeon-Major OLIVER CODRINGTON, M.D., has been promoted to Brigade-Surgeon, vice H. Ferguson, retired. Dr. Codrington entered the army as Assistant-Surgeon, June 13th, 1859; became Surgeon, March 1st, 1873; and Surgeon-Major, January 7th, 1875. He has the medal for his services in the New Zealand war in 1864-66. He is at present serving at Netley.

Mr. A. O. HOLBECH has been appointed Surgeon to the Worcestershire Yeomanry.

Surgeon J. W. WEMYSS has resigned his commission in the 1st Forfarshire Artillery Volunteers, which dates from February 11th, 1870; he is permitted to retain his rank and uniform.

Mr. J. H. REES has been appointed Acting-Surgeon to the 1st Gloucestershire Engineer Volunteers.

Surgeon PHILIP BROWN, of the 5th Durham Volunteers, has been granted the honorary rank of Surgeon-Major.

Surgeons J. R. STUART, M.B., and A. E. TATE, who are serving, the former in Bombay and the latter in Bengal, have passed the lower standard in Hindustani.

Surgeon W. M. JAMES, serving in Bombay, has been granted six months' leave of absence to England on urgent private affairs.

Deputy Surgeon-General J. A. FRASER, M.D., died at Gipsy Hill, on the 20th instant, in his 71st year. He entered the service as Assistant-Surgeon, December 20th, 1838; became Surgeon, December 22nd, 1843; Surgeon-Major, December 20th, 1859; and Deputy Inspector-General, November 17th, 1863. He retired with the honorary rank of Inspector-General, March 9th, 1867. Dr. Fraser served with the 74th Regiment throughout the Kafir war of 1851-53, for which he received the medal.

INDIAN MEDICAL SERVICE.

SURGEON A. H. PRERSON, Bengal Establishment, Officiating Medical Officer, 25th Native Infantry, is temporarily deputed for duty under the orders of the Engineer-in-Chief, Bolan Railway, vice Surgeon P. Millane.

The services of Surgeon G. J. WARD, Bombay Establishment, Medical Officer, 5th Native Infantry, are replaced at the disposal of the Military Department.

Surgeon F. H. PEDROZA, Madras Establishment, doing general duty, Hyderabad Subsidiary Force, is appointed to the medical charge of the wing of the 29th Native Infantry at Sumbulpore, vice Surgeon O'Hara, relieved.

The services of Surgeon C. M. THOMPSON, M.B., Madras Establishment, are placed at the disposal of the Public Department.

Surgeons G. H. FINK, J. T. W. LESLIE, and A. T. BOWEN, all of the Bengal Establishment, have passed the lower standard, and Surgeon G. F. A. HARRIS, also of the Bengal Establishment, the higher standard, in Hindustani.

Surgeon-Major C. W. MACRURY, Bombay Establishment, Deputy Sanitary Commissioner, Central Registration District, has been appointed to act as Sanitary Commissioner for the Government of Bombay, in addition to his own duties, during the absence of Deputy Surgeon-General Howlett.

The undermentioned gentlemen have been granted leave of absence for the periods specified. Surgeon-Major C. W. CALTHROP, M.D., Bengal Establishment, Medical Officer 4th Cavalry, to Palunpore on private affairs till November 30th; Surgeon W. CONRY, M.B., Bengal Establishment, in medical charge of the 13th Cavalry, for six months on private affairs to hills north of Dehra; Deputy Surgeon-General T. G. HEWLETT, C.I.E., Bombay Establishment, Sanitary Commissioner for the Government of Bombay, privilege leave for three months from September 15th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ENTICING AN ASSISTANT.

SIR.—I wish to ask your opinion on the following. A neighbouring practitioner, with whom I had always been on friendly terms, called some months back upon my visiting assistant, and, having first ascertained from him that he was under no bond as regards practising in my district, offered him a partnership on "liberal" terms; no premium to be paid out of the receipts, etc. The offer was declined, my assistant (now partner) tells me, but was made a second time. The result of this, had it been accepted by a young and popular man, who had been introduced to my connection during three or four years, I leave anyone to imagine.

I have had no opportunity of remonstrating, inasmuch as I was not made aware of it until quite recently, and my quondam friend had in the mean time quarrelled with me for an alleged breach of etiquette, and had written such insulting letters on the subject, that all friendly relations have ceased.

My assistant, when negotiations were entered into for his becoming my partner, did not hesitate to mention the fact, as it enhanced his value; but anything more base and dishonourable I cannot conceive, though I refrain from expressing this hastily or in public. I should be glad to hear from you if such conduct (on the part of my former friend) can in any way be justified.

I see occasional allusions to a code of medical ethics, which has the stamp of approval of the Association, or a section of it. I am unacquainted with its details, but it appears to me that there is an unwritten code amongst men of honour, which ought to make reference to the former unnecessary.—I am, sir, yours obediently,

B. M. S.

P.S.—As the gentleman in question has not many years since taken his son into partnership with him, the case appears to be particularly flagrant. The offer was about to be repeated a third time, but for our partnership having commenced.

If our correspondent, in the case he relates, has not been erroneously informed with regard to the line of action said to have been taken by "his former friend," in the matter of the proposed partnership, we should not hesitate to characterise it by the same severe language with which he himself denounces it, namely, as "base and dishonourable." At the same time, we faintly would hope and believe that such conduct toward a brother practitioner is altogether exceptional; otherwise, the profession would never have attained or retained its present justly honoured position.

MEDICAL ETIQUETTE.

SIR.—Will you kindly inform me, and all other medical men who may happen to be placed in a similar position, what course of medical courtesy to pursue.

Called by telegram to attend a patient at Brighton, on my return from going my round, I found in one case that a neighbouring practitioner had been called in, and had prescribed and sent medicine which I saw, and with which I carefully avoided interfering. Having been told by the patient's friends that Dr. Blank had said he only attended for me, I called upon that gentleman the next day to thank him, and acknowledge his courtesy, but I was surprised by this gentleman intimating that he would carry on the case, and that perhaps the patient's friends would not care to be under the expense of two medical attendants, whereupon I bowed and left him.

Now, sir, similar cases have occurred in my practice, and I have invariably declined to act without the sanction and co-operation of the gentleman who was first in charge of the case. This course of action I had hitherto thought to be that most conducive to the professional welfare of the gentlemen immediately concerned, and the most likely to preserve our *esprit de corps*. Even what I consider to be so personal an infringement of medical etiquette as I have stated above, will not, I hope, induce me to retaliate upon any professional brethren during whose absence I may chance to be called in; it may, however, do some good if you, as the *arbitrator morum* of the profession, gave some guiding rules as to the action of men so placed as I have been by what I imagine to be the unprofessional conduct of a brother M.D.—Yours truly,

M.D.

* In the case referred to by "M.D.," "Dr. Blank" should have acted in accordance with the principle laid down in the following rule: "When a practitioner is called to an urgent case, either of sudden or other illness, accident or injury, in a family usually attended by another, he should (unless his further

attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

However "unprofessional the conduct of a brother M.D." may be, a "retaliating" spirit would be morally and professionally wrong, and fail to set the good example which is so calculated to, and undoubtedly does, exercise a more or less powerful restraining influence on those who by nature may be otherwise inclined.

AN ETHICAL QUESTION.

SIR.—A. and B. are two medical practitioners practising in the same town, and have hitherto worked harmoniously together. A. is medical officer of health for the town, which is a seaport in constant communication with Spanish ports, but A. has nothing to do with the port sanitary work, which has only lately come under the town's authority. The town has the unenviable reputation of having thrice been most severely visited by cholera. A recurrence of the same is apprehended, and, as an inducement towards getting a qualified medical man to exercise the necessary supervision and inspection, the sum of £20 is offered by the local board. A.'s services to the town in sanitary matters are so well known and appreciated, that the acceptance of the appointment is strongly urged upon him by those in authority; but, regarding the "honorarium" as utterly inadequate for the services he might be called upon to render, he declines the appointment at the sum mentioned. In this view, he is supported by the other medical men practising in the town, B. particularly assuring him that, unless the salary is raised, he will not become a candidate; and the board find themselves without any applications for the post. The matter is adjourned, and again advertised (at the same sum, £20); and, at the next meeting, B. sends in an application, offering to take the appointment at £10, and to be paid extra on any cases of cholera that might occur. This he does without consulting A., in the face of a previous arrangement. The board receives his application as a suggestion which might have emanated from themselves, readvertise on the lines laid down by B., and B. gets the appointment.

I may mention that, at the outset, when the matter first came under consideration, A. had a conversation on the subject with Dr. Bloxall, who happened to be on a visit to the town. That gentleman pointed out to the board that, for many reasons, it was desirable that A. should have the appointment, and he further impressed upon them the wisdom and necessity of paying a medical man a substantial salary to keep cholera out of the town, and on no account to enter upon a provisional arrangement such as they have done. A. knew Dr. Bloxall's opinion, and, respecting it, acted accordingly; he asked for £20 as remuneration in full. B. knew it, too, but used his information to underbid A., and get the appointment.

Was not B.'s conduct, under the circumstances, a direct breach of all the rules of medical etiquette? When you, sir, consider the friendly relationship which had hitherto existed between the two, that B. would have nothing to do with the appointment at £20, and had assured A. that, unless the salary were raised, he would not apply, and that then, unknown to A., he takes it at £10, I think you will agree with me that the conduct of B. was contemptible in the extreme. — I am, etc., A MEMBER.

. The course pursued by B. in relation to A., and the "port sanitary work" appointment, can scarcely (as assumed by A.) be regarded "as a direct breach of all the rules of medical etiquette," but rather as an unworthy violation of a mutual arrangement entered into between two presumed honourable practitioners, in reference to a certain contingency, and which should have been loyally carried out. B. will, we apprehend, but too soon discover that a surreptitious acquisition of a paltry £10 per annum, for skilled and more or less hazardous services, will prove a poor substitute for the sacrifice of the professional regard of a brother practitioner, with whom "he has hitherto worked harmoniously."

MEDICAL ATTENDANCE ON DRUGGISTS.

SIR.—Will you kindly express an opinion as to whether it be usual for medical men to attend chemists and druggists free of charge, or whether they should be charged at a reduced rate. I have recently attended a chemist and his family during the year, including attendance on his wife during parturition, and have sent in an account for such attendance, at which he has expressed surprise, stating that it is usual for chemists to receive medical attendance gratis. If you will be good enough to advise me as to what is right and usual in such cases, I shall esteem it a favour.

Apologising for troubling you on such a trivial matter, I am, yours truly,

M.D.

P.S.—I may state that he has sent me in an account for drugs, etc., supplied during same time.

. We do not see on what ground a chemist and druggist can expect to receive medical treatment gratis, any more than the surgical instrument-maker who supplies "M.D." with instruments. As regards a reduced rate, that must be a matter of private arrangement, if "M.D." sees reason for it. The postscript of our correspondent's letter indicates a rather one-sided idea of reciprocity of favours.

BEQUESTS.—Mr. R. Bownas Mackie, M.P., has bequeathed £1,000 to the Clayton Hospital and Wakefield General Dispensary.—The Sussex County Hospital, Brighton, has received £672 3s. 3d. under the will of Mr. Henry Cray.—Miss Jane Catherine Gamble, of Portland Place, has bequeathed £500 to the Establishment for Invalid Ladies, 90, Harley Street; £100 to the Middlesex Hospital; and £4,000 upon trust (for Caroline Jane Nutt for life and at her death) for the Royal Hospital for Incurables, West Hill, Putney.—The Norfolk and Norwich Hospital, and the Norwich Dispensary, have each received £105 12s. under the will of C. J. M. Spencer.

OBITUARY.

JOHN GAY, F.R.C.S.

ON September 15th, after a prolonged illness, this genial surgeon, for long one of the best known and most popular characters in London medical society, passed away, deeply regretted by a large circle of friends both within and without the ranks of the profession. John Gay will best be remembered for his extreme intellectual activity. He was one of those few but exemplary members of the consulting class who never cease, throughout middle age and late in life, to bring cases of pathological and clinical interest before the notice of their brethren, either by means of the societies or through the medium of the medical press. Increasing practice, the duties of appointments, and the cares (in his case, fortunately, very pleasant cares) of a family, in no way checked his zeal for reporting the results of his experience with an enthusiasm too often lost when youth passes away. It is to be regretted that too many most distinguished medical authorities show less care about saving their experience from sharing their grave. No clinical and pathological record could be more useful, more thoroughly scientific, and more worthy of imitation, than his repeated communications, in recent volumes of the *Transactions of the Pathological Society*, on one case of recurrent mammary tumour, which had been for more than twenty years under his observation. Mr. Gay was a conscientious surgeon, particularly kind to his patients, and not less agreeable to junior colleagues, and to all younger members of the profession who enjoyed his friendship or sought his advice. Kindness, however, was his very nature, as his long familiar manner, expression, and voice amply indicated to friend and to stranger. He also excelled in many social accomplishments, was noted for his hospitality, and was particularly fond of music, being a vocalist of no mean power. He numbered amongst his numerous friends many persons of celebrity and distinction, such as the late Sir Moses Montefiore and Sir John Millais, with whom he was very intimate, M. Otto Goldsmidt, Mme. Jenny Lind, and Mme. Titiens.

So active a life cannot possibly be reviewed in its entirety within the limits of this notice, so we must confine ourselves to a brief sketch of Mr. Gay's career. He was born in Wellington, Somerset, in 1812. In 1833, he began his studies at St. Bartholomew's Hospital, after serving an apprenticeship with Mr. Bridge in his native town. He was clerk and dresser to Dr. Latham and Sir William Lawrence, and in 1834, the first year in which the prize system was instituted at his hospital, he distinguished himself at the head of the prize-list in his medical school, defeating several fellow-students who afterwards became distinguished surgeons. In the same year he took the diploma of Member of the Royal College of Surgeons, and the honorary fellowship was conferred upon him in 1843. In 1836, he was elected Surgeon to the Royal Free Hospital, and greatly increased the reputation of that then humble institution. He held the appointment until 1853, when he was compelled to relinquish it under circumstances only discreditable to certain other parties concerned, and needless to enter into at present. He had the sympathies, openly manifested, of the pick of the profession; and those who wish to learn more of the matter will find ample details in the *JOURNAL* of 1854.

During this part of his career, Mr. Gay wrote numerous papers of high merit, which were, in many cases, fiercely attacked by certain belligerent and argumentative opponents; but he defended himself with dignified resolution. It is singular to find, from the perusal of the medical literature of forty years back, how young writers were attacked by their seniors and by their colleagues, for honest records of practical research. To read certain criticisms on what was, perhaps, Mr. Gay's most valuable work, (*On Femoral Rupture*, published in 1848, the reader is almost forced to believe that it was considered a moral offence to declare, on the most scientific grounds, that at that date surgeons made far too extensive incisions in the operation for the relief of femoral hernia. To dissect out the entire sac and a considerable portion of Scarpa's triangle as well, to incise the constricting bands freely so that a wide aperture was left around the neck of the sac, facilitating a future return of the hernia on a larger scale than before the operation, and to make a rule of opening the sac, irrespective of any difficulty in reduction—such were the practices which Mr. Gay was fiercely assailed in print for condemning. Comment is needless, when we bear in mind the permanent triumph of his opinions and practice. Fortunately, Mr. Gay lived for long after the period when the truth and value of his doctrines became established. Besides his work and separate contributions to journals on hernia, he, during the same period, prepared some valuable memoirs on urethral and plastic surgery. He also advocated free incisions into old diseased

articulations, and promotion of ankylosis, in preference to amputation or excision.

Mr. Gay may be said to have entered into the second and last phase of his life when he joined the Great Northern, shortly after being dissociated from the Royal Free Hospital, and he remained connected, till his decease, with the former institution. Here we may observe that, like others who have lived under similar circumstances, he derived certain advantages from being attached to a hospital where there was no medical school. No doubt the opposite condition entails great privileges, more chance of future emoluments, and certain distinct benefits, yet it cannot be denied that surgeons who are not handicapped by the exhausting routine of medical school-work, may, if they choose, as Mr. Gay did choose, do a greater amount of original work, all the more valuable since their minds are untrammelled by dogmatic notions, indispensable to the successful teacher. During his connection with the Great Northern Hospital, Mr. Gay continued his contributions to societies and periodicals, but under altered circumstances, for times had come when his merits were recognised, and when it was no longer the fashion to abuse men for advocating new practice and new theories. His most original and interesting contributions related to the treatment of chronic ulcers (to which he had already turned his attention in the earlier half of his career), by relieving tension during cicatrization by means of longitudinal incisions through the skin and fascia, close to the cicatrix. In 1855 appeared his work on this subject, entitled, *A Memoir on Indolent Ulcers, and their Surgical Treatment*. Mr. Gay also turned his attention to questions concerning the relief or cure of varicose veins and allied disorders, which formed the subject of the Lettsomian Lectures at the Medical Society in 1867-8. He deprecated prolonged rest and permanent bandaging, as tending to increase congestion, and consequent morbid changes in the skin and subcutaneous tissue, and to cause dilatation of the deeper veins, a disease more serious than varicosity, of those which are superficial. He verified his opinions by numerous dissections, made in workrooms of the Royal College of Surgeons; unfortunately the practical results of his labours in this direction were not of a character suitable for preservation in the museum. Mr. Gay, in the course of his life, filled many paid and honorary appointments in connection with various charities, insurance-offices, and railway-companies.

Mr. Gay's last contribution to medical science was a paper on "Certain Points Connected with the Anatomy of the Venous System," read before the Medical Society of London in November, 1883. This memoir had been prepared when its author was already beginning to suffer from his last illness.

In 1869, Mr. Gay was elected a member of the Council of the Royal College of Surgeons. In 1877, when his term had expired, he offered himself for re-election, and was defeated, but was successful in the following year. In the autumn of 1883, he had an attack of hemiplegia, and he was compelled to resign his seat at the Council, and his private practice, which had been carried on in Finsbury, almost from the date of his first qualification. From that illness he never thoroughly rallied, and remained in a semi-conscious condition during the last few months of his life.

Mr. Gay married, in October, 1860, Miss Elizabeth Elworthy, of Wellington, and expired on September 15th, last, a month before the twenty-fifth anniversary of his wedding, and a week before the completion of his seventy-second year. His widow survives him, and he leaves three children—one daughter, a younger son in the army, and at present on foreign service, and an elder son, who is a promising member of the profession, and about to fill the appointment of House-Surgeon to St. Bartholomew's Hospital.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

The Registrar-General has recently issued his usual quarterly return of births, deaths, and marriages in England and Wales. The statistics relating to births and deaths are for the second quarter of this year, while those relating to marriages are for the three months ending March last. The marriage-rate showed a further considerable decline from the rates prevailing in the two preceding corresponding quarters, and, with the single exception of the rate in the winter quarter of 1879, was lower than any recorded since civil registration was first established in 1837. The birth-rate and the death-rate were also below their respective averages. The meteorological conditions of the quarter were,

on the whole, favourable to the public health, and the mean temperature almost corresponded with the average.

During the second quarter of 1885, the births registered in England and Wales were 222,280, equal to an annual rate of 32.4 per 1,000 of the population, estimated by the Registrar-General to be 27,500,000 persons. The birth-rate was considerably below the mean rate in the ten preceding corresponding quarters, and lower than that recorded in the second quarter of any year since 1843. While the birth-rate last quarter did not exceed 26.5 in Herefordshire, 27.3 in Sussex, and 28.1 in Huntingdonshire, it ranged upwards in the other counties to 36.9 in Nottinghamshire, 37.7 in Northumberland, and 43.2 in Durham. In the twenty-eight large towns, for which the Registrar-General publishes weekly returns, the birth-rate last quarter averaged 32.9 per 1,000, and ranged from 25.6 in Brighton to 41.2 in Cardiff. The births registered in England and Wales during the quarter ending June last, exceeded the deaths by 90,078; this represents the *natural* increase of the population during that period. It appears from returns issued by the Board of Trade that, during the quarter under notice, 100,385 emigrants sailed from the various ports of the United Kingdom at which emigration-officers are stationed; of these 38,804 were English, 7,896 Scotch, and 29,904 Irish. The proportion of emigrants to a million of the population in the three divisions of the United Kingdom was 1,411 from England, 2,021 from Scotland, and 6,080 from Ireland.

The deaths of 132,202 persons were registered in England and Wales during the three months ending June last, equal to an annual rate of 19.3 per 1,000 of the estimated population; this death-rate was 0.9 per 1,000 below the average rate in the corresponding quarter of the ten preceding years. In the urban population of the country, estimated at more than sixteen millions of persons, the death-rate last quarter was equal to 20.2 per 1,000; in the remaining and chiefly rural population of nearly eleven millions of persons, the rate was 17.9: each of these rates was below the respective average rate in the ten preceding corresponding quarters. The rate of mortality of all ages in England and Wales last quarter was 4.5 per cent. below the average; that among infants and among persons aged upwards of sixty years showed an excess; while among children and adults aged between one and sixty years the death-rate was considerably below the average. The 132,202 deaths from all causes registered in England and Wales during the quarter under notice included 4,391 which were referred to measles, 3,499 to whooping-cough, 1,547 to diarrhoea, 1,343 to "fever" (including typhus, enteric fever, and simple fever), 1,288 to scarlet fever, 1,186 to small-pox, and 929 to diphtheria; in all 14,183 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2.07 per 1,000, which was considerably below the average rate in the corresponding quarter of the ten preceding years. The mortality from measles, small-pox, and diphtheria showed an excess, while that from each of the other zymotic diseases was much below the average.

THE BOARD OF GUARDIANS OF THE EVESHAM UNION, AND MR. A. H. MARTIN.

We learn from a provincial contemporary that, at a recent meeting of the guardians of the Evesham Union, Mr. A. H. Martin, the medical officer of the workhouse, and of No. 1 District of the Evesham Union, made an application for an increase of his stipend. Mr. Martin receives a salary of £52 for his district, containing a population of 3,404 persons, situated on an area of 8,997 acres, and the extra fees which would accrue in his district, which could not probably amount to much, as the total of extras for the five districts and workhouse averages only £82 yearly. Mr. A. H. Martin gets only £30 for his workhouse, and, in return for that, has to put in an appearance as often as the master and matron may choose to send for him, or the guardians direct. In addition to this, he has to provide surgical appliances, etc.

In his letter to the Board, he pointed out "that his stipend for the workhouse amounted to only 11s. 6½d. a week, which was less than a day-labourer received, and quite inadequate to the duties which, in his professional capacity, he was called upon to perform." The letter having been read, a short discussion ensued, in the course of which it was contended that according to the law of supply and demand the application ought not to be granted, since if Mr. Martin gave up his office some other medical man would be certain to take it at the same salary. Canon Amplett said that was not the question; the question was, whether Mr. Martin was paid sufficiently for his labour, and, if he was not, he ought to have a higher salary. Mr. Robbins: "He is as well paid as the others, no doubt." Mr. Thomas said Mr. Martin was quite well paid for the work he did. The chairman remarked that

if the Board acceded to this application they would have others to the same effect at the next meeting. As no resolution was proposed the letter fell through.

Whatever view our readers and the public generally may take of the action of this Board in refusing to take Mr. Martin's application into consideration, there can be no doubt, from the guardians' point of view, their decision was only natural, for, as the whole of the medical staff in the Eversham Union are very badly paid for their services, it is more than probable that the chairman's ground for refusing the increase was judicious, as there can be no doubt that if justice had been done to Mr. Martin, the remaining four would have been more than justified in asking for a proportionate increase. We much fear that neither Mr. Martin nor any of his colleagues will ever get any justice done them, unless they arrange some very decided line of action.

THE RISBRIDGE UNION AND THEIR MEDICAL OFFICER.

SIR,—It will be seen that the guardians of the Risbridge Union, in Suffolk, are again advertising for a medical officer for their fourth district, the present officer having held the post for the past two or three months only. He has now resigned because there is another surgeon residing in the district, and there are several others also practising in it, and there is, therefore no prospect of establishing a general practice for himself. The district is entirely agricultural, and has but few resident farmers, owing to the prevalent depression. The labourers do not earn more than from 10s. to 12s. per week, and the medical clubs are attended by the neighbouring practitioners. The salary now paid by the board is double what it was before; but, even with this increase, the retiring officer is unable to keep the one or two horses necessary to cover the area of the seven parishes.

It would certainly be prudent for any gentleman who may contemplate applying for the appointment to make some inquiry of the retiring officer, and also in the district, as to the opportunities of extending his professional labours. I am not a medical man, and my sole object in writing is to advise intending applicants to be wary, lest they incur a disappointment similar to that experienced by the present officer.—Yours obediently,

CAVEAT EMPTOR.

HEALTH OF ENGLISH TOWNS.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,567 births and 2,923 deaths were registered during the week ending Saturday, September 19th. The annual rate of mortality, which had declined in the six preceding weeks from 21.8 to 17.3 per 1,000, further fell during the week to 17.1. The rates in the several towns, ranged in order from the lowest, were as follow: Huddersfield, 11.4; Birmingham, 12.7; Blackburn, 14.4; Bradford, 14.6; Leeds, 15.3; London, 15.7; Hull, 15.7; Bristol, 16.7; Derby, 16.9; Sunderland, 17.1; Brighton, 17.3; Norwich, 17.7; Sheffield, 17.8; Nottingham, 17.8; Leicester, 18.0; Oldham, 18.2; Plymouth, 19.9; Birkenhead, 20.2; Halifax, 20.2; Salford, 20.5; Manchester, 20.6; Wolverhampton, 21.1; Liverpool, 21.4; Portsmouth, 21.7; Newcastle-upon-Tyne, 22.3; Bolton, 23.7; Cardiff, 23.7; and the highest rate during the week, 28.6 in Preston. In the twenty-seven provincial towns the death-rate averaged 18.3 per 1,000, against 15.7 in London. The 2,923 deaths registered during the week in the twenty-eight towns included 183 which were referred to diarrhoea, 49 to scarlet fever, 46 to whooping-cough, 41 to "fever" (principally enteric), 36 to measles, 32 to diphtheria, and 6 to small-pox; in all, 398 deaths resulted from these principal zymotic diseases, against numbers steadily declining in the six preceding weeks from 930 to 478. The zymotic death-rate was equal to 2.3 per 1,000. In London, the zymotic rate was 1.8; while it averaged 2.7 per 1,000 in the provincial towns, and ranged from 0.6 and 0.5 in Halifax and Bradford, to 4.9 in Cardiff, 7.7 in Portsmouth, and 8.3 in Preston. The fatal cases of diarrhoea, which had declined in the six preceding weeks from 628 to 233, further fell during the week to 183, and caused the largest proportional fatality in Cardiff, Portsmouth, and Preston. The deaths referred to scarlet fever, which had been 49 and 45 in the two previous weeks, were 49 during last week, and caused the highest death-rates in Wolverhampton, Leicester, and Preston. The fatal cases of whooping-cough, which had been 62 and 67 in the two preceding weeks, declined to 46. The 41 deaths from "fever" were within one of the number in the previous week; this disease was proportionally most fatal in Norwich and Portsmouth. The fatal cases of measles, which had been 89, 74, and 56 in the three preceding weeks, further declined during the week to 36, a lower number than in any week since February, 1883, and caused the largest proportional fatality in Liverpool. The 32 deaths from diphtheria in the twenty-eight towns showed a slight further increase upon recent weekly numbers, and included 25 in London, 2 in Newcastle-upon-Tyne, and 2 in Cardiff. The 6 fatal cases of small-pox were all recorded in London, and were exclusive of 2 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the fifteen preceding weeks from 1,889 to 213, further fell to 195 on September 19th; the admissions, which had been 47 and 32 in the two previous weeks, rose again during the week to 47. The death-rate from diseases of the respiratory organs in London was equal to 1.9 per 1,000, and was considerably below the average. The causes of 81, or 2.8 per cent., of the 2,923 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, September 19th, 842 births and 404 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,266,170 persons. The annual rate of mortality, which had been 20.0 and 17.2 per 1,000 in the two preceding weeks, further declined during the week to 16.6, and was 0.6 per 1,000 below the average rate for the same period in the twenty-eight large English towns. Among the Scotch towns, the rate was equal to 12.7 in Greenock, 13.3 in Perth, 13.9 in Edinburgh, 14.2 in Aberdeen, 14.4 in Leith, 17.4 in Dundee, 17.6 in Paisley, and 19.0 in Glasgow. The 404 deaths registered during the week in these towns included 54 which were referred to the principal zymotic diseases, against 61 and 60 in the two preceding weeks; of these, 28 resulted from diarrhoea, 9 from scarlet fever, 9 from whooping-cough, 3 from measles, 3 from "fever" (principally enteric), 2 from diphtheria, and not one from small-pox. These 54 deaths were equal to an annual rate of 2.2 per 1,000, which almost corresponded with the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates during the week in these Scotch towns were recorded in Glasgow, Dundee, and Paisley. The deaths from diarrhoea, which had been 51 and 29 in the two preceding weeks, were 28 during the week, and only one half the number recorded in the corresponding week of last year; 12 occurred in Glasgow, 6 in Dundee, and 5 in Edinburgh. The fatal cases of scarlet fever showed a further slight increase upon the numbers in recent weeks, and included 8 in Glasgow. The 6 deaths from whooping-cough, which had been 14 and 11 in the two previous weeks, further declined during the week to 9, of which 4 were returned in Paisley, and 3 in Glasgow. Of the 3 fatal cases of measles, 2 occurred in Paisley. The 3 deaths referred to "fever" showed a marked decline from recent weekly numbers. The 2 fatal cases of diphtheria included 1 in Dundee and 1 in Aberdeen. The mortality from diseases of the respiratory organs in these Scotch towns were equal to 2.6 per 1,000, against 1.9 in London. The causes of 62, or 15.3 per cent., of the 404 deaths registered during the week in these Scotch towns were uncertified.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 10th, 1885.

Peachey, Allan Thomas, the London Hospital.

Thompson, Wilberforce, M.R.C.S., East Ripton, Boudray, near Leeds.

PRELIMINARY EXAMINATION IN ARTS.—The following candidates passed this Examination on September 10th, 11th, and 12th, 1885.

S. E. Baxter, *H. L. Brownlow, C. C. Clark, *C. E. Colpus, *A. C. Curtis, *G. G. Giffard, C. H. W. Hamuich, *L. D. Heather, E. W. Herington, G. O. Jacobson, *A. Lucas, C. E. A. MacLeod, E. C. MacLeod, *A. Quennell, F. W. Rix, W. Thompson.

Those marked thus * also passed in Elementary Mechanics.

The following passed in Elementary Mechanics alone.

W. C. Aylward, A. K. Barrett, A. T. Coleman, J. B. O. Richards, E. M. Williams, P. M. Yearsley, S. D. Wakefield.

The following passed in Geometry alone.

H. D. Nichol.

The following passed in Latin alone.

R. O. Satchell.

The following passed in all subjects except History and Geography.

W. F. Oakeshott.

The following gentleman passed his Examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, on Thursday, September 17th, 1885.

Montague, Arthur John Helm, Uxbridge House, Uxbridge.

At the recent examination for the prizes in Botany given annually to young women by the Society of Apothecaries, the successful candidates were:

1. Clarke, Lillian Jane, a gold medal.
2. Carder, Emmeline Florence, a silver medal.

MEDICAL VACANCIES.

The following vacancies are announced.

BEIFORD GENERAL INFIRMARY.—Surgeon. Applications by October 5th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by October 5th.

CLUN UNION, Shropshire.—Medical Officer. Salary, £37 per annum. Applications to H. S. Newill, Clerk to the Guardians, Bishop's Castle, by October 2nd.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by September 28th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant. Applications by October 17th.

MALE LOCK HOSPITAL, 91, Dean Street, Soho.—House-Surgeon. Salary, £50 per annum. Applications to the Secretary, Lock Hospital, Harrow Road, W., by September 30th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION. Ventnor.—Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Board of Management, 34, Craven Street, Charing Cross, by September 26th.

ST. MARY'S HOSPITAL.—Physician-Accoucheur. Applications by October 11th.

STOCKTON UNION.—Medical Officer and Public Vaccinator.—Applications by October 17th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications by October 14th.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £180 per annum. Applications by October 5th.

MEDICAL APPOINTMENTS.

DUNCAN, William, L.R.C.S.Ed., appointed Medical Officer and Public Vaccinator for the Nunney District of the Frome Union, *vice* Wood, resigned.

DUNCAN, William, appointed Medical Officer for the Nunney and Trudox Hill Friendly Societies and the Rational Club (Nunney Branch), *vice* Wood, resigned.

PENBLOW, C. E., M.B.Lond., M.R.C.S.Eng., appointed Resident Obstetric and Ophthalmic House-Surgeon to the Queen's Hospital, Birmingham, *vice* A. F. Messiter, M.R.C.S., L.R.C.P., whose term of office has expired.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

CHILD.—On September 9th, at 2, College Park Villas, Harrow Road, W., the wife of Warwick L. Child, M.D., M.R.C.S.Eng., of a daughter.

LITHGOW.—At Stirling House, Farnborough, Hants, on September 20th, the wife of Dr. T. G. Lithgow, F.R.C.S.Edin., L.R.C.P.Lond., of a daughter.

MARRIAGES.

DINNEN—WHITHAM.—September 9th, at St. Leonard's Parish Church, Padiham, Lancashire, by the Rev. J. A. M. Johnstone, M.A., vicar, William Thomas Dinnen, L.K.Q.C.P.Ire., and M.R.C.S.Eng., of Holyhead, North Wales, only son of W. A. Dinnen, Esq., R.N., Chief Inspector of Machinery Afloat (retired), Plympton-y-Gorlass, Holyhead, to Annie Elizabeth, third daughter of John Whitham, Esq., "The Banks," Padiham.

FOX—MACDOUGALL.—September 16th, at Jamestown, Ross-shire, N.B., Fortescue Fox, M.B.Lond., of Strathpeffer Spa, to Katharine Stewart, daughter of Rev. W. S. Macdougall, Minister of the Free Church of Scotland, Jamestown.

DEATHS.

GAY.—On September 15th, at 51, Belsize Park, Hampstead, John Gay, F.R.C.S., in the 73rd year of his age.

WADE.—September 11th, at the residence of his brother-in-law, Blaenavon, Monmouthshire, John Joseph Wade, Esq., L.R.C.P. & S.Edin.

THE PARKES' MEMORIAL PRIZE.—We are asked to remind our naval and military readers that the competitive essays for the Parkes' Memorial Prize of one hundred pounds and a gold medal are required to be sent to the secretary of the fund, at 6, Whitehall Yard, London, S.W., on or before December 31st of the present year.

PRESENTATION.—Dr. Thomas Fuller has been presented with an illuminated address, signed by Sir Walter W. Burrell, Bart., M.P., Sir Henry Fletcher, Bart., M.P., Mr. Robert Loder, M.P., and others, and a silver salver, inscribed, "Presented to Thomas Fuller, M.D., by his friends, in recognition of the services rendered to the town and neighbourhood of Shoreham during the past thirty years. August, 1885."

MEDICAL MAGISTRATES.—John Hakinson Gornall, M.R.C.S.Eng., and Charles White, M.R.C.S.Eng., have been placed on the Commission of the Peace for the borough of Warrington.

THE Camberwell Guardians have voted £20 to Dr. Simpson, medical officer for the Christ Church district, for extra services during the prevalence of small-pox, he not being a public vaccinator.

MR. JAMES HOUGH, F.R.C.S.Eng., has been placed on the Commission of the Peace for the borough of Cambridge.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—West London Medico-Chirurgical Society, 8 p.m. Pathological Specimens.—Mr. Percy Dunn: 1. Liver of Child, aged 8 (Extensive Rupture of Left Lobe); 2. Right Kidney, Large Calculus in Pelvis; 3. Sarcoma of Mammary. Clinical Cases.—Mr. Keetley: 1. Extravasation of Bladder (after Operation); 2. Case illustrating New Mode of Amputation for Ulceration of Leg; 3. Congenital Dislocation of the Hip; 4. Charcot's Joint-Disease, &c. Papers.—1. Address by the President, Mr. W. B. Hemming; 2. Dr. Clippington: Case of Stricture of Small Intestine, with Specimen.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 p.m.—Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopaedic, 2 p.m.—Hospital for Women, 2 p.m.

TUESDAY.....St. Bartholomew's, 1.30 p.m.—Guy's, 1.30 p.m.—Westminster 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 3 p.m.—St. Mark's, 9 a.m.—St. Thomas's (Ophthalmic Department), 4 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

WEDNESDAY.....St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Great Northern Central, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2 p.m.—National Orthopaedic, 10 a.m.—King's College, 3 to 4 p.m.

THURSDAY.....St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.—North-west London, 2.30 p.m.—Chelsea Hospital for Women, 2 p.m.

FRIDAY.....King's College, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—East London Hospital for Children, 2 p.m.

SATURDAY.....St. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 1; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED. A.M.—THE

THE CASE OF DR. BRADLEY.

SIR,—I beg to forward a further list of subscriptions. Will you kindly allow it to appear in the next issue of your JOURNAL?—I remain, yours faithfully,
Eastwood House, Chesterfield.

	R. JEFFREYS.	£ s. d.
Dr. A. Halliday Douglass, Edinburgh..	..	2 2 0
Dr. George Pierce, Leicester	1 1 0
Dr. W. Vawdrey Lush, Weymouth	1 1 0
Mr. T. Jenner Verrall, Brighton	1 1 0
Mr. H. Greenway Howse, 10, St. Thomas Street, Southwark	..	1 1 0
Dr. Edwin Rayner, Stockport	1 1 0
Mr. T. Simpson, Lincoln	1 1 0
Mr. J. H. Ewart, Eastbourne	1 1 0
Mr. A. E. Barker, 87, Harley Street, W.	..	0 10 6
Mr. Samuel Lodge, Bradford	0 10 0
Mr. W. H. Beverley, Scarborough	0 5 0
Dr. Charles W. Cathcart, Edinburgh	0 5 0
Dr. A. Sloane, Glasgow	0 5 0

THE GRAHAM FUND.

SIR,—Kindly insert the following additional subscriptions to the fund which is being raised for the family of the late Dr. A. F. Graham, of Liverpool. Further contributions to this charitable fund will be thankfully received by any member of the committee, or by your faithfuls,
1, Saint Domingo Grove, Liverpool.

	JAMES BARR, Honorary Secretary.	£ s. d.
Edward Lund, Esq., F.R.C.S.	3 3 0	1 1 0
W. B. ..	3 3 0	1 1 0
W. Marrant Baker, Esq., F.R.C.S.	2 2 0	1 1 0
J. A. Harris, Esq., M.D.	2 2 0	1 0 0
T. T. Harrower, Esq.	2 2 0	1 0 0
Dr. Henry Stear	2 0 0	0 10 0
A. Butterworth, Esq.	1 1 0	
Rev. J. E. Cleworth	1 1 0	
Dr. John Hall (Preston)	1 1 0	
Rushton Parker, Esq., F.R.C.S.	1 1 0	
A. B.	1 0 0	
Mr. Draper	1 0 0	
Dr. John Brown (Bacup)	0 10 0	

HYPERPYREXIA IN PAROTITIS FOLLOWED BY ORCHITIS.

SIR,—I have just had a case of parotitis in a labouring man, aged 26. On the seventh day the right testicle began to swell, and the temperature was 105°. What is the cause of the temperature being so high for such a seemingly slight complaint?—Yours faithfully,

W. HOLLERTON SQUARE, L.R.C.P. and S.Ed.

The temperature sometimes rises very high in parotitis, as in influenza, and other diseases not generally fatal.

VIENNA AND PARIS.

In answer to "Inquirer," we must admit that Vienna at present enjoys a higher reputation for systematic clinical teaching. At Paris the British student will find good opportunities for practising operative surgery on the dead body. Pathology is well taught, and the French language is peculiarly adapted for facilitating the expression of facts and theories, hence the student will reap great benefit from following the staff of the hospitals during their visits to the wards, and attendance at lectures. It is very necessary to know the language, and this is one of the chief advantages of a visit to the French capital, since a knowledge of French is in itself of high value to the practitioner, both for social and for professional reasons.

RIDING-LEGGINGS.

SIR,—I am much obliged to "Chevalier" for his reply to my inquiry, but it does not meet my wants, for the "jack boots" he recommends cannot be taken off except at home, and would often be too dirty for a bedroom or drawing-room with private patients; and, besides, I suppose they involve wearing breeches, which I am too old to adopt, though no doubt they are most suitable for the saddle. I should like to hear more of the "waterproof coverall" which "Chevalier" mentions, with a combination of "overalls" which is new to me. Where is it to be had and what is the price of it, and of what material is it made? I cannot wear an ordinary macintosh in exercise from its confining the perspiration.—Hoping I may get some further reply, I remain, yours, etc.,

EQUES RUSTICUS.

THE TITLE OF DOCTOR.

SIR,—“Mr. H. Whittaker,” in the JOURNAL of August 29th, says that the degree of M.D. is granted at St. Andrew's to any practitioner who is registered upon producing three certificates, provided he above 40 years of age. As this conveys an erroneous impression, kindly permit me to correct it by pointing out that the M.D. is obtained at St. Andrew's by either of two methods.

1. By matriculation and residence, for at least two years out of four, at a British or Irish university, and then by passing the examinations as in other Scotch universities.

2. By a modified but searching examination, for registered practitioners over 40 years of age, in materia medica and general therapeutics, medical jurisprudence, practice of medicine and pathology, surgery, midwifery, and diseases of women and children. The degrees granted under this section are, moreover, limited to ten years.

I apprehend that what we truly require in the profession is not a lowering of the degree of M.D., such as would be involved in permitting the various colleges of physicians and surgeons to confer that title on their licentiates, but the power to be given to the various universities to grant the M.D. to men over 40 years of age, much on the same lines as St. Andrew's, and only after a searching examination confined to practical subjects. This would maintain the value of the degree, bring the best licentiates to the front, and offer them a fair reward for private diligence and study.—Yours faithfully,

M.B. and M.D. St. Andrew's.

ASYLUMS FOR THE INSANE.

SIR,—If your correspondent "Vox," in the JOURNAL of September 19th, will take the trouble to refer to pages 118, and from 135 to 151, of the thirty-sixth annual report of the Commissioners in Lunacy, he will doubtless thereafter experience no difficulty in making selection of a suitable private or public asylum for his patient. In some of these, very excellent accommodation is afforded, from a guinea per week upwards.—I am, sir, yours obediently,

PROVINCIAL MEMBER.

J. KNIGHT.—Mr. A. Haviland has produced a map of the kind.

RENAL HÆMORRHAGE COMPLICATING PREGNANCY: SYMPTOMS SIMULATING LABOUR.

SIR,—The case related by Dr. John Mulvany under the above heading, in the JOURNAL of September 19th, appears to have been recognised and treated by him as one of calculus passing down the ureter, and of hæmorrhage, produced in consequence of its irritation, either in the ureter itself, or in the bladder. If, however, such be the correct interpretation of the case, why does he describe the clotted hæmorrhage as renal in origin? He omits, moreover, to mention certain points of importance which would throw much light on the case; was the pain of a more or less unilateral character? Was any stone found, or was there any history of gravel? What is to be inferred by the term semi-organised, as applied to the clot? and was the albumen in the urine due to pus, and, if so, was it out of proportion to its purulence? Finally, as no mention is made of retention of urine (nor, indeed, does the account lead such to be inferred), what precise connection this case has with rupture of the bladder is not at once apparent, unless the author of the memorandum in question supposes that the clots might possibly plug such a highly dilatable channel as the female urethra to such an extent as to produce marked overdistension.

A perusal of Dr. Mulvany's communication brings to my mind a case of retroversion of the gravid uterus of five months' gestation, attended with retention and overflow of urine from an enormously dilated bladder. In this case, the patient stated that the waters had broken three weeks before, and had been coming away in gushes ever since (urine which was not only purulent but sanguineous), and that she had had labour-pains during the whole period. In this case the true condition had actually been overlooked, but, fortunately, not deferred too late to prevent the patient from making a good recovery. The urine was drawn off, the patient placed under chloroform, and the impaction of the uterus was, with some difficulty, relieved; a day or two afterwards true labour pains supervened, and the fetus was expelled. After a short course of antiseptic washing of the bladder, the cystitis disappeared, and the patient was completely restored to health.

The somewhat unusual case related by Dr. Mulvany affords much food for thought, and an answer to the above mentioned queries will greatly relieve the mind of

INQUIRERS.

NAPIER AS A HEALTH-RESORT.

SIR,—Referring to the letters which recently appeared in your JOURNAL—that on August 22nd, by Dr. F. H. Leslie Allen, and that on September 5th by "Per Mare per Terras"—recommending Napier in New Zealand as a "health-resort," will you allow me to add a word or two on the other side.

I showed the letters to a gentleman (not medical), who for more than twenty years has resided in Napier, and who—now at home on temporary leave—is much interested in the progress of the town. His evidence is, therefore, especially valuable. He states as follows.

The town is open along its eastern front to the ocean, being otherwise surrounded by a tidal lagoon from three to four feet in depth, through which flows in a south-west direction, a river (likewise tidal), the Tutac Kuri; and through which also, nearly parallel with the river, runs an embanked road, three miles in length, leading into the interior. Rush-like grasses grow in the lagoon, and malarious fevers are not unknown. Typhoid (enteric) fever, too, is developed occasionally. The "level sandy beach" is, in reality, a bed of hard shingle (locally "shingle-spit"), extending for four miles on the north, and for three on the south side of the town. These two shingle spits, with the embanked road, constitute the only connection between the town and the mainland.

Napier is built on shingle, the geological formation of the hill at the back being limestone. Between the town and the shingle on the north side the lagoon communicates, through an opening, with the sea. The houses of every description are made of wood, earthquakes—not, indeed, of any great severity, so far, but sufficiently so to contraindicate the use of bricks and mortar—occurring to the extent of two or three every year. The climate is undoubtedly good, speaking generally. The winds, during summer and autumn, are from the north-west (land winds) hot and dry; in winter from the south-west and south-east, cold and showery, interspersed, throughout the whole year, with light airs from the east and north-east, the weather being then fine and pleasant; and the rainfall (35 inches per annum, and confined almost exclusively to the winter months) is lower than in any other part of New Zealand. On the west coast of the middle island it is sometimes as much as 112 inches. But, with reference to the special characteristics just stated of this particular part of the colony, I venture to recommend that, before sending patients there, medical practitioners should make further inquiry. From a lengthened experience in India, and a shorter one at home, I am convinced that there is no agent more likely to develop a tubercular tendency than malaria, and I would therefore advise that phthisical patients should not be sent into a locality where there was even a suspicion of its existence.—Faithfully yours,

Clapham Common. CHARLES R. FRANCIS, M.B., Surgeon-General.

MANAGEMENT OF THE THIRD STAGE OF LABOUR.

SIR,—I humbly offer the following suggestion with regard to the management of the third stage of labour. As soon as the funis is divided, if the portion external to the vulva feel limp and flaccid, traction may be resorted to at once, as it shows that the placenta is separated, and a little pressure on the abdomen, properly applied, will generally push it out; but, so long as the cord feels turgid and resistant, I should consider any traction or pressure to be decidedly bad practice.—Yours, etc.,

The Grove, Risca, Monmouthshire.

G. BECKETT ROBATHAN.

DENS.—That is a question which it would be invidious to attempt to answer. We do not recommend individuals.

A PALATABLE PREPARATION OF PERMANGANATE OF POTASH.

SIR,—Having observed in the JOURNAL complaints that patients are unable to take solution of permanganate of potash, on account of its nauseous taste, I wish to say that the taste is entirely covered by the medicine being administered in a glass of old claret. There is no fear of decomposition taking place, and the mixture remains clear and without sediment.—Yours most obediently,

22, Rue des Arquebusers, Antwerp.

A. MAYER, M.D.

THE BRITISH PHARMACOPOEIA.

SIR,—As the new Pharmacopœia has been issued in one form only, I would suggest that a pocket-edition, similar to Martindale's *Extra Pharmacopœia*, giving doses and therapeutic uses, would be a great advantage to the busy practitioner.—Yours truly,

MEMBER.

HYOSCYAMIN.

SIR,—In answer to Dr. Moore, I prescribe hyoscyamin frequently and without ill effects; but, as it is a dangerous and powerful drug, the patient should be carefully watched. I have never used a smaller dose than one thirty-second of a grain, the usual dose in adults being one-sixteenth for women, and one-eighth to one-fourth of a grain for adult males. In small doses, it acts as a sedative and hypnotic for general restlessness or restlessness with excitement; in larger doses, it is valuable in calming the excitement of acute mania. It is best administered by the mouth. A standard solution can be made of four grains to the ounce, of the same strength as liquor strychnie, liquor arsenicalis, liquor morphia, etc. The crystals are to be preferred to the amorphous form, being readily soluble in a spirituous solution (two drachms of rectified spirit, six and a half drachms of water) which I call liquor hyoscyamie. The symptoms are paresis of voluntary muscles, dryness of the throat, a drawing articulation, and dilated pupils. If these symptoms be exaggerated, an overdose has been prescribed, and stimulants, with strong coffee, etc., should be administered; but in careful hands, such symptoms are not likely to occur. One dose is usually sufficient for calming the excitement of mania, although I have with less effect kept a patient under its influence for some days, one thirty-second of a grain being administered three times a day. The effect soon follows the administration. The immediate symptoms, such as dryness of the throat, giddiness, and the drawing articulation soon pass off, leaving the patient with dilated pupils, quiet and soothed. It quickens the circulation and lowers the blood-pressure; it should not be prescribed, except with great care, in heart-disease. The price is about two shillings per grain. No drug is so valuable, to my mind, for the purposes for which it is used.—I am, sir, X. Y. Z.

HOW TO MAKE UP A CASE.

SIR,—A young man sent the following account of his symptoms to a "doctor," who advertises in an American paper. "Symptoms: nocturnal emissions frequent; weak feeling in a morning; memory rather wanting; sight myopic; slight but obstinate catarrh; tongue coated yellowish-white towards root; bowels alternately active and costive; sexual organs reduced in size, and cold; age, 20; thin; rather tall; good appetite; general health very good." He received the following reply.

"It is evident that you are suffering from spermatorrhea in an advanced stage. The case is an important one, involving as it does the entire nervous system, and should receive immediate attention... The very symptoms you describe are proof positive that the mucous lining of the organs is the seat of chronic irritation. The examination of your urine shows quite a loss of semen in that direction, mixed with mucus and phosphate of lime in excess... The case admits of permanent and positive cure... The involuntary and unconscious loss of semen with the urine is the most dangerous form of the disease."

The patient, instead of writing further, wisely sent this reply to me. As I had known the patient before his emigration, I thought it justifiable to send him the following prescription, advising him, however, to consult some reputable physician if he did not derive immediate benefit: ext. belladonnæ gr. 1; ext. hyoscyami gr. 2; camphore gr. 2, in a pill, every night at bedtime. These pills cured the emission at once. The case is a simple one; but the correspondence makes it interesting.—I am, sir, your obedient servant, T. C.

"ACME" MEDICAL CAR.

SIR,—In reply to the inquiry of "M.R.C.S." regarding the above car, as made by Messrs. Harrison and Brass, I have much pleasure in submitting my opinion of the carriage, based upon actual experience," as he desires (see *BRITISH MEDICAL JOURNAL*, June 6th, 1885). At the above date, I was not in a position to speak sufficiently as to its real merits as a medical carriage. But some very stormy weather has afforded me a good opportunity of testing it as a "perfect shelter from wind and rain." I find it all that the builders allege it to be. It is the easiest carriage I ever sat in, as regards both horse and occupants. It is elegant, with hood down or up, off or on, and the back closed or open. For an aged man, it may be considered a little difficult to descend from the seat beside the driver; access is easy enough; but otherwise the carriage is a perfect model of ease and comfort in all kinds of weather. One has all the advantages of a brougham, in the shape of shelter, without the objectionable ventilation; and the further advantage of an open carriage whenever preferred. My cob—fifteen hands—goes easily over hilly roads with four in the car; and the draught does not seem appreciably increased to him by the hood being up, and facing the wind. Indeed, owing to the greater elevation of the front seat over the hinder one, the hood is almost covered, even when up; and if there be two sitting in front, the hood is completely blinded from the wind in front. My car is varnished on American walnut, and is admired for its appearance. It does not show dust so much as a dark painted carriage.

The prices of Messrs. Harrison and Brass are considerably below those of any other house whose list I possess. If "M.R.C.S." should be within distance of me, and care to test the car for himself, his acceptance will give great pleasure to me. I do not believe that a more suitable carriage for medical men, in town or country, exists. It is, in fact, "The Acme Medical Car."—Yours faithfully, J. HISLOP JOHNSTON, M.B., C.M. Edin.

Esqbank, Midlothian, N.B.

MANGANESE DIOXIDE FOR CHLOROSIS.

SIR,—In reply to "Anxious," concerning manganese dioxide in chlorosis, I have known the "sulphate" used in five-grain doses in the form of pill, but without success. I have found almost infallible success from Bland's pill, that is, sulphate of iron and carbonate of potash, each two and a half grains, made up with powdered tragacanth. Two of these are taken thrice daily after meals, each dose being followed with two drops of Fowler's solution. The dose of the pills should be gradually increased till fifteen a day are taken; and when the desired result is obtained, it should be as gradually diminished. If he have already failed with this, I would be inclined to think his case one of permanent contraction of the aorta.—Yours faithfully, CLEMENT D. G. HAILES, M.B. Clifton.

BOOKS ON SPIRITS.

"M.R.C.S." asks: What are the best books on spirits, wines, and other such beverages, as regards their manufacture, their physiological action, their use and abuse?

ERRATUM.

At page 582 of the *JOURNAL* for September 12th, column 2, in the second line of the comment on the letter headed "A Question of Medical Ethics," for "in strict accord," read "in too strict accord."

SEA-VOYAGES.

MEDICAL men being sometimes at a loss where they can recommend patients to go for whom the English winter is too trying, or whose permanent cure can only be hastened by a well planned sea-voyage, will, we anticipate, be interested to see the announcement in our advertising columns of a cruise in the coming winter in a large screw-steamer about to visit some of the most lovely and health-giving islands in the sunny southern and eastern seas. The voyage will occupy about five months; and as the fares (considering the liberal character of all the arrangements) have been based on the very moderate rate of £1 a day, some of our readers will probably have little difficulty in advising those patients in need of such a change to avail themselves of the opportunity thereby afforded of a sea-voyage.

A GRIEVANCE OF UNIVERSITY MEN.

SIR,—I think it is rather hard on university graduates in surgery that this qualification is almost useless to them in obtaining hospital and other public appointments. In England, Scotland, and Ireland, most of the infirmaries and hospitals that advertise in the medical journals have a rule to this effect: "That candidates must be Fellows, Members, or Licentiates of the Royal College of Surgeons of London, Dublin, or Edinburgh." This prevents a Bachelor of Surgery from becoming a candidate, and, as a result, forces him either to take a diploma of the College of Surgeons, in addition to, or—as is now the most frequent course—instead of, an university degree in Surgery.

Now, seeing the extreme value put on the possession of the university degree in Medicine (M.D.) by the endeavours of men to obtain it without the course in Arts, as the present agitation seems to me to be, it seems to be a guarantee that the university men in general are better than the others. Now, if the medical degree is held so high, why should not the surgical degree have an equal value? I think the university authorities ought to look to their own interests in this matter. I have already had to take the preliminary examination of the M.R.C.S., and now feel sorry that I have wasted my money on a surgical degree, which, in a great many cases, I find of little or no use to me. If the universities will only look at the numbers of their graduates in medicine who have not taken their degree in surgery, or who have taken another in addition to their surgical degree, they will be surprised at the great numbers. If they want us to take their degrees in surgery, let them agitate that we may at least have an equal chance with the College of Surgeons, or otherwise be prepared for a decrease in the number of candidates for their surgical degree.—I am, etc., A BACHELOR OF SURGERY.

EXAMINATIONS.

SIR,—In all examinations, no matter how carefully conducted, there is, doubtless, a certain element of chance; but, if examiners understand and do their duty, this element should be comparatively insignificant. Again, making all due allowances for the effects of difference of style, two examining bodies examining a candidate in the same subjects ought to obtain somewhat similar results. The Royal College of Surgeons of London has an extraordinary faculty for forming judgments of the merits of candidates which differ in the widest manner from those of other examining bodies. These discrepancies cannot be explained by any theory of chance, if this is kept within anything like reasonable limits. How then does it happen, and happen repeatedly, that candidates who have creditably passed examinations admittedly more difficult, conducted by other examining bodies, in the same subjects, come unexpectedly to grief at the hands of the Royal College of Surgeons of London? How is it that there are not wanting cases where students, who, by their eminent successes at other examinations, would appear to be possessed of a pretty sound judgment, insist positively that their rejection by the Royal College of Surgeons of London could not be justified by the character of their answering? These questions I am unable to answer. Perhaps some of your readers can assist me. The above facts I insist upon, and I could easily cite cases in their support, but I am obviously precluded from mentioning the names of the gentlemen concerned. In conclusion, I wish to remark, with regard to the Primary Examination of the College in Anatomy and Physiology, that Histology (as it is commonly called) should not in the present state of medical science be relegated to a chance question. That a man might obtain the diploma of M.R.C.S. Lond. without knowing the difference between a microscope and a microtome is scarcely a creditable state of affairs.—I am, etc., GLYCOCOLL.

A CASE OF TRIPLETS.

SIR,—On September 6th, I delivered Mrs. B., aged 25, of two girls and a boy, being her first confinement. She had been suffering from albuminuria and anasarca for at least a month, with occasional hamaturia. The labour began about three weeks before it was expected, with the rupture of the membranes and escape of liquor amnii. Pains followed immediately, and were very rapid and severe. I was fetched at once, and found the os easily dilatable, and the head presenting with the forehead to the pubes. After two hours, as not much progress was being made, although the os was quite open, I administered chloroform, partly as a prophylactic against convulsions, and applied the forceps. The child, a girl, was easily extracted. I then found another bag of membranes and a second head (forehead and sacrum). On rupturing, the child (a boy) was soon born. A third bag was then discovered, was ruptured, and the head descended in the same position as the second. All three placentae came away together shortly after, closely adjoining, but yet distinct from each other. All three children are living and healthy, the boy, however, being smallest. The mother is making a good recovery, without mishap. She has received from Her Majesty the Queen the royal bounty of £3.—Yours truly, J. JAMES RIDGE, M.D., B.S. Lond. Enfield.

LIFE-HISTORY OF ERGOT.

SIR,—I should esteem it a favour if you would inform me where I can find the best information respecting the "life-history of ergot."—I am, yours truly, KIRKBY OVERBLW. C. J. B. JOHNSON.

. The information given in Flückiger and Hanbury's *Pharmacographia* is very complete. It is published by Macmillan and Co.

A FAMILY MEDICINE-CHEST.

SUBSCRIBER asks: Would any of your readers kindly advise what ought to be the contents of the family medicine-chest of a young married lady about to reside near Calcutta? Also, if there be any medical work suitable for the guidance of a young wife with a family?

AN ADDRESS ON THE USES OF KNOWLEDGE.

*Delivered at the Sessional Opening of the Medical Department of the
Yorkshire College, Leeds.*

By JONATHAN HUTCHINSON, F.R.S., F.R.C.S.,
Emeritus Professor of Surgery to the London Hospital College.

LADIES AND GENTLEMEN,—The part which the managers of your Yorkshire College have assigned to me in to-day's proceedings is one which I feel to be a high honour. A Yorkshireman myself, apprenticed and educated in my native county, I may assure you that it was with feelings of both pride and pleasure that I received your invitation to preside on the present occasion. The only drawback to the gratification which I felt in accepting that invitation was the knowledge that I must give an Address, and that my audience would be one for which specially professional topics would not be suitable. I will not pretend that I felt that I had nothing which I should like to say on the many and important topics which are appropriate to an educational celebration such as this. It was rather a feeling of great doubt whether I could say what I wished to utter in a manner which should be at the same time interesting to you, and not liable to be misunderstood.

In this dilemma I appealed to a much valued adviser, who is herself a native of Leeds, and who was also very desirous that I should accept the honour you had offered me. "If I say so-and-so," I asked, "shall I cause misapprehension?" "You may say what you will to a Leeds audience," was practically her reply. "If you are right they will appreciate you, and if wrong they will easily put you right." It is in the assurance thus obtained, that I purpose to address you this afternoon, and to bring before you in simplicity, without, perhaps, much, even of arrangement, and without any attempt whatever at oratorical display, certain thoughts and suggestions as regards the future of education and the increase of knowledge, on which my mind has often dwelt with pleasure and profit to itself. It may be best, perhaps, to begin at the beginning, and to ask, Why do we value knowledge? Why do we need our Colleges? Why do we meet year after year to distribute rewards for diligence and success, and to cheer each other on at the commencement of new sessions of educational work?

So far as this world is concerned, we can find, perhaps, no better symbol of human life than that given us by an evergreen tree. The leaves are the generations of men; the root, stem, and branches, the social institutions by which each successive generation is borne up into higher life. We live in the most literal manner upon the past, and are what we are in virtue of its former life. If, during any one year, the production of leaves had failed, if they had been found unequal to their task, the death of the tree, in part or in whole, must have followed, and no further outbursting of its leaves would have been possible. Upon the vital vigour of each generation has depended, in the past, the growth of the tree. They were the digesters of its sap; they prepared its wood. It is, of course, a mistake to suppose that evergreen trees do not shed their leaves; they simply escape to a large extent the influence of season, and retain their leaves longer than others; but, as anyone who has ever stood under a fir will know well, their leaves are constantly submitting to death when old, and are replaced by new ones. An evergreen, therefore, rather than one which becomes bare every winter, must be our symbol, and none perhaps better than the Norway pine. Anyone musing upon the magnificence of this splendid tree may usefully remind himself of the beneficence of the law of individual death. It is thanks to that law that its growth has been attained, and its greenness made lasting. Each successive generation of leaves has taken up the work of its forerunners, and, "eager to do and die," has in turn submitted to the same fate. The result has been increasing growth and perpetual youth. There has been permanence of life amidst unceasing change. So is it in the human family.

It needs but a few moments' thought to reconcile us to the beneficent institution of individual death, and to make us see that it helps the progress of mankind, and interferes not in the least with our real immortality. The life which seems to be lost, is simply transferred to others. In many other details the symbolism on which I have ventured might be developed, but I have said enough for the present

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purpose. In one remarkable feature the human tree differs from the pine. Not only do its successive generations of men inherit from the parent stock their life-vigour and its tendencies, but they are capable of receiving, by direct communication with their predecessors, a vast wealth of impulse and power, which has not as yet assumed a form in which its acquisition by inheritance is possible. This communication must be voluntary, and to it we give the name of education. Were the habit of death abolished, and did personal life last indefinitely, the need for education would almost cease, for although our patriarch pupils would probably be learning still, it would be rather in classes for mutual instruction than in school or lecture-room. As it is, the most important duty of each generation, next to that of the hereditary transmission of sound organisation, is the transference of its own acquired knowledge to the minds of its successors. Laborious and endless as this transference-task is, we can easily see that some advantages attend the scheme. Especially in reference to the advance of knowledge, its changes of form, and the additions which it is constantly receiving, can we perceive that it is a gain that young and fresh minds should be offered to its influence. The prejudices, the narrow formularies, and the erroneous conceptions of the past, are thus much more easily left aside. No process of cleaning the battered soot-begrimed leaves of last season could compete with nature's plan, which covers the tree with new and untarnished foliage. If, however, we accept thankfully the ordinance of death, we must not neglect for a moment to remember the responsible duties which it imposes upon us. Each generation has to select, as best it may, from the enormous stock of floating knowledge, those portions which it deems most likely to be useful to those who will follow it. With each generation this task becomes more and more difficult, for the sum increases with wonderful rapidity. The botanist, the geologist, the statesman, the surgeon, one and all have to consider what is to be taught to their successors, how far and in what respects the instruction received by themselves must be modified or extended for the use of the next generation. Not a single department of human knowledge, turn where we will, but is growing with a rapidity which, alike to the teacher and learner, may well seem appalling. A child asked as to which reign she would like best to have been born in, chose that of William Rufus, on the plea that then she should have had but one date to remember. There are times when the teacher may almost sympathise with her sentiment, and wish that his vocation had fallen in earlier times, when the mass of knowledge to be taught and learned was somewhat less than it now is. We may, indeed, admit without cavil, that one of the most valuable faculties of the teacher of the present day is the power of bold determination as to what may safely be left unlearned.

The capacity of the human mind, varying much in individuals, is yet limited in all. It is not so much defective power of comprehension as of retention. We can easily understand a hundred things for one that we can clearly and permanently remember. Most humiliating are, I suspect, the defects of memory to us all. I have no wish to assert that all that has been forgotten is wholly lost. On the contrary, we may safely believe that much that has faded away, past all possibility of recall, has yet helped very efficiently in the general development of our minds, and been in this way a lasting gain. This consolation, extend it as we may, is, however, only a very partial solace for the loss of our facts.

This law of limitation in reference to memory is, I think, not sufficiently taken account of in education. It is most surely the fact that the packing of our minds is like the stowage of a cargo. We cannot put in more than a certain quantity. Dexterity in arrangement will go for something, but it has its limits, and when these are reached, it is impossible to put in fresh articles without displacing those already there. The busy man, with his mind hurried from one topic to another, and still more those whose minds are exposed to grief, sorrow, or anxiety, will realise this, and may sometimes amaze their less occupied brethren by their capacity for forgetting. The power of remembering riddles is a fairly good test of the power of memory when unaided by intellectual associations. I have seldom found any of my friends of middle age who could remember six. Children, whose minds are unstored, and who are not constantly accumulating facts, can often retain very many; but for myself, I may confess that if I try to acquire a seventh, it always displaces one of the original six. This physical limitation in the number of our brain pigeon-holes is a fact which we do well to remember. Do what we will to improve and develop our faculties—and we can do very much—yet sooner or later a limit is reached, and we are then compelled, however reluctantly, to choose what we will keep, and what we must surrender to the waves of oblivion. Nor is it less the part of wisdom on some occasions to determine beforehand resolutely to forego the acquisition of

new knowledge when we know that it will displace that which we already have and which we value more.

A few words must be said as to the relative value of different kinds of knowledge. To most of us, some special departments are matters of duty, and beyond the range of choice. We must all keep our minds clear of everything which is likely to interfere with the memory of those facts which are needed in our professional lives. For knowledge of this kind, we are responsible to the community. The surgeon who allows the facts of astronomy to push those of pathology out of his head, acts unjustly towards those who employ him. How well the public recognise this danger, we all know. It is difficult, indeed, to persuade our clients that some brains can find room for proficiency in other subjects as well as in medicine. Although absurd occasionally in its developments, we cannot doubt that this prejudice is well founded. The knowledge of a man's own profession being then allowed its paramount position, we come next to the selection of other subjects. What are the uses of knowledge? and is it better to aim at a superficial acquaintance with many subjects, or a detailed familiarity with one or two? As regards the greater part of the community, I unhesitatingly record my vote in favour of an acquaintance with things in general. Let those who have leisure, or industry, or special aptitude, cultivate to the utmost special sciences, and restrict themselves as closely as they like. It is from them that new observations and discoveries are to be hoped, and for such we will pay any price. They are, however, and always must be, a minority. For the chance of a discovery, be it in astronomy or entomology, we can well afford to pardon almost any amount of ignorance in political economy or geology. Where discoveries are not to be hoped, however, then ignorance in any department is much to be regretted; for it limits at once a man's enjoyment of life and his usefulness to others. The prospectus of your Yorkshire College is neither a sheet nor a pamphlet, but a bound volume of very respectable size; and, when we use the honourable term "a well informed man," we mean one who knows at any rate a little about most of the subjects which are merely catalogued in it.

Let me press the question as to the uses of knowledge. Our estimate of those uses, if I mistake not, has advanced greatly of late. Not only do we now value knowledge more, much more, than we did, but we assign to it a quite different kind of worth. The time was when, apart from what was needed in a man's avocation, his attainments were looked upon as a sort of ornament, as that of which he might be proud, but as by no means essential to his usefulness as a citizen. It was believed that a man might be wise without possessing knowledge, and honest and loving without being even wise. We have, however, of late taken broader views, and recognised the fact that we have been using different terms for things essentially the same. That the noblest faculty of the mind, the noblest emotion, if you prefer that term, is Love, is a fact to which all religion, all poetry, the general verdict of mankind, bear witness. His is the best endowed organisation who can love the most widely, and the most intensely. Why is the capability of affection thus a test of the strength and vigour of the character? I answer, because it implies sympathy; it implies sense of brotherhood; it implies perception of beauty; and all these, in turn, imply the faculty of insight; in other words, the possession of knowledge. Love and sympathy are not abstract qualities, springing up causelessly in our hearts; they are the results of hereditarily transmitted faculties, by which we take cognisance of beauty, be it moral or be it physical. If we could not perceive the beauty, we should never feel the love. A little reflection will, I think, convince any one that this is so, however numerous and prominent at first sight may be the apparent exceptions. We shall be misled if we allow ourselves to be embarrassed by isolated and ill-estimated facts. We must look broadly at their whole range; and, doing so, I am sure we shall be obliged to admit that the power of loving wisely, well, and strongly, is always proportionate to the intellectual development of the being. Obviously, if we go downwards in the scale of organisation, we shall come to a point at which the want of development is such that we cannot conceive of the possession of personal affection.

It is the same with what we call wisdom, a faculty or possession which has often been set in a sort of superior contrast with knowledge, as of distinct and nobler birth. The more we think, the more sure shall we feel that there is no such thing as wisdom apart from the matured results of hereditarily transmitted knowledge. No ignorant person born of ignorant predecessors can possibly be wise. In the divine order of human events, there are no means of intensifying the faculty of love, or increasing the endowment of wisdom, other than by obtaining better knowledge. It is ignorance which is the foe of both. Our great poet never penned a more comprehensive line than when he declared, "There is no darkness but ignorance."

It is clear, I trust, that, in thus speaking of knowledge, I am not thinking of school-books. I mean the real, the living thing, the sight of Nature, the perception of the real, the revelation of the true; and my estimate of its transcendent value rests on the assumption that the real, could we get at it, is beautiful, and of a character and quality to claim and secure our love. He who cannot grant this, lacks the fundamental sentiment of reverence, and can obtain, so far as I can see, no foothold for his faith. "Let good men feel the force of Nature, and see things as they are."

Having thus, so far as my feeble powers of expression permit, exalted knowledge; having claimed for it no lower position than this, that it is the seed—possibly in itself not beautiful, but still the seed—of that plant of which wisdom and love are the flower and the fruit, I need say but little as to the worth of the office of the teacher. If faithful, single-hearted, and zealous in his task, he may rest assured that, whether working alone in a parish-school, or as a part of a great collegiate organisation such as that which I now address, he is engaged in that which is simply the noblest vocation of man. "The teachers," said Richter, "shall shine for ever, like stars in the firmament of Heaven." Next to the ambition to discover something new, which, after all, is only a higher form of teaching, the desire to be the means of spreading knowledge is the noblest aspiration of the human mind. It is so because it shows faith in light, because it is inclusive of all other aims. "Let there be more light" will ever remain the morning and evening prayer of every benevolent man.

Permit me to try to illustrate what I have asserted in general terms as to the fundamental relationship between knowledge and the development of what we term the moral instincts, or the affections. It is time that I should try to come to close quarters with my topic.

You will understand that I am speaking now not of the kinds of knowledge which are obviously useful in the affairs of daily life, but of those which men and women may get or not, as they like, and which are usually considered matters of personal pleasure or social adornment. Surely, if we think of it, we ought to rank some knowledge of astronomy, geology, zoology, botany, natural philosophy, human history, and the like, as essential to the formation of character. If the truths which they teach be once ingrained in the mind, so that they become the bases of all its processes, the person concerned has become capable of meeting the changes of life with patience. He has learnt that best of all lessons, the doctrine of continuity. It is impossible for him to despair of the world's progress, or to think lightly of the value of individual work. He has seen in how wonderful a manner great things are made of little things, and how in the past nothing has really perished or been lost, but how, on the contrary, all force has been conserved, and how, through periods of time too great for the faintest attempt at realisation, the progress of the world has been ever onward towards better things. He has seen with his mind's eye the great trinity of Nature, the three persons of which are, the past, the present, and the ever brooding life. It is quite impossible for anyone to rise from such a contemplation without a firmer faith in the Fatherhood of the Eternal, a deeper and a warmer sense of brotherhood with all that lives.

In order that such result should be obtained, what is needful is that the knowledge should be real. It should be a matter of heart-conviction. So long as the distances, the sizes, and the numbers of the star-worlds are simply entertained by the mind as matters of speculation, so long will they be barren of further results. So also if the age of this planet, the succession of life upon its crust, and the history in particular of the human race, are esteemed as matters of mere opinion, they will profit nothing. It is only when we begin to believe in earnest that we reap the reward of knowledge. The sceptic and the half-believer must not hope for the joys of faith. The mellowing influence of creed on character cannot come to him who doubts.

It will require several generations for us to realise the full influence of recent revelations in science. The doctrines must have been taught familiarly in childhood, their influence must have been transmitted hereditarily, before we shall be able to see what it really is. It would shake my belief in the relation between cause and effect if I could doubt that the influence of modern knowledge in reference to the history of the world and of man, and the relation of man to animals, could be other than ennobling. We shall witness from such causes an increased sense of dignity in life. Mankind will become more sincere, more earnest, more sympathetic, more hopeful, and our gain in all these respects will be the result chiefly of increased confidence in terrestrial life.

To those who know something of what schools were half a century ago, there are few subjects more suited to "breed perpetual bene-

dictions" than the state in which they are now. The improvement has been immense, but it is still far from complete. We emancipate ourselves only slowly from the traditions of the past. The value which Latin and Greek possessed in the days when English literature scarcely existed, still lingers as a tradition of great force amongst us. We have, it is true, risen above the belief that the one sole object of school-teaching was to ensure, by any method, and often by those which were little better than brutal, a boy's knowledge of those tongues; but we still submit our minds helplessly to a superstition that they are essential to a liberal education. By some strange accident, for which we can never be too thankful, Hebrew has been left aside; and it has been tacitly assumed that, as regards the most important book of all, it is enough to read it in translation. With regard to Homer and Virgil, it is different, and few making any pretensions to education would be willing to admit that they had ever read them in other than their original tongues. The study of these grand languages, and of many others, must ever remain, for teachers and for specialists in literature, of the utmost importance; but I am concerned to here express emphatically my conviction that, as matters of general knowledge, it is a great waste of time and memory to teach them. Perhaps there are few subjects which make greater demands upon the memory and the retentive power than the details of a strange language. The remark of Heine was as sound as it was witty, when he asserted that it was well for the Romans that they were born knowing Latin, for if they had had to learn it, they would never have had energy left to conquer the world. There are three main arguments in use by those who defend the retention of these languages in their present place in the educational course: first, that the study tends in an especial manner to develop the mind; next, that they are the key to an invaluable literature; and thirdly, that they are essential to a sound comprehension of our own language, especially of the terms in use in science. To these it may, I think, be justly answered, that the study of a language is for the most part a mere matter of rote memory, and encumbers rather than strengthens the mind; next, that there now exist abundant facilities for becoming familiar with the literature and history of Greece and Rome, without the toilsome acquisition of their modes of speech. May it not be added that, when Homer, Virgil, Tacitus, and Cæsar, shall cease to be school-books, and when it shall be held not discreditable to be acquainted with them in translations only, a sound knowledge of them will probably become a far more general possession than it is at present?

The third objection is one which it is far more difficult, in the present state of our scientific literature, to meet. There is not the least doubt that the student who knows not Greek and Latin is at an immense disadvantage in respect to his reading in botany, zoology, or any of the sciences. Our text-books teem with words which are derived from these languages, and of these the meanings are most difficult of memory to anyone not previously possessing a good vocabulary in those languages. For this purpose, however, let it be observed, a good vocabulary is sufficient. It is not necessary to study grammatical construction in detail. Even against this necessity, real as it is for the present, let me enter a most earnest remonstrance. Surely the preference of the professors of science for terms taken from the dead languages is again the mere survival of a bad custom, and one from which it is our duty to free ourselves as soon as possible. Never will the knowledge of the sublime facts of science become as wide as it ought amongst us until we effect a reform in this matter. A young person unskilled in languages, but fully able to enjoy the study of botany or geology, opens an elementary book on either of these subjects. It may be one professedly of first lines, such as Professor Oliver's excellent little introduction; but, be it large or small, he will find in every page such words as gamopetalous, monococious, syncarpous, pleistocene, miocene, and the like. If he looks them up in the glossary, he still, at each recurrence, finds it an effort to recall their meaning. Now, every one of these terms might just as conveniently, and in many instances far more elegantly, be expressed in English. The number of English-reading students is now quite sufficient to encourage some enterprising publisher in the production of books from which all needlessly learned terms shall be rigidly excluded. It would be a little effort at first to get accustomed to their English equivalents. Some little ingenuity would doubtless be necessary in devising them; but, if once the thing were done, the gain would be immense. Let it be understood that we do not want words made easy in the sense of being childishly explanatory; of these we have enough. All that is required is, that no word shall occur the full meaning of which would not be clear to a person knowing only his mother-tongue. Not only are these pedantic words a source of hindrance, in that to many they are incomprehensible, and to all a burden on the memory, but they bring with them other definite

evils. The mind unconsciously associates its own meaning with a word which it is compelled to use, but does not understand, and thus often is not only left ignorant, but actually led astray. Further, I am sure that it is true that a high sounding name often leads us to believe that our knowledge is far more definite than it really is. Science would be greatly simplified if all its exponents were compelled to express their meaning in modest English. I will not, for want of time, venture to illustrate what I mean in asserting that the reform asked for would not be very difficult.

We should be sorry to miss many of the beautiful names which have come into use; and regarding many of these, it does not matter in the least whether or not we attach any meaning to them. They are simply names. The objection which I urge applies chiefly to descriptive names, and especially to appended adjectives.

In thus venturing to suggest that, as regards the progress of English students in general, it would be a great gain if the dead languages were forthwith honourably buried, I am quite aware that I shall do great violence to the feelings and tastes of almost all well educated persons. We naturally prize highly the possessions which have cost us dear; and great also, I fully admit, are the intrinsic claims of classical lore. My protest is this, that, at the present stage of the world's progress, such lore is very far indeed from being our most important acquisition, and that the present custom of exacting it is a great bar to real mental development. May I venture one step further, and say that the learning of modern languages is also, in the present day, far too much insisted on? We have inherited a sort of infatuation in this matter, and accept the dictum without a question that the first thing for a child to be taught is the language of some other nation; if a boy, it must be Latin and Greek; if a girl, French. The outcome of it is usually, in the one case, a rooted antipathy to the classics, and in the other, an unwilling acquaintance with the adventures of Telemachus. To many of us, a knowledge of the modern languages is a matter almost of necessity in daily life; but to by far the larger number of those to whom they are taught they are useless. The time and labour consumed upon them would usually be far more wisely devoted to other subjects. A young lady will be contentedly ignorant of the very first principles of geology, may not know the title of one of Mrs. Browning's poems, may think Wordsworth dull and Robert Browning incomprehensible, and may yet pride herself upon being able to speak French. Of those who have spent months or years in the acquisition of German, how few ever make any compensatory use of it. Goethe is not attractive to many; of Schiller we have translations as good as the original; and *Soll und Haben*, read as a matter of duty, is the summit of the attainments of most.

I do not believe that the acquisition of a new language is at all easier in youth than in adult age; and respecting modern languages in general, would suggest that it would be wise to delay learning them until a definite need for them has been realised. That a large number will do wisely to acquire them, I do not doubt; but that it is necessary to make them an essential part of the education of all, I am, I repeat, concerned to deny. If once we could exempt ourselves from the routine of fashion, rid our minds of the prejudices born of long-established custom, we should see that foreign languages are means only, and not in any sense ends; that, for the majority, they are almost useless, and that it is quite possible that, over and above the loss of time and brain-fatigue involved in their acquisition, they may prove only a memory-burden in the end. Far better that a young man should know well the general course of French history, and be familiar with the lives of its heroes, its men of science, and its saints; that he should have followed carefully the struggles of the Huguenots, and watched the long-gathering causes which led to the Revolution, than that he should know ever so perfectly the irregularities of every French verb. The one kind of knowledge is living, is in itself fruitful in incentive to sympathy, to action, and to vigour in social life; the other is, for the most part, dead and abortive. It will be a great gain to English education when a man is left full liberty of selection in this matter for himself and his children, and when he will feel no more shame in admitting that he knows neither German nor French than he does now in confessing ignorance of Spanish or of the ancestral tongue of us Yorkshiremen, the Norse. Why, if we must learn French, should we not also make a *sine quâ non* of Italian? Surely, neither Molière, Racine, nor Fénelon, can compare in value with Dante; yet, without disparaging the genius and sublimity of the great Florentine, I will venture to express a personal opinion that a man in the nineteenth century may find more food for his soul, more that is fitted "to stir, to soothe, to elevate," in any fifty pages of the *Excursion*, or, for the matter of that, of the writings of John Ruskin, than he will in the whole *Inferno*.

Let me not be misunderstood. I would be far from wishing to decry

any branch of learning. I heartily, though at humble distance, applaud the declaration of Bacon: "I take all knowledge to be my portion;" and I would fain, if I dared, say, with Mr. Browning's *Grammarian*:—

"Let me know all;
Prate not of most or least.
Painful or easy;
E'en to the crumbs
I'd fain eat up the feast;
Aye, nor feel queasy."

What I have wished to say is, simply that we should do our best to put a right relative value on things, and not waste time and labour in planting laurel-bushes in mistake for apples. Let me urge once more, and even at the risk of being wearisome, that we must distinguish between the knowledge that is fruit-bearing, and that which is likely to prove barren, however ornamental or fashionable it may be. No: is it in the least wished to suggest any sudden change. The study of languages must obviously long keep its present place in the educational curriculum. As yet, they are well nigh essential to a very large number of students, certainly to all engaged in medicine.

To those who mourn over the frailties of memory, it is source of much gratification to know that year by year the means of acquiring knowledge are being developed and improved. It is objective teaching which really helps both understanding and memory.

In the development of that objective teaching which will be the great gain of the future, the formation of educational museums, and the improvement of educational examinations, are two of the most important features. When the history of museums is written, it will be observed, I believe, that the medical profession has always taken a very large share in their formation. We have always been zealous in observation and lovers of facts; and not only in pathology and zoology have physicians and surgeons delighted to accumulate the materials which afford proof and illustration, but they have been foremost to perceive the value of such collections in respect of scientific observation in general. It would be fitting, therefore, if we should give impetus to a further development in the art of making and using museums, which is much needed. We have been content long enough that museums should be used by a few, and simply gazed at by the many. It is time that we set ourselves earnestly to make them what they should be in our educational scheme. Hitherto they have been mainly collections of the elements of proof, too unwieldy in extent, and too miscellaneous in character, to be within the grasp of the general student. Even in our own profession, how very little has usually been the amount of industry bestowed by our students on the task of mastering the contents of the hospital-museum. Some attention to them has of late been made needful by the customs of examining boards; but, I believe, I may still venture the opinion that only a few of our best men have learned to resort habitually to the museum-shelves as being, next to the hospital-wards, the most profitable place for study. The majority despair of being able to gain much for themselves from the interminable rows of bottles, and are content to trust that their lecturers will bring forward in the classroom the selected ones which are of importance. What we want is museums arranged specially for the student's needs, the specimens few in number, and, by the aid of label and catalogue, telling their own tale. The museum should be by no means restricted to bones and bottles, but should avail itself liberally of the art of the photographer, the modeller, and the artist. The appearances presented during life should thus be brought into easy juxtaposition with the conditions found after death. Our museums should cease to be wholly allotted to *post mortem* pathology, and should include also the clinical element. If this department were well developed, our museums might, indeed, so far as things of which the eye can judge are concerned, become an invaluable supplement to the hospital-ward.

Leaving professional topics, and returning to speak of museums as means of general education, I have to say that it is to be hoped that the time will soon come when every town, however small, and every school, will have its educational collection of objects illustrating the history of man and the natural sciences. These collections should not be large, and they should be supplied with clear catalogues, carefully freed from all pedantry, which would enable any person of ordinary intelligence to understand them. All objects should have detailed labels, and be helped in the best possible manner by photographs and drawings; the museum would thus become a richly illustrated book, which those who would might read. It would be a place to which teachers would take their pupils, not once a year as a holiday-outing, but frequently, and as the best method of serious study. Never until something of this sort is accomplished will museums take their proper place; and never till they do will the natural sciences become attractive to the young, and a knowledge of them be easily got, and well retained.

Our botanical and zoological gardens ought, in the same way, to be better utilised for objective teaching. What, indeed, hinders that every inclosed city-square should, in the first place, be open to all; and, in the second, should contain a miniature collection of suitable zoological and botanical objects; and, again, on a very small scale, a conservatory and a museum. In all these, the objects displayed might be, from time to time, exchanged under the direction of a central organisation, and thus a constant succession of new and interesting material would be maintained. Were I to give my own answer as to the hindrance to the realisation of such a scheme, I would say that it is simply the ignorance of those concerned as to the amount of good which might be accomplished.

I had intended to say something as to possible improvements in our methods of examination, but time scarcely permits. What we all aim at is that examinations should be made to encourage industry and the attainment of retainable knowledge; and that they should, much less than they do at present, offer incentives to mere cramming. What we all wish, also, is that they should be made more certain in their results; that they should take more accurate measure of those who submit to them; and that their verdicts should be less liable to question and criticism on the part of teachers and lookers-on. These desirable objects will be attained only, so far as I understand the matter, by making examinations more objective, and by taking more time for them. I am not sure that they might not with advantage be subdivided much more than at present. These are matters of detail upon which I cannot now enter. It is, however, impossible to leave the subject without remarking that the improvement in methods of examining is a matter of the deepest interest to all concerned in education.

I have left but little time for what, perhaps, ought to have been the chief part of my discourse, that is, for addressing remarks to those present who are now commencing the study of medicine. If, however, what has been said as to the scope and aims of study in general has been made clear, it is not needful that I should add much in reference to that of medicine in particular. I shall, however, do injustice to my own feelings if I neglect to congratulate the medical students present upon their choice of a profession. The study of medicine has an advantage over many others which are adopted as means to livelihood, in that it is itself full of scientific interest. To this it may be added, that it is a pursuit to which no knowledge comes amiss. You can scarcely secure knowledge in any direction without finding that it may be made collaterally useful in your daily pursuits. Carefully avoid taking a too narrow view of the life's work which is before you. First, unquestionably, and as a thing which admits of no excuse for its neglect, you are to acquire a matter-of-fact familiarity with the common diseases and accidents to which the human frame is liable, and their means of remedy. In these matters, you must put aside all crotchets, and seek to become, as far as possible, compendiums of empirical knowledge, and embodiments of common sense. Your first duty is to advise people for the best when they are ill, and from this duty there must be no shrinking whatever. Your vocation will not, however, end here, for your training will have fitted you to assist in the formation of social opinions in a great variety of directions. The influence of food and clothing on health; the hurtfulness, or otherwise, of such articles as tobacco, tea, and coffee; the desirability, or otherwise, of abstinence from alcohol; the relative value of different climates to different states of health; the causes of mental disorders; these, with many others, are questions upon which it is important that trained medical observers should form and express sound opinions. I need not remind you of the invaluable services to sanitary science which have been rendered by a Leeds surgeon, who has, at the same time, maintained a very high position in the profession which he adorns. If you would speak from more than mere conjecture or caprice, if you are honestly desirous that what you say in daily conversation shall be helpful to those who hear it, you will find incentive for hard work in many directions. Acquaintance with the structure of the world in which we live, the peculiarities of soil and atmosphere, a wide knowledge of the history of man and his development in civilisation, a familiarity with plant-life and with the facts as to health and disease amongst the lower animals, will each and all in turn prove of great value. In addition to all this, you will, I trust, many of you, become, in the several districts where your future life may be cast, leaders in the cause of general scientific education. Our profession is, indeed, in this matter, little less than a sort of unendowed Church of Science, sending its pastors and teachers to reside in the most various and distant parts of the world, and become bearers of the torch of knowledge wherever they may go. Nor have I the least doubt that the usefulness of our profession in this way is destined to large increase.

There are yet other subjects upon which I might offer you my unfeigned congratulations. You have had the good luck to be born in Yorkshire, and you have wisely followed it up by becoming students in a Yorkshire college. I feel sure that you will never have cause to regret either of these important steps in life. Leeds has always held a high position in respect to her medical men. Talent, indeed, seems to be hereditary here, after a fashion which we do not witness anywhere else; and the Heys, Teales, and Chadwicks follow each other in line like princes in their own right. Nor, I may safely add, did the repute of the Leeds School of Medicine and Surgery, great as it has been in the past, ever stand higher than it now does.

I might congratulate you, also, upon good fortune in respect to the times upon which you are entering. Whether we regard the development of our own profession or the general progress of mankind, unquestionably we live in an age of most unusual interest. Great advances have been very rapidly made, and there is every indication that still better things are to follow. At the same time, it is impossible not to both see and feel that problems of no ordinary difficulty are being forced upon us for solution.

I have invited you, gentlemen, to dignify the calling of medicine which you have chosen; permit me now to invite you to dignify yourselves who have chosen it. I remember well a story which is told, I think of John Foster, that he having once, in a fit of melancholy, declared that the world was "a wild beast, untamed and untameable," his friend reminded him that, at any rate, he himself was part of it. "Yes," he rejoined, "a single hair at the end of its tail." I prefer, I may confess, and I am sure that he would have done so in a cooler moment, the comparison with which I began my address, when we likened individual men to single leaves on a mighty pine-tree. As each leaf in quietness and confidence does its duty, so may it be with us. To every student here I would say, and say very earnestly, "to thine own self be true." In hours of lassitude or moments of temptation remember this maxim, and, acting upon it, all good things will follow. Do not think lightly of your own individual value in the world's work, and always think hopefully of the world's progress. The world, you may feel sure, never had a more happy day than that in which you were born. Lest you mistake my meaning, let me hasten to add that it will be happier still on the day you die; and permit me to take leave in urging the reflection that the ratio of its gain in happiness will depend, in some degree, now and for ever, upon how you live.

INTRODUCTORY ADDRESS ON MEDICAL EDUCATION.

Delivered at the opening of the Winter Session of the Medical Faculty of University College.

By PROFESSOR E. A. SCHÄFER, F.R.S.,
Jodrell Professor of Physiology in the College.

It has long been the custom to inaugurate the commencement of each academic year of the Medical School of University College by an introductory address delivered by some member of the teaching staff to the students of the faculty, old and new. In some of the medical schools of the metropolis, the custom is now honoured more in the breach than in the observance, and it is possible that this may soon be the case here also; for there are those among us who regard this function as an anachronism—harmless enough, perhaps, but productive of no particular benefit, and therefore a thing to be got rid of. I must even admit that I have myself been constantly on the side of the abolitionists. An engagement is not likely to be less successfully fought because it has not been preceded by a fanfare of trumpets, and the work of a session is not likely to suffer because it is begun without a corresponding introductory flourish. No doubt there are a few things to be said in favour of these addresses; they are not entirely barren. They do undoubtedly afford a convenient occasion of formally welcoming into our ranks those who have determined to cast in their lot with us, and of reassembling those who have already pursued a portion of their studies in our school; and they also give the person who is deputed to deliver the address an opportunity of bringing before the world his views upon some subject connected with medical

science. On the other hand, there is a chance that these views, interesting as they may be to the author himself, may prove somewhat less interesting to his audience; and, even at its best, the address is neither more nor less than a "lecture"—that is to say, an addition to the ever increasing burden which the modern student of medicine is compelled to bear, in obedience to the oftentimes illogical but always legalised commands of the licensing corporations. Whether, however, we approve or not of the system, the fact remains that I am here to give you an address, and you are here to listen to it; so the sooner we begin the better. The utmost I can do is to promise to be as brief as possible.

In the first place, then, it is my duty and pleasure to welcome, in the name of my colleagues, the new faces that I see amongst you. The selection of a particular school in which to follow the study of medicine must always be a difficult matter for those who are ignorant of the relative advantages offered by the several schools. Those who are here present have probably already made their selection, and it is unnecessary for me to do more than to tell them that, in my opinion, they have made the best selection possible. For twenty years I have been familiar with University College, and intimately connected, as student and teacher, with its medical school; and I believe I may honestly say, without desiring to draw comparisons unfavourable to other schools, that there are many advantages attending the study of medicine at a great college of arts and science, such as this, which cannot be overestimated. Let advertisements say what they will, I maintain that it is impossible for those sciences which form the basis of medical education, and in the absence of which the whole art of healing lapses into a mere mass of shallow empiricism, to be thoroughly and effectually taught elsewhere than in institutions which are mainly devoted to their study and teaching. And when with these advantages are combined the soundness of clinical instruction and thoroughness of clinical and pathological investigation which have always characterised the work at the hospital which is connected with our school, I have not the slightest hesitation in affirming that you will have no reason to regret the choice you have made. When she looks back along the ranks of her *alumni*, observes them occupying important positions in the profession, welcomed upon the staffs of other hospitals and medical schools both metropolitan and provincial, fulfilling the important duties of officers of health and other public appointments throughout the length and breadth of the land, each and all pursuing their profession with pleasure and with profit—even although the profit is, in some cases, more to others than themselves—what wonder that Alma Mater is proud of her children, and that they retain a feeling of affectionate attachment to her? That this feeling of pride and loyalty should exist as it does, and that it should be gathering in force as the number of those who have received their education within these walls is steadfastly increasing, cannot but be a source of satisfaction to one and all of us who are permanently placed here, seeing that in the existence of such a mutual attachment lies the best hope for the future prosperity of our institution.

I now pass to that portion of this address in which the author is privileged to put forward his individual views upon some subject connected with the study or practice of medicine—a privilege which is conceded to him in consideration, I suppose, of the fact that his holiday is curtailed, the restoration of his nerve-force arrested, his life for at least a week made burdensome to himself and those near him, by the thought and preparation necessary for the fulfilment of this important function. I propose to avail myself of that privilege by disburdening my mind of certain ideas relating to the subject of medical education, which have long been fermenting there—a subject which is, indeed, well worn, but which has the advantage that there is always something new to say regarding it, and respecting which, it is admitted by all—not even excepting the General Medical Council—that there is abundant room for reform.

In offering suggestions as to the course which ought to be pursued by those who seek to become qualified for admission to the medical profession, a commencement is generally made from the time of leaving school; and the recommendations as to the way in which a student's time should be employed, leave out of account that most important period of his existence during which he is subjected to the wholesome restraint of strict discipline. I shall venture, however, to go further back, and to tender a few suggestions as to the best way in which he may be employed in laying a thorough foundation for what may be more properly and technically termed his medical education. For, in considering this matter of education for the medical profession, we must, first of all, understand clearly what it is that the education in question is designed to attain. It is important, above all, to remember that it is education for a profession, and not for a trade, that is required; and, more than this, for a liberal and learned

profession. There is no saying more true than that of which we were reminded by my distinguished predecessor, in the introductory address which he delivered here a few years ago, that medicine is "the worst of trades, the best of professions." For those who desire to obtain a qualification for the sake of practising medicine as a trade, any smattering of learning will suffice; the more superficial and easily acquired the better; and the only movement towards the reform of medical education that will satisfy them is one of retrogression. The continued existence of persons of this way of thinking is probable, from the cry which is occasionally raised that the standard of medical education is too high; that the time occupied in acquiring knowledge is too long; that the cost of a medical education is too great; that a qualification should be granted easily, and should rank as the degree of an university; that the "guinea's-stamp" should be used for baser metals. Of those who think thus, it is not probable that there will be any here present; and this is the more fortunate, because the opinions that I shall have to put forward are likely to be in no way in consonance with their views. If it be admitted that medicine should be practised as a profession, it must further be conceded that those who intend to practise it ought, first of all, to be educated gentlemen; in other words, they ought to be gentlemen by breeding, and to have had the ordinary education of the class to which they belong. This is no less desirable for the profession of medicine than for the church, the army, or the law. There should be the same acquaintance with classics and mathematics, the same knowledge of the English language and literature, of history and of geography, and of one or more modern languages, which are regarded as forming the essential elements of the education of an English gentleman. I do not myself think that a boy who, either by his own choice or that of his parents, has been destined to pursue a medical career, should, while he is at school, depart in any way from the ordinary school curriculum. It is sometimes thought proper, in such a case, to permit a boy, whilst still at school, to commence the study of natural science, even of physiology and anatomy, to the neglect, in most instances, of Latin and Greek, or of some other subject of the ordinary course.

In my judgment, this is a mistake. The small amount of science which is thereby acquired, is easily picked up after leaving school; and it is even not unlikely that much of what is learned at school may afterwards have to be unlearned; whereas the loss which will have resulted from the neglect of the classics may be much more serious than is frequently supposed. There is always time and opportunity for obtaining the necessary knowledge of science after leaving school, but the opportunity of acquiring a knowledge of Latin and Greek never recurs, and if it be lost, be sure that, in the after-studies, the loss will be many a time deplored. "Stinks," as science is euphoni-ously termed by the schoolboy, is popular with idle boys because it involves less labour than the preparation of a Latin or Greek construe; but there is no profession in which this labour will better pay in the long run than that of medicine. And the reason is not far to seek. Almost the whole of scientific and medical nomenclature is derived from these languages, and very largely from the Greek. I take up a book at random; it happens to be a work on physiology, but the fact would be just as strikingly illustrated by one on anatomy, botany, zoology, medicine, or any other science. Turning over the pages carelessly, I come in succession upon the terms hæmatin, kymograph, chondrin, notochord, sphymograph, stethograph, ophthalmoscope, tachometer, ganglion, myosin, amylolytic, proteid, pleura, cardiac. It is difficult to find a term which has not been taken from the Greek. To those who are completely ignorant of this language, these sounds convey no meaning; they are merely names to be learned parrot-like, and are often confused with one another when somewhat similar in sound, a mistake which would be impossible were the real meaning understood. For, in that case, the name would recall not only the thing itself, but its situation or composition, or the use to which it is applied. On this account alone, I should be of opinion that the omission of Greek from the preliminary education of a medical student is greatly to be deplored. I believe that the small additional labour involved in acquiring some knowledge of that language, would prove a true economy in the end; and even if it should be the case that a certain number of lads were compelled, by their inability to acquire that knowledge, to select some other profession, it would be better both for the profession and for them, better for the profession that the overcrowding which now exists should be mitigated, and better certainly for them that they should be turned back at the commencement of their career, rather than run the risk of eventually, after the expenditure of much time and no small amount of money, failing, as a few unfortunately do fail, to obtain the desired qualification.

I remember last year listening with much amusement to an after-

dinner speech by my learned and witty colleague the professor of Latin, in which he reported a conversation which he had overheard in the professors' common-room between two of his scientific colleagues. They were discussing the advisableness of altogether abolishing Latin and Greek as subjects of ordinary education, but they eventually came to the conclusion that it was, on the whole, desirable for so much of these tongues to continue to be taught as might facilitate the understanding of scientific language. I do not know who were these colleagues of Professor Church; certainly I was not one of them, although it may be thought that there is some resemblance between the conclusion they arrived at and the argument I have been endeavouring to urge in favour of the retention of Latin and Greek, and especially the latter, for Latin has not yet come to be regarded with so ruthless an animosity as Greek, as essential subjects in the early education of a lad who is intended to become a medical man. But the resemblance is superficial only, for although I would have him pursue the knowledge of those languages for the better understanding which that knowledge will afford of the construction of his own language, and the elucidation of scientific terms, I would none the less urge their pursuit for the sake of the languages themselves, for the pleasure which may be derived from the study of a great and ancient literature, and for the importance of the mental training which their study is peculiarly competent to impart. It is not given to everyone to attain such an amount of proficiency in the Greek and Latin as to be able to obtain the same pleasure from their perusal as from that of a poem or narrative in his own language; but even if the ulterior object be not attainable, the intermediate benefits to be derived need not therefore be neglected.

Many public schools now boast the possession of an institution which is termed the "modern side." This institution is supposed to be a sign of progress, and one of the chief indications of this progress purports to be afforded by the fact that Latin and Greek, if not banished altogether, are rigidly subordinated to modern languages and science. For my own part, I should be very doubtful about recommending any boy of mine who was intending to become a doctor, to the modern side. Doubtless, a knowledge of French and German would be beneficial in preparation for the medical profession, but scarcely the kind of knowledge which is usually acquired at an English school. An occasional two or three months of holiday-time spent in France and Germany—not in Anglo-American hotels, but amongst real Frenchmen and real Germans, would do more towards the acquisition of the kind of knowledge which is required—the ability to speak and read the languages fluently—than as many years on a modern side. I have known many boys who have enjoyed all the benefits of the modern side of a large public school, and have generally remarked that, whilst they have to the full displayed the deficiency in knowledge of the classics which was to have been expected from the circumstances of the case, the compensating proficiency in French or German and natural science which they were to have exhibited, was not by any means markedly apparent.

I do not wish to be understood to be in favour of excluding the teaching of science from schools. Some there no doubt are in which the elements of natural science are efficiently taught. But, even in these rare instances, I do not think science should be touched until a sufficient knowledge is acquired of the ordinary subjects of a general education. It is only during the final period of school-life that they should be allowed to be taken up, and then they should not be subordinated to any other branches of study, but made the principal objects of attention.

If this course be followed, I see no objection to the commencement of the study of physics and chemistry, and even also of biology, whilst still at school. But there are very few schools which can afford to possess the necessary laboratories and appliances for the effectual teaching of these subjects; nor are there likely always to be found in schools teachers whose familiarity with all these sciences is sufficient to enable them to impart a clear idea of essential principles without burdening their teaching with unessential details.

A friend of mine who has had some experience in examining in biological science in the local examinations of one of the universities, has furnished me with some amusing illustrations of the kind of science which is often picked up at school, the answers, be it understood, being all given by candidates—boys and girls—over the age of 16. Being asked, what is meant by reflex action? one candidate, who probably had not altogether neglected his classics, answers that it is "the action of bending and bending back into the former position of different particles; the particles that act thus are generally fine and hair-like." Another candidate describes it as "the action of the muscles when they work forwards and backwards. Examples: stomach of ruminants and the heart." Another says, "by reflex

action, we mean the action of the thumb, which is opposed to the fingers." Another, who is evidently weaker in classics than the first, states that it is "the flowing back. The impure blood is taken to the heart and purified; instead of flowing on, it returns by the auricles into the veins from which it has come." Another candidate mentions the curious fact that, "in reflex action, it sometimes happens that the blood goes from left to right; then it clogs, and the person ceases to live." Asked for information about the blood, one candidate gravely states that "the lungs mainly propel the blood through the body, and send it to the heart;" another that "the chief function of the blood is to carry air to the lungs;" while yet another makes the undoubtedly correct statement that "arterial blood is of a bright red colour," but adds the somewhat doubtful appendix that "some think this is due to hæmatite."

The structure and functions of the olfactory organ are treated by one candidate at considerable length. "The nostril of primates is situated in the centre of the face, and divided into two partitions. This organ is connected with the mouth and other senses, and fulfils the duty for which it was formed. In the cetacea, or whales, the sense of smell is produced by a very small nostril, which, when annoyed, the animal can use as a sort of defence. With and from this organ, it can spurt out great jets of water with such force that they are often very dangerous." Interesting information is afforded regarding fishes. We are told that "they do not generally suckle their young;" "their manner of bringing up their young is utterly at variance with any mode which mammalia, birds, or reptiles adopt with regard to their offspring;" "many fishes are obliged to rise to the surface to obtain water;" "their eyes are placed at the sides of the head, whereas in mammals the eyes are directed forwards; also in owls." We are further informed that the notochord "is so called because it is not a cord," and that "it is important as giving the greatest flexibility to the body; at the same time carrying on the function of respiration." The function of the muscles, according to one candidate, is "to form a pad between the bones to prevent them from rattling." With regard to the amœba, one candidate describes it as "living in the sea and eating shells; it has the power of squeezing small insects to death." Another says, "amœba are aquatic animals; they belong to the class Rhizoba. They have a water-vascular system, and a system of nerves composed of ganglia. They are without bones. Their intestines are of a simple character." Doubt is thrown upon one of these assertions, however, by another candidate, who declares that "many deny that the amœba has any nervous cords." Whilst another candidate, of the gentler sex, dealing with the process of reproduction of the amœba, states that "the nucleus and nucleolus, when present, are in the same individual, and by their coercion fresh animals are produced."

Very curious pieces of information are elicited by a question on the geographical distribution of animals, such as the statement that "edentates are suited for grazing, and would be found mostly in regions resembling the British Isles." Mark the caution of that "would be found," and contrast it with the hardihood of the next one: "edentates are common in London houses."

These are only a few instances, out of many which could be given, all tending to show that the kind of scientific knowledge which is frequently acquired at school, is far too diffuse and inexact to be of much value, and too often leads only to the remarkable confusion of mind, which is exemplified in the answers I have quoted above.

Whilst I am by no means of the opinion that a boy who is intended for the medical profession should commence the study of natural science whilst still at school, I feel, on the other hand, that it is impossible to put the study of mathematics upon too high a pedestal, as a subject of preliminary training. Be sure that the time which a boy devotes to this study will never be lost. It is invaluable for the bringing up of the mind to that exactitude of observation and precision of statement, which are essential to all truly scientific observation; and it must be borne in mind that every case which comes under a doctor's care partakes of the nature of such an investigation. Mathematics form, moreover, the basis of all the physical sciences, so that, without an adequate understanding of the one, a proper comprehension of the others is impossible.

I think, then, that every boy who intends to study medicine should, at the least, possess, before leaving school, some sound knowledge of Greek and Latin, and a thorough grounding in mathematics; if he has also been able to acquire a certain amount of proficiency in French and German, so much the better.

After leaving school, it should be obligatory upon every student to devote at least one entire year to the study of those sciences—physics, chemistry, and biology—which are immediately preliminary to what are usually classed as the more strictly medical sciences. For this

purpose, he should go to some college—to Oxford or Cambridge, University or King's, the Owens, the Firth, or the Mason—anywhere, in short, where these sciences are thoroughly taught in properly provided laboratories and under recognised teachers.

It is astonishing that not only the desirableness, but the absolute necessity, of this preliminary scientific training has not long since been insisted upon by those who have practically the direction of medical education. To take a lad straight from school—or, perhaps, to allow him first to waste a year or more bumping about on country roads in a doctor's gig, under the idea that he is thereby acquiring an insight into medical science—and to send him to study physiology, to say nothing of pathology, without his having acquired even the most rudimentary notions of chemistry, physics, and biology, is to compel him to learn that subject without understanding it, to rob it of all the interest it possesses, and is fatal to the future comprehension of the physical and vital problems of medicine and surgery.

From my own experience, which I am very sure could be corroborated by that of every other teacher of physiology, I can bear ample testimony to the value of a previous training in the preliminary sciences; and, if I could have my own way, I would insist upon every intending student of medicine acquiring a competent and practical knowledge of those sciences previously to presenting himself for registration. I have often heard students deplore the difficulties which they have experienced in comprehending many of the facts of physiology, difficulties which have resulted solely from previous ignorance of the simplest principles of chemistry and physics. And how is it possible to expect a student, who has never been through a course of biology, never investigated for himself the structure of a worm, nor seen a bacterium, to pursue the changes and combat the ill-effects of the innumerable parasites that are liable to infest the human frame, or to follow the development, and endeavour to stay the ravages, of the many microscopic organisms which are instrumental in the production of disease?

We next arrive at the period when the candidate becomes a medical student in the ordinary acceptance of the term, the time, that is, when he enters at a medical school attached to a recognised hospital. It is universally acknowledged that, from that time to the time when the complete qualification is obtained, four years is the very shortest period that must be devoted to the more special departments of medical education. We have, then, to consider how this period may best be allotted.

I would have the first year given up to elementary physiology, histology, elementary anatomy, and *materia medica*. I would have all these subjects taught more by practical work than by means of lectures, chiefly using the latter to furnish an explanatory accompaniment to the work of the laboratory and dissecting room. The difficulty of making instruction, especially in physiology, more practical, which arises from the amount of time which such practical work would necessitate, is in great measure obviated if we determine to relegate the study of the preliminary sciences to an antecedent year, for this would at once enable the student to devote almost the whole of his time during the first two years after registration to anatomy and physiology.

In considering the relative apportionment of time to each of these two subjects, we must take into account their relative importance to the student of medicine. The arrangement of time which at present obtains is apparently based upon the assumption that anatomy is the foundation upon which all the superstructure of medical and surgical science is reared, whilst physiology is of comparatively little consequence to the future surgeon and physician, and requires comparatively little effort to master, and needs, therefore, an expenditure of not more than one-sixth the time which is claimed for anatomy. This assumption could only be justified if the object of medical education were to provide physicians, not for the living, but for the dead. But since it is life, and the problems presented by the living body in health and in disease, that both surgeon and physician must encounter, it is the science which deals with life and the processes of the living body which should form, both for surgeon and physician, the foundation of their training. It is infinitely more important that the principles of physiology should be learned thoroughly and practically, than that the student should be crammed with dry anatomical details, many of them of no possible application, and most of which are often forgotten after the examination in far less time than they have taken to acquire. I suppose I was myself at one time as well stuffed with these dry bones of anatomical learning as other students. I should be sorry now to confess how little has been retained. And how many must there not be whose experience would corroborate mine?

Instead of this absurd disproportion in the amount of time which is

given up to physiology as compared with anatomy, I would have the student devote at least half his time during the first winter to physiology, leaving the other half to anatomy. An elementary course of lectures should be accompanied by practical work in a laboratory, and supplemented by tutorial instruction. The physiological laboratory—not the research laboratory, but a teaching department—should take the same place with regard to physiology that the dissecting-room does to anatomy. Each student should have his own place, and should be expected to spend a certain number of hours each day there.

No doubt, the carrying out of such a plan would entail a large amount of trouble and expense. The room which in most medical schools is dignified by the designation of physiological laboratory would be entirely inadequate for the purpose; and the building of a proper laboratory, and the furnishing of it with a sufficient amount of apparatus, would involve an outlay from the mention of which the governing bodies of most medical schools would shrink in dismay. Even in this College, which already possesses a laboratory sufficiently large and conveniently arranged for purposes of research, and for the present exigencies of teaching, we should require large additional space, and a very large amount of additional apparatus. At present, what is called practical physiology is, for the ordinary student, nothing but practical histology, often nothing but the examination of microscopical specimens, with a little practical chemistry thrown in. Here, and in one or two other places where a physiological laboratory worthy of the name happens to exist, a few students can be conducted through a tolerably complete course of practical work in physiology. But the amount of time which is required for this work, and the fact that such a course is not included within the prescribed curriculum, and is, therefore, not requisite for examination purposes, debar all but a few from following it out. I should like to see every student made to learn his physiology in the same practical manner that he learns his medicine and surgery. But you cannot compel him to do this unless you first provide the means necessary for performing your behest. Your student can no more make bricks without straw than could the Israelites of old. You must begin by providing him with well appointed laboratories; but how is that to be done? Be sure it will never be done so long as the present ruinous system between the London medical schools continues. I do not believe that any one school unassisted can afford to teach physiology to all its students, as it ought to be taught. I am sure there is not one school that does so, although, from the tone of some of the advertisements, one would think that, in this as in other matters, there was nothing left to be desired. The only hope which I can see, and that is a remote one, lies in the adoption of some system of co-operation under which, amongst other reforms, it might be arranged that the medical students of the different schools should obtain instruction in physiology at a few recognised centres, where it would be possible to make adequate provision for the practical teaching of that subject by those who are themselves engaged in carrying on physiological investigations.

Whilst the student may profitably occupy his time during the first winter session in familiarising himself with the fundamental facts of physiology and anatomy, he may devote the first summer chiefly to the study of histology, and partly to the acquirement of the rudiments of *materia medica*, exclusive of the action of drugs. Unquestionably, a complete course of histology, accompanied by practical work with the microscope, of such a nature that each student learns for himself and constantly practises all the more important methods of modern histology, will occupy the greater part of the short summer session. What time remains unoccupied by this may probably be most profitably employed in acquiring some notion regarding the appearance, characters, and composition of drugs. Not that this knowledge ought necessarily to form part of the stock-in-trade of every medical man, but because, in very many cases, it is still needful for the doctor to deal in drugs, especially in localities which are not populous or civilised enough to support a regular druggist. The time of a professional man is, or should be, more valuable than to be spent in bottling up medicines or preparing pills and powders, and it were much to be desired that the practitioner should be relieved of this incubus, and set free for the performance of work requiring greater skill and higher knowledge. Until, however, this change is everywhere possible, it may be necessary to require the student to obtain some knowledge, and that of a precise kind, of the general properties and appearance and methods of compounding drugs, so as to be able readily to distinguish them, and to detect adulteration. But to expand the teaching of *materia medica* to the extent to which it is developed by many lecturers and text-books—I can speak freely, because this has long since ceased to be the case in this College—to expect the student to remember the characters of all natural orders that contain any medicinal plants, to enter into the most minute

details regarding the methods adopted in the manufacture of medicinal remedies, to rake together as much information of a miscellaneous kind as can be compressed within the limits of a course of lectures or between the covers of a text-book, and label the contents of the heap *materia medica*—against such practices as these we cannot raise too loud or vigorous a protest. Truly, Goldsmith might have been a medical student contemplating the bald and reverend pate of a worthy predecessor of our professor of *materia medica*, when he composed the expressive lines which tell how

“Still they gazed, and still the wonder grew,
That one small head could carry all he knew!”

What wonder that a cry has been raised for reforming *materia medica* altogether away from the medical curriculum! I remember, many years ago, to have heard in this very theatre no less an authority than Professor Huxley advocating its abolition. I am not quite sure whether this bag-and-baggage policy might not eventually prove best; but in the meanwhile, both in teaching and in examinations, the subject ought to be shorn of its preposterous proportions, and reduced to its legitimate level. *Materia medica* is to pharmacology and therapeutics as anatomy to physiology and pathology, but it is of even less relative importance.

Let us next consider the manner in which the second year of the medical quadrennium may be filled up. Again, the greater part must be given up to physiology and anatomy. During the second winter is the time when the more recondite principles and facts of physiology may best be followed. To facilitate this, not only should the teaching be illustrated experimentally in every possible way, but it should be accompanied also by practical work of a more advanced character than that which I have supposed to occupy the first winter. In the event of any student showing a special desire and aptitude for scientific work, an original research of a simple kind might be undertaken under the direction of a demonstrator.

Certainly not less than half the student's time during this session ought to be spent in the physiological laboratory; the rest can be retained for anatomy. It is as much as he can be expected to do to obtain adequate knowledge on these two important subjects by the end of the second winter session, even if the sciences of biology, chemistry, and physics have been relegated to a preliminary year; it is more than can be done if they are to be allowed to take up a part of the time which is needed for anatomy and physiology.

Assuming that his time has been employed in the manner here indicated, the student ought to be ready to begin attendance in the outpatient department and in the wards of a hospital by the commencement of his second summer session. There are many who advise that he should begin to attend the hospital from the time that he enters as a medical student. I would not have him enter the door of a hospital until he should have completed his anatomical and physiological training. How it can possibly advantage him to see operations which he cannot understand, to listen to lectures which are absolute Greek to him, to watch the progress of cases regarding the nature and pathology of which he must remain absolutely ignorant, I am at a loss to comprehend. On the other hand, while his visits to the hospital can do him no good whatever, so far as I can see, they are able to effect a vast amount of harm. Not only do they take him away from his legitimate work at anatomy and physiology, which, God knows, demand time and labour enough and to spare, but they inculcate the habit of idling about in an aimless manner, a habit which, when once acquired, is rarely got rid of, and, in many cases, leads too easily to the tavern billiard-table, and the pursuits which follow from this. *Facilis descensus Averni.*

But when once physiology and anatomy are mastered, and the examinations in these subjects are left behind, then, by all means, let the student throw himself, heart and soul, into his hospital-work. Let him apply his newly acquired knowledge to the cases that come under his notice, and he will find that every case will add something to the store of information which must be accumulated before he can himself enter, on his own responsibility, upon the active duties of his profession. I would suggest that, during this second summer, the student would be more usefully employed in acquiring a general insight into both the medical and the surgical practice of the hospital, than in at once devoting himself exclusively to the one or the other branch of medical science. Such an insight will the better enable him to follow the regular courses of instruction in medicine, surgery, pathology, and therapeutics, which, from this time, and during the next two years, will, in addition to his hospital-work, occupy his chief attention.

Now, I think, is the best and most convenient time also for the courses of pathology and pharmacology to come in. Both of these subjects require and presuppose a knowledge of physiology, and one

of them, namely, pathology, also demands a fairly accurate knowledge of normal anatomy and histology; and the fresher these sciences are in the mind the better. But I would venture to assert that the method of teaching both pathology and pharmacology ought to be very different from what, in this country, is considered sufficient. Amazing as it may sound to a continental reader, there is not a genuine pathological laboratory attached to a single medical school in this great metropolis. They do not even, as in the case of physiology, pretend to possess one. The only pathological laboratory that I know of in London is that belonging to the Brown Institution, which institution, I may inform the intelligent foreigner, is a dispensary for dogs. "Love me, love my dog," is a proverb which must be truly indigenous in this country, where a sentimental regard for the brute creation is reckoned a truer nobler instinct than the love and care of one's fellowmen. Our hospitals and schools of medicine may languish, and the progress of science be hindered for lack of funds, but there will never be a want of provision for our stray cats and dogs.

Pathology is at present mainly represented by pathological anatomy in the same way that, fifty years ago, the teaching of physiology was little more than a name, and consisted chiefly of some sort of anatomy. One would think that such a science as experimental pathology was non-existent; that the cultivation and study of disease-producing organisms was a form of amusement practised by a few pleasure-loving Germans; that to know what a morbid product might look like after death was the sole knowledge necessary to enable one to combat its development and progress during life. I deeply regret that University College is still behindhand in this matter; it is almost the only instance I can remember in which she has not taken the lead in the path of progress. But it is to the University of Cambridge that the honour belongs of having instituted the first chair of Pathology properly so-called, and of having made provision for the necessary laboratories. I hope that we may not long linger behind, and that the time is not far distant when we shall possess a laboratory worthy of the name, which shall be devoted wholly to pathology, and presided over by a trained experimental pathologist. Until this shall have been accomplished here and elsewhere, it is hopeless to expect that the teaching of pathology will be anything but a makeshift; and it is not to be wondered at that our students find it necessary to go to Berlin, or Leipzig, or Strasburg, in order to acquire that knowledge of pathological methods and practice in their application which they in vain seek to obtain in this country. All the arguments which I have urged in favour of the learning of physiology by practical work, apply with even greater force to pathology, for it is with pathological processes that the medical man is concerned, and pathology is nothing but physiology gone wrong.

Only inferior to the claims of pathology are those of pharmacology. Little as I would have the student's mind burdened with the dry details of *materia medica*, so much the more would I insist upon the importance of his acquiring a proper understanding of the action of drugs in health, so that they may be scientifically and accurately applied to combat the manifestations of disease.

It will be said that this is merely a branch of physiology, and this is true; but it is so large and special a branch, that it is necessary it should stand upon an independent footing. Like physiology and pathology, pharmacology is an experimental science, and, as such, demands laboratories fitted with the most approved instruments of research, and every essential for teaching. But where—I do not say in this metropolis, but in the whole United Kingdom—will you find a laboratory devoted to this purpose, and presided over by one who has familiarised himself with all the details of this important branch of medical science. Probably not one single room is set aside even for the carrying on of private research, certainly there will not be found any means of enabling the intending medical man to study the action of those drugs which he is afterwards, often blindly and fortuitously, to experiment with upon his unfortunate patients.

How far we are behind Germany in this matter will be evident from the circumstance that even the smallest German University reckons among its teachers a professor of pharmacology, to whose sole use a laboratory is devoted for purposes of research and teaching. But, in this country, the pharmacologist may think himself fortunate if he can obtain the grudgingly yielded licence of a Secretary of State, and a spare corner in a physiological laboratory, in order to pursue those investigations, and conduct those experiments, which ought to be a necessary preliminary to the application of remedial agents in the human subjects. How, under these circumstances, a doctor can be blamed for occasionally making himself or his patients the subject of experiment, I am at a loss to understand; for surely it is only by experimental means that the necessary knowledge can be arrived at, and

the legitimate opportunities for obtaining this knowledge are, in this country, difficult, indeed, to be obtained.

I should like to see, at the same centres at which physiological laboratories are established, laboratories of pathology and pharmacology side by side with them. It is impossible that each medical school should maintain, unassisted, each its own laboratories and staff of teachers, devoted entirely to their respective subjects; and it is only by the adoption of the principle of co-operation, and the invocation of pecuniary aid from the State, that we can expect these sciences to be effectually taught. This is a string which I shall have once more to harp upon before I have finished.

During the third and fourth years after registration, the student's whole time must necessarily be taken up with surgery and medicine. I believe that the present mode of teaching these subjects in this country leaves little to be desired, although the opportunities for studying some special branches may be exceeded in some foreign cities. The fulfilment of the duties of subordinate appointments in the hospitals, and the attendance at clinical lectures and systematic courses of instruction, operations, and *post mortem* examinations, may be reckoned to absorb every available moment. Two years may seem all too little for the acquisition of that amount of knowledge of disease, and its treatment, which is to enable its possessor to be legally entrusted with the health, or even, it may be, with the life, of his fellow-men. But it must be borne in mind that the newly-fledged practitioner is rarely called upon to take the charge of a practice upon his own responsibility; nor do I think it at all desirable that he should do so. If he fails to hold a resident appointment, at either a metropolitan or a provincial hospital, he probably obtains his first experience of practice either as the assistant of an established practitioner, or in conjunction with one to whom he can readily refer in matters which have not before come within his cognisance. The work of medical education, just as it does not begin with registration, so by no means ceases with qualification. The advances of medical science are rapid, and even the physician of experience has constantly to educate himself, if he will keep abreast of the progress of the times. The period of study, to which we assign artificial limits, is but the commencement of a course of education which ceases only with life itself.

I have hitherto avoided touching the subject of examinations, and I would willingly leave them altogether out of consideration, unless it were to point out some means by which they could be avoided by the student also. But I greatly fear that, under the actual conditions of medical education, examinations are necessary. It is certainly essential that the student's knowledge should be tested, and the only way of fairly testing it, which seems at present possible, is that of public examinations. I would myself rather trust the certificate of a recognised teacher, who has throughout watched the progress of the student's work, and who has had frequent opportunities of informing himself regarding the knowledge which the student has acquired, than the report of an examiner, who sees him on one occasion only, and then under strange conditions, which, in many cases, prevent the candidate from doing justice either to his subject or himself. But it must be admitted that there are many difficulties in the way of the adoption of a change of this description; and we must probably continue for a long time to consider examinations as a necessary factor in the course of a medical education.

Under the present conjoint scheme of the Colleges of Physicians and Surgeons, five examinations are required to be passed before the candidate can obtain a diploma to practise. They are: 1. A sort of easy matriculation examination, to be passed prior to registration. 2. An examination in chemistry, chemical physics (*sic*), *materia medica*, medical botany (*sic*), and pharmacy, to be passed after registration. 3. An examination in elementary anatomy and physiology, at the end of the first year after registration. 4. An examination in anatomy and physiology, at the end of the second year. 5. A final examination in medicine, surgery, midwifery, and pathology. I would like to see certain modifications made in the subjects of some of these examinations, and in the mode of conducting others—modifications which will bring the examinations into conformity with the scheme of teaching which I have before propounded. I do not think an objection can be taken to the number of these examinations. I do not see any harm in multiplying examinations, if you do not, at the same time, increase the number of subjects of examination. If you reduce the number of examinations, you must put more subjects into each; and, if a number of subjects are grouped into one examination, there is a greater amount of difficulty in working all up to the examination-point. At any rate, if, for convenience sake, several are taken together, a student should not be rejected in all his subjects, because he fails to pass in one or two. If he has shown, in a search-

ing examination, enough knowledge of any one subject, he should be credited with that knowledge, and not required again to pass in that subject. It is impossible for all the data which are required for an examination to be for ever kept in memory. How many of us could now pass an examination in many subjects with which we were at one time perfectly familiar?

I would have the examinations distributed somewhat in the following manner. The first would be encountered on leaving school, say, at the age of 17 or 18, when the boy should be expected to show the possession of a competent knowledge of Greek, Latin, and mathematics, and of the English language and literature, and some acquaintance with French and German, especially with the grammar of those languages. He would then proceed to college, and follow courses of instruction in chemistry, physics, and biology. In every case, examinations in the preliminary sciences should be passed previously to entering at a medical school. I would not have these examinations difficult, but so far as they go I would have them searching and practical. As in the preliminary scientific examination of the London University, of which they would collectively be the equivalent, they might be taken either together or piecemeal; the latter course in many cases would be greatly to the advantage of the student. They should be less difficult, but more practical than is the case at the preliminary scientific. No one should be permitted to register as a medical student until he could produce certificates of having passed in each subject. I regard the introduction of a thorough and practical examination of every intending student of medicine, in the three sciences of biology, chemistry, and physics, as one of the most important reforms to be introduced in medical education.

Other examinations would come during, or at the end of, the first year after registration, and would comprise the subjects of the first year of study; namely, physiology, anatomy, histology, and materia medica; and others, again, at the end of the second winter, in advanced physiology and anatomy. The examinations should be no less practical than the teaching, and they should occupy a much longer time than is now the case. To attempt, for instance, to test a student's knowledge of physiology by a practical examination, which lasts only a few minutes, is a farce that can only be justified by the fact that it is a considerable step in advance to have instituted even the semblance of a practical examination.

A reform of this kind cannot be made without a considerable outlay. It would be needful to erect and fit out a laboratory expressly for the purpose of conducting such examinations in physiology, and they ought to be held only under the direction of those who are themselves actually engaged in physiological work. Should the munificent bequest of Erasmus Wilson result, as I sincerely trust may be the case, in the erection and endowment of a great central research-laboratory for physiology, pathology, and pharmacology, it would be easy to establish practical examination-rooms as an annex of such an institution, and the services of the permanent directors and staff of the laboratory would then be available to conduct the examinations. I believe that the adoption of such a plan would also obviate one of the worst evils of the present system: that, namely, of the inequality of the examinations, resulting from the number of the examiners, who are, unfortunately, not all cast in the same mould, and the differences in whose individualities are often painfully evident to the candidates.

The final examinations in pathology, pharmacology, and therapeutics, medicine, surgery, midwifery, etc., might, in the scheme which I have here been endeavouring to sketch, be passed as soon as the required courses in those subjects are concluded. After the main subjects had been passed, special examinations should be held in some of the more important branches, such as ophthalmic surgery, diseases of women, diseases of children, and insanity. Were the student thereby encouraged to frequent special hospitals during the latter part of the quadrennium, so much the better.

I fear the time is yet far distant when a London student shall have the freedom of all the London hospitals, and be able to betake himself to that institution where he is likely to derive the greatest benefit in any special object he may have in view. I should like to see a clearing-house system established in London, whence composition-tickets should be issued to students, entitling them to select for each term the particular school at which they might desire to study, or even the particular courses of instruction in different schools. The adoption of such a plan would be, practically, the substitution for the ten or twelve medical schools which are dotted over London, of one great association which would embrace the whole metropolis. This would probably lead to the concentration of the teaching of the scientific subjects at a few foci, and to a much more uniform dissemination of the students for subsequent clinical work than at present obtains, an arrangement which would be as advantageous to the students as to the

hospitals, many of which are notoriously undermanned. It is greatly to be hoped that the scheme for establishing a teaching university in London may, if completed, result, among other things, in the carrying into effect of some plan of union such as this. That union will be strength, in this as in everything else, is indubitable, and yet it is a melancholy fact that our London schools continue to pursue a suicidal policy of mutual distrust and opposition. Little is it to be wondered at if we compete unsuccessfully with the Scottish universities in attracting students to our classes, in spite of the enormous advantages which London ought to possess, and does, in fact, really possess for medical training.

But what if this unfortunate conflict of existing interests should prove a Gordian knot incapable of disentanglement? I would invoke the assistance of Parliament and cut it, without more ado. I would have, at one or more centres, the necessary laboratories erected and endowed by the State, and thus secure the effectual scientific training of the student; if this is assured, the clinical work will take care of itself. There is no lack of precedent for State intervention in the matter of education, and why should that intervention not extend to medical education? Surely the advancement of medical knowledge is an object which every citizen, if only for his own and his children's sake, should be anxious to promote. But the necessary changes cannot be effected without some interests suffering, nor can they come to pass without money. A considerable expenditure is undoubtedly necessary, and this would have to be mainly provided by Parliament, although it might be assisted by a rearrangement of a few existing endowments.

And why should not London obtain what other cities and towns find no difficulty in obtaining? We hear of building grants to Scottish universities, and of endowments to colleges in Wales and Ireland, but of any aid to university education in London not a sound. Even the fountains of private munificence run dry in London. Manchester, Sheffield, Birmingham, Dundee, no town or city in the provinces, but bears testimony, by the generous response which immediately replies to the cry for higher education, to the loyalty and liberality of its inhabitants. London alone languishes. No merchant prince opens his coffers to relieve her wants, no wealthy guild comes forward to aid the teaching of that to which its members often owe the health which is to them more precious than all their riches.

We have the right to demand from the State that aid which we cannot otherwise obtain, and which is essential to the interests of medical education in London. The amount we should require annually would be but as a drop in a bucket in relation to the eighty millions we expend on other objects. And even the initial expenditure, at the most extravagant estimate, would not exceed the cost of a single ironclad, which in ten years becomes obsolete, if it is not long previously sent to the bottom by a torpedo, nor equal half the expense of a railway, which we send from Woolwich to the Red Sea, and from the Red Sea to Woolwich, with no other result than to cover ourselves with ridicule.

But no Government of this country will give a penny for the purpose of assisting medical education unless we are unanimous and urgent in our demands. We must take example by the woman in the parable, and never cease from our importunity until we have obtained the redress of our wrong. It is useless to point to Germany, which spends half a million of money in constructing laboratories, and thirty or forty thousand a year in maintaining them in a single city, not one-tenth the size of London; or to France, which during a few years lays out more than four millions sterling upon her colleges; unless we are united in our purpose, and persistent in its advocacy. We must leave no stone unturned which may assist our efforts, we must be satisfied with nothing less than the complete fulfilment of our desires. Only in this way will it be possible for us to obtain such provision for medical education in this metropolis as shall be second to that of no city in the world.

A PYEMIA IN FISH.—According to the American papers, the researches which Professor S. A. Forbes, of the Illinois State College, has instituted into the cause of the terrible mortality recently prevailing among fresh-water fish in some parts of the American continent, show that the disease is due to a minute spherical bacillus, whose diameter is only about the 1-25,000th part of an inch. He discovered the micro-organism in the liver and kidneys of the diseased fish. There it forms abscesses, which ultimately destroy those organs, and entail the death of the fish. He was prompted to undertake this investigation by the extraordinary mortality among the perch and other fish of Lake Mendota, Wisconsin, where fish have for some time past been dying in enormous numbers.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

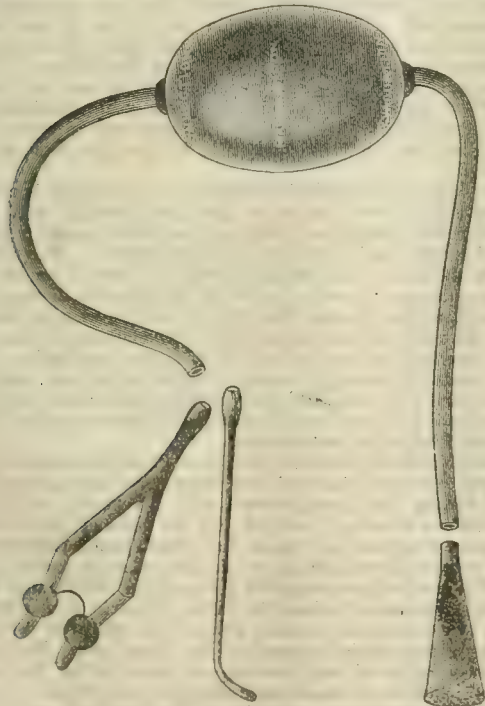
PROCEEDINGS OF SECTIONS.

NEW AURAL INFLATOR, EVACUATOR, AND
INJECTOR: WITH REMARKS ON THE
TREATMENT OF COMMON
AURAL DISEASES.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By J. WARD COUSINS, M.D. Lond., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital, and to the Portsmouth and
South Hants Eye and Ear Infirmary.

COMMON aural disorders are now receiving far more attention than at any former period, and the day is approaching when, by early diagnosis and treatment, their disastrous sequelæ will be greatly diminished both in number and severity. Scientific methods are taking the place of old fashioned and routine-treatment by syringing and counterirritation; still, notwithstanding the all round improvement that has fortunately occurred, the risk of neglecting the incipient stages of aural derangement has not yet received the general recognition which it is entitled to obtain. Parents too often regard diseases of the ear as trifling ailments, which can be cured by ordinary domestic remedies. They treat very lightly deafness in their children, and flatter themselves with the false assurance that the disorder will pass away in time. A fetid discharge from the ear causes them very little anxiety, believing that "the running" is a natural method of relief, which ought not to be checked by remedies. A very brief attendance in the aural department of any hospital will afford convincing evidence of my assertion that a large number of chronic diseases of this class can be fairly attributed to indifference, and that permanent injury to the organ of hearing is frequently the outcome of ignorance and neglect during the early stages of the disorder.



The new aural inflator, represented in the engraving, is a contrivance designed to fulfil several important purposes in the practice of every-day aural surgery; and it is, in fact, a combination of several

instruments, admitting of many useful applications. 1. It serves for inflating the middle ear as an ordinary Politzer's bag. 2. It can be used as an evacuator for the withdrawal of fluid by the Eustachian tube, or as a pneumatic tractor applied to the external auditory canal. 3. It can be employed also for the injection of medicated air, charged with the vapour of deodorisers or other volatile fluids.

When the instrument is to be applied for tubal inflation, the nasal piece should be adapted to the orifice of the nostrils by means of the wire loop which unites the vulcanite balls. The Eustachian catheter may be substituted for the nasal piece in those cases in which it is desirable to operate upon one ear only.

The hand-ball is especially fitted with very small valves and a central recoil-spring. The end of one of the tubes attached to it must be fixed on the nasal piece for inflation, the end of the other tube for evacuation. Very gentle compression of the hand-ball is sufficient for the withdrawal of fluid from the Eustachian tube and tympanic cavity, but the bag must be forcibly and rapidly manipulated for successful inflation. When medicated air is to be injected, the fluid selected must be dropped upon the pledget of cotton wool placed in the conical vulcanite receptacle, which should then be adjusted on the end of the injecting tube. By the action of the hand-ball, the air is drawn through the perforated lid, and so charged with vapour.

It has been often asserted, and perhaps not without some truth, that aural surgery is both tedious and troublesome in practice; on the other hand, it must be admitted that there is no class of minor surgical operations which yields in the long run more satisfactory results. The success which follows the early treatment of catarrh of the middle ear by inflation is very gratifying to the practitioner, and sometimes astonishing to the patient. Already the timely application of Politzerisation has done much to reduce the frequency of permanent deafness; and this simple and invaluable method of tubal inflation is fortunately serviceable in many forms of aural disease, and also in association with other important methods of treatment. Even in cases of long closure of the Eustachian tube, and collapse of the tympanic membrane, it sometimes succeeds in restoring the normal communication between the tympanum and the pharynx; and this reopening of the tube is soon followed by great improvement in the hearing power. Sometimes the air-douche produces temporary deafness, with a sensation of fullness and singing in the ears, but these symptoms gradually subside as the air confined in the tympanum becomes absorbed. This increased tension is especially liable to occur whenever the inflator is used too frequently or with too much force; it can, however, be relieved at once by using my instrument, and evacuating the imprisoned air by simply reversing the action of the hand-ball.

The gentle action of the evacuator is also useful under many other conditions. In young children suffering from ear-ache, the bag may be employed for the withdrawal of pent-up fluid into the pharynx. In acute suppurative inflammation of the middle ear, with bulging of the tympanic membrane, evacuation in this way may sometimes succeed, preventing the spontaneous rupture of the drum, and removing the necessity of puncture. In chronic aural catarrh attended with deafness and tinnitus aurium, the treatment by inflation may often be combined with evacuation, with very excellent results. In many of these cases, the Eustachian tube is narrowed and blocked with secretion; at the same time, the contents of the tympanum are altered in structure and covered by a layer of thick and tenacious mucus. The air-douche alone is of little service; it aggravates the aural discomfort by increasing the abnormal pressure within the cavity, or else it fails to dislodge the pent-up secretion by the tube, so that the membrana tympani becomes unduly tense, and in this condition a repetition of the operation may cause serious injury.

Now, the treatment by alternate inflation and evacuation of the tympanum is certainly theoretically sound, and in my hands it has proved of great benefit in many chronic cases. It promotes the discharge of the inspissated secretion into the pharynx, and aids in maintaining the drainage of the cavity. By the injection of air, the mucus is disturbed from its position, and by reversing the action of the hand-ball of my instrument it can then be drawn into the tube, and its passage to the pharynx greatly accelerated. This double action is also capable of exerting a salutary influence over the bony chain. The mobility of the ossicles has long been impaired by the morbid condition of the tympanum; but by gently and repeatedly agitating them in both directions, their adhesions to each other are loosened, and their normal oscillation is re-established, by which alone vibrations can be transmitted from the drum to the fluid within the internal ear.

But the instrument can be used for many other purposes in aural surgery. The injecting tube can be readily connected with Ker's in-

haler for the application of chloride of ammonia-vapour in cases of disorder of the mucous passages, attended with profuse secretion. The injection of air charged with volatile vapours, such as carbolic acid, creosote, alcohol, iodine, eucalyptus, and other substances, is suggested as an auxiliary measure in chronic middle ear catarrh requiring more active treatment than the air-douche, and also as a substitute for the injection of fluids into the tympanum.

After the failure of milder measures, however, in cases of obstinate tubal obstruction and thickening of the naso-pharynx, the injection of warm solutions into the tympanum has been followed by considerable and even permanent relief. Mr. George Field expresses a decided opinion upon the value of this treatment, and considers "that the injection of appropriately selected warm fluids, not only renders the Eustachian tube pervious, but prevents the accumulation of inspissated mucus in the tympanum." When solutions are employed for this purpose, the application of the hand-ball evacuator, after the operation, will not at all times prove of material assistance; for, by its action, the diffusion of the fluid is secured over the whole mucous lining, and its final escape from the cavity promoted, mingled with the elements of secretion. In chronic cases, also, of collapsed and adherent membrane, the India-rubber tube may be introduced into the external auditory canal, and the instrument used as an exhaustor for the purpose of drawing out the drum; and it thus acts as a substitute for the "pneumatic tractor" recently suggested by Dr. Woakes.

The injection of deodorising vapour will be found especially valuable in cases of perforation and chronic otorrhœa—used, of course, in combination with astringent applications, and persistent attention to aural cleanliness. By this treatment, the patency of the drain-tube of the tympanum is maintained, at the same time injected fluids and purulent secretions are blown out through the perforation, which would otherwise be retained in the cavity. It, moreover, powerfully aids in destroying the fetid odour which is constantly emitted with the discharge, and assists in promoting a cleanly state of the aural surfaces, which, after all, is the essential element of the treatment. All chronic suppurative diseases of the middle-ear demand frequent modifications of treatment, and the persevering use of some form of antiseptic for a considerable period. In many cases, the otorrhœa is soon checked by the regular employment of astringent solutions; but it often happens that, notwithstanding a marked improvement in the secretion, the distressing fetor continues—kept up by a localised disease of the tympanum, which involves the periosteum, and sometimes the bone itself. It is under these conditions that the vapour-treatment is suggested as a valuable auxiliary to other remedies. The injection of medicated air causes no aural irritation, and it can be performed by the patient himself, many times during the day, as a substitute for other local applications.

In conclusion, I beg to submit my contrivance to the criticism of the profession, trusting that, by its convertibility, it will prove useful in the treatment of many common aural disorders. The instrument is very neatly made by Messrs. Maw, Son, and Thompson, and it can be obtained from them, together with a second hand-ball and extra joint, used by me to facilitate the operation of alternate inflation and evacuation of the tympanum. These additions are very convenient, as they obviate the necessity of shifting the tubes, and thus save both time and trouble. Care must be taken to attach one hand-ball by the injecting tube, and the other by the evacuating tube.

Mr. CRESSWELL BABER (Brighton) said that Dr. Cousins's method of fitting the nasal pieces was on the principle recommended by him some time ago for fitting Siegle's speculum into the meatus. He found a tubular nozzle introduced a short distance into the nose very effectual. Toynbee's experiment was, in his experience, useful for exhausting the air in the tympanum. He had not found injection of liquids into the tympanic cavity of advantage in cases of imperforate membrana tympani.

Professor LUCAE (Berlin) could not agree at all with the employment of injections of liquids into the cavum tympani. For five or six years, he had abandoned their use, because he had seen destruction of the hearing power of patients treated by other aural surgeons with solutions of corrosive sublimate and nitrate of silver, the destruction resulting from inflammation of the tympanum. But even after the injections of pure water, glycerine, and other more indifferent liquids, he had seen similar effects; and he applied in those cases—that is, of sclerosis—his mechanical treatment. He had, however, no objection to the use of volatile vapours, though he only employed air in real catarrh.

Mr. H. BENDELACK HEWETSON (Leeds) suggested that the amount of shaking of the ossicles might be injurious, with so powerful an instrument as that of Dr. Cousins.

Dr. COUSINS replied that his principle was not new, but his apparatus was. He did not approve of applying fluids to the middle ear; but volatile fluids producing vapours might be used.

SYPHILIS AS A FACTOR IN EAR DISEASE.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By EDWARD WOAKES, M.D.,
Aural Surgeon to the London Hospital.

In asking your attention to the varied aspects under which syphilis occurs, either as the originator or modifier of ear-disease, I propose to consider it in the first place as a cause of persistent otorrhœa. It may, I think, be taken for granted that, whenever a discharge from the middle ear continues, in spite of appropriate treatment, it does so because of the existence of a limited, and in most cases superficial, spot of caries. I have elsewhere shown the method required for detecting this lesion (see *Annales des Maladies de l'Oreille*, etc.), and indicated that dilute sulphurous acid is capable of eradicating it. When, however, such a limited area of exposed and carious bone is due to the operation of the syphilitic virus, certain difficulties are introduced, as regards both diagnosis and treatment. In the first place, a syphilitic caries is not to be distinguished, or at least not readily distinguished, by its appearance, from a similar condition arising idiopathically. Moreover, it does not often yield to the sulphurous acid treatment. But it frequently has this distinctive feature: the caries is symmetrical; that is, there is a corresponding lesion in both ears.

The following brief outline of a case in point, will make more clear the bearing of these remarks. A young man, a patient at my ear-clinic, presented, in the left ear, the appearance of a rough dry spot, just above and in front of Shrapnell's membrane, in the roof of the external auditory canal. It was about the size of the head of a shawlpin. This spot, when explored with a fine probe, yielded the characteristic grating sensation of exposed bone. When first observed, the rough surface was quite dry, the soft tissues being marked off from it by a sharply defined circular margin. In the right ear, in a spot corresponding to that just described, there was seen a circular grey sloughy-looking space. The probe passed through this, showing it to be a film of pus, beneath which exposed bone was detected. The carious process, which was quiescent in the left ear at the date in question, was seen actively progressing in the right. When examined some months later, both spots had become perforations, through which the probe passed into the tympanic cavity of each side respectively. There was a history of chancre seven years previously, and some just healed cicatrices of tertiary ulceration were present on the left cheek—facts which left no doubt as to the syphilitic nature of his ear-lesions.

But the existence of a syphilitic element in a given case is not often testified by evidence so clear as in that just detailed, and yet its diagnosis is equally important, because, apart from specific treatment, the ear-lesion will make no progress towards recovery. The following hint, as an aid to this end, appears worthy of record, the more so as it occurred quite undesignedly, under the following circumstances. I was treating, at the London Hospital, a married woman, about 35 years old, for very obstinate suppuration of the left middle ear. She had also marked indications of labyrinthine implication, severe vertigo, tinnitus, distressing headache, pains in the neck, etc. The patient was well nourished, had never been pregnant; and, except that her husband was a chronic invalid, there was no circumstance to point to a specific taint in her constitution.

She was subjected to treatment such as ordinarily succeeds in simple non-enthetic cases, and, *inter alia*, leeches were several times applied in front and behind the pinna, always with temporary relief to the vertigo. On one occasion, I noticed that the scars of the leech-bites had assumed a brownish tint, which in a short period deepened into distinctly copper-coloured stains, so that they came to resemble small moles. This circumstance suggested the possibility of the case having a syphilitic basis, and explained the failure, hitherto, to accomplish a cure. In the meantime, a small granulation appeared behind the perforation in the posterior segment of the drum-head. Exploration with the probe indicated rough and exposed bone in the floor of the tympanum. Specific treatment was adopted, and pushed promptly and fully. The symptoms referable to the labyrinth, which had hitherto been most intractable, rapidly disappeared; a hint which will not be without value in dealing with severe cases of vertigo. As soon as the patient's gums became slightly affected, the bronzing of

the leech-bites disappeared, leaving the usual triangular depressions, with a perfectly white base.

Dilute sulphurous acid, 1 in 8, did not remove either the granulations or the caries. She was therefore directed to insufflate iodoform, with the use of which the lesion disappeared, leaving only a clean perforation, behind which the healthy mucous lining of the middle ear was clearly revealed.

The value of the foregoing observation was subsequently impressed upon my mind on being shown by a medical friend an infant, aged about 9 months, who was the subject of obstinate diarrhoea, associated with supposed mesenteric disease, though otherwise exceedingly well nourished. The child was undressed for inspection, when my attention was attracted to the recent vaccination-scars. These exhibited the peculiar bronze-colour noted in the cicatrices of the leech-bites, in the patient last mentioned. There was nothing else about the child to suggest syphilis, unless the abdominal ailment were to be so considered. All doubt on the subject was dispelled when I learned that the father, so recently as two years prior to this occasion, had been the subject of a primary sore.

The practical outcome of these experiences is to suggest a means of confirming our diagnosis in a suspected case of syphilitic ear, in many of which the lesion presents no characteristic feature to guide to a correct conclusion on this point. The application of a few leeches can seldom do harm, while recourse to them is often indicated for the relief of symptoms. Should the cicatrices afford the required information, a decisiveness will be thereby imparted to the treatment, which will be a gain both to patient and surgeon; while the silent nature of the testimony thus afforded will save painful and almost useless interrogatories.

In my throat-clinic, it is not rare to meet with patients who are in the intermediate stage of syphilis, having well marked mucous patches over the soft palate and tonsils, and who are at the same time very deaf. In these instances, the specific inflammation extends to the mucous membrane of the posterior nares and Eustachian tubes, and the diagnosis is easy, because of the marked objective condition of the fauces. The treatment, also, is equally plain.

At a still later period, the middle ear may become the scene of a syphilitic outbreak, when, from the absence of any other lesion, the patient may be flattering himself that he is rid of his persistent enemy. Under these circumstances, the diagnosis is by no means easy, apart from the history. The following is a case in point.

Mr. —, aged 25, consulted me early in the year 1881. He stated that for a month past he had been very deaf in the left ear, having always heard well previously. There was a history of chancre two and a half years prior to this date, for which he was treated with mercury for six weeks. About three months before coming to me, he had observed several brownish patches on the genitals, which disappeared without treatment. The following was the state of his ears at the time of his first visit. The hearing-distance with the right ear was normal; with the left, $\frac{2}{5}$. Both tympanic membranes were normal; but through the left an opaque substance was visible, which, though it did not appear to involve the membrane, applied itself very closely to its inner surface. The opacity was densest opposite the posterior segment. The left Eustachian tube was patent, but catarrhal; there was persistent tidal tinnitus in the left ear. The posterior wall of the pharynx was dry and glazy—pharyngitis sicca.

On January 31st, the date of the above observation, he was prescribed an alkaline lotion for the nose, and solution of iodoform in ether to be applied behind the left ear.

February 7th. The condition was unchanged. My previous suspicion that this was a case of gummatous exudation into the middle ear, was confirmed at this second visit. I therefore directed him to rub in mercurial ointment every night, in addition to the former treatment.

February 21st. The hearing-distance of the left ear had improved to eighteen inches. The left membrana tympani was quite clear; the opaque substance had entirely disappeared, leaving visible the long process of the incus, which it had formerly obscured. He was ordered to continue the inunction every other night.

March 21st. The hearing-distance of the left ear was increased to four feet, though there was still occasional tinnitus. The mercurial treatment was discontinued, as he had practically recovered.

Obviously, in this case, it was the history alone which gave certainty to the treatment, and thereby averted a disastrous lesion of the tympanic cavity, which must inevitably have followed the breaking down of the gummy.

I have seen one case of syphilitic ulceration of the external ear, in which a gumma involved the tragus and adjacent parts of the external meatus. It was already ulcerating, the cartilages being in places exposed and necrotic. The condition itself was sufficiently distinctive;

but the diagnosis was further aided by the presence of a specific laryngitis, with partial stenosis, on account of which, in fact, the patient applied at my clinic. A somewhat prolonged course of specific treatment, local as well as general, resulted in recovery from both conditions.

The brief notes which I have quoted suffice to show that no part of the auditory apparatus is exempt from the inroads of syphilis. I am equally satisfied that many cases of so-called strumous otorrhoea in children are due to inherited taint; and, if treated from this point of view, lose much of their obstinacy, which, so far as I know, is the only ground for designating them as strumous. Complete cleanliness, with the insufflation of iodoform, will often cure such cases of otorrhoea; and their diagnosis will be greatly aided by the detection of traces of old keratitis, scars about the angles of the mouth, with other indications of bygone infirmities, such as are usually met with in the subjects of inherited syphilis.

Mr. H. BENDELACK HEWETSON (Leeds) felt sure that often there was a great connection between otorrhoea in children and inherited syphilis. These cases appeared not to have any distinctive features, except the otorrhoea, which directed one to determine a syphilitic treatment, just as interstitial specific keratitis was occasionally seen without other symptoms of inherited syphilis. Mr. Hewetson had seen in these cases of otorrhoea much benefit from the use of iodide of potassium, in addition to local treatment by solutions of carbolic acid and insufflations of iodoform. Two cases had lately occurred to him in the persons of young men, in which there was distinct disease of the internal ear following, at intervals of two and three years, an attack of primary sore. Each case improved under the administration of large doses of iodide of potassium. One case was quite cured, and the second relieved. In these cases, there was no visible lesion, but the tuning-fork indicated disease of one internal ear.

Mr. CRESSWELL BABER (Brighton) made some remarks on the importance of syphilis in diseases of the ear; but he had not had much success with treatment in cases of inherited syphilis.

Dr. C. J. LEWIS (Birmingham) said that hardly sufficient attention was given to the fact that syphilis played an important part among the diseases of the ear. It was well to push specific treatment in cases which showed signs of hereditary syphilis, and he thought that the result would be a little more satisfactory. He described a case in which a child nine years of age had keratitis, and was very deaf; but by twelve months' treatment of iodide of potassium and hydrargyrum cum creta she fairly recovered, so that she was able to hear conversation at the end of a room.

Mr. EDGAR BROWNE (Liverpool) considered the delicate experimental testimony afforded by the pigmentation of leech-bites an excellent practical point. As regarded the results to be attained in the deafness of hereditary syphilis in these cases, the mischief was too frequently done before the patient came under treatment. They might be divided into two classes; one in which the disease travelled by continuity from the nares, at the early stage of snuffles; another in which the structures of the internal ear were attacked. In both, the mischief had passed into the stages of thickening and cicatricial tissue, and was not likely to be influenced by specific treatment. As regarded the assistance to diagnosis in cases of otorrhoea, which might have a syphilitic origin, afforded by interstitial keratitis, it must be remembered that the purulent otitis occurred, in a considerable proportion of cases, at an earlier date than the keratitis. In acquired syphilis, in addition to other lesions spreading from the pharynx, a class of cases might perhaps be discriminated, occurring in the secondary period, which had for signs perfectly healthy membrana tympani, with open Eustachian tubes, very rapid deafness, both osseous and aerial, vertigo and tinnitus. Unfortunately, only a slight improvement was to be expected from specific treatment. Possibly, these nerve-lesions might be similar to a neuro-retinitis, seen in the secondary period, in which there was but little exudation, and in which a considerable amount of amblyopia remained after an amount of treatment which rapidly affected cutaneous and other coarser lesions.

Professor LUCAE (Berlin) had seldom seen improvement in cases of syphilitic affection of the ear, after general or internal treatment. The best treatment he found to be the injections of pilocarpine. He mentioned a case of syphilis observed in a woman infected by her husband, and the mother of a child born with syphilitic ulcers. She was stone deaf, and could only hear musical tones by conducting through the bones of the head. On the left side there was a purulent inflammation of the tympanum, with perforation of the drumhead, and granulations coming out; there was great pain behind the auricle and on the occiput. Dr. Lucae opened the mastoid process. A fortnight

after the operation, the patient could hear voices, and still, after one year, heard them some inches from the ear. The wound remained open.

ON THE CONDUCTION OF SOUND THROUGH THE BONES OF THE HEAD AS A MEANS OF DIAGNOSIS OF THE SEAT OF EAR-DISEASE.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By J. C. A. LUCAE, M.D.,

Professor-Extraordinary of Aural Surgery in the University of Berlin, etc.

As you well know, there are two means used for this examination of the ear. The first is a very old, common, and convenient one: the watch; in Germany especially recommended by the late Erhard, who said: "If there be only an affection of the conducting apparatus, the watch will be distinctly heard, and the conducting power through the bones of the head is preserved." The contrary would show that the nerve was affected, and the prognosis bad.

How erroneous this theory is, though represented even to this day, you may easily conceive from the simple fact that even only ear-wax obstructing the external meatus is sufficient to weaken this so-called bone-conduction, as I found in several cases so long as twenty years ago. The reason of this is that this conduction of sound depends not only on the bony and the other solid parts of the head, but also on the healthy state of the external and middle ear.

Modern aural surgery uses the tuning-fork, and conducts especially deep tones (c, c') by placing this instrument on the vertex. The theory, especially represented by Politzer as a dogma, says: If in a case of an one-sided affection, or where one ear is more affected than the other, the tuning fork be more distinctly heard on the only affected or more affected side, there may be a disease of the external parts, and the acoustic nerve may remain sound. If the tone be more heard on the healthy side, there may be a nervous affection.

You will soon perceive that this other theory is also incorrect. It rests for a basis on the general fact that, in a well known affection of the external parts of the ear, for instance, if there be inspissated ear-wax in one ear, the patient does not hear the tuning-fork well near the auricle; but the same instrument, when placed on the head, is heard much more strongly in this obstructed side than on the healthy side, and the patient may even think that he hears its tone only on the affected ear. Mach and Politzer have explained this fact by supposing that the sound is more harshly heard because it cannot escape on account of the wax.

I will not tire you by my own theory, which rests upon the pathological resonance of the air-filled parts of the external and middle ear. I will only say that any conclusion drawn from this in other cases where there is no visible affection of the ear, is by no means a correct one, as can easily be proved by clinical observations. There are not rarely cases where the same deep tone (c) is normally heard through the air, and at the same time, also, through the head, more strongly on the only affected side. I have made this observation even in cases where there was found, by clinical examination, an undoubted lesion of the labyrinth following fracture of the petrous bone. Also, by anatomical investigation, I showed, several years ago, that, in cases where the tuning-fork is heard better on the affected side, there will be by no means always a healthy internal ear. The most astonishing proof, and one which I never expected to find, is the following case. But, before proceeding, allow me to say some introductory words. You are well aware that the pathological resonance I mentioned a few minutes ago is most frequent in cases of purulent inflammation of the middle ear, with perforation of the drum-head. In these cases, also, I took no notice of the strengthening of the sound on the affected side as a means of diagnosis, because of the above-mentioned reasons. I said, in a work published fifteen years ago, that the best use of this symptom may be made by the physician in cases where inflammation of the ear is followed by disease of the brain or by pyæmia, because I had never hitherto seen a patient die from their effects. But since the opening of my clinic in Berlin, I have observed a case of a poor woman who died of pyæmia, after one-sided chronic purulent inflammation of the middle ear. She was incapable of hearing on the affected side, the other being in a normal state. But for several days we observed that through the head the patient, who was conscious to the last, not only heard the sound more distinctly with the affected ear, but could repeat the tone by singing it, and this even six hours before her death. On

making a *post mortem* examination, I found the internal ear in a condition which did not correspond with the observation made during the life of the patient. You remember that the sound of the tuning-fork was heard alone through the bones of the head. And now I found nearly the whole middle and internal ear destroyed by caries; there was no drum-membrane, no ossicles; the whole labyrinth being filled with purulent matter and granulations, and the only healthy part being the trunk of the acoustic nerve. The cochlea especially was found to be in a curious condition, the whole bony cavity being filled with pus and granulating cells, without any normal structure; and of the lamina spiralis ossea there remained only a fragment similar to a hook.

For the explanation of this curious dilemma, we can only have recourse to the trunk of the acoustic nerve, which was found in the normal state. By placing the tuning-fork on the head, all parts of it are set in vibration, and for this reason also the trunk of the acoustic nerve; which, therefore, will respond to the mechanical irritation only by a quantitative sensation, its end-apparatus being destroyed. This explanation would be sufficient, if it were not for the remarkable fact, that the patient was able to repeat the tone which she seemed to hear only in the affected ear. After due reflection, I came to the simple conclusion that the patient might have had, on the affected side, a stronger but indistinct sensation of sound through the resonance at the bony cavities, which were enlarged and filled with purulent matter, and that she only borrowed the real tone repeated by her from the other healthy side.

And now, as a practical conclusion, you will easily see that the whole theory of the conduction of sound through the head cannot be of any importance, either *quoad sensum* or *quoad vitam*.

Mr. CRESSWELL BABER (Brighton), in remarking upon Professor Lucae's paper, admitted the want of definite knowledge on the subject, but thought that the tuning-fork should not be rejected, as it was of value in certain cases. He also drew attention to the effect of pressure of the finger on the orifice of the meatus in preventing the tuning-fork from being heard more loudly on that side, when applied to the median line of the head.

Dr. POSE (Beyrouth) had suffered serious impairment of the hearing in the left side eighteen years ago, from large doses of quinine, for fever, in Syria, and hearing was only medium in the right ear. Yet he heard the tuning-fork in the left ear, on whichever side the fork was applied.

ANTISEPTIC PRECAUTIONS DURING CATARACT AND OTHER OPERATIONS ON THE EYE, BY MEANS OF MR. MAYO ROBSON'S DRY EUCALYPTUS-SPRAY, AND DRY DRESSINGS.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By H. BENDELACK HEWETSON, M.R.C.S.,

Ophthalmic and Aural Surgeon to the Leeds General Infirmary.

THE object of this paper is to bring before ophthalmic surgeons the utility of Mr. Mayo Robson's dry eucalyptus-spray (which will be shown in action, and explained), whilst operating for the various forms of cataract. It occurred to me to use this antiseptic atmosphere so as to secure the cataract a complete antiseptic operation. Previously to its use, it was not a rare occurrence to loose an uncomplicated cataract with the partial antiseptic precautions. Since its use, the twenty-five cases, as follows—seven congenital cataracts, fifteen senile, and six traumatic cataracts—have, with one exception, in a senile cataract, of acute glaucoma (which required an iridectomy, and afterwards got fair sight), done perfectly well.

Previously to operating, the eyes and surrounding parts are washed inside and out with carbolic lotion, 1 in 80. The instruments are washed in the same lotion, and, during the operation, the eucalyptus-air plays on the eye, and does not cease until a circular pad, consisting of a thin layer of absorbent wool, is placed next the eye; then a slightly thicker layer of salicylic silk (Mr. McGill's); over this, another layer of absorbent wool; and above and without all, a thin layer of black cotton-wool. This pad is retained on the eye, if all be going well, for seven to ten days. It is seldom that it requires earlier removal; in which case, the corneal section will be fairly well united.

My conclusions with regard to this treatment are these. 1. It pro-

vides, with other precautions, a complete antiseptic operation for cataract. 2. There is less pain and irritation following the operation when the eucalyptus-air is used. 3. Since its use, I have not had suppuration in a case of either congenital, traumatic, or senile cataract; nor has there been any signs of this. Previously to its use, such untoward results occasionally occurred, notwithstanding every other precaution.

Dr. EMRYS-JONES (Manchester) was pleased to see the apparatus described by Mr. Hewetson, as it was his firm conviction that strict antiseptic precautions alone were wanted to render the ordinary cataract-operation a perfect one.

Mr. F. H. HODGES (Leicester) said that his experience of antiseptic dressings in cataract-operations was that they offered no advantage over dry absorbent wool-dressings, and were not so comfortable, as they sometimes caused swelling of the lids, and itchy sensations to patients with delicate skins. For several years, his plan of dressing for the first week after cataract-extraction had been as follows: bathing the eyes night and morning with sponges wrung out in hot water; smearing atropine-ointment (four grains of sulphate of atropine to an ounce of vaseline) on the lids of the eye operated on; padding both eyes with dry absorbent cotton-wool, and applying a flannel roller. When he had had the misfortune to lose an eye, he had always been able to trace the disaster to other causes than the dressing, such as faulty position of the incision, impaction of the iris, enfeebled condition of the patient, etc. Though he attached no value to the use of antiseptic dressings in cataract-operations, he was scrupulously particular as regarded cleanliness, and, immediately prior to operating, dipped his knives, specula, and scissors into boiling water (as suggested by Dr. Andrew of Shrewsbury), and vulcanite spoons into pure alcohol. Between each two operations, too, he washed his hands.

Dr. EDWYN ANDREW (Shrewsbury) said that women in the country who lived chiefly on tea and bread and butter, in spite of good air, were in such a low condition as to be particularly prone to suppuration; and therefore seemed particularly to necessitate extra precautions.

Mr. EDGAR BROWNE (Liverpool) suggested that much mischief was produced, in operation on immature cataract, by the leaving of bits which acted as a nidus for suppuration.

Mr. POWER (President of the Section) remarked that he rarely treated two cataract-cases in exactly the same way, either in the successive steps of the operation, or in the after-treatment. Every case required its own method, whether in the size of the section, the practice of iridectomy, the removal of remains of the lens after the extraction of the nucleus, or in the examination of the wound. In regard to the employment of antiseptics, he thought that much depended on the state of health of the patient whether suppuration occurred. At St. Bartholomew's Hospital, all instruments were dipped in a weak solution of carbolic acid; and the pads in immediate contact with the lids were dipped in a similar solution, with, he was satisfied, good results.

Mr. MARCUS GUNN (London) made some remarks.

Mr. BOWER (Gloucester) asked Mr. Hewetson in what proportion of his cases in which suppuration after cataract-extraction had occurred, cocaine was used as an anesthetic. He had certainly seen one case in which there was grave reason to suspect that the subsequent bad result was, in the apparent entire absence of other causes, due in some way or other to the action of the cocaine, in which, probably, a parasitic growth had developed. A healthy man, over 70 years of age, suffering from double mature cataract, had a preliminary iridectomy performed on both eyes, ether having been previously administered. Six weeks afterwards, the lens was extracted from the right eye, ether again being used. The result was extremely good, and the patient was able, with No. 16 D, to read No. 1, Jäger. Three months afterwards the patient returned, and Mr. Bower operated in the same manner upon the left eye. The operation was successfully completed; all the soft matter was removed; the incision was made at the corneo-scleral junction. There was no epiphora, and no loss of vitreous humour; antiseptics were not used. Within twenty-four hours, suppuration of the cornea set in, and rapidly spread to the entire eyeball, which, in ten days, Mr. Bower was obliged to extirpate. He believed that the cocaine might, in this case, have been answerable for the bad result.

Mr. F. R. CROSS (Clifton) said that he was, in general surgery, a thorough believer in full Listerian principles, after seven years' work in the Bristol Infirmary. He considered that the spray was an essential part in the operation, and in the after-treatment. In operations upon eyes, he had been guided by the same principles, but had not found it practicable to use a spray. He always most carefully purified

his instruments, and the conjunctival sac and its neighbourhood, with some reliable antiseptic solution. He took antiseptic precautions in the after-dressings, for which he used salicylic silk, or iodoform wool, or some other recognised dressing.

Mr. HEWETSON replied to the remarks of the several speakers.

A CASE OF HYSTERECTOMY IN WHICH REMOVAL OF THE APPENDAGES HAD FAILED TO ARREST THE HÆMORRHAGE OR GROWTH OF THE TUMOUR.

By LAWSON TAIT, F.R.C.S.

MRS. A. P., aged 40, was placed under my care by Dr. Lyeett, of Wolverhampton, in January, 1882. She had a large myoma, which caused persistent hæmorrhage. For its treatment, I proposed the removal of the appendages, and proceeded with this operation on January 4th, 1882. I removed the left tube and ovary, as I thought at the time, completely, but the right tube and ovary could nowhere be found, although I extended my incision to the extreme length of eleven inches and a half, and pulled the tumour right out of the abdomen. Still, I could not find any trace of the ovary or tube on the right side. I replaced the tumour, and the patient made an admirable recovery. But neither the growth of the tumour nor the recurrence of menstrual hæmorrhage were in the least degree affected by that operation. In March, 1884, she again came under my care for the purpose of having the tumour removed. It had increased to quite three times the size it was in 1882, and her condition was that of extreme debility and anæmia from hæmorrhage. I opened the abdomen on March 25th, for the purpose of removing the tumour; but the hæmorrhage was so terrific from the adhesions which had to be separated, that I desisted, and closed the wound. The patient went home in about three weeks, with no other hope before her than that of a speedy death. She was one of the thirteen cases of which I spoke to the British Gynaecological Society a few months ago, which then were known to me to be in progress of death from bleeding myomata. The only remaining interest which I had in the case was the expectation of having a *post mortem* examination, to discover, if possible, why my original operation had failed.

One day early in August, I happened to be in Wolverhampton, and called to see how the patient was, and, to my surprise, found her still alive, and able to get about in a sort of fashion, with the hæmorrhage still going on, and certainly no kind of improvement effected in her condition. The tumour had grown until it occupied the whole abdomen, and interfered very much with her breathing. The patient was extremely thin, and of a most ghastly white colour. She is a woman of remarkable pluck, and when I suggested to her that, if she liked, I would try the operation of removal of the tumour once more, explaining to her that I would complete the operation, no matter what it cost, she yielded a ready consent. Therefore, again on September 5th, assisted by Mr. J. W. Taylor, I succeeded in removing a tumour somewhere about forty pounds in weight. The adhesions were all in front on the line of the old incision. The tumour itself proved to be, as I had all along suspected, one of the large soft cedematous myomata, occupying the anterior wall of the uterus, the cavity of the organ lying quite behind it, and measuring 9 inches long, and 3½ inches wide at the base. After removal of the tumour, about four quarts of serum exuded from it in the course of a few hours. The pedicle was broad, but easily secured by a clamp. The patient has made a rapid and easy recovery.

Very careful examinations of the tumour were made independently by Mr. Taylor and myself, and we came exactly to the same conclusions, which are as follows. That there was no aperture on the right corner of the uterus, and that there was no trace of the right ovary or tube. The aperture on the left corner of the uterus was large enough to admit a No. 5 catheter, and there was more than two inches of the left Fallopian tube outside, which had not been removed at the original operation. No trace could be discovered of the left ovary. This ovary, fortunately, I had preserved, and, when I re-examined the organ which had been removed on January 4th, 1882, I found that its removal had been quite complete, but that only about one inch of the outer part of the Fallopian tube had been removed with it. Here, then, we have an extremely curious condition. The appendages on the right side were congenitally absent. The failure of the removal of the uterine appendages to arrest the growth of this tumour had always been regarded by me as due to the fact that the tumour was one of the soft cedematous myomata, and the case is alluded to in my

recent paper in the BRITISH MEDICAL JOURNAL as No. XXV, and as being the only real failure in my experience up to the time included in that paper. Now, the evidence is to the effect that the failure was due, not to the peculiar nature of the tumour, but to the fact that I did not completely remove the only Fallopian tube which the woman possessed. In speaking of cases of myoma, I have repeatedly alluded to three cases in my experience where I have failed to arrest the growth of the tumours by removal of the appendages. In all three cases, I have regarded the reason of this failure as being due to the nature of the tumour, that of the oedematous myoma. In this, the first of the three cases in which I have had an opportunity of verifying the accuracy of my opinion, my view of the tumour has been correct, but it seems to me far more probable that the failure of my first operation was due to the incomplete removal of the tube, than to the intrinsic quality of the tumour. I need not point out that this case goes a long way to show that removal of the ovaries has nothing to do with the brilliant results of these operations for bleeding myoma. As I have often said, in many cases I have deliberately left the ovaries, and yet success has been perfect. In this, the ovary was absolutely removed, and the operation failed. This case is one of thirteen patients who were in the process of death from myoma, to whom I alluded in a speech made to the British Gynaecological Society. I hope to be able still further to reduce the list after such an encouraging experience.

I have just received a letter from my friend Dr. Keith, in which he tells me, to my intense delight, that he has been able successfully to remove another from this list of impending fatalities. I have not the slightest doubt that, in every one of those thirteen cases, if the operation were done under the improved methods of Dr. Keith, we should have a successful result. But, unfortunately, the patients shrink from the proceeding from which alone they can derive any prospect of benefit.

TOXICOLOGICAL MEMORANDA.

A CASE OF OPIUM-POISONING: RECOVERY.

ON June 13th, about 9 P.M., I was summoned, in all haste, to a woman who had taken a quantity of laudanum. On my arrival, I found that, about twenty minutes or so previously, she had swallowed a wineglassful of laudanum. She was walking about quite sensible, assuring me she was "all right." With some difficulty, I succeeded in giving her a hypodermic injection of apomorphine (one-tenth of a grain). I also ordered her to be removed into the garden, the house being very close. In about five minutes afterwards, she vomited freely, and became quite prostrated. I slapped her face with a towel dipped in cold water, then, with the assistance of her husband, lifted her up and down the garden. Five minutes later, she again freely vomited. I gave her ether subcutaneously, which seemed to rouse her; after which, coffee in small quantities, with a little brandy, was frequently administered, as soon as she had sufficiently recovered to swallow and retain it. This line of treatment was continued until 11 P.M., when the patient had so far recovered as to be able to walk, though in a very shaky manner. I visited her an hour later, and found her still better. Next morning, on seeing her, she said she felt "very funny." I have seen her frequently since, and she told me she had taken "a wineglassful topped up," fully two ounces of laudanum, which she had procured at the chemist's. Had it not been for the speedy action of the apomorphine, I feel confident that she would have succumbed before I could have procured or used a stomach-pump. The ether seemed to rally her quickly after its use.

JAS. VINCENT FITZPATRICK, L.K.Q.C.P.I., L.R.C.S.I., etc.,
New Swindon, Wiltshire.

OBSTETRIC MEMORANDA.

UNUSUALLY SMALL CHILD, AT ALMOST FULL TIME.

ON Thursday, September 17th, I was called to see Mrs. F., when I ascertained the following history. She was married in August, 1881, and, ten months afterwards, was delivered of a healthy child. Forceps were used, the placenta was adherent, and she was "very ill" for six weeks. Sixteen months after this, in October 1883, she was delivered of an eight months' child. In January of this year, or fifteen months afterwards, the catamenia ceased; and, in March, she had severe flooding, accompanied by great pain, which lasted for several hours. In May, a second severe flooding occurred, "lasting for six weeks off and on." Her medical attendant stated that she had aborted. When I was called to see her on the above mentioned date, namely, Sep-

tember 17th, she told me the "waters" had broken that morning, whilst sitting at breakfast, and that, since that time, there had been a constant dribbling, accompanied by clots. She had not any pain; pulse quiet. As patients' statements are sometimes very misleading, I sent her to bed, and ordered her a mixture containing tincture of opium, with diluted sulphuric acid, as I thought that, perhaps, the discharge was not as great as she described. At this time, she told me she was about seven months pregnant, and, having been prematurely confined previously, I endeavoured to delay the labour as much as possible. More clots passed the following day, and, on Saturday, September 19th, labour-pains set in suddenly, and, towards midnight, she was delivered of a male child, weighing 3 lbs. 4 oz. The body was very dark coloured, almost cyanotic. As it did not exhibit much vitality, I placed it in a warm bath, and ordered olive-oil to be rubbed into the body twice daily. The child could not suckle for three days, as it appeared unable to swallow, the milk running out of the mouth again. Since then, it has taken the breast well, and the dark colour has almost entirely disappeared, except from the hands and feet. On the eighth day, the infant weighed four pounds, being a gain of twelve ounces. Both mother and child are doing well. Mrs. F. may have been nearly nine months pregnant, supposing she became so shortly after the catamenial period in December last.

I think the case is interesting because of the weight of the child, the period of pregnancy, and from the fact that the infant is progressing so favourably.

S. JEBB SCOTT, M.B.

Wood Green, London, N.

SURGICAL MEMORANDA.

FRACTURE OF PATELLA: INCISION AND SUTURE: CURE.

T. L., of Tunbridge Wells, a carpenter, aged 37, fell and fractured his right patella, when intoxicated. His associates, also inebriated, lifted and dropped, dragged and carried him, alternately, for some time, before they succeeded in getting him home, so that the injury was aggravated by an additional violence. The prostration and pain following the accident necessitated his confinement to bed for five or six days, when, finding that his knee was very much swollen, he sent for Dr. Connan, who diagnosed fracture of the patella, and consulted me ten days after the accident. The patient had the appearance of a flabby, habitual drunkard. His urine was of low specific gravity and albuminous. The knee-joint was greatly swollen, and the fragments of the patella were $3\frac{1}{2}$ inches apart.

Two days later, April 16th, 1885, with the kind assistance of Mr. Watson and Dr. Connan, I made the usual incision, with Listerian precautions, freely opening the joint and boring the two fragments with a bradawl. I twisted the wire and hammered it down. The joint being found full of blood, was washed out with a one in forty carbolic solution. The whole limb was placed upon a well padded splint.

The temperature on the first night was 100.3° Fahr. It fell steadily, becoming normal on April 26th, when, with antiseptic precautions, the dressings were unfastened, and everything looked quiet. The incision healed, and but little blood had escaped through the drainage-tube, which had been placed upon the outer and lower portion of the joint. The tube was removed, and the limb again enveloped in antiseptic dressing. On the morning of April 28th, the temperature began to rise, and, on the following evening, the temperature having risen to 100.8° Fahr., the dressings were again removed, and I found the lower part of the thigh greatly swollen and inflamed. On the 30th, the morning temperature was 102.6° Fahr., and there was a deep sense of fluctuation on the lower and outer side of the thigh, above the knee-joint. The patient was placed under chloroform, and I made a free incision, 5 inches long, into a suppurating cavity, from which nearly half a pint of pus escaped. I found, upon examination, that the abscess was outside the joint; but that, in the operation, I had opened the knee-joint itself in some small degree. The cavity was well washed out with one in forty carbolic solution, and the wound was dressed. By May 6th, the patient's temperature was normal. Three weeks afterwards, he was moving about with the aid of a stick; the knee-joint was somewhat stiffened; and ten weeks after the operation, he walked a mile to see me, with a thoroughly sound and movable knee-joint.

CLELAND LAMMIMAN, F.R.C.S.,
Tunbridge Wells.

VACCINATION GRANT.—Dr. Carr H. Roberts, the public vaccinator for the Kensal Town district of the Chelsea Union, has received the Government grant of £38 8s. for successful vaccination.

ABSTRACTS OF INTRODUCTORY ADDRESSES DELIVERED AT THE METROPOLITAN AND PROVINCIAL SCHOOLS.

On OCTOBER 1st, 1885.

ST. GEORGE'S HOSPITAL.

UTILISATION OF CLINICAL TEACHING MATERIAL.

MR. HOLMES's Address at St. George's Hospital was directed partly to the new students; but a great part of it was intended also for the seniors, and was occupied with a brief review of the present position of the great institutions by which the medical profession is brought into contact with the public; namely, the medical schools, the hospitals, and the governing bodies, the colleges, and the Medical Council. In this review, he dwelt on the characteristic excellence of the London schools, namely, the abundant opportunities which they afford for practical work in the wards, and lamented the hasty and perfunctory study of the groundwork of the profession—*anatomy and physiology*—by the average run of students, which the present regulations made almost a necessity. After pointing out the excellencies of the great hospitals, and the good work which they did in clinical instruction, he tried to show how greatly medical education would be advanced if it were possible to affiliate the dispensaries and infirmaries to the clinical hospitals, and to insist on students passing a part of their curriculum in actual charge of cases at the former institutions. For this, however, the curriculum must be lengthened, as on so many other grounds was desirable. In speaking of the licensing bodies and the Medical Council, he pointed out that the constitution of the latter prevented it from ever becoming a fit instrument for action, however valuable its deliberations might be; and tried to prove that the profession (whose advance in public utility and importance was so marked of late years) required some organisation by which it could make its wishes known and its influence felt in public affairs. The defective constitution of the Royal Colleges prevented them from exercising such influence at present; but the lecturer suggested that, if invigorated by a more popular organisation, and especially if united into a single body representing all that was worthy of representation in the English medical profession, their influence would be paramount, and could be used for the reform of many abuses which now were severely felt in daily life. To this end, he exhorted his hearers to strive, not from any hostility to the Royal Colleges, but, on the contrary, in order to enlarge indefinitely their sphere of usefulness.

ST. MARY'S HOSPITAL.

MEDICAL EDUCATION.

The Introductory Lecture was delivered by Mr. AUGUSTUS J. PEPPER, Surgeon to the Hospital.

After some general remarks, the lecturer passed to the consideration of a few of those questions which are largely exercising the mind of the profession, and which, in the future, must greatly modify its public obligations.

As regarded medical education and examinations, there never was a time when greater tension existed between the corporations and examining bodies. An unsuccessful attempt was made by the expiring Parliament to carry into law what was familiarly known as the "one portal system," a system which would tend to equalise the severity of the professional examinations in the three kingdoms, and the value of the corresponding diplomas conferring the right to practise. It was well known that not a few gentlemen who failed to pass the ordeal—or feared to try it—of one or other of our English colleges, fled over the Border with a reasonable expectation that they would bring back the equivalent of their railway fare and other pecuniary outlay.

There would be no reason to complain of this if the Scotch kept their licentiates amongst themselves, since we were willing to conceive that they were the best judges of the value of their continued existence, and of the marketable price of the cure of their infirmities. Many distinguished members of the profession practised in London and elsewhere under the *ægis* of a Scotch qualification. Without any disparagement to medical education over the Border, Mr. Pepper considered that a system which placed two institutions, of very unequal merit as regarded their credentials, on a practical equality

was wrong in principle, and ought to be abolished. In addition to the fact that many English students went to Scotland for the diplomas granted by the colleges and faculties, a large number, justly ambitious of possessing an university degree, repaired thither for their professional training. This had become a question of vital importance to the future interests of the London schools, since, year by year, the exodus increased. It had been proposed that the London University should lower its standard, so as to enable it to counteract the attractions of the universities of Scotland. That proposal meant that an institution, founded by royal charter, with the intent of fostering scientific education, should resort to a miserable subterfuge, because the degrees of other universities could be obtained on easier terms. It meant that a noble cause should be sacrificed to one of the most despicable traits of human character. Speaking as a member of the London University, Mr. Pepper would rather that it ceased to exist, and be henceforth only a name and an influence, than that it should be made the scapegoat for what so-called educational reformers pleased to consider the exigencies of the situation. There was a powerful movement on foot in favour of establishing a teaching university for London, which, instead of simply granting degrees to candidates from affiliated schools, should designate, direct, and control the curriculum of instruction. Such a scheme, if carried out on a comprehensive basis, and with due regard to the interests of existing institutions, would confer a distinct boon on the profession and the community at large; but if, on the other hand, it was to be made subservient to the real, if not avowed, designs of those whose chief desire was to raise up a successful rival against the Scotch universities, it would be necessary to oppose it to the utmost.

The advantages accruing from the study of general literature were next discussed. There were occasions frequently recurring when the strain of mental exertion could be relieved by varying the intellectual pursuits. It was a pleasure and solace to turn from the dry details of the text-books to the charms of poetry and the romance of fiction; and, though the former were essential to give precision to knowledge, the latter added an interest which made it endurable and enduring. The action of the superior oblique muscle of the eye, as learnt at lecture, was to the student of anatomy a mere fact, and nothing more; and a few days would probably suffice to free his memory from a burden imposed neither by choice nor desire. But who would or could forget the bewitching lines of Longfellow—

"She gives a side-glance, and looks down;
Beware, she is fooling thee?"

It was curious that the standard works were all but mute on the physiology of expression with which the organ of vision was so richly endowed; and yet almost every bodily and mental state, in health and disease, spoke through that silent voice. Wherein consisted the merry twinkle of the impudent schoolboy, or the languishing looks of the love-sick maid? Why was the eye so listless and dull in collapse, so brilliant in hectic fever, so staringly vacant in coma-vigil? Here was matter for thought worthy alike the philosopher and practical physician.

The subject of moral and mental training was then dealt with. The lecturer did not believe that youth could better withstand the temptations of life by being kept in ignorance of the dangers which pervaded the social atmosphere. The best security against disaster was the forecast of its approach and the knowledge of its accustomed guise. The lecturer would have a young man avoid all appearance of evil, but at the same time he should be taught the way to recognise it. He must remember that the most dangerous snares were hidden beneath the softest blandishments. In the struggle for supremacy, whatever the object pursued, some men would outstrip others, but none need despair of success; therefore no one should lose heart, but every man should continue the race according to his lights and ability. Should anyone grow faint by the way, he should turn to the pages of Lytton, and read again that "in the lexicon of youth there is no such word as fail." He should bear in mind, however, that the tide which was to carry him to the haven of his ambition would serve him only at its flood, and that he must keep a constant look-out for its approach; for the waves of the ocean of man's opportunities broke not in warning notes upon the rocks of his indolence, but ebbed and flowed in silence, unseen by all save those who waited and watched patiently for the sign.

MIDDLESEX HOSPITAL.

PRACTICE AND DEGREES.

The Inaugural Address was delivered by Dr. J. KINGSTON FOWLER, Senior Assistant-Physician to the Hospital, and Lecturer on Pathology at the Medical School.

After some introductory words of welcome to the new students, the

lecturer stated that he and his audience had met that day to celebrate a golden wedding—the union of the Middlesex Hospital with its medical school—for in October, 1835, fifty years ago, the medical school of the hospital was opened by an introductory address by Sir Charles Bell, one of its distinguished founders. The harmonious co-operation of the various elements which were associated in such an institution as the Middlesex Hospital was secured by each having a distinct sphere of action, the lay element being supreme in all matters of administration, whilst the medical body should be consulted and deferred to on those subjects on which it alone could speak with authority. The nursing staff, no “*imperium in imperio*,” claimed independent action as part of a distinct profession, but occupied a position of honourable subordination. It seemed fitting that, at this fiftieth anniversary of the foundation of the hospital, the honoured names of those to whom it owed its existence as a school should be recalled. One, James Mowbray Arnott, the Nestor of the profession, had but lately passed over to the great majority, at the ripe age of 91 years; another, Sir Thomas Watson, the Macaulay of medical literature, died in 1882, aged 90; a third, Alfred Shaw, still remained one of the consulting surgeons, a good friend, to whom the museum owed much.

Sir Charles Bell, in his introductory address, referred to the evidence which he had given before the Parliamentary Committee on Medical Reform, and on turning to the report, it was curious to note how many subjects which at that time agitated the medical world, and which were discussed in the medical press with a warmth and wealth of epithet compared to which the style of the present day was but as iced milk and water, remained still unsettled. After a reference to some of these subjects, Dr. Fowler proceeded to note one of the questions put to Sir Charles Bell, which touched on a subject still of much interest to physicians. Was there any such marked distinction between the practice of the physician and surgeon as the names would import? Was not a large share of the practice of most of our eminent surgeons in reality medical? The answer was, “Most of us took it as the stream flowed.” The public did form strange opinions and inferences, and they would make a physician out of a surgeon in spite of all distinctions and designations. This recalled Lawrence’s celebrated definition of a surgical case as “a patient with a guinea in his pocket.” The public were as little able now as of yore to distinguish a physician from a surgeon, for, should a junior member of the former class hint to sympathising ears that (probably owing to the prolonged activity and very moderate honoraria demanded by his seniors) his own great talents had not met with that ready recognition which was their due, he was consoled with the suggestion that an ancient dame of fabulous wealth might some day have the misfortune to break her leg hard by his door, when his fortune would be assured. To Dr. Fowler it had always seemed easier to say where medicine ended than where surgery began. Chronic bronchitis was a well known surgical affection; measles was, he believed, at times included. In discussing the movement in favour of obtaining increased facilities for graduation in medicine in London, the lecturer observed that, year by year, an increasing number of English students were leaving the London schools, and betaking themselves to or beyond the Border, whence in due course they returned, having, by “no immoderate exercise of intellect or learning,” acquired an university degree, whilst others no less able or diligent who studied in London found themselves at the end of their curriculum with the diplomas of the Colleges of Physicians and Surgeons, distinctions which were just as honourable, and the possession of which afforded as good a test of a man’s professional ability as the degrees already alluded to. But, unfortunately, it was said that the public could not be got to understand this, and showed an undue appreciation of the holders of titles.

The older universities had wisely solved the difficulty of distinguishing talent from mediocrity, without forfeiting the allegiance of either, by fixing such a standard for the ordinary degrees as should place them within the reach of men of average merit, whilst, in their honour-examinations, full scope was given for the display of abilities of a higher order. The value of honours and degrees in medicine, as in arts, was, and would probably for long remain, a matter to be determined by the judgment of the initiated; the general public were as ignorant on this as on all other subjects connected with the profession, and as little able to estimate the value of a degree as of the various opinions they might receive about their ailments from different medical men. The undergraduate who, having come out of the mathematical tripos at the head of the junior optimes, the lowest class, informed his father that he had taken the highest place open to him, as he was not old enough for the senior optime, and all the wranglers were married men, had very accurately gauged his parent’s probable knowledge of the value of university distinctions. Such distinctions were of small

value in themselves, and their possession would as little ensure success in medicine as in any other profession. For this, qualities of a very different and less distinguished order were necessary, and it often happened that the man who in his youth was unable to master more than a very limited amount of mathematics, was found far ahead of the senior wrangler in the practical business of life. There might, perhaps, be something in the mathematical mind that was antagonistic to the world and its trivial round; for it was said, he knew not with what truth, that on the rare occasions when great mathematicians unbent at the festive board, a favourite sentiment was, “May pure mathematics never be of any use to anybody.” Any development of scientific teaching which, whilst tending to bring the profession into closer relations with the older universities, gave promise of the regaining of that wide culture which was the distinguishing merit of the older school of physicians, and offered the advantage of social intercourse with men pursuing various branches of learning, should be cordially welcomed. It was, however, much to be hoped that the authorities of those schools would be animated by the same wise views which had regulated the most recent development of the kind at the University of Cambridge, and would not be induced, by their success in the teaching of the natural sciences, to commit the great mistake of attempting to found complete medical schools; centres of scientific work they should be, but centres of clinical teaching they could never become. It was to be hoped that the full discussion of the various schemes which were now under consideration would result in the institution in London of a medical degree which would maintain, in the purely professional subjects, the high standard of the older universities, and for which the requirements in the collateral sciences would not be beyond the reach of men fully worthy of such a distinction.

Referring to the changes in the curriculum, Dr. Fowler remarked that, in obedience to the behests of the conjoint colleges, the teachers at medical schools had been compelled to lighten the burden of medical lectures by throwing overboard three poor innocents—botany, chemistry, and materia medica—subjects which might now be studied previously to entry at a medical school. Studied, however, they still must be, either there or elsewhere, and those students had done wisely who had already devoted to those subjects a preliminary summer session. To colleagues who had thus been deprived of some of their pupils, the lecturer would offer the consolation that they would now have a class, all of whom were drawn to them by an earnest desire to learn, not driven by the fear of an unsigned schedule, whilst they would be relieved of the presence of those gentlemen who occupied high places in the theatre, but were content with a more modest position in the class-lists; who decorated themselves with the botanical specimens, devoured the edible preparations of the materia medica, and whose chemical combinations too often resulted in an explosion.

In urging the importance of a knowledge of anatomy to physicians and surgeons alike, the lecturer remarked that few diseases could be mentioned, no matter of how purely “medical” a type, on which some light was not thrown by the application of anatomical facts. Perhaps pulmonary phthisis might appear to be such an one; but, putting aside the bare knowledge of the general position of the lungs within the chest, it would be possible, if the occasion were fitting, to prove that a knowledge of the exact relation of the different lobes of the lungs to the chest-wall was essential to a complete understanding of the progress of that disease, which, in most cases, followed a line of march so regular that, given its appearance at one spot, its previous course might be demonstrated, and its next point of attack foretold. With regard to physiology, Dr. Fowler observed that it now covered such a vast field, that the student could not hope, in the short time which he could devote to it, to gain more than a knowledge of its leading and well ascertained facts; but the more thorough his insight into the functions of the various organs in health, the clearer would be his view of disease, which was but disturbed function and disordered growth. In this, as in all his studies, he should aim rather at a knowledge that was accurate than comprehensive, for the main roads of science should be well known before their by-paths were explored. In speaking of surgery, he said that, by the clearness of its aims, the directness of its methods, and the brilliancy of its results, it would allure fresh students, as it had done those before them, both there and elsewhere, from the study of medicine, wherein, to the unpractised eye and ear of the beginner, all seemed to be darkness, uncertainty, and impotence. And to some extent the student was right; doubtless, in his mind’s eye, there was a picture of some poor crippled fellow-creature doomed for life to hobble by the aid of stick or crutch about some country village, an ever present reminder at his gates of his want of surgical skill; whilst who would know of that pleural effusion which he failed to recognise till perhaps a lung was rendered useless for ever, or of that case of typhoid fever which for three

weeks was ordered solid food until perforation of the intestine put an end to the scene? It was said of a painter who became a physician that he had done well, for when an artist the faults of his work were seen, whilst when a physician they would be unseen. For himself, perhaps, he did well; for his patients, it might have been otherwise.

Addressing the resident officers, Dr. Fowler remarked that to them, for the time being, the good name of the hospital was entrusted; and that it was their duty to see that its reputation did not suffer in their hands. The lecturer, in conclusion, indicated to fresh students the higher aims of the medical profession, and the necessity, as well as the duty, of maintaining its honour.

WESTMINSTER HOSPITAL.

THE WESTMINSTER HOSPITAL MEDICAL SCHOOL.

THE New Medical School Buildings were opened with an introductory lecture by Mr. GEORGE COWELL, Senior Surgeon to the Hospital.

After offering a hearty welcome to his colleagues and the old and new students, Mr. Cowell congratulated them all upon the possession, by the Westminster Hospital, of a local habitation worthy in all respects of its high purposes. A sketch was given of the history of the school from its foundation in 1834. It was situated first in Dean Street, for fifteen years. This street was swept away at the time of the construction of Great George and Parliament Streets, and the school was removed to Princes Street. In three years, the school was again homeless, the site being required for Her Majesty's Stationery Office. The third school was built at the back of the hospital, on hospital ground, where it remained for the thirty-three years which terminated with the last summer session. The great improvements in the hospital that had been effected during the last twelve or fifteen years, first in the nursing, then by a series of complete sanitary improvements, and considerable additions to the accommodation for nurses and servants, at a cost of £18,000, were pointed out, and it was shown how at last the governors determined to improve both the school and the out-patient department, by purchasing the site on which they were assembled for the school, thus liberating a considerable space for the entire reconstruction of the out-patient department. The new building, which had cost £9,000, in addition to the cost of the site, £4,600, had been well and solidly built by Messrs. Higgs and Hill, from the plans of Mr. Stephen Salter, and was a great success. It contained three theatres, a large light and well ventilated dissecting room at the top of the building, good chemistry and histology laboratories, a large committee and examination room, class-room, Dean's room, a handsome library, and a splendid museum, which was distinctly the feature of the building. Beside a curator's room, cloak-room, and the usual lavatories and offices, there were four rooms set apart for the students' club, which would be a great convenience, and add largely to the comfort of the school. There were two lifts, and exceedingly good quarters for the resident caretakers. The theatres, museum, library, and several other rooms, were warmed by hot-water coils, whilst the dissecting-room, laboratories, and students' sitting-room, had fireplaces and chimneys for their better ventilation. The importance of light and air, and of the hygienic condition of the building, was pointed out to the new students, and the qualities of enthusiasm and chivalry were held up as conducive to a successful career. They were also enjoined to study some branch of art, letters, or science outside their profession, as essential to a breadth of thought and the perfect health of mind and body. The advantages of a small school were dwelt upon, and the building of this new and commodious school was justified on the ground that, in these days of text-books and teaching by demonstration and tutorial classes, it was quite possible for the teaching to be equal to that of the larger institutions, small numbers being advantageous, if not essential, for this method of teaching.

One of the strongest arguments in favour of the annual delivery of introductory addresses at the medical schools was the value of the opportunity which it afforded of saying a few words on questions of public interest. Medical men, as a rule, had few occasions of public speaking. Their busy lives prevented their taking much active part in public questions, and led them to avoid pressing forward their opinions in the council room or in the public press. A recognition of their duties as citizens was recommended to medical men, and many important questions relating more or less to public health were enumerated as subjects about which they should speak with no uncertain voice. The restraint of lunatics was a subject that had of late been exercising the public mind. Not only had several actions against medical men for signing the necessary certificates been won, and in some of them damages obtained, but an action against the master of a workhouse for detaining a supposed lunatic was also sustained.

The immediate result of this litigation had been to strike with something like dismay those who had hitherto been expected and willing to incur the responsibility of certifying as to the mental condition of persons of unsound mind, and of such as required to be detained under care and treatment. The result in the future seemed likely to be disastrous. The law, no doubt, required alteration in many respects; but it was important that no lunatic should be confined except on a medical certificate, whatever other safeguards it might be thought proper to add. But, whilst "it was important that personal liberty should not be improperly interfered with by any abuse of the power," the exercise of the power was so important to the community, that it had been held that "the medical man should not be held responsible for any mere error of judgment." In the fear of the former, judges and juries seemed to have lost sight of the importance of the latter. Without convicting medical men of having acted improperly, they had failed to protect those who seemed to have acted honestly and with due care. Under these circumstances, could medical men be expected in future to sign certificates? They would require a large amount of public spirit to do so, without a deed of indemnity from the responsible friends of the patient. And would not the result be, that many who were dangerous to themselves and others, and many who, in their own interests, ought to have had a chance of recovery by being placed under proper care, would remain at large? This was no imaginary difficulty; it had already become a real one. But that was not all, for the remedy in such cases had been destroyed. Lunatics found in a public place without proper attendance were at once removed by the police to the nearest workhouse, with a view to their detention until they could be drafted off to an asylum; but, after the recent case, no master of a workhouse dared admit such a lunatic within his walls.

After alluding to the great risks run by the travelling public from the defect of colour-blindness, and pointing out that the remedies were the education of the colour-sense in elementary schools, and legislation to prevent the employment of the colour-blind on ships and railways, the lecturer proceeded to discuss the great need of establishing a medical degree for the mass of London men. The degrees of the University of London were of a high order. They might be improved by altering a few details of the examinations; but they were beyond the power of the average student, without extensively prolonging the period of study. Men were discontented with the mystical letters of the diplomas, and sighed for the degrees which they saw their brethren obtaining with facility in Scotland and Ireland, and even in Durham and Manchester. Was it fair to the students, to medical education, to the valuable museums, libraries, and medical schools of London, that the anomaly was permitted longer to exist? Three schemes were before the profession: 1, the very simple plan of conferring upon the two colleges conjointly the power of conferring the degree of M.D. upon those who passed the conjoint examination; 2, the establishment of a teaching university, with the power of regulating the teaching in four faculties, and of granting ordinary degrees in them; 3, the virtual institution of a third division at the examinations of the London University, the first and second divisions being of the same standard as at present, and considered as conferring honours. The material for teaching in London was so vast that there was room for several universities side by side. It was absurd that students in the largest city in the world should have to go elsewhere for their degrees. Holding a high opinion of the value of the London degrees, he deprecated in any way watering them down. He preferred the establishment of one or two universities of a less exalted pass-standard; it would give an immense impetus to teaching. So far from the London University suffering from the competition, he thought that men of ability would continue to seek its valuable degrees, and the increased number of students attracted to London would directly benefit it. Westminster was known as widely over the civilised world as London, and an University of Westminster would speedily wrap itself in some of the most cherished associations of the country. The Dean and Chapter of Westminster and King's College would greatly extend their influence by the establishment of such an university, and the medical and other schools in and around Westminster could not fail to be benefited by an association with it.

FIRTH COLLEGE: SHEFFIELD SCHOOL OF MEDICINE.

THE PROFESSION AND THE PUBLIC.

THE Introductory Lecture was delivered by Mr. R. J. PYE-SMITH, Lecturer on Physiology to the School.

After welcoming the new students, the lecturer congratulated them on their choice of the profession, and dwelt on the nobility of its aims and practice. Referring to the risks from disease, and from unjust actions at law, he said: "But all these and other risks must be

loyally accepted by all who would enter the profession of medicine. We must operate, in spite of possible untoward consequences to ourselves; we must attend epileptic patients, in spite of their vagaries, perchance falling terribly upon us; we must examine persons represented to be of unsound mind, and faithfully sign or refuse to sign certificates of lunacy to the best of our judgment, in spite of the annoyance and loss such duties may possibly entail upon us. In all such respects, it should be true of the surgeon as of the Christian—

'He holds no parley with unmanly fears,
Where duty bids, he confidently steers.'

He then proceeded to advocate a year's preliminary study, after leaving school and before entering as a medical student. Amongst other subjects to be taken up at this period, he laid special stress on biology and the use of the microscope, and mentioned also drawing, photography, carpentering, short-hand writing, and cooking. He recommended also the study of meteorology and climatology, and advised attendance on a course of instruction in first-aid to the sick and injured, and in nursing, as given in connection with the St. John Ambulance Association.

Addressing the first-year's men, again, he urged them to the early formation of good working habits, and showed how the special senses required cultivation as well as the various faculties of the mind, whilst not omitting congenial recreation and rest. Having dwelt on the special importance of anatomy and physiology, as the foundations of the healing art, he sketched the curriculum as now required for the double diploma by the conjoint examining board of the Colleges of Physicians and Surgeons; and then warned the students of the possibility of their turning out ill by neglecting the opportunities before them.

Turning, next, to the older students, he congratulated them on entering upon their clinical studies, and insisted on the importance of paying special attention to pathology and to diagnosis whilst attending the hospitals. He warned them against conceit, and pretending to cure when they knew they could not, and against a spirit of cynicism, "bred of a knowledge that medicine is not an exact science, and is, therefore, liable to mistakes, together with a lack of clear and trustworthy knowledge of what may be definitely known, namely, those scientific principles and well ascertained facts on which so much of medicine depends." A just, though modest, confidence could be acquired and maintained only by habits of diligent self-education, and they should invoke Duty in the words of the poet:

"The confidence of reason give,
And in the light of truth thy bondsman let me live."

The lecturer then proceeded to address some remarks to the lay part of his audience. Having expressed gratification at the prospect of the incorporation of the medical school with Firth College, he based an appeal for pecuniary help for a new building on the beneficent objects of the profession, and the poor pecuniary rewards of its practitioners as compared with other professions and commerce. He pointed out the advantages to the community of having a flourishing medical school in their midst, and traced the history of the present movement for more adequate accommodation. The plans for the new school were exhibited, but about £2,000 more were needed before it could be built. He spoke of the help afforded to the school by hospitals, and impressed on their managers the duty of seeing that no waste occurred in the materials for instruction at their disposal. Referring to experiments on animals, he applied Ruskin's words to the antivivisectors: "The first passions that come are the vain, the false, the treacherous; if you yield to them, they will lead you wildly and far, in vain pursuit, in hollow enthusiasm, till you have no true purpose and no true passion left." And he predicted that Pasteur's work on hydrophobia would strike a mortal blow to this ignorant and inhuman opposition to scientific investigations. He also urged the public to withhold objections to *post mortem* examinations in cases where the medical attendant considered them important. He credited the future spread of elementary physiology with deterring the public from trusting in any of the surviving systems of quackery, and with putting them in a position to estimate rightly the uses and the abuses of specialism in practice.

In conclusion, he reminded the students of the motto of the school, *Ars longa, vita brevis*, and said, "In steady perseverance in your work, cultivate modesty in manner, exactitude in habits, sobriety in thought, truthfulness in speech, courage in action, and, above all, honesty in purpose. Now is your golden opportunity for preparation, and, if you will now lay up a store of knowledge, it will, by right application, become wisdom, as fuel becomes fire, and you shall in due time be initiated into

'The secrets and the mysteries, whereof
The bounds are space, the time eternity.'

THE PROPOSED DUNDEE MEDICAL SCHOOL.

SIR ANDREW CLARK AT DUNDEE.

At a dinner held in Dundee this week, the Chairman, in proposing the toast of the evening, expressed his regret that the presence of their distinguished guest must restrain his eulogy. Referring to the proposed new medical school, he looked back on the old infirmary-teaching of Crichton, Nimmo, Munro, and Webster. Andrew Clark was an apprentice at Dr. Webster's surgery in Albert Court. Who could have believed, at that time, that a surgery-boy in Albert Court would work his way to the very top of his profession, and become a leading physician in London? Dundee possessed all the requirements for the establishment of a medical school, including a magnificent infirmary, a well established college, abundant funds, and vicinity to the University of St. Andrews. He claimed Sir Andrew Clark's assistance, and concluded by an enthusiastic toast, in which all the company joined.

SIR ANDREW CLARK replied at length, reviewing the past and present circumstances of medicine as a science, and its relations with Dundee. Like Professor Erichsen, he had arrived at the conclusion that Dundee should have a complete medical school. He showed that it was practicable, and continued as follows. "The University of Durham has founded its medical school in Newcastle; Manchester has added Liverpool; and King's College, London, which began in a very humble way, now gives an education second to none in the kingdom. For the foundation of your medical school, four things are necessary—buildings, men, money, and material. As to buildings, you have already, I may say, almost eight-tenths in your University College and your splendid infirmary. As to the buildings which would remain, the cost of them, if you would go carefully and economically to work, need be very little. As to material, Dundee is almost unique in this respect, in consequence of her foreign trade and her manufactures. In consequence of your railways, which come and go to all quarters, you have an abundance and variety of material; you have illustrations of the accidents, of the disorders, and diseases of men, which are equal to the most extensive and most advanced teaching in medicine and surgery. As to men, two sorts are needed—men who are fitted for practice, and men who devote themselves to the scientific part of medicine. I should presume that students coming to Dundee would have their preliminary education. Then they would require their scientific education, and I do not know where they could get it better than in University College. So far as it goes, I have never seen an institution so well equipped and so admirably suited for its purposes as this University College. As to its professors, I am sure, from observation and inquiry, that the scientific teachers are ready-made to your hand. In extent and variety of knowledge, in ability, in educational fervour, and, considering their youth—which to me is one of their recommendations—their discretion, and disinterestedness, and unselfishness, they are not to be excelled anywhere. Then, as to the practical side, you have not far to go. Dundee has always enjoyed a great medical, and particularly a great surgical, reputation. Some of its names have become classic in medicine, and I venture to think that in the present day, in skill, in knowledge, in capacity for lucid and orderly exposition, and in devotion to their work, you have an ample choice from which to select men to teach the practical side. As regards your buildings, your men, and your material, therefore, you have them at hand, and you have them abundantly." He proposed, as a toast, "The Future Medical School of Dundee," coupled with the name of Professor d'Arcy Thompson. The toast was drunk with enthusiasm. Other toasts followed, and the meeting terminated.

At St. Thomas's Hospital, the introductory address was delivered by Mr. Mackellar. At the remaining medical schools in London, no addresses were given by members of the staff. There was a distribution of prizes at King's College, with an address by the Right Hon. and Right Rev. the Lord Bishop of London; and the Right Hon. the Lord Mayor gave an address at a similar ceremony at the London Hospital.

HYPODERMIC SYRINGE-NEEDLE LOST IN THE CHEST.—At a recent meeting of a St. Petersburg medical society, a member mentioned that, while he was injecting ether through a Pravaz's syringe into the pleural cavity of a child with purulent exudation, the needle suddenly became detached from the syringe, and disappeared into the pleural sac. In a few hours the child was dead. This shows that the fastening of the needle should be carefully examined before use. It was mentioned by another member that Pel, of Amsterdam, had, for this reason, advised that the needle and syringe should both be of metal and all in one piece.

REPORTS

OF
HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

LEEDS GENERAL INFIRMARY.

A CASE OF ENTERECTOMY FOR ACUTE INTUSSUSCEPTION.

(By A. W. MAYO ROBSON, F.R.C.S., Surgeon to the Leeds Infirmary, and Lecturer on Operative Surgery at University College.)

As the question of laparotomy for intestinal obstruction is still *sub judice*, all cases in which an operation is performed, whether successful or not, are worth reporting; for, besides serving as landmarks to others, and aiding in the decision of a vexed question, there is often as much to be learnt from failure as success.

The following case presents several points of interest, both in diagnosis and treatment. The notes have been kindly furnished by Dr. Griffith, the resident medical officer.

E. E., aged 33, was admitted to the infirmary on December 29th, 1884. She had been well up to three months previously, when she became pregnant, and had vomited after food ever since. Her bowels had been regularly moved every second or third day up to seven days before admission, when two small motions were passed, but the bowels had not been moved since. Five days before admission the vomiting increased, and she said she vomited some blood. Her medical man prescribed castor-oil, of which three doses were given. The vomiting becoming worse, and her general condition deteriorating, she was sent to the Leeds Infirmary on the seventh day of her illness, when her condition was as follows.

She had an anæmic expression; the tongue was dry; the pulse was 100; the breathing was short and quick; the abdomen was distended, but not excessively tense. Two swellings could be felt, one to the right of the umbilicus, the other above the pubes. These were ill-defined, tender on pressure, and, when handled, gave rise to vomiting. Nothing could be felt by the rectum or vagina, and there had been no passage of mucus or blood. Vomiting was frequent, and had been stercoraceous during the last twelve hours.

Laparotomy was performed at 9.30 p.m. on the day of admission. A median incision having been made, the tumour was soon reached, and found to be a large intussusception. A good deal of time was lost in trying to draw out the invaginated portion; and, when at last this was accomplished, the involved bowel, to the extent of nearly four feet, was found to be gangrenous. A ligature was passed through the mesentery of the sound intestine above and below the diseased region, and tied round the bowel just sufficiently tight to prevent escape of the contents of the alimentary tract; the diseased mesentery was then tied in about twelve portions, and the whole of the gangrenous bowel and mesentery removed. The sound mesentery on both sides was then joined by interrupted sutures, and the ends of the bowel were put in apposition, and united by union of fine silk sutures placed close together, passed through the whole thickness of the bowel and tied inside, except the last two, of which the knots were placed outside. In addition, a series of Lembert's sutures were applied, in order to secure a broad apposition of peritoneal surfaces. During the whole of this process the peritoneal cavity and the abdominal contents were protected by means of large flat sponges closely applied around the opening.

At the end of the operation, which occupied about two hours, the peritoneal cavity appeared perfectly dry. When the patient was put to bed, the pulse was 128, and, in about half an hour, 120. After coming round from the ether she became very restless, and died suddenly, at 2.10 A.M. on December 30th.

The necropsy was made thirty-eight hours after death. The situation of the sutured bowel was found to be 4 ft. 2 in. from the commencement of the duodenum. The bowel was practically water-tight, letting through tiny streams of water between the stitches only when considerable pressure was put on. The mesentery was found accurately sutured. There was no peritonitis. Nothing else abnormal was found. The right side of the heart contained much white clot, in addition to fluid blood, extending along the pulmonary artery; the left side of the heart also contained fluid blood, in small amount in the ventricle, and in moderate amount in the auricle; both the veins and arteries of the lung contained blood. The cause of death was therefore probably shock. The piece of gut excised was found to be nearly four feet in length.

REMARKS.—The following are the points of interest in the case. 1. The patient's ordinary medical attendant had difficulty in making a correct diagnosis of intestinal obstruction at first, on account of the complications of pregnancy, vomiting, and habitual constipation. 2. Although the symptoms of acute intestinal obstruction were well marked when the patient was admitted to the infirmary, the pathognomonic signs of intussusception were absent. 3. It was decided to perform laparotomy, because of the persistent vomiting and other acute symptoms, the presence of a tumour, and the apparent hopelessness of any other form of treatment. 4. In the operation itself valuable time was lost in trying to reduce the bowel, which, when reduction had been accomplished, was found to be gangrenous, and this must have added considerably to the shock, which was apparently the cause of the fatal termination. 5. It is worth remarking that, although nearly four feet of bowel, with its attached mesentery, was removed, there was scarcely any blood lost, and no difficulty in securing exact apposition of the parts. 6. It is interesting to note that the double line of intestinal sutures so accurately closed the bowel as to prevent any escape of water, except under considerable pressure; and had the patient survived the shock, there is every reason to believe that good union would have occurred, for the peritoneum was perfectly free from fluid and from any trace of peritonitis. 7. Lastly, as proved by the condition of the heart, death was undoubtedly due to shock, and although warmth was applied to the surface of the body, and stimulant administered, I cannot help feeling, as Dr. Churton remarked, that in a prolonged operation one may do more by the administration of digitalis or other heart-tonics, combined with some sedative to the nervous system, to tide over the first 24 hours, and so, in some cases, to prevent a fatal result.

NEW PROVIDENCE INFIRMARY, NASSAU, BAHAMAS.

STRANGULATED HERNIA: ARTIFICIAL ANUS IN LEFT GROIN: RECOVERY.

(Reported by J. G. ADYE CURRAN, M.B., Surgeon-Major M.S.)

E. G. S., AGED 45, was admitted on April 19th, 1885, suffering from a large strangulated inguinal hernia of the left side. The patient, who was a native of the Current, an island about fifty miles from Nassau, Bahamas, had suffered from rupture since his boyhood; he has never been able completely to reduce it, but, by a truss of his own invention, gave it sufficient support to enable him to follow his ordinary seafaring avocations.

On April 13th, in the evening, the lump becoming more swollen than usual, and apparently without any assignable cause, began to give him considerable pain and annoyance. On the following day, feeling worse, he consulted a medical man who lives on an island about ten miles distant from his home, and who, after examination, and an ineffectual attempt at reduction, advised his immediate removal to Nassau for operation. He did not, however, follow this advice, but returned home again, and there, with constant retching, and in intense pain, he remained till the following Saturday, when his friends, having in the meantime tried every bush-remedy they could think of, and finding that he was getting visibly worse, put him on board a small schooner, and, after a passage of about twenty hours, he arrived at Nassau.

His condition on admission was one of extreme prostration, with cold, clammy skin, stercoraceous vomiting, and hiccough. The pain in the swelling, however, so much complained of at first, had greatly subsided. A short time after he had been comfortably settled in bed, and had taken some stimulants, his condition and pulse so improved, that, on consultation, it was decided to operate without delay. The operation was performed by Surgeon-Major Adye Curran, with the assistance of Dr. Robinson and Dr. E. Hutchinson, of Utica, United States. On opening the sac, the gut was found to be in a state of gangrene, and a piece, about as large as a half-crown, had sloughed through. The sac likewise contained a large mass of deeply congested omentum, which could not be returned without very considerable and unjustifiable breaking down and separation of adhesions. The mass, which weighed about half a pound, was accordingly removed, the pedicle having been first secured by a double ligature of waxed silk thread passed through its centre, and tied on either side. This gave more room for an extended examination of the gut; the finger having been passed up, and the stricture freed, gentle traction was made, and one end of the intestine drawn down till sound structure came into view; here it was divided, and the healthy end, with an open mouth, attached by ligature to the edges of the wound; about six inches of diseased gut were then removed, the other (which afterwards proved to be the pyloric) end would not admit of similar treat-

ment, being firmly adherent throughout as far up as the finger could reach. As much as possible of the suspected structure having been removed, it was treated in a somewhat similar manner. The portion of gut removed was, to all appearance, the colon. Subsequently the wound was lightly brought together, leaving the mouth of the cut intestine free, and dressed with carbolie dressing. A full dose of opium was given, and the patient put to bed.

The following morning, on dressing the wound, fæces were observed to pass from the adherent end of the gut, and from that day forward, with the exception of a slight blush of erysipelas which appeared for a day or two, he has not had a bad symptom, and is now, more than three months after the operation, able to walk about, and making a good recovery.

His appetite is excellent, he sleeps well, and is daily gaining flesh. When going to stool he leans forward and removes the pad, which, at other times, he constantly wears, and is day by day becoming more accustomed to his altered condition.

CIVIL HOSPITAL, ST. HELENA.

AMPUTATION OF THE THIGH FOR SARCOMA.

(Under the care of Mr. F. S. WATSON, Colonial Surgeon.)

N. G., aged 19, a sailor, was admitted on July 17th, 1885. Beyond the fact that his father died of consumption, there was nothing of importance in his family history. There was no history of tumour among any of the members of his family.

The patient had always enjoyed good health. Three years ago, he was struck on the left leg by a cricket-ball, on the site of the present tumour. He stated that the bone was tender upon pressure for a long time after the blow; but he forgot all about it till eight months ago, when he first noticed a "sharp pain," which would continue uninterruptedly for two or three days, and then disappear for a month or so. This continued for about four months, when he first noticed a "flattened swelling," about three inches by two inches, over the spot. He applied to a medical man, who told him he had "matter in the swelling," but did not open it. This swelling grew very slowly for about two months, and then more rapidly.

Upon admission, the patient presented a wasted appearance, due, he stated, to want of proper food for an invalid on board ship. He had no pain, and stated that he felt in good health. Just below the left knee, an enormous tumour had formed; it consisted of three tolerably distinct lobulations, the most prominent and largest being situated over the head of the fibula; the inner one overlapped the tibia, and appeared to extend round the bone into the popliteal space. The leg and foot below were cedematous; the knee was permanently semiflexed. There was no pain unless touched, and even during examination of the tumour the pain was not acute. The tumour had an extremely elastic feel, almost giving one the sense of fluctuation. However, the general appearance was almost diagnostic of a sarcoma; and, at a consultation with Surgeon-Major Bradford and Surgeon R. C. Gunning, Medical Staff, Mr. Watson explored the tumour with a trocar, which still further proved this to be the case. Amputation was decided on; but, as the patient was in a very enfeebled condition, it was thought advisable to feed him up for a few days. Pain, however, came on in the tumour; he did not improve; and, fearing the glands might become affected, on July 29th, with the assistance of the gentlemen named and Surgeon Dempsey, R.N., Mr. Watson amputated at the junction of the lower with the middle third of the femur, making a long flap anteriorly by cutting from without inwards, and taking the whole tissues to the bone, transfixing and cutting from within outwards the posterior and shorter flap. The wound was dressed with Lister's gauze and gauze bandages; carbolic oil (1 in 15) on lint being applied over the edges. Carbolic acid solution (1 in 40) was syringed through the drainage-tube, and care was taken to wash the hands and instruments in a corresponding solution before use.

REMARKS BY MR. WATSON.—There was not a single rise of temperature, the wound healing most rapidly. Three weeks after the operation, he commenced to sit up; and, thirty-two days later, he was able to get about the ward on crutches. The wound was healed, and the patient might now be fairly termed fat. He was about to leave for England.

Having been schooled as house-surgeon at Charing Cross Hospital, I was a firm believer in Listerism in its entirety, and consequently had the proper appliances imported; but the spray I found difficult to manage in cases where one had no qualified assistance; and thus, in minor cases, I left this off, using the modified dressings as mentioned; these, I found, did as well as if the spray had been used—

owing, no doubt, to the prevailing south-east trade-winds, which are so conducive to purity of atmosphere as to render the spray useless.

The tumour, upon examination, presented the typical appearance of a round-celled sarcoma; and this was further confirmed by the microscope. It arose from the periosteum, at the anterior aspect of the upper head of the fibula and a corresponding portion of the internal tuberosity of the tibia. Its weight was slightly over three pounds. The bones were otherwise perfectly sound.

REVIEWS AND NOTICES.

TRACHEOTOMY IN LARYNGEAL DIPHTHERIA. By R. W. PARKER.

Second Edition. London: Lewis. 1885.

THERE is very much to recommend this work, but we cannot help regretting the omission of some matters that we should have expected from the author, particularly in the information upon what is of mechanical importance to the surgeon. We find a description given of the tube preferred by the author, and this we do not in the least quarrel with, though in some points we think it could be improved upon, but it would add to the usefulness of the work if even the roughest description or drawing were given of other instruments. Mr. Durham's lobster-tail cannula is referred to in a foot-note as "well known;" the India-rubber cannula is just mentioned, and dismissed, as the author has little or no experience of its use, the bivalve cannula is only once mentioned casually, and no reference is made to any instrument which is perforated for the possible passage of air vertically through it from the mouth, and *vice versa*. These are, we think, omissions that should not have occurred in a second edition without some explanation. And we do not find in the preface to the first or second edition a reference to these matters.

The work recommends itself, however, for very much that is clear, practical, and thorough. The author has remodelled the chapter on the nature and treatment of diphtheria, and amplified those which deal with the operation, and he has added a chapter, which constitutes about a fourth of the work, on Complications—conditions which retard the restitution of the laryngeal function after tracheotomy, and gives a series of cases illustrating the difficulty of diagnosis and of the operation, the dangers and complications which sometimes follow, and the treatment appropriate to each.

The after-treatment is certainly very thoroughly given, and this forms the most valuable part of the work, but the rest, with the exception we have already made, is the work of a sound and practical surgeon, and one of the best descriptions of the operation and its requirements we are acquainted with. The writing is clear, and the important points strongly emphasised, and the whole work can be read with interest, as well as with reliance. It must rank as a valuable work, on its special subject, and the additions to this new issue enhance its value.

We are not inclined to agree with the author in recommending aspiration by the mouth in cases of retained secretion, membrane or otherwise, as one that can be undertaken without any fear of consequences. A surgeon should be provided with some form of aspirator when he has to operate for diphtheria. He may be compelled to run the risk in order to save a life, but an author on the subject, who elsewhere regards the disease as highly infectious, and who has even suggested a form of trachea-aspirator, cannot be congratulated on making light of a danger which ought to be avoidable. More stress, too, should, we think, be laid upon the imperative necessity of using clean instruments. We can call to mind the appearance of fatal diphtheria in a case of tracheotomy for other causes, where the infection was apparently only traceable to the use of instruments recently employed in a case of diphtheria. And it is careful attention to what appear obvious common sense details that makes the success of an operator, and gives the best chance of safety to a patient.

The chapter on complications, added in this edition, is an interesting one, and gives some valuable information with reference to the operation of tracheotomy for other diseases, and the cases given are well illustrated. We are not sure that the author might not have added to the practical value of the work if he had considered some of the complications of the operation which have occurred in unskilful hands; for a warning of possible dangers may prove of service to those who are overconfident, or who undertake the operation without knowing the evil effects of clumsiness. Even in the changing of the tube, serious accidents may happen, and it may be of service to young surgeons to be warned by the mistakes of careless or ignorant operators or assistants. The author does not notice or perhaps give

credit for, the blunders which have unfortunately occurred, and may occur again in unskilful hands.

Diphtheritic laryngitis is a sadly fatal disease, and even in Mr. PARKER's hands the proportion of recoveries does not reach one in two of the cases operated on, but we are sure he is right in urging the performance of the operation as early in the case as possible after the membrane has obstructed the breathing. His remarks upon the after-treatment are particularly excellent, and there is no doubt that the recovery of the patient is more dependent upon this than upon the dexterity of the operator, though that too is a matter of great importance. The author recommends a solution of carbonate of soda in glycerine as a solvent of the diphtheritic membrane, and directs the use of this in the form of a spray, after the operation, and the use of a feather to clean the tube after each spraying, which is, apparently, to be repeated rather frequently. But the careful and thorough use of warm, moist air, produced by Dr. Robert Lee's steam-draught inhaler, is what he relies upon, and advice upon the proportion of moisture required is expressed forcibly and clearly—"the less there is of tracheal secretion, the more is steam needed, and the converse."

CUTANEOUS NERVE-SUPPLY. By JACOB HERBERG. Translated and Edited, with Annotations, by W. W. WAGSTAFFE, B.A., F.R.C.S. Baillière, Tindall, and Cox. 1885.

THERE are few English students and practitioners who have not felt the want of a chart of the distribution of the cutaneous nerves, which shall be at once accurate and easy of reference. This need is supplied by the edition of Professor HERBERG's well known atlas, now presented to us in an attractive and convenient form under the auspices of Mr. Wagstaffe.

The author does not claim to have added any new facts to the neurology of the skin, and his plates do not differ from the diagrams of Henle and Flowers in any important anatomical details; but the artistic excellence of the drawing, and the judicious use of colours to impress rapidly and strongly upon the eye the extent and interrelations of the different territories, give the work a special character and value. At the same time, all possible accuracy has been ensured by a series of dissections undertaken for the purpose of verifying the demonstrations of other anatomists.

The main object, convenience for consultation, has been kept in view throughout. The names of the nerves supplying each separate region are engraved upon the plates, and, facing each illustration, are a few brief but practical remarks, summing up all that is likely to be of service at the time of reference: and, in the English edition, the original text has been enriched by the addition of annotations, that effectually remove any difficulties to which a bare literal translation from the German might have given rise.

The name of the editor is the best guarantee, both for the manner in which the volume has been prepared for the English reading section of the profession, and the fitness of the matter for the purposes of the student, practitioner, and teacher.

DIE THATSACHEN DER VERERBUNG IN GESCHICHTLICH-KRITISCHER DARSTELLUNG. (A HISTORICO-CRITICAL REVIEW OF FACTS CONCERNING HEREDITY.) Von Dr. EMANUEL ROTH. Berlin: 1885.

ON a subject like the facts of inheritance, the experience of the oldest physician is so small compared to the sum of collected knowledge that it is like a grain of sand in a pyramid. In writing a treatise of this kind, most of the facts are gained by diligent reading. In collecting his materials, Dr. ROTH has shown great learning and research. His citations and notes fill twelve pages. There is never one set of statements presented alone, if there be in existence another set of statements modifying or contradicting them, and there is a pervading good sense which is always awake and ready to let the facts tell in a moderate and truthful manner.

The work consists of about 160 pages, octavo, divided into four chapters. The first treats of Heredity and Variability; the second of Disposition and Immunity; the third is on Degeneracy and the Weakening of Hereditary Disposition. The fourth chapter, which is the most abstract and philosophical, discusses innate ideas, the life of the fetus *in utero*, the difference in the composition of the brain in new-born children from that of adults, and a comparison between the life of man and the life-history of the race.

Naturally, amongst the enormous number of facts quoted, some will appear familiar, others questionable, and others new to those who have already studied the subject. The following is new, at least to

the reviewer. Dr. Roth treats short-sightedness as a constitutional defect, which appears about the period of the second dentition. Its progress may be favoured by defective light in the school-room. We had believed that it was increasing in Germany; but, from investigations in the higher schools of Baden, in the year 1846, and from the lists of the recruits of the district of Heidelberg, myopia appears not to have increased in frequency, nor is there any exact proof that it has become more prevalent in any part of Germany. The author contrasts the long life and protracted vigour of some of the Greek sages, naming Pythagoras, Plato, Sophocles, and Isocrates, with the early exhaustion often met with in modern times. This he puts down to the more healthy character of the training which the ancient Greeks gave to their children. "We have to thank the way we neglect the training of the body," observes Dr. Roth, "that 64 per cent of those who should work are found good for nothing, and that a larger percentage of the young men coming out of the higher schools are below the normal condition of health." We had no idea that things were so serious in Germany. Dr. Roth thinks that the present system of education, and the conditions of modern life, have a dwarfing effect upon the imagination, which lowers our ideals, and encourages selfishness. Evidently the author is not an optimist. There is much evil at present, but we doubt whether the times were ever better. This method of coming to a conclusion on the vitality of a race by picking out the names of a few famous men who lived long, is perhaps fallacious. Could it not be done in modern times also? Take, for example, Goethe, Wieland, A. von Humboldt, Radetski, Von Moltke and Ranke. Dr. Roth thinks very little of the statistical method in the investigation of hereditary disease. With different observers the percentage of hereditary phthisis has been found to vary from 10 to 83, and with hereditary insanity from 4 to 90.

LECTURES ON DISEASES AND INJURIES OF THE EAR. Delivered at St. George's Hospital. By W. B. DALBY, F.R.C.S., M.B. Cantab. Third edition. London: J. and A. Churchill. 1885.

IN this new edition of his well known lectures on Aural Surgery, Mr. DALBY has made some important additions, which increase the value of the work. An useful chapter (Lecture iii) has been added on morbid states of the throat and nose affecting the ear. In it we find discussed (in the conversational style adopted throughout the work) the subjects of granular pharyngitis, adenoid vegetations of the naso-pharynx, enlargement of the tonsils, and dry nasal catarrh. For the removal of adenoid growths, the author recommends Löwenberg's forceps, or an artificial steel nail attached to the forefinger. He fails to see how these growths can be successfully removed by the surgeon's finger-nail only when present in large quantities—an opinion with which our experience will not allow us to agree. Mr. Dalby discountenances the use of constitutional anaesthetics during their removal. He does not believe in a recurrence of these growths. The guillotine, as modified by Ewens, is recommended for excision of the tonsils. The author treats dry nasal catarrh by syringing with the alkaline solution, and by the application of a very weak ointment of yellow oxide of mercury and vaseline applied with a small camel's hair brush.

For testing the hearing-power, the author employs, in addition to the customary means, Hughes's sonometer, Galton's whistle, and the distinetette. Galton's whistle is recommended for measuring the upper limits of audition. It consists of a minute whistle, the tube of which can be shortened by screwing up the piston to any required extent. Mr. Dalby uses one of only 1 millimetre diameter. This extreme fineness of the bore is necessary for the reason that, as Mr. Galton pointed out in a pamphlet published some years ago, these whistles cease to be reliable when the depth of the tube is less than about one and a half times its diameter. The distinetette is used by the author for testing the hearing of children supposed to be absolutely deaf.

Amongst the figures, we notice one illustrating a plug for preventing the entrance of water into the ear. It is made to fit the cochlea accurately, an impression of wax having been previously taken. There is also a figure of Baber's nasal speculum, and a drawing by Dr. Whipham, which illustrates the microscopic structure of an adenoid vegetation.

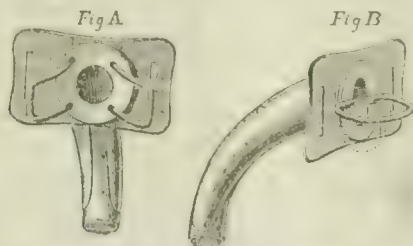
The author's drill for the mastoid process is also figured. It is provided with a stop, to prevent the instrument from entering too deeply. Some further details regarding the performance of this operation would have been acceptable to the student.

The work, in its third edition, bears evidence of the author's enlarged experience, and fully maintains its reputation as an introduction to the aural surgery of the present day.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED TRACHEOTOMY-TUBE.

A DIFFICULTY has always been experienced in the satisfactory use of tracheotomy-tubes on account of the awkward projection forward of the two wire loops (shown in Fig. A) used for retaining them in position, which are very inconvenient as to the arrangement of the necktie, and the ready application of the finger to close the tube in the act of speaking.



This difficulty appears to have been successfully met by Messrs. Salt and Son, of Birmingham, by the simple expedient (shown in Fig. B) of fixing the tube by a double-hinged loop folding downward, and lying flat against the flange. We consider this alteration to be very useful.

ASYLUM FOR DIPSO MANIACS.—An asylum for the reformation of dipsomaniacs has been established at Bie, in Sweden, under the care of Dr. P. A. Levin.

UNIVERSITY OF KAZAN.—The Professorship of Midwifery in Kazan, vacant by the appointment of Professor Florinski to an important post in Western Siberia, has been filled by the nomination of Dr. Fenomenore, privat-docent in the Military Medical Academy.

THE MILITARY MEDICAL ACADEMY OF ST. PETERSBURG.—Certain changes are about to take place in the Military Medical Academy of St. Petersburg, which will assimilate it to an university medical faculty. Hitherto, the University of St. Petersburg has had no medical faculty.

BRIGHTON AND HOVE DISPENSARY.—At a special general meeting of the Brighton and Hove Dispensary, held last week, Mr. E. J. Pocock was unanimously elected an honorary consulting surgeon in the place of the late Mr. Joseph Dixon. On the proposition of Mr. G. F. Hodgson, it was decided to alter the name of the charity to that of "The Brighton, Hove, and Preston Dispensary. The Rev. T. Peacey moved: "That the report of the committee of management on the establishment of a new Hove branch dispensary with two wards, be adopted, and that the committee of management be, and they are hereby authorised to take the required steps when they shall consider it necessary to obtain by purchase a site for the above purpose, and to erect and establish a new dispensary with or without wards in Hove and for this purpose to employ such part of the invested funds of the charity as may be necessary, and the trustees of the funds are hereby authorised to act on the requisition of the committee of management for the above object." This motion, on being put, was carried *mem. con.*

REQUESTS AND DONATIONS.—The Royal Albert Asylum for Idiots of the Northern Counties, Lancaster, has received £1,800 under the will of Mr. John Walker, and £500 under that of Mr. Frank A. Argles.—The General Hospital, Birmingham, has received £1,000 under the will of Miss Emma Osmond.—Mrs. Julia Greene de Freville, of Upper Brooke Street, has bequeathed £100 to Addenbrooke's Hospital, Cambridge; £50 to the Saffron Walden Hospital; and £50 to the Essex Hall Asylum for Idiots, Colchester.—The British Home for Incurables has received £100 under the will of Mr. George Dryden.—Mr. Robert Large Baker, of Barham House, Leamington, has bequeathed £100 to the Warneford, Leamington, and South Warwickshire Hospital.—"J. E." (per Mr. F. Ingham) has given £100 to the Halifax Infirmary.—The Hospital for Women has received £76 10s. 6d., the proceeds of an entertainment given by the Lady Mayoress at the Mansion House.—Mr. Henry Simmonds, of Herne Hill, and Mark Lane, has bequeathed £50 to the Royal Hospital for Incurables at Putney.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 3rd, 1885.

THE INTRODUCTORY ADDRESSES.

Most of the lecturers who spoke at those medical schools where the old custom of introductory addresses is still observed, devoted a large proportion of their discourses to the question of English degrees. Of Mr. Timothy Holmes' interesting address, we hope to speak in a future number.

The opening of the Medical Department of the Yorkshire College at Leeds, last Thursday, was an event of very considerable importance in the growth of medical education; a step towards decentralisation for one thing, and good evidence, besides, of the vigour of a northern county. Mr. Jonathan Hutchinson was called in most appropriately to deliver an introductory address to the people of his own county. He felt the value of the opportunity, and spoke out strongly, not hesitating to lay bare some of his deepest convictions. On the opening of a school of education, there cannot be a more fundamental question to discuss than the uses of knowledge and its relations to the rest of the human nature; and this question Mr. Hutchinson was bold enough to attack. He did not hesitate to give to the word knowledge the widest significance, and to derive from it, almost after the fashion of Plato—the earliest author on education—not only virtue, but also the emotions, including the noblest of them—love. "The capability of affection," he said, "implies sympathy; it implies the sense of brotherhood; it implies perception of beauty; and all these in turn imply the faculty of insight; in other words, the possession of knowledge.....The power of loving wisely, well, and strongly, is always proportionate to the intellectual development of the individual." These are difficult words, and the logic, in parts, difficult also, at any rate, for the heads of first year students. However, its discussion would be out of place here, and we need not pretend to follow Mr. Hutchinson through his psychology. He ends in fervent language with "the assumption that the real, could we get at it, is beautiful, and of a character and quality to claim and secure our love." This is Mr. Hutchinson's testimony of agreement with what was written by another man, who started to become a surgeon just three-quarters of a century ago—John Keats:

"Beauty is truth, truth beauty; that is all
Ye know on earth, and all ye need to know;"

and there could hardly be a more touching evidence of sympathy from a practical man; but when Keats was stirred by the memories accompanying a Grecian urn, he had no *arrière pensée* of medical education, to which, nevertheless, Mr. Hutchinson leads us on. And when he comes face to face with this topic, he does not spare some

excellent advice, to remember that the human memory cannot hold everything, and, in medicine, the first thing that it must hold is the knowledge belonging to its profession. The gradually-accumulating knowledge of the world is too vast to be all taken in; the labour of any such attempt is like to the labour of Sisyphus, or the Danaid; we cannot avoid some selection of knowledge, but he is anxious to make clear that any such specialism, if it is to be so called, had best be founded on some substratum of general knowledge. Too often it happens that from what, in Mr. Hutchinson's view, is a barren specialism of grammar and language, the pupil is transferred suddenly to medicine, after a mere glimpse at the natural sciences that lead up to it, and passes on too rapidly to a second and professional specialism, with very little of the liberalising and beneficent influence of some general knowledge underlying it. Some such unfortunate history is, no doubt, too often the case, and it is not difficult to point out the defect in the result; but the great difficulties in education are in the practice, and we cannot help regretting that the means for avoiding these are not described or illustrated more in detail by one who has had such a long experience. General knowledge is a very desirable basis, but there is nothing harder to teach in practice; in fact, it depends, as a rule, not on any particular lessons or particular teachers, but on the well educated and sympathetic surroundings in which the pupil lives, and on his inclination to profit by them.

Heine, as Mr. Hutchinson reminds us, remarked that the Romans would never have conquered the world if they had had to learn Latin and not been born to it. He forgot that they learnt more of Greek—though, it must be allowed, without many grammars—than the Germans, as a rule, or the English either. Mr. Hutchinson expresses in strong terms his conviction of the uselessness, for general purposes, of education based mostly on "strange language." He seems to feel the advantages of modern languages trifling, and the strongest of the three arguments he cites in favour of some acquaintance with the classical languages of Greece and Rome is, that the modern student may more easily understand and remember the technical words coined from them for scientific use; and that necessity, he suggests, might be avoided by making up such words from English bases. That such a coinage would be very difficult with a language so little plastic as the English, and that it would isolate England from continental custom, there can be no doubt; but, even granting that such difficulties could either be overcome or neglected, the most important advantages of a study of a foreign tongue would seem to us still to be overlooked. The enforcement of an accurate analysis of meaning apart from phrase is very difficult in a mother-tongue, and the advantages of such mental gymnastics are greater than might at first be obvious. And further, though most of the facts of the world's history are stated in English, yet the vivid realisation of states of the world, past and present—many of them profoundly different from modern England, yet with so many lessons for us—is practically impossible without a knowledge of language; and in many cases a slight knowledge is sufficient to make the dead description living, and to give the whole power and pleasure to literature. The knowledge of science has enlarged the ideas of the vastness and complexity of the universe; the knowledge of language enlarges the ideas of human nature and the possibilities of human sympathy. It will be greatly to be regretted if language be more crowded out of a scheme of general knowledge; but, for the time at least, we may derive some consolation from the fact that modern improvements in teaching make a

larger sum of knowledge attainable since education has been placed in its proper position among the sciences.

Professor Schäfer's address was, in reality, a thoughtful and learned essay, of high merit, upon the great question of scientific education for medical students. The lecturer, unlike many other apologists for science, declared his deep distrust in the alleged advantages of science-classes in boys' and girls' schools. Unlike Mr. Jonathan Hutchinson, he strongly urged the importance of a classical training. He considered that the omission of Greek from the preliminary education of a medical student was greatly to be deplored. He distrusted the "modern side" system in public schools as much as he demurred to the increase of science-classes. He believed that an occasional holiday in France or Germany, spent amongst real Frenchmen and real Germans, and not in Anglo-American hotels, would afford a youth better chances of learning the kind of linguistic knowledge most useful for a medical man than many years of work in the "modern side" of an English school. Here we may qualify Professor Schäfer's opinion, by pointing out that a fair elementary knowledge of the grammar of the above mentioned languages involves wholesome discipline for the learner whilst at school, and cannot fail to prove of service to him when endeavouring to utilise his acquaintance with those languages, during a visit to foreign hospitals, or even when studying a French or German medical work at home. The lecturer spoke in the highest terms of the value of mathematical study, believing that it was invaluable for the bringing up of the mind to that exactitude of observation and precision of statement which are essential to truly scientific observation.

Professor Schäfer then proceeded to bring forward evidence which tended to demonstrate the disadvantages of preliminary scientific education at general schools. He imitated his predecessors in the same line of argument, as applied to other studies, by reading samples of candidates' answers to examination-questions. Of course, they were burlesque statements of scientific facts, the result of cramming. It was to be expected that a right association of ideas would prove still harder to acquire, and that confused notions would still more readily arise, and in greater abundance, in the mind of a youth who worked at science against time, than in the intelligence of one who crammed history into his memory. "Cromwell was secretary to Lord Wolseley, and invented the Commonwealth, which is a Latin word meaning cutting the King's head off," is a kind of statement familiar to examiners in elementary history; and it is clear that worse examples of confusion of words and ideas may be expected in science-classes, even where the pupils are intelligent lads. Hence the whimsical errors quoted by the lecturer will amuse many, but surprise no one. Professor Schäfer's advice on the proper kind of scientific education for medical students appeared to be very sound. After leaving school, the student should study preliminary science in an university or college. There he would have competent teachers, properly furnished laboratories, and associations essentially scientific. It would be learning science amidst the sciences, which is the right way to learn science, just as French should be learnt in France, and amidst Frenchmen.

As might have been anticipated, the lecturer showed his enthusiasm for physiology by assigning to it the first place in medical education, or at least by endeavouring to impress on his audience his belief that that science should be taught as much as anatomy. He rightly urged the teaching of physiology proper, as well as histology, which is quite another branch of science, too often treated, at medical

schools, as though synonymous with physiology. As all must have expected, Professor Schäfer lamented over the want of good laboratories, and repeated the old and true assertion that the multiplicity of medical schools in London, and their objection to any kind of coalition, maintained that evil. He spoke reproachfully of the absence of any pathological laboratory in London. Our readers will agree cordially with the lecturer in his opinions on pharmacology, and his plan of a good examination-system was based on common-sense principles.

On the other hand, we feel certain that many competent critics will disagree with certain other statements in Professor Schäfer's address. He dismissed the apprentice-question with a far too contemptuous observation about "bumping about on country-roads in a doctor's gig." This question has been discussed very recently in the JOURNAL, so we will say no more about it, further than noting the fact that authorities on general practice hold very different opinions on the subject. A student should know how to drive a gig, and how to talk to a patient. When he learns those accomplishments, he will never be at a loss how to apply them when necessary; whilst the application of a very fair knowledge of physiology is a far more difficult and questionable matter. Nor will everybody agree with the lecturer in his opinions on first and second years' students visiting the hospital-surgery and the wards. As a system, the practice is bad; but certain surgical cases are ever most instructive to the anatomy-student. Professor Schäfer dreads the habits of idleness which a junior student may acquire in the wards, as though many dissecting-rooms did not abound, about half-past twelve o'clock, with young gentlemen who remind their more diligent friends that it is lunch-time, and that a game of billiards would greatly refresh their intelligences. The lecturer—rightly, we believe—advocated occasional visits to strange hospitals and to special institutions; yet, even in a fourth year's man, this would involve the risks to which, he believed, the junior student was exposed in a more amateur visit to the wards of his own hospital.

In concluding our notice of Professor Schäfer's excellent address, we may observe that many of the evils arising from lack of State endowment to medical and scientific schools are irremediable, owing to the ideas of the British taxpayer, and to British prejudices against State interference in anything whatsoever. That State encouragement to science is a political necessity, Sir Lyon Playfair has only just asserted, on convincing evidence, at the recent meeting of the British Association, but the public are hardly, as yet, prepared for it.

Mr. Cowell spoke chiefly of the history of the Westminster Hospital Medical School, and dwelt with natural pride on the new buildings. He concluded with some sensible remarks on the degree question. At the Middlesex, Dr. Kingston Fowler dwelt upon the same topic, and also extolled his school, of which no one can deny that he has reason to be proud. The most interesting part of his discourse related to the question of pure surgical and pure medical practice. Mr. Pepper expressed his belief in general culture, and referred to the different proposals for a teaching university in London. Unlike most lecturers, he did not dwell upon the branch of science in which he has earned his reputation, for little or nothing did he say upon the importance of pathology, still less did he urge the necessity for a pathological laboratory, the want of which was demonstrated by Professor Schäfer.

At the Sheffield School of Medicine, Mr. Pye-Smith spoke in favour

of preliminary scientific education for medical students, on the same principles as were enunciated at University College, London, by Professor Schäfer. He also made some very sensible observations to the lay part of his audience, to which we direct the attention of our readers.

KARMA.

THE word placed at the head of this article is not the name of a rare skin-disease or of a new remedy, but the designation in Theosophy of the law of cause and effect, operating through the merit and demerit of a person's deeds in each life. The interest of Theosophy, or Buddhism boiled over, as we might perhaps not inappropriately call it, is in the sphere of the medical psychologist and student of superstition, rather than in that of the general medical practitioner; but even the latter may be curious to know something of a modern variety of high-class quackery, that employs the jargon of philosophy, and presses into its service the generalisations of science. Therefore it is that we introduce to his notice that "karma," under which the esoteric doctrine comes into closest relation with his daily work.

The central notion in Theosophy, as all who have come into contact with Colonel Olcott or Mr. Sinnett, or have dipped into their writings, must be aware, is that of reincarnation or spirit-evolution; not the crude opinion of Pythagoras, "that souls of animals infuse themselves into the trunks of men," but a Darwinian refinement on it, touched up in the light of the discoveries of Koch and Pasteur, providing for the gradual and sure ascent of every *ego* from lower to higher phases of life, without any unpleasant relapses into brutality, and securing to the ascending *egos* in every successive carcass-culture a modification and mitigation of their qualities, much as microbes may be reduced in virulence by being grown in a series of test-tubes. It is as impossible, we are told, for a theosophist to believe that a human *ego* can retrograde by now incarnating as an European of education, and then as an Esquimaux or savage, as it is for a biologist to hold that an elephant can degenerate into a caterpillar. We fancy we know some Europeans of education, to whom it would not be any sensible retrogression to be reincarnated as respectable Esquimaux; we do not, however, press this criticism, but accept the theosophists' exposition of their own creed, and admit that progress is the law, and "such a getting up stairs," the motto, of the universe.

But the doctrine of reincarnation, when rightly understood, will be found to carry with it some pathological conclusions of great significance, and these it is that are arranged under karma, which really means hereditary transmissions in a new and peculiar sense. Every individual, we are informed, is engaged in working out the accumulated karma of prior existences, and in storing up karma to be in like manner worked out in existences that are yet to come. Accurate ledgers must, as it were, be kept somewhere. A settlement takes place at the close of each existence, and balances are carried over to the next transmigration. Death is not recognised as an act of bankruptcy, and there is no end to a man's personal responsibility. When we see old gentlemen suffering from gout, we are apt to surmise that their grandfathers took too much port wine; but, in doing so, we should be quite wrong, for it must be remembered that the real man, the individuality, has no genuine origin in the parentage by which he is re-embodied, but merely makes use of his father and mother as he does of a hackney-coach, as a convenient mode of conveyance from one point to another.

The victims of gout then are not paying the penalty of ancestral indiscretions, but are suffering retributive twinges for their own foibles, in bygone existences of which they have not the faintest recollection. The child born blind is not the sport of accident or misfortune; any more than a person who eats or drinks what must produce disagreeable effects, because, for the moment, it pleases the palate; but, in consequence of particular vices or qualities pertaining to its previous incarnation, or, perhaps, from a general and unchecked tendency in the direction of wrong-doing, its *ego* has surrounded itself by affinities which sweep it into and along those channels that plant it eventually and inevitably in the body of a blind child, there to work out the old karma, while, at the same time, making new, to be again exhausted, ever improving and purifying until the human race becomes more and more perfect. A crime once committed, an evil thought entertained in the mind, are past recall; no amount of repentance can wipe out their results in the future. As we pass along our earthly lives, we leave behind us a train of events which no power can obliterate, which must, with absolute certainty, bring about their inevitable results in the next rebirth; these being poverty, riches, station, ill-health, deformity, deprivation of one or more of the senses, happiness, misery, a wish to do good without the means, the power of doing good without the desire. Karma, after all, has much in common with kismet.

If the doctrine of karma be established, not only must our pathology be reconstructed, but medical practice must come to an untimely end; for what advantage could there be in remedying evils which, when remedied, are merely carried over to the next existence, where they must be fully worked out? The utmost that a physician or surgeon can do is to afford temporary accommodation to gentlemen in pressing difficulties, and to postpone for them the evil day. And, of course, the conscientious practitioner would feel bound to explain this to his patients. "My good madam," he would say, "you want your baby's club-foot put straight, and, with my tenotomy-knife, I can, like the linnet, do it in a minute. But what good? The baby may then look forward to walking well during his present life, but he will have to limp through his next incarnation. Better let him get through his karma as soon as possible." "My dear sir," he would remark, "you have epilepsy, and I can stop your fits by means of bromide of potassium; but the choice rests with you whether you will get over your convulsions now, or will have them 1,500 years hence, which I take to be the date fixed for your next birth, in what will probably be a much better body than that which you now inhabit." But if karma would restrict the practice of the conscientious practitioner, it would put a dread power in the hands of the unscrupulous one; for we are told that, under it, a power analogous to the evil eye is obtained. Harm is done by merely wishing evil to others; and we fear there are young and unprincipled men, eager for work, who might think of an eruption of boils all round, greatly to the detriment of their neighbourhood, or even, unless restrained by the fear of reprisals, give lumbago to their professional competitors.

We are told that Theosophy, with its karma, has disciples drawn from all religions, and that it has many converts in this country; and we are not surprised to hear it. The poor are to be always with us, and we are not likely to be delivered from our ninecompoops for some time to come. A fool is to be answered according to his folly, and materials for long and animated conversations with him are provided in the writings of the theosophist apostles. To one doctrine of Theosophy,

we are, we confess, ourselves converts; and that is the doctrine of reincarnation, for in this new form of occultism we have certainly the reincarnation of arrant nonsense that has been born and died out hundreds of times in the history of our race. In Theosophy we find old and long defunct superstitions brought to life again, and lodged in a new body of language. We heartily wish it a speedy deliverance into that spell of blissful and semi-conscious existence, which, according to its own tenets, separates distinct incarnations.

We have not here entered on any examination of theosophic wonders or miracles. By its body of doctrine alone may it be judged and condemned. It would really be a waste of time to follow the believers in karma in their flights, or to expose the machinery by which the illusions that impose on the credulous are produced.

THE CLIMATIC TREATMENT OF PHTHISIS.

It is gratifying to be able to state that somewhat more hopeful views regarding the prognosis in phthisis are slowly pervading the ranks of the profession. This improved tone of hopefulness is not due, we think, in any appreciable degree to the adoption of any novel methods of treatment, nor to any striking therapeutic advance along the lines of recent pathological discovery. Whatever may be the future of antiseptic inhalation, the evidence in its favour is still slender and liable to be controverted by fuller researches. Rather is our increased hopefulness due to the clearer recognition of the fact that, where the circumstances of the patient admit of the persevering application of a thorough hygienic, dietetic, and climatic treatment, phthisis frequently admits of vast amelioration, an indefinite retardation of symptoms, and, not very rarely, of apparent cure. Abundant of fresh air and sunshine, a liberal and nutritious dietary, with frequent meals, suitable climatic conditions, and the alleviation of symptoms by the cautious administration of medicines: these are means on which, according to our present knowledge, we must chiefly rely in combating the national scourge.

While much may be done by careful hygienic and dietetic treatment pursued at home, change of climate is in many cases essential in order to secure any permanent improvement, and is usually welcomed by those patients whose means enable them to travel with comfort and ease. There are few more weighty questions which come before the physician than to determine, first, whether his patient is in a fit state to leave home, and secondly, if a foreign climate is to be sought, which shall be selected. In determining the former point, no rigid line can be laid down. The stage of the disease does not materially help us, as many patients with cavities do well at Davos and elsewhere, while there are cases in the earliest stage of phthisis in which the high temperature and rapid prostration of strength render the recourse to foreign travel an extremely hazardous experiment. We may say, in a general way, that the slower the progress of the disease, the greater the amount of physical vigour and mental elasticity remaining to the patient, and the more favourable his circumstances for securing the maximum of comfort and congenial companionship during his travels, the more shall we be justified in advising a change of climate with reasonable hope of accruing advantage.

Having determined this preliminary point, we have then to decide the still more difficult question of the choice of a health-resort. Hardly a year passes without some new sanatorium putting forward

its claims for consideration; and the medical man may be excused if in the multitude of counsels he finds, not wisdom, but bewilderment. It will greatly simplify our view of the matter if we clearly understand that the foreign resorts for phthisis naturally fall into three classes; first, the marine climate, such as that of Nice, Algiers, or Maderia, but found only in its true perfection on ship-board; secondly, the dry inland climate, such as that of Upper Egypt, or the Darling Downs of Australia; and thirdly, the climate of high elevations, such as that of Davos, in the Grisons, or Colorado, or the Andes. We know few things more to be desired, for medical science, than a few simple and trustworthy rules to guide the ordinary practitioner in advising his consumptive patient how to choose aright from these three alternatives. As far as we are aware, no such rules have yet been authoritatively announced, and probably we shall have to wait for some time until our present hazy and general knowledge on this question can crystallise into definite shape.

Two great difficulties beset our inquiries; first, the various methods have been tried in very disproportionate degrees. The marine climate under its various forms has long had an almost undisputed preference, while the high altitude treatment is of quite recent date, and is only now coming into general favour and recognition. The second difficulty is one that might have been anticipated, namely, that many cases of phthisis progress favourably under almost any change of climate, while in other cases all changes are alike ineffectual. We cannot apply any general law to hæmorrhage cases, to patients with cavities, or to chronic pneumonia, or fibroid pleurisy; but it is earnestly to be desired that, out of our chaotic impressions on these points, definite knowledge will soon arise. All we can now do is to correct some current misconceptions on this important question. One of the most persistent of these is that there is great danger in sending hæmorrhagic cases to high elevations. The genesis of this erroneous idea is plain. Travellers who ascend lofty mountains occasionally suffer from epistaxis, and hence, no doubt, the conclusion was readily drawn that high elevations must be conducive to hæmoptysis. Now, without stopping to inquire into the explanation of the fact, nothing is more certain than that many hæmorrhagic cases progress favourably at Davos, Colorado, Bogotá, etc., and that some of these cases cannot descend to the sea-level without a recurrence of hæmoptysis. We can pledge our own personal knowledge on this point, however puzzling the phenomenon. It is no unusual thing, however, in medical science for old theories to be compelled to adapt themselves to new facts. The high altitude treatment seems also to succeed well in catarrhal pneumonia of the apices, in fibroid pleurisy, and in many cases of cavity; but it is distinctly contraindicated by functional derangement of the heart, by a proneness to hysteria or similar nervous affections, and by marked susceptibility to the depressing effects of long-continued cold.

The sea-voyage has long been the favourite prescription for phthisis, and so far its results surpass those of other lines of treatment. The purity and tonic properties of sea-air, the complete physical and mental rest, and the abundance of sunshine, are sufficient to account for the marked benefit so often derived by consumptives from a sea-voyage. It is imperative, however, that invalids should choose a ship on which their comforts will be strictly attended to. A large roomy sailing-ship, with spacious cabins, plenty of deck-room, no overcrowding, and a varied and liberal dietary, presents the most de-

sirable conditions for the consumptive. The Australian or New Zealand voyage should be chosen, in the absence of any preponderant motive for going elsewhere. It is sufficiently long, the changes of climate are varied and gradual, and the traveller can pursue summer round the globe, and enjoy several warm seasons in succession. The consumptive who resorts to Australia should spend at least one year in some of the inland districts, before meditating a return to England. The Darling Downs of New South Wales, or the vast plains of the interior of Queensland, will be found most efficient for confirming and consolidating the advantages previously derived from the sea-voyage.

OUR further report of the proceedings of the Sanitary Congress at Leicester is, this week, unfortunately crowded out.

DR. QUAIN is announced to deliver the Harveian Oration at the Royal College of Physicians on Monday, October 19th, at 4 o'clock.

THE distribution of prizes in the medical department of King's College was performed on Thursday, October 1st, at 4 p.m., by the Lord Bishop of London.

THE first meeting of the Hunterian Society, Dr. Pye-Smith, President, being in the chair, will be held on Wednesday, October 7th, at 8.30 p.m., when Mr. Rivington will read a paper on The Radical Cure in Operations for Strangulated Hernia.

SMALL-POX AND VACCINATION.

THE recent small-pox epidemic at Manchester has practically come to an end. In all, 300 cases were admitted. Up to Midsummer, there were 33 deaths, the mortality being 14.4 per cent. The mortality among those returned as unvaccinated was 56.4; among those returned as vaccinated, 5.7 per cent.; 22 deaths among the 39 unvaccinated; 11 in 190 among those having vaccination-marks.

OBSTETRICAL SOCIETY OF LONDON.

THIS Society will reassemble, after the recess, on Wednesday evening next, October 7th, when a paper by Dr. Matthews Duncan, on The Hypertrophies of Lupus of the Vulva, will be read; in the discussion upon which Mr. Jonathan Hutchinson, F.R.S., will take part, and Dr. Thin will speak on the microscopical aspect of the subject.

SWEDISH GYMNASIUM IN LONDON.

THE Swedish medical journal *Eira* calls attention to the establishment of a Swedish gymnasium in Hampstead by M^{me}. Bergman, on the model of the Central Swedish Gymnasium, with a complete two years' course, practical and theoretical, including instruction in anatomy, physiology, chemistry, and the theory of gymnastics; also in the practical branches, including swimming. The course is arranged for the purpose of training instructors in gymnastics.

INDUCTION OF PREMATURE LABOUR BY ELECTRICITY.

DR. J. SYROMATNIKOV, writing, in the *Vratch*, on the induction of premature labour by means of electricity, mentions three methods: the external, where one electrode is placed on the sacral region, and the other over the uterus; the internal, in which both electrodes are introduced *per vaginam*; and the combined, where both the former methods are made use of. In principle, the author prefers the internal method, but, in the case which he gives, he made use of both external and internal methods. The patient was 26 years of age, and had so contracted a pelvis that perforation had been resorted to in her first labour; so the author, thinking it unsafe to allow her next pregnancy to run its natural course, proceeded, in the thirty-seventh week,

bring on labour by the use of the primary coil of a Sparker's induction-apparatus, with a single element. This produced pains in an hour's time; during the next few days, the electricity was employed for ten minutes at a time, twice daily. Within a week, the os uteri was sufficiently dilated to permit of the introduction of the No. 1 size of Barnes's bags. Podalic version was performed, and a living healthy child extracted. The patient recovered satisfactorily. The author thinks faradisation is but seldom used for the induction of labour, but he mentions three cases previous to his own, two by Gruenewaldt, and one by Tipyakoff.

FOOT-AND-MOUTH DISEASE COMMUNICATED TO A VETERINARY SURGEON.

A CASE is related in a German journal of veterinary medicine where a veterinary surgeon, two days after declaring a locality to be infected with the foot-and-mouth disease, having to travel in a violent east wind, employed a handkerchief to protect his mouth which he had had in use while he was examining the beasts. The next day, he was seized with a violent headache and pains in the limbs. On the second day, there was fever, and a feeling of irritation in the hands and feet. The third day, the fever abated, but there appeared on the tongue, lips, mouth, and edge of the nose, an eruption of an aphthous character, which lasted eight days.

SERIOUS WOUND OF SMALL INTESTINE.

DR. S. ISTOMIN describes, in the *Vrachi*, the case of a shepherd-boy, 10 years old, who was tossed by a cow. One of the horns penetrated the abdomen, causing a wound two and a half centimetres long, out of which several coils of the small intestine protruded. In one spot, the gut was torn to the extent of three-quarters of the circumference. The author sewed it together with twelve catgut sutures, removed a portion of the omentum, and replaced the intestine, closing up the external wound. The dressings were changed on the fifth day, as the temperature was 101° Fahr. Afterwards, there was no fever. The external wound healed by granulation in twenty-four days.

THE PATHOGENY OF GENERAL PARALYSIS.

IN his work on *The Progressive Paralysis of the Insane*, Dr. Mendel advocates the view that the conditions which give rise to the disease consist in an active hyperemia in the cortical substance of the brain, and a diseased condition of the vessels, which give rise to an escape of the constituents of the blood into the surrounding tissues. As a consequence of this osmosis and diapedesis, we find a proliferation of the glia cells and connective tissue and an atrophy of the nervous elements. If this theory be correct, pathological changes, similar to those of general paralysis, must obviously occur in animals subjected to conditions giving rise to such an escape of blood. The experimental demonstration, therefore, required that a method should be devised by which the intravascular pressure were so increased as to produce exudation into the cortical matter. The author showed (Berlin Academy of Sciences, April 17th, 1884) that, when a narcotised dog is fixed upon a horizontally revolving wheel, with its head to the periphery, half an hour's rotation, at the rate of 120 turns a minute, makes the white matter of the brain anæmic, whilst the grey matter, the meninges, and skull-cap, are gorged with blood, punctiform hæmorrhages being peculiarly abundant in the neighbourhood of the sulcus cruciatus. The same process applied to a much milder degree—for five minutes only—produces no such serious disturbances; the animal manifests nothing but the usual symptoms of giddiness, which rapidly pass off. But it was found that, by daily repetitions during a fortnight, this apparently innocuous rotation gives rise to a general apathy, as well as a loss of muscular sense in the posterior extremities. These symptoms do not disappear if the animal be now left to itself and its wants well provided for; on the contrary, they become aggravated week by week, the apathy giving place to imbecility, and

extensive motor disturbances being developed; complete loss of muscular sense in the four extremities culminating in paralysis, paresis of neck and trunk-muscles, altered bark, and impeded micturition. The appetite is good, yet the body-weight goes on diminishing, and death occurs, with all the symptoms of general paralysis. The *post mortem* appearances bear a striking likeness to those observed in the general progressive paralysis of the insane. The dura mater is found adherent to the calvarium, and to the pia and cortex in the neighbourhood of the sulcus cruciatus; the brain-substance is depressed here, as well as in the anterior lobe; the pia mater was opaque, especially along the vessels, and adherent to the cortex. The histological changes were most apparent about the sulcus cruciatus and Sylvian fissure, and consisted chiefly of proliferation of nuclei and neuroglia-cells, new formation of vessels, and alteration of ganglion-cells. It is worthy of notice that rotation-experiments made with the head centrally placed gave rise to cerebral anæmia, but were followed by no special results.

ON ANÆSTHESIA BY THE RECTAL ADMINISTRATION OF THE VAPOURS OF ETHER.

IN his book on etherisation, published at St. Petersburg many years ago, Pirogoff mentioned this method, and about the same time Roux, Vincente y Ybedo, and Marc Duprey, made some experiments on the effects of injection of ether, pure or mixed with water, into the rectum. These observations, however, seem to have excited little interest at the time, and it is only quite recently that the practice has been revived by Axel Yversen of Copenhagen and Mollière of Lyons. The latter states that he has obtained very satisfactory results, and that a small quantity (10 grammes) of ether is sufficient. He simply introduces into the rectum an India-rubber tube connected with a bottle of ether placed in warm water. Anæsthesia is complete in from ten to twenty minutes. Since the publication of M. Mollière's cases, several surgeons have repeated the experiment, with variable results. Post says that the period of excitement is shortened, and that vomiting is rare. Messrs. Shrady and J. Hunter give a favourable account of their cases, and M. Wanschier also approves of the method, which he has tried on twenty-two patients. M. Bull has observed profuse serous evacuations in seven out of seventeen cases, and in two patients the stools contained blood. M. Weir has lost a child aged 8 months after the introduction of two ounces of vaporated ether into the rectum. Messrs. Starcke, Poncet, Boeckel, and Delore, have found that the administration of ether *per rectum* was sometimes followed by a very profound and prolonged sleep, with cyanosis of the face, contraction of the pupils, and symptoms of asphyxia. It seems, therefore, that the method is not likely to come into general use, though it may be useful for operations on the face or in the mouth.

MEDICAL LEGISLATION THREE CENTURIES AGO.

A BOOK has recently been published by Mr. Frederick Clifford, of the Parliamentary Bar, which is full of interesting information concerning private Acts of Parliament past and present. Amongst other examples of early class legislation which the author gives, are two Acts of 1540, dealing respectively with physicians and surgeons. The first Act recited a petition to His Majesty from "the President of the Conference of the Commonalty and Fellowship of the science and faculty of physic in your City of London, and the Commons and Fellows of the same," asking to be relieved from the duty of keeping watch and ward, and of being chosen to the office of constable and other offices, on the ground of "their great fatigation and unquieting, and the peril of their patients." They further asked that four of their fellowship might be commissioned to examine the drugs sold by apothecaries. With this object they sought large powers; among others, to enter houses "as often as they shall think mete and convenient," and to burn or otherwise destroy all such wares, drugs, and stuffs as shall be found "defective, corrupted, and not mete nor convenient to be

ministered in any medicines for the health of men's bodies." These petitions were both granted by the Act, which is known as the 32 Hen. VIII, c. 40. The other statute of the same year (32 Hen. VIII, c. 42) "concerning barbers and chirurgians" recited that "it is very expedient and needful to provide for men expert in the sciences of phisic and surgery, and for the health of men's bodies when infirmities and sickness shall happen; and proceeded to unite in one corporation the company of barber-surgeons (already incorporated by 1 Edward IV) and the unincorporated company of surgeons. They were all to enjoy the same privileges, among which were relief from bearing armour or being put in any watches or inquests. They were also to be entitled every year to take the bodies of four malefactors for dissection ("anatomies"). On the other hand, it was ordered that barbers in London should not practise surgery, except only tooth-drawing, and that surgeons should not be barbers. They were to have shop-signs, "an open sign on the street-side where they shall fortune to dwell, that all the king's liege people then passing by may know at all times whither to resort for remedies in time of their necessity."

NOT TO BE FORGOTTEN

NOT TO BE FORGOTTEN

ANEMIA FROM THE DOCHMIUS OR ANKYLOSTOMUM AT LIEGE.

THERE have been several cases of the rare entozoon *dochmius duodenalis*, or *ankylostomum*, or *sclerosstoma*, accompanied with anemia, among the miners in the neighbourhood of Liège. Dr. Poskin has made a report on two of the most recent of these, which occurred at Gosson-la-Gasse. In one, the man was intensely anemic, no medicines having any effect. In the stools there were ova of *ankylostomum*, seven or eight in each evacuation. Ten grammes of liquid extract of male fern were given, and followed by thirty grammes of castor-oil two hours afterwards. Abundant blackish-brown evacuations were passed, the first two containing *ankylostoma* in considerable numbers. The next day, the dose was repeated; copious stools resulted, of a yellow colour, and without worms. Subsequently the patient gained flesh, and the anemia greatly improved. Iron and arsenic were given. In the second case, microscopic examination having shown the existence of the *ankylostomum*, the patient was given extract of male fern, as in the last case. The first day, numerous *ankylostoma* were expelled with blackish stools; and the second day immense numbers of thread-worms (*oxyuris vermicularis*), singly, and united in masses of the size of nuts, all contained in a liquid bright-yellow stool.

CROWDED STATE OF THE PROFESSION IN BELGIUM.

THE Belgian Fédération Médicale having commissioned Dr. J. De Windt to draw up a report on the crowded state of the medical profession, he has presented a statement on the subject, which shows that Belgium, in this respect, is unlike Glasgow, according to Dr. Buchanan's letter, which we published last week. Every year, a considerable number of young doctors, leaving the universities, have to make a position for themselves, which can only be done at the expense of their professional neighbours. There are three or four doctors where one would be sufficient. The consequence is a lowering of medical fees, and a diminution of resources; and as, on the other hand, expenses increase, and the cost of living becomes greater and greater, the struggle for existence becomes more and more severe. The matter is assuming really disastrous proportions. New-comers either have to wait a long time for patients, or give themselves up to quackery. Thus, we have a lowering of tone and a decrease of honesty in medical practice. It is time that reforms were instituted in the interests of public health, of scientific progress, and of professional dignity. One of the causes to which Dr. De Windt assigns the overcrowding of the profession is the too great facilities offered by the Government for obtaining diplomas. This facility is due (1) to the suppression of the *examen d'élève universitaire*; (2) to the law of 1876, which permits the faculties themselves to give diplomas; (3) to the ease with which foreigners are admitted to practice; and (4) to the privilege granted to certain specialists to practise an important

branch of medicine, without being obliged to pass the examination for the doctor's degree. Up to the year 1835, diplomas of different grades existed. A law was then made, abolishing the grades of surgeon, accoucheur, and officer of health; and a central jury or examining board was created, with its seat in Brussels, and was for a time the sole portal to the profession. Since then, various changes have taken place; and, since 1876, each university has given diplomas which constitute licences to practise. During the year 1884, 122 diplomas were granted: ten by Gand, twenty by Liège, twenty-four by Brussels, sixty by Louvain, and three to foreigners. This is the largest total that has been obtained in any one year. The total number of practitioners, when the last census was taken in 1883, was 2,288, including fifty-four holders of the old lower grade diplomas. During the last four years, there has been an increase of 326.

THE NIGHTINGALE FUND.

THE report of the Nightingale Fund for 1884 shows that thirty probationer nurses were entered on the *Register* as certified nurses, after satisfactorily completing their year of training, and thirty-one received appointments. Of these, thirteen were lady-probationers and eighteen nurse-probationers. The annual gratuity of £2, allowed for the term of three years to certified nurses who have completed a year's service in some approved hospital, was awarded to sixty-one nurses. Since the opening of the school, a total of 787 candidates have been admitted, and 467 have left the school after a year's training. The instruction to the probationers, as heretofore, consisted mainly in the practical work of assistant-nurses in the wards, under the direction of the ward-sisters, the progress of each individual being checked by weekly records and monthly reports to the matron. The work in the wards was supplemented, as usual, by valuable instruction given in class by the home-sister, Miss Crossland, and by attendance on the part of the lady-probationers and more advanced nurse-probationers, on the lectures kindly given by Dr. Bristowe, F.R.S., Mr. Croft, and Dr. Bernays. Applications from candidates desirous of being trained as permanent hospital-nurses should be made to Mrs. Wardroper, the matron, St. Thomas's Hospital, S.E. A limited number of gentlewomen will be admitted, to be trained in the practice of hospital-nursing, with a view to become qualified for superior situations in public hospitals and infirmaries. The regulations as to the admission of candidates of both classes to the school at St. Thomas's Hospital may be obtained by writing to Mrs. Wardroper, as above, or to the Secretary of the Nightingale Fund, 91, Gloucester Terrace, Hyde Park, London, W.

MORGUE BUILDING SMALL-POX AT MONTREAL.

AN epidemic of small-pox rages at Montreal, a special correspondent of the *Standard* says, with apparently hopeless severity, and threatens to become worse, and no less than 201 deaths from this disease are stated to have occurred within six days, besides seventy in the adjoining municipalities. It is believed that there are between 2,000 and 3,000 cases in the city. It is estimated that 100,000 persons in Montreal have not been vaccinated, and the opposition and bigotry shown by the French population are said to be very great. They assert that the infection came from the slums of London, and they attempt to bribe the physicians to issue false certificates. The Board of Health have at once passed a law making vaccination compulsory. Considerable excitement is said to prevail, which culminated on Tuesday in a serious riot, and the residences of Dr. Lorge, the Health-Officer, and the Public Vaccinator, and the Central Health Office at the City Hall have been attacked, and considerable damage done. The English population, it is stated, have enjoyed a remarkable immunity from attack by small-pox. Since the first outbreak, there have been 641 deaths of French Catholics, and 54 deaths of other Catholics, but only 35 deaths of Protestants. This is believed by the authorities to be wholly due to vaccination. A letter from the Pope was read, this week, in the Catholic churches, urging the necessity for vaccination.

CENTENARIANS IN A CONVENT.

THE St. Petersburg medical papers state that in a convent at Lebedin, in the Kharkov Government, Russia, there are now living two nuns whose respective ages are known, on reliable authority, to be 100 and 112. This out of "centenarians" all the world has seen.

DEATH OF THE EARL OF SHAFTESBURY.

DURING the past week, Lord Shaftesbury became daily weaker. His cough had been very troublesome from time to time, but the expectoration thickened and lessened in quantity. The left lung remained in about the same condition as last week, but the diarrhoea, from which he had so long suffered, had quite ceased. A fresh complication arose, in the form of enlargement, thickening, and tenderness of both iliac and femoral arteries, and partial blocking of the circulation, giving rise to cedematous swelling of the legs. Death occurred at half-past one on Thursday afternoon.

THE LONDON MEDICAL SOCIETIES.

THE first meetings of the undermentioned Societies during the coming session will take place in the following order: the West London Medico-Chirurgical, on Friday, October 2nd; Obstetrical, Wednesday, 7th; Ophthalmological, Thursday, 8th; Clinical, Friday, 9th; Hunterian, Wednesday, 14th; Harveian, Thursday, 15th; Medical, Monday, 19th; Pathological, Tuesday, 20th; and the Royal Medical and Chirurgical, Tuesday, 27th.

MANCHESTER ODONTOLOGICAL SOCIETY.

THE object of this newly formed society is the diffusion of knowledge and the promotion of intercourse among dentists; and such objects will be attained, amongst others, by the holding of monthly meetings, at which communications will be made, and objects of interest to the profession exhibited. The following gentlemen constitute the Council of the Society. *President*: George W. Smith, M.R.C.S. *Vice-Presidents*: J. Hooton, L.D.S.; H. Planck, L.D.S. *Secretary*: P. Betts, D.D.S. *Treasurer*: Parsons Shaw, D.D.S. *Other Members of the Council*: L. Dreschfeld, L.D.S.; P. Headridge, L.D.S.; J. Taylor, D.D.S.; J. H. Molloy, L.D.S. The first meeting of the Society was held at the Grand Hotel on September 29th. The President and twenty members were present, and many interesting microscopical and other specimens were shown.

THE OUT-PATIENT DEPARTMENT OF THE ROYAL CORNWALL INFIRMARY.

AN unfortunate dispute has arisen with regard to the management of the out-patient department of the Royal Cornwall Infirmary, Truro. Dr. D. W. Williams was appointed honorary physician a short time ago, and he was informed that the governors would like him to attend to the out-patients. At a meeting of the Weekly Committee, held a fortnight later, it was arranged that the house-surgeon should see all out-patients at 11 A.M., and should refer all cases he thought desirable to Dr. D. W. Williams, to be seen by him at noon. This resolution was not transmitted to Dr. Williams, whose address, it is said, was not known; and, on his attending at the infirmary, the house-surgeon informed him of the instructions given by the committee. Dr. Williams, believing that by this arrangement he was placed in a position in some degree subordinate to the house-surgeon, insisted upon his right to see all out-patients, as he was clearly entitled to do, but committed the, as will seem to most readers, great mistake of attempting to ignore the instructions of the committee, on the ground that he had been appointed by the governors. According to statements made at a special meeting of the governors, it would appear that some complaints have in former times been made—whether well founded or not, we know not—as to delay in seeing out-patients, who were supposed not to have received sufficient attention from house-surgeons, who "had been simply birds of passage." The object of

the resolution passed by the committee seems to have been to prevent delay, and to provide that out-patients should have the advantage of the opinion and advice of the physician, but that the house-surgeon should exercise his judgment in selecting the cases which required a further opinion. The resolution finally adopted at the meeting of governors clearly shows the intention indicated above, and ought to end the difficulty, which was created by the previous loose arrangement made by the committee. The resolution directs the house-surgeon to "attend all out-patients at 11 o'clock, referring all difficult medical cases to the physician, who is requested to attend at 12 o'clock; the physician also to attend all cases of medical patients who ask to see him."

THE ROYAL ALBERT ASYLUM.

THE annual general meeting of the subscribers to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, at Lancaster, was held at Carlisle on Wednesday afternoon. The Bishop of Carlisle presided. The report stated that the income of the institution during the year from all sources had been £28,526, and there were now 519 patients in the asylum, of whom 172 were from Lancashire, and the remainder from the other associated counties, with the exception of three from other parts of the kingdom, who paid full cost of maintenance. The committee had purchased a detached house for special private patients at remunerative rates. This had been called Brunton House, in remembrance of the late Mr. James Brunton, who contributed the original donation to establish the Royal Albert Asylum. Mr. James Diggins, secretary of the institution, was presented with a silver salver and silver tea and coffee service, "in grateful recognition of his unwearied zeal and successful labours on behalf of the institution during a period of twenty-one years."

THE CATERHAM IMBECILE ASYLUM.

THE annual report of this institution, which is one of those under the management of the Metropolitan Asylums Board, has just been issued by the managers. The medical superintendent, Dr. G. Stanley Elliott, states that the number of patients admitted from the parishes and unions during the year numbered 203, and the number under treatment during the year was 2,180. The deaths had numbered 134, and 37 had been discharged, leaving 2,009 under treatment, of whom 1,078 were females, and 931 males. Of the discharged patients, 14 had recovered. Dr. Elliott points out that many patients admitted had, antecedent to their admission, been detained at home, and thus, by the mistaken kindness of their friends and relatives, recovery was doubtful. Cases, he said, which came under treatment within the earlier months of the disease, recovered in the proportion of 70 per cent. (excluding epileptic, paralytic, and congenital cases); whereas, in cases of from three years' and upwards duration of the disease, there were only 3 per cent. of recoveries. Hereditary predisposition, epilepsy, and drunkenness had proved, as usual, the most formidable trio in the causation of the insanity of the admissions; and he added: "I have no hesitation in stating my conviction that the majority of our afflicted population owe their sad mental condition, either directly or indirectly, to alcoholic intemperance."

INTERNATIONAL TEMPERANCE CONGRESS.

AMONGST the many congresses which have been recently in session, was one which was held from September 11th to the 14th, by the friends of temperance, at Antwerp. The president was M. Houzeau de Lehaie, Member of the Belgian Chamber of Representatives. Fifteen English temperance-organisations were represented. The President gave a spirited address, in which he denounced the drinking habits of different countries, and described some of the sad results which are thereby produced. The topics set down for discussion were embraced within the wide range of the alcohol-question. The application of the laws of drunkenness, and the results which these

laws have produced in the countries where they have been enacted; and the effects of the application of fiscal measures on alcohol, from the point of view of the ravages of alcoholism, formed the first topic set down for discussion. Great benefits seemed to have been derived in Holland from the repressive and preventive law passed there in 1881. At the second sitting, the past work of the various temperance associations in the different countries of the world, and their plans for the future, brought forth several papers, and elicited an animated discussion, in which, as well as in the papers, the English delegates had a large share. At the third sitting, a paper was contributed by Mr. Jepson, on The Working of the Coffee-House Movement in England; and another, by Dr. Norman Kerr, on Habitual Inebriety, and the Results of Its Treatment in England and Elsewhere. There were many social and public gatherings in connection with the Congress, including a dinner on Saturday afternoon, a service, with sermon, by the Hon. and Rev. Canon Leigh, in the English Church, Antwerp, a conference of English residents in Antwerp, and a meeting of ladies. It may be mentioned, in connection with the Conference, that the King of the Belgians is a "nephalist," the term introduced many years since by Mr. James Miller, the Edinburgh surgeon, to designate the total abstainers, and now constantly adopted on the Continent by the followers of "nephalism," or teetotalism.

HOSPITAL MANAGEMENT UNDER THE TUDORS.

To the twentieth volume of the *St. Bartholomew's Hospital Reports*, Mr. Morrant Baker has contributed an interesting reprint of the rules which were drawn up for the government of St. Bartholomew's Hospital at the time at which it was refounded by King Henry VIII. The original pamphlet was published in the reign of Edward VI, printed again in 1580, and finally issued by James Flesher, printer, in 1652. It is this latter reprint that Mr. Baker has caused to be very literally copied, as to paper and type, for the *Reports*. The pamphlet is entitled *Orders and Ordinances for the better government of the Hospitall of Bartholomew the lesse*. The preface contains subjects that are very familiar to the readers of our columns at the present date, though expressed in different language. The public, it appears, through "wickedness of report," had heard "open slander or privy whispering" against the management of the institution. The sovereign graciously erected the hospital and endowed it with the yearly revenue of five hundred marks, conditionally that the City should add the same sum. The citizens accepted the condition, "thinking it for their parts rather too little then (*sic*) enough;" and then comes the usual story of insufficient funds and depreciated house-property. The latter was mismanaged, and the "Hospitall it selfe" suffered in consequence; so that, instead of enough "houshold implements and stuffe" for a hundred sore and diseased, as was originally intended by the great Tudor monarch, there was only so much "as sufficed three or four harlots, then lying in childe-bed, and no more, yea barely so much, if but necessary cleanliness were regarded." Then, as now, some generous citizens came forward with contributions, whilst another class of human beings, not quite extinct—to wit, "certain busie bodies"—made themselves objectionable, and influenced the City through preachers "less circumspect in crediting their matter ministers (*sic*) then to men of such calling appertaineth." Their advice to make a "generall sweep of all poor and afflicted" was, fortunately, not followed, and the hospital continued its good work. The pamphlet includes a charge, which explains the usual definitions of the duties of the officers and servants of the charity. The matron, it appears, had the power to place the patients in any part of the hospital as she should "think meet;" her duties towards the sisters were somewhat similar to those of her present successor. The sisters are particularly charged to "avoyd, abhor, and detest scolding and drunkennesse, as most pestilent and filthy vices." The "chirurgians" (who received "wages") had to subscribe to a very sensible charge, including a prohibition to "pester or burden" the hospital

with private patients. After being charged to fulfil their medical duties, and not to have to do "with any other thing," this injunction is somewhat weakened in its intent by a clause that any transaction on the part of the other officers that might be "unprofitable" to the charity must be declared by the "chirurgian" to the almoner, after which he is "no farther to meddle therein." The porter is ordered to put refractory patients in the stocks if necessary. There were eight "byddles" or "bedells," the name of these functionaries being differently spelt in several parts of the pamphlet; from the charge, we may surmise that they had a tendency, observable among their homologues in the nineteenth century, to drink with "poor and beggerly persons" in "any victuall house." The hospital-chaplain was also visitor of Newgate Gaol, and appears to have also been frequently one of the ministers of Christ's Church. The pamphlet ends with a list of wages and charges, a prayer to be repeated by all patients on their discharge, in the presence of the hospitalier and at least two masters of the house, and lastly a "passe-port" supplied to them on the same occasion.

DEBATE ON CHOLERA.

THE *Berliner Klinische Wochenschrift* (April 13th) gives the debate on cholera at the Munich Medical Union. Von Pettenkofer (whose speech is reported in full in the *Allgemeine Zeitung*, No. 95, April 5th) made a long reference to Dr. James Cunningham's work—*Cholera: What can the State do to Prevent it?*—in support of his own views, and against the contagionist theory. After quoting to the effect that outbreaks amongst pilgrims have never really influenced cholera-epidemics, that quarantines and cordons have been rejected as worse than useless, and that the theory of infection by water "contradicts the whole history of cholera in India," von Pettenkofer went on to allude to tables of cholera-epidemics in Prussia between the years 1848 and 1860, which gave the monthly mortality, which was greatest at certain times of the year throughout the whole series of years. This fact the speaker considered conclusive against the contagion-theory. Dr. Emmerich displayed numerous preparations of bacteria, and declared that, in each one of nine cholera-bodies examined, his bacteria, "the Naples cholera-bacteria," had been proved to exist in the liver, kidneys, spleen, mesenteric glands, brain, and blood, in a state of "pure cultivation"—the colonies obtained therefrom being exactly alike to the naked eye. Koch's vibrio, which was only found in the intestine, but seldom in the intestinal wall, and never in the internal organs, was of only secondary importance, possibly only one of the constant inhabitants of the digestive tract, of which little was known as yet; possibly it developed more under certain chemical conditions afforded by cholera, that is, by the real cholera-fungus. The researches of von Lehlen and Buchner supported his views. The former had made sections of various organs which plainly showed that this "Naples bacterium" might be regarded as the true cause of cholera, just as much as the typhus-bacillus was the cause of typhus. Had this bacillus, then, been overlooked previously? By no means; Koch himself had designated the short rod-like bacilli as the true cause of cholera, before he discovered his comma-bacilli; and the French Commission had almost always found them to be present. Biologically, the "Naples bacterium" most resembled the typhus-bacillus.

RHINOLITHS.

RHINOLITHS are so rare that many of the most experienced specialists have never seen a case. In the whole range of literature, only 20 cases are enumerated, from Mathias de Gardi (1602) to König (1878). A new case has been described in the *Nordiskt Medic. Arkiv*, by Dr. E. Schmiegelow, of Copenhagen. The patient was a man of 58 years of age, who had suffered for 16 years from a fetid purulent discharge from the left side of the nose, with complete obstruction, and for a long time from perspiration limited to the left half of the face. On examination, a hard, irregular, dark green body was found, which occluded the left side of the nose, embracing the inferior

turbinated bone like a fork, deeply imbedded in the mucous membrane. It could not be mistaken for a sequestrum, as there was no alteration in the appearance of the face. The calculus was as large as a walnut, and required for its removal the employment of a strong *décasseur*, extending over two sittings. It was situated in the cavity of a soft gangrenous mass, which came away shortly after the removal of the stone. On chemical examination, but little organic matter was found, and no oxalic acid. It consisted mainly of phosphate of calcium and phosphate of magnesium, with some carbonate of calcium and traces of chlorides. The stone belonged to the most numerous class of rhinoliths, the non-nucleated, which are composed of dried secretion, without any foreign body, as cherry-stones, bits of paper, etc., which in some cases have served as nuclei around which rhinoliths have formed.

SCOTLAND.

INFECTIOUS DISEASES IN EDINBURGH.

Now that all the adults' and children's cases of infectious diseases receiving hospital-treatment in Edinburgh are attended to in the city hospital for infectious diseases, the returns from that institution show at a glance the numbers under treatment. It was reported to a meeting of the Public Health Committee of Edinburgh Town Council, on Tuesday, that there were 77 such cases in the city hospital, and, of these, 24 were children. The various diseases and numbers were—enteric fever, 46; measles, 2; scarlatina, 20; small-pox, 1; and erysipelas, 8. At a recent meeting of the Town Council, the propriety of appointing a consulting physician for the hospital was spoken of by one of the members, and the matter will probably receive consideration at a future time.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

By being freed from cases of infectious diseases, the Sick Children's Hospital, Edinburgh, may now be considered to have entered upon a career of greater usefulness and benevolence than when a large amount of its accommodation was occupied by cases of infectious disease. Previously, there were open for general diseases of children only two wards of sixteen beds each, and one of eight beds; now, there are four wards of sixteen beds each, and one of eight beds. There is thus accommodation now provided for seventy-two children; and these beds are open to children who are from 2 to 12 years of age, the only recommendation required being the suitability of each case. Connected as it now is with the university in its teaching aspect, and considering the benefit it bestows, the hospital deserves the heartiest sympathy from the profession and the public.

EDINBURGH DISPENSARY FOR WOMEN AND CHILDREN.

On Wednesday, September 23rd, a cottage-hospital, in connection with the Edinburgh Dispensary for Women and Children, Grove Street, was opened by the Lord Provost Sir George Harrison, and at the ceremony there were present several members of the profession and supporters of the institution. The hospital will contain, when fully occupied, six beds, but at present it is intended only to occupy four of them. It may seem somewhat strange that, in a city like Edinburgh, with its Royal Infirmary not yet occupied in all its wards, there should be another hospital opened; but this new one, connected as it is with the Dispensary for Women and Children, is an outcome of the lady medical movement, the medical officers being ladies, including Dr. Sophia Jex Blake. Since the Dispensary was opened six years ago, 1,117 patients, who have made 7,751 visits to it, have been treated, and received 13,292 prescriptions. There may be some mistake as to the number of prescriptions, which is copied from a public print, or of the other numbers, otherwise the omission of not giving a prescription is not one of the failings of the fair sex who have joined the profession.

DWELLINGS FOR THE ARTISAN CLASSES IN GLASGOW.

Not long since, we drew attention to the steps Edinburgh was taking to meet the acknowledged want in the city of suitable dwellings for the working classes. The proposal that found most favour was to endeavour, by private enterprise, to work out a problem that had as yet been only partially solved in other towns; and, with this view, an association was set on foot, the management of which was to be on ordinary commercial principles, while having a philanthropic end in view. Sufficient time has not elapsed to judge of the success of the movement, but there should be no reason why it should not succeed. In Glasgow, we observe that the municipal authorities have been so impressed with what has been done by the Corporation of Liverpool in the matter of housing the poor, by the erection of the extensive blocks of houses known as the Nashgrove Dwellings, that they sent a deputation to Liverpool to inquire fully into the matter, and there has just been issued by these gentlemen a very full and satisfactory report. It not only deals with the Liverpool dwellings, but also with the Manchester and Salford working men's dwellings, and describes very fully the class of houses erected, while the financial aspect of the question is clearly put forth. The conclusions drawn by the framers of the report are in favour of Glasgow following the example of Liverpool, and we think that the advice is good. The large unused areas of ground that Glasgow has at present on hand could not be better utilised than by covering them with sanitary dwellings for the working classes such as Liverpool has had lately erected in its midst; and if this can be done at a financial profit, it becomes almost an obligation on the part of the authorities to take the matter up. Healthy houses for the poor are equally a necessity with public baths and public parks; and when it is acknowledged to be the duty of the corporation to provide the latter, the former should also be regarded as coming within their domain. We shall hope to see that a decision to this effect has soon been come to.

LUNACY IN SCOTLAND.

The General Board of Commissioners in Lunacy for Scotland have issued their annual report, which, as usual, deals very fully with the important interests committed to their care. The figures show that the number of insane people in Scotland, of whom the Commissioners had official cognisance on January 1st of the present year, was 10,918, which was an increase of 169 over the previous year, the increase being made up of 23 private and 146 pauper patients. The recoveries per cent. of admissions are still above the average for the five years 1880-1884; but the private asylums, although standing higher this year than last, have not such favourable results as the public establishments. The total expenditure for pauper lunatics during the year was £214,264, which includes all the expenses connected with their maintenance and treatment, whether in asylums, lunatic wards of poorhouses, or private dwellings. In connection with this subject of the cost of providing for the insane, the report gives some striking facts as to the great increase that has taken place during the last thirty years in the expenditure on pauper patients. Thus, in asylums and lunatic wards of poorhouses, the average cost *per annum* for each patient has increased from about £20 to £25, and in private dwellings from about £8 to £14. The number of escapes during 1884 was 272, which is less than the previous year, when it amounted to 318. Full details are given of the 129 accidents which were officially reported, ten of which ended fatally. It is satisfactory to find that the Commissioners are able to speak with approval of the manner in which the public asylums are conducted; and that they are successfully carrying out the humane work for which they were established, the statistics furnished in the report are a convincing proof. The great increase of pauper lunacy of late years is not, of course, a matter of congratulation; but the causes for this have been somewhat fully gone into by the Commissioners in their present report, and it is to be hoped that their remarks may not be altogether lost sight of. It is quite

clear that the want of accommodation for the insane, at reasonably low rates of board, has necessitated numbers being placed on the official register of pauper lunatics, whose friends would gladly have maintained them at their own expense, had any suitable establishments been available. If any means could be devised for meeting this want, it would go considerably towards lessening the heavy public tax that lunacy is fast assuming.

FIFE AND KINROSS ASYLUM AND ITS BALANCE.

At a meeting of the Board of the Fife and Kinross Asylum, held on September 24th, the clerk stated that the amount of the balance at the credit of the Board was £6,786. One of the members of the Board spoke of the feeling of his constituents, and referred to the arrangements which have been made to secure a reduction of the surplus. The clerk, in reply, stated that the rate for pauper patients had been reduced to £21; and, as this involved a loss to the Board of £3 on each patient, it was estimated that the surplus would be reduced at the rate of about £1,200 *per annum*. At the same meeting, Dr. Turnbull, the Medical Superintendent, submitted his annual report, which showed that, during the year, 89 patients had been admitted, and that the total number under treatment during the year was 431. Of discharges during the year, there were 23 of males, and 30 of females; and of deaths, there had been 23, of whom 11 were of males, and 12 of females. At the end of the year, there were in the asylum 157 males and 198 females, or a total of 355.

IRELAND.

HEALTH OF CORK.

DURING the four weeks ending September 12th, the births registered amounted to 160, being equal to a rate of 25.05 per 1,000 inhabitants, and the deaths to 123, or 19.95. There were a smaller number of cases of typhus fever and scarlatina during the month, but an increase in the cases of enteric fever.

LEISHMAN.

THE ROYAL UNIVERSITY.

THE examinations for medical degrees, now in progress in this university, are being visited by the delegates of the General Medical Council, consisting of Dr. Bristowe, Mr. Luther Holden, and Dr. Leishman.

PHARMACEUTICAL SOCIETY OF IRELAND.

At the request of the President and Council of the Pharmaceutical Society of Ireland, the Privy Council has sanctioned the appointment of a gentleman to attend and report upon the examinations of the Society, and has asked the Council of the Pharmaceutical Society to forward the names of three gentlemen to the Privy Council, which will then select one of the three for the appointment. We have heard that one of the members of the Council of the Society is a candidate for nomination; but the Privy Council, we think, would hardly create a new office for one of the existing Council, or select a member of the governing body to report upon its own examinations.

THE QUEEN'S COLLEGE, CORK: ANNUAL REPORT.

SINCE the last report, the chair of Logic and Metaphysics, vacated by Dr. Read, has been filled by the appointment of Mr. Stokes. Under the College statutes of 1863, the chairs of Logic and Metaphysics, and of Jurisprudence and Political Economy, are to be amalgamated, the new chair to be entitled, "of Mental and Social Science." The chair of Materia Medica, vacated by the late Dr. O'Keefe, has been filled by the appointment of Dr. Charles V. Pearson, who had acted for some time as Curator of the Medical Museums, and Senior Demonstrator of Anatomy. Before the appointment of Dr. Pearson, the President suggested to Earl Spencer the necessity of enlarging the scope of the

teaching of the Medical School of the College, by the establishment of two new chairs, namely, Public Health (including Legal Medicine), Human and Comparative Pathology. His Excellency considered the matter fully, but did not deem the time favourable for making so important a change. Since then, the General Medical Council have included Human Pathology and Hygiene in the compulsory part of the curriculum of medical studies laid down by them. These subjects have also been introduced into the curriculum of the Royal University of Ireland. A diploma in sanitary science is now also given in the same University. It has consequently become absolutely necessary to make immediate provision for establishing the chairs in question. Lectureships on some special departments, for example, diseases of the eye and ear, and an endowment for the lectureship on psychological medicine, already established, should also be provided. The total number of students on the books of the College for the session 1884-5 was 272, of whom 201 were in the Faculty of Medicine. The President refers to the Commission of Inquiry into the working of the Queen's Colleges, with special reference to the standards of examination which were assailed for the purpose of discrediting them. In the report issued by the minority of the Commissioners, the charge was made that the standard of the entrance-examination was too low, and the President points out that the College is a teaching institution, but it is considered just to measure its work by an examination-standard adapted for the cramming system now in operation over the whole country. What Ireland wants, he adds, is sound teaching under rational discipline, and not mere examinations and intellectual chaos and licence. The rapid advance made in the practical teaching of physical science has quite outstripped the appliances of the College; in the first place, the available room for the collections, the laboratory, and workshop, is entirely insufficient; and, in the second place, the collection of apparatus, models, and tools, is incomplete. If the proposal so often made to build a new chemical laboratory were adopted, there would be ample room for an enlarged physical laboratory, and an engineering and technical museum.

HOSPITAL SATURDAY FUND.—At a meeting of the board of delegates of this fund, of which Mr. S. Morley, M.P., is president, held at the central office, 41, Fleet Street, on Saturday evening, Mr. H. N. Hamilton-Hoare, the honorary treasurer, presiding, it was decided that a sum not exceeding four per cent. of the total amount awarded this year be set apart for the purchase of surgical appliances, exclusive of the money awarded the surgical aid and appliance societies. The board were authorised to contract for the supply of the required appliances; and, availing themselves of offers of honorary service on the part of several eminent medical men, the board agreed that a surgeon should attend at the office of the fund during hours convenient for workmen, in order to examine applicants for relief. Mr. R. Frewer, the secretary, reported the amounts already received from the industrial and business establishments of the metropolis were, in the main, considerably in advance of those of last year. It was calculated that there would be available for distribution among metropolitan medical charities, convalescent homes, and surgical appliance societies, £10,000, as against £9,000 awarded last year.

A COMMITTEE has been formed, and a chairman and other officers have been appointed, for establishing a hospital for sick children at Gateshead. £1,500 has already been promised, namely, £500 by the executors of the will of Mr. Frederick Glenton, £250 by Mrs. Southern, £250 by Miss Brown, and £50 by Lady Northbourne.

DONATIONS AND BEQUESTS.—The Earl of Harewood has given four acres of land as a site for the new Bath Hospital at Harrogate, and £100 to the building fund; and Miss Rawson, of Nidd Hall, has offered £3,500 for the erection of a convalescent wing. The Norfolk and Norwich Hospital has received £200, the Norfolk and Norwich Eye Infirmary £50, and the Jenny Lind Infirmary £50, under the will of Mrs. Lydia Jane Orris.—Mrs. Catherine Watkinson, of Earl's Colne, bequeathed £200 to the Colchester Hospital and £200 to the Essex Idiot Asylum.—Mr. Marcus T. Moses and Mr. W. Geale Wylbrants have each given £100 to the City of Dublin Hospital. The Sheffield General Infirmary has received £102 7s. 9d., under the will of Mr. John Swann, of Attercliffe.—Messrs. Lewis have given £100 to the General Hospital, Birmingham.

THE CHOLERA.

FROM one to four deaths from cholera are daily registered at Marseilles. The Pharo Hospital is shut. At Toulon, the decrease is equally satisfactory; the Bon Rencontre Hospital is closed. In the environs of Marseilles and Toulon, cholera still lurks; there are cases at Cassis, Arles, Auriol, Aubagne, Peyrolles, and, at Martignes, they are more considerable in number. At Hyères, there are deaths from the epidemic; also at Montfort, Argens, and Sollies-Pont. It is reported that cholera has broken out at Nice, but this is not officially confirmed, neither are the deaths said to be from cholera at Montreuil-sous-Bois, Saint Ouen, and Saint Denis; these are the localities which were last year attacked. A considerable improvement has taken place in the Ardèche department. No deaths have occurred from cholera for some days either at Vallon or Saint Alban. A few deaths still occur at Nîmes, also at Alais, Beaucaire, Pont Saint Esprit, and other neighbouring localities. On September 19th, there was rather a violent outbreak of cholera at Avignon. The Hérault department still remains attacked; it contains a cholera-focus—the village of Pignon; there have occurred in it forty deaths from cholera in three weeks. Last year, this little village had a severe visitation of cholera; the commune of Méze then shared its misfortune; deaths from cholera are now registered there; it also makes many victims at Lunel and Cette. At Montpellier, a case of cholera ended in death a few hours after seizure. Deaths have occurred at Limoux, Carcassonne, and Lézignan, supposed to be from cholera, but not clearly diagnosed. These localities are in the Aude department. Frequent deaths from cholera still occur at Hendaye.

The Minister of Commerce has directed the different directors of the Mediterranean ports, that all Italian and Sicilian arrivals are to be submitted to five days' surveillance. This law is not to be enforced for Sardinia; but, at Toulon and Marseilles, all importations from Sardinia will be medically inspected. After October 20th, the transport-service, which was provisionally established at Brest on account of the cholera-epidemic, will be removed to Toulon. The Governor of Algeria has increased the quarantine for arrivals from Sicily to seven days. General Courcy has left Hanoi; he will inspect the Delta stations, where some cases of cholera are announced.

Some of the inhabitants of Salon, notwithstanding a prohibition, organised a procession to implore Divine protection from the cholera-epidemic; unfortunately, the procession provoked a riot, and the gendarmes, armed with revolvers, conducted the image of the saint back to the hotel where it lodged.

M. Miguel, in a work on the epidemic of cholera which occurred in Paris last year, studies the pathogenic influence of the bacteria contained in the atmosphere on the cholera-epidemic. He daily ascertained the quantity of bacteria in a cubic metre of air, and compared it with the deaths from cholera; he observed that the more numerous were the bacteria, the higher was cholera-mortality. Among 960 deaths, 567 occurred in the N.E. zone; this localisation of the epidemic could not be attributed to the drinking-water, because two contiguous districts, supplied with the same water by the same system of pipes, presented a different rate of cholera-mortality; one was 1 per 20; the other, 1 per 50. M. Miguel believes the prevailing winds to have a great influence. From the 3rd to the 9th of November, the wind blew from the south, north to south; and the south-west districts were free from the epidemic. Later on, towards December 10th, the wind blew from the north-east to south; north, and the districts previously intact, had a visitation of cholera. Eight-tenths of the deaths happened on dry days; the other two-tenths on rainy days.

RURAL MEDICAL OFFICERS IN FINLAND.—A petition has been presented by some rural inhabitants of Finland to the Grand Duke, to grant a yearly sum of money for the purpose of increasing the stipends of rural district medical officers, thus assimilating their position to that of town medical officers; also to order that the residence of the officer shall be fixed in the locality which is most easily accessible from all parts of his district. A request is also made to permit the establishment of cottage or district hospitals in places where the communes are willing to find the necessary funds.

THE MAGISTRACY.—The Lord Chancellor has, on the recommendation of the Earl of Gosford, Lieutenant of the County, appointed Dr. Pratt, of Markethill, to the Commission of the Peace for the County of Armagh.

NEW ASYLUM AT MOSCOW.—A new asylum for patients with mental diseases is to be built in Moscow, on the model of a well known Berlin asylum.

OPENING OF THE MEDICAL SCHOOLS.

THE LONDON HOSPITAL MEDICAL SCHOOL.

WE understand that arrangements are now nearly complete for extensive enlargement of the medical school of the London Hospital. The plans, which entail the almost complete rebuilding of the existing school, provide for a museum, a library, a reading-room, and a dissecting-room, each about double the size of those now in use. A new physiological theatre and laboratory, and a new pathological laboratory, will be erected, as well as a set of class-rooms and a committee-room. Dining-rooms and smoking-rooms will be provided for the use of the students, in place of the iron building in the grounds now used as a students' club. It is expected that the buildings will be ready for use at the opening of the winter session next year (1886-7).

ST. MART'S HOSPITAL MEDICAL COLLEGE.

As we announced last week, a residential college for the use of students attending St. Mary's Hospital has been opened at 33, Westbourne Terrace. The Collège is a roomy corner house, slightly altered to meet the special requirements. On the ground-floor, there is a small well lighted study, a large dining-room, and the warden's office. On the first floor, is a large comfortably furnished library and study, and opening off this is a conservatory, which has been converted into a very excellent laboratory, which students will be allowed to use under certain conditions. The upper stories contain a series of bedrooms, simply furnished, and, on the whole, well ventilated. The basement is occupied by the kitchens, and contains the residential room of the steward and his wife, under whom the servants are immediately placed; the steward is also caterer. The sanitary arrangements of the house, which were no better than those of most private residences, have been thoroughly overhauled, and are now satisfactory. Students residing in the College will be required to observe certain salutary rules as to hours of recreation and study, and will be under the immediate superintendence of the warden (Dr. Robert Maguire). The demonstrators of the medical school will attend on four evenings of the week to direct and assist the students in their studies. We understand that so much success has already attended the scheme, and so many applications for rooms have been made, that some increase in the amount of accommodation will probably be necessary even in this, the first, session of the College's existence.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

THE steady increase in the number of students entering at St. Thomas's Hospital has rendered it necessary to make considerable additions to the previously existing accommodation in the anatomical department, and similar additions and alterations have also become necessary in the physiological and some other departments; these will be undertaken during the ensuing year, but the improvements in the anatomical department are already completed. The theatre has been enlarged and re-seated, and the ventilation and lighting improved. The dissecting-room has also been enlarged, and otherwise rendered more suitable for its purpose. Special apparatus for dissecting the body in the upright position, and for the dissection of the perinæum, have been provided. A room for the use of the prosectors for making permanent dissections, and for the display of these specimens when imbedded in plaster-of-Paris, has been built; and a macerating-room, with a tank large enough to permit the preparation of a complete skeleton, has also been constructed. A large cool room, to be used as an injection-room, and store-room for subjects and rough dissections for ordinary demonstrations, has been excavated underground. The specimens are kept in slate tanks, decomposition being prevented by spirit-vapour. Lifts are provided, where necessary, for the conveyance of subjects. In making the above alterations, it has been arranged that the various rooms in the anatomical department communicate with each other, and that the lecturers' and demonstrators' rooms open directly into the dissecting-room. Students dissecting are, therefore, constantly under the eye of their teachers. A separate entrance has also been provided from the street, so that subjects can be conveyed directly to and from the department without being carried through any other part of the school.

THE WESTMINSTER SCHOOL OF MEDICINE NEW BUILDINGS.

THE following is a more detailed description of the new buildings of the Westminster Medical School, shortly referred to by Mr. Cowell in his introductory address.

The building, which is of red brick, with red Dunfries (Corshill) stone-facings, stands at the corner of Caxton Street, opposite the Westminster Town Hall, and has a frontage to the south and east. The main entrance is in Caxton Street; the plan of the building is

simple. The entrance opens on to a short paved corridor. Immediately on the right, on entering, is the Library, and, on the left, a Reading-room; beyond the Library is a Committee-room, with the Dean's Room opening off it. The northern end of the ground-floor is occupied by the chemical laboratory and theatre, and the private laboratory of the lecturer on chemistry. The chemical theatre is not large, is well fitted up, and is in every way thoroughly adapted to its purpose; the laboratory is also a very convenient and well arranged room. On the floor, there is a hat-and-cloak room, and a porter's lodge. On the first-floor, above the chemical department, there is a so-called histological room, fitted with tables in the usual fashion, and well designed to meet the requirements of the lecturer on physiology, who also has a small laboratory and class-room for his own use: both these laboratories are well lighted; the eastern aspect on this floor is given up to the museum, a large handsome apartment running up into the second storey, and lighted from above. Specimens have already been removed to the glass cases with which its walls are surrounded. A room for the use of the curator opens off the museum. The southern aspect contains the large theatre, which also runs up into the second storey; the illumination appears to be very good, and the amphitheatre of seats not exceeding a semicircle, all the occupants will be within easy reach of the lecturer's voice, and will command a view of diagrams or specimens in the well. On this floor there is also a small class-room. On the second floor is the dissecting-room, mortuary, and porter's room, a small room for the demonstrator of anatomy, and a small theatre. The dissecting-room is lighted from above, the walls are tiled, and the floor asphalted. It is very well adapted for its purpose, the illumination from the top light being unusually perfect. In connection with the anatomical department, two lifts have been provided; one of these descends to the basement, the other to the first floor, on a level with the entrance to the theatre. In this way, dissected specimens can be easily transported from the dissecting-room to the theatre. The basement contains a refreshment-room, with kitchen and the necessary offices, as well as a smoking-room for the use of the students.

The building is warmed throughout by hot coils. The artificial lighting is not satisfactory; ordinary bat's-wing burners, as a rule fixed in the centre of the room, and entirely without any kind of ventilation, have alone been used. We fear that this, which is evidently due to an oversight on the part of the architect, will be found a source of much discomfort, especially in the library and reading-room, if not remedied, as could easily be done. All the rooms are ventilated by modified Sherringham valves. Three lavatories and urinals have been provided, and a sufficient number of water-closets. The water-closets used are Doulton's flush-out combination urinal and water-closet. The sanitary arrangements, so far as concerns drainage, leave nothing to be desired; man-holes with open channels have been introduced at the head of each system into which the water-closets discharge; and a large inspection man-hole in the area, at the head of the main drain of the building, which discharges into the public sewer. Mr. S. Salter was the architect.

Two white marble tablets are let into the south-east angle of the building, which first catches the visitor's eye as he approaches the new school from the Westminster Hospital, which is about 300 yards distant. One of these tablets commemorates the laying of the foundation-stone; the other bears the following inscription:

NOSOCOMII
WESTMONASTERIENSIS
SCHOLA MEDICAE
A.D. MDCCCXXXIV
FUNDATA.
QUAS CERNIS AEDEN
A.D. MDCCCLXXXV
EXSTRUCTAE.

CAMBRIDGE.

The very extensive and complete laboratories and class-rooms of the Medical School of Cambridge University have been recently further enlarged to meet the growing wants of this rapidly increasing and justly celebrated school. A new laboratory for practical instruction in elementary biology will be available in the future, and will provide accommodation for nearly a hundred students. New botanical rooms have also been prepared, and other minor improvements carried out.

VACCINATION.—Dr. W. J. Smith, of Shipley, Yorkshire, has received, for the third time, the Government grant for efficient vaccination.

PRIZES IN THE MEDICAL SCHOOLS.

The following are lists of the successful candidates for prizes in the Medical Schools during the session 1884-85.

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal: W. G. Spencer. Brackenbury Medical Scholarship: W. J. Gow. Senior Scholarship in Anatomy, Physiology, and Chemistry: J. Wilkie. Open Scholarships in Science: B. Pierce, R. Pickard and E. N. Reichardt (equal). Preliminary Scientific Exhibition: R. G. Elliott. Jeaffreson Exhibition: H. G. Cook and W. A. Murray. Kirkes Gold Medal: W. J. Gow; *proxima accessit*, W. G. Spencer. Bentley Prize (Surgical): A. M. Gledden. Eichen's Prize: E. H. Hankin. Harvey Prize: E. H. Hankin; 2. W. G. Williams; 3. G. Heaton; 4. J. G. E. Colby; 5 and 6. S. Blackman and T. J. Bokenham (equal); 7. R. Bird. Practical Anatomy, Junior: Treasurer's Prize, C. H. Roberts; 2. H. G. Cook; 3. D. T. Belding; 4 and 5. T. P. Jenkins and W. G. Willoughby (equal); 6. Hansby Maund; 7. J. G. Ogle; 8. H. A. Sylvester; 9. W. F. Cholmeley; 10. C. E. R. Rendle; 11 and 12. C. E. Hutt and J. J. Macgregor (equal). Practical Anatomy, Senior: Foster Prize, C. S. Edwards; 2. A. Lucas; 3. J. Rust; 4 and 5. W. N. Evans and T. J. Lissaman (equal); 6. W. B. Lane; 7 and 8. F. M. Brown and H. Symonds (equal); 9. H. Huxley; 10 and 11. G. Heaton and J. E. Spencer (equal). Junior Scholarships: 1. B. Pierce; 2. C. H. Roberts; 3. R. Pickard.

CHARING CROSS HOSPITAL.—Llewellyn Scholarship: Certificate and £25, W. L. Colborne. Golding Scholarship: Certificate and £15, R. E. Fasnacht. Governors' Clinical Gold Medal: W. J. Colborne. Pereira Prize: Certificate and £6, W. J. Colborne. Anatomy (Senior): Silver Medal, H. C. L. Arnin; Certificates, J. G. V. Sapp, E. A. Snape, R. B. Booth and A. W. Cooke (equal). Anatomy (Junior): Bronze Medal, A. E. Baker; Certificates, P. J. Duncan and A. T. Hott (equal). Physiology: Silver Medal, H. W. Clarke; Certificates, A. E. Baker and P. J. Duncan (equal). B. F. Jackson, F. M. Ludbrook, J. Mansbridge, J. P. Harold, A. Boulton, P. Grange. Practical Physiology: Silver Medal, G. O. Richards; Certificates, R. B. Booth, J. G. V. Sapp, R. May. Chemistry: Silver Medal, P. J. Duncan; Certificates, F. Grange, J. P. Harold, A. Boulton, H. W. Clarke, A. E. Baker. Practical Chemistry: Silver Medal, R. E. Fasnacht; Certificates, J. P. Harold, J. G. V. Sapp, G. O. Richards, A. G. N. Goldney, T. H. G. Wrighton and F. Gummo (equal). Medicine: Certificate, L. E. Sexton. Practical Medicine: Silver Medal, A. W. F. Noyes. Surgery: Silver Medal, L. E. Sexton; Certificate, T. G. Williams. Practical Surgery: Silver Medal, W. J. Colborne; Certificates, R. P. Ziemann, G. P. Barton. Botany: Silver Medal, G. O. Richards; Certificates, R. E. Fasnacht and R. Bate (equal); J. P. Harold, F. Grange, W. H. Clarke. Materia Medica: Silver Medal, J. G. H. Carter; Certificates, J. P. Harold, J. G. V. Sapp, G. O. Richards. Midwifery: Silver Medal, W. J. Colborne; Certificate, F. O. Stedman. Forensic Medicine: Silver Medal, A. W. F. Noyes. Pathology: Silver Medal, A. W. F. Noyes; Certificate, W. J. Colborne. Dental Surgery: First Prize, £7 7s., F. S. Peall; Second Prize, £5 5s., L. E. Sexton; Third Prize, £3 3s., J. Mansbridge; Certificate, T. G. Williams.

ST. GEORGE'S HOSPITAL.—William Brown £40 Exhibition and Certificate: G. F. Smith. Treasurer's Prize, £10 10s. and Certificate: A. Vernon. Brackenbury Prize in Medicine, £32 and Certificate: G. F. Smith. Brackenbury Prize in Surgery, £32 and Certificate: Mr. de Nyssen. Sir Benjamin Brodie's Prize, £6 and Certificate: R. Coombe. Henry Charles Johnson Prize in Anatomy, £10 10s. and Certificate: A. H. Ward. Sir Charles Clarke's Prize, £6 and Certificate: A. Jervis. George Pollock Prize in Physiology, £18 12s. 6d. and Certificate: H. Le C. Lancaster. Three Years' General Proficiency Prize, £10 10s. and Certificate: Mr. de Nyssen. Second Year General Proficiency Prize, £10 10s. and Certificate: H. Le C. Lancaster. First Year General Proficiency Prize, £10 10s. and Certificate: Mr. Le Cronier. Extra First Year General Proficiency Prize, £10 10s. and Certificate: H. Higgins.

GUY'S HOSPITAL.—Open Scholarship in Arts (£131 5s.): McD. Gill. Open Scholarship in Science (£131 5s.): A. Parkin. Treasurer's Gold Medal in Clinical Medicine: W. L. Braddon. Treasurer's Gold Medal in Clinical Surgery: J. W. Washbourn. Blaney Prize for Pathology (£31 10s.): G. C. C. Anderson. Mackenzie Bacon Prize for Ophthalmology (£10 10s.): C. D. Muspratt. Mackenzie Bacon Prize for Nervous Diseases (£15): G. E. H. Balderton. Michael Harris Prize for Anatomy (£10): A. E. Poolman. Gurney Hoare Prize for Clinical Study (£25): L. F. Child. Burdett Prize for Hygiene (£10): W. L. Braddon. Fourth Year's Students: First Prize (£25), J. W. Washbourn; Second Prize (£10), F. Lever. Third Year's Students: First Prize (£25), F. F. Burghard; Second Prize (£10), H. V. Rake. Second Year's Students: First Prize (£25), G. H. Starling; Second Prize (£10), G. R. Devereux. First Year's Students: Prizes (each £37 10s.), R. D. Mothersole and A. Parkin (equal).

KING'S COLLEGE.—Winter Session: Warneford Prizes: E. P. Mariette and R. J. Stephens. Leathes Prizes: J. Penny and C. Nash. Anatomy: Prize, R. J. Carter. Physiology: Prize, R. J. Carter. Chemistry: Prize, A. Chunder Dutt. Medicine: Prize, G. F. Ewens. Clinical Medicine: Prizes, G. F. Ewens and T. W. Longmore (equal). Surgery: Prize, F. A. O'Meara. Clinical Surgery (Professor Wood): Prize, P. R. Harris. Clinical Surgery (Professor Lister): Prize, F. A. O'Meara. Comparative Anatomy and Zoology: Prize, H. S. Sandifort. Summer Session: Tanner Prize: A. Lindon. Obstetric Medicine: Prize, F. W. Jolly. Forensic Medicine: Prize, P. H. Hensley. Materia Medica: Prize, H. A. Pope. Practical Chemistry: Prize, H. S. Sandifort. Botany: Prize, H. S. Sandifort. Pathological Anatomy: Prize, F. W. Jolly. Practical Physiology: Prize, T. B. Beach. Practical Biology: Prize, A. W. Lyons. Clinical Medicine: Prize, A. H. Cox. Todd Prize for Clinical Medicine, G. F. Ewens.

LONDON HOSPITAL.—Entrance Science Scholarships (£60): W. S. Fenwick; (£40) J. H. Sequera. Buxton Scholarships (£30): H. M. Speechly; (£20) R. J. Williams. Hospital Medical Scholarship (£20): W. Rawes; Certificate, F. J. Smith. Hospital Surgical Scholarship (£20): W. Rawes; Certificate, F. J. Smith. Hospital Obstetric Scholarship (£20): W. Rawes; Certificate, A. Burrell. Dnekworth Nelson Prize: W. Rawes; Certificate, F. J. Smith. Lotheby Prize (£30): C. R. Killick. Anatomy, Physiology, and Chemistry: £25 Scholarship, E. O. Ashe; Certificate, S. J. Cole. Anatomy and Physiology: £20 Scholarship, J. J. Coulton. Dressers' Prizes: £15 Prize, B. Walker. Dissection Prizes: 1, S. J. Cole; 2, W. S. Fenwick; 3, J. J. Coulton; 4, C. R. M. Green.

ST. MARY'S HOSPITAL.—Scholarships in Natural Science: £75, Mr. Holloway, Mr. Lewitt; £50, Mr. Graves, Mr. Hickley, Mr. Mack. Scholarship in Pathology:

R. S. Anderson. Scholarships in Natural Science, £105 (for students of Epsom College) Mr. Gravely and Mr. Lewis (equal). Proctors: J. T. Bays, Mr. Graham. —*Summer Session, 1884.* First Year: *Materia Medica*: Prize, H. C. Barr; Certificate, J. T. Bays, S. Collier. Botany: Prize, W. B. Bettenley; Certificates, J. C. Barr, H. C. Barr. Practical Chemistry: Prize, J. C. Barr; Certificates: H. A. Kidd, W. B. Bettenley. Second Year: Midwifery: Prize, A. R. S. Anderson; Certificate, M. M. Bird. Medical Jurisprudence: Prize, A. R. S. Anderson. —*Winter Session, 1884-85.* First Year: Anatomy and Physiology: Prize, A. Lewers; Certificates, — Davis, — Lewitt, — Henvey, and — Kingston. Chemistry: Prizes, — Hickley and — Lewitt (equal); Certificate, — Severs. Second Year: Anatomy: Prize, H. C. Barr; Certificates, W. S. J. Graham, H. S. Collier, J. T. Bays, N. C. Ridley, and M. M. Bird. Physiology: Prize, — Symes; Certificates, J. T. Bays, N. C. Ridley, M. M. Bird, W. S. J. Graham, H. S. Collier, and H. C. Barr. Third Year: Medical Prize, — Holloway. Surgery: Prize, — Holloway; Certificate, H. H. Norton. Practical Surgery: Prizes, J. J. Clark and — Holloway. Pathology: Prizes, J. J. Clark and — Holloway. Third and Fourth years: Clinical Medicine: Prizes, G. N. Caley and G. Spear; Certificates, H. Tanner, — Maudsley, and — Facey. Clinical Surgery: Prize, R. Slemann; Certificates, — Batchelor, G. Murray, H. H. Norton, and W. Williams. Prize in Ophthalmology, £10 10s: H. Tanner. Scholarships: First year, £20, J. T. Bays; Second year, £25, W. Williams; Third year, £30, H. Tanner.

MIDDLESEX HOSPITAL.—Broderip Scholarships: 1. E. Lawson; 2. T. H. Williams. Governors' Prize, F. W. Clark and J. R. Gayland (equal). Hettley Prize: F. W. Clark. Exhibitions in Anatomy: J. Gordon. Lyell Medal: W. B. Cockill. Medicine: Prize, T. H. Williams; Certificates, F. C. Brodie, F. W. Clark. Surgery: Prize, C. J. Deys. Pathological Anatomy: Prize, C. J. Tabor; Certificates, F. W. Clark, H. Bartlett and W. J. Spoor (equal). Practical Surgery: Prize, W. G. Nash; Certificates, W. B. Cockill, W. K. Sibley, W. H. Vickery. Anatomy: Prize, W. H. Charles; Certificates, F. R. Buswell, E. E. Lewis, G. C. B. Atkinson, R. F. Thomas, G. Seymour and W. G. Nash (equal). Physiology: Prize, J. Gordon; Certificates, T. H. Clarke, W. H. Vickery, A. Clark, W. G. Nash, W. H. Charles, C. F. Rilot. Chemistry: Prize, J. K. Couch; Certificates, A. Clark, J. A. Hutton, H. C. Fox, F. C. Spurgin, T. W. Gann. Dissections: Prizes, R. H. Gilpin and E. E. Lewis. Midwifery: Prize, F. W. Clark; Certificates, W. H. Vickery, W. B. Cockill, W. K. Sibley. Forensic Medicine: Prize, F. W. Clark; Certificates, H. Bartlett, W. K. Sibley. *Materia Medica*: Prize, J. K. Couch; Certificates, J. A. Hutton, T. R. Hamlen. Practical Chemistry: Prize, J. W. Gill; Certificates, J. Ring, W. E. Jones, E. A. Falkner and J. A. Hutton (equal), T. W. Gann and H. G. Morris (equal), A. Clark, T. R. Hamlen and A. E. Watson (equal). Botany: Prize, A. Clark. Practical Physiology: Prize, J. K. Couch; Certificate, E. A. Falkner. Psychological Medicine: Prizes, F. C. Brodie and W. K. Sibley (equal); Certificate, F. W. Clark. Entrance Scholarships: First, E. A. Falkner; Second, H. B. Shepherd; Exhibition, A. Clark. Entrance Science Scholarship: J. Gordon.

ST. THOMAS'S HOSPITAL.—*Summer Session, 1884.* First Year's Students: College Prize (£15) and Certificate, F. Fawcett; College Prize (£10) and Certificate, W. W. Ord; Certificates, C. W. Cooke, W. H. Cooper, G. R. Anderson, C. H. Eccles. Second Year's Students: College Prize (£15) and Certificate, E. C. Stabb; College Prize (£10) and Certificate, H. J. Smyth; Certificates, J. D. Ballance, T. H. Godfrey, C. H. James. Third Year's Students: College Prize (£15) and Certificate, S. H. Jones; College Prize (£10) and Certificate, J. S. Hutton; Certificates, S. A. Copeman, F. E. Nichol, K. Totsuka. —*Winter Session, 1884-85.* Entrance Science Scholarships: Scholarship (£100) and Certificate, F. C. Abbott; Scholarship (£60) and Certificate, C. J. Martin. First Year's Students: The William Tite Scholarship (£30) and Certificate, F. C. Abbott; College Prize (£20) and Certificate, E. A. Roberts; College Prize (£10) and Certificate, T. P. Cowen; Certificates, H. Gervis, H. T. Turney, H. H. Hulbert, P. C. Thomas, G. E. Weary, A. J. Adkins, E. A. Stedman, F. Barker, A. N. Boycott, R. H. Tompsett, W. E. Roth, F. E. Forward. Second Year's Students: Musgrove Scholarship (£42) and Certificate, F. Fawcett; College Prize (£20) and Certificate, C. H. Eccles; College Prize (£10) and Certificate, R. V. Solly and W. W. Ord (equal); Certificates, G. R. Anderson, H. H. Hefferman, C. H. James, E. Hobbouse, R. J. Langley, C. W. Cooke, H. C. Ristowe. Third Year's Students: Second Tenure of Peacock Scholarship (£42), with College Prize (£20) and Certificate, H. P. Hawkins; College Prize (£15) and Certificate, H. J. Macevoy; College Prize (£10) and Certificate, J. H. Tonking; Certificates, H. J. Smyth, S. W. Wheaton. Anatomical Assistants: Certificates, L. A. Bidwell, W. F. Brook, H. Duncan, E. C. Stabb, H. J. Smyth, S. W. Wheaton. Proctors: Certificates, H. C. Bristowe, C. W. Cooke, F. Fawcett, H. H. Hefferman, C. H. James, R. J. Langley, W. W. Ord, R. V. Solly. Assistants in Physiological Laboratory: Certificates, E. H. Crisp, S. A. Copeman. Practical Medicine: Mead Medal, F. D. Crowdy; Special Mention and Certificate, J. S. Hutton, A. A. Brockat, H. C. Kidd, A. J. H. Montague. Surgery and Surgical Anatomy: Cheldsen Medal, S. H. Jones; Special Mention and Certificate, F. E. Nichol. Resident Accoucheurs: Certificates, J. Orford, W. Hull, C. D. Green, G. D. Johnston. House-Physicians: Certificates, G. D. Johnston, F. F. Caiger, H. B. Robinson, H. W. G. Mackenzie, F. W. S. Stone and H. H. Lankester (non-resident). Assistant House-Physicians: Certificates, T. Scutt, Y. Saneyoshi, R. Lawson, H. W. G. Mackenzie, R. M. Williams. House-Surgeons: Certificates, J. Orford, H. B. Robinson, W. Hull, C. D. Green. Assistant House-Surgeons: Certificates, H. D. Robinson, C. D. Green, R. Lawson, R. Belton, Y. Saneyoshi. General Proficiency and Good Conduct: Treasurer's Gold Medal, S. H. Jones. Special Mention: Qualified to receive the Medal, J. S. Hutton. Lewes Physiological Studentship: C. S. Sherrington.

UNIVERSITY COLLEGE.—*Winter Session.* Entrance Exhibitions: £100, H. Caiger; £60, H. M. Fernando; £40, S. V. J. Brock. Atchison Scholarship (£60 per annum for two years): R. Johnson-Atkinson. Morley Scholarship (£45 per annum for three years): C. J. Arkle. Bruce Medal: R. Johnson. Cluff Prize (£15): H. P. Dean. Practical Surgery: Erichsen Prize, E. H. Thane. Physiology: Senior Class, Gold Medal, G. E. Rennie; Silver Medals (equal), C. H. Fernau and J. P. Parkinson; Junior Class, Silver Medal, H. M. Fernando. Anatomy: Gold Medal, G. E. Rennie; First Silver Medal, J. O. Tunstall; Second Silver Medals (equal), C. H. Fernau and J. P. Parkinson; Junior Class, Silver Medal, G. B. M. White. Medicine: Gold Medal, F. W. Burton; Silver Medals (equal), H. H. Brown, S. E. Holder, and W. Pernewan. Surgery: Gold Medal, R. Johnson; Silver Medal, E. H. Thane. —*Summer Session.* Chemistry: Gold Medal, W. M. A. Eccles; First Silver Medal, T. L. Pennell; Second Silver Medal, H. W. Pictou. Practical Chemistry: Senior Class, Gold Medal, G. E. Rennie; First Silver Medal, J. Wilkie; Second Silver Medal, F. Savory. Organic Chemistry: Silver Medal, T. Baker. *Materia Medica*: Gold Medal, C. W. Jecks; First Silver Medal, E. Duanesly; Second Silver Medal, C. J. Weekes. Midwifery: Senior Class, Gold Medal, E. R.

St. C. Corbin; Silver Medal, E. H. Young; Junior Class, Silver Medal, E. P. France. Pathological Anatomy: Filler Exhibition of £30, H. H. Brown; Silver Medal, S. E. Holder. Physiology: Practical Histology, Gold Medal, C. P. Beadle. Histology: Silver Medal, G. B. M. White. Ophthalmic Medicine and Surgery: Silver Medal, E. R. St. C. Corbin. Hygiene: Silver Medal and Prize, A. Milne Robinson. Clinical Medicine: Fellowes Medals, Gold, E. R. St. C. Corbin; Silver, C. E. Adams; Junior Class, Fellowes Silver Medal, R. W. Young.

WESTMINSTER HOSPITAL.—*Summer Session, 1884.* Botany: Prize, H. Layng; Certificate, C. S. Vines. *Materia Medica*: Prize, G. J. Harris and H. Layng (equal). Histology: Prize, A. H. W. Hunt. Practical Chemistry: Prize, H. Layng; Certificates, A. H. W. Hunt, J. Forster. Pathology: Prize, W. A. Wells. Midwifery: Prize, F. J. Morgan. Forensic Medicine and Toxicology: Prize, F. J. Morgan. —*Winter Session, 1884-85.* Entrance Exhibitions: 1 (Fence, £40 per annum), J. Dickinson; 2 (£40), G. T. James. Treasurers' Prize, for First Winter Subjects (£10 10s), J. R. Plant. President's Prize, for Second Year Subjects (£21), A. H. W. Hunt and W. Powell (equal). Bird Prize (£15), A. S. Gubb. Clinical Medicine, F. J. Morgan. Clinical Surgery, F. J. Morgan. Anatomy, Senior: Certificates, A. H. W. Hunt, W. Powell; Junior: Certificates, F. B. Betts, J. R. Plant. Physiology, Senior: Certificates, W. Powell, A. H. W. Hunt, C. S. Vines; Junior: Certificates, J. R. Plant, G. T. James. Histology: Certificates, W. Powell, A. H. W. Hunt, G. J. Harris. Chemistry: Prize, J. R. Plant. Medicine: Prize, F. J. Morgan; Certificate, A. Hardwicke. Surgery: Prize, F. J. Morgan.

YORKSHIRE COLLEGE: LEEDS SCHOOL OF MEDICINE.—Medicine: Medal, C. W. Turner; Certificate, J. Holt. Surgery: Medal, C. W. Turner; Certificate, J. Holt. Forensic Medicine: Thorp Prize, 1. C. Nicholson; 2. A. S. Barling; 3. H. Herbert. Anatomy, Senior: Medal, H. J. Roper; Certificate, R. G. A. Moynihan; Junior: Medal, A. Sykes; Certificates, W. R. Naylor, J. Wright. Physiology, Senior: Medal, R. G. A. Moynihan; Certificates, H. Gott and J. E. Wood; Junior: Medal, J. Wright; Certificate, W. R. Naylor. Pathology: Medal, C. W. Turner; Certificate, H. R. Smith. Botany: Certificate, J. E. Briscoe. Chemistry: Certificate, J. E. Briscoe. Practical Chemistry: Certificate, J. E. Briscoe. Midwifery: Medal, H. J. Roper; Certificate, W. H. Helm. *Materia Medica*: Medal, T. H. Harrison; Certificate, R. G. Moynihan. Hygiene: Thorp Prize (£25), H. Gott and H. Herbert (equal). Diseases of Women: Prize, W. H. Helm.

UNIVERSITY COLLEGE, BRISTOL: MEDICAL SCHOOL.—*Summer Session.* Practical Chemistry: Prize, H. Hamilton; Certificates, T. M. Stiles, B. R. T. Trevelyan, H. F. Devis and C. Meaden (equal), F. Calder, J. H. Fardon, H. J. Thomas, B. Hamilton, F. Lacey, J. Smith. Practical Physiology and Histology: Prize, F. Lacey; Certificates, R. C. Richards, J. H. Fardon, J. Smith, T. M. Stiles, W. E. Stevens. Botany: Prize, T. M. Stiles; Lecturer's Prize, H. J. Thomas; Certificates, F. Calder and F. Lacey. *Materia Medica* and Therapeutics: Prize, J. H. Fardon; Lecturer's Prize, H. Hamilton; Certificates, B. Hamilton, F. Calder, B. R. T. Trevelyan, F. Lacey. Obstetric Medicine: Prize, H. A. Burleigh; Certificates, H. A. Spencer, F. F. Jones, W. C. Swayne. Practical Surgery: Prize, F. F. Jones; Certificates, H. F. Semple, A. Downes, H. A. Burleigh. Medical Jurisprudence: Prize, A. J. Tomkins and C. J. S. Shaw. —*Winter Session.* —Anatomy and Physiology, Junior Class: Prize, S. W. Morgan. Junior Class of Anatomy: Certificates, H. F. Mole, W. Molesworth, H. L. Ewens. Junior Class of Physiology: Certificates, G. H. Barker, J. T. Grey, W. Molesworth, H. Hill. Senior Class of Anatomy: Prize, T. M. Stiles; Certificates, F. Lacey, J. H. Fardon, B. Hamilton, F. Calder, B. R. T. Trevelyan. Senior Class of Physiology: Prize, T. M. Stiles; Certificates, F. Lacey, B. R. T. Trevelyan, F. Calder, B. Hamilton, J. H. Fardon, W. E. Stevens. Practical Anatomy: Prize, F. Lacey; Prosector's Certificates, J. H. Fardon, F. Lacey, and T. M. Stiles (equal). Chemistry: Prize, C. Meaden; Certificates, H. Hill, J. S. Griffiths. Medicine: Prize, W. C. Swayne; Certificates, A. Leche, H. I. Pocock, H. F. Semple, W. M. Barclay, R. F. W. Tucker. Surgery: Prize, H. F. Semple and W. C. Swayne (equal); Certificates, C. E. S. Flemming, W. M. Barclay, A. Leche, A. H. Joseph. —BRISTOL ROYAL INFIRMARY: Supple's Medical Prize: J. E. Trask. Supple's Surgical Prize: C. E. S. Flemming; Second Prize, R. J. Marks. Clarke's Prize: H. F. Semple. Pathological Prizes: C. E. S. Flemming, J. E. Trask. Tibbitts' Memorial Prize: W. C. Lysaght. Crosby Leonard Prize: J. E. Trask. —BRISTOL GENERAL HOSPITAL: Martyn Memorial Entrance Scholarship: W. H. Ware. Clark Scholarship: W. M. Barclay. Sanders Scholarship: A. N. Little and J. B. Webb (equal). Lady Habfield Prize: J. B. Webb.

UNIVERSITY COLLEGE, LIVERPOOL: ROYAL INFIRMARY SCHOOL OF MEDICINE.—*Winter Session, 1884-85.* Lyon Jones Scholarships: A. A. Kanthack and T. J. Sweeny. Derby Exhibition: W. G. Moore. Third and Fourth Year Subjects: Medicine: Silver Medal, B. Sumner; Certificates, C. Barlow and W. G. Moore (equal). Surgery: Silver Medal, E. Buxton; Certificates, 1. W. T. Thomas, 2. F. Tyndall, 3. B. Sumner. Pathology: Silver Medal, W. T. Thomas; Certificate, C. L. Warke. Obstetrics: Silver Medal, W. T. Thomas; Certificates, W. J. Neale and C. L. Warke (equal). Second Year Subjects: Advanced Anatomy and Physiology: Torr Gold Medal, G. W. Chaster; Bronze Medal, W. E. Livsey; Certificates, 1. N. C. Sclater, 2. F. Kerans, 3. J. W. Shantun. First Year Subjects: Elementary Anatomy and Physiology and Chemistry: High Gold Medal, E. Hale; Bronze Medal, G. M. Arkle; Certificates, 1. J. Gould, 2. P. E. Davies, 3. H. A. Burrows. —*Summer Session, 1885.* Forensic Medicine: Silver Medal, W. T. Thomas; Certificate, C. L. Warke. *Materia Medica*: Silver Medal, J. H. Abram; Certificates, 1. F. Kerans; 2. — Thelwall and — Shaw (equal). Practical Chemistry: Silver Medal, E. G. B. Starkie; Certificates, 1. J. Teare, 2. P. Davis. Botany: Silver Medal, J. Teare; Certificates, 1. H. W. Fisher, 2. W. R. Appleyard. Histology: Prizes, 1. G. W. Chaster, 2. — Molyneux and W. E. Livsey (equal). Students' Debating Society: Prizes for Essay: 1. H. A. Burrows; 2. — Ackerley; 3. N. C. Sclater. Prizes for Debating: 1. J. H. Lightbody; 2. A. A. Kanthack; Prize for Specimens: G. W. Chaster. Prize for Cases: — Leigh.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—*Summer Session, 1884.* Botany: Medal and First Certificate, G. Metcalfe. Practical Chemistry: Medal and First Certificate, J. Beadle; Certificates, 2. J. W. McGregor; 3. M. M. Bowlan and T. M. Kinnister (equal). Practical Physiology: Medal and First Certificate, W. H. G. Williams; First Certificate, J. W. Leech. *Materia Medica*: Medal and First Certificate, M. M. Bowlan; Certificates, 2. J. Beadle, 3. J. W. McGregor. Midwifery: Medal and Certificate, A. F. Bradbury. Medical Jurisprudence: Medal and First Certificate, A. J. H. Montague and W. J. Ruddock (equal); Certificates, 2. G. W. Johnstone. Therapeutics: Medal and First Certificate, J. W. Dalgleish; Certificate, 2. W. J. Ruddock. Pathology: Medal and First Certificate, F. Proud; Certificates, 2. J. E. Pantou.

and J. I. W. Stevens (equal).—*Winter Session, 1884-1885*: Medicine: Medals and First Certificate, H. T. Platt. Surgery: Medals and First Certificate, H. T. Platt. Certificate, 2. F. Proud. Public Health: Medals and First Certificate, J. P. Williams-Freeman; Certificate, 2. J. Pantou. Anatomy: Senior Class: Medals and First Certificate, L. A. Buine; Certificate, 2. W. H. G. Williams; Junior Class: Medals and First Certificate, W. A. Rudd; Certificates, 2. A. E. Cope and W. J. Stephens (equal). Physiology: Senior Class: Medals and First Certificate, M. M. Bowlan; Certificates, 2. W. H. G. Williams; 3. J. W. Leech; Junior Class: Medals and First Certificate, H. J. Parry; Certificates, 2. A. E. Cope; 3. G. Gauthby and H. McLagan (equal). Dissection: Medals and First Certificate, T. M. Kimpster; Certificates, 2. M. M. Bowlan and W. R. Shortt (equal). University Scholar, 1884: A. E. Cope. Tulloch Scholar, 1884: A. F. Bradbury. Charlton Scholars: 1884, J. M. Lazenby; 1885, H. T. Platt.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—*Summer Session, 1884*: Forensic Medicine: First Prize, A. R. Owst; Second Prize, R. H. Parry; Certificates, A. E. Thorpe, R. Morgan. Midwifery: First Prize, R. H. Parry; Second Prize, R. Morgan; Third Prize, J. Jones; Certificates, A. R. Owst, W. Valentine. Pathology: Systematic Class, First Prize, J. T. Neech; Second Prize, J. H. Owen; Practical Class, First Prize, R. H. Parry; Second Prize, J. H. Owen; Certificates, R. Morgan and R. H. Parry (equal), J. T. Neech.—*Winter Session, 1884-85*: Chemical Department: Chemical Division, First Prize, J. H. Miller; Certificates, J. W. Lay, T. M' Cubbin, W. M'Leod, A. J. Harwood; Medical Division, First Prize, R. C. Wakefield; Second Prize, W. J. France; Certificates, J. T. Wilson, J. L. Wilson, A. M'Donald, R. W. Roberts. Anatomy: Senior Division: Prize, J. Beadle; Certificates (in order of merit), J. O. Jones, G. Evans, J. R. Lloyd Jones, F. A. Elkins, E. Brooks. Junior Division: Prize, R. C. Wakefield; Certificates (in order of merit), W. R. Walker, W. J. France, J. W. Lax. Practical Anatomy: Certificates (in alphabetical order): Senior Division, J. Beadle, E. Brooks, G. Evans, A. J. Harwood, H. Owen, J. O. Jones, J. R. L. Jones, T. C. Jones; Junior Division, W. J. France, J. W. Lax, A. Macdonald, R. W. Roberts, R. C. Wakefield, W. R. Walker, R. P. Williams. Physiology: First Prize, R. C. Wakefield; Second Prize, J. R. L. Jones; Certificates, J. O. Jones, F. A. Elkins, R. O. Willis. Surgery: Gold Medals, F. Wilson, R. H. Parry; Certificates, F. W. Ord, A. W. White, W. Valentine. Medicine: Prize, F. Wilson; Certificate, J. Thomas. Materia Medica: First Prize, R. H. Parry; Second Prize, J. S. Sergeant; Certificates, T. Jones, E. Brooks, J. O. Jones.

CARMICHAEL COLLEGE OF MEDICINE.—Carmichael Scholarship: T. E. Dunne. Surgery: J. A. Whitty. Medicine: J. Toppin. Botany and Zoology: A. Dowling. Materia Medica: J. R. Meek. Medical Jurisprudence: W. Abernethy. Practical Chemistry: L. H. Ford; Extra, E. la Roche Souvestre. Practical Histology: S. M. Cox and B. Hunt (equal). Anatomy (for First Year Students): C. D'Alton, C. W. Healey, L. H. Ford. Junior Anatomy: G. J. Lough, J. Stewart, S. M. Cox. Senior Anatomy: E. Corcoran. Junior Dissections: T. E. Dunne, G. J. Lough, J. J. M'Naboe. Senior Dissections: A. Clutterbuck. Chemistry: L. H. Ford, C. W. Healey, J. B. Spearing. Special Prize: J. J. M'Naboe and J. Behane. Mayne Scholarship: E. Corcoran.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—Rymer Medal: Not awarded. Dental Anatomy: Prize, G. Lombardi; Certificate, E. G. Carter. Dental Mechanics: Prize, A. C. Poole; Certificate, R. J. Lovitt. Dental Surgery: Prize, B. Douthwaite; Certificate, C. E. Tucker. Metallurgy: Prize, G. Lombardi; Certificate, J. Rymer. Operative Dental Surgery: Prize, E. C. Perks; Certificate, W. J. Fisk. Students' Society (Paper): F. Wright; (Communications), F. Wright.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 14th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

161A, Strand, September 17th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are

empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person necessary.

PURPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTemperance.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHthisis.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the *Honorary Local Secretaries*, or to the *Secretary of the Collective Investigation Committee*, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at the Cock Hotel, Stony Stratford, on Tuesday, October 6th, at 2 o'clock p.m. The President kindly invites the members to luncheon at his house at 1 o'clock. Gentlemen wishing to read papers or cases are requested to communicate without delay with the undersigned.—CHARLES J. EVANS, Honorary Secretary, Northampton.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the President-elect, Mr. J. T. Hartill (Willenhall).—VINCENT JACKSON, General Secretary.—Wolverhampton, September 11th, 1885.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the White Hart Hotel, Reigate, on Thursday, October 8th, at 4 p.m.; Dr. Holman, of Reigate, in the chair. The following papers, etc., have been promised. Dr. Holman (Chairman): A Case of Cystinuria. Dr. Milner Fothergill: Our Means of Affecting Arterial Tension. Mr. F. B. Hallows: A Case of Passage of a Large Number of Gallstones. Mr. Hutchins will report: "A Case of Calculus Vesicæ, with clinical remarks." Dr. Stone: A paper. Dinner will be served at 6 p.m. precisely; charge, 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to be present, and to introduce professional friends.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

OXFORD AND DISTRICT BRANCH.—A meeting of this Branch will be held, in Oxford, on Wednesday, October 28th. Members who wish to communicate papers are requested to inform one of the secretaries (W. L. MORGAN, Esq., 42, Broad Street; Dr. DARBISHIRE, 60, High Street, Oxford), on or before October 19th.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 22nd, at 5 o'clock. Dinner at 5.30 o'clock, punctually. Subject for discussion: The Treatment of Obstinate Constipation. Mr. Frederick Treves will open the discussion. Gentlemen wishing to read papers or cases are requested to send notice to W. M. KELLY, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

The summer meeting was held at Staplehurst on Thursday, September 24th; Dr. JOYCE, of Cranbrook, in the chair.

Election of Chairman.—Mr. Whitehead Reid, of Canterbury, was chosen as chairman for the next meeting at Canterbury in November.

The Treatment of Miscarriages.—This paper was read by Dr. EDIS (London). He avoided using the term abortion, as it tended to convey the idea of criminal practice. His remarks were chiefly directed to the management of incomplete expulsion of the ovum, more especially about the third or fourth month. It was in these cases that the primary danger of severe hæmorrhage, and subsequently of septicæmia, occurred. He urged the advisability of dilating the cervix uteri, should that be requisite, in all cases where hæmorrhage persisted, or where the discharges became offensive, irrigating the uterine cavity with hot iodised water, and then, either by means of the finger or ovum-forceps, carefully exploring the interior of the uterus, and removing any portions of retained placental or other tissue. The instruments usually employed by him in carrying out these measures were shown, and their action explained. In many instances, met with in everyday practice, of metrorrhagia, it would frequently be found, on careful inquiry, that a period or two had been missed prior to the hæmorrhage commencing, and that a miscarriage at some early date took place, often unsuspected by the patient or practitioner. Whenever there was a persistent elevation of temperature or sanguineous discharge, not explained by the presence of a hæmatocèle or other similar condition, dilatation and exploration ought always to be resorted to.—Dr. Joyce, Mr. Worship, Mr. Rigden, Mr. Monckton, and Mr. Reid took part in the discussion, and Dr. Edis replied.

Puerperal Phlegmasia.—Dr. JOYCE read this paper, which dealt more especially on the pneumonias and pleuritis that occurred during the puerperal period, and are associated with offensive lochial discharge. It was pointed out that such inflammations were generally but local expressions of a general toxæmic condition, while the starting point was the uterus. It was also shown that the stress of the septic process sometimes fell on the membranes of the brain, constituting puerperal meningitis, and two cases were cited in support. The pathology and etiology of the process was considered, and its proper treatment by the free use of quinine and careful uterine irrigation insisted on.—Dr. Edis, Dr. Gogarty, and Dr. Bowles spoke, and the Chairman afterwards replied.

Case of Cherry-stone in Bronchus.—Dr. F. EASTES read this case. On May 27th, 1885, a boy, J. F., aged 2 years and 8 months, was suddenly seized with dyspnoea when passing the house. Dr. Eastes saw him almost black in the face, and gasping for breath at rather long intervals, very little air entering the chest. On passing a finger into his mouth no foreign body could be felt, and the vocal cords were reached. After this he breathed freely, and regained consciousness. A whistling noise could now be heard with the stethoscope placed over the left bronchus. He was carried to the hospital, and there his body was inverted and shaken; an emetic was then administered, and bits of cherries and radishes were vomited. Special instruments were telegraphed for, and tracheotomy was performed as low as possible on May 29th, thirty-seven hours after the sudden attack of dyspnoea. Nothing could be found down either bronchus. The patient was inverted again and shaken. Half an hour after the completion of the operation, he died. At the necropsy, the right lung was found to be enormously gorged with blood, the left lung very pale and collapsed. A cherry-stone was firmly impacted in the left bronchus, one inch and a quarter below the bifurcation. The specimen was exhibited with the cherry-stone *in situ*.

Glaucoma.—Dr. TYSON read a paper on a case of acute glaucoma simulating a bilious attack.—Mr. JULER (London) spoke of the importance of diagnosing such a case as the above. Iridectomy should be done in every case except the hæmorrhagic variety. Atropine was most harmful.—Dr. BOWLES mentioned that belladonna, even taken internally, was capable of setting up a glaucomatous attack in a case predisposed.

Dinner.—The members afterwards dined together at the South-Eastern Hotel.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Pathogenic Germs in Healthy Blood.—*The Action of Subnitrate of Bismuth in Dressing Wounds.*—*Tubercular Hypertrophy of the Male Mammary Gland.*—*An Unusual Form of Osteitis.*—*Dysentery at St. Germain-en-Laye.*—*Muscular Atrophy consecutive to Articular Fractures.*—*A Case of Transmitted Phthisis.*—*Pellagra.*

M. CHAUVEAU, at the Grenoble meeting of the Association for the Advancement of Science, exposed some facts which warranted the belief that the blood of healthy people contains pathological germs, which only require favourable conditions to exhibit their properties. M. Verneuil endorsed this view, and observed that, even when in a condition of apparently perfect health, we are, nevertheless, a sort of menagerie or hothouse, containing a mass of germs, which develop when a wound or injury provides them with the opportunity. M. Ollier instanced recurring osteomyelitis as a proof of the truth of MM. Chauveau and Verneuil's theories. Sometimes, after an interval of ten years, osteomyelitis reappears. The microbes remain inert until aroused by a provocative, but the disease reappears each time in a milder form, suggesting that the micro-organism becomes attenuated by remaining in the human organism.

MM. Gosselin and Heret, in a communication to the Académie des Sciences, discussed the action of subnitrate of bismuth as a dressing for wounds. After operating on rabbits and guinea-pigs, the application of this substance arrested the escape of blood between the suture-stitches or into the wound, and immediate reunion was obtained; the subnitrate of bismuth, though it was not a coagulating agent until the nitric acid was freed, parted with its acid when in contact with the wet surface of wounds, and the blood round the severed arteries was coagulated. In addition to this action, it was also an astringent, a germicide, and a sedative. This salt of bismuth was preferable to hydrate of bismuth, which was neither a coagulating agent nor an astringent; it could be used pulverised, or in solution at 1 per 50.

M. Leudet, of Rouen, described, at the Scientific Association at Grenoble, a form of hypertrophy of the mammary gland observed in tuberculous men. This lesion is distinguished from that of tubercular mammary glands by invading the entire glands. It is generally consecutive to other tubercular lesions, those of the lungs and pleura; it is very painful, does not suppurate, and terminates by resolution.

M. A. Poncet de Lyon described, at the same meeting, a form of osteitis, which attacks the coracoid process. This affection occurs during adolescence, before the epiphyses unite to the scapula. The diagnosis is difficult, but may be made by accurately determining the seat of pain. Abscesses form in the subclavicular region. When the entire apophysis is involved, the neighbouring articular surfaces are menaced, and surgical intervention is warranted. M. Poncet has performed resection of the head of the humerus, of the coracoid process, and all the surfaces attacked.

M. Amat has investigated the repeated epidemics of dysentery at St. Germain-en-Laye, and has ascertained that, during the last three years, there has been a yearly increasing epidemic of dysentery, instead of a few sporadic cases. The epidemic appeared during the months of July, August, and September, of 1882-3-4. The soldiers suffered severely, as well as civilians. M. Amat, during his investigation, came to the conclusion that there must be some specific cause for this reappearance of the epidemic. He believes he has found it in the water-supply of St. Germain, which is mainly drawn from wells constructed at Pecq. The water-level rises and falls with that of the Seine; this river is notably impure below Paris. Analyses of the water used for drinking were made at the municipal laboratory of Paris, and it contained a high percentage of organic matter. Before this water was supplied to the barracks, drinking-water was procured from Retz, and was of good quality. Dysentery at that time had not appeared; it was coexistent with the supply of Pecq water. On ascertaining these facts, all drinking-water used by the soldiers was boiled, and the epidemic was suddenly arrested. During August, there were a few cases among the soldiers, who afterwards owned that they had drunk unboiled water.

Muscular atrophy consecutive to articular fractures is the subject of a paper read before the Paris Biological Society by MM. Clado and Duplacy. They have observed generalised muscular atrophy of the portion of the limb above the fracture, and an excessive quantity of fat in the inner perimysium of the atrophied muscles. A histological

examination showed that there were fewer primitive fasciculi, that their striation was modified, the myolemma was wrinkled, and there was considerable proliferation of the nuclei; the primitive fasciculi were invaded by small fatty granulations. In the perimysium, many of the vessels showed signs of endo-arteritis. Most of these vessels were surrounded by a bulky layer of adipose tissue, which enlarged the interfascicular space, which, in volume, equalled the primitive bundle. The intramuscular nerve-filaments were intact.

M. Potain publishes in the *Revue d'Hygiène et de Police Sanitaire*, August 20th, 1885, an interesting case of transmitted phthisis. A wife nursed her husband, who died of phthisis. Before she nursed him, she had been perfectly free from the disease; but she became subsequently tuberculous, and the affection was thoroughly manifest in less than a month. M. Potain considered that it could no longer be doubted that phthisis was contagious.

M. Fauvelle de Laon, in a communication made at the Grenoble Congress, stated that he had studied pellagra during twenty years, at the poor-house (Dépôt de Mendicité), in the department of Aisne. He believed that pellagra appeared with the spring, developed during the hot weather, and disappeared in the autumn. The succeeding years brought fresh attacks, which always occurred in summer. When death ensued, serious lesions of the nerve-centres and intestinal canal were found. Similar phenomena were observed in parasitic diseases in vegetable life. M. Fauvelle considered that this affection was probably due to the presence of bacteria, which required a special condition of temperature and light in order to develop in the human organism. They died in autumn, and left their spores, which were developed during the following year. M. Leudet had studied pellagra, and believed that M. Fauvelle confounded the pellagra of poverty, or pseudo-pellagra, with the actual pellagra.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Artisans' Dwellings.—*Testimonial to Miss Clugston.*—*Health of the City.*—*Drainage and the Smoke-Test.*—*Patent Medicines.*—*Infirmaries.*—*Students' Union.*

THE question as to whether the municipal authorities are to enter on the scheme of providing dwelling-houses for the artisan class is at present under consideration. Having learnt what has been done by Liverpool in this matter, our Improvement Trust sent a deputation to inquire into the subject and report on what they saw, and, with somewhat unusual promptitude, a very valuable report has been furnished. It describes very fully the policy of the Liverpool Improvement Committee, and the class of houses that they have thought most suitable; and it recommends that Glasgow should follow in their steps, and erect a series of buildings containing accommodation for the labouring classes. If the calculations in the report prove correct (and there seems to be no doubt that they are moderately estimated), this can be done without any call upon the rate-paying public; and the further advantage would accrue, that the large areas of unused ground throughout the city, which have been of recent years cleared of unhealthy habitations, and are the property of the town, might be utilised and made somewhat of a monetary success, instead of being, as they are at present, a heavy burden on the finances of the city. No better scheme could engage the attention of the Town Council than that of providing good house-accommodation for the working classes.

The great services that Miss Clugston has rendered to Glasgow and the West of Scotland, in her untiring zeal and efforts towards the alleviation of human suffering, by the erection of homes for the incurable and the convalescent, is not to be allowed to pass unrecognised, and there is at present on foot a movement to raise a public testimonial for her. There can be no doubt that it will be very cordially responded to by all classes of the community, whose regard and sympathy she has long since won.

The mortality in the city during the past week has been very low, amounting to only 19 per thousand *per annum*, which is below that of the preceding week and of the corresponding week of last year, when the figures were 21 and 24 respectively. Dr. Russell's report for the fortnight ending September 12th states that there was one death from small-pox. This was a sailor, who had contracted the disease in Montreal, and fell sick on the voyage across. No other cases have as yet followed. Of the infectious diseases of children, scarlet fever seems the most prevalent, there being 112 cases at present in Belvidere.

It has been decided that the sanitary staff shall continue to give the ratepayers the use of the smoke-test, for ascertaining the condition of the drainage-system of their houses, whenever formal application is

made. This will, of course, involve considerable yearly expense; and, with the view of lessening this, the rule has been made that the cost of applying the test will be borne by the authorities in cases where the drains and plumber-work are found in good order; but, where defective, the expenses will have to be paid by the proprietors. Judging from the results already obtained, this is a very safe plan to follow, as it seems that, out of 187 tenements to which the test had been applied, 177 were found defective, the defects being chiefly due to imperfect workmanship in the original construction of the drains and their connections, and not merely to unavoidable deterioration.

The question of the sale of patent medicines has recently been taken up by the chemists and druggists here. For long, these proprietary articles have been obtainable at the large wholesale stores and other places, at prices very considerably lower than those charged by the chemists, thereby considerably affecting the sale of them by the latter. At a meeting where the subject was considered, there was a good deal of difference of opinion brought out as to what should be done. Some were in favour of giving up the sale of these medicines altogether, but the course eventually decided on was to sell all patent and proprietary medicines at wholesale prices for cash, thus meeting on their own ground a class of competitors who have really used these medicines as a kind of decoy-line in connection with their other business.

Both of our infirmaries are feeling the dulness of trade and the general depression that pervades all departments of business. There has been considerable falling off in the revenues of each institution, and yet the demands on their resources have not been in any way lessened. The Royal Infirmary has contented itself with an appeal, published in the papers, drawing attention to the unsatisfactory state of its finances; but the Western Infirmary directors have felt that, with no such comfortable sum at their back as the present funded capital of the sister charity, something more practical is needed to arouse the sympathies of the public; and a public meeting is announced, where the matter is to be fully discussed, and suggestions received as to how the present financial difficulties are to be met.

It is likely that, with the commencement of the winter session, more will be heard of the movement for establishing a students' union in connection with the University. It is felt by all, and by none more than the students themselves, that college-life as it at present exists wants something of the social element in it, and that anything which will serve to bring that more into play will be gladly welcomed. It is said that the Senate are not averse to do something on their part to help on this movement, by furnishing a site for a building in the immediate neighbourhood of the College, and on some part of the grounds, where the union might have a local habitation, and carry out its aims and objects for increasing the social comfort of its members.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Mesmerism at the Medical Society.—*Meeting of the Medico-Ethical Society.*—*The Medical Societies.*—*Vacant Chair of Physiology at Owens College.*—*The Small-pox Epidemic.*

THERE has evidently been some misconception with regard to the exhibition of mesmerism which took place some weeks ago at the Medical Society's rooms at Owens College. One of your weekly contemporaries is somewhat astonished that the authorities of Owens College should have lent a hall for such a purpose, and thus have countenanced the "professor's" performance, and, moreover, "would have looked for more considerate reserve among the responsible members of a teaching university." Now, as a matter of fact, the sole responsibility of the "show" rests with the President of the Medical Society, who invited the "professor" to meet the members of the Society at their meeting-room, which happens to be situated within the buildings of Owens College. Whether this was judicious or not may be open to doubt, but it did not in any way commit the authorities of Owens College or Victoria University, their only connection with the affair being that the Medical Society meets within a room in the precincts of the College. The principal gainer by the "show" was the showman himself, and he has not failed to make capital out of so excellent an advertisement. Certainly the "show" was much better suited to the tastes of the occupants of the circus-gallery than to the members of any learned society.

The first meeting of the Medico-Ethical Association this session was held on September 25th, when Dr. Tatham read a paper on the "Relations of Medical Officers of Health to Local Authorities." The

writer strongly advised those who, at the present time, were anxious to become medical officers of health to hesitate before doing so, on account of the uncertain tenure of office, the medical officer being so completely at the mercy of his local authority, the latter too often representing the narrow interest of their own members, rather than the welfare of the community, the life of the conscientious medical officer being often rendered well nigh intolerable by the petty persecutions and carpings of his masters. Dr. Tatham believed that a remedy must be found in a more active interference on the part of the Local Government Board, without whose sanction no medical officer should be dismissed. In the discussion which followed, it was suggested that medical officers of health should, like factory and mining inspectors, be appointed by the Home Office, and be independent of the local authorities.

The opening meeting of the Medical Society takes place on October 7th, to be followed on the 14th by the first meeting of the Pathological Society. This latter society, although very young, has already shown signs of vigorous life, and supplies a want long felt in the district. As already announced in your columns, the Medical Society has established central rooms in George Street, connected by telephone with their headquarters at Owens College. This step has been urged upon the Committee for some time past as a measure of justice, and affecting the convenience of a large body of members who live some distance from the city; but it was only when another society was established with more central rooms that any move was made in this direction. In the meantime, the newly established Central Medical Society has engaged rooms at the Victoria Hotel in Deansgate for their meetings and reading room. They have already about eighty-five members, and their programme for the session will be shortly announced.

The Brackenbury Professorship of Physiology, recently vacated by Dr. Gamgee, will, as advertised in your JOURNAL, be filled up in November. In the meantime, the classes will be carried on by Mr. W. H. Waters, the assistant-professor. The remuneration offered consists of a fixed stipend of £250 *per annum* and two-thirds of the students' fees, a minimum income of £600 being guaranteed. Judging, however, by the past number of students, the professor's income would not much exceed £600 *per annum* at the present time. The professor will be debarred from medical or surgical practice. It need hardly be said that it is a matter of the greatest importance to the College that a man of high standing and attainments should be appointed. Presumably, financial considerations are of paramount importance with the Council; but it certainly savours of a cheese-paring policy to offer so small a remuneration for such an office, on the right performance of the duties of which so much of the credit of the College and future welfare of the students depends. Surely the salary should be more in keeping with the income of the successful physician or surgeon, to attract men who are already known as successful teachers of physiology.

The small-pox epidemic, which began in February of this year, practically came to an end last month, though sporadic cases have been occurring since; but, during the week ending September 26th, no fresh case was reported. The statistics of the whole epidemic are not yet available; but the returns given in the recent report of the Monsall Fever Hospital, which were made up to June 24th, give a good idea of the prevalence and fatality of the epidemic. The greatest number of cases admitted in any month was in April, when 104 cases were admitted, and some anxiety existed as to the course the epidemic was about to take. In all, 300 cases were admitted up to midsummer, by which time the number of cases had much declined. There were 33 deaths, and a mortality of 11.4 per cent. The mortality amongst those returned as "unvaccinated" (22 in 39) amounted to 56.4 per cent.; among those returned as "vaccinated" (11 in 190), 5.7 per cent. A number of cases of varicella, measles, and acne seem to have been sent in as variola. During the year ending at Midsummer, out of a total number of 1,215 patients received, 45 cases of pneumonia were sent in certified as suffering from an infectious disease, and 69 other non-infectious cases. It would be interesting to know the further history.

CROWN PRINCESS OF AUSTRIA HOSPITAL.—Dr. Ignaz Rosanes, formerly operator in Professor Billroth's clinic, has been appointed director of the new Crown Princess Stephens Hospital at Neuberchenfeld, and chief of the surgical department. Dr. Albert Ullrich is to have charge of the medical department.

CHAIRS OF HYGIENE.—Dr. M. Kapustin, privat-docent, has been appointed to the vacant chair of hygiene in the University of Kharkoff. Dr. Max Rubner, assistant to Professor Voit, of Munich, has been appointed to the professorship of hygiene in Marburg, with charge of the new hygienic laboratory.

CORRESPONDENCE.

SHORTENING THE ROUND LIGAMENTS.

SIR,—I have to thank Dr. Duncan for the courtesy and promptitude with which he has favoured me with his reasons for the performance of the round ligament operation in four cases of acute retroflexion with prolapsed tender ovaries lying in Douglas's pouch. I will now tell him why I think he failed.

My own cases of removal of the uterine appendages, and my almost daily studies in the *post mortem* room, have shown me that, in such cases, the ovaries are very often adherent either to the fundus uteri, to the broad ligaments, or to the side of the pelvis, and that it is impossible to pull them into position by means of the round ligaments. After such attempts, they are either left hanging half suspended to the back of the uterus, or they retrovert the edge of the broad ligament, and, in either case, tend almost irresistibly to reproduce the prolapse, not so much by their own dead weight, as by affording a *point d'appui* against which the pressure of the intestines can be exercised in a manner favourable to backward pressure.

I have elsewhere shown that, unless the pelvic partition composed of the uterus, of the broad, and of the round ligaments can be re-erected and maintained without constant tension upon the round ligaments, the operation will fail. Hence, the tendency to retroflexion must be destroyed by as prolonged a use of the stem-pessary as may be necessary, and the ovaries must be raised to their normal position, so that they may not drag back either the uterus or the broad ligaments.

Dr. Duncan says the ovaries in his cases were not adherent, because they went up somewhat with the fundus, and could be pushed up with the finger. This only shows that they were not adherent to Douglas's pouch, and does not affect my argument in the least. If they were adherent anywhere, and it is strange that Dr. Duncan has never told us whether the operation showed if they were so or not, then no amount of glycerine-padding could prevent failure. Dr. Duncan was attempting to stem the force of the intestinal intra-pelvic contents upon the misplaced broad ligaments, ovary, and uterus, by the small round ligaments. This I have again and again shown to be folly. The round ligaments are merely to be used to thoroughly replace the uterus, ovaries, and broad ligaments in their normal position. Beyond an occasional check-action in the future, their work is done. If, on the other hand, the ovaries in Dr. Duncan's cases were absolutely non-adherent, then all I can say is, he has mismanaged his cases. They have failed from a reproduction of retroflexion, caused by the too early removal of the stem-pessaries. This mistake is inexcusable, because I have insisted again and again upon the necessity for thoroughly straightening the uterus in these cases. If the ovaries be non-adherent, they can be pulled up to the internal abdominal ring completely out of the way of the intestine. This is what happened in my case, and probably in the three cases operated on by Dr. Imlach; and, if the same happened in Dr. Duncan's cases, he has no excuse for his failure but his own incompetence to bring them to a successful issue. The light I have thrown upon the after-treatment of retroflexion-cases is sufficiently clear to have enabled him to do so.

I do not recommend the round ligament operation in cases of prolapsed painful ovaries, because it will fail in many owing to adhesion, and because many of the cases are probably more suitable for a more radical operation. If it were thought advisable to attempt to obtain favourable results in such cases, that is quite a different matter, and I would have sympathised with Dr. Duncan's efforts in this direction. But when, through the failure of these doubtful cases, he indirectly throws doubt upon the accuracy of my statements, and charges me with "riding a hobby," the case is altered. My patients are still in evidence, and if Dr. Duncan still doubts, I can prove to him, by producing my patients to him (if he will take the trouble to come here), the permanence of the results in nearly forty cases, most of whom I think I can find. As to my "riding a hobby," I would inform Dr. Duncan that the operation occupies very little of my time, and still less of my thoughts. I look upon it as a safe and efficient treatment for prolapse and backward displacements, and by far the safest and best yet discovered. I perform it, without any doubt or difficulty, in all suitable cases, and I think no more about it, except when compelled to undertake personal warfare in its defence, when it is maligned.

As to mortality, I never said people could not be killed by this operation. If properly performed, it is absolutely devoid of any serious inherent risk. I would be glad to have a publication of all cases as soon as sufficient time has elapsed to render them valuable, but I would like them to be published in a different manner from

that in which Dr. Duncan has published his. If he would kindly set the example, by publishing his cases in detail, telling us how far he pulled out the ligaments, whether the ovaries ascended out of reach of his finger, if the retroflexion was completely rectified by the stem pessary, when the stein was taken out, as well as most other details essential to a scientific appreciation of a case, I would look upon him as a scientific man, and appreciate his attitude to the operation as a scientific one.

What increase of danger would a patent canal of Nuck produce? It is prolonged in front of the round ligament, Dr. Duncan says, and then I could not avoid opening it. Now I do not see why I need open it. The round ligament protrudes from the external inguinal ring, and I only catch it there and pull it out, and it would run from behind the canal of Nuck just as it does from behind the peritoneum. Even suppose I did open this celebrated canal. I would close it immediately; and, as I always take all possible precautions against danger, such as I take in abdominal sections or the radical cure of hernia, I do not see that opening the abdomen should be fatal in the former, whilst uniformly successful in the last and major operation. A number of little trivial verbal differences require to be answered, but are better left to Dr. Duncan to think about. I am afraid I shall not be able to keep the mortality at 2 per cent. if "celebrated surgeons" kill their patients so rapidly. If they would only kill two to every hundred of my operations, I could keep the mortality at, I think, about 2 per cent.; and that was what I meant when I said the operation was not dangerous to life, namely, it is not dangerous in the hands of operators who can perform it properly. Perhaps I may find in the future some circumstances that may produce an unavoidable death, and that is why I think the time has not arrived to warrant us in saying if the operation have any real mortality or not. If Dr. Duncan has anything further to say upon the subject, I would prefer him to say it in a scientific manner and in a scientific form, and leave me out of the question. I have neither time nor inclination to engage in a wordy warfare. The round ligament operation will stand the test of time as well as of opposition, and does not depend, in any way that I can see, upon the success of the ligature of the vertebral artery. The profession will hear the results of the latter operation in due time.—Yours truly,

WILLIAM ALEXANDER.

SIR,—Referring to the present discussion in the BRITISH MEDICAL JOURNAL regarding shortening of the round ligaments of the uterus, an operation which was independently originated and brought before the profession, in 1882, by Dr. Alexander of Liverpool and myself, I may briefly observe that the time has been all too limited to warrant any dogmatic opinion as to its general suitability or permanent efficacy. But, as to its substantial safety in most cases, and its immediate success in many cases, I cordially corroborate Dr. Alexander.

I farther feel constrained to repeat my previous warnings (*Glasgow Medical Journal*, 1882; *Ibid.*, August, 1884) regarding certain difficulties in the operation, and to protest against the very wild assertion that it is an operation that "the veriest tyro possessing some anatomical knowledge [the italics are mine] and any operative skill cannot fail to accomplish." To find the round ligaments—"ligaments" only so called and certainly *sui generis*—in the living body, where they are sparsely diffused and attached over a locality abounding in tough areolar and adipose tissue, and infiltrated moreover with fresh flowing blood, is a task that I have seen to seriously embarrass men whose general knowledge, nerve, and operative skill had long removed them from the rank of "tyros," and induce them to seek the aid that special experience gives; and in the dissecting-room I am ever and again having difficulty in teaching "tyros" to recognise the uterine round ligaments, and to discriminate the structure and appearances of these conventionally designated ligaments, and the forms and tissue of such true ligaments as are familiar to tyros; for example, the tendo Achillis, or long head of the biceps.

I fear very much that an operation, so safe in proper hands guided by brains, will be seriously discredited if tyros are encouraged to approach it with a light heart and inspired by assurances that with "some anatomical knowledge and any operative skill" they cannot fail.

So much for the facility of its performance. With regard to its safety, this much may be said, that it does not necessarily involve deep-seated structures or important organs, and is not performed on tissues in a state of actual or incipient disease, but on healthy tissue, untampered with by previous irritating manipulations. There can, therefore, be urged no *primâ facie* serious objection to the operation, either with reference to the region implicated, or to the structures exposed by the surgeon's knife.

No doubt there is risk in all operations; but, in spite of the grop-

ing, teasing, and handling that a tyro is sure to inflict, and that may possibly on some occasions take place even under skilled hands, it is surprising how rarely either peritonitis or serious constitutional disturbance occurs. This great freedom from complications is explicable, in my opinion, partly by the resistance offered by the peritoneum against inflammation approaching its outer surface, and partly by the fact that occasionally the tyro, after making a shallow opening, that is scarcely within measurable distance of the peritoneum, and hauling at something lying superficially, and supposed by him to be ligamentous, and securing this something, does not pursue his exploration, but closes up the wound, rests satisfied, and is thankful.

I know an illustration of the worst consequences following, as well as of difficulties in the operation I have yet experienced, and at the same time of the immediate relief obtained, and of a lasting cure, as demonstrated to the present moment. I refer to one of the cases described by Mr. Miller, Senior Medical Officer, Town's Hospital, Glasgow, and in which he assisted me in the operation, besides conducting the after-treatment.

In this case, operated upon March 20th, 1882, I peeled off the vaginal process of peritoneum which followed and enclosed the ligaments, and secured the latter by passing catgut sutures through the peritoneal sheath, and through the ligaments. Erysipelas of the wound supervened, but the suppurative process, which was copious during the first week, diminished rapidly, and finally ceased within the first week of May, when complete dry union was accomplished. At no time, however, was the condition alarming, while the relief was immediate, and the recovery, on the whole, excellent. The patient's previous condition was one of great and continuous distress, and of complete disablement for active exertion, or for her accustomed employment. And having examined her within the last few days—being an interval of two and a half years from the date of the operation—I find that the uterus has retained its natural position—no inconvenience of any kind has been experienced. She has continued to be industriously occupied, and, in short, the cure has been perfect.

I have not seen the slightest tendency to peritonitis in any of my own cases; and, if the operation is performed with due heed to the precautions I have elsewhere detailed, I fully agree with Dr. Alexander that it is practically void of danger; and I think it likely that, wherever danger does occur, there is much probability that it will be due to the operator having been taught that any tyro is competent, if he only possess some smattering of anatomical knowledge, or of operative skill.—I am, etc.,

JAMES A. ADAMS, M.D.,
Assistant-Surgeon to the Royal Infirmary, and Demonstrator of Anatomy in the University, Glasgow.

HEREDITY AND MATERNAL IMPRESSIONS IN RELATION TO CONGENITAL DEFORMITIES.

SIR,—The influence of heredity in the production of deformities is doubtless a subject of much importance, and one in which considerable interest has been shown. Besides the scientific aspect of the question, there is a practical one which is probably worthy of consideration, and it is this. In a case of monstrosity, or serious deformity at birth, the parents are naturally anxious to be informed as to the likelihood of its recurrence in the event of other children being born to them.

Recorded instances of hereditary influence are numerous, but yet are insufficient to enable us to form a sufficiently accurate opinion on the subject. To supply this want, I would suggest that every medical practitioner who meets with a case of monstrosity should inquire into the family-history in regard to such, or other, abnormality, and publish the result.

The subject is as yet involved in much obscurity, although some very interesting facts regarding it are known. These facts might be, to some extent at least, elucidated by further observations, and thus light might be thrown upon the problem of the causation of deformity.

Another supposed cause is perhaps worth consideration; I refer to the influence of maternal impressions. Cases illustrating this view of the causation of deformities and monstrosities are, from time to time, recorded in the medical journals, and the belief in such an influence is by no means rare. Scientific reasons have been given to show the probable fallacy of these views; but in the minds of practical men facts are very stubborn things, and a few well authenticated instances of the supposed influence of maternal impressions in this respect go far to outbalance, in the minds of many men, all the theoretical and scientific evidence that has been adduced in opposition.

The question is perhaps of sufficient interest and practical importance to render a solution of it worth some trouble.

There is, I think, but one way to determine this matter definitely, and it is as follows. Let every medical man who is interested in the subject collect evidence in the following manner. Let him ask every woman whom he is about to deliver if she has formed any impression regarding the condition of her coming child, and, when the child is born, let him note and record its condition. Whether the mother has formed an impression or not, the result should be recorded.

I would include all monstrosities, defects, excess of parts, nævus, large moles, hairy growths in unusual places, hare-lip, and, in fact, all visible abnormalities.

I shall personally be very glad to receive communications upon the subject, both as to heredity and maternal impressions, from those who are willing to take part in the inquiry; and I will undertake to publish an analysis of such communications, with the names of those who furnish records. Any well authenticated case would be acceptable, but evidence collected in the manner suggested would be the more valuable.—I am, etc.,

NOBLE SMITH,

Surgeon to the All Saints' Children's Hospital.

Queen Anne Street, London, W.

MEDICAL WOMEN FOR INDIA.

SIR,—I notice in the letter by Surgeon-General MacLean, on medical women for India, that the name of the lady who has just taken an appointment at Lahore is spelt incorrectly. It is Miss Elizabeth Beilby, M.D. Bern, who has gone to India to take charge of a hospital for women. When this lady left India in 1881, in order to resume her studies at the London School of Medicine for Women, the Maharanee of Punna sent a touching message by her to the Queen, asking her to send medical women to India, in order to relieve the sufferings of Indian women.—I remain, sir, yours truly,

ISABEL THORNE.

ELECTROLYSIS IN STRICTURE OF THE URETHRA.

SIR,—In the JOURNAL of September 19th, it is stated that stricture of the urethra has been successfully treated with electrolysis, at St. Bartholomew's Hospital, by Mr. Bruce Clarke and Dr. Steavenson; and that this is "a plan which has been adopted and followed in America for some years." Allow me to say that the merit of having proposed an intelligible method of using electrolysis, in such cases, is not due to any American surgeon, but to Messrs. Mallez and Tripiet, of Paris, whose pamphlet, *De la Guérison durable des Rétrécissements de l'Urethre par la Galvano-caustique Chimique*, appeared in 1867 (second edition, 1870). A full description of this method, with some of the results obtained by it, is given in my treatise on *Medical Electricity*, third edition, 1873, p. 658. In my essay "On the Electrolytic Treatment of Tumours and other Surgical Diseases (London, 1867)," I recommended a similar method for stricture of the œsophagus; and I subsequently endeavoured to induce obstetric physicians to use electrolysis in dysmenorrhœa owing to stenosis of the os uteri. Remembering the professional apathy on the subject which existed at the time I first proposed the use of electrolysis to surgeons in this country, I am glad to find that the subject is now taken up at the schools, and trust that it will be thoroughly worked out there.—I am, etc.,

JULIUS ALTHAUS, M.D.

48, Harley Street, Cavendish Square.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES FOR MEDICAL WITNESSES.

SIR,—I should esteem it a favour if you would assist me, with your advice, on the following case. One Monday in July, I received a subpoena, summoning me to attend at the assize court on the following (Tuesday) morning, at 10 o'clock, and give evidence, in a trial for damages done to the plaintiff through the alleged negligence of the defendant's workman, whereby he fell into a manhole. I attended on Tuesday, according to the summons, and, on the advice of the plaintiff's solicitor, every day after until Saturday (inclusive), when our case came on for hearing, and ended in a verdict for the plaintiff. Some little time after this, I received a note from the solicitor, stating that, if I call at his office in passing, he will pay me the amount of my bill for medical attendance, together with the fees for attendance at court. I accordingly do so, and am astonished to find he has paid the amount of account over to the plaintiff (a poor man), and offers me, for attending five days at court, and giving evidence, only two guineas (for the two last days, during which the civil cases were taken, he explains). This large amount I declined to accept until I had ascertained further about the matter, as the solicitor promised me, before the trial, three guineas a day.

Is he justified in only paying me for the two last days when my subpoena dates back five days, or can I claim for every day from date of subpoena until conclusion of the case; and is not the minimum fee for medical witnesses, in civil cases, two guineas a day?

I ought to explain that the reason the solicitor gives for offering me a guinea a day for the last two days is, that the judge, in opening court on Tuesday

morning, stated that no civil case would be taken until Friday; if this were so, not only did not the witnesses know, but the solicitor himself was not aware of it, as each day, when I saw him, he was most anxious that I should come down, lest the case should come off during my absence. Again, supposing they can deduct for the days before the civil cases came on, surely we can claim for the Tuesday, the day on which the statement is alleged to be made by the judge, and the Friday and Saturday.

If you would kindly tell me whether I am right in my surmises, and how to act in the matter, you will greatly oblige me. Apologising for taking up so much of your valuable time, I am, dear sir, yours faithfully,

251, Shields Road, Newcastle-on-Tyne.

G. A. WELCH.

* * * You are entitled to a fee for each day on which you were kept in attendance at the court. If the solicitor kept you unnecessarily there, he must pay you, even though he cannot recover the amount from his client. Your best course will be to sue him in the county court for the amount of fees he promised to pay; as, if there were a promise, no question of scale will arise.

MEDICAL ETIQUETTE.

A CONSTANT READER.—A careful perusal of A.'s communication (the tone of which we think is to be regretted) leaves our published opinion, on the several points, unchanged; moreover, though A. himself may have considered it "totally unnecessary to have a consultation with B.," we hold the opinion that, even under the circumstances alluded to, he should not have ignored the expressed wish of the father of his patient, but have at once courteously acceded thereto.

NAVAL AND MILITARY MEDICAL SERVICES.

HONOURS AND REWARDS FOR THE EGYPTIAN EXPEDITIONARY FORCES.

THE dissatisfaction felt and expressed by large numbers of the officers and men of the forces lately engaged in Egypt, at the recent distribution of honours and rewards, is entertained, we regret to know, as keenly by the medical officers as by any other section of the expedition. It is generally felt that there have been far too many instances of disregarded merit; and it is hoped that the authorities, whilst yet there is time, may have the grace to issue a supplementary *Gazette*, and redress therein the grievance which now lies rankling.

It appears that lists were sent to Viscount Wolsley by the heads of the various corps and departments, containing the names of officers, combatant and medical, for "mention in despatches;" and that in several instances the names were arbitrarily, as it is maintained, struck out when his lordship's despatch was published. As the Nile expedition lasted nine months, and the hardships and privations undergone by all the members of the force were severe, whilst the Suakin forces were engaged for half that time, it seems but right that the honours should be doled out in no grudging spirit by the country to those who encountered such perils and discomforts on behalf of the fatherland. The medical officers, who toiled very hard to reverse the bad impression made upon the public by the complaints which were rife after Tel-el-Kebir in 1882, feel that they have been hardly used in not seeing their names published in these despatches, when they were sent in to the Horse Guards for such mention. And, indeed, it may seem to outsiders a trivial affair: but it is no small grievance of which they complain. Having earned the approval of their own chiefs, they could not expect less than the honourable satisfaction of a "mention in despatches," which, with all officers, is a much coveted though costless distinction. It should not be forgotten that the medical work on the Nile was highly eulogised by Lord Wolsley and all his generals, as they actually saw it being conducted. How different would have been the conduct of the authorities, if the Medical Department had failed or broken down! There is still time to make some amends for the slight passed upon the medical officers, whose grievances it is our province to submit, with all deference, to the responsible authorities. And we would urge that, for the sake of the honour and popularity of the services, to say nothing of the simple justice of the proposal, the original list of names should be published as sent in. This act of reparation, we trust, may not be long delayed.

MILITARY TITLES FOR ARMY MEDICAL OFFICERS.

SIR,—Not long since, military titles were confined to officers having the command of troops. Of late, their use has been extended, and now embraces the civil officers entrusted with the duties of the pay department, who hold no military command, and those concerned in the custody and transport of stores, and the purveying of food-supplies, and who do hold military command in their own corps. Two classes of officers alone remain without military titles, chaplains and medical officers. Concerning the ministers of religion, no question is likely to arise, but it is manifest that medical officers possess all the qualifications needful for distinction by military titles. They are in command of their own corps, and in charge of stores. Under existing regulations, every medical officer in charge of a station-hospital is required to devote a portion of his time to inspection of the articles of hospital-equipment, for which he is responsible; such as brushes, slippers, crockery and cooking utensils, and the verification of the amount of supplies, such as tea, sugar, and barley, etc.

Whether it be deemed expedient or not, it seems inevitable, therefore, that medical officers should be designated by military titles, now that they are extended to officers performing analogous duties, but who are not brought into the close contact with troops required by the functions of the members of the Army Medical Staff.—I am, sir, your obedient servant,
G. N. S.

BREVET PROMOTIONS FOR THE ARMY MEDICAL SERVICE.

SIR,—In the future reorganisation of the Medical Staff, I would suggest the introduction of some system, such as the above, as would do away with the glaring anomaly of giving substantive promotions for service in the field, and so punishing severely another set of officers who have done equally good work. There is a strong feeling in favour of this reform, and a still stronger against the injustice of the present mode of giving rewards. No one objects to the latter when well earned, but to the method at present in force. This has been a long standing grievance, and the time has come when it should be remedied.—I am, etc.,
A. M. S.

NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty during the past week: N. F. CONNOLLY, Fleet-Surgeon, to the *President*, additional; H. J. MADDERS, M.D., Staff Surgeon, to the *President*, additional; H. D. STANISTREET, Fleet-Surgeon, to the *St. Vincent*; JAMES BRADLEY, Fleet-Surgeon, to the *Jumna*; GEORGE KELL, Staff-Surgeon, to the *Brilliant*, for temporary service; A. G. DELMEGE, Staff-Surgeon, to Portsmouth Dockyard; SOLOMON KELLETT, Staff-Surgeon, to the *Palorous*; W. R. WHITE, Staff-Surgeon, to the *Sylvia*.

ARMY MEDICAL SERVICE.

Mr. WILLIAM McALISTER, M.B., has been appointed Acting-Surgeon to the 1st Ayrshire Volunteers.

Surgeon W. E. R. WOOD has resigned his commission in the 1st London Volunteers (City of London Rifle Volunteer Brigade), which he joined on October 12th, 1878. Acting-Surgeon J. J. GAWITH has been appointed Surgeon in his stead.

Brigade-Surgeon S. FULLER, and Surgeon-Major F. FALWASSER, have rejoined at Aldershot, from leave of absence.

INDIAN MEDICAL SERVICE.

The notification appointing Surgeon G. S. ROBERTSON, Bengal Establishment, Civil Surgeon, Balraich, to officiate as Superintendent, Central Prison, Lucknow, during the absence, on privilege leave, of Surgeon-Major Holmes, is cancelled.

The notification appointing Surgeon-Major C. CAMERON, Bengal Establishment, Civil Surgeon, Gonda, to be in Visiting Medical Charge of Balraich, in addition to his own duties, during the absence on deputation of Surgeon G. S. ROBERTSON, is cancelled.

Surgeon T. H. SWEENEY, Bengal Establishment, in medical charge of Azingurh, is appointed a Deputy Sanitary Commissioner, in succession to Surgeon-Major G. Grant, transferred to the Medical Department.

Surgeon-Major G. GRANT, Bengal Establishment, Deputy Sanitary Commissioner, 1st grade, to be a Civil Surgeon of the 2nd class (grade station Alighurh), and to assume charge of the Civil Medical Duties of Mainpuri.

Surgeon D. M. JACK, Bengal Establishment, whose services have been placed permanently at the disposal of the Bengal Government, is appointed a Civil Surgeon of the 2nd class, and to remain in charge of the Civil Medical Duties of Sultanpore.

Surgeon J. SYKES, Bengal Establishment, Officiating Superintendent at the Central Prison at Allahabad, in being relieved by Surgeon-Major G. C. Hall, is transferred to Lucknow, in the same capacity.

Surgeon-Major H. P. DRUMMOCK, Bombay Establishment, is directed to act as Civil Surgeon at Kurrachee, during the absence of Surgeon-Major J. F. Keith, M.B.

Surgeon R. PEMBERTON, Madras Establishment, is appointed Civil Surgeon of Vellore.

Surgeon M. B. BRAGANZA, Bombay Establishment, on expiration of leave, is transferred to general duty, Presidency Circle.

The services of Surgeon D. ST. J. D. GRANT, Bengal Establishment, are temporarily placed at the disposal of the Government of the Punjab.

Surgeon G. A. EMERSON, Bengal Establishment, at present on field service in Egypt, is appointed to the Medical Charge of the 9th Bengal Cavalry, vice Surgeon-Major G. Hutcheson, appointed Medical Storekeeper at Meeran Meer.

Surgeon H. HENDLEY, Bengal Establishment, is appointed to the Officiating Medical Charge of the 13th Bengal Lancers, vice Surgeon W. Conry, who has been granted leave.

Surgeon H. C. HUDSON, Bengal Establishment, is appointed Officiating Medical Officer to the 7th Native Infantry, vice Surgeon C. H. Beatson, who has been granted leave.

The undermentioned gentlemen have obtained leave of absence for the periods specified: Brigade-Surgeon A. H. HILSON, Bengal Establishment, for 190 days, on private affairs; Surgeon C. W. S. DEAKIN, M.B., Bengal Establishment, for three months, on medical certificate.

Surgeon-Major G. W. R. HAY, M.D., Bombay Establishment, Port Surgeon at Aden, is appointed to officiate as Examiner of Medical Fund Accounts, Bombay, vice Brigade-Surgeon W. E. Cates, on leave.

Surgeon J. W. EVANS, Madras Establishment, is appointed to the Medical Charge of the 4th Native Infantry (Pioneers), vice Surgeon-Major D. J. McCarthy, M.D.

Surgeons A. J. WILLCOCKS, M.B.; T. MOLONEY, M.D.; C. W. S. DEAKIN; H. K. M'RAY, and F. R. SWAINE, M.B., all of the Bengal Establishment; H. ALLISON, M.D., and T. J. H. WILKINS, of the Madras Establishment; and M. L. BARTHOLOMEW, M.B., of the Bombay Establishment, attained the rank of Surgeon-Major on September 30th.

Brigade-Surgeon W. FARQUHAR, M.D., Madras Establishment, has been promoted to be Deputy Surgeon-General. His appointment to Brigade-Surgeon is to date from April 26th, 1885, not May 16th, as recently announced.

Surgeon-Major J. M'D. HOUTSON, M.D., Madras Establishment, has been promoted to be Brigade-Surgeon.

DR. ALLEN E. DOUGLAS, of Warrenpoint, has been placed on the Commission of the Peace for the County of Down.

OBITUARY.

FRANCIS HARRIS, M.D., F.R.C.P.,

CONSULTING PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

This accomplished physician belonged to that not very numerous class in our profession who have the luck or misfortune to acquire a competence in youth or early middle age, which places them in a position to dispense with the cares and labours of practice. He was the son of Mr. J. Rawlinson Harris, M.P. for the city of London. He completed his general and commenced his professional education at Caius College, Cambridge, taking the degree of B.A. in 1852, M.B. in 1854, and M.D. in 1860. He also studied at St. Bartholomew's Hospital, and worked at Berlin under Professor Virchow. He was appointed Assistant-Physician to the Children's Hospital, Great Ormond Street, and also became Demonstrator of Morbid Anatomy at St. Bartholomew's. His academical education here stood him in good stead, his demonstrations being clear and concise, and his powers of speaking excellent. He made himself highly popular amongst the students of the hospital when holding the appointment, and also took advantage of the resources which it afforded him, by writing in 1860 a thesis for the M.D. degree, *On the Nature of the Substance found in the Amyloid Degeneration of Various Organs of the Human Body*. In this thesis, the author concluded that the reaction of the corpora amylacea and of the substance found in amyloid disease, with iodine and sulphuric acid, indicated their analogy, but not their perfect identity, with the substances of the amylaceous group. He described four cases which he had the opportunity of examining within four months. It must here be observed that waxy changes in certain viscera had been observed for years previous to 1860, but that Drs. Gairdner and Saunders had pointed out, at the Physiological Society of Edinburgh in December, 1853, that the waxy condition of the liver and kidney was due to the same change as that which was seen to take place in the spleen. Virchow collected yet more facts in relation to the subject (*Archiv für Path. Anat.*, vol. vi, 1854), whilst Dr. Harris still further digested the clinical and pathological facts which his predecessors had noted, threw more light on the precise chemical nature of amyloid deposit, and thus established a fair claim to be considered one of the pioneers of a scientific and comprehensive knowledge of lardaceous disease as a distinct form of degeneration.

In 1860, Dr. Harris was appointed Lecturer on Botany to the Medical School of St. Bartholomew's Hospital; and, in 1861, became Assistant-Physician there; in 1868, he attained the rank of Physician. He had previously intended to take up obstetrics and gynaecology, but certain chances turned him from that purpose. He proved to be an excellent clinical teacher, and was distinguished for his kindness to his house-physicians and clinical clerks. At this time, he was carrying on a flourishing private practice in Cavendish Square; but acquiring, in other ways, very ample private means, he gradually relaxed in his public and private labours, and finally resigned his hospital appointment in 1874. Dr. Harris took a great interest in science, and some of its economic applications. He was a Fellow of the Linnean Society, and paid great attention to the cultivation of orchids at his estate, Lamberhurst Grange, which is situated in the midst of the beautiful woodland and pastoral scenery on the borders of Kent and Sussex. There, too, he kept a few beagles, and, when their pups became rickety from being fed too much on biscuits, he cured them by the administration of cod-liver oil.

Unfortunately, Dr. Harris was subject for years to severe attacks of bronchitis. At the end of August, he was seized with acute pneumonia. Drs. Martin, Wilson Fox, and Andrew, attended him, but, in spite of the best advice and nursing, he died on September 3rd, only 55 years of age. He was a gentleman of commanding presence and affable manners, extremely fond of field-sports.

EDWIN CANTON, F.R.C.S.,

CONSULTING SURGEON TO CHARING CROSS HOSPITAL.

ON Friday, September 25th, this well known surgeon died, under melancholy circumstances, in the sixty-eighth year of his age. Mr. Canton studied medicine at King's College, where he worked for a time as prosector to Professor Partridge, and in the wards of Charing Cross Hospital, before it possessed a medical school. In 1839 he became a Member, and in 1845 a Fellow (by examination) of the College of Surgeons. He joined several of the metropolitan medical societies, and held many honorary appointments in the course of his career. In August, 1854, he was appointed assistant-surgeon to the Charing Cross Hospital. In April, 1855, he became full surgeon. He

had already been a member of the teaching staff of the hospital for several years as lecturer on surgery and surgical anatomy.

At Charing Cross Hospital, Mr. Canton for many years distinguished himself by excelling in every duty which he undertook, whether in the lecture-room, the wards, or the operating-theatre. He was extremely popular as a teacher and lecturer. He had a profound knowledge of anatomy—we mean that kind of knowledge which is of paramount importance for clinical and surgical purposes; but, at the same time, he never overlooked the purely scientific basis of anatomical learning. His acknowledged skill as an operator was ever assisted, so to speak, by his power of keeping the anatomy of the part he was operating upon constantly before his eyes, without allowing that mental exercise to interfere with the mechanical action of his hands. This talent is, unfortunately, not over common, the average surgeon's powers lying more in the direction of rapid manual action and mechanical dexterity, or in the opposite quality of great deliberation, where movements of the hand may be slow and even clumsy, yet effective of their aim, owing to care on the part of the operator both during the operation, and in respect to after-treatment. Mr. Canton combined dexterity with caution in the operating-theatre. In the wards, his skill in diagnosis showed his experience, his carefulness, and his knowledge of scientific as well as practical anatomy and surgery, and made him a most deservedly appreciated clinical teacher. He was particularly careful in investigating the constitutional condition of every patient, even in cases of the most purely local diseases. Owing to failing health, and domestic and mental troubles, his talents underwent marked deterioration towards the close of his career as a hospital-surgeon, which took place in 1878.

Mr. Canton was a ready writer, but preferred to exercise his literary powers outside the field of professional topics. He is known to have contributed satirical and critical articles to *Punch*, and to other weekly journals. His medical writings consisted of a few contributions to periodicals, some of which were afterwards published separately; a book *On the Arcus Senilis*, which excited considerable interest when it was first published; an illustrated work, entitled *Surgical and Pathological Observations*, and some illustrated *Notes on the Morbid Anatomy of Chronic Rheumatic Arthritis of the Shoulder and other Joints; Remarks on Interstitial Absorption of the Neck of the Femur from Bruise of the Hip*. These *Notes* represented some of the best pathological work ever done by their author; they were based upon careful examination of specimens which he afterwards presented to the Museums of the Royal College of Surgeons and of his own medical school.

Mr. Canton was a short, well set, robust, and active man of the most pleasing social qualities, and famed for his pungent wit. He was a personal friend of Professor Huxley, and of other distinguished scientists. He also took a great interest in theatricals, and was well known in literary and dramatic circles. He was once married, late in life, and had no children, but three of his near relatives were qualified members of the profession; one of these, his nephew, Mr. Frederick Canton, the well known dental surgeon, survives him, and he also leaves a brother, Mr. C. Canton, who has long practised dentistry in London.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

BOARDS OF GUARDIANS AND THEIR MEDICAL OFFICERS.

SIR,—In your issue of September 26th, you make some comments on the action of the Board of Guardians of the Evesham Union, with regard to their medical officer, Mr. A. H. Martin.

As I have recently been treated in much the same way by the board of guardians of this Union, I shall be glad if you will allow me to place the facts before you.

I receive £40 (£12 less than Mr. Martin) for my district, which contains a population, according to the last census, of 9,779 (nearly three times as many as in Mr. Martin's district); the area of the district is 19,110 acres (more than twice as large as Mr. Martin's). I get £35 from the workhouse, which is situated two and a half miles from the village. In addition, I get £20 as medical officer of health; and the extra medical fees, including vaccination, last year amounted to £30 4s. 6d. I supply all drugs and surgical appliances.

About six weeks ago, having served for three years at this low salary, I applied for an increase. The answer I got from the board was, if I was not satisfied with the present salary, they were willing to accept my resignation, and they had no doubt, if I did resign, but

what there would be many applicants for the vacant post at the present salary.

I must apologise for troubling you with a personal matter, but if you see fit to publish this letter, it will serve as another instance of showing how poor-law medical officers are treated by their boards of guardians.—I remain, sir, yours obediently,
Hawarden, near Chester. ARTHUR L. EVANS, L.R.C.P., etc.

DEPUTY MEDICAL OFFICERS OF HEALTH.

SIR,—Has a local board the power to elect a deputy medical officer of health? The *Medical Directory* abstract of laws, says, "No other medical officer of health may be appointed for any constituent district, except as assistant to the officer appointed for the united districts. Has the medical officer of health the power to appoint his own assistant?—I am, sir, yours faithfully,
MEMBER.

*. Section 191 of the Public Health Act, 1875, provides that, "in case of illness or incapacity of the medical officer of health, a local authority may appoint and pay a deputy medical officer, subject to the approval of the Local Government Board." This appears to be the only sense in which a "deputy medical officer of health" can be appointed. As regards cholera, however, sanitary authorities are legally empowered to appoint such temporary officers as may be necessary for giving effect to the order of the Local Government Board of July 12th, 1883, prescribing Cholera Regulations. In that order, the term "medical officer of health," includes any duly qualified medical practitioner appointed by a sanitary authority, to act in execution of the order, and the approval of the Local Government Board to any such appointment is not needed. But the present question would seem to relate to an united district, under Section 286 of the Act, and that section provides that "no other medical officer of health shall be appointed for any constituent district, except as an assistant to the officer appointed for the united districts." The appointment of such assistants is regulated by Section 189. All the appointments are to be made by the sanitary authority, and not directly by the health-officer.

THE GUARDIANS OF CAMBERWELL.

SIR,—In the *BRITISH MEDICAL JOURNAL* of August 29th, I observe a letter from Dr. Serjeant, one of the two medical guardians of Camberwell who opposed the granting of remuneration to our district medical officers for services rendered by them to non pauper cases during the late epidemic of small-pox in the parish. Dr. Serjeant says that I "put the case so feebly, that failure was inevitable." Will you therefore permit me to clear my character in the eyes of the medical profession generally by allowing me to state exactly how I did put the case?

In the first place, I obtained the number of small-pox cases which had occurred in the parish during the last year or fifteen months. These figures were supplied officially by our clerk to the board; yet they were ridiculed with a sneer by Dr. Serjeant as being "Mr. Drew's figures." I did not, like Dr. Serjeant, proceed to treat these cases as being an average of so many per week for each medical officer, because I knew that the disease had not been so obliging as to distribute itself equally over the parish, either in time or localities, during the period named. I did, however, obtain from the clerk the actual number of small-pox cases visited by each medical officer; and the highest number was 213, for Mr. Simpson, and the lowest, 80, for Mr. Pinder, while the other three had 105, 151, and 102 respectively; the total number being 651 cases in the fifteen months, 517 of these occurring the last seven months. Next I called upon the clerk of our board to give me the number of pauper cases and the number of non-pauper cases in these totals, when he officially reported that three-fourths of the whole number were those of non-paupers.

As, notwithstanding these terrible numbers, both Dr. Serjeant and Dr. Green, two guardians somewhat new to their work, had flatly denied that there had been any small-pox epidemic at all, alleging that they had not themselves had more than half a dozen cases under their own notice (a statement which I most thoroughly believe). I preferred to refer the point to Dr. Bristowe, the medical officer of health; and I asked him to tell me whether, in his opinion, there has, or has not, been an epidemic of small-pox in the parish during the last year or so.

His reply was in the shape of a telegram, sent just in time for the board meeting, and it ran thus: "There has been a severe epidemic of small-pox, especially in the first half of this year, and much extra work thrown upon the doctors." This telegram I read to the board, and I have since received a letter from Dr. Bristowe to the same effect. However, the two medical guardians before mentioned utterly differed with the opinion of the medical officer of health, Dr. J. S. Bristowe, and knew a great deal better than he did, although in the profession I should not have supposed that this idea of theirs would be supported, but of course I may be mistaken.

Further, Dr. Serjeant writes to you that "the work done by each officer was perfectly within the terms of his contract." In other words, Dr. Serjeant asserts that the poor-law medical officers deliberately agreed on their appointment to attend any number of non-pauper cases, an assertion which requires no contradiction, their work being by law strictly confined to attendance upon those who are chargeable upon their poor-law union. I think, however, there is some excuse to be made for Dr. Serjeant in the fact that he is just in his second year of office as a poor-law guardian, while his supporter, Dr. Green, is in his first, and therefore I do not see how they are to know at all what were the terms upon which our district medical officers were originally appointed. It is true they were told at the last meeting of the board of guardians, first by Mr. H. Massey, a medical man of thirty or forty years' standing in the parish, and of eleven years' standing as a guardian, and next by myself, a clergyman of twenty years standing in the parish, and ten years as a guardian, that these medical officers did not covenant to attend any other than pauper cases; and they were also told the same by the district medical officers themselves, who appeared before the board; but all this went for nothing.

Now comes the most instructive scene in the whole drama. I had with great humility ventured to suggest that our medical officers deserved some remuneration for the dangerous nature of their services in visiting at the bedside of many hundreds of small-pox patients, and for the harm done to their private practice by the danger of infection therefrom, when one of the before mentioned medical

guardians informed the board that my statement was absolute nonsense, that there was no danger or risk whatever to the medical officers, and that "he himself would just as soon sleep with a small-pox patient as not." A majority of the poor-law guardians then present swallowed this dictum, afterwards voting against giving the medical officers anything for their services during the epidemic; and then proceeded straight to vote sums of money to the relieving-officers and to the vaccination-officers for their services "during the small-pox epidemic." I give Dr. Serjeant the credit for seeing the absurd position in which the board was thereby placed, and he made a strenuous effort to have the words "small-pox epidemic" struck out, but he failed.

The case, therefore, now stands that the Camberwell Board of Guardians have handsomely remunerated their subordinate officers for extra services "during the late small-pox epidemic," and have refused any remuneration to the district medical officers, or to recognise their services in any way, on the ground that there has been no epidemic at all.

Dr. Serjeant speaks in his letter to you as having voted with "the large majority" against the just claims of the medical officers, and says that my motion received three votes. Allow me to say that six votes carried the day against me; and had Dr. Serjeant and Dr. Green voted for their medical brethren instead of against them, the grant for the doctors would have been carried by one vote.

I now leave it to your medical readers to decide whether they think with Dr. Serjeant that the case was "so feebly put by me that failure was inevitable."—I am, etc.,

ANDREW A. W. DREW, Vicar of St. Antholin's, Nunhead;
a Guardian of the Parish of Camberwell.

TYPHOID FEVER WITH RESPECT TO AGE.

SIR,—I read the excellent address, as delivered by Mr. Davies, M.O.H. for Bristol, as published in the JOURNAL of August 1st.

Speaking of typhoid fever, he there states that certain returns, in which the deaths of infants and the aged are attributed to this disease, are accepted with serious misgivings. This is, no doubt, true generally, but the following case will probably surprise others as it surprised me.

It is some time ago since I attended A.B., aged 79. He was suffering from slight congestion of one lung. By-and-by, typhoid symptoms developed, amongst which I may mention sleeplessness, slight delirium, and the dark-brown fur in the central line of the tongue. The bowels had to be relieved by injections for a few days; there was never any gurgling in the right iliac fossa; neither could the typhoid spots be found.

I often asked myself, is it a case of typhoid fever? But, taking the age of the patient and all the symptoms into consideration, I could not conclude that the case was anything but congestion of one lung, and that typhoid symptoms had developed previously to death. What was the result? Seven more of the people, staying in the same house, began with unmistakable typhoid fever.

Now, considering that not only was I the medical attendant, but that I was M.O.H. for the same district, I came in for a good share of hostile criticism. I received a caution, which I shall not forget in a hurry; further, I shall not be so much impressed with the statement that is made in the text-books, that typhoid fever occurs in patients under 45 years of age, and is pre-eminently a disease of childhood and adolescence.

I may never see another case at such an advanced age as 79, but others may. For the purpose of putting others on their guard, I write this. I would just add, that each of the eight cases made a good recovery.—Yours obediently,

M.O.H.

QUALIFICATION FOR MEDICAL OFFICER OF HEALTH.

X. Y. Z. writes to us, inquiring whether the holder of the L.A.H. Dublin, with no other qualification, is eligible for appointment as medical officer of health. The general order of the Local Government Board, relating to medical officers of health, provides that "a person shall not be qualified to be appointed unless he shall be registered under the Medical Act of 1858, and qualified by law to practise both medicine and surgery; provided that the Local Government Board may, upon the application of the sanitary authority, dispense with so much of this regulation as requires that the medical officer of health shall be qualified to practise both medicine and surgery, if he is duly registered under the said Act, and qualified to practise either medicine or surgery." Whether, however, the Board would be prepared to dispense with the double qualification in X. Y. Z.'s case, we cannot of course say. No doubt every case is dealt with on its own merits, and the point would be considered whether the sanitary authority had difficulty in securing the services of a fully qualified practitioner.

LEEDS SMALL-POX HOSPITAL.

SIR,—In this town, until fifteen years ago, small-pox patients were admitted into the House of Recovery, or Hospital for Infectious Diseases; but several cases having occurred in which convalescents from typhoid fever took small-pox, it was decided to erect a separate hospital for the latter disease. A gentleman in private practice was appointed to attend at the Small-Pox Hospital whenever his services were required, and the two institutions were kept entirely distinct. This arrangement has proved to be a very satisfactory one, no case of infection from the patients in the Small-Pox Hospital having occurred during the whole of this time.

The Sanitary Committee of the Town Council have now, however, decided to again place the Small-Pox Hospital under the sole care and management of the resident medical officer of the House of Recovery. Now I am strongly of opinion that, in thus acting, the committee are making a serious mistake. I think that the duties of medical officer and superintendent of the only hospital for infectious diseases in one of the largest boroughs in the country ought, if properly performed, to suffice for one man, without saddling him in addition with the whole and sole charge of another institution about a quarter of a mile distant. I also object to the proposal of the committee, on the ground that the risk will again be incurred of communicating small-pox to the fever patients—a risk which cannot be altogether ignored when we remember the circumstances which led to the severance of the two institutions.

My object in laying this matter before your readers is to elicit an opinion on the subject from those who have had experience in the treatment of these cases in public hospitals.

I should like to know also whether there is any town in which an arrangement exists similar to the one proposed by our sanitary authorities.—Yours truly,
Leeds.

DR. GEORGE PADDOCK BATE, medical officer of health for Bethnal Green, writes with reference to the statistics showing the mortality for the various London districts for 1886 second quarter, published in the BRITISH MEDICAL JOURNAL August 15th, page 820, that he does not think his district has been credited with its proper population, which he estimates at 129,872. A birth-rate, he says, calculated on this is almost identical with that of the census year, whereas the birth-rate calculated upon the population given in these pages is much higher than that of any other district in London. He asks for a trustworthy way of calculating population, as he considers logarithms bring out too high a figure.

The population of Bethnal Green, as given in the table published in the BRITISH MEDICAL JOURNAL of August 15th, is slightly lower than our correspondent's estimate, for the reason that, after the populations of all the London districts had been separately calculated, they were adjusted to cast to the total population of London as published by the Registrar-General. If the birth-rate in Bethnal Green for the second quarter of this year (to which our correspondent refers as being unduly raised by the adoption of a smaller population) be calculated upon his estimate of the population, it will differ but slightly, namely, 39.1 instead of 39.3 per 1,000.

If our correspondent have reason to believe that the population of his district is still increasing at least as rapidly as between 1871 and 1881, it shall not in future be reduced by any adjustment. We would be glad to have from our correspondent any reliable data upon which to estimate the population of his district.

In the absence of a more recent enumeration of the inhabited houses than the census affords, we are compelled to estimate the present population of the London districts geometrically (by logarithms) upon the rate of increase observed between the last two censuses. The number of inhabited houses on the rate-books in 1881, and at any comparatively recent date, would afford an excellent basis for a revised estimate of population.

HEALTH OF ENGLISH TOWNS.

DURING the week ending Saturday, September 26th, 5,665 births and 2,717 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had steadily declined in the seven preceding weeks from 21.8 to 17.1, further fell last week to 15.9, a lower rate than in any week on record. The rates in the several towns, ranged in order from the lowest, were as follow: Bristol, 10.0; Hull, 11.8; London, 13.8; Wolverhampton, 13.8; Derby, 14.0; Norwich, 14.3; Huddersfield, 14.3; Oldham, 14.5; Bradford, 14.8; Birmingham, 15.5; Birkenhead, 15.7; Nottingham, 15.8; Leeds, 16.4; Brighton, 16.8; Salford, 17.4; Halifax, 17.5; Leicester, 18.0; Blackburn, 18.1; Portsmouth, 18.6; Newcastle-upon-Tyne, 19.1; Bolton, 19.9; Sunderland, 20.0; Liverpool, 21.7; Manchester, 21.7; Sheffield, 21.8; Plymouth, 22.0; Cardiff, 22.0; and the highest rate during the week, 23.4, in Preston. The death-rate during the week in the twenty-seven provincial towns averaged 17.7 per 1,000, and exceeded by as much as 3.9 the rate in London, which, as before stated, was only 13.8 per 1,000, and considerably lower than in any week on record. The 2,717 deaths registered during the week in the twenty-eight large towns included 374 which were referred to the principal zymotic diseases, against 478 and 393 in the two preceding weeks; of these, 156 resulted from diarrhoea, 59 from whooping-cough, 55 from "fever" (principally enteric or typhoid), 37 from measles, 36 from scarlet fever, 28 from diphtheria, and 3 from small-pox. These 374 deaths were equal to an annual rate of 2.2 per 1,000. The zymotic death-rate in London was equal to 1.8; while in the twenty-seven provincial towns it averaged 2.5 per 1,000, and ranged from 0.0 and 0.5 in Norwich and Bradford, to 4.1 in Liverpool, 4.2 in Blackburn, and 4.7 in Preston. The deaths referred to diarrhoea, which had declined in the seven previous weeks from 628 to 183, further fell last week to 156, and showed the largest proportional fatality in Bolton, Plymouth, and Blackburn. The fatal cases of whooping cough, which had been 67 and 46 in the two preceding weeks, rose again last week to 59; this disease caused the highest death-rates in Liverpool and Preston. The deaths referred to measles, which had declined from 89 to 36 in the four preceding weeks, were last week 37, of which 15 occurred in London. The 55 fatal cases of fever showed an increase of 14 upon the number in the previous week, and showed the largest proportional fatality in Portsmouth, Oldham, and Leicester. The deaths from scarlet fever, which had been 45 and 49 in the two preceding weeks, declined to 36, and caused the highest death-rate in Bolton. The 28 fatal cases of diphtheria showed a decline of 4 from the number in the previous week, and included 18 in London, 3 in Liverpool, and 2 in Birmingham. The 3 deaths from small-pox during the week in the twenty-eight towns were all recorded in London, and were exclusive of 8 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the sixteen preceding weeks from 1,359 to 195, further fell during the week to 153; the admissions, which had been 32 and 47 in the two preceding weeks, declined during the week to 27. The death-rate from diseases of the respiratory organs in London last week was equal to 2.0 per 1,000, and was considerably below the average. The causes of 61, or 2.2 per cent., of the 2,717 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

UNIVERSITY INTELLIGENCE.

VICTORIA UNIVERSITY, OWENS COLLEGE, MANCHESTER.

THE following appointments have recently been made at the College:—To the Professorship of Greek: Mr. John Strachan, B.A., of Pembroke College, Cambridge, and Porson Scholar and Chancellor's Medalist. To the Professorship of Mathematics: Mr. Horace Lamb, M.A., F.R.S., late Fellow of Trinity College, Cambridge, and Professor of Mathematics in the University of Adelaide. To the Professorship of Anatomy: Mr. Alfred H. Young, M.B., F.R.C.S. To the Professorship of Obstetrics: Mr. C. J. Cullingworth, M.D., M.R.C.P. To the Lectureship in French: Mr. Victor Kastner, B.ès-L., late Professor of French in Queen's College, Cambridge.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 24th, 1885.

Hay, Stephen Moffat, Moorefield, Ontario, Canada.
Young, Edward Herbert, 13, St. John Street, Stamford, Lincolnshire.

MEDICAL VACANCIES.

The following vacancies are announced.

BEDFORD GENERAL INFIRMARY.—Surgeon. Applications by October 8th.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by October 8th.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant. Applications by October 17th.
NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Resident Clinical Assistant and Registrar. Salary, £70 per annum. Applications by October 10th.
OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.
RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Salary, £100 per annum. Applications to F. D. Wise.
ROYAL LONDON OPHTHALMIC HOSPITAL, Blomfield Street, Moorfields, E.C.—House-Surgeon. Applications by October 12th.
ST. MARY'S HOSPITAL.—Physician-Accoucheur. Applications by October 12th.
STOCKTON UNION.—Medical Officer and Public Vaccinator.—Applications by October 17th.
TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications by October 14th.
WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Resident Medical Officer. Salary, £100 per annum. Applications by October 12th.
WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications by October 5th.

MEDICAL APPOINTMENTS.

JOHNSTON, Francis, M.B., C.M. Univ. Glasgow, appointed Senior House-Surgeon to the Liverpool Northern Hospital, *vice* W. Horrocks, resigned.
ROBINSON, William, M.D. and M.S. (Dunelm), M.R.C.S. Eng., appointed Medical Officer to the Workhouse, District Medical Officer, Medical Officer of Health, and Public Vaccinator to the Stanhope District of the Weardale Union, *vice* C. Arnison, resigned.
SYMONS, M. J., M.D. Ed., appointed Honorary Ophthalmic Surgeon to the Adelaide Hospital, South Australia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

WALLER.—On October 1st, at Lynden House, 29, Abbey Road, the wife of Augustus Waller, M.D., of a son.

MARRIAGE.

PAGET—BURD.—On September 17th, at St. Mary's Church, Shrewsbury, Stephen Paget, F.R.C.S., of Whinpole Street, London, son of Sir James Paget, Bart., to Eleanor Mary, daughter of Edward Burd, M.D., of Newport House, Shrewsbury.

DEATHS.

HOCKIN.—On September 23rd, at Southport, Queensland, Australia, G. Treverne Hockin, M.R.C.S., L.R.C.P., L.M., fourth son of John Hockin, Esq., of Beckenham. Aged 27. By telegram.

WALKER.—On September 28th, at 83, Rodney Street, Liverpool, Thomas Shadford Walker, M.R.C.S., Consulting Surgeon to the Liverpool Eye and Ear Infirmary.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 p.m. Specimens will be shown by Mr. Doran, Dr. William A. Duncan, and others. Papers.—Dr. Matthews Duncan: The Hypertrophies of Lupus of the Female Puerperium. Mr. S. D. Hine: Case of Obstructed Labour in which Spontaneous Version followed an Unsuccessful Attempt to deliver with the Crotchet after Craniotomy.
FRIDAY.—Clinical Society of London. Dr. Sawtell: A Case of Hematemesis and Melena in a Newly Born Child. Mr. Barwell: A Case of Gastrostomy. Mr. Clement Lucas: Two Cases of Strangulated Umbilical Hernia, treated by Excision of the Sac and Skin-covering. Mr. Charters Symonds: A Case of Trephining for Compression by a Clot derived from a Lacerated Meningeal Artery, suggesting Temporary or Permanent Closure of the Carotid as a Means of Controlling the Hemorrhage.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 p.m.—Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopaedic, 2 p.m.—Hospital for Women, 2 p.m.
TUESDAY.....St. Bartholomew's, 1.30 p.m.—Guy's, 1.30 p.m.—Westminster 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 3 p.m.—St. Mark's, 9 a.m.—St. Thomas's (Ophthalmic Department), 4 p.m.—Cancer Hospital, Brompton, 2.30 p.m.
WEDNESDAY..St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Great Northern Central, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2 p.m.—National Orthopaedic, 10 a.m.—King's College, 3 to 4 p.m.
THURSDAY....St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.—North-west London, 2.30 p.m.—Chelsea Hospital for Women, 2 p.m.
FRIDAY.....King's College, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—Eass London Hospital for Children, 2 p.m.
SATURDAY....St. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 1; Dental, M. W. F., 9.30.
GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.
LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE TITLE OF DOCTOR.

SIR,—The letters of Mr. Whittaker, and "A Physician and Surgeon," in the JOURNAL of August 29th, lead me to ask leave to make a short reply.

To the argument of "A Physician and Surgeon," that the whole four years are devoted in London to purely professional subjects by those who go to the colleges, and that therefore these bachelors are better practical men than Edinburgh men, who devote a part of their four years and a half to subjects less directly medical, I would answer that a majority of Edinburgh men who enter succeed in passing the M.R.C.S. examinations, as well as those of their university, in that period of four years and a half. If, therefore, examinations are any test of a man's worth, that man who can pass them in the least time should be the best, and Edinburgh men pass them in three years and a half, as far as purely surgical and medical work is concerned. But both these gentlemen's letters are conceived in the wrong spirit; and even Mr. Whittaker fails to see that it is no question of professional talent at all. At least, I make no claim that it is. I maintain and repeat that it is a question of social status. There are better men than myself with only the L.S.A. to their names; I have no doubt; and surgeons ought to rise in value with age, though not all do rise; but I insist that M.D. should be conferred on those alone who can give evidence of a high standard of education in *literis humanioribus*, and in all subjects bearing fairly directly upon matters professional, as natural history, botany, chemistry, etc. M.D. should, in fact, be some of its influence, owing to the parson's coat. But, just as this last has lost some of its value were dissenting theological colleges, and just as D.D. would lose all its value were dissenting ministers to claim the title, so the title M.D., and its popular equivalent "Doctor," has sunk, and will sink lower if the colleges persist in their project.

"It is but one sign of the spirit of the age, which would rob landlords and disendowed churches; and I call upon all those who have an honest claim to the title of Doctor to bestir themselves to protect that which has cost them time, money, work, and, as in my case, much inconvenience.—Yours faithfully,

M.B. and C.M. EDIN., M.R.C.S. ENG.

THE BRADLEY FUND.

SIR,—Will you kindly allow the following list of subscriptions to appear in the next issue of your JOURNAL?—I remain, yours faithfully,

	R. JEFFREYS.
	£ s. d.
Dr. W. H. Broadbent, 34, Seymour St., Portman Square, W.	2 2 0
Mr. Timothy Holmes, 18, Great Cumberland Place, W.	2 2 0
Mr. Clement J. Hawkins, Cheltenham	1 1 0
Dr. W. H. Taylor, Tudor House, Anerley, S.E.	1 1 0
Mr. R. J. Pye-Smith, Sheffield	1 1 0
Dr. Edward J. Betts, 37, Cavendish Square	1 0 0
Dr. Ptolemy S. H. Colmer, Yeovil	0 10 6
Mr. A. Hamilton, Chester	0 10 0
Mr. Frank S. Goulder, Dudley	0 10 0
Mr. Allen Wearing, Blackburn	0 10 0

A SERVICEABLE WORK ON BOTANY.

SIR,—Will any of your readers kindly acquaint me with the titles and names of the authors and publishers of some botanical works, with the help of a fair knowledge of structural botany and botanical nomenclature, will enable one to ascertain, not only the genus, but also the species of any given plant, tropical or otherwise? A work written in English would be preferred to one in Latin.—I am, sir, yours faithfully,

H.M.S. Zephyr, China Station.

W. MANLEY LORV, Surgeon, R.N.

The most complete work is Le Maout and Decaisne; there is an English translation, by Lady Hooker.

INCONTINENCE OF URINE.

SIR,—I beg to suggest to "M.B. M.A." a trial of liquid extract of *rhus aromatica*. Nothing has proved so useful in my hands in the few cases of incontinence of urine I have had to treat; it should be given in moderately full doses, three times daily. I have known a very full dose given twice daily to produce flushing of the face, and irritability of temper in a child 4 years old, while the two doses, divided into three and given daily, cured the incontinence (nocturnal), without producing any disagreeable effect.

I should also be glad (if your correspondent tries it) if he would publish the result in your paper, thus aiding to accumulate evidence of the merits or demerits of the drug. Parke Davis and Co.'s is the preparation I have employed.—Your obedient servant,

Res.

P.S.—In two cases I also found marked benefit to result from a careful administration of tincture of cantharides with perchloride of iron.

APPOINTMENTS IN SAN FRANCISCO.

J. H. P., Sacramento, writes: I notice a query, by "D. C. W.," in the JOURNAL of August 22nd, relative to San Francisco. The best source of information for your correspondent would be the *Pacific Medical and Surgical Journal*, W. S. Whitwell, editor, 125, Sutter Street, San Francisco. As a foreigner, he would find it rather hard to get any appointments; and as for assistances, they practically do not exist here.

J. H. P. is thanked, and his offer is accepted with pleasure.

SWALLOWS AND CHOLERA.

SIR,—Some time ago, allusion was made to the rapid disappearance of swallows in the districts in which cholera prevailed. I should much like to hear, from any of your correspondents, if any further observations have been made with regard to these birds; and if they are present, whether they fly low in search of their food.—Yours respectfully,

COSMO LOGIE, M.D., late Surgeon-Major Royal Horse Guards.

S.Sc.C.CANTAB.—Your letter does not sufficiently indicate the point of which you complain. There is, on the face of it, some misunderstanding, but what it is, is not obvious.

REMOVAL OF THE HAIR BY ELECTROLYSIS.

SIR,—In answer to your correspondent, "H.," I use a Stohrer battery of twenty cells, ten of which are sufficient to completely destroy the hair-papilla. Failure in its use arises from the battery not being properly charged, or the current being interrupted through the conducting apparatus being out of order.—Faithfully yours,

41, Newhall Street, Birmingham.

GILBERT SMITH.

PEAT-MOSS AS A THERAPEUTIC AGENT.

SIR,—From the number of letters I received, from England and the continent, for three weeks after my letter on the above subject, in the JOURNAL for June 27th, I find that the *BRITISH MEDICAL JOURNAL* is much read by other than professional readers. It will be best, therefore, in this communication, not to write in too medical a style. My object in writing again, is to keep the therapeutic value of peat before the world, in the hope of eliciting more information referring to it.

I have read the papers as they appeared in the JOURNAL, since Dr. J. E. Morgan's paper. They are seven in number, beside my own, all of them interesting. Dr. D. Campbell Black, of Glasgow, writes strongly against Dr. Morgan's views, but then, he strongly opposes everything.

I have had one of our peats analysed by Dr. T. Hatfield Walker, Newcastle-on-Tyne, Medical Analyst for the city of Carlisle. Dr. Walker writes: "I have at last finished examination of the peat which you sent. When burnt with little air, it gives off ammonia, naphtha, paraffin, acetic acid, tar, a thick heavy oil, and about 3 per cent. of peculiar volatile oil, smelling very strongly of peat. I next burned it in a small stove, open at the sides and top, allowing, therefore, free access of air, and drew the smoke through various condensers; namely, first a large Wolf's bottle; then a coil; next, a Will's tube and Geniuss-less bulbs containing spirit, and retained a small quantity of the residual gas. I found some essential oil, carbonic acid, nitrogen, ammonia, and a mixture of tar, etc., in the Wolf's bottle; but not sufficient for a single peat to separate. I think any virtues that the "reek" may possess, must be derived from the essential oil, but it is in such small quantity, that I do not think it can have much influence in phthisis; but, of course, when a chimney smokes, the air of a room may really contain a great deal; and, if we accept the bacilli-theory, night, and probably would, have a great influence in phthisis." Similar to that of inhalation, Dr. Walker probably intended, but his letter was for my own eye, and I am too lazy to write to inquire without an urgent need.

A gentleman born in a peat district is not the most likely to observe any benefit from peat; he is so accustomed to peat-reek, that he looks upon it only as a nuisance; and if he return there to practise, his moorland district is so extensive and laborious to work, that he is apt to lose inclination for studying causes or results. On the other hand, a gentleman in town practice, where coal only is consumed, has not the opportunity for studying the question. I have burnt peats during the five months that I have been here, keeping the window open when it was hot, but have not acquired sufficient information, as yet, to bring out anything new. However, by spring or summer, when more observation and more chest-cases, in this locality, afford me more knowledge and confidence, I may write to you again, if there be anything to write about. Meantime, I may mention that, whether in private practice, or as senior physician to the Chest Hospital there, I have observed that chest-cases of equal, or almost equal, gravity, who have come to me from peat-districts around here, have recovered, or been relieved, more rapidly than in Newcastle.

In Stranraer itself, coal is used, and the difference is distinctly less marked, although the pure air, with its great amount of ozone, averaging 2, but reaching 8, to the windward, on the chromatic scale, and showing colouration to 1 and 2 on Schönbain's test-paper, in the town itself, should and does, as I have found, make congested states of the lungs and air-passages more amenable to treatment.

The air of Stranraer is dry. When not raining, the clouds are high, and the air clear. It is like that of Devonshire, or of Pau, being similarly situated, for Pau is in the south-west of France. I was amused at Dr. H. Dubove, of Paris, who, in his pamphlet on its climatology, states that matches never fail to strike there. They always strike here, and in the non-oxidation of iron and steel, and the dryness of our pavements and houses, we are probably equal to Pau. The wind, unlike that at Pau, is strong, but brings ozone with it, and is not chilly, being chiefly west and south. We are on the southern shores of Loch Ryan, a landlocked sheltered bay, nine miles south from the entrance to the Firth of Clyde, five miles from the North Channel, and six from Luce Bay, on the Solway Firth. Consequently, the air is always charged with ozone, and laden with chlorides. Not having yet spent a winter here, I can only speak from report. According to the best evidence, the winter is mild, and, instead of risking comfort and health in going abroad, a sojourn in Devonshire, Cornwall, Wiltshire, Isle of Man, or other western district, would be good for those who suffer from north-east winds, and the hard water, or our eastern seaboard or inland places.—Yours truly,

Windsor Terrace, Stranraer, N.B.

J. CARRICK MURRAY, M.D.

THE ROCHEDALE PAIL.

SIR,—Can you, or any of your readers who are interested in practical sanitation, tell me where I can procure "the Rochdale pail," used in that town for the removal of excreta?—I am, your obedient servant,

NEMO.

*. The pail used at Rochdale for the removal of excreta from houses, is Haresceugh's patent spring-lid receptacle, and is manufactured by him at Wellington Street, Leeds. It would appear to be about the only air-tight pail in the market, and has received the highest praise from sanitary authorities; it has also received medals and certificates. The excreta-tubs cost 4s. 6d. each, and the spring-lid, which is the main feature, costs about 9s. extra.

M.D. LOND.—The *Index Medicus* can be seen at the library of the Royal Medical and Chirurgical Society. It is now published by Mr. G. S. Davis, of Detroit. For further particulars, our correspondent should apply to Messrs. Trubner or H. K. Lewis. The subscription is ten dollars per annum.

1885.—Great pressure on our columns has prevented us from publishing the questions. Our correspondent will doubtless obtain them, on application to the Secretary of the College.

DENEKE'S AND KOCH'S BACILLI.

SIR,—In the *BRITISH MEDICAL JOURNAL* for August 22nd, there is a statement to the effect that Dr. Deneké has discovered a bacillus in old cheese, and that it is identical with Koch's comma-bacillus. Permit me to say that Deneké's bacillus is distinctly smaller than Koch's, and moreover its behaviour in sterilised media, e.g., peptonised meat-jelly, is diagnostic and quite different in appearance from a cultivation in the same medium of Koch's cholera-bacillus.—I remain, sir, yours faithfully,

CHARLES A. BALLANCE.

50, Harley Street, Cavendish Square.

AN AURAL COEFFICIENT.

SIR,—In the diagnosis of ear-disease, it would be desirable to have a measure of the patient's total capacity for hearing with reference to some fixed standard; and, further, to subject the total capacity to a quantitative analysis, so as to discover precisely how much of it is due to air-conduction through the ordinary channel, and how much is due to bone-conduction independent of the meatus.

A very simple contrivance, consisting of nothing more extraordinary than a feather and a piece of string, will enable one to give these measures numerically, so that the total ear-power can be given in degrees of a scale; and the number of those degrees which are due to bone-conduction can be separated from those which are due to air-conduction. At present, a patient can do no more than tell one that the test-sounds presented to him are "just audible," "fairly clear," "distinctly heard," and so on; these vague terms recalling the "pinch" of this, "little" of that, and "some" of a third ingredient, which figured in old household recipes, in place of the scruple, drachm, and ounce, of a modern prescription.

Take six feet of string about the size of whipcord, and loop one end of it, so as to make an ordinary slip-knot. Let any one with no serious defect of hearing press one hand on each ear, arching the hand into a kind of dome, so as to enclose each ear in an approximately air-tight cavity. Place the loop of cord around the horizontal circumference of the head, enclosing hands and all, and run the cord up tight, so that the knot rests rather below the middle of the forehead. Hold the free end of the cord with the left hand, so as to bring it into a state of tension; and, with one of the nails of the right hand, briskly scratch the cord, suddenly jerking and steadily drawing the nail alternately. Though scarcely audible to the bystanders, the noise to the wearer of the cord is singularly like a peal of thunder. The astonishment of the subject often causes astonishment to the spectators.

Instead of six feet, let there be sixty feet of cord, and let the free end be made fast to a peg in a wall or door, so that the cord is tense throughout its length. It will save trouble if the first fifty feet from the head (which is distance enough to include all ordinary hearing) be marked off into six-inch lengths. The marks may be on the cord itself or on a wall adjacent. Call this distance *oc*. Now, take a feather and very gently strike the cord at any point, and ask the patient if he can hear the contact. Repeat the touches at various points of the cord till you have found the limit of the patient's ability to catch the sound of the contact. When the limit is found, mark the spot, and call it *b*. If *oc* = the whole scale, and on the portion through which the feather-touch is audible to any given patient, then $\frac{ob}{oc}$ is what I would propose to call his aural coefficient. It represents his total capacity for hearing through all channels, whether bones or the meatus, with reference to a fixed standard; in other words, $\frac{ob}{oc}$ is the fraction of normal ear-power which is possessed by the given patient.

The selection of sixty feet as the length of the cord, and of fifty feet, or rather 100 half-feet, for the length of the scale, is not arbitrary; for experience has shown that in the case of persons of acute hearing, *b* almost always falls just short of *c*, the hundredth half-foot; it is very rarely that *b* falls beyond *c*, and I have one record of its over-reaching the sixty-foot limit.

The feather-strokes must be of uniform strength; and in practice it is not difficult to make them so.

Now, suppose that a patient ceases to hear the stroke at the eightieth half-foot; that is, *ob*, or *or*, more briefly, *b* = 80, and he possesses $\frac{80}{100}$ of average healthy or normal ear-power. But it is evident, from the conditions of the experiment, that this total ear-power is composed of two elements. One element or portion is due to Air-conduction (call it *A*), and the other to Bone-conduction (call it *B*). Hence, *b* = (*A* + *B*). And it may greatly help the diagnosis of a case if we can assign to *A* and *B* their relative values.

Remove the loop from the patient's head, and replace it so that the string lies in a parting of the hair along the middle line, pressing the occipital and frontal bones, and resting on the sagittal suture. [I fix the loop to the back of the patient's chair, and let the cord go up over his head, on which it is strained tight, but not inconveniently.] Using the feather as before, find the spot where the contact ceased to be heard. Mark it *d*. The distance *od* (call it *d*) shows the part of *b* (the total ear-power), which is due to bone-conduction; and the remainder (or *b* - *d*) is the part due to air-conduction.

If *d* = 45, and *b* = 80, then $\frac{d}{b} = \frac{A+B}{C} = \frac{35+45}{100}$; which shows the patient to

have $\frac{35}{100}$, or only $\frac{1}{3}$, of normal hearing; but of these 80, no fewer than 45 are due to bone-conduction, and only 35 to air-conduction, whereas the portion due to bone-conduction is commonly less than half of the total, instead of more than half, as in this case. And the conclusion would be that the defect of $\frac{35}{100}$ is due, not to anything amiss in the auditory nerve or the labyrinth, but to some obstruction in the external meatus, as when the ear wants washing; or in the Eustachian tube, as in the case of a bad cold.

The value of *b* in normal or average healthy subjects must be ascertained by observation of a sufficient number of cases. I believe it to lie between the 35th and 45th half-foot; so that as a rule *A* is greater than *B*. In cases where the aural coefficient (= total ear-power) is unusually small, but *A* stands to *B* in about normal ratio, there will be reason to suspect disease of the nerve or labyrinth rather than in the approaches.

It should be noted that the bone-conduction per the parietals, etc. (represented by *d*), is treated as if it were equal to the bone-conduction per the horizontal circumference (represented by the portion of *b* called *B*). Though this is probably not the case, it does not matter practically; because the parietal conduction will bear to the circumferential conduction a proportion which is approximately constant. Consequently, the divergence from equality, if divergence there be, will be the same in all cases, and will not materially affect the diagnosis. The apparatus can doubtless be made far more delicate; but for ready experiment nothing will beat the simplicity of the feather and string.—I am, etc.,

West Parley, Wimborne.

AUGUSTINE CHUDLEIGH.

SELTZOGENES.

SIR,—Would any of your numerous contributors reply to the following query, in the JOURNAL for next week, or following? What will clean a seltzogene? I tried acid, hydrochloric and nitric, and ammonia, at various times, without avail; it is quite stained, and looks dirty.—Yours truly,

L.R.C.S.I.

MELANCHOLIA.—Enquire of Messrs. Hansard, Great Queen Street.

ANTIPIRETICS, OLD AND NEW.

SIR,—The following case may be of interest at a moment when the merits of individual antipyretics are receiving attention, and may serve as an illustration of the fact that, in our rush after novelties, we are sometimes apt to neglect old and well approved remedies; or, as Dr. O. W. Holmes puts it, "to prefer the green to the seasoned wood."

Mrs. R., aged 36, of spare habit and rather delicate health, fell ill with acute rheumatism, on May 25th, 1885. This had been preceded, for some months, by profuse menorrhagia. The disease affected the knees, ankles, and wrists severely. Up to the tenth day all went on favourably, the heart remaining unaffected, and the temperature not rising beyond 103° Fahr. On June 4th, in the evening, the patient was restless and delirious; temperature 104.5° Fahr.; pulse 132. Next morning, the temperature was 104° Fahr.; pulse 132; in the evening, temperature 105.2° Fahr.; pulse 140. I ordered cold wet pack and salicylate of soda in full doses. The temperature was lowered two degrees by this treatment, but rose again to 105.4° Fahr., in a few hours, necessitating the reapplication of the pack. On June 5th, frequent cold packs were applied, and salicylate of soda given in twenty-grain doses every three hours. The temperature oscillated between 104° and 106° Fahr., always rising to 106° a few hours after the discontinuance of the packs. There had been no sleep of more than ten minutes' duration for four days, although the strength of the hypodermic injection of morphia had been increased from a quarter of a grain to one grain. In the evening, I met Dr. Dreschfeld, in consultation, and with his concurrence I continued the packs, which seemed to lessen the mental activity and nervous irritability of the patient, and prescribed 20 grains of antipyrin. Four hours after its administration, the temperature was reduced to 102.8° Fahr.; and in eight hours later, it had regained its former level, 106° Fahr. On June 6th, Dr. Dreschfeld was anxious to test the antipyretic properties of thallin, which was given in four-grain doses every three hours, till 20 grains had been given. By this time, the temperature was reduced to 103.2° Fahr., and after fluctuating for a few hours, rose again to 105.3° Fahr., in spite of the continued use of thallin. One grain of morphia was injected, and this produced slight snatches of repose. On June 7th, the patient was decidedly worse. She had had scarcely any sleep for six days; the tongue was brown and dry; pulse 144, small and thready. She had muttering delirium, alternating with stupor. The wet packs were still continued; an ice-cap had been in use for the last twenty-four hours. The patient was ordered the following, the first half to be taken at 6 o'clock, and the second half at 10, if necessary. *R* Quinine sulph. gr. xl; potassii bromidi gr. xl; sol. acid. hydrobromici ʒij; aquam florum aurant. ad ʒij.

After the second dose, the patient slept for eight hours; she then awoke, and had some beef-jelly, and went to sleep for four hours more. The temperature, taken hourly by the nurse, was, at the end of ten hours, 100.5° Fahr., and never rose again beyond 101° Fahr. On June 8th, the evening temperature was 99° Fahr.; pulse 92. From this date, the patient convalesced rapidly, and without interruption.—I am, sir, yours truly,

RICHARD CREAN, M.D.

Manchester.

SELF-REMOVAL OF A VESICAL CALCULUS.

SIR,—With reference to the case of this kind recorded by Dr. Murphy in the JOURNAL of August 8th, will you allow me to say that I described a somewhat similar performance in the *Indian Medical Gazette* for September 1st, 1876? General Martine, the subject of my remarks, who founded the Martiniere Colleges of Calcutta and Lucknow, was one of those military adventurers who raised themselves, by their swords, to place and power at the petty courts of the feudatories of the Mogul throne. These feudatories were only too glad to avail themselves of the troubles of their suzerain to carve their own way, with the aid of these adventurous followers, to sovereignty or independence; and a wilder story of romance than that that is embodied in the career of some of these men has never yet been related. But any further allusion to this point would take us too far afield; and I can only remind the curious reader that he will find full details of these in Sleeman's *Rambles and Recollections*, Colonel Skinner's *Military Memoir*, Victor Jacquemont's *Journey in India*, Martin Honiberg's *Thirty-five years in the East*, and above all, in Edward's *Life of Sir Henry Lawrence*, and Mr. Keene's *Mogul Empire*.

Martine was, according to all accounts, a very eccentric and resolute man. He lived, *more sociorum*, like the native magnates with whom he mixed; and, spurning the teaching of Christianity, he followed or exceeded their standard of sexual indulgence. Whether he drank at the same time, I am unable to say; but I have heard that he was very subject to rheumatism, and he became, in due course, the subject of an urinary calculus. Having little or no faith in the surgeons of his day, he took his own case into his own hands, and the general result of this experiment is set forth below. The particulars are taken from *The East India Military Calendar*, vol. i, p. 458, and run as follows.

"During the last fifteen years of his life, he was much afflicted with stone and gravel; and, disliking to undergo the usual surgical operation for the complaint, his ingenuity suggested to him a method of reducing the stone, both curious in itself and difficult in its execution. He took a very stout wire, of about a foot long, one end of which he cut in the manner of a file. The wire thus prepared he introduced by a catheter into the bottom of the bladder, where the stone was seated.

"When he found the wire struck the stone, he gently worked the wire up and down, so as to give it the effect of a file, and this he continued to do for four or five minutes at a time, until the pain, which the operation of the wire produced, was so excruciating that it obliged him to withdraw it. But, finding small particles of the stone discharged along with the urine after the operation, he repeated it in the same manner from time to time, till, in the course of a twelvemonth, he succeeded in completely reducing the stone. This circumstance exhibits a curious and remarkable trait of the eccentricity of his character. The contrivance was in itself ingenious, but his patience and perseverance in carrying it into effect are so very extraordinary, that we apprehend there are few men who, in a similar situation, would not rather endure the complaint than have recourse to the remedy. Some years after the operation, gravely concretions began again to form in the bladder, and, as he did not choose to try the wire a second time, these continued to increase until the end of the year 1800, when they occasioned his death."—I am, sir, your obedient servant,

WM. CURRAN.

33, Auriol Road, West Kensington.

BRITISH BORNEO.

SIR,—I would feel grateful if you, or any of your readers, could inform me as to the diseases likely to be met with in British Borneo, or if there is any work that bears on it.—Yours truly,

MISSIONARY.

THE RELATION OF TONSILLITIS TO RHEUMATISM.

SIR.—Having read Mr. Green's letter on the above subject, in the JOURNAL of September 26th, I think the following facts may interest him. In the last three months of 1884, I treated 127 cases of acute tonsillitis. Of these, I was able to obtain trustworthy particulars as to rheumatism in 119. Seventy-six of these gave some history of rheumatism. In 14, the patient himself had previously had rheumatic fever; in 24, he had had "rheumatism"; in 28, there were rheumatoid pains, and a very acid smell at the time of the attack of tonsillitis; in 10 the patients were not rheumatic (that is, as to joints) themselves, but their parents were. Altogether, 46 cases had rheumatic parents (with 22 the fathers, with 14 the mothers, and with 10 both parents having had rheumatism); while 17 had either brothers or sisters who had suffered from rheumatic fever.—Yours truly,
C. HAIG BROWN, M.D.
Charterhouse, Godalming.

A GRIEVANCE OF UNIVERSITY MEN.

SIR.—The writer of a letter, in the JOURNAL of September 26th, headed "A Grievance of University Men," may be interested to know that, quite recently, within a few months, the rules of the Norfolk and Norwich Hospital have been so altered as to make any person, holding a degree in surgery of one of the universities of the United Kingdom, and being duly registered, eligible for the office of surgeon. Formerly, a would-be candidate might hold the degree of Master in surgery of the University of London (the finest degree in surgery in the world), and he would not be eligible for the surgeoncy, whereas his neighbour, perhaps a member of a Scotch College, would be able to apply for the post.

Will you allow me, also, to state that, by another alteration in the rules of the Norfolk and Norwich Hospital, made at the same time as the above, the election of the medical and other officers is placed in the hands of a committee, thus doing away with the crying evils which occur where the election is left in the hands of an enormous body of voters, the large majority of whom are utterly incompetent to judge of the merits of the candidates.—I remain, your obedient servant,
MASTER IN SURGERY.

TREATMENT OF SPRAINED ANKLE.

SIR.—In the notice of my little book, *On Some Common Injuries to Limbs*, in your issue of September 26th, your reviewer states, with reference to my method of treating sprained ankle by elevation, strapping, and movement, that "he acknowledges that he has obtained the idea from Mr. Wharton Hood's treatment of ruptured plantaris tendon." I should like to state that the first intimation I had of Dr. Hood's treatment was through the pages of the *Lancet*, in which journal he published a paper on the subject, in the issue of October 25th, 1884. Previous to this date, I had several cases of sprained ankle, treated by the method described, all being most successful. I have made no mention in my book of acknowledgement to Dr. Hood for the idea, as it was my own, although, curiously enough, it coincided with Dr. Hood's treatment of tennis-leg. Apologising for troubling you.—Truly yours,
E. COTTERELL.
Bicester.

PSEUDO-HYDROPHOBIA.

A CORRESPONDENT WRITES: A few days before last New Year's day, my son, the Reverend H. N. C. H., had a handsome young dog. A servant-boy had two cocks' heads with all the feathers, projecting out of a jug of water. I asked him what he was going to do with them. He replied that he would give them to the dog, feathers and all. I requested him, very earnestly, to strip off all the feathers very carefully, but he thought he knew better than me; and when I had returned into the parlour, he gave the heads, feathers and all, to the unfortunate animal. Next day, December 28th, the dog did not know his master, ran away from him into the shrubbery; he called a man out of the garden, and asked him what he thought was the matter, and he very soon replied that the dog was mad.

To prevent any further mischief, he had the dog killed. I opened the stomach; it was full of pure bile, with a lump of feathers, as large as my hand, in it, so that it could not eat or drink. As this illustrates an origin of certain cases of so-called hydrophobia, it is worth your notice.

ERRATA AND CORRIGENDA.

IN Dr. Malin's letter "On the Operative Cure of Bleeding Myoma of the Uterus," in the JOURNAL of September 19th, page 570, the name of Dr. Mc Clintock was erroneously printed "Dr. Mackintosh." Dr. Liebrecht writes, that in the article headed "Liebrecht's Method for Excision of the Ankle-joint," in the JOURNAL of May 30th, the reference should have been, not *Annales Médico-Chirurgicales*, but *Bulletin de l'Académie Royale de Médecine de Belgique*, 3me série, Tome xviii, No. 12, 1884. In Dr. Kisch's letter on the "Fever of Wiesbaden," JOURNAL, September 26th, for "Dr. Maxcolin" read Dr. Max Cohn. In the same number, at the end of Dr. Taifourd Jones' paper, the last speaker in the discussion was inadvertently given as Dr. Sheen, instead of Mr. J. Hancocke Wathen (Clifton).

TO WORKERS WITH THE SPHYGMOGRAPH.

SIR.—As many must have experienced the same difficulty as I have myself, in preparing single slips for the sphygmograph, it may interest those who make frequent use of this instrument to know that Messrs. Krohne and Sesemann, of Duke Street, Manchester Square, have made for me a frame, capable of holding twelve slips, which can be simultaneously smoked, and then suspended behind a desk, door, or other convenient spot in the study, ready for use, and to fill up the slip-case as needed.—Yours obediently,
RICHARD NEALE, M.D. Lond.
80, Boundary Road, South Hampstead.

J. D. W. should consult a physician skilled in the management of imbeciles.

HOMES FOR INEBRIATE FEMALES.

OUR attention has been called to an inaccuracy which occurred in the notice of the Dalrymple Home for Inebriates, in the paragraph "there has, so far, been no house licensed for females." Although this statement was made by speakers at the meeting held at the Dalrymple Home, it is not correct. We are gratified to know that several homes have been licensed for females, in different parts of the country, though none of them admit impecunious females.

RIDING LEGGINGS.

SIR.—If "Equus Rusticus" will use one of the admirable waterproof saddle-aprons, sold by Mathews, waterproofer, Charing Cross (the cost of which is only 12s. 6d.), and the ordinary patent leather leggings, which fasten by steel springs, and which come up to the knee, he will be enabled, as I have, to ride all day in the rain, without the legs getting wet.—I am, yours truly,
COTSWOLD.

CADOR.—Dr. Hardwicke's work on *Medical Education and Practice in all Parts of the World* would probably give the information required concerning medical practice in the Australian colonies.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. J. H. Parkinson, Sacramento; Dr. Althaus, London; Dr. James A. Lindsay, Belfast; Dr. J. C. Murray, Stranraer, N.B.; Dr. C. H. Brown, Godalming; Mr. G. M. Dartnell, Liverpool; Mr. J. V. Fitzgerald, London; The Dean of the University of Durham; Dr. Lindsay, Belfast; Mr. C. Norman, Monaghan, Ireland; Mr. G. Smith, Birmingham; Mr. W. Robinson, Stanhope; Mr. E. Cotterell, Bicester; Surgeon; M.D.; G. N. S.; Dr. T. D. Saville, London; Dr. E. Firth, Norwich; Dr. Kelly, Taunton; Mr. Arthur Andrews, Albury; Dr. T. Maxwell, Woolwich; Mr. B. J. Tuck, Seaford; Mr. James V. FitzPatrick, New Swindon; Mr. Edward Beerd, Shrewsbury; Mr. John Turner, Brentwood; Professor E. A. Schafer, Hamburg; Mr. T. Scattergood, Leeds; Dr. T. Milner Fothergill, London; Dr. Mackey, Brighton; Mr. W. H. Smith, Plaistow; The Dean of the Medical Department, King's College; Mr. John Bellamy, London; Dr. Styrap, Shrewsbury; Mr. Henry S. Wellcome, Brussels; Mr. Joseph Pratt, co. Armagh; Dr. W. T. Morgan, Carnarvon; Dr. Tinker, Hyde; Dr. Logie, London; Dr. F. de Havilland Hall, London; Dr. W. Langmore, London; Mr. A. L. Williams, Wainfleet; Dr. R. Rentoul, Liverpool; Mr. H. Howson, Colchester; Dr. C. R. Illingsworth, Clayton-le-Moors; Dr. A. C. Brand, Driffield; Mr. S. F. Murphy, London; Dr. Lymington, Wolverton; Mr. C. J. Boyd Wallis, London; Mr. J. Turner, Maldon; Mr. T. L. Walford, Reading; The President of the Royal College of Physicians; Mr. F. Cane, Letterkenny; The Secretary of the University College, London; Mr. T. Lambert Hall, Leominster; Mr. Cowell, London; Dr. H. Norris, South Petherton; Mr. Jonathan Hutchinson, London; Dr. A. MacLean, Thurso, Caithness; Mr. Pepper, London; Mr. A. Williams, Huddersfield; Mr. F. J. Turner, Richmond, Yorkshire; Dr. Norman Kerr, London; Dr. D. Noel Paton, Edinburgh; Dr. Alexander, Liverpool; Mr. R. J. Pye-Smith, Sheffield; Dr. G. B. Currie, Buxburn; Dr. Fergusson, Peebles; Dr. H. Drinkwater, Sunderland; Dr. R. W. Savage, London; Mr. F. Johnston, Liverpool; Mr. C. T. Symonds, London; Dr. W. A. Shillito, Abergavenny; Dr. Ashby, Manchester; Our Glasgow Correspondent; Dr. G. O'Reilly, Highgate; Mr. D. Bradley, Dudley; Mr. A. L. Evans, Hawarden; Our Dublin Correspondent; Dr. Wyness, Aberdeen; Mr. H. P. Dunn, London; Mr. S. W. Rawlings, Mullingar; Dr. J. Tatham, Salford; Messrs. Rimington Brothers, Newcastle-on-Tyne; Mr. George Eastes, London; Dr. J. H. Stowers, London; Dr. W. J. Mackie, Turvey; Dr. H. A. Fogarty, Aldershot; Mr. H. Bonham Carter, London; Dr. R. Sinclair, Dundee; Mr. H. R. Ker, Halesowen; The Editor of *The Journal of Commerce*, Liverpool; The Dean of the London School of Medicine for Women, London; Dr. R. Neale, London; Sir William Gull, London; Mr. W. W. Cox, London; Dr. C. P. Coombs, Castle Cary; Mr. B. Smith, Westgate-on-Sea; Mr. H. E. Watts, London; Dr. J. C. Waddell, Longton; Hysteria; Mr. H. M. Sampson, Painswick; E. M. S.; Mr. G. P. Field, London; Mr. W. Clarke, London; Mr. G. W. Joseph, Warrington; Mr. A. Macindoe, Salop; Dr. C. M. Campbell, London; Mr. F. P. Atkinson, Surbiton; Dr. A. Sheen, Cardiff; Dr. Alexander, London; Mr. P. Betts, Manchester; Mr. A. Kirch, London; Mr. W. Moss Bristow, Liverpool; Dr. Jeffreys, Chesterfield; Our Edinburgh Correspondent; Dr. R. C. Bowles, Folkestone; Dr. Markham Skerrett, Bristol; Our Paris Correspondent; Our Aberdeen Correspondent, etc.

BOOKS, etc., RECEIVED.

Practical Histology and Pathology. By Heneage Gibbs, M.D. London: H. K. Lewis. 1885.
The Blot Upon the Brain; Studies in History and Psychology. By W. W. Ireland. Edinburgh: Bell and Bradfute. 1885.
Medical Dictionary. By J. Thomas, M.D. J. Lippincott. 1885.

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AN ADDRESS ON MEDICAL EDUCATION.

Delivered at the Opening of the St. George's Hospital Medical School.

By TIMOTHY HOLMES, M.A., F.R.C.S.,

Vice-President and Member of Council of the Royal College of Surgeons of England; Surgeon to St. George's Hospital, etc.

GENTLEMEN,—My colleagues have entrusted to me the high and honourable office of opening our medical session to-day; and it is only fitting and right that I should commence my task by thanking them for this fresh proof of their confidence and friendship—a friendship which has lightened all the labours of my long period of service in this hospital and school, and which it forms my chief pride to have received, however little I may have done to deserve it.

It is indeed always a great pleasure to me to make my appearance in this room, where so much of my active life in the work of St. George's Hospital School has been passed, and that pleasure is necessarily greater as the inevitable period approaches nearer when my career here will be finally closed. The time that remains to me is short, even if life and opportunity be given me to fulfil my allotted service; and although I hope frequently to meet the students in clinical lectures, it is very unlikely that I shall ever again have the honour of appearing before the whole assembled school, represented as it is to-day by teachers as well as students, and by many of my old pupils and contemporaries. It has, therefore, been a subject of anxious thought to me how I can best occupy the hour which your indulgence allows me; and I have come to the conclusion that I shall perform my task best by speaking of that which occupies my thoughts most at the present time, the position of our profession in regard to its high aims and objects, and in relation to the public, and the reforms which, as I conceive, it requires in order to fit it to attain those objects, and to serve the public as it ought.

I do not forget that a portion of my audience consists of students who are only to-day beginning their career; but I think that the subject I have named is appropriate to them also, and it is certainly one which must be always before those of you who are more advanced in your studies, still more those on whom the burden of practice and of teaching has already been imposed. The position of our profession, and the organisation of the institutions by which that position is to be maintained and advanced, is a matter which surely concerns us all—the youngest student who joins us to-day, as well as those who, like myself, have pretty well run our course, and who are looking forward in no long time to “seek the chimney-nook of ease,” and “there ruminate with sober thought on all we have seen and heard and wrought.”

I should be sorry, however, to turn to the topics which I propose to submit to the judgment of the senior members of my audience, without saying a few words of welcome and of encouragement to those who are joining us for the first time to-day. I need hardly say that I think you have made a wise choice of your future profession; for, though medicine is a hard mistress, insisting on the unremitting devotion of your whole energies, and, as Johnson said, involving “a continual interruption of rest and pleasure,” still, to those who devote themselves heart and soul to her entire service, she gives rewards far more satisfying than titles or money; though, even in respect of its material results, I do not join in the depreciation of our profession which we so often hear. A man who follows it with assiduity and a fair share of intelligence, and who avoids all dissipation, is nearly sure to make his living by it. And of what other profession can so much be said? Very large fortunes may not be amassed by medical men, but an honourable competence will not fail to accrue to anyone who has fair health and average good fortune, and who avoids the common imprudences of marrying before he can afford it, and burdening himself with speculative expenditure which his income does not justify. So much for money. As to titles, my own opinion is that we have enough of them. But if anyone thinks that it would be a proud day for medicine if some great medical man were raised to the peerage, I see no improbability in the event. The old monopoly of honours by the land, the law, and the sword is breaking down. Authors are being admitted into the Upper House, and medical men may get

there in due course. I doubt whether they, or we, will be much the better for it. But the real charm of the profession does not lie in the making of money, or in the shadowy prospect of honours; it lies in the endless variety of its objects, and in the unfailing interest of its everyday round. To a physician or surgeon worthy of the name, there is a double interest in every case he is called on to treat—the human interest which he feels in the patient, and the scientific interest which he feels in the disease. The interest in both is enthralling. No doubt, however, the human interest and the human affection which you cannot but feel for your fellow-creatures, as you watch them struggling with the direst calamities of life, must be the more ennobling; and it is on this chiefly that you will have to feed your mind. You will learn as you advance in your profession that happiness is not confined to the prosperous, nor heroism to the distinguished; that a poor ignorant man can face suffering and death with an equanimity which philosophers often fail to display; that people may be serenely happy and tranquil, though their existence is a monotony of pain, and that death is often looked on more as a friend than a terror. You will learn, I think, if you reflect well on what you see, to distrust the philosophy which teaches that the mind is a function of the body, and at any rate you will be convinced that pain is not the worst of evils, nor death the greatest of calamities. Mingled, no doubt, with much that is mean and pitiful, you will come across scenes of unostentatious courage and of devoted affection, which cannot fail to raise your opinion of men, and increase your love for your kind; and you will be repaid by the gratitude and affection of many to whom you have been serviceable, and will feel in your degree the happiness of the patriarch of old: “The blessing of him that was ready to perish came upon me, and I caused the widow's heart to sing for joy.”

And if, when looked at in its social aspect, the practice of medicine is so rich in the rewards it bestows, it is hardly less rich in scientific interest. No doubt, to the general public, it seems both barbarous and grotesque, to talk of the most repulsive infirmities and the most agonising sufferings as “very interesting cases;” yet no one can doubt the absorbing interest of the study of the processes of disease, or the still more intense anxiety with which we watch the success (or, alas, too often the failure) of our efforts to arrest them. In fact, apart from such interest, no one could labour amongst such agonising scenes and in such horrible surroundings. It is the peculiar glory of medicine that it adds to the delight which attaches to every branch of the scientific study of Nature the far higher delight of sympathy and charity.

The chief drawback to its pursuit is the labour which it entails, a labour never ending, and which leaves its victim no repose, literally, night or day; and under which men are apt to degenerate into mere business-machines, and to care for nothing except their profession. No doubt this is a less evil than the listlessness which follows on idleness, still it is an ignoble condition. It deprives a man of all power of companionship with the world at large, and shuts from his eyes many of the sweetest and loveliest things of life. It makes a man the slave of his business, instead of its master, and it confines his mental faculties to a groove, in which they wither, so that business itself soon becomes a dull routine. The best antidote to this tendency, is the cultivation of a taste for some worthy object, which can be trusted to assert itself even against the claims of business. The best of all such tastes seems to me that for literature, a taste which can be indulged in any circumstances, in any condition of health short of actual acute disease, and at any time of life, nay, which often becomes keener and stronger in age. I would also recommend you to cultivate the great and lasting possession of conversational power, which has its advantage over reading, in being more social and more unselfish. I believe the art of conversation is said to be decaying. The more the pity, for it is a grand art, as well as a most delightful accomplishment, and to a medical man, who has to associate with all kinds of persons, in all kinds of circumstances, is almost a necessity. But, whatever may be your taste—so that it is innocent and healthy—cultivate it when you are young, and it will help you to resist the pressure of business when you are old. I do not want you to waste your time as students; you have, in fact, not an hour to spare. But healthy recreation wastes no time. No one can study profitably without a large allowance of total rest and change; and in those happy hours it is well to mount your hobby, if only a tricycle, and drive him fearlessly along, forgetting that there is such a thing as anatomy or surgery. You will be none the worse anatomists and surgeons in the long run. I well remember that in my time at Cambridge, two successive senior wranglers were as prominent on the river as in the Senate House. A man who is nothing but a doctor, is not generally first rate at that.

Our younger students may well be congratulated on the position

which has been acquired by the profession on which they have now entered. We, who have lived through it all, hardly realise, without some effort of mind, the enormous progress which our art has made in the years comprised by the active professional life of men hardly beyond middle age. We talk of the wonders of electricity and steam, of the benefits bestowed on life by all the mechanical inventions of the day, and with reason. They have transformed our daily life, and familiarised the poorest with luxuries which before were out of the reach of monarchs. But all the wonders of mechanical science are poor compared to that of anæsthetics; and no luxuries which modern inventions have put into our power can for a moment be compared with the immense saving of human life, and diminution of human suffering, produced by the more rational and successful methods which have prevailed, and are still gradually extending themselves over the whole field of modern medicine and surgery. We who are surgeons, can perhaps best estimate this from the success of our operations in the present and in the past; and here most of us would be inclined to agree with my late friend, Mr. Callender, that the risk of the mere surgical procedure has diminished tenfold, so that operations which would have been scouted, in my younger days, as the follies of a madman, are now undertaken as matters of common every-day routine. But, fortunately, it is only a small minority of the human race who are exposed to the sufferings and dangers of the great operations of surgery.

In medicine also a similar progress has been attained; not, I believe, nearly to so great a degree, for medicine has not been favoured by great discoveries, such as that of anæsthesia, or wide-reaching theories, like that of antiseptics. Still, the extended study of pathology and chemistry, and the more accurate knowledge of the functions of the body in health and disease, which modern physiology has given us, have placed our physicians in a position far different from their fathers, and have emancipated them from that bondage to imperfect theories and traditional practice which caused so great a havoc in old times. Still more important to the public, and still more peculiarly the property of modern times, is the growth of preventive medicine, by which already our great cities have been raised to a condition of healthiness such as the healthiest parts of the country could not boast in former days, and by which we may hope, in no very long period, that the great epidemics which still ravage the world, will be bridled, and, in civilised countries at least, gradually extinguished. On the whole, I do not doubt that if some future Buckle shall resume his predecessor's mighty task, and attempt to write again the history of modern civilisation, he will allot to medicine one of the foremost places among the progressive sciences; and will allow that the medical profession have established their claim to consideration as among the most active benefactors of the body politic. It is to such a profession that we welcome the new students of to-day, and it is to them, and such as they, that we commit its future, secure that the great work will not stand still, but that there will be even better men in the future than those who have left their mark on the past, and not without a hope that, as in the past, a good share of that progress will be attributed to the physicians and surgeons of the school which we love so well.

Let us now turn to consider the institutions by which the organic life of this great profession is carried on in England—the medical schools, the hospitals, and the corporate bodies which preside over our professional life. We shall find much to praise in all of these. How else could the progress which I have rapidly sketched have been attained? If I find much also that I, at least, would willingly see altered, I hope you will bear with me if I point it out freely. I shall do so in no depreciatory or sneering spirit, but with the good will of a man whose chief distinction has been that he has been thought worthy to bear his share in the government of institutions of all these three classes, and who earnestly wishes to increase their vigour and usefulness. I am, I hope, as far as possible from that foolish thirst for novelty which condemns an institution merely because it is old; but times change, and, if we try to stand still, we must be left behind. It is only by constant change that the England of to-day has been developed out of the polity of the Saxons and the Normans; and it is only by admitting such changes as are indispensable that institutions devised in the times of our forefathers can be adapted to the greatly changed position which, as I have shown you, modern medicine occupies. So much everyone allows, and perhaps you will call it a truism; but, when we come to apply it, and point out, here and there, where we think changes are necessary, I fear our unanimity will come to an end.

We will speak first of our schools; and here I will restrict myself to England, for I am not sufficiently familiar with the Scotch and Irish schools to speak with confidence of their organisation. The main excellence, as it seems to me, of these our hospital-schools is, that most of them are officered by men who have been brought up in them

together from their early years, who have derived their education from the same source, who have the same traditions, the same eponymous heroes, as the Greeks would say. Speaking of surgery only, it is no small thing that St. Bartholomew's should regard itself as the school of Abernethy and Lawrence; that Guy's should look to Cooper and Key; that St. George's should be associated with the undying names of Hunter and Brodie. These great traditions give a unity to the teaching, and an *esprit de corps* to the teachers, which we should look for in vain in a school presided over by a body of professors, however eminent, nominated by a central authority, and owing no ties to each other more tender than those which bind together the partners of a commercial firm. Such *esprit de corps* reacts on the students. Any man, worth the name, who enrolls himself here, feels that he is in his degree bound to support the traditions of the school. If he cannot imitate the profound research of Hunter, or the clinical acumen of Brodie, he can, at any rate, imitate in his humbler way the perseverance which they did not think unworthy of their great genius; and he can remember, and so bear himself as to make others remember, that from our predecessors and from our own contemporaries we have inherited traditions of honour and self-respect which our youngest as well as our oldest members are equally bound to follow. I would point out to you, as an example of what I mean, the great surgeon who has lately passed away from us; full of years and honours, endeared to those who had the happiness of being his pupils by every tie of gratitude and affection, and revered by all who can appreciate stainless honour. Cæsar Hawkins was rich in friends, who watched and tended the peaceful close of his long and brilliant career. They testify how well he bore Horace's test of a well spent life, "senior et melior vis accedente senectæ." The old words involuntarily occur to everyone who contemplates an old age so full of dignity and goodness: "The path of the just is as a shining light, which shineth more and more unto the perfect day."

It is, then, by private enterprise, by the association of colleagues and friends, that these great schools have been founded and maintained; and this seems to me to be their first and great excellence. I do not deny, however, that private enterprise has been carried to excess in the medical schools of London; and that, if the number of them were considerably diminished, it would be a benefit to medical education. The question which is to be sacrificed first is a delicate one, and obviously one which I cannot discuss here; but it will, I have no doubt, receive a solution from outside before many years are over. A good school requires many things which can hardly be furnished by an institution just struggling for existence. The means for teaching must be ample; the staff of teachers must be experienced and competent; the premises must be appropriate; but, above all other things, the supply of hospital-cases, and the opportunities given to the students for hospital-instruction, must be on the most liberal scale. There are many famous and flourishing institutions in other countries where this last and most necessary requirement is sadly overlooked. You meet some one returning, we will say, from some German school; for all the young men of the present day go to Germany, as those of our younger days did to Paris. He tells you of the profound discourses of Professor This, and the interesting demonstrations of Professor That; of the crowds that follow these eminent men through their wards, and the brilliant operations he has witnessed. If you ask him, "Did you ever watch the results of the treatment? Had you any share in the practice? Did you learn anything which will assist you in your every-day work when you take up your daily routine?"—you will often (of course I do not say always) find that the precious time, which should have been spent on acquiring a familiarity with every-day matters, has been wasted in theorising, or in watching other people do what the student himself will probably never have occasion to imitate. Many can describe accurately the steps of the operation for excising the pylorus or extirpating the larynx, who would make a horrible bungle in trying to reduce a hernia, and perhaps never passed a catheter in their lives. I am told that young men have ceased to read Milton. I am sorry if it is true, for there are few great authors so truly delightful; and to acquire an intimate knowledge of and love for the great authors of your own and other tongues in your youth is to provide "a perpetual feast of nectared sweets" for your old age. There are, at any rate, a few lines in *Paradise Lost* which, I hope, will remain in all our memories, and which might fitly be inscribed over the portal of every medical school in the kingdom:

"Not to know at large of things remote
From use, obscure and subtle, but to know
That which before us lies in daily life,
Is the prime wisdom. What is more is fume
Or emptiness, or fond importunance,
And renders us in things which most concern
Unpractised, unprepared, and still to seek."

To our younger students I would say, "Judge of the merits of your school, not by the renown of its teachers, not by the excellence of their lectures, not by any thaumaturgic proceedings which you witness in the operating theatre, so much as by the opportunities given to you, if you choose to make use of them, to familiarise yourselves with the daily round of practice and to take your share in it." In this most essential particular, I venture to think that the schools of London stand foremost in the world, and I hope the one in which we are now assembled is not behind its fellows.

Having said so much of the merits which I claim for our London schools, may I say a word about what seem to me their defects? I think they may chiefly be summed up in these two particulars: first, that our teaching of the preliminary sciences—the bases of all medical knowledge—has of late tended to become too theoretical; and, second, that these sciences have been too far separated from the more strictly practical part of the teaching. This subject is intimately connected with the regulations of the examining bodies, a topic which I shall handle presently, but the result seems to me grievous. So occupied are most of our students in "cramming" for what, in the mock English of the present day, are called "exams.," that they appear to have forgotten that the subjects are matters of human knowledge—matters replete in themselves with the highest interest, and fit to form a part of the furniture of a man's mind for the whole of life. How rare it is now to hear a student talk of "learning" anything. He is "getting it up," and, when he has got it up, and it has served its purpose, he drops it again just as rapidly, and a few months after he has passed a brilliant examination, knows almost as little of the matter as he did before he commenced his work on it. It is this that constitutes the difference between cramming and learning: that the first contemplates a temporary purpose, and the second a life-long use. There was, no doubt, much to be said against the old system of teaching, which prevailed in my day, and against the single examination at the end of the whole curriculum; but it had, at any rate, this merit, which the present method has sacrificed, that it presented the whole of medical education—what used to be called the Institutes of Medicine—as (what it really is) a single subject, no part of which ought to be separate from any other, and all of which ought to be present equally to the student's mind at the end of his career. I know not how to advise you to remedy this. The regulations of our schools and examining boards make it practically impossible to continue the active pursuit of anatomy and physiology after the primary examinations in those subjects are passed, except in the case of those few men who have more than the usual period to devote to their studies. The ultimate cause of the defect lies probably in the fact that the period of study is too short. I can only hope that this may some day be remedied, and that, when it is so, the examining bodies may see their way to insist on a re-examination at each successive stage in all the subjects presented at a previous stage of the course. Till this is done the present perfunctory study of these great subjects must, I fear, continue to be the rule—a rule which will allow fewer and fewer exceptions to its monotonous tyranny as it becomes more firmly established.

From the school to the hospital is an easy step, and, fortunately, in London, at any rate, the two need never be separated by any zealous student. Practice—hospital-practice—should be the basis of all your studies, the source from which they flow, the test to which they are every day referred. No reading of books, however good the books may be, and however well you may read them, no listening to lectures or demonstrations, no matter how striking or eloquent, will make any one of you a competent physician or surgeon. Every line you read, every lecture you hear, should be tested by the living illustrations which our wards furnish to you in such abundance, and to provide such illustrations and such instruction is one of the chief functions of our great hospitals, and one of their most important public benefits. I had almost said absolutely their greatest. Hospitals are regarded by the public almost exclusively as places for the relief of the sick, and their function in medical education is usually passed over as "a doctor's question." No mistake can be more glaring. The relief of suffering, and the cure of disease is, of course, the primary object of a hospital, and in those hospitals which have no medical school attached, their only function; but consider for a moment how inferior in importance to the public, and to humanity in general, is the relief thus administered to individuals, compared to the saving of pain and of life involved in even one of the many discoveries made in our hospitals, and constantly propagated and enlarged by the improved teaching founded on them. What, for example, was the relief afforded to the individual sufferers from popliteal aneurysm in all the hospitals before Hunter's time, compared to the effect of the discovery which he made in this hospital with regard

to its treatment? The first ended with the individuals treated, the second has gone on continually improving the treatment of that formidable malady to an extent which Hunter himself could never have foreseen. I believe the public will get to see the truth of this in a little while, and will understand that the clinical investigation of the cases by the staff and the students is not only necessary, but is, in the highest degree, beneficial to the patient himself as well as to the public. It is to me pitiable to think of the mass of material for clinical instruction which is allowed to be wasted here in London, to say nothing of the country, and of the small period of their curriculum which our students pass in what ought to be their chief employment, work in the wards. Something of this is due to the separation, every way to be deplored, which accident has caused between the hospitals, so-called, and the dispensaries and infirmaries. These latter ought to be dependent portions of the same institutions as the hospitals, and equally accessible to students, or rather, equally parts of their compulsory clinical instruction. Consider the difference which has been made in the education of a medical student by the abolition of the apprentice-system. A great number of them pass through their course and obtain the diploma without any personal familiarity with the management of a case. How can they come afterwards into practice without finding themselves, in Milton's words, "In the things that most concern, unpractised, unprepared, and still to seek"? How great an advantage would it not be, if time could be found for students, as a part of their curriculum, to take personal charge of dispensary and infirmary cases, under the supervision of the medical officers of those institutions! and so familiarise themselves with the routine-duties of actual practice, duties so important to the practitioner, so necessary for the patient, yet which hardly can be confided to the personal care of students in our hospitals as at present constituted.

I have spent much time and labour, hitherto in vain, in trying to persuade the public and the profession that our hospitals ought not to be isolated institutions as they are now, completely separated from the infirmaries and dispensaries, holding no communication with them, receiving no patients from them, and giving them no assistance; but that the hospitals ought to stand to the other medical institutions in somewhat the same relation as consulting practitioners do to the medical men of their neighbourhood, receiving some patients from them for opinion, others for treatment, and giving them, in return, all the assistance they require, amongst which the services of their medical students in visiting the patients, and taking charge of their cases, under the superintendence of the medical officers of each institution, would be one of the greatest usefulness to both parties. I am aware of the difficulties in the way of such a scheme, but I regard them all as subordinate to the great initial difficulty of the shortness of the present curriculum. If this could be extended, I see no reason why a part of the time so gained should not be given up to a properly regulated attendance on patients at their own homes, or in infirmaries. Another, and hardly a minor advantage of such a federation of our medical institutions, as I have hinted at, would be that it would almost necessarily entail the reform of our present out-patient system: but on this well worn topic I must not now detain you. My views upon it are well known to those who trouble themselves about them, and I do not care to feed you on *crambo repetita*. All I need say is that, at this hospital, we have, at any rate, so far succeeded in checking the tendency to indiscriminate reception of out-patients, that our assistant physicians and surgeons are able, without neglecting their duty to the patients, to use the abundant material which the out-patient room supplies, for the instruction of the students; and I need not tell those who know these gentlemen, as most of you do, that what they are able to do they do most heartily and efficiently, and that the student will pass some of the most valuable hours of his day in following the cases of the out-patients.

I wish I had time to treat of an important topic in regard to hospitals, and one to which, in medical circles, too little attention is paid. I mean their method of government. Happily, the matter is one which requires the less notice in this place, since the constitution under which we at St. George's live, seems to me perfect, and it would be invidious to illustrate its merits by reference to the misfortunes or errors of those of our neighbours who are less happily circumstanced. That constitution is a pure republic, where the lay and the medical men vote and debate equally and openly, and it has resulted in a condition of mutual goodwill and good offices between the hospital and school, which is of the highest advantage to both.

I need not say, gentlemen, that much of this happy result is due to the personal qualities of those who preside over the affairs of the hospital, and I am glad to see our worthy Treasurer here to-day, and to assure him, on behalf of my colleagues and myself, how fully we

appreciate the unfailing consideration and help which we receive from him, and from the Board of Governors, and how sincerely we thank them for it.

I now come to the third and the most difficult part of my subject—to the consideration of those great institutions through which chiefly the profession communicates with the public departments, and through which its internal regulation is or ought to be carried on, and by which the rules for our medical curriculum and examinations are settled; I mean the licensing bodies and the Medical Council. Now here I find myself in rather a peculiar position. I have served the College of Surgeons in various offices, and always with pride and affection. It is a great and noble institution, one that has done great things for the profession, and deserved nobly of it. Those who charge the College of Surgeons with selfish aims, and with administering the affairs of the profession with a view to the private interests of its own Council, do so in entire ignorance of the subject. Such charges may serve to spice a newspaper-article; but to those who are acquainted with the management of the affairs of the College, they are ridiculous. During the many years I have sat on the Council, I never knew any subject connected with the examinations, or the *personnel* of the examiners, debated or settled with reference to anything except the perfection, as far as possible, of the system; nor do I believe that any examination in the kingdom has made greater progress towards efficiency than that of the College of Surgeons has during the time that has elapsed since my student-days. I do indeed greatly deplore the cutting up of the examination into separate pieces. The separation of anatomy from physiology I consider a grievous mistake, both in theory and practice, and I resisted it as long and as vigorously as I could. I also think (as I said before) that the entire separation of the Primary from the Pass examination is a mistaken system; but I stand in a small minority in thus thinking. The Medical Council, the College of Physicians, and the great bulk of the authorities outside the College would have it so, and so for the present, at any rate, it must be. Leaving this aside, just consider for a moment the difference between the present membership examination at the College, and that which prevailed when Brodie and Lawrence were examiners. The present examination is looked upon as a difficult one, yet I do not think that it is so to those who approach it as a practical examination ought to be approached, through the avenue of honest and continuous practical work in the dissecting-room, the laboratory, and the wards. It is, indeed, difficult to get it up by "cram," and the lamentable fact that so many students try that plan accounts for the equally lamentable result that the percentage of rejections amounts, I fancy, to something between a quarter and a third at most of the examinations, and in some reaches a still higher figure.

I have no doubt that anyone who dispassionately examines the question, with a fair knowledge of the condition of things at different periods, will agree with me that the College of Surgeons, in its dealings with medical education, has acted vigorously and wisely, and has earned the gratitude of the profession of which it is the leading educational institution; and I do not doubt that in its degree the College of Physicians is entitled to a share of the same praise.

Having said so much as to the excellencies of the Colleges, I am compelled to say that, notwithstanding all their eminent services to the profession, these great institutions are not so organised as to do all they might for the service of the public. State medicine is coming every day into a more prominent position as a branch of general policy. Where are the medical advisers of the State? and who are they? All that we see in public leads us to conclude that medical questions are settled less on medical considerations than by a reference to popular clamour, or the pressure of contending interests. Meanwhile, the great Colleges of London are never consulted, except on some merely trivial point of administrative business; nor is their influence on any political question, such as a medical Act, in any proportion to the number and intelligence of their members. The reasons for this very undesirable state of things seem to me mainly two: the defective organisation of the Colleges, and their want of union. The College of Surgeons is organised on the model of a City company; in fact, for some time, it was governed by a master and wardens, exactly as a company is; and, though the names of the functionaries have been changed, the essence of the government remains the same. Such a constitution, in which the master or president changes every year, reduces his power, and with it that of his council, to a minimum, and makes the secretary or other non-professional officer the most important authority. The result is fatal to the public influence of the College, and it also binds it down inevitably to an unreasoning conservatism. It excludes altogether the influence which the general body of the profession, the Fellows and Members, ought in all reason and fairness to have on the deliberations of the Council and the

government of the great institution which derives its lustre from their numbers and achievements, and its very means of existence from their contributions. I have no doubt whatever that the administration of this great College must, and ultimately will, be reformed in these particulars, if it should still remain as a separate institution. Of the College of Physicians, I would say the same in one respect, that it affords too little scope for the representation of the general opinion of its members, and in that respect requires reorganisation. In other respects, its constitution seems to me much superior to that of my own College. The president is a more permanent officer, and has more influence on the course of college affairs; the Fellows meet in conclave; the administration is in professional, and not in lay, hands. But the question will inevitably occur before long, Why should these great bodies remain separate? They have at length, and, as I believe, with most happy augury, seen the desirability of union for the purposes of examination. Why should they not be united into one great institution, which would become the Medical University (if you like so to call it) for England, and possibly for the British Empire, through which the profession could communicate with the State and its various departments, and which could regulate all the various and intricate questions which are constantly cropping up with regard to the curriculum of education, the visitation of schools, the management and results of examinations, the titles under which men practise, and the methods which they employ to obtain practice. All these questions, and others of a similar nature, are now placed in the hands of the Medical Council, an august body of which the profession knows little more than this: that, though composed of the most eminent men, and animated by the best intentions, it has not hitherto done much for the solution of these problems. The reason I take to be, again, that the organisation of the Council is faulty, if it is intended as an instrument for action. For deliberation, indeed, nothing could be more appropriate than a body composed of the *élite* of the profession, taken from all parts of the British Islands, and elected by the Crown or by public bodies with all possible diversities of situation and interests; and, of deliberation, there is certainly plenty in the Council's proceedings. But the diversity of the interests which the members represent, and of their origin, effectually prevents any definite action.

Some more effectual machine must be provided, and one animated by a more powerful motive force. Now this machine can, as far as I see, be found only in some such institution as I have hinted at—formed by a combination of our great Colleges; and the motive force, where are we to find that? Well, I should reply, in some more popular organisation—more democratic, if you like to use that now fashionable term. I do not mean that the government of the Colleges is to be put into the hands of the Members. I am not so democratic as that; but I hope to see the day when the Members, as well as the Fellows, will have a voice in the election of the Council and of the President, and when, on all important matters, the constituency of the College (or of the united Colleges) will be consulted. That constituency, we must recollect, is not composed of handicraftsmen or agricultural labourers, but of professional gentlemen, perfectly acquainted with the wants of the profession (nay, much better acquainted with many of them than those who are called its "heads"), and the expression of whose opinion, could we find a means of eliciting it, would strengthen the authorities in a way no other force could do. It is not, then, in any spirit of hostility to the Colleges, but, on the contrary, with the sincerest desire to promote and extend their sphere of usefulness, that I advocate a change in their organisation, which, in fact, I regard as almost certain to be brought about in one form or other. The object I have in view is the formation of a great institution, which can worthily represent the medical profession in England, and through which the profession can pronounce its opinion with an authority which can only be possessed by a comprehensive and a self-governing body. No one, I think, will deny that there are plenty of subjects upon which the voice of the profession could be expressed decisively, and to the great benefit of the public, as well as their own. The present *régime* of happy-go-lucky has left us in a position equally unsatisfactory to both parties. If we look at the profession, we see it oppressed on all sides by so-called "charities," which eat up the means of living of general practitioners, while the good which they do to the public is, to use the mildest term, problematical. We see public appointments remunerated at a rate below starvation, yet eagerly sought after, in order to keep out competitors from the field of practice. If we look at the public, we see them the victims of every fresh folly and delusion which it may suit the reckless ingenuity of quacks to palm off upon them. And we cannot help admitting that there are many members of our own profession, whose diplomas may be perfectly regular, but whose practice is hardly to be distinguished from that of

the avowed quack. Coincidentally, in fact, with the immense strides which the art of medicine has made, we see this fungus of quackery growing more luxuriant. I do not say that a strong and prevalent central authority would reform all this. You can no more make men honest by authority than you can make them religious by Act of Parliament. But, at any rate, it would be easier to detect, and, if not punish, at least rebuke, infamy, if there were such an institution as I have imagined, and the materials for which lie so ready at hand, if we could but combine them. Think of the chaos in which all such matters are now weltering. There are plenty of good schools, and plenty of bad ones. But there is no central authority which has the right of visiting them, and exercises it; independent enough to be trusted to distinguish the bad from the good; and powerful enough to enforce on the former the alternative of reform or dissolution. There are plenty of good hospitals, organised for the service of the public, and the spread of medical education; but they are oppressed and stunted in their growth by a crowd of institutions, which are organised, not for the service of the public, but for private ends, and which, far from spreading medical education, draw off from our great medical schools many of the cases which would be most useful for clinical purposes. But there is no central authority which could guide the public to discern the one from the other. The public service is starved and the poor are ill-attended, in consequence of injudicious parsimony. Yet there is no central authority which could pronounce decisively on the bad policy of the employers, and on the unconscientious greediness of the employed, and so defend the poor, who are the victims of the system, against both. The indiscriminate abuse of medical charity is eating out whatever of manly independence may have been left in our poorer classes; and is, at the same time, rendering the struggles of the general practitioner more and more severe. Yet there is no central authority which could give a decisive opinion on all this, and rescue the public from a state of things as dangerous to the body politic as to the interests of our own profession. Men of good education and of sound experience—licentiates of our great colleges—complain that any inexperienced young man can go away to some trumpery university, and return with a degree, enabling him to pose in the eyes of the public as their professional superior; and there is no central authority to stop this nefarious traffic, or even expose its real nature. Such are a few, and only a few, of the uses to which my fancied central authority might be put. Your own experience will easily supply plenty of others.

And it does not seem to me at all unlikely that some such combination as I have hinted at, may be arrived at sooner perhaps than we now expect. The union of the two Colleges for examination purposes is a very striking and very pregnant fact. But, one thing, at any rate, we all can do, for we are all Members, either of the College of Physicians or Surgeons. We can, if you think with me, labour in every way that seems prudent and feasible, to obtain for the Fellows and Members of these Colleges the rights to which their intelligence and their social position entitle them in their own college; and so, if we cannot change the institutions which exist, we can at any rate hope to reform and strengthen them. In doing this, I am sure we shall be rendering an equal service to the public, and to this, the most energetic and the most progressive of all professions.

Gentlemen, my task is done. I only wish I could have executed it in a style more worthy of my great theme. These few minutes, however, will not be thrown away, if I have succeeded in arousing, in any degree, in the minds of the junior students, an idea of the greatness of the calling on which they are now entering, of the services which it has rendered to humanity in the recent past, and of the far greater services to be expected from it in the near future—if I have impressed on the more advanced students the conviction that success in their studies is only to be sought by constant personal familiarity with the actual facts of practice; and, still more, if I have in any degree stimulated my colleagues to a resolute determination, that they will attempt to place the organisation of our professional institutions on a footing more worthy of the rapid advances of medicine in public estimation and public usefulness. I need hardly say that my own share in any such attempt must necessarily be a very short and a very humble one; but I should be indeed glad if I could think I had done anything towards that brighter future that awaits the great profession to which I have dedicated all the active years of my life.

I am sensible that I have only touched on the very surface of my subject; but I trust to your indulgence to forgive my deficiencies, and to your intelligence to supply them. To handle such a theme fully, would require not a speech, but a treatise; and even then the matter is one not so much for words as for action. I confidently hope to see many of the deficiencies which I have noted in the present state of things remedied in no long time, and that is because I look confi-

dently to the energy of the rising generation of medical men, to enforce the reforms which are needed.

With all good wishes for your progress in your studies, and for the success of the noble school in which you commence them, I wish you all heartily farewell.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE CAUSES OF ATROPHY OF THE OPTIC NERVE, OTHER THAN GLAUCOMATOUS.

Introduction to a Discussion in the Section of Ophthalmology at the Annual Meeting of the British Medical Association in Cardiff.

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WHEN your Secretaries wrote to ask me to open, at this meeting, a discussion on the "Causes of Atrophy of the Optic Nerve, other than Glaucomatous," I accepted with a degree of rashness which I have since had reason to regret. The subject is one of such difficulty and complexity, that I can only very imperfectly fulfil the task assigned to me, and must leave to those who are to take part in the discussion the more full elucidation of the dark places.

The advantage of stated discussions on subjects arranged beforehand has been questioned, and with, perhaps, some reason. I cannot, however, help thinking that it is an useful thing now and again to marshal and pass in review before us the various facts, as far as they are known, and the theories that are deemed most reasonable, concerning some of the subjects of importance in connection with each section of medicine and surgery.

A discussion, such as I anticipate to-day, serves to register the present state of knowledge and opinion, and to place in some collected form the most important points, both those that are understood and those that still remain unexplained. For I hold that it is of the greatest practical importance to know where our knowledge ceases; to recognise the extent of our ignorance; so that, knowing, we may be the more open to receive new facts when presented to us.

In discussing atrophy of the optic nerve, it must be understood that the term, as used, is synonymous with atrophy of the disc; for, from a clinical point of view, the disc is our guide, being the only part of the nerve visible, or capable of accurate investigation; and we are the more justified in adopting this nomenclature in view of the fact, that atrophy of the disc is always associated with atrophy of the nerve-trunk; and, conversely, atrophy of the nerve-trunk is probably always, if sufficient time be allowed, associated with atrophic changes in the disc.

By atrophy we mean to include all those trophic changes, whether primary in the nerve or consecutive to some other condition, whether the result of acute inflammation or of slow sclerosis, which, sooner or later, alters the appearance of the disc from its normal pink colour to white or bluish grey, with more or less marked change in the blood-vessels of the disc and retina.

Post mortem observations have shown that atrophy of the disc is not limited to the portion of the nerve that is visible with the ophthalmoscope, but always extends to the corresponding nerve-trunk, and often to the optic tract; that the change in the nerve varies greatly, in some cases rendering the trunk of the nerve considerably smaller than normal, and imparting to it a greyish translucent, or gelatinous look, by reason of a "wasting of all the structures of the nerve, fibres and connective elements, with, especially in recent cases, products of degeneration of the nerve-fibres. The position of the latter may, at first, be masked by rows of fatty particles.

"In other cases the nerve may be little diminished in size, but may present, under the microscope, a great increase in the interstitial connective tissue, fibres, and cells, with disappearance of the nerve-tubules. Commonly, the change is greater in the circumferential portions of the nerve than in the central. Occasionally the reverse is the case. In atrophy from pressure on the nerve its size is usually greatly reduced, and the increase of connective tissue is very considerable. In primary grey atrophy the nerve-trunk is usually little reduced in size, and is grey and gelatinous in appearance. Microscopically, it presents

an increase in the connective tissue trabeculae, and an atrophy of the nerve-fibres; their medullary-sheath first disappears, and afterwards the axis-cylinder. It is said that the nerve-fibres may be reduced to fine fibrous threads. Products of myeline degeneration may be found in the earlier stages.

"Sometimes the change is peculiar; there develops round the vessels a peculiar gelatinous-looking tissue, containing a few nuclei and indistinct concentric fibrillation. The normal arrangement of the trabeculae disappears, and a section of the nerve shows islets and tracts of this tissue, in the centre of each of which a vessel can be traced. Between them lie the fasciculi of degenerated nerve-fibres, with little increase in their interstitial tissue. The same histological condition may be present in the grey atrophy of locomotor ataxy."

The description which I have just given is from Dr. Gowers's admirable work on *Medical Ophthalmoscopy*, and corresponds in many important particulars with the changes described by Cornil and Ranvier as occurring in the peripheral ends of divided nerves.

What, then, are the causes which produce such profound changes in the nerve and in the appearance of the disc? and what are the conditions under which these causes operate? These are the questions we have here to consider.

To draw up a simple yet comprehensive etiological table for atrophy of the optic nerves is difficult; hence it happens that each author has tabulated the causes differently, in his endeavour to attain further completeness. There are, however, some large all-embracing divisions which are, for convenience, adopted. "Primary" and "secondary" are terms that are in a certain sense etiological, as applied to optic nerve atrophy.

"Primary" is applied to that form of atrophy which frequently comes on without known cause, and apparently without implication of any other structure. It may be that a neuropathic disposition had been inherited, as in cases first, I believe, described by Leber, where several members of the same family were affected. To this division also belong those forms of atrophy of the optic nerve frequently met with in connection with tabes dorsalis, sometimes met with in disseminated sclerosis, more rarely in general paralysis of the insane, and still more rarely in lateral and insular sclerosis.

It is a fact worth notice, that atrophy of the optic nerve is probably never associated with progressive muscular atrophy; the explanation accepted by Gowers being that, this disease being one of motor nerves, the nerves of special sense are less likely to be implicated.

About 75 per cent. of all cases of atrophy of the optic nerves occur in men.

Under "secondary" are embraced all those cases resulting from disease or injury of the optic nerves or centres, with or without the occurrence of papillitis.

Another classification is based upon the position in which the cause acts.

I. *Causes acting within the globe (intra-ocular)*: 1, specific retinitis, retinitis pigmentosa, choroido-retinitis or detached retina; or (as at rare intervals occurs), 2, from the effects of bright light on the retina; 3, the senile atrophy of hypermetropia, probably belongs to this division, since it is accompanied by other changes within the globe.

II. *Causes acting within the orbit (intra-orbital)*: 1, orbital tumour; 2, inflammations, as periostitis, cellulitis, abscess, caries, or hemorrhage; 3, congenital deformities and hyperostoses, narrowing the optic foramen; 4, injuries from direct violence, concussion, splinters of bone pressing on the nerves, penetrating wounds of the orbit, gunshot injuries, etc.

III. *Causes acting within the cranium (intracranial)*: 1, tumours of various sorts; 2, hydrocephalus; 3, dropsy of the third ventricle; 4, basal meningitis and meningeal hemorrhages; 5, thrombosis of the cavernous sinus.

IV. *Causes acting within the general system from a morbid condition of the blood (systemic)*: 1, nervous exhaustion, as from venery in excess, or masturbation; 2, catamenial irregularities, especially suppression; 3, sympathetic excitation and reflex trophic disorders, and other remote conditions; 4, exposure to wet and cold, with suppression of perspiration; 5, hemorrhage from internal organs, as the bowels or uterus; 6, acute diseases of various kinds, as typhus, measles, scarlatina, puerperal fever, pneumonia, etc.; 7, the peculiar disease, myxoedema; 8, the overaction of various drugs, as tobacco, alcohol, quinine, lead, etc.; also syphilis, diabetes, and the various forms of Bright's disease.

There is yet another classification based upon the nature of the cause; whether it is the result of—

I. Papillitis, due to any cause, as cerebral tumour, meningitis, etc.

II. Pressure on the trunk of the nerve from: 1, tumour in the

course of the nerve; 2, hemorrhage into the sheath; 3, hyperostosis of the optic foramen; 4, splinters of bone from fracture of the skull; 5, inflammatory exudation, as from erysipelas; 6, dilated vessels or aneurism; 7, dilated third ventricle pressing on the chiasma; 8, hydrocephalus, etc.

III. Injuries from external violence: as 1, concussion of the trunk of the nerve as it passes through the optic foramen; 2, gunshot injuries; 3, penetrating wounds of the orbit.

IV. Thrombosis and embolism of central retinal vessels.

V. Diseases of the structures within the eye, as enumerated above.

VI. Systemic causes.

VII. Atrophy associated with spinal disease.

VIII. Hereditary atrophy.

IX. Atrophy from unknown causes, without any symptoms other than loss of sight.

From such a variety of causes, then, may atrophy of the optic nerves arise, that it would be quite impossible to discuss each, even briefly.

The eye-symptoms in cerebral diseases have been discussed in a masterly manner by Dr. Gowers in his work on *Medical Ophthalmoscopy*, with which all here are familiar.

The eye-symptoms in diseases of the spinal cord have been exhaustively discussed at a special meeting of the Ophthalmological Society of the United Kingdom held in June, 1883, and the discussion has been published in full in the Society's *Transactions*.

The influence of tobacco in producing amblyopia and partial atrophy of the disc has been, at least as regards its clinical aspect, fully discussed by Mr. Hutchinson in the *Transactions of the Royal Medical and Chirurgical Society*, 1867, and in many subsequent papers with which all present are familiar.

In like manner, each of the other large classes of causes has been treated from time to time. It will, therefore, be unnecessary now to attempt a complete review of these subjects; but there are some points of special interest that will suggest themselves, and it may be more profitable for the discussion to centre round a few of these debatable questions which require further investigation or elucidation.

In the first place, I would raise the question of the influence of that many-headed hydra, syphilis, in producing atrophy of the optic nerve. Mr. Hutchinson has already discussed this subject in the *Royal London Ophthalmic Hospital Reports*, vol. ix, and elsewhere, but I cannot think that it has been exhausted.

According to the author I have just named, in atrophy due to cerebral syphilis gummata are nearly always the exciting cause. Papillitis may be produced by meningeal gummata. Syphilitic disease of the arteries may produce hemorrhage or thrombosis (the latter only in the acquired disease). Syphilitic disease of the bone may produce atrophy, as also syphilitic degenerative changes in the nerve-centres. Hutchinson also suspects that syphilis can produce a travelling form of primary neuritis. It is especially with reference to this latter point that evidence seems to be needed.

Syphilis is so common, and such a very convenient resource when there is doubt about a diagnosis, that one is, perhaps, inclined to accredit it with the causation of many conditions of which it is innocent. It would be well, therefore, to have, as far as possible, the diagnostic points brought out clearly. I hope some of those who have large experience of the disease will give the Section the benefit of their opinions.

The following may illustrate a class of cases by no means uncommon. Some weeks ago, a man, aged 35, consulted me in consequence of failing sight, which had come on within a few months. Both eyes were very white, with clearly cut edges; the veins were of good size; the arteries were slightly small, but without evidence of inflammation around the vessels. The fundus was otherwise normal. Vision was so bad that the field could not be taken, but there was no history suggestive of central scotoma. He had had syphilis eight years before, but had been cured. Headaches were not present to any remarkable degree, and he said that in every way, but for his sight, he was as well as ever he was in his life. The knee tendon-reflex was decidedly exaggerated. There were no other signs of lesion of the spinal cord. He had a rather slow way of speaking, which may not have been natural. He smoked an ounce a week of twist tobacco. There were no other symptoms to guide to the diagnosis of the cause. It was, therefore, regarded as probably syphilitic in origin. But where was the lesion, and what was its nature?

Many cases of apparently simple atrophy come to the hospitals in which a history of syphilis can be obtained, but where there seems to be no means whatever of making certain that the syphilis is the cause, no other so obvious cause being present, it is accepted.

In speaking of injury to the optic nerve as a cause of atrophy, I

may mention two somewhat rare cases which came under my care some time ago in St. Mark's Ophthalmic Hospital, and the notes of which I have already placed on record. The first was that of a boy, aged 10, who, in play with another boy, was stabbed under the eye with a broken fencing foil. The blunt end of square steel penetrated the skin and entered the orbit. There was very slight proptosis; vision was destroyed immediately, but ophthalmoscopically the retina was normal, and its circulation perfect. Atrophy supervened in a few weeks, and became total. There was never any inflammation within the globe. The point of the foil, no doubt, pinched the nerve so tightly against the optic foramen that, though the retinal circulation was not disturbed, atrophy followed.

The second case was that of a servant girl, who, while sitting in the kitchen, was shot by a fowling-piece which accidentally went off while being cleaned. The right eye, that next the gun, was instantly blinded, but with the left eye she saw the man take up the gun and place it in the corner; and, a second or two afterwards, that eye also became blind, and in a short time developed complete atrophy. Through the right eye one grain of shot passed, for the sclerotic was punctured; but there was absolutely no sign whatever of injury to the left eye, except atrophy. Here, no doubt, the grain of shot passed through the bony septum, and wounded the left optic nerve, probably producing a hæmorrhage into its sheath, or wounding the central vessels. It is remarkable that she retained the sight for so many seconds after the injury, and then lost it for ever.

The following queries, may, perhaps, elicit replies from some of the subsequent speakers.

With reference to tobacco amblyopia; the most diagnostic point is the presence of a central negative scotoma, and usually a sector-shaped atrophy of the disc at the outer side is found in old cases. Where is the primary lesion in such cases? And what determines the part of the nerve to be most affected? Is the absence of a central scotoma a symptom of any etiological value?

How far does atrophy of the optic nerve depend on vaso-motor changes, as from sympathetic irritation, etc.? And how far do affections akin to neuralgia influence this nerve?

In what percentage of cases of amaurosis without ophthalmoscopic change (excluding hysteria) does atrophy subsequently develop?

What is the etiological value of dyschromatopsia? and what are the reasons why, in apparently similar cases, the symptom varies much in degree?

In many cases of atrophy, the degree of blindness will vary in a most remarkable way from day to day, and even from hour to hour. What is the explanation of this temporary loss and temporary restoration of vision in such cases? and what is the clinical value of the symptom?

What explanation can be offered of the fact that, not unfrequently, there is a history of a sudden failure of sight in an eye affected with atrophy that must have been of much longer duration than the blindness? From this, of course, I exclude those cases where the eye may have been blind without the patient's knowledge.

Very considerable photophobia is at times associated with complete atrophy of the disc and only bare perception of light. What is the explanation and clinical value of this symptom?

How far can atrophy of the disc be recovered from, objectively and subjectively? It must be remembered that the degree of paleness of the disc is no certain indication of the vision in the eye; marked pallor, not due to the general anemia, being often associated with excellent vision. Simple pallor due to anemia may, of course, be entirely recovered from, and must not be confounded with atrophy.

Concerning atrophy of the optic nerves in spinal disease, I would ask, What is the mode of connection between the spinal disease and the atrophy of the optic nerve? It is certainly not by direct extension from the spinal cord; for, apart from the fact that *post mortem* examinations disprove it, the long interval that often occurs between the ataxy and the atrophy, and the fact that atrophy sometimes precedes and sometimes succeeds, after long intervals, the spinal manifestations, are clinical proofs that the processes of disease in the cord and in the nerves are, in a way, separate and distinct. The atrophy of the optic nerve must be regarded as the result of degenerative processes occurring in it, associated with, but not produced by, similar degenerative processes occurring in the spinal cord.

But how happens it that the optic nerve is, in spinal diseases, much more frequently affected than the other sensory nerves? Locomotor ataxy being a "wide sensory neurosis," it is particularly strange that the other nerves of special sense should enjoy such immunity from implication, whilst the optic nerve is affected in from 15 to 20 per cent. of such cases.

Although the causes enumerated above embrace most of the cases of atrophy that are met with, still there remain a very large number

for which no assignable cause can be found. Men and women, apparently in perfect health, are, at times, affected with simple atrophy. There is no history of constitutional or of inherited taint. All the other functions of the body are well and fully performed. Some of these do eventually develop ataxic symptoms, but many others do not. These are the cases that most of all demand our careful attention, and above all others require *post mortem* investigation, but they are also just the cases in which *post mortem* examinations are almost impossible to obtain.

I regret that I have not been able to bring forward any new matter, or even to arrange the old in a more acceptable form; but, trust that others will supplement my shortcomings by drawing on their fuller experience and greater pathological knowledge.

Mr. RICHARDSON CROSS (Clifton) drew attention to the anatomy of the visual nerve-tract, the retina and choroid, the papilla, the nerve in the orbit and at the orbital foramen, the chiasma, the relations of the optic tract, of the corpora geniculata, of the optic thalamus, and corpora quadrigemina, and, further, the nerves leading from these centres to the angular gyrus. A lesion in any part of the visual tract would cause interference of vision, and, if gross enough, the local damage would be followed by ascending and descending sclerosis from the injured part to its peripheral end-organ in the retina, and to its centre in the brain; and if no compensation followed the lesions which were more central, at any rate some atrophy at the nerve would follow. The amount and evidence of the atrophy necessarily varied with the amount and position of the lesion. Syphilis might cause a neuritis, or produce pressure by periostitis or a gumma, or vascular changes which might result in atrophy. Optic atrophy not unfrequently followed the severe choroido-retinitis of inherited syphilis, and, in all probability, it did so in acquired cases. There were instances of atrophy commencing at the periphery. Erysipelas and cellulitis affected the nerve itself. The following was a case of atrophy descending from a lesion close to the angular gyrus. A gentleman had a very transient paresis of the right arm. Fourteen days afterwards more distinct paralysis occurred, with left temporal neuralgia and sudden blindness. The patient was now about 80 years old, and was in excellent health, except that the one nerve was completely atrophic and functionless. Several toxic agents that caused amblyopia, especially tobacco, might eventually produce atrophy; and, whatever might be the pathology of miners' nystagmus, he had no doubt that he had seen more than one case in which complete double optic atrophy had resulted. He would judge of the prognosis of a case of this disease not only by the amount of amblyopia present, but also by the appearance of the nerve.

Dr. MILES (Manchester) said that central scotoma for red was not alone caused by tobacco, but also by alcohol, and was therefore not a marked diagnostic symptom. It was not proved that true nerve-atrophy was caused by tobacco.

Mr. POWER (President of the Section) observed that the subject was one of wide extent, and that only one or two points could be discussed with advantage. In the first place, in regard to tobacco-amaurosis, he thought that, whilst there was no doubt in regard to the occurrence of a disposition to white atrophy in smokers, yet it rarely in his experience went on to complete atrophy. The only point which raised a doubt in his mind in regard to the action of tobacco was the comparative rarity of white atrophy, considering the great frequency with which tobacco was indulged in, both in this country and abroad. If tobacco produced white atrophy in many cases, it ought to be common amongst the Germans, who consumed it much more largely than the English. In regard to white atrophy after hæmorrhage, several cases of *post partum* hæmorrhage had fallen under his notice in which, though the disc was extremely white, yet good vision was retained. He was at a loss to understand the physiological relations of the retinal vessels to the functions of the eye. On the one hand, sudden occlusion of the retinal vessels, as in embolism, cause blindness, and was followed by white atrophy; whilst in others, where the atrophy was well marked, the vessels were well preserved. He gave instances of pressure producing white atrophy, in one instance white atrophy being recognisable on the eighth day after a fall on the side of the head.

Dr. EMERY-JONES (Manchester) said that he had no doubt whatever that atrophy was caused by tobacco, and he had seen a case in which vision was reduced to perception of light, for which no other cause could be found but excessive smoking. A case was referred to of atrophy following an attack of erysipelas, in which there was distinct atrophy of the optic nerve noticed within ten days from the onset of the attack, due in this case probably to a thrombosis. In his experience, atrophy was not seen in connection with miners' nystagmus.

He was of opinion that syphilis generally first produced choroiditis or chorio-retinitis, and nerve-affections secondarily.

Mr. EDGAR BROWNE (Liverpool) said that central scotoma for red, although a symptom in tobacco-amblyopia, was not confined to cases owing to excess in tobacco as a cause. It was the symptom of bilateral retrolubular neuritis, and this might presumably be owing to sundry causes, among which the toxic action of tobacco might be included. If patients were seen in early stages, recovery would be effected by the disuse of the tobacco. But we must be on our guard not to exclude a class of neglected cases. Here the amblyopia passed on to a graver stage, vision being reduced to perception of large objects, $\frac{2}{30}$ or lower; but not passing into the complete blindness that frequently followed neuritis. The atrophy was only partial and commensurate with the extent of the previous neuritis. The reference of these cases to their true cause was difficult; but it must not be assumed, when a case did not improve, that it was not due to tobacco. That was sometimes done by those who were anxious to prove the proposition that tobacco never caused atrophy. The argument drawn from the effects upon nations who smoked more than the English was scarcely valid. Certain individuals might be more sensitive than others, and the quality of the tobacco had to be taken into consideration. Sailors, especially those of middle age, who smoked half an ounce or more of "twist" when at sea, would suffer from the effects of the same amount if on shore. He had seen two cases in which severe neuroretinitis followed profuse *post partum* hæmorrhage. The retinitis was of the description seen in anaemia—white patches, hæmorrhages, and papillitis. In one case great blanching of the disc, with great impairment of vision, followed; in others a good recovery was made.

Mr. SIMON SNELL (Sheffield) agreed with previous speakers as to the undoubted injurious influence of tobacco on vision. He did not, however, think the condition passed into complete atrophy. He thought it was especially characterised by the tendency to recovery, under treatment and discontinuance of tobacco. He disagreed with Mr. Cross that optic atrophy was often associated with the nystagmus of miners. He had not met with this condition, and stated that elsewhere he had given his reasons for believing that the nystagmus was caused by the position assumed by the colliers whilst at their work. He referred to the percentage of optic atrophy in the report of the causes of blindness in a blind institution, which he proposed reading before this Section, as being eighteen per cent.; eleven of these cases occurring in children, and eight in adults, the total number of cases examined being 111.

Mr. H. BENDELACK HEWETSON (Leeds) said that a case had recently been under his care in the Leeds Infirmary, in the person of a girl aged 18, in which the white atrophy was complete, but in which there was very fair sight, namely, $\frac{2}{3}$ in each eye; but suddenly, one morning, the sight diminished, so that she could barely count fingers. He performed iridectomy, although there was no increased tension, and after the iridectomy had healed, the vision had risen to $\frac{2}{3}$. The result was so marked, that he was led to iridectomise the opposite eye, with no result in affecting the vision in any way. He did not think that he had ever seen a case of miners' nystagmus in which atrophy of the optic nerve was a symptom. He was surprised to hear that there still remained doubts in some minds as to the effect of tobacco-poison on the optic nerve when smoked, but he had not heard reference to the use of tobacco by chewing or snuffing. He could quote one case in which tobacco-poisoning was kept up by both chewing and snuffing, when the atrophy of the nerve, and the impaired vision, quickly improved on this habit being discovered, and this, as well as the smoking, entirely stopped. He had not seen a case of tobacco-amaurosis in which complete blindness followed, or anything approaching that state; nor had he ever seen a case in which great improvement—in some cases, complete cure—followed the entire cessation of taking the drug in any form. He believed that sexual exhaustion, with or without the use of alcohol, occurred in men. He had certainly seen two cases in which this appeared to be the cause.

Professor ZEHENDER (Rostock) said that no doubt there was much more smoking in Germany than in England, but there was no statistical evidences as to the relative prevalence of tobacco-amaurosis. There was, in some instances, some general disturbance of the circulation, or some nerve-disturbance, as cases were noticed in which persons smoking strong tobacco in large quantities for years would suddenly suffer from failure in sight.

Mr. PRICHARD (Clifton) was taught, in the early days of his apprenticeship, that tobacco was a frequent cause of amaurosis, and that the requisite treatment was to leave off the tobacco; but he did not connect the loss of sight with atrophy of the nerve. He had seen more than one case where a patient, who had exceeded in the way of

tobacco, was wont to wake in the morning with every object covered with muscæ, which disappeared after a few minutes.

Mr. MARCUS GUNN (London) believed that tobacco, like certain other poisons, such as alcohol, bisulphide of carbon, and lead, was capable of producing an axial neuritis similar to that found in diabetes, and with similar symptoms. There was no doubt that ophthalmoscopically there might be pallor of the outer part of the disc in such cases, and even, he thought, complete atrophy when the cases were of long standing. Mr. Benson asked for an explanation of photophobia accompanying blindness. The reflex symptoms known as photophobia might recur either through the retina or optic nerve, or through the fifth nerve. When the optic nerve was no longer capable of transmitting impressions, therefore, there might still be photophobia through the fifth nerve, and the nature of the primary nerve-irritation might be demonstrated by the use of cocaine, which would stop that form dependent on the fifth nerve. The question of the connection between optic atrophy and spinal disease was most important. He thought that there was too great a tendency to forget that the optic nerve was unlike ordinary cerebro-spinal nerves. In its origin, it must be considered as really a direct prolongation of the central nervous system, and, in its anatomy, it resembled the white matter of the brain and spinal cord in the absence of primitive sheath and general arrangement of the nerve-fibres. Was it not possible, therefore, that, in certain conditions of nervous disorder, disease might be established in the white matter of the spinal cord, or in the optic nerve, independently of one another; the relationship of the two positions being founded upon their development and anatomical similarity? In this way, one could understand how, in one case, the spinal cord might be affected alone; in other cases, the optic nerve alone; while, in a considerable proportion of cases, both cord and optic nerve were involved in the neurosis.

ON STRETCHING OF THE SUPRATROCHLEAR NERVE.

Read in the Section of Ophthalmology and Otolaryngology at the Annual Meeting of the British Medical Association in Cardiff.

By W. A. BRAILEY, M.D.,

Assistant Ophthalmic Surgeon to Guy's Hospital, etc.

This operation was first brought forward, in 1882, by Badal of Bordeaux, in a paper entitled "*Traitement de douleurs ciliaires par l'élongation du nerf nasal externe.*" The author threw out the suggestion that the operation might be effective, not only in ciliary neuralgia, but against certain forms of glaucoma, and even in sympathetic ophthalmia.

For a guide to the exact position of the nerve, which lies deeply on the periosteum, he directs that the finger is to be laid, palmar surface forwards, close under, and parallel to the orbital margin; then the centre of the finger-nail just corresponds to the point of emergence of the nerve from the orbital cavity. A curved incision, about ten millimètres long, in the line of the finger, will cross the track of the nerve, which, it is important to observe, not unfrequently passes out in two or three filaments.

Following out this most ingenious lead of Badal, Abadie practised stretching of this nerve in a glaucomatous eye, which remained hard and painful even after a sclerotomy followed by an iridectomy. He stretched the nerve to rupture, and removed about a centimètre of its proximal extremity. The tension slowly sank during three days to normal, and the vision slowly and slightly improved; also the pain was relieved. Since then, he has recorded encouraging cases where nerve-stretching was combined with either iridectomy or sclerotomy, even in such unpromising maladies as congenital hydrophthalmia. However, he expressly states that he does not think that nerve-stretching can, at the present time, be accepted as supplanting iridectomy or sclerotomy; but that it should be reserved for the intractable cases which have resisted all other means of cure. He suggests its probable utility in congenital hydrophthalmia; also in the glaucoma of children secondary to synechia anterior, on the ground that the loss of the eye is due to the continuous traction on the nerves entangled in the scar. Where he practises this operation for the cure of glaucoma, he combines it with a simultaneous sclerotomy.

Acting on the strength of these recommendations, I myself have tried the operation in certain cases that seemed likely to test its efficacy: 1, In the relief of ciliary neuralgia; 2, in lowering the tension; 3, it seemed to me so extraordinary that stretching of this so small nerve should have a peculiar influence on the tension and on periorbital neuralgia, that I stretched the supraorbital nerve itself in

one case, in order to compare the relative effect of these operations in the relief of pain and tension.

I lay before you very briefly the notes of six cases.

CASE I.—George B., aged 49, came in January 23rd, 1884, suffering from left-sided glaucoma, the result of iritis, following a cataract-extraction five years ago. It appeared that the tension was slightly in excess, even a month after the cataract-operation. When he came this time it was + 2, though this much heightened tension was apparently an affair of five weeks only, during which time the vision, which had till then been deteriorating very gradually, failed much more rapidly. On the following day I stretched the left supratrochlear nerve to rupture, and excised a piece four millimètres long. In three days the tension had fallen from + 2 to + $\frac{1}{2}$. In six days it was a full normal. The vision has slightly improved; so that with + 10D it was now $\frac{5}{6}$. The pain in his brow, of which he had previously complained, had now quite left him.

From this very favourable case I pass on to another, which happens to be at this present time in the hospital.

CASE II.—George C., aged 67, came in November, 1884, with commencing nuclear cataract of the left eye, and glaucoma absolutum of the right eye. The tension was + 3. There was perception of light. He said that the sight went gradually twenty years ago. He complained of considerable pain over the right brow. As this eye presented a good appearance, and as he was specially anxious to avoid excision, I stretched the supratrochlear nerve. There was considerable supuration from the wound, but the tension gradually fell till it was certainly not more than + 1, at a date about ten days later. The pains were entirely relieved, and have not recurred. This is the first exemption he has had for several weeks. He is again in hospital, but this time for the extraction of the other eye, and now, two weeks after the operation, bids fair to regain capital sight.

CASE III.—The third case, Harriet K., aged 41, was one where double iridectomy had been performed elsewhere for glaucoma three years ago. She had still some tension in each eye, with enduring pain over the left brow. The pupils contract to eserine, which, however, was of no benefit in reducing either the pain or the tension. After stretching of both supratrochlear nerves, the wounds healed very rapidly, and the tension fell to full on the right side, and to normal on the left. The pain was entirely relieved for a month, but it then recurred, together with the tension. Neither symptom was quite so acute as previously to the nerve-stretching. The vision remained the same, that is = $\frac{5}{6}$ in the right, and = $\frac{5}{8}$ in the left eye.

CASE IV.—In the next case, that of Caroline A., aged 63, I combined the stretching of both supratrochlears with that of the supra-orbital. I reached this nerve differently on the two sides, working from above the brow on the left side, and below it on the right. The left eye had absolute glaucoma, the tension amounting to + 3, with no perception of light, and dilated, fixed, and eccentric pupil, and some supra-orbital pain. The right eye had also tension + 3, but its vision was = $\frac{1}{2}$ badly. The inflammatory symptoms were, however, very slight. There was primary union of all the wounds except the left supra-orbital, that is, that approached from above the brow, which suppurated, though not extensively. There was no relief of pain, though the tension on each side fell to + 1. I was obliged subsequently to perform sclerotomy, and then iridectomy on the left eye, whose vision ultimately remained = $\frac{1}{2}$. Its tension remained + 1, notwithstanding that all these procedures were apparently well executed. The other remained as hard as ever, and was at last excised.

Following these four cases, I pass on to two others, in which the results were less favourable.

CASE V.—Thomas C., aged 75, had glaucoma absolutum on the left side, with severe pain spreading over all that side of the head, from the occiput forwards. On the next day, after stretching of the supratrochlear, the pain was certainly much relieved, but, five days later, it came on almost as badly as before. The eye was excised two weeks afterwards, with entire relief. In this case, the wound healed by first intention.

CASE VI.—The last case is that of Setonia W., aged 55. She had a severe choroido-cyclitis of the left eye, indicated by very defective sight, and large flocculent hæmorrhages in the vitreous. The right eye had only perception of light, with excluded pupil, and iris slightly bulged. The disease had commenced in this eye two and a half years ago, with just the same symptoms as the other, which was now apparently running the same course. There was severe pain in and around both eyes. No reasonable suggestion as to the nature of the inflammation could be given, and the left eye, which still retained V = $\frac{1}{6}$, became gradually worse, notwithstanding a varied and full use of drugs. The pain continued unrelieved, and the vision gradually fell to perception of light only. The nerve was, as a last resort, stretched

on each side. The pain was thereby certainly diminished, and the tension, which, within narrow limits of normal, had varied very much, fell slightly. But, eight days later, the left eye had blood in the anterior chamber, and the tension rose to + 1. Four days later again, severe iritis manifested itself in the left eye, the iris having up till now been of good colour and activity, and both eyes became rather soft. After this, the hyphæma increased, and the pain recurred. Finally, some weeks later, the anterior chamber became enormously deep. Ten days later, a similar, though less severe, attack manifested itself in the right eye, the anterior chamber becoming deepened, and revealing the existence of numerous marginal anterior synechiæ. Since then, the eyes have gradually become quiet, though not in the least better as regards vision. The pain, however, is certainly better than before the nerve-stretching. I did an iridectomy on the left, six months later, with impunity, though without benefit as regards the vision, on account of opacity of the lens.

So far as I am personally concerned, I propose, for the future, to restrict the operation to maladies where, on the strength of the preceding cases, I have good ground for expecting some benefit; in the neuralgia of glaucoma absolutum, for example, and in intractable cases of glaucoma generally.

It will be seen from the above records that I have had a very fair measure of success in some such cases, and even, I may say, two brilliant successes.

I do not intend to stretch the supraorbital nerve again in glaucoma. I feel satisfied that it exercises no beneficial effect on the tension, and at best only a very doubtful one on the neuralgia. Indeed, considerable subsequent pain around the margin of the numbed area was complained of in this, as in other cases, where I have ruptured it or excised portions of it.

I am satisfied that stretching of the supratrochlear nerve has some influence on the tension, though I think that the operation is not worth counting on in this respect as a remedy against glaucoma, though it is still of use as an adjunct.

With regard to the anatomical position of this nerve, I find another guide of easier application than that of Badal. This, which was first suggested to me by one of my former dressers, Mr. H. E. Jones, consists in the drawing of an imaginary line from the outer angle of the mouth to the inner canthus of the eye of the same side, and so onwards. This continuation will be in the line of the nerve as it emerges from the margin of the orbit. The curved incision will then cross this line at right angles, and the nerve will be found deep, indeed, right on the periosteum at its centre. Though it appears a very small nerve to the anatomist, there is less difficulty in finding and isolating it than might be expected, for I have never failed to find it, without any accident.

Mr. RICHARDSON CROSS (Clifton) showed a man whose supraorbital nerve he stretched, nine days ago, for intense neuralgia in the left eye, shooting up the forehead, of three months' duration. No vascular or muscular abnormality was present. The pain was most intense, and recurred every few minutes. It was specially produced by chewing or drinking. The nerve was exposed just outside the tarsal fascia, and stretched until it was felt to give way. The result was that scarcely any pain had since been felt, and the man was now quite well. No change in tension, or in the vascular condition of the eye or of the pupil, followed the operation.

THE EXAMINATION OF THE CORNEA AND LENS BY MEANS OF THE OPHTHALMOSCOPE, HAVING BEHIND IT A STRONG CONVEX LENS.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By GUSTAVUS HARTRIDGE, F.R.C.S. Eng.,

Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital; Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham.

This simple plan is not new, having been used by some ophthalmologists for the past year or two; and I would beg to offer my apologies to the members of this Section for bringing forward what may appear to many so trivial a subject. My excuse is that, so far as I know, no account of it has appeared in any paper, nor has it been referred to in any of the books on the eye which have been recently published; and I think one of the objects of these annual meetings is that the members may have an opportunity of exchanging ideas, and bringing forward any subject, however slight, which may have escaped notice. I am aware that several ophthalmologists frequently and

systematically employ this method, where an accurate examination of the cornea or lens is necessary; but there are many, I am sure, who have never used it.

The plan consists simply in using the direct ophthalmoscope with a + 20 convex lens behind it when examining the cornea, and a somewhat weaker glass (+ 16) for the crystalline lens. Spots, opacities, vessels, or the remains of vessels, show up as dark objects on a red background. A few trials are necessary to find out the exact distance the observer should take up, so as to focus clearly the part under observation.

1. In keratitis punctata, the spots on Descemet's membrane can be plainly seen as black spots on the background of the illuminated fundus, and can thus be seen with the high magnifying glass, in many cases, where they might otherwise be easily overlooked when the cornea is examined only by the oblique illumination.

2. In opacities of the cornea, especially those left after interstitial keratitis, and in some cases even where the cornea seems quite clear, numerous lines may be seen crossing the cornea in all directions. These lines are the remains of vessels which formed the salmon-patch—they show up as dark lines on a red background. It is probable that these lines never completely disappear.

3. Slight opacities of the crystalline lens, or spots of uvea on it, can be well examined by this plan; also the capsule after a cataract-operation, when considering the necessity of a needle-operation. This method of examination cannot be employed when the lens is so opaque that we are unable to get the ordinary fundus-reflex, this is the one essential condition for the carrying out of this plan.

IS CANCER HEREDITARY?

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By HERBERT SNOW, M.D. Lond., etc.,
Surgeon to the Cancer Hospital.

I THINK I may reasonably assert that to this query an unhesitating answer in the affirmative would be returned by nearly the whole of the medical profession, the exceptions being few and far between. Now, if the question were purely theoretical, no great harm could be done by the persistence of a belief in heredity: but, as it appears to me that this opinion leads to the most important practical results, and is productive of enormous mischief, I venture to solicit from the profession a reconsideration of their attitude in the matter; and, should they withhold their assent from the conclusions I now endeavour to bring before them, at any rate not to regard the current theory as of indisputable authority, until they have thoroughly and dispassionately sifted the circumstances of as many individual cases in ordinary practice as they possibly can. For I am convinced that it is the difficulty of securing direct personal knowledge of the facts, that so greatly obscures our views on this and similar topics; and in all such it is of the highest importance (I need hardly point out) to distrust all merely hearsay evidence, and to make ourselves as cognisant as possible of a patient's family history, independently of the patient's own statements.

I propose, now, first, to lay before you statistics on heredity drawn from cancerous patients; secondly, to balance these by statistics drawn from other sources and from patients non-cancerous; lastly, to discuss the validity of these statistics, and the general bearings of the whole question.

Of 519 patients affected with mammary scirrhus, 94 gave some family history of cancer, 425 denied any such.

Of 295 patients with uterine cancer, 37 gave a family history; 258 had none.

Of 204 cases of epithelioma in various superficial sites, 31 were placed in the former class, 173 in the latter.

Of 57 cases of sarcoma, 7 gave a family history, and 50 denied any hereditary taint.

Thus, of 1,075 cases of malignant disease in its various forms, there was some account (not by any means of hereditary transmission, but of more than one individual in a family having been affected by diseases of a certain class, not even by the same disease) in 169 instances only, or 15.7 per cent. This, again, is the most liberal estimate possible, for all forms of blood-relationship are included; and 22 of the above are marked very doubtful.

But, as in physiological investigation, it is usual to institute a control-experiment, so, in a statistical inquiry, it is well to balance and contrast mutually controlling statistics. It appeared to me that no evidence of this kind on heredity in cancer was worthy of attention

unless checked by corresponding statistics drawn (1) from people in sound health and of fair intelligence, (2) from patients affected with some prevalent disorder other than cancer, as Bright's disease, or phthisis, (3) from miscellaneous out-patients.

1. I accordingly addressed a circular inquiry to 150 medical practitioners, taking the names as they came alphabetically in the *Medical Directory*, and I am much indebted to the 78 gentlemen who favoured me with a reply. Of these 78, 15, or 19.2 per cent., were cognisant of cancer having occurred in a member of their family: in 5 instances, the father or mother had been thus afflicted. It is noteworthy that this large percentage is found among males.

2. Through the kindness of Dr. Douglas Powell and the medical staff of the Brompton Consumption Hospital, I was enabled to make a similar investigation among in-patients at that hospital suffering, of course, from some form of thoracic disease, not necessarily phthisis. Here, as in the preceding instance, printed questions were distributed, and careful inquiry among relatives was solicited. The courtesy of Dr. Waugh, the resident medical officer, could secure for me the return of 79 only, out of 150; and of these 79, 9, or 11.3 per cent., could hear of cancer in some one member of their family. In 2 instances, the mother had been thus affected. The papers, it should be said, were equally distributed in the male and female wards.

3. Of 175 patients who presented themselves at the Cancer Hospital with maladies such as strumous lymph-glands, dental sinuses, and the like, in no way allied to cancer, 46, or 26.3 per cent., stated that cancer had affected one or more members of the family. By no means unfrequently, several relatives were stated to have been cancerous; whereas, among the cancer-patients themselves, this was very much the exception.

I venture to submit to you that these statistics collectively warrant the following general proposition. Taking any number of non-cancerous people, we find a percentage, roughly stated at from 10 to 20 per cent., with cancerous relatives; and no larger percentage is to be found among patients actually suffering from cancer. Hence the figures above quoted in no way indicate that cancer is hereditary, and so specially prevails in certain families, but very much the reverse.

But, in order even to countenance a theory of hereditary transmission, it is surely necessary to show, not merely that some relative has been affected, but that transmission in the direct line is a frequent and ordinary occurrence. Proceeding further to analyse the 169 cases already mentioned, we find that the mother was stated to have been cancerous in 51 instances, the father in 18, grandmother in 12, grandfather in 4, sisters in 36, brothers in 8, other relatives in 35. Among the 129 near relatives, there were only 7 instances of more than one member of the family having been cancerous. Of these 7, there were only 2 in which a parent and grandparent had been both affected by malignant disease. A woman with scirrhus of the breast stated that her mother and grandmother had both died of the same malady; another, in the like condition, said that her mother had also died of this, that her mother's father had died from "cancer of the toe." We thus seem entitled to conclude that instances indicating the transmission of cancer in any form for more than a single generation are most rare and exceptional, whereas, were the ordinary belief true, they should be the general rule; and this making all due allowance for the obvious fact that many people would hardly know what had caused the deaths of their grandparents.

Further, I would strongly urge upon you that, in the present state of our pathological knowledge, we are by no means entitled to point to the development of one form of cancer in an individual as having any relation whatever to the appearance of a totally different form in his or her relative. For instance, if a parent have suffered from epithelioma of the lip or tongue (a complaint in which we can invariably trace a direct and obvious mechanical cause), and the daughter come before us, with a round-celled sarcoma of the ovaries, it is difficult to imagine that any question of heredity can arise. At any rate, such a view would surely require very strong evidence in its support. Yet I fear that many such instances have in our clinical records gone to reinforce the popular belief; and, of course, in accumulating merely subjective testimony we cannot entirely exclude them.

Of the 51 mothers above alluded to, a corresponding organ was affected (and so, presumably, mother and child suffered from the same form of cancer) in 19, including 2 doubtful. This organ was the breast in 16, the uterus in 3. Of the 18 fathers, there were only 2 very doubtful instances of disease in the same organ as in their children; of the 4 grandfathers, none; of the 12 grandmothers, 4, all breast-cases; of the 8 brothers, none; of the 36 sisters, 11 (breast 8, uterus 3).

Again, of the 35 instances of cancer in distant relatives, 9 were

double or multiple—a very suspiciously large proportion, remembering the corresponding percentage (7 to 129) among the near relations.

These figures point to rather large further deductions from the proportion in which the cancerous parent appears to have transmitted the malady to his or her offspring.

I think we may now quit the realm of figures, and, bearing in mind Plato's advice, endeavour to take a general view of our subject from the outside, and from a distant stand-point.

First of all, it is well to remember that, when we seek the origin of cancer, heredity cannot possibly be a *vera causa*. It relates only to the transmission of cancer—in no way touches the first appearance of the disease. Then, how far are statistics in general competent to throw light upon this question? Statistics are proverbially fallacious, and easy to manipulate, according to the more or less unconscious bias of the writer. Witness the volumes of arithmetical arguments poured forth for and against the Contagious Diseases Acts, or the Vaccination Acts; too often they serve rather to obscure our perception than to enlighten it, and, in the present question, have the very obvious drawback that they of necessity must be almost entirely based upon hearsay evidence, upon traditions and memories of the vaguest possible character, and upon pathological ignorance in an extreme degree. To point out a few of the fallacies which are involved: there comes first the influence of the preconceived idea, so that a cancerous patient feels almost compelled to find someone in the family similarly afflicted, whenever it is in the least possible to do so, both as a matter of mental satisfaction to herself and friends, and also in order to comply with the usual assumptions of her medical attendant. Anything in the shape of a tumour, be it the simplest fatty or sebaceous growth, which has ever affected a relative, is thus pressed into the service; and women will not unfrequently quote to you a husband's second cousin, or some similarly near kinsman, as evidence of "cancer being in the family." Then we must make allowance for mistakes of diagnosis, for the obscurity which often envelops the cause of visceral maladies, and for the rarity of *post mortem* examinations on such cases when they occur in ordinary practice—a point which indicates that we must by no means impute infallibility to the Registrar-General's returns. Hence, for my own part, I should place far greater reliance (in forming an opinion on this and kindred topics) upon a moderate number of cases in which the evidence had been judiciously sifted, and was not in the smallest degree hearsay, than upon any, however large, mass of statistics with these requisites unfulfilled.

Yet I would venture to lay some stress upon the negative value of the figures I have quoted. In my own experience—and I would confidently appeal to that of most other medical men, especially to those who have themselves had cancerous relations, to confirm this—whenever a person dies from cancer the fact is circulated far and wide among all his or her kinsfolk and acquaintance, who forthwith store up the fact in their memory; and according to the more or less emotional nature of the individual, ever afterwards more or less dread a similar fate. Such is the popular terror of cancer, and such the deeply rooted belief in its hereditary nature; so that, in questions about a cancerous family history, it appears to me far more likely that we should be misled in the affirmative direction, than that any instance of cancer, which has really occurred, should have been forgotten by the kinsfolk of the sufferer. And I am therefore disposed to hold that the negative answers of 306 out of 1075 patients afford rather strong presumptive evidence against the hereditary transmission of cancer as a general rule.

I would submit to you that any degree of relationship wider than that of parent and child, or of grandparent and grandchild, is of little or no value in establishing the fact of an inherited taint.

Here is an argument which I take the liberty of borrowing from a valuable paper on the same subject by Mr. Harrison Cripps in vol. xiv of the *St. Bartholomew's Hospital Reports*, in which hereditary statistics are used, as it were, in an inverted fashion. If cancer were ordinarily hereditary, we should naturally find that, among the the parents of cancerous patients, the death-rate for cancer would be far larger than that prevailing among the general population. Now, in the years 1861 to 1870, the death-rate from cancer among adults over 20 years of age, as computed from the Registrar-General's returns, was 1 in 29.1; while among the parents of cancer-sufferers, it is, according to Sir James Paget, 1 in 24.8; according to the *St. Bartholomew's Hospital Reports*, 1 in 28. The two rates are substantially identical.

Then, as instances of widely spread popular credulity, in support of which (during the prevalence of the superstition) an overwhelming mass of testimony could at any time readily have been brought forward, I would refer to witchcraft, magic, fairy tales, and

miraculous cures wrought by relics. The history of those in Mr. Lecky's works should clearly teach us caution in accepting popular traditions, however venerable and time-honoured, without due investigation, and without a reasonable amount of preliminary scepticism.

I should like to glance now for a moment at the practical outcome of the belief that malignant disease is always, or almost always, hereditary. In the first place, the surgeon who holds it necessarily regards cancer this as a constitutional malady almost sure to appear (in the predisposed) at a certain time of life; and therefore as, if excised, certain to recur sooner or later. Hence, in cancer of external sites, he looks upon an operation as a palliative, and as a mere matter of routine, to be undertaken because we can do nothing else; he is rarely in a hurry to attack the disease; and when he does operate, cares only to steer clear of the disease visible to the naked eye, and pays little heed to the adjacent glands, and the track by which the malady ordinarily extends. Now, I conceive that everyday clinical experience teaches us that malignant disease of whatsoever form is, at the commencement, strictly a local disease, starting at one point, next extending around that point as from a focus, but then proceeding to locate itself at distant centres, along a definite track, which can usually be predicted. The epithelial forms, glandular or otherwise, are the most typical instances of this proposition. In the more diffident varieties of sarcoma, especially when the bony system is affected, its truth is sometimes obscured by the friable character of the growth, which allows infinitesimal portions to be swept off at a very early period into the circulating current, and deposited as grafts in distant localities, there to grow vigorously *pari passu* with the parent tumour, or even to outstrip it.

Such a conception will necessarily lead to as early as possible a resort to surgical measures; to an operation which will aim at the most complete eradication of the disease, whenever possible; to incisions wide of the visible tumour; to the extirpation of an extensive margin of tissue, healthy to the naked eye, but in which we surely know that invisible cancerous germs are present; and, most important perhaps of all, to the most careful search for, and extraction of, all the adjacent lymphatic glands lying in the track by which the disease ordinarily spreads. And though, mainly from the difficulty of securing this last object with certainty, it cannot be denied that the surgical treatment of cancer is uphill work, and that even the most careful endeavours too often fail to attain complete success; yet, unquestionably, the benefits we confer are in exact proportion to the measure in which we are enabled to carry out these aims. That is to say, we shall, in many instances, I firmly believe, be rewarded by a permanent cure; in most others, we shall prolong life and greatly mitigate suffering. As an illustration, which I have occasion rather frequently to notice, of the last point, I may be permitted to refer to the agony which patients with scirrhus of the breast suffer, in the later stages, from the well-known brawny oedema of the arm—a condition entirely obliterated by well scraping out the contents of the axilla, as a routine practice, whenever the breast is removed, whether the glands be obviously enlarged or not.

In the second place, the medical man who looks for history of hereditary transmission, will often be misled in his diagnosis by its absence. On the other hand, I have long found that, whenever a patient quotes to me several cancerous relatives, that statement at once raises a strong presumption in favour of the patient's own disorder being non-malignant.

Thirdly, the fatal theory of heredity often prevents the subject of cancer from seeking medical advice till the disease is too far advanced for any useful treatment. When told what is really the complaint, and blamed for delay in not applying sooner, the reply is, "Oh, there has never been any cancer in my family, and I thought cancer was always hereditary."

Lastly, the glandular epitheliomata, and probably other forms of malignant disease, are preceded, in a very large number of instances, by conditions inducing mental depression; often, under such circumstances that one is forced to regard this, not merely as a predisposing, but as the directly exciting cause. It is obvious that the sword of Damocles, which the belief in heredity holds suspended over the heads of any unfortunate enough to have lost a relative from cancer, must act powerfully as a mental depressor: and that we may possibly here find another illustration of the well-known tendency of a prophecy to work out its own fulfilment. I am tempted thus to explain the rather large number of instances among my statistics, in which mother and daughter were affected by cancer; as also, in some measure, the very considerable preponderance of the female (and so more emotional element) among the cancerous relatives.

I feel that many apologies are due from me for detaining the meeting at such length on what may possibly seem to them a well worn

topic. I can, in extenuation, plead only my conviction: 1. That the belief in heredity is derived merely from popular tradition, and is wanting in any sound basis of scientific proof: 2. That extremely practical issues are involved, and that the views now prevalent lead to disastrous results.

Dr. DAVIES THOMAS (Adelaide) thought that the subject had been very clearly discussed by Dr. Snow, and added that it had been, for some years past, the custom of the leading Life Assurance Society in the southern hemisphere (the Australian Mutual Provident Life Assurance Society), not to demand any additional premium upon the lives of those individuals in whose families cancer was reported to exist. He also thought that Dr. Snow's warning against counting all forms of malignant disease in a single class, was worthy of attention, for statistics in which epithelioma, sarcoma, scirrhous, and encephaloid, were considered as one disease, must prove of very doubtful value.

THE TREATMENT OF PULMONARY CYSTS BY THE ESTABLISHMENT OF LARGE OPENINGS INTO THE SAC, AND SUBSEQUENT FREE DRAINAGE.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By JOHN DAVIES THOMAS, M.D., F.R.C.S., Adelaide, South Australia.

THE subject of hydatid disease in general and of hydatid of the lungs in particular, is of far less practical importance in Great Britain than in Australia, where for ten years past I have been engaged in practice. Still, even in this country, instances of hydatids of the lung do occasionally present themselves. For example, two cases have been met with recently in London; one at the Hospital for Consumption, Brompton, and a second at the Chest Hospital, Victoria Park.

According to an extensive series of statistics collected by myself, the lungs are the seat of echinococcus in about 11.5 per cent. of all cases of hydatid disease in man, and they occupy the second place in frequency of invasion; the liver being the chosen home of this parasite in 57 per cent.

Within the narrow limits of time at my disposal, it would be impossible to allude to the whole subject of pulmonary hydatids. The diagnosis, treatment, and prophylaxis of the disease offer numerous problems of the greatest interest and practical importance, but of far too great extent for the exigencies of the hour. I shall therefore confine myself to a brief consideration of the treatment of hydatid cysts of the lungs by the establishment of large openings into their sacs.

When the hexacanth or boring embryo has found its way into the lungs, and has settled in the tissue of the organ, it drops its hooklets and creates in its vicinity a certain amount of irritation, in consequence of which a fibrous capsule is formed. This increases in capacity and thickness with the increase in size of the parasite. Ultimately an enormous magnitude may be reached. Sooner or later, however, unless art intervenes, the bladder-worm as a rule bursts, either into the pleural cavity, or far more commonly into the bronchial tract. When this takes place there is in most cases a free entry of atmospheric air into the cavity which now contains the collapsed remains of the parasite, and if the bladder-worm is a large one it cannot be removed by coughing. Decomposition of the fluid and solid contents of the cavity then takes place. A severe form of blood-poisoning results, with pyrexia of a hectic type, emaciation, cough, abundant expectoration of horribly fetid sputa, and the patient shows the general appearance of an advanced case of phthisis.

In many cases, it is evident that, unless some surgical aid can be given, the patient is doomed to death at no distant date. In illustration of the hopelessness of "expectant treatment" in many cases of this kind, I may mention an instance in which the "mother-cyst" removed by me from a lung-hydatid had a superficies of 256 square inches; and, drained as completely as possible from fluid, it weighed over ten ounces. I think that, in such a case, all will agree that it would be impossible that the foreign body should be expelled by the air-passages; and I submit that, when a patient has a cavity in his lung containing a decomposing hydatid cyst which is obviously jeopardising his life, it is our imperative duty to consider whether it is practicable to remove the cause of the mischief.

From various sources, I have collected the histories of thirty-two in which large openings have been made into cavities in the lungs, but which permit the escape of the mother-cyst and any daughter-cysts and contrast be present. Five of these have occurred in my own practice

at the Adelaide Hospital. Of these operations, twenty-five were performed in Australia, three in England, two in France, one in Germany, and one in America. The general result was twenty-seven recoveries and five deaths. Of the patients, thirteen were males, and nineteen females.

The ages of the patients were: from 1 to 10 years, two cases; from 10 to 20 years, eight cases; from 20 to 30 years, eleven cases; from 30 to 40 years, seven cases; from 40 to 50 years, two cases; and the age is not stated in two.

The lung affected was the right lung in nineteen cases, and the left in five cases; the side is not mentioned in eight.

It should be mentioned that in four instances it is probable that the hydatids were pleural; in nineteen, apparently pulmonary. In the rest, it is doubtful whether the cyst was pleural or pulmonary.

Mode of Operation.—The first essential condition is, of course, that an accurate diagnosis of the cyst-containing cavity should be made. That part of the cavity should be chosen which is nearest the surface; but there are some parts of the thorax where the anatomical conditions forbid operation; for example, the supraclavicular regions and the first interspace in front, in consequence of the great vessels and nerves that occupy these localities. The portions of the back of the thorax covered by the scapulae, too, are not accessible. The greater part of the interscapular region is not available for operation, for but little lung can be reached here. Practically, however, there is no part of the lung, front or back, where a hydatid cyst of moderate size may not be reached; for example, a cyst underneath the scapula can be opened from the axillary region, etc.

The most superficial point of the cavity having been ascertained, a free incision is made down to the intercostal muscles; these are more cautiously divided; and the scalpel then is pushed deeply into the cavity, of course after any bleeding from the superficial incisions has been arrested. Instead of the scalpel, a large trocar and cannula may be used to perforate the cavity; in this way, there is less risk of hemorrhage from the wall of the sac. In any case, the main amount of dilatation should be obtained by expanding the original opening by means of forceps. When the cyst is a large one, it may be necessary to make an opening large enough to admit the index-finger, in order to permit expulsion of the contents. Usually, the mother-cyst presents at the opening, and it is often expelled forthwith by the coughing efforts of the patient, aided by the fingers of the operator. Care should be taken not to tear the membrane; and, if possible, the parasite should be removed entire.

I prefer, if possible, to refrain from using injections, antiseptic or other, because the fluid, by entering the bronchial tubes of the cavity, causes violent cough. When the fetid pus and membranes have been expelled as completely as possible, a large drainage-tube of India-rubber is introduced, and effective drainage should be maintained until but little discharge is secreted by the walls of the cavity. Strict Listerism is hardly practicable in these cases; for not only is the discharge profuse at first, but also there is very free entry of air into the cavity through the bronchial tubes. The dressing I prefer is a thick and large pad of picked oakum, enclosed in antiseptic gauze. In the event of profuse hemorrhage from the incision in the cavity-wall, a form of Barnes's bag, which Messrs. Mayer and Meltzer have made for me, would prove very useful. It seems to me, that the very successful results of this plan of treatment in cases of suppurating chest-hydatids should prove an encouragement to the performance of similar operations in cases of gangrene of the lung and in simple abscess; from the very nature of the disease, it is not of much value in the case of phthisical vomice.

SCARLATINA AND SIMULATING ERUPTIONS FOLLOWING SURGICAL OPERATIONS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By J. WALTON BROWNE, B.A., M.D., M.R.C.S. Eng.,
Surgeon to the Belfast Royal Hospital, and Surgeon to the
Belfast Ophthalmic Hospital.

DURING the past six or seven years, I have had under my care four or five undoubted cases of scarlatina following surgical operations; and, also, a number of operative cases in which an eruption simulating scarlatina, having subsequently developed, led to a difficulty in diagnosis. These cases presented many points of interest to me, and I thought a short account of them might prove instructive and interesting to the members of the Surgical Section.

I consider scarlatina to be an acute infectious disease, and propagated from one person to another. It will be of much practical interest should the statement made by Dr. Eklund, of Stockholm, prove to be correct, that scarlatina is caused by the presence of a minute organism. In the urine and blood of scarlatinal patients, Dr. Eklund has found constantly present a mass of peculiar cellular bodies which have received the name of *plas. seindens*.

In considering the subject of surgical scarlatina, it must be admitted that scarlatina does develop itself, and, frequently, very rapidly, after surgical operations. The matter having been carefully inquired into by Sir James Paget, Dr. Braxton Hicks, the late Mr. Maunder, and by Mr. Howard Marsh, in a valuable and instructive paper which he read before the Surgical Section of the International Medical Congress in 1881, it has been shown by these observers that young people especially, who have undergone an operation, and have not previously suffered from scarlatina, are generally attacked by surgical scarlatina. It does not appear necessary for its development that an epidemic of the disease should be in force.

In considering the appearance of scarlatina to be a matter of chance, we arrive at an explanation offered by Sir James Paget; namely, that the poison of scarlet fever has previously been imbibed by the system, and that the operation, acting as an irritant, or influencing unfavourably the constitution somehow, causes its manifestation at the particular time.

Sir James Paget also thinks that a surgical operation renders the patient more susceptible of the influence of the scarlet fever poison; and considers that, in such cases, the disease undergoes certain modifications, these modifications being the shortening of incubation, the irregularity of the rash; in some cases, sore-throat without desquamation; in some cases, desquamation without sore-throat; while, in others, neither one nor the other is present.

Occasionally there is no period of incubation; and Sir James Paget considers that the scarlatinal virus not exhibiting itself externally may be the cause of death in children, who succumb within a short time after an operation, with obscure and unaccountable symptoms. In accepting this explanation of rapid death after operations, we must not lose sight of Billroth's opinion, that acute serous meningitis is the chief cause of sudden death in children after surgical operations.

To bear out the theory of direct contagion, Mr. Howard Marsh, in his paper, refers to the Hospital for Sick Children, and shows that, when medical and surgical cases were treated under one roof, operations were frequently followed by scarlatina; but since the building of the new hospital and the removal of the scarlet fever wards to an isolated block, surgical scarlatina has become very rare.

This liability to scarlet fever has been manifested after every variety of operation. I have had cases following the operation for hare-lip, sequestromy, circumcision, and removal of a sebaceous tumour from the scalp; whilst several authors refer to it as following lithotomy and operations for hernia.

Although there may be no difficulty in tracing the relationship between the operation and the fever in some instances, yet occasionally it is a difficult matter, the most careful search having failed to discover any source of infection. In such instances, Sir James Paget's theory seems the most probable; that these patients had previously imbibed the poison, which would not have manifested its effects so soon, if at all, unless their health had been exhausted or disturbed.

Although many writers have referred to the influence which operations frequently have in determining the appearance of scarlet fever, it is odd that no similar relationship has been observed between operations and measles, chicken-pox, or any of the other eruptive fevers. Acting on the strength of this observation, I not long since performed the operation of ovariectomy where the patient was exposed to the poison of measles, without any untoward result.

It is difficult to understand the manner in which the poison is introduced into the system. It has been suggested that the morbid poison is conveyed by the hand or instruments of the surgeon, that is, by the process of true inoculation; but that infection always occurs through the wound is improbable, because, as pointed out by Mr. Howard Marsh, scarlet fever has been developed in cases which were treated antiseptically, and by the free application to the wound of carbolic acid, an agent which is believed to destroy the virus of scarlet fever; and further, because, in these cases, the wound has remained healthy, which would not be so, were it the passage by which the poison found ingress; and yet the fact remains that the existence of a recent wound and the appearance of scarlet fever are intimately associated, as I will show in two or three of my cases.

We must then agree with Sir James Paget that, in consequence of an operation, the condition of the patient is in some way changed; so that, if he be exposed to contagion at or near the time of an opera-

tion, not only is he in more than the usual degree liable to be affected, but the incubation is cut short, and the disease appears almost immediately; while, if he have been in contact with the poison some time before, though he have hitherto escaped, he is now apt forthwith to be attacked.

As to the nature of the change produced by an operation, no opinion has been expressed, although observations tend to show that the nervous system is the part mainly implicated.

I will now give you the short histories of four cases of surgical scarlatina, in which there was no doubt of the source of infection.

CASE I.—A medical student came under my care suffering from congenital phimosis. I recommended circumcision; and he came into hospital upon the day of operation. I observed that his skin was very warm, and perspiring freely; his friends considered all these symptoms to be due to nervousness.

The operation was performed in the usual manner. Thirty hours afterwards, his temperature rose to 104°, and he was covered with an abundant scarlatinal rash. The throat was not implicated. In forty hours, there was a gangrenous condition of the skin and mucous membrane of the foreskin; he rapidly passed into a state of coma, and died seventy hours from the time of operation. His death caused me much anxiety, and a searching inquiry was made. I found out that a fellow-student had been suffering from scarlatina, and that the patient had been visiting him daily for fourteen days, previously to coming under my care. Here was the direct source of the contagion. I frequently regret that, when I found him hot and perspiring, I did not take his temperature.

CASE II.—The day upon which the student was attacked, I performed sequestromy upon a healthy country girl. My resident pupil, who assisted me, had been dressing the student's prepulse in the morning. In sixteen hours, the girl was seized with a severe attack of scarlatina. She went through the illness safely, but had no desquamation or renal trouble, and, odd to say, the wound granulated well. Here again was direct contact, pupil and patient.

CASE III.—The rash was seen upon the country girl (Case ii) at 3 o'clock P.M., and arrangements were at once made to have her removed to the scarlatina-wards. At 3.15 o'clock, a child, aged ten years, was admitted into hospital, suffering from a lacerated wound of leg. Unfortunately, he was placed in an adjacent bed. The girl was not removed until 4 o'clock P.M., so that the child was close to the patient, and exposed to the poison, for about forty minutes. At 10 o'clock P.M., or six and a half hours after admission, the child was seized with severe feverish symptoms—intense headache, and vomiting. No rash could be seen. These feverish symptoms were rapidly followed by coma, and he died in fifteen hours. After death, an abundant purpuric rash was seen upon the chest and abdomen. In this case, the extreme violence of the poison expended itself upon the nervous system. It is the most rapidly fatal case I have ever heard of. Here we have a medical student communicating the disease to a brother student, he in turn to a girl through the dresser, and, finally, the girl to a child, possibly by direct contagion carried through a nurse.

CASE IV.—I once operated upon a healthy child for hare-lip. In sixteen hours the child sickened, became covered with a dark scarlatinal rash, and quickly succumbed. Upon inquiry, I learned that the child's cousin had suffered from scarlatina three months previously.

Although admitting that a scarlatinal rash is frequently developed in patients suffering from wounds produced by the surgeon or by injury, we must bear in mind the possibility of a scarlatinal rash in ichorrhæmia or pyæmia. I believe it is admitted that a rash simulating, or nearly so, that of scarlatina, may be produced by the absorption of unhealthy material; and it is just this which makes it difficult in any given case to say whether the rash be one of scarlatinal poison, or the effects of the absorption of some septic matter.

Mr. Holmes has stated that many of the cases classified as surgical scarlet fever are not scarlet fever at all, but simply a rash, which may accompany pyæmia or erysipelas, whilst others are cases with anomalous roseolar rashes.

Cases confirmatory of Mr. Holmes's views are mentioned by Dr. Braxton Hicks (BRITISH MEDICAL JOURNAL, January, 1879), and by my friend, Dr. Dobbin (BRITISH MEDICAL JOURNAL, 1879). Dr. Dobbin, on visiting his patient, found him covered with a bright scarlet rash, attended with grave constitutional symptoms, and he at once diagnosed scarlatina of a severe type. Upon further inquiry he found the patient was suffering from an abscess in front of the knee-joint. The patient had not been exposed to any source of infection. He rapidly sank. No doubt this was a case of pyæmia accompanied by a scarlet rash.

A young lady had been operated upon by me for an extensive cleft

of the hard and soft palate, requiring much detachment of the mucoperiosteum. Upon the third day, the temperature rose, and an abundant rash, very similar to that of scarlatina, appeared. At no time had she the characteristic tongue of scarlatina. There was no more turgescence of the fauces than one would expect after a severe operation for cleft-palate. There was no history of infection or of exposure to the scarlatinal poison; but, unfortunately, one of my assistants had been in close attendance upon a case of pyæmia. I believed this case to be one of pyæmic infection, and it is worthy to note that complete union was not interfered with.

It has fallen to my lot to witness three or four cases of an abundant red rash, diagnosed to be scarlatina, originating in wounds treated by the antiseptic method; and, when the patients were suffering from carbolic acid poisoning in an aggravated degree, the diagnosis was rather difficult.

We are all aware that carbolic acid poisoning may occur in two different forms—the acute and the chronic; and it is especially in the chronic form the difficulty may arise. A patient, after an operation, for a few days will go on well. He then becomes restless, and the temperature rises. He has nausea, headache, great prostration, and diminution in the quantity of urine voided. A red rash—carbolic erythema—appears at the wound, and may rapidly extend over the trunk and limbs; the difficulty is further increased by the condition of the urine.

We know that, in carbolic acid poisoning, the urine becomes of a dark olive colour; but it has been shown that the characteristic appearances of the urine may not develop for several hours after it is voided, so that, before our diagnosis can be confirmed, we must test the urine for the absence of sulphates, or wait for the characteristic appearance of the urine.

Two cases of carbolic erythema have been under my care. A lady, whose breast I removed antiseptically, became suddenly ill at the end of seven days. The temperature and pulse rose. She was vomiting, and felt weak. A bright scarlet rash was observed by the house-surgeon, extending from the wound, along the inner side of the arm, over the chest and abdomen. He suspected scarlatina, and sent for me. Upon arrival, I tested the urine, and diagnosed carbolic poisoning and carbolic erythema. We had in this case desquamation of the cuticle, and some albumen in the urine; so that, in some particulars, it resembled a case of scarlatina.

My second case was a girl, from whom I removed a ganglion in front of the ankle-joint. In two days, the usual symptoms of carbolic acid poisoning showed themselves, accompanied by a red rash. The dressings were changed, and she made a rapid recovery.

In reference to medication of surgical scarlatina, I may state I have derived the most benefit from the administration of stimulants, and quinine in combination with the sulpho-carbolate of soda.

MELANOTIC SARCOMA OF THE RECTUM.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By CHARLES B. BALL, M.Ch., F.R.C.S.I.,

Surgeon to Sir P. Dun's Hospital, and University Examiner in Surgery, Dublin.

PRIMARY sarcoma of the intestinal tract, especially the pigmented variety, is a disease of such extreme rarity that brief notes of the following case may prove of interest. The patient, a tolerably healthy-looking woman, aged 60, was sent to me by Dr. J. K. Barton, on October 28th, 1881. Eleven months before her admission into Sir Patrick Dun's Hospital, she first felt a lump coming down when she was at stool, and difficulty in obtaining an evacuation, with occasional hæmorrhage. A month later, a pile, which appeared externally, was removed. From that time she remained free from bleeding and pain for four months; but towards the end of May, 1884, she suffered from flatulence and indigestion, and the bowels, which had for a long time been constive, became more so, relief being only obtained after the use of strong purgative medicines, and then with considerable straining and pain. There was some slight discharge of bloody mucus occasionally, but not to any great extent. A month later she became conscious of a growth in the rectum, which partly protruded when the bowels moved; lately, this had increased much in size. The pain, during defæcation, was considerable, and referred to a point immediately above the symphysis pubis, and she was much troubled with pruritus.

Upon making an examination, the anus appeared normal, and the sphincter was not unduly relaxed. About an inch from the anal verge, on the anterior aspect of the rectum, two distinct and tolerably hard tumours could be felt, evidently implicating the mucous membrane.

By passing the finger well up, the superior limits of both could be made out, and below them a smaller mass was to be felt. With one finger in the rectum, and the other in the vagina, it was easily determined that there was no abnormal adhesion between the two canals. The rest of the rectum, as far as it could be examined with the finger, appeared normal, and no enlarged glands could be felt in the hollow of the sacrum, nor was any evidence to be found of engorgement of the liver, or of other abdominal viscera.

On November 1st, I removed the growth by the usual method, Clover's crutch being employed to keep the patient in the lithotomy-position. The anus was then stretched, and an incision carried from the margin back to the coccyx, dividing the posterior wall of the bowel to the extent of about one and a half inches. The angles of the incision were held asunder, and a good view obtained of the interior of the rectum, and the origin of the tumours. An incision was next carried round the anterior two-thirds of the wall of the gut, about half an inch below the attachments of the growths, and well above the external sphincter. The wall of the intestine was now carefully dissected from the vagina, until it was evident that the healthy bowel could be felt between the finger and thumb above the highest limits of the disease. A curved incision was made with a scissors well free of the mass, and the whole removed. Hæmorrhage was not as severe as might be anticipated, only two ligatures being required. There was a little oozing from a point deep in the incision between the vagina and the bowel, to which the benzoline cautery was applied. No attempt was made to suture the divided portions completely. The wound was thoroughly well washed with a solution of corrosive sublimate (1 in 2,000), and a sanitary towel wet in the same solution was applied.

The progress of the case was quite satisfactory. The temperature never reached 100°. Indeed, for a few days it was subnormal, during which time she was much depressed.

The bowels were moved on the fourth day, and again on the eleventh. Each time she had complete control of the motion, and was not troubled with the least incontinence, the discharge from the wound being entirely free from feces. Considering the amount removed, and the impossibility of the sphincter being able to perform its normal function, this result, which is observed in the majority of these cases, is very remarkable, and may be taken as a strong argument in favour of the well known view of O'Beirne, that the rectum is normally empty, except immediately preceding the act of defæcation.

I have recently had an opportunity of seeing this patient. She is working as a cook in a gentleman's family. She states that she is absolutely free from pain and discomfort of any kind. She has complete control over her motions, and a careful examination failed to find the slightest evidence of recurrence.

This case is much the most perfect result that I have yet witnessed after resection of the rectum, although after the removal of a portion, three inches in length, no attempts were made to suture the divided portions. The question of the propriety of allowing these wounds to heal by granulation rather than closely stitching them up is, I think, one of the most important subjects in connection with this operation. In an excellent article published by Volkmann on this subject, in 1878, he recommends close suturing, and the introduction of numerous drainage-tubes; but, at the International Medical Congress in Copenhagen, he did not appear still to advocate this procedure, and he now therefore agrees with the majority of surgeons of large experience in this operation, that the wound should be left to granulate. If it be sutured up, the strain is so great that the stitches rapidly cut out; but a very much more serious objection is that, by so doing, a pouch is formed outside the rectal wall, in which, notwithstanding the most careful drainage, fluids are apt to accumulate and become septic, whereas, if it be left entirely open, drainage continues free. Healing by granulation takes place with rapidity, and the mucous membrane is drawn down, so that eventually but a small cicatrix results.

Upon examination of the structures removed, it was found that a good margin of healthy tissue surrounded the disease. The piece measured about three inches in breadth and two and a half inches in height, and consisted of the anterior two-thirds of the rectal tube. A section carried through both the principal growths showed that the greater portion of the smaller one was of a sooty black colour, while the larger one was quite white. The third and smallest one was also melanotic. Microscopic examination, kindly made by Dr. Abraham, shows that the growth was a typical sarcoma much pigmented. In no part of it was there to be found any evidence of proliferation of the gland-tissue of the mucous membrane, and, as far as could be made out, the disease originated in the submucous tissue.

Primary melanotic sarcoma is a disease of extreme rarity in the

rectum; according to Virchow, this is the only portion of the intestinal tract in which it has been observed, and he points out the interesting fact that, although it is so rare in the human subject, it is of somewhat common occurrence in the horse.

At a meeting of the Société de Chirurgie, January 28th, 1880, M. Nepveu delivered a lecture on the subject of rectal melanosis, and gave statistics of the cases which had previously been recorded, from which it appears that but ten instances have been noted. In only five of these was there any microscopic examination detailed, and all of these were instances of sarcoma. In two, the position was immediately within the anus, once at the sigmoid flexure, and the rest were situated at the anus. In all the cases recorded the disease ran a rapidly malignant course; and in four, which were subjected to operation, recurrence was not long delayed.

NOTE ON THE SUBCUTANEOUS INJECTION OF SALTS OF QUININE.

Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Cardiff.¹

By LAUHLAN AITKEN, M.D., Rome.

THE occasional necessity for the injection of quinine subcutaneously, not only in severe malarial affections, but also for antipyretic purposes, must have compelled many physicians to reflect on the best methods of avoiding the disagreeable consequences which too often follow such a use of most of the salts of that drug. So frequent, indeed, are the unpleasant sequelæ of this mode of employing them, that most practical men probably only reluctantly resort to it, where no other channel for the successful administration of the medicine seems available. It is beyond the scope of this short note to enter into any minute details of the nature of these accidents, to which, however, sufficient importance is not attributed, even in the most recent textbooks. Both in my own practice, and more particularly in consultation, cases of the kind have come under observation. Of these, the most important have been one of a form of septicæmic poisoning, one of violent inflammation in the course of the veins, and one of a long persistent and very painful sciatica, all of which seemed certainly to be justly attributable to such hypodermic injections. Less important local evils are, of course, relatively much more common. Irritability and extensive erythema, ulceration of the skin and abscesses at the points of injection, and painful and lasting inflammatory indurations of the subcutaneous cellular tissue, are the most frequently observed of the minor injurious effects. Even when no local mischief ensues, the mere temporary pain, accompanying the hypodermic injection of salts of quinine, has been so marked as to induce many practitioners to try to mitigate it by adding morphine or atropine to the solutions they employed. It is probably owing to the unsatisfactory results from all such combinations, that nearly everyone who has been forced to make any extensive use of quinine subcutaneously, has thought it necessary warmly to recommend some one or other of its salts, or combination of its salts with other drugs, as the only effectual means of preventing the accidents which have been alluded to.

It is generally in violent and pernicious malarial complaints, in which both the stomach and rectum are so irritable that medicines are not retained long enough to permit of their satisfactory absorption into the system; or where, without such irritability, there is some mechanical obstacle to the administration of food and medicine by the mouth, and we wish to reserve the rectum for the purpose of nourishing the patient; and occasionally, too, in a few cases of hyperpyrexia, in which the danger from excess of heat is imminent, while other methods of reducing the temperature are contra-indicated, and every minute is of value, that resort must be had to the hypodermic injection of such powerful antipyretics as quinine, in quantities likely to produce a rapid fall of temperature. There are probably great differences of opinion as to the doses required under such circumstances, but I have thought it necessary, more than once, to put as much as thirty grains of quinine under the skin in a few hours' time. As it is scarcely possible to inject more than five grains at any one point—smaller doses, indeed, such as two or three grains, being distinctly preferable—the number of injections, and the pain produced, are matters of no small importance. The method I have latterly adopted has given decidedly better results than any previously tried, and can be stated in a few words. The two best salts of quinine to use are the bisulphate and hydrochlorate. Both are fairly soluble without acids, but the bisulphate has the advantage of being considerably the cheaper. One

grain of that salt will dissolve readily in six minims of equal parts of the purest glycerine and of distilled water at the temperature of the body, and when thrown, at that temperature, into the looser subcutaneous cellular tissue—the only part into which quinine should be injected—will be rapidly absorbed without deposition of any crystals of the drug. To this solution, two percent. of pure carbolic acid must be added. Thirty minims of such a solution, containing five grains of the bisulphate, may then be used for one injection from a syringe of double the average capacity—now, as a rule, just about fifteen minims; and although it is probably better, as previously mentioned, to inject less at one point, no local or general injurious results have followed the numerous applications of the maximum quantity stated, which have been made since I have been in the habit of adding the carbolic acid to the diluted glycerine-solution of the quinine. The local anæsthetic action of the carbolic acid, too, is unquestionably of great value in diminishing the pain attending the hypodermic use of such an irritating medicine as quinine.

ON PREGNANCY IN DOUBLE UTERUS; WITH A SUCCESSFUL CASE OF PORRO'S OPERATION.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By FRANCIS IMLACH, M.D.,

Honorary Surgeon to the Liverpool Hospital for Women.

E. C., AGED 35, a native of Wales, was admitted into the Liverpool Hospital for Women, on March 28th, 1885. She had one child, 2 years and 8 months old, and had been married for eight years. Neither before nor after her confinement, which was easy, had there been miscarriage, and menstruation recurred regularly until (she thought) August 8th, 1884, when she again became pregnant. For the last two years, she had suffered from a dull aching pelvic pain, and sleepless nights. During the last two months, her sufferings had increased, and she entered hospital with a fixed idea that she would not survive her confinement. She appeared to be at, or nearly at, the full term of pregnancy; the movements of the child were readily felt, and the foetal heart was heard with the stethoscope. She was sent in as probably a case for Porro's operation, the natural birth of the child being regarded, by her medical attendant, as impossible, owing to the occupation of the pelvis by a large tumour, a fibromyoma of the lower segment of the uterus. On examination, the pregnant uterus was found to incline to the left, and a roundness was felt on its right side, at the level of the umbilicus. *Per vaginam* the pelvis was blocked with a large soft tumour, which indented under the fingers, and did not seem entirely solid. The cervix uteri was evidently pushed high above the pubes, but could not be reached, even with the whole hand in the vagina. Running up towards it, on each side of the front of the tumour, was a tense and prominent ridge of vaginal mucous membrane. The diagnosis halted between fibro-myoma of the lower uterine segment, and semi-solid dermoid cyst of the right ovary, with deep pelvic adhesions. If it were the former, then, for the sake of the child, it seemed advisable to delay Porro's operation until labour was about to set in; while if, as I suspected, it was to be ovariotomy, the sooner it was done the better for the mother. The urine was highly albuminous, and the patient's condition remained unsatisfactory. On April 2nd, I made an abdominal incision, five inches in length, in order to explore the tumour on the right side. As I expected, the bladder rose at least three inches above the pubes, and had to be carefully avoided. Through its folds the cervix could be distinguished. The fleshy tumour was intimately attached to the right posterior portion of the pregnant uterus, and, as the hand descended towards the basin of the pelvis, it was found to broaden out where the right broad ligament would be looked for, and to be attached by a broad base to the lower segment of the uterus. The left ovary and tube were high up, and easily found; but it was impossible to distinguish them on the right side. I seized the projecting portion of the tumour, which was evidently uterine, and dragged it forcibly upwards, without much apparent effect. My colleague, Dr. Lupton, then inserted his hand into the vagina, and declared that he could reach the cervix uteri, that it was partially dilated, and that he could feel the presenting membranes. In his opinion, it had become possible to deliver the child *per vias naturales*. I suggested to Dr. Davies, who corroborated all this, that, while I continued, with my hand in the abdomen, to drag the tumour upwards, he should endeavour to turn, and deliver the child. The feet were easily seized, but the pelvis and body passed the pelvic brim

¹ In the absence of Dr. Aitken the paper was read by Dr. Gubb.

with extreme difficulty; vaginal hæmorrhage followed, and no amount of pulling would bring down the shoulders. At length Dr. Lupton succeeded in getting a tape round the right arm, and, having brought it down, again tried his best to extract the fœtus. Dr. Davies next examined, and reported that the head was practically severed from the body. When the body was removed, the head rolled high above the tumour, into the cavity where the child had been.

So far, save in dragging the tumour upwards to my utmost, I had been a passive spectator; for I feared to examine *per vaginam*, lest septic poisoning should ensue. But now my feeling of responsibility for the patient's life compelled me to interfere. Already much time had been spent. Blood was flowing profusely from the lacerated cervix into the vagina, and the pelvis was filling with blood from veins bruised by my pulling. I declined to wait for cephalotripsy. These strenuous obstetric efforts had lost the child, but it was still possible to save the mother. The bruised uterus, if left, was almost certain to act as a foreign body, its presence would make adequate drainage of the abdomen impossible, and puerperal septicæmia would result. I drew it out, therefore, from the abdomen, clamped the left horn of the uterus, together with the left ovary and tube, near the cervix, and included (for by this time uterus bicornis unicollis, with out-growth, was suspected) as much as possible of the right horn. Through an uterine incision, the fœtal head and placenta were removed, then the parts beyond the clamp were cut away, many deep bleeding points tied, a drainage-tube inserted, and the abdominal wall closed with silk sutures. In all, two hours had been occupied. But, though there was complete suppression of urine for eighteen hours, there was no subsequent source of anxiety. The temperature occasionally rose to 101° Fahr., but always fell again, in an hour or so, to 99° Fahr. or less, and the pulse remained good. The drainage-tube was removed on the third day, the clamp came away on the sixth, and the patient made an excellent recovery.

The pelvis is still, however, filled with what is evidently a solid tumour of the remaining portion of the right horn and the cervix of the uterus; and the os uteri, which could be felt by the finger for two months after the operation, has again risen above the symphysis pubis out of reach. But the patient is in fair health; her functions are natural; she can walk about and attend to her work, and there is fortunately little probability that a second hysterectomy will ever be required. To have dissected out the remainder of the right horn, with its fibroid growth, from the right broad ligament, would have been unsafe. There was a decidua in the right horn, as is shown in the portion removed, and the right uterine artery would probably have bled freely. The fœtus was a male, 21 inches in length.

REMARKS.—Double uterus in the sterile woman, unless there be atresia in some part of the genital tract, and unilateral hæmatometron or hæmatokolpos, appears to cause no inconvenience, and is often discovered only by chance. But pregnancy is sometimes associated with considerable risk, and as such a case may occur in anyone's practice, it is well to be prepared to deal with it. In the first place, both pregnancy and parturition may be normal. My patient's first labour was, she says, an easy one. Possibly, the right horn was then pregnant, and the left anterior one raised into the abdomen out of harm's way. In May, 1874, I attended a woman, aged 32, with bipartite uterus, in her fifth confinement, which was normal in all respects. But when both cornua become simultaneously pregnant, abortion is common, as the cases of Hohl, Grace, Greenhalgh, and others show; and when abortion occurs in one horn, and is followed by menstruation, while pregnancy continues to full term in the other, as in Ross's case (*Lancet*, 1871), diagnosis must be puzzling, though if there be also double vagina or double cervix uteri, a careful examination should be sufficient. And there is a risk of "missed labour" at term; the uterine pains subside, the child dies, and remains *in utero* for an indefinite period. Dr. Angus Macdonald (*Edin. Med. Journal*, April, 1885) thinks "missed labour," no demonstrable obstetrical obstruction being present, ought to suggest the possibility of a pregnancy in a double uterus. Obliquity of the abdominal tumour and recurrent menstruation ought to strengthen the opinion, but I cannot agree with him that the history of previous pregnancies is likely to be an aid. He advocates laparotomy, and has collected four cases, including a successful one of his own, with a mortality of 1 in 4. Finally, there is the complication of fibro-myoma and double uterus, with pregnancy at term, in one horn, of which my case is the only one with which I am acquainted. In such a case, there seems to be no other resource than laparotomy. That the child was not saved is no fault of Porro. My operation was not strictly a "Porro's" operation, but a partial hysterectomy, performed chiefly to avoid fatal hæmorrhage after an unsuccessful attempt to deliver the child *per vaginam*, while the tumour was partially dragged out of the pelvis.

ON A CONDITION OF THE INNER SURFACE OF THE UTERUS, AFTER THE BIRTH OF THE FŒTUS, OF PRACTICAL IMPORTANCE.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By J. BRAXTON HICKS, M.D. Lond., F.R.S., F.R.C.P.,
Consulting Obstetric Physician at Guy's Hospital, etc.

WITHOUT entering now into the question as to the thickness of the mucous or lining membrane of the uterus, I wish, in the present communication, to draw attention to a condition which I have occasionally noticed after the expulsion of the fœtus; and which may easily give rise to mistakes of a clinically grave character.

When the uterus is emptied of the fœtus, the area of its inner surface is proportionally reduced. If the lining tissue also became contracted to the same extent as the muscular substance, then it would lie smooth and level; but, in some cases, this is not so; consequently, it is thrown into folds or waves, imitating, in some instances, growths springing up loosely from the surface. But there is a still further state which adds much to difficulties of diagnosis, and, consequently, to danger in practice; for this inner membrane (I speak from the clinical point of view) is not infrequently resting loosely on the muscular coat beneath, so that, when the fingers are pressed against it, it glides over the subjacent part, so as to feel very like a portion of the placenta, or the thickened membranes; so much so, that, in some cases, till I had traced it for some distance, I could not tell its exact nature. Where nodules of inflammatory deposit occur in the same case, there this portion is fixed firmly to the muscular tissue beneath, but beyond it is loose; and thus there is a great similarity to the placenta, I mean where the placenta has been already removed. The cases in which I have particularly noticed this condition, are those where I have had occasion to remove the placenta for adhesion. I have not noticed it where, for other reasons, I have passed the hand within the womb, as in ordinary turning; nor in, by any means, every case of adherent placenta. Yet, inasmuch as, in such cases, one does not specially look for such phenomena, it is impossible to say in what proportion it might exist. In the first case that I observed it, it was most marked. It was in a case to which I had been called, of very difficult labour, in consequence of miserably ignorant attempts at delivery, whereby both arms had been brought down over the back, and were drawn down outside the vulva, both humeri having been broken. The placenta was adherent, and in passing the hand to remove it, I was on the point of mistaking this loose lining of the womb for the placenta, and was about to detach it when, in passing my hand over the placenta, I concluded that it was the uterine surface covered by the smooth membranes. To make quite sure, I penetrated the placenta from the annular surface, where I was quite sure of its presence, and worked outwards to the margin, and thus was able to safely remove it. I need not record more cases, for attention having been once directed to it, it will, I think, be readily comprehended. I am not aware of anyone having noticed or pointed out the peculiarity before, though I can hardly think it could have escaped observation; but, in the excitement of the moment, the danger of mistaking the lining of the uterus for adherent placenta is undeniable, and this must be my excuse for occupying your time.

BEQUESTS AND DONATIONS.—Miss Charlotte Maitland, of Clifton-hall, has bequeathed £1,000 to the Royal Infirmary, and £1,000 to the Hospital for Incurables, both at Edinburgh.—Sir Moses Montefiore, Bart., of Park Lane, and Ramsgate, has bequeathed £500 to the Jewish Convalescent Home, £500 to the Beth Holim Hospital, £300 to the Jews' Hospital at Norwood, £250 to the Ladies' Lying-in Charity for the Relief of Jewish Women, £200 to the Samaritan Fund of St. Bartholomew's Hospital, £200 to the London Hospital, £200 to Mrs. Palmer's Cancer Hospital, £100 to the Royal Sea-Bathing Infirmary at Margate, £100 to the Seamen's Infirmary at Ramsgate, and £100 to the Ramsgate and St. Lawrence Royal Dispensary.—Sir Alfred Sherlock Gooch, Bart., has given £105 as an annual subscription to the Lowestoft Hospital.—Lord Rothschild has given £100 to the Hospital for Women.—"A Lady" (per Mr. Trego) has given £100 to the British Home for Incurables.

THE LATE PROFESSOR BAECKMAN.—Professor Friedrich Baeckman, of Warsaw, has lately died at Lodz, where he had formerly been professor of chemistry in the Polytechnic, and whence he received the appointment to the chair of Chemistry and Pharmacy in Warsaw, which he worthily filled for many years.

ON "FOULBROOD."¹

By W. WATSON CHEYNE, M.B., F.R.C.S.

Assistant-Surgeon to King's College Hospital; Research Scholar of the British Medical Association.

THIS is an epidemic of bee-hives affecting especially the larvæ, and resulting in the death of the larvæ, which degenerate and form a yellowish and black stringy material at the bottom of the cell—the "foulbroody matter." Mr. Cheshire, who has chiefly investigated the matter, finds that the disease is not confined to the larvæ, but affects the adult bees, more especially the workers, which die off in large numbers. He also found it as a local disease affecting one of the ovaries of a queen-bee, and leading to infection of the ova of that bee. If the foulbroody material is examined, it is found to contain numbers of oval bodies, which have been described by some as micrococci, by others as one of the *Saccharomyces* (*cryptococcus alvarius*). Mr. Cheshire, however, found that these bodies were not present in the juices of the larvæ—that there one only saw moving bacilli—and he has made out the same fact with regard to the adult bees affected with the disease. He therefore regards it as a bacillar disease.

In August last he brought me some foulbroody material to see if the organism could be cultivated, and it is the result of this research which forms the subject of the present communication. And I may say shortly that from this material I got a growth of bacilli exactly resembling in size and appearance those seen in the juices of the larvæ and adult bees, and that these bacilli produced large spores, which were evidently the bodies seen in the foulbroody material.

In cultivation in agar agar the bacilli vary in size, their average length being $\frac{1}{2500}$ of an inch. They are somewhat pointed at their ends, and very often have a clear space at one side near the end, but this is not constant. Their average breadth is $\frac{1}{3000}$ of an inch. The spores are largish oval bodies averaging in length $\frac{1}{1250}$ of an inch, and in breadth $\frac{1}{2000}$ of an inch.

They do not grow below 17°C. They grow most rapidly at the temperature of the body. Very few spores are formed at 17°C., but they appear rapidly and in large numbers at the body-temperature. The reaction of the medium is not of very great importance, but a neutral material is best.

Their growth in meat-jelly (10 per cent. gelatine) is very characteristic, and quite different from that of any other organism with which I am acquainted. So peculiar is it that a cultivation of this bacillus can at once be detected by the naked eye. If an infected needle be plunged into a tube of this material, growth occurs on the surface and along the track. On the surface the bacilli shoot out and form a ramifying layer, the characters of which will be presently described. Along the track irregularly-shaped masses appear, and in a few days processes are seen to shoot out from these masses, which may extend a long distance from the track, being thickened at various parts. If jelly is poured out on a glass plate, allowed to solidify, and then the infected needle drawn over it, we see the explanation of the peculiar appearance seen along the track; bacilli shoot out from various parts of the track, and very soon a circle is formed; from this circle fresh shoots pass out and form circles again further on; these circles becoming filled with bacilli give rise to the apparent thickenings and nodules seen in the course of the shoots. The bacilli cause liquefaction of the gelatine, which assumes a yellowish colour and gives off a urinous or fishy odour—the same odour as that of the infected hive.

They grow in agar agar jelly at the temperature of the body; but the cultivation, like the cultivations of other bacteria in the same material, is not sufficiently characteristic to be of use as a diagnostic.

On potatoes they grow slowly, and form a yellowish layer.

In milk they grow well, and in a few days cause the coagulation of the milk, which also assumes a yellowish colour, and gives off the odour previously described. The coagulum is not firm, but is like a tremulous jelly, and may remain for some days without the separation of any fluid; by and by, however, it becomes liquid, and ultimately, after some months, assumes the appearance of a dirty yellowish glairy fluid. It is very slightly, if indeed at all, acid.

They grow extremely slowly in blood-serum, and there form very long filaments with comparatively few spores.

With a cultivation in milk, Mr. Cheshire sprayed a comb containing a healthy brood, covering up the comb with a piece of cardboard with a lozenge-shaped space in the centre. The larvæ in the cells corresponding to the lozenge-shaped space all died of foulbrood, while the others remained healthy.

He has also fed bees with another cultivation of these organisms, and a number of them died of foulbrood. One day while I was testing some milk in which they had grown, a large blue-bottle fly settled in it and commenced to eat. I put a large glass funnel over the dish, leaving sufficient air for the fly. When I came 22 hours later the fly was in the sitting posture on the table, and was dead. Its juices were full of these bacilli, as shown both by microscopical examination and by cultivation.

Other animals are more or less refractory to this bacillus. I have kept cockroaches for days in a box in which was milk containing these bacilli mixed up with sugar. None of them died, but I cannot be certain that they ate the material. I inoculated two mice and one rabbit with a cultivation without effect. I injected half a syringe of a cultivation subcutaneously into two mice: one died the following day, the seat of injection being very oedematous and full of these bacilli, and there were also a few in the blood; the other mouse remained well. At the same time I injected a guinea-pig subcutaneously. It died six days later with extensive necrosis of the muscular tissue, but no true pus. These bacilli were present in the necrosed tissue, and also in small numbers in the blood. I have since injected three guinea-pigs subcutaneously without effect.

The conclusion to which we have come is, that without doubt this bacillus, growing in the juices of the affected larvæ and adult bees, is the cause of the disease.

A very important part of the work done on this subject by Mr. Cheshire is the discovery of a method of curing this disease. He gives the workers in an infected hive a mixture of carbolic acid and syrup (1 to 500) as food, and finds that very soon the dead larvæ are removed, and fresh and healthy larvæ occupy their cells.

SEVERE VOMITING IN PREGNANCY, DUE TO ALCOHOLISM: WITH REMARKS.

By ARTHUR W. EDIS, M.D.,

Obstetric Physician to the Middlesex Hospital; Physician to the Chelsea Hospital for Women.

THE case related by Dr. Horrocks in a recent issue of the JOURNAL encourages me to forward the particulars of the following case, which may prove of interest to many.

A. B., aged 39, married fifteen years, mother of four children, the youngest 7 years old, ceased menstruating early in May 1884. Within a few weeks from this time, she suffered considerably from nausea and vomiting, which gradually increased in severity and frequency until, at the time of my first seeing her in the latter end of August, the vomiting was incessant, and she was unable to retain anything whatever on her stomach. So severe was the retching, and so grave were the symptoms, that the question of inducing premature labour was raised; and for this reason I was asked to see her in consultation with her medical attendant.

I found the patient propped up in bed, with a flushed congested appearance of the face. The conjunctivæ were injected; the tongue foul, coated, red, and irritable at tip and edges; the breath was offensive; the voice was hoarse and subdued. She held a basin in front of her, and for the last three or four days had been vomiting almost incessantly, straining herself to that degree that it was feared some untoward event would happen unless the vomiting was arrested. On inquiry, I ascertained that the bowels were loose and irritable, acting five or six times, at least, in the twenty-four hours. The urine was reported free from albumen, but loaded with lithates. There had been a slight discharge of blood from the vagina a few days previously, but no pains as of threatened abortion. For days past, the patient had taken nothing but brandy and soda, champagne, iced soda, and milk in small quantities. Her pulse was rapid, weak, and irritable; temperature normal. The skin was moist and clammy. The chest and abdomen were examined carefully, but no well marked abnormality detected to explain the persistent vomiting. On examining *per vaginam*, the uterus was found to be considerably enlarged, apparently about the size of four months' utero-gestation. It was fairly normal in position, the cervix being fleshy and somewhat granular.

In consultation with her medical attendant, I ventured to suggest that the vomiting seemed to be due, not to the pregnancy, but to the immoderate imbibition of alcohol; and that I considered her condition so desperate that, if labour were induced, she would probably succumb. Taking the husband into our confidence, the decision we had arrived at was plainly and distinctly stated; and, with his full consent, I was empowered to speak to the patient herself on the

¹ Abstract of paper published, jointly with Mr. F. Cheshire, in the August number of the *Microscopical Journal*.

subject. She had sufficient good sense to understand the motive for our appeal to her to give up at once all alcoholic liquors, and, as it subsequently proved, sufficient moral control over herself to carry out her resolve.

A mixture of bromide of potassium with compound tincture of lavender and aromatic spirit of ammonia was prescribed, to relieve the distressing sinking and craving; and another, with bismuth, nuxvomica, morphine, and hydrocyanic acid, to be taken occasionally, to allay the vomiting. The importance of supplying nourishment in the form of nutritive enemata, with or without opium, to allay the irritability of the bowel, until such time as small quantities of jelly, beef-tea, etc., could be retained by the stomach, was insisted on. Under the watchful care of her medical attendant, the treatment indicated was carried out thoroughly, with the result that the vomiting ceased within twenty-four hours, the patient was enabled to retain small quantities of nourishment, and ultimately went to her full time, being safely delivered of a son, both mother and child doing well.

In a letter from the practitioner about six months later, announcing the fact that she was safely over her confinement, he told me that "she proved most sensible and tractable, with a little management, and the secret of her recovery was one glass of Sauterne at lunch and one at dinner, and nothing else in the way of stimulant."

REMARKS.—The case illustrates the extreme importance of differentiating the vomiting in pregnancy from that of pregnancy. My firm conviction is, that had premature labour been induced on the assumption that the vomiting was due to the pregnancy, the patient would inevitably have succumbed. Her general health was such that even the shock of induction would probably have proved fatal, to say nothing of the risks of exhaustion and septicæmia.

Although in this case there was a clear history of the abuse of stimulants, preceding even conception, I think it cannot be too strongly urged that extreme care should at all times be exercised in suggesting champagne, brandy and soda, and such like remedies, with a view of relieving the sickness generally associated with early gestation. In strict moderation, such remedies may be of service in some cases; but I have no hesitation in saying that, speaking generally, they only aggravate the sickness and increase the tendency to gastric disorders. We have yet to learn that there is one constant factor which will explain the vomiting of pregnancy. It may be said this is not a case in point; and yet, if we go carefully into the history of these cases, we shall generally, or at least frequently, find that in a large percentage of them there is something, perfectly apart from the position or even condition of the uterus itself, to explain the vomiting. Each case must be treated on its merits.

A CASE OF TETANY, WITH REMARKS ON THE CAUSE AND PATHOLOGY OF THE DISEASE.

By THOMAS F. TANNHILL, M.B.,

Medical Officer to Her Majesty's Convict Prison, Borstal, Rochester.

J. P., aged 29, 5 ft. 5½ in. in height, 128 lbs. in weight, married, a stoker, was admitted to Wakefield Prison March 27th, 1884, being then in good health. He was employed at oakum-picking for seven days, subsequently in the cook-house, the temperature of which ranged from 70° to 80° Fahr. His cell was on the ground-floor; and, owing to its peculiar construction, his bed at night had to be laid down behind and close to the door, where he was exposed to a considerable draught of cold air. The temperature of the cell seldom exceeded 55° Fahr.

On April 14th, while sending the mess up the lift, he had a sudden feeling of weakness, followed immediately by diarrhœa. For this, he was treated in his cell for four days, when he recovered, and returned to the cook-house.

He continued in good health until April 21st, 1884, going to bed at night in his usual health. At 11 P.M., he awoke with a numbness in both hands; on rubbing them together, he found that there was no distinct feeling in them; when he touched the tips of his fingers, he had a sensation as if the "funny bone had been struck." At midnight, he had spasms in both hands. The position of the hands and forearms was similar to that described below. On April 22nd, the spasms appeared several times during the day. At night, the feet became affected in a similar manner. The hands were flexed on the forearms, and the forearms on the arms. The fingers were flexed at the metacarpo-phalangeal joints, and extended from there to the tips. The tips converged to one point, with the thumbs lying across the palms underneath the fingers. The hand had the appearance of a cone, the base being formed by the metacarpus, and the sides by the

converging fingers. The feet were extended, with the soles looking inwards; the whole foot having the appearance characteristic of equino-varus. He had some difficulty in masticating. In speaking, great effort required to be made; the tongue seemed to roll in a lump. On passing urine, he felt as if he had lost the power to empty his bladder. His whole body was covered with sweat, the face, more particularly, being bathed in it. The attacks occurred occasionally. He gradually recovered under good feeding and rest in bed, and was comparatively well within seven days. He remained several weeks under observation, and no further signs of the disease were shown.

Little of importance is known of the pathology of this disease. *Post mortem* examination has not revealed any characteristic lesion in the motor area of the cord. Hitherto, much attention has been directed to the motor phenomena, to the exclusion of the sensory. It is highly probable that the primary disorder is one of sensation. In typical cases, the sensory disturbance emerges first in point of time. Tetany is probably a functional disorder, whose basis is laid in abnormal irritability of sensory nerves, by and through which reflex discharges are induced from the ganglionic area of the anterior horns of the cord. Impairment of nutrition precedes the attack in the majority of cases. Assuming that there is in the healthy body a series of impressions continuously streaming through the posterior roots to the spinal cord, where they are transferred to the motor roots (see Landois, vol. ii, p. 826), it is conceivable that these normal impressions may be highly reinforced by ordinary stimuli acting on the abnormally irritable sensory nerves. The conduction of extensive reflex spasms takes place from the posterior roots to the ganglia of the posterior, and then to the anterior cornu, and lastly, into the anterior roots (Landois, vol. ii, p. 859). Extensive reflex movements may take place when the discharging stimulus is very strong (*loc. cit.*, p. 844). Assuming an excessive irritability of the sensory nerves, ordinary stimuli may be regarded as relatively strong.

We should expect to find these reinforced impressions acting with particular force on the more unstable motor elements of the cord, namely, the accessory structures whose instability is always very great. Nor should we be disappointed in our expectations, for, on analysing the groups of muscles involved, we should find those muscles most involved whose functions are highly specialised, for example, the muscles of the hand and forearm, the finer movements of these groups being controlled by the median group of ganglion cells in the anterior horn, a group peculiarly unstable in character. In the case recorded above, the scanty diet and diarrhœa were fitted to produce grave impairment of nutrition. The variations in temperature, with the cold draught passing over his bed, were stimuli strong enough to produce reflex spasms.

It should be mentioned that, on recovery, the sensory phenomena were the first to disappear, then the spasms, both passing off in an inverse order to that of invasion.

OBSTETRIC MEMORANDA.

PLACENTA PRÆVIA LATERALIS.

A. C., aged 30, unmarried, was seven months gone in her third pregnancy, and had had slight hæmorrhage during the fourth month. On the morning of her confinement she got up at 7 o'clock, feeling quite well; but, after she had begun to move about, severe flooding set in, causing her to fall fainting on the floor. After some stimulant had been administered, she was assisted into bed, while the flooding continued, and weak and infrequent pains gradually came on. She was not seen for three hours, owing to the nature of the message having been misunderstood, and she then had lost a large quantity of blood, both in liquid and clots, and was pale and faint, and complained of loss of eyesight. The pulse, however, remained good, and the pains, though weak, became more frequent. The os was found to be fully dilated, and the bag of membranes tense under a pain, and unruptured, but no presentation of the child was perceptible. The membranes were ruptured, during a pain, with the aid of a hair-pin straightened, and protected by the finger; and the hand, previously carbolicised, being introduced, came first upon a loosened tongue of placenta, extending well down to the cervix, on the posterior aspect of the uterus. This was still further separated with the fingers, and, as the head was found to be very high up, and the presentation inclined to be transverse, with the breech towards the placenta, a foot was at once seized and brought down before the occurrence of another pain, and the case was left to nature, pressure being applied to the abdomen, and ergot administered. No chloroform was used, but version was very easily effected, and borne without the slightest

shock being experienced. Pains became stronger, and the patient was speedily delivered of a still-born female child. The placenta was, with some difficulty, removed by expression, and as there was some doubt as to its being entire, from its ragged appearance, the uterus was again explored by the hand, previously carbolised, and well lubricated with thymol-jelly. Nothing was found left; only an opportunity was thus afforded of feeling the roughened surface and hypertrophied condition of the posterior wall of the uterus, from the cervix upwards, indicating the placental attachment. The passage was then well washed out with strong carbolie lotion, as a precautionary measure, and this was repeated for three days running, and with the most satisfactory results, as she made an excellent recovery, there being only a slight increase of temperature on the second and third days (on the latter 100° Fahr.), coincident with turgescence of the breasts, while it became normal on the fourth, and remained so afterwards. Even on the third day she was feeling so well as to be sitting up in bed when I called, and on the sixth she was able to be up for a short time. During the first few days she had quinine in bromic acid, and belladonna, internally, while the latter was applied externally to the breasts.

B. STRACHAN, M.B., Sunderland.

A YOUNG MOTHER: UNSUSPECTED PREGNANCY.

ON June 30th, I was called about 7 A.M. to see J. S., a girl, aged 14 years and 4 months. Her mother informed me that her daughter had been much pained across the bowels since one o'clock that morning, that "some colour was coming away," and she did not know what was the matter. I learned that the girl began to menstruate when twelve years of age, and was regular for eighteen months afterwards. She had not, however, been "unwell" since, and her mother had been dosing her with the usual old woman's remedies. Her neighbours told her that it was not uncommon for "the courses" to stop in young girls, and that she would get all right again. The patient presented the usual external signs of pregnancy; and, on making a vaginal examination, though with some difficulty, owing to the girl's resistance, I found her well advanced in the second stage of labour. The child was born in three or four pains afterwards, the perineum stretching rapidly and easily, without much apparent distress to the patient. The labour was in all respects natural, the child of average size, and the young mother made a good recovery.

The case, I think, is worthy of record for two reasons. First, neither her mother nor her neighbours had any suspicion of pregnancy. They had been struck with the girl's stoutness, but no one guessed the real cause. Her mother, by way of treatment I suppose, took her for a walk of nine miles only three days before her confinement. Secondly, while I have never attended so young a mother, I have rarely seen an easier labour in a multipara.

One painful element in the case was that her step-father was the reputed father of the child, and that she had been deterred by threats from telling anyone of the criminal connection.

A. EDDOWES LEGAT, L.R.C.P. and S.E., South Hylton.

CLINICAL MEMORANDA.

ON THE ASSOCIATION OF OPHTHALMIA NEONATORUM WITH JOINT-DISEASE.

IN the BRITISH MEDICAL JOURNAL of July 11th, 1885, I drew attention to a form of gonorrhoeal rheumatism occurring in infants as the result of purulent ophthalmia; and I there related two cases, one of which must, I think, be accepted as bearing no other possible explanation. By a remarkable coincidence—unless these cases prove to be not uncommon—I am in a position to relate another case which was brought among my out-patients for the first time on July 16th. It may be that the case is not absolutely free from the suspicion of syphilis, but the joint-disease, I have little doubt, has a definite relation to the ophthalmia. A. M. C., aged 26, gives the following history. She was married four years ago last October. Her first child was born at the seventh month, on the last day of the following July. It suffered neither from rash nor snuffles, and lived to the age of seven months, then died of whooping-cough. Between this child and the next she had an early miscarriage, about the second month. The second child was born on the 9th March, 1883, at full time, and healthy. It suffered from neither snuffles nor rash, and lived to the age of a year and six months, when it died of measles. The third child was born on the 20th of June, 1885. The child's eyes were clear at birth, but two days later they began to discharge. The mother was given a lotion, which she thought too strong, and she has therefore bathed the eyes with warm water only, about every half hour since. A fortnight after birth

the child's left knee became swollen and painful, and it cried when the knee was moved or touched. About the same time, a red rash appeared over the buttocks, which the mother attributed to the use of soda in washing the diapers. The diapers are made of coarse towelling. The eruption is a bright red vesicular eczema, confined to the region irritated by the excretions. There are no coppery shiny spots such as are characteristic of syphilis. The hands, face, and mouth are free from eruption, and the child has had no snuffling at the nose. The mother suffered from a yellow discharge from the vagina for about two months before the birth of the child. She has never suffered from any eruption or sore-throat. The child was seen, on the first visit, by the house-surgeon, who prescribed a lotion of borax for the eyes and a grain of mercury and chalk every other night. When seen by me on July 23rd, the eyes were much better, but still purulent, and the rash was red and vesicular as described. The left knee-joint was semiflexed, swollen, and distended with fluid, but not red on the surface. There was an apparent enlargement of either epiphysis, entering into the formation of the joint. The lotion was continued, but the grey powder was stopped, as likely to confuse the diagnosis.

In my communication referred to, I ventured to suggest that, though the cases I there related were of the acute arthritic variety, it was not improbable that there was a subacute variety corresponding to the subacute gonorrhoeal rheumatism of young adults, which would be met with when attention was drawn to this affection. The foregoing case appears to bear out the truth of my prophecy, for the knee-joint is swollen simply by effusion into its interior, and there is no surface-redness.

R. CLEMENT LUCAS, B.S., F.R.C.S.,
Senior Assistant-Surgeon to Guy's Hospital.

EMPHYSEMA OF THE CELLULAR TISSUE, DUE TO ASTHMA.

L. S., aged 18, had been subject to attacks of asthma ever since childhood. Of late, these had not been so frequent; the last occurred two years since. Otherwise, she was strong and healthy. On the night of January 17th, 1885, I was summoned to the patient, and found her suffering from a very severe attack of asthma, the breathing being intensely laborious. On the morning of January 18th, the breathing remained about the same; and my attention was drawn to a "puffiness" at the root of the right side of the neck, which, upon examination, proved to be emphysema. On January 19th, the swelling had extended to below the clavicle and the front of the right side of the chest, reaching to the upper margin of the breast. Breathing had much improved. From this date, the patient progressed satisfactorily. The emphysema gradually subsided, and had quite disappeared on January 26th, and the patient had perfectly recovered. Although I recollect reading the report of a similar case recently in the BRITISH MEDICAL JOURNAL, I thought this case might, perhaps, be of sufficient interest to publish. I consider the case acted well under the usual treatment, especially stramonium-leaves smoked in a pipe.

FRANK S. WATSON, M.R.C.S.E., Colonial Surgeon, St. Helena.

THE MACULAR OR PIGMENTARY SYPHILIDE.

THE following case seems worth publishing, especially with reference to a note on the subject in the JOURNAL of September 5th, page 454. The patient, a male, aged 29, presented himself at the cutaneous department of Guy's Hospital on June 9th of the present year. He contracted a venereal sore in November 1884, and this was followed by sore-throat. The forearms, arms, fronts of the thighs, buttocks, and back of the trunk, especially on the left side, were now covered by brownish copper-coloured patches of very variable size, some as small as a threepenny-piece, others as large as the palm of the hand. Some patches were discrete, but most of them confluent, forming in this way large irregular areas, with circular or crescentic margins. There were no cutaneous lesions other than the pigmentary. The posterior cervical and left inguinal glands were enlarged. He had not been previously treated for syphilis. He was placed upon a course of blue pill, guarded with opium, and rapidly improved, so that, on July 7th, a note was made to the effect that "the patches have all disappeared, only the slightest trace of pigmentation remaining."

R. E. CARRINGTON, M.D., F.R.C.P.

MALARIA AND ASSOCIATED NEUROSES.

THE presence of malaria in West Norfolk, during the last seven months, has brought to my notice a large number of cases, careful comparison of which has enabled me to treat successfully other cases,

whose nature has been somewhat obscure until the symptoms have been referred to their true origin—malaria.

1. In some cases the attack is marked, after a longer or shorter period of malaria, by megrim or vertigo, varying greatly in amount, sometimes so slight as hardly to be mentioned by the patient, at other times sufficient to endanger life, as in the case of a cook, who, when attacked, lost consciousness and fell into the fire; or again, in the case of a labourer working on the top of a brickkiln, who would certainly have been asphyxiated had it not been for his companion.

2. In the female there is usually some menstrual disturbance, at first metrorrhagia, or menorrhagia, then, from the anæmic condition, which rapidly ensues, persistent amenorrhœa; and for any one of these the patient may seek advice, the other symptoms, leading to a true diagnosis of the cause, only being elicited upon interrogation.

3. Iritis and corneo-iritis are not uncommon, occurring chiefly in those cases in which the megrim or vertigo is excessive.

4. There is a neurosis of one or both extremities, more frequently the upper, described by the patient as a numbness, coming on when the limb has been at rest, the return of power and sensation being accompanied by intense pain.

5. Pain in the spine region is frequently present, and occasionally very severe. It has been mistaken for an acute attack of indigestion, coming on, as a rule, from two to three hours after food, at the period when the spleen becomes engorged, lasting about two or three hours, then leaving the patient in apparently good health until the same hour next day.

These and other affections, some of a neuralgic character, are clearly referable to a malarious origin; but examinations of the blood have revealed spirilla only in the worst cases, where, in the fever-stage, the temperature has risen to 103° or 104°, and where the anæmia has been marked, the proportion of leucocytes being increased to about 1 in 40. From this the supposition would seem to be justified that, equally as we may have a "typhoid" condition preceding, or declining without actually arriving at an invasion of, a specific attack of enteric fever, so a malarial poison may exist for a considerable period in the system before, under suitable conditions, a generation of the specific bacilli commences.

RALPH H. BROWNE, L.R.C.P. Lond., M.R.C.S.,
King's Lynn.

WORD-DEAFNESS: SOFTENING OF POSTERIOR PORTION OF FIRST TEMPORO-SPHENOIDAL GYRUS AND PART OF SUPRAMARGINAL AND ANGULAR GYRI.

R. H., aged 57, was two months in the asylum before he died of heart-disease and general œdema. Very little could be obtained of his history; but it seems that, several months ago, he received an injury to his head from the fall of a piece of timber; on which side it struck him was not known. He was defective in hearing and sight, but it was not observed whether one eye was worse than the other. The pupils were equal, and the eyeballs normal in their movements, and there was no squint. Memory was very deficient. He replied at random to questions. If asked what time it was by a watch, he said, "Yes, I am very well;" and then, if asked whether he heard, he answered, "Yes; a watch." At other times, in reply to any question, he gave a confused account of an injury which he received from the fall of a piece of timber. On rare occasions, he would give correct replies, but these were generally about the state of his health, and occurred when his breathing became very distressing, so that he probably divined what he was being addressed about rather than understood the questions. He could read.

Post Mortem Examination.—On the left side of the cerebrum, there was observed a softened patch, involving the cerebral substance around the posterior portion of the first temporo-sphenoidal gyrus and portions of the supramarginal and angular gyri. There was likewise a small softened patch, not much bigger than a pea, in the superior parietal gyrus. The larger softened portion was nowhere of a greater depth than half an inch from the surface, and did not involve the lateral ventricle. The Sylvian arteries were atheromatous.

JOHN TURNER, Assistant Medical Officer,
Essex Lunatic Asylum.

PATHOLOGICAL MEMORANDA.

CASE OF ARREST OF GROWTH OF HUMERUS.

THE very striking case which Mr. Jonathan Hutchinson has put on record in the *BRITISH MEDICAL JOURNAL* for July 25th has its parallel in the following one, which I saw some months ago amongst the dispensary-patients at the Paisley Infirmary.

The patient, aged 53, consulted me about some slight ailment, when

the remarkable difference in the length of the two arms immediately attracted my attention. On careful measurement from the tip of the acromion to the prominence of the olecranon, the right arm was found to measure exactly 9 inches, whilst the left measured 18 inches. In all other respects the arm was well developed, and measured, when extended, 9 inches round its middle; the left measuring, under the same conditions, 9½ inches. The two forearms were precisely alike. There was no ankylosis of the shoulder-joint, and therefore no atrophy of the shoulder-girdle. I have not noted this fact, but I think the patient was a weaver, and he informed me that he did all his work with his right arm, and found it perfectly useful, though he preferred to lift heavy weights with his left. His story was that when two years old he sustained an injury of the right shoulder, which was in part, at least, a fracture of the humerus. This, according to tradition, was not properly set, and "the arm never afterwards grew anything." Some time after the receipt of the injury, an abscess formed and broke, and the cicatrix, half an inch long, can still be seen over the lower fibres of the deltoid in front, where a decided prominence on the bone can be felt. There is no history of any sequestrum having been detached, but the arm was carried in a sling for a year.

In this case there can hardly be any doubt that there was separation of the upper epiphysis, and probably the work of repair was seriously interfered with by the inflammation which resulted in the formation of the abscess. The prominence on the bone may have been the result of the inflammation; at any rate, it is highly improbable that it was due to any marked displacement of the fragments, for the contour of the bone is perfectly preserved, and the history is distinct, and it tells of no shortening, but only that the arm never afterwards grew anything.

FRANK SHEARER, M.B.,
Dispensary-Physician to the Paisley Infirmary.

THERAPEUTIC MEMORANDA.

HYPODERMIC INJECTION OF MORPHINE IN URÆMIC CONVULSIONS.

IN connection with the case showing the utility of the hypodermic injection of morphine in uræmic convulsions, published in the *BRITISH MEDICAL JOURNAL* of August 29th, perhaps the following instance of its beneficial effect may be of some practical value.

In the early part of this year, I was attending a child aged 6 years, for a slight attack of scarlet fever. At the end of a week, the little patient was apparently well, though anæmic. The mother was cautioned about the danger of allowing the child to be exposed in any way; but the caution was not heeded, and the child went in and out as usual. At the end of a fortnight, the mother came to me, saying the child's face was swollen, and it was very sick and cross. On visiting, I found the usual train of symptoms of albuminuria, with dropsy. The skin was desquamating, and the child was excessively weak and anæmic. I prescribed a purgative, and an iron-mixture, and ordered warm sponging and bathing. Three days after seeing the child in the above condition, I was suddenly called by its mother, as the child had been in a fit for an hour or more, and the convulsions were continuous. The child had one fit previously to this seizure, at 7 in the morning, which lasted about ten minutes. On my arrival, I found the patient in strong convulsions, perfectly insensible to all external impressions; and it appeared certain that life could not continue long under the present conditions. Another medical man saw the case previously to my visit, and, I presume, deemed it hopeless. There was no possibility of giving medicine by the mouth; and, not liking to trust to the slow absorption of rectal injection, I injected a solution of one-twelfth of a grain of morphine with 1-120th of a grain of atropine under the skin of the arm. In five minutes, the convulsions had entirely ceased; the patient was sleeping quietly; the breathing was natural; and the skin was moist and warm. There were no more fits; and the patient was soon well, and able to get about again. I may add that I gave the child a vapour-bath while I was preparing the solution for injection.

SCUDAMORE POWELL, M.D., Thayer Street, Manchester Square.

NITRITE OF SODIUM IN GOUT-EPILEPSY.

IT cannot, I venture to think, be doubted that a very considerable proportion of cases of epilepsy, in which the sufferers are female members of gouty families, are, in fact, of gouty origin; the real cause of the functional irregularity—I use that term advisedly—which manifests itself in nervous storms, being the accumulation of uric acid or urate of sodium in the blood. Perhaps I ought rather to say that the over-production, or non-elimination, of uric acid, resulting in accumula-

tion, is the effect or concomitant of the state which constitutes the suppressed or irregular gout that finds its outburst or expression in the "nerve-storm." In such cases, other indications of gout may, or may not, be recognised in the individual; but the family-history is sufficiently evident when carefully examined.

I am obtaining highly satisfactory results in epilepsy of this class with the following formula: *R Sodii nitritis gr. xxxvi, sodii hipuratis ʒiij, infusi serpentariæ ad ʒxii. Misce.* Two tablespoonfuls are to be taken three times a day before meals.

The dose of the nitrite of sodium may be increased by one grain after each fit which occurs subsequently to the commencement of the treatment. The mixture should be used regularly for about three or four months; the dose of the sodium-nitrite being increased, as I have suggested, until it reaches fifteen grains. In a number of cases, recently treated in this way, the fits have ceased before the progressive augmentation of the nitrite raised the dose to ten grains. I am very confident that the profession will find the combination worthy of a trial. If there be constipation or a jaundiced appearance, at any time during the treatment, I give the following pill several successive nights until the condition is improved: *R Iridin. gr. ii, extracti cascariæ sagradæ gr. iii. Misce. Ft. pil.*

J. MORTIMER GRANVILLE.

TREATMENT OF ACUTE RHEUMATISM.

THE communication by my friend Dr. W. J. Mackie, in the JOURNAL of September 26th, on the failure of salicin and the salicylates in certain cases of acute rheumatism, reminds me of a case which may be worthy of brief mention.

Beshara Bey, M.D., Friends' Hospital, Brumana, Mount Lebanon, in a recent letter to me, described a severe case of rheumatism, in which salicylate of soda, potash, quinine, colchicum, and liniments, all failed to relieve the fever and the pain. Almost in despair, he sponged the patient with cold water, quickly drying the skin afterwards. The relief was immediate, and the man was able to walk a short distance to his home in six days from that time. Dr. Beshara wrote that he had used the same treatment in two other cases with success.

I am aware that this is no new treatment, although seldom used; it is one which requires some courage to practise, and yet may be well adapted to certain severe cases in which the salicylic remedies are ineffectual.

R. HINGSTON FOX, M.D., M.R.C.P., 43, Finsbury Circus.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. MARY'S HOSPITAL.

RENAL CALCULUS: NEPHROLITHOTOMY: RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

(From notes taken by Mr. H. C. PHILLIPS.)

H. H., aged 19, a labourer, was admitted on May 8th, 1885; his appearance was anæmic, and expression anxious.

About a year before admission, he began to suffer from pain in the left loin, which came on after hard work; he was subject also to headaches and to occasional attacks of vomiting. His urine was often thick and bloody, coffee-coloured; this condition was not affected by exercise, as he often passed blood while laid up in bed. He had pains in the region of the left spermatic cord, and also down the inner side of the thigh. Occasionally there had been retraction of the testicle.

Dr. Rice, of Derby, who had had the man under supervision and treatment for some time previously, had formed the opinion that there was a stone in the kidney, and he advised him to submit himself to nephrolithotomy, as all other treatment had proved unavailing.

On admission into hospital, nothing abnormal could be made out by palpation in the region of the left kidney. On making firm pressure upon the kidney itself, there appeared to be no unusual tenderness, and the manipulation was not followed by hæmaturia. The pain in the loin continued acute, even though the man was kept in bed; pains were also constantly complained of in the left genito-crural region.

The urine was of a pale straw-colour, acid, and the specific gravity was 1015; it contained neither pus nor albumen. A sound introduced into the bladder gave a negative result.

Operation.—On May 15th, he was brought into the theatre. Ether having been administered, he was turned on to his right side, and the left loin was washed with a solution of corrosive sublimate (1 in 1000). The surgeon standing behind the patient, an incision about four inches long was made parallel to the last rib, and at about two fingers' breadth below it, the hinder limit of the incision being over the outer border of the erector spinæ. The anterior fibres of the latissimus dorsi and the posterior ones of the external oblique were divided, the internal oblique and the transversalis were incised, and the transversalis fascia was cut through. The anterior trunk of the last dorsal nerve was recognised. Loose connective tissue and fat were scratched through with a steel director, and the kidney was reached. At once the left index-finger was curled round to the front of it, and by making firm pressure backwards, a stone was felt in the pelvis. Without removing the finger, the posterior part of the pelvis was scratched through with the director, and, with the help of a pair of ring dressing-forceps, the stone was extracted. The bleeding was insignificant. The wound was syringed out with the mercuric solution, a full-size drainage-tube was introduced down to the level of the rent in the pelvis, and deep sutures closed the chief part of the surface-wound, which was then dressed with a large pad of wood-wool.

With the exception of the track of the drainage-tube, the wound healed entirely by first intention. The tube was made gradually smaller, the washings and dressings being continued daily, as on the occasion of the operation. For a few days there was a little blood in the urine, and from time to time urine issued through the drainage-tube. From the day of the operation, the man became free from pain. At first, he was kept well under the influence of morphia; and later on, he was prescribed tincture of iron, and with manifest advantage. He grew fat and well-looking, and some colour appeared in his cheeks. He was sent home convalescent on July 30th.

Temperature.—The day after the operation, the temperature was 101.2° Fahr., but after that day it did not again reach 100° until June 22nd, when for some reason it went up to 102.4° Fahr. There was some tenderness about the site of the small drainage-tube (which was still worn), but, after the application of some leeches, the chart was again normal.

The calculus, which was of about the size and shape of the "ace of hearts," was irregularly studded with short spines. It weighed forty-eight grains.

Dr. Rice reports, under date September 29th, that the man is quite well, that the sinus has completely healed, that he has grown fat, is free from pain, and has gone to work.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

ADVANCED GRANULAR KIDNEY IN A GIRL AGED SEVENTEEN.

(Under the care of Dr. PORTER.)

T. V., aged 17, was admitted on December 30th, 1884, suffering from hæmaturia. The patient was a sallow, ill-nourished girl, who had never had very good health, and latterly had not been properly fed. For a year she had been liable to attacks of hæmatemesis. She had not menstruated for more than a year, and her mother thought these attacks corresponded with what should have been her menstrual periods. Latterly, occasional hæmaturia appeared to have replaced the attacks of hæmatemesis. Six weeks before admission, the patient lost the sight of her right eye completely within a few days, and this was followed by a similar, though less rapid and complete, loss of sight in the left eye. There was a history of both scarlatina and small-pox in early life; there was no family history of any hæmorrhagic tendency. When admitted into the hospital, the patient complained of headache, pain in the eyes, vomiting, great prostration, and breathlessness on exertion. She was drowsy and lethargic by day, restless and slightly delirious at night. There was slight œdema of the eyelids, several ecchymoses about the body (though there was no history of falls or blows), and two small unhealthy looking sores, one over the heel and another over the sternum. There was no sponginess or injection of the gums. The teeth and lips were coated with sordes, the tongue was furred but moist, and the breath very offensive. The patient vomited several times after admission, but there was no blood in the vomit. The urine was rather scanty, deeply coloured by admixture with blood, had a specific gravity of 1012, and contained a large quantity of albumen, blood-casts and corpuscles, and oxalate crystals. There was some cardiac hypertrophy, and a slight systolic murmur at the apex; the pulse was 120,

and there was some increase of arterial tension. The lungs were normal; the abdomen was flat and retracted, with some tenderness over the bladder. There was slight internal strabismus. The patient was quite blind with the right eye, and could only distinguish large objects against the light with the left. The ophthalmoscopic appearances were those of retinitis in both eyes. In the right eye, the white patches of albuminuric retinitis were especially numerous and distinct, similar but smaller patches were seen to be in the left eye, and a few recent hemorrhages. The hematuria was controlled, and for a short time the patient appeared to improve under careful dieting and tincture of iron, but soon began to lose ground again; uræmic convulsions set in, and she died in a state of uræmic coma on March 13th, 1885.

On *post mortem* examination the kidneys were found in an advanced contracted granular condition. There was considerable hypertrophy of the left ventricle. All the organs and tissues were very anæmic, and there were a few small punctiform hemorrhages on the serous membranes.

BOURNEMOUTH COTTAGE HOSPITAL.

RECOVERY AFTER SEVERE INJURY.

(Reported by Mr. T. G. PARROTT, Resident Medical Officer.)

J. S., AGED 25, was admitted on April 25th; a loaded railway-wagon had passed over him. The left elbow-joint was crushed, the muscles were protruding from large wounds, and the ulna and radius were comminuted. There were compound comminuted fractures of the tibia and fibula on the left side, at the junction of the upper and middle thirds; there were large wounds on the foot, the heel was crushed, and several bones in the foot were broken.

The arm was amputated through the middle of the humerus; the leg was amputated just below the knee. The arm had completely healed on the fourteenth day. The flaps in the leg sloughed from bruising, not evident at the time of the operation, and the portion of tibia left necrosed. On May 22nd, the sloughs having separated, and the patient's strength improved by good feeding, the thigh was amputated about the junction of the middle and lower thirds; this time it progressed well, and was healed on June 12th.

REMARKS BY MR. PARROTT.—The point of interest in this case was the way in which the patient bore the shock of the accident, followed by two severe amputations, with the subsequent sloughing and suppuration; and lastly, a third amputation through the femur. The highest temperature reached was 103° F. during the separation of the sloughs, though it was over 100° F. for some time. The patient was well supplied with champagne, ammonia, bark, and brandy, combined with good food. He exhibited symptoms of carbolic acid poisoning on two occasions.

CUMBERLAND INFIRMARY.

COMPOUND COMMUNUTED FRACTURE OF THE LOWER THIRD OF THE FEMUR: SPLITTING OF CONDYLES: ANTISEPTIC TREATMENT:

TRAUMATIC ARTHRITIS: AMPUTATION FIVE MONTHS

Had only little better afterwards: SLOW RECOVERY.

(Under the care of Dr. LEDIARD.)

ROBERT L., aged 59, was brought in on January 9th, 1884. He had that day fallen twenty-three feet, alighting on the right foot; the right femur was fractured at the lower third, and the upper fragment protruded through the skin. When first seen by Dr. Lediard, the projecting bone had been sawn off, to permit reduction of the fracture, and the limb was being dressed antiseptically. In addition to several large fragments of bone which had been removed, the condyles of the femur were split, and considerable comminution of the shaft of the lower end of the femur existed. The age of the patient, and the severity of the injury, seemed to indicate that, even with strict antiseptic precautions, saving the limb was a hopeless task, and the result showed that it was a mistake not to have amputated. Although the patient had every chance that surgical care and good nursing could give him, at the end of a month, though the wound of the soft parts, situated at the upper aspect of the limb, and therefore in the worst situation for drainage, kept sweet, abscesses began to form here and there, and strict antiseptics were abandoned as useless. At the end of two months, many openings had been made for draining the parts thoroughly, the patient's general condition showed signs of fatigue. Still, after consultation, it was decided to hold on, as the aspect of the parts did not seem hopeless.

Subsequently, more abscesses formed, the old sinuses remained, and the patient became anæmic and exhausted. Attention was

turned to feeding and waiting for a favourable moment for the now unavoidable amputation.

On May 5th, about four months after the accident, Dr. Lediard amputated at the upper third of the thigh, for the tissues lower down were so riddled with sinuses that a section in the middle third would have preserved diseased parts. The femoral artery was found to be crisp and very degenerated, so that even with several catgut ligatures around it, secondary hæmorrhage seemed probable.

The temperature, which had been nearly all along high and variable, at once fell to normal, the appetite returned, the patient's spirits revived, and in a few days it was clear that recovery was certain; so slow, however, was it, that September 15th was the day he left for the convalescent hospital with a stump that was not altogether dry; the sea-air completed the cure.

On examination of the diseased parts, the condyles were found longitudinally fractured, but held together by soft tissue, there being no attempt at osseous union; whilst the articular surfaces of the joint were extensively diseased, the cartilages being nearly ulcerated away. A large piece of bone, three inches long by one inch wide, was found separating the condyles, and firmly united to the portion of the femur immediately above the outer condyle; in fact, a depressed fracture of the shaft of the bone existed at this point. The upper end of the femur, which was sawn primarily, presented a large surface in slow process of separation, involving the entire circumference of the bone. The soft parts were in as bad a state as could be imagined: the muscles were pallid; the tissues œdematous; and the entire absence of retraction of the flaps seemed to point to the vitality of the parts left being reduced to their lowest ebb.

REMARKS BY DR. LEDIARD.—I think a lesson is to be derived from this nearly disastrous case. It is this, that, in spite of rigid antiseptic precautions, the well established rule of surgery must hold; and that a compound fracture, with splitting of the condyles and damage to the soft parts, should be at once subjected to amputation. It is possible that justification might exist for an attempt to save in the case of a child, seeing the marvellous recuperative power children sometimes exhibit. In this case, the almost inevitable traumatic arthritis set in not many weeks after the accident, whilst there was no substantial effort towards repair apparent. Cases similar are not often recorded, even if they are occasionally met with; but I find in *St. Bartholomew's Hospital Reports* for 1883 a case of a man aged 33, with a compound fracture into the knee, who underwent secondary amputation on the thirty-eighth day, and recovered.

Lastly, there is a point of interest about this patient. The late Professor Spence, some few years before his death, had removed a large portion of the tongue. After the amputation, it was noticed that the glands on the left side of the neck were enlarged; but, on his return from the seaside, he declined operative interference, although the chances were excellent. This August—that is, sixteen months from the date of amputation—he came to show himself, and to ask for removal of the glands, which were now matted into a tumour the size of a small cocoa-nut. In addition, there was ulceration of the soft palate and back of the mouth on the left side. I mention this intercurrent affection of the glands of the neck, because it may have had some influence on the healing of the stump.

LIVERPOOL ROYAL INFIRMARY.

EPITHELIOMA OF TONGUE IN A GIRL AGED 20: DEATH.

(Under the care of Mr. REGINALD HARRISON.)

[Reported by Mr. W. MOSS BRISTOW, House-Surgeon.]

M. S., aged 20, was admitted on April 15th, 1885, suffering from a fungoid growth, situated on the dorsum and left side of the tongue, towards its base; also from a glandular enlargement situated between the left ear and the ramus of the jaw. The patient's chief complaint was of severe pain in this latter situation, and also in the left ear. No family history of any note could be obtained, and her previous health had been good. There was no history of syphilis.

Her illness dated from fourteen weeks previously, that is, about the first week in January, 1885, at which time the patient began to suffer from severe pain in the left ear; after which, she began to experience a soreness in her mouth, and, on her examining it, she found that the left side of her tongue, towards its base, was covered with small white blisters.

She next noticed that a swelling was forming between the left ear and the ramus of the lower jaw; also that she had a considerable lump on her tongue, where she had formerly noticed the blisters; also that deglutition had become very painful.

She now, for the first time, had medical advice, and, as she was

rapidly losing flesh, and her general discomfort was increasing, she applied for, and obtained, admission into this hospital.

Although there was no history of syphilis, the youth of the patient, together with the local appearances, indicated at least a trial of anti-syphilitic remedies.

She was ordered ten grains of *potassii iodidum*, with half a drachm of *liquor hydrargyri perchloridi*, three times a day, the dose of each being gradually increased; the *unguentum plumbi iodidi* was applied to the glandular enlargement, and the mouth was washed out with *gargarisma hydrargyri perchloridi*.

In spite of all treatment, the growths, both of the tongue and in the neck, rapidly enlarged, and the patient's condition became much worse; she had constant and severe pain in the tongue, ear, and jaw, and was rapidly losing flesh.

May 12th. It was now palpable that the disease was not syphilitic, and that, in spite of the girl's age, the growth must be of a malignant character. Accordingly, with Mr. Harrison's permission, I had the patient anaesthetised, and excised a small wedge-shaped piece of the lingual growth. With the aid of the microscope, the growth was found to be an epithelioma. All syphilitic treatment was now stopped, opium alone being given to allay the pain.

From this time, the patient rapidly lost ground, the growth in the tongue spreading throughout that organ, and the glandular enlargement in the neck spreading, so as to extend in front, beyond the middle line of the neck. The patient now had hæmorrhages from the mouth, and was frequently partially asphyxiated from the pressure of the cervical growth. The patient died on June 26th, of syncope from hæmorrhage.

Necropsy.—It was found that the left half of the tongue was almost entirely disintegrated, while the structures around the base of that organ, as far back as the epiglottis on the left side, were represented by a large mass of broken down friable tissue, through the centre of which the internal carotid artery and internal jugular vein passed; the walls of the latter being infiltrated with the growth, though not eaten through. The epiglottis was infiltrated and thickened, but the rest of the larynx was intact. All the organs of the body were pale and friable. The furthest glandular infiltration was that of the left supraclavicular glands.

REMARKS.—Mr. Harrison drew attention to the extreme youth of the patient, and referred to the hopeless aspect the case presented from the first, so far as operative interference was concerned.

REVIEWS AND NOTICES.

JOHNSON'S STUDENTS' ATLAS OF BONES AND LIGAMENTS. By CHARLES W. CATHCART, M.A., M.B., F.R.C.S. Eng. and Edin., Assistant-Surgeon, Royal Infirmary, formerly Lecturer on Anatomy, Surgeons' Hall, Edinburgh; and F. M. CAIRD, F.R.C.S.E., Senior Assistant, Surgical Department, University of Edinburgh. Edinburgh and London: W. and A. K. Johnson. 1885.

To the medical student, the possession of an accurate osteological atlas is a great boon. Many of the descriptive manuals are wanting illustrative drawings, and some of the so-called plates are not as complete and helpful as could be wished. The study of the bones is, as a rule, the first purely practical subject on which, in the language of the preface of the work under review, "the much overtaxed medical student of the present day" is launched; and it is highly desirable that his first acquaintance with the subject should be under the guidance of books free from blemishes in terminology, and absolutely accurate and unvarying in statement of facts, in order that the study of the subject may be useful in developing powers of observation and of comparison, and in inducing a habit of accurate description, inasmuch as these powers, duly developed, will go far in forming the logical mind, and, looking towards the goal of all medical students, will help him, when face to face with an examiner, to prove that he has thoroughly grasped the technical terms of his subject. From much experience in teaching the bones to beginners in anatomy, we claim for the study of osteology that, as a method of training, the systematic and accurate description of a bone, as regards its surfaces, borders, angles, articulations, impressions, etc., is capable of being turned to the best uses in practical surgery, medicine, and pathology.

We are very glad to be able to give a general commendation to the work before us, and to support the description in the preface that the book contains, for the most part, accurate and artistic plates illustrative of the bones and ligaments of the human body; but, at the same

time, we must unwillingly proclaim that the preparation for the press shows marked evidence of literary carelessness and haste. We are compelled to draw especial attention to this, as, in the preface, much stress is laid on the accuracy of the work, and the publishers are duly lauded for their "accuracy and care"—an encomium which we think, after careful perusal, scarcely warranted.

The book contains thirty plates, with a varying number of figures on each, nearly two hundred altogether. The drawings were obtained from photographs, from which tracings were taken; the origins of the muscles are clearly marked in red, the insertions in blue. In addition to delineations of the ligaments, useful views of the synovial cavities of the limbs are given; these are shown artificially distended with coloured tallow or plaster-of-Paris, to illustrate the position assumed in maximum distension, and to show more clearly the exact limits of the synovial cavities. The general appearance of the book is excellent, and, for an atlas, the price is very moderate. We hope that a new edition will soon be called for, and that we shall see the inaccuracies removed; and we also think that, considering the amount of space unoccupied by letterpress on each page, a terse description of the bone, as a heading, would be a decided improvement.

The plates, as a rule, are accurate and useful guides for the use of a student, although some of them—for example, the occipital—are too small; we miss, in the parietal, the delineation of the characteristic acuteness of the anterior inferior angle; the drawing and naming of the extremities of the "inferior turbinate bone," in Plate xxix, Fig. 3, seem incorrect.

The directing lines in the plates are not always drawn with sufficient accuracy; that for the "tentorium cerebelli," in Plate xxiii, Fig. 2, is too low; sometimes the directing line is absent, as in Plate xxiv, Fig. 4, marking the "infundibulum" of the ethmoid; and again, in Plate xxv, Fig. 2, to mark the mylo-hyoid groove. The lines for the grooves at the lower end of the radius are unnecessarily crossed, and thereby confused, in Plate ix, Fig. 3.

The Latin names are at times badly bungled, and English fares as badly. "Foramen lacerum medius," twice in Plate xxii; "Foramina for N. subcutaneous malæ," Plate xxiv, Fig. 4. "Aquaductus Fallopi," Plate xxvi (letterpress), would look better as "aqueductus Fallopii." "Membrane tympani," Plate xxvi; "humular," Plate xxiv; "trochea," Plate vii, Fig. 1; "coracoid" process of ulna, Plate x, Fig. 7 (letterpress), are only a few instances of want of careful revision. We should have expected that, in a work edited in Scotland, Macewen's name as an osteotomist would have been correctly given (Plate xv). We are sorry to have to close our notice of this newest contribution to anatomical study with this list of mistakes.

NOTES ON BOOKS.

Epitome of the Laws affecting Health. By J. V. VESEY FITZGERALD. (Waterlow Brothers and Layton. 1885. Pp. 138.)—Anything from the pen of Mr. Vesey Fitzgerald on the subject of sanitary law is worthy of respectful attention. The preface explains that Mr. Fitzgerald, having many questions to answer as to legal points connected with sanitary matters, finds the statutes on the subject "neither accessible nor readily understood." Accordingly, he has bethought him of setting down, in language capable of being understood of the people, the principal rights and liabilities of citizens in sanitary matters. The opening subject—the dwellings of the people—has just been considerably altered as to its law by the Act of last session; but this is one of those pitfalls that compilers have had to endure from time immemorial. The language employed by Mr. Fitzgerald in his expositions is admirably clear and succinct; and a conscientious citizen would derive an exceedingly good general idea of his "rights and liabilities" by reading the book. It is indubitably true that the work "supplies an answer to the simpler questions which constantly arise," and which appear, indeed, to have inspired its publication; but in a future edition, we hope the author will afford to his readers the solace of an index.

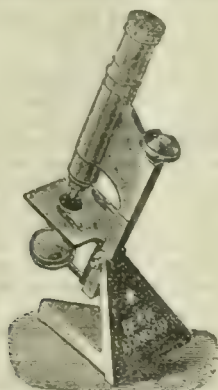
Report by the Committee of the Glasgow District Asylum to the Board of the District. 1885.—From the several parts of this report, it is to be gathered that the mortuary-arrangements of the Glasgow District Asylum, which had been very defective, have been placed on a satisfactory footing. But there is still urgent need of a separate ward for infectious diseases, and it is to be hoped that the authorities will proceed to erect the detached building of a simple character which is necessary, in order to effect the complete isolation of any patients who may be admitted in the incubatory stage of an infectious disease.

or who may incur disease of that nature whilst residing in the asylum. This asylum appears to have a very changing population. It is remarkable that, with an average number resident of about 180, the admissions during the past year should have been as many as 127; the discharges and deaths during the same period being only 3 less; and that, at the end of the four years during which the asylum has been occupied, it is found that the total number of beds for patients has been filled four times over during that space of time, and emptied thrice. The mortality-rate is satisfactorily low. The usual tables and accounts complete the report.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE STAR MICROSCOPE.

MESSRS. R. and J. BECK, Cornhill, have under this name produced a complete three guinea instrument, which should beat out of the field all the foreign microscopes which have of late years been received with favour. English microscopes of the great makers have always had the highest possible reputation; but the instruments and object-glasses have been relatively high priced, and the models rather too elaborate. The "star" microscope is a modern marvel for its low price, combined with admirable workmanship, extreme efficiency, sound construction, accurate adjustment, and excellent optical qualities. It meets all the ordinary requirements of the student and the medical



man. It has excellent objectives of 1 in. and $\frac{1}{2}$ in.; draw-tube and quick and slow focussing movement; mirror with lateral as well as rotating movement, and an iris-diaphragm. The lenses alone are worth the money. It is very satisfactory to find our best houses entering the field with first-class instruments at low prices. English microscope-makers can rival any in Europe, and all that was needed was the determination to meet the question of cheapness with excellence. This has here been achieved.

NEW AURAL SYRINGE ADAPTED FOR SELF-APPLICATION.

By J. WARD COUSINS, M.D. Lond., F.R.C.S.,

Senior Surgeon to the Royal Portsmouth Hospital, and to the Portsmouth and South Hants Eye and Ear Infirmary.

THE brass instrument, commonly employed for syringing the ears, often renders this little operation tedious to the patient and troublesome to the surgeon. It demands the use of both hands. The syringe must first all be charged, then placed in position, and discharged; it must now be removed, refilled, and again inserted in the ear. This complicated series of movements often produces muscular weariness, especially when they have to be continued for any length of time.

The new instrument is especially designed to overcome these inconveniences, and to make the operation easy of performance by the patient himself. It can be worked without any fatigue, and the elastic balls and valves are so arranged that only five or six contractions of the hand are required per minute to secure an efficient and continuous stream. The expansion of the hand-ball is assisted by a recoil-spring, and the force of the current is regulated by increasing or diminishing the number of contractions.

The engraving exhibits the method of self-application. The syringe can be very readily placed in position. The nozzle of the pipe rests against the upper wall of the auditory canal, and the tube is securely suspended by means of a perforated elastic curtain attached to the gutter.



The new aural syringe will be found a great convenience in everyday practice, saving both time and trouble, and assisting in the efficient treatment of many common aural diseases and accidents. It is manufactured, at a very moderate price, by Messrs. Maw, Son, and Thompson.

A NEW TRUSS-ARRANGEMENT FOR THE COMFORTABLE AND STEADY SUPPORT OF DOUBLE INGUINAL HERNIA.

By H. ARMSTRONG RAWLINS, M.R.C.S., Maida Vale.

THE single truss of Messrs. Salmon and Ody, Strand, with its ball-and-socket joint, long sweeping spring from the centre of the back to the further side in front, is simply perfection, and has stood the test of practical use for twenty years. Why not, therefore, by simple multiplication of the same instrument, give an equal boon to the sufferers from double hernia? This, under my direction, has been carried out with complete success. The subjoined sketch will show at a glance this new arrangement. The two arms of the spring cross each other in front, without in the slightest degree interfering with each other's action. I find also, that by joining the two springs firmly together behind, great steadiness is secured. The springs, by this arrangement, are prevented from falling down over the hips, and allow free action to the legs, and to the springs themselves. The advantage of having the springs in two parts is, that the maker can apply a stronger one on either side, if required. Other recommendations connected with the truss are as follows.

Trifling pressure over the hips; free motion of the body, with comfort in stooping.



The perfect action of the ball-and-socket joints, with the elongated springs (which press the pads inwards, instead of outwards), enables much smaller ones to be used, and secures the grand desideratum of not arresting the flow of blood from the extremities to the body.

To render this truss comfortable, I consider it most desirable to construct an inexpensive elastic pad, which has been done by introducing coils of India-rubber tubing. It is well to remember that the lower edges of the pad, in front, should just rest on the bone below.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 10th, 1885.

THE COMING CHANGE.

THE address which we publish to-day from the pen of Mr. Holmes is something more than a *prelection* to students; it is a manifesto. If many of the introductory addresses were of this character all would regret to see the practice of delivering them fall out of use. Few men but Mr. Holmes could have used his opportunity with so much vigour, so much authority, and so much usefulness. Conservative by his associations, and by many of his instincts, and speaking in the hospital which is traditionally, perhaps, the most conservative in the metropolis, living somewhat apart from the ordinary strifes of professional life, trained in an academic school, and early welcomed by high office in the College of Surgeons, Mr. Holmes has in him nothing of the demagogue, and yet no address which has been delivered for many years breathes a purer or stronger democratic spirit. He handles topics of large importance to professional organisation with the independence and the vigour of a man who is free from the trammels of party, and who sees with a clear eye the dangers and defects of the institutions with which he is most closely connected. As a teacher in a metropolitan school, he recognises the narrowness incidental to their division, and the detestable habit of cramming which is becoming a part of the new traditions of the schools, and which is obscuring the larger aims of teaching. A surgeon to a great metropolitan hospital, he claims with truth, and describes with vigour, the benefits which the public derive from the clinical observations carried on in hospitals, apart from the curing of the individual patient. Above all, he deplores the false position in which hospitals and schools alike allow themselves to be placed, by their devotion to the narrow principle of individualism, and by their neglect to combine for the public welfare, by a common social arrangement, because this seems to involve some temporary, or perhaps even permanent, self-sacrifice. Hospitals compete with each other as to the number of patients, without regard to the fitness of the cases, or to the position of the applicants. Physicians and assistant-physicians take no note of the public injury inflicted by indiscriminate charity, and hoist themselves into public notice upon the shoulders of a recognised abuse, which they feebly denounce, while they are aiding to foster it. Everyone acknowledges the vast importance of fostering provident habits among the working classes, and of encouraging self-dependence among them, by properly constituted provident societies and dispensaries, and by putting in force just regulations to prevent abuse in the infirmaries, dispensaries, and

out-patient departments. But the competition for notoriety is such, that no physician ventures to decline appointments in places in which these abuses flourish, and few exert their influence to diminish such abuses when they become attached to the institutions in which they are most notorious.

Provident medical dispensaries, founded upon just principles, languish in this metropolis, as in most other great cities, because hospitals and dispensaries enter into reckless competition with them, and do not hesitate, in the name of philanthropy, to invite the sick-poor to whom they may indiscriminately offer the means of evading their responsibilities. Except Mr. Holmes, it would be difficult to point to hospital surgeons, or physicians, who have given effectual aid to the movement for providing well constituted provident medical dispensaries in the metropolis. It is well known that all classes are alike injured by the want of coordination between the functions of the voluntary medical dispensaries and the hospital out-patient departments. To that abuse an end can never be put whilst the medical men, who are the main agents in distributing the relief, are always willing to offer their gratuitous services, and to bolster up, by their active aid and by their reputation, institutions in which these abuses are most rampant. To speak on this subject, none are more competent than Mr. Holmes, and it is greatly to be lamented that other examples of public spirit and of effort to give vigorous effect to these opinions are so rare. It cannot be denied that a great responsibility of the abuse of gratuitous medical assistance, which is so much deplored in the profession, lies largely with the profession itself; if others had equal clearness of perception and moral courage with this orator, the evil which is so often and so widely but fruitlessly lamented, could soon be remedied.

On another subject on which this oration touches, its words will command attention, and help, perhaps, to form the starting-point of a fresh movement to secure a change in the government of the great medical and surgical institutions of the profession. We see with satisfaction that Mr. Holmes speaks with no bitterness of the College of Surgeons or of the College of Physicians. We differ from him largely, however, when he acquits the authorities of the College of Surgeons and of the College of Physicians of administering the affairs of the profession with a special view to their position on the respective Councils. From that verdict, we can appeal with confidence to the very words by which he justifies it. If it be true, as he says it is true, that for long years the members of the Council of the College of Surgeons have, in spite of the protests of the profession at large, administered the affairs of the College as a close corporation; that the Council of the College of Surgeons have divided among themselves for a long series of years the fees derivable from examination; and that, until the thing became impossible to continue, they did much to exclude outsiders from a share in the administration or of the paid offices of examination, then the exculpation which he offers is obviously incomplete and historically unfounded. People in office easily persuade themselves that their own interests are the public interests; they readily assume that they are the heaven-born governors of the profession, and that those only of like rank and of similar position in the hierarchy of medicine are entitled to any share in the good things of the Colleges, or in the administration of professional affairs. That delusion will not suffice to free them from the charge of misgovernment or of interested opposition to reforms which have long been called for, which Mr. Holmes admits, and believes to be, as inevitable as they

are just, and which he foresees to be approaching. The pretension that Colleges which assume great authority over the regulation of professional affairs, should consist wholly of men of a particular standing—hospital-surgeons or hospital-physicians—and that they should continue to form a government suited only to states of society long gone by, is flimsy and untenable. The medical profession, as he acknowledges, is not composed of handicraftsmen or of agricultural labourers, but of professional gentlemen, perfectly acquainted with the wants of the profession; nay, much better acquainted with many of them than those who are called its heads.

The introduction of their influence in the guidance of the College would, he confesses, be a means of strengthening the authorities in a way which no other force could effect. The distinctions raised between Fellows and Members are scientific distinctions, and have nothing to do with administrative questions, or with questions of government. We go much further than Mr. Holmes in his desire for change. We believe and affirm that, in all administrative questions, the rights and the duties—for there can be no rights without duties—of the Members of the College of Surgeons, or of the Licentiates of the College of Physicians, are equal and co-extensive with those of the Fellows. We claim that they should be admitted to an equal share in the government of the College. We claim that no governing body which consists exclusively of one caste is a representative, or a properly formed, governing body. And we entertain little doubt that, when the Members and Licentiates of the respective Colleges awake to a true sense of their position, of their power, and their duties, they will demand a full and equal share in the government of both Colleges; that their demand will be yielded; and that, when it is yielded, the Colleges will find that, instead of being weakened, they are strengthened, and that there is no stable or effectual form of government in this country which is not thoroughly representative in its constitution. Once such a reform were effected, we venture to believe that it would tell upon the whole course of medical education, and upon the conduct of those who now occupy the higher places, and who fill our hospital-appointments with little regard, as we have indicated, in many points, either to the higher interests of the public or of the profession. With Colleges constituted as at present, the governing bodies of the Colleges are made up exclusively of hospital-physicians and of hospital-surgeons. What they do in their hospitals, they justify in their Colleges, and the one form of abuse re-acts upon the other. This division of schools, this conflict of individual interests, this subordination of all other considerations to the so-called dignity and to the obvious interests of teachers, who have a chief interest in the individual schools, and who have a monopoly of hospital-appointments, is largely due to the want of a just representative system in the management of our Colleges. It is no personal imputation upon any of the members of the Council that, being what they are, hospital surgeons and physicians, they form close bodies, defending instinctively, and no doubt under the delusion that it is for the public good, the position which hospital surgeons and physicians now take up in respect to the management of the schools, to the character of the examinations, and to their duties in respect to hospital-abuses. But surely the day is at hand when this system of government in the Colleges by a privileged class will come to an end. Members and Licentiates will not always consent to be treated as the inferior classes, who are to bow submissively to con-
claves of a higher caste. All classes, all opinions, all conditions of

the medical profession, should be represented in the Colleges, and in the General Medical Council. The General Medical Council, as Mr. Holmes admits, is but a concentration of those very prejudices, and of those very interests, which, in the Colleges, conflict with the general interests of the public and the profession.

A sweeping reform of the General Medical Council has long been urgently called for, and has only been delayed by the very power which these corporate interests possess, and by their effort to put off the evil day when corporations shall cease to have an overwhelming influence. The profession is rising to a knowledge of its own power, and is beginning to perceive that, by organisation and by combination, it can overcome the compact obstructive bodies which are here to oppose change. But progress is inevitable; and in the coming change, which we here predict, there will be nothing revolutionary, but only a steady, orderly, and irresistible advance to a state of things in which the profession shall resume the control of its great educational and administrative bodies, and in which the voice of privilege shall no longer possess an overwhelming influence.

THE REFORM OF LOCAL GOVERNMENT.

THE oracles of both political parties have now spoken, and by each the reform of local government is given a foremost place amongst the matters to which the new Parliament ought to bend its energies. Whatever be the composition of the reformed House of Commons, therefore, this question of local government reform will infallibly be part of its legislative programme; and seeing that both sides are now pledged to its discussion, there ought to be no serious difficulty in securing the passing of a full and satisfactory measure of reform. It is a little remarkable that, as the general election draws closer and closer upon us, and the floodgates of political oratory are swung more and more widely open, the "reform of local government" has become a kind of catchword for which political aspirants of all parties feel it necessary to have a certain respect. They all refer to local government sympathetically in their speeches as a thing that must be reformed; though as to what they mean by local government, and how they desire it to be reformed, they would probably be found a little hazy if any elector were himself so well informed on the subject as to make it a vehicle for catechism. The fact is that, as Mr. Gladstone said in his recent Manifesto, with a touch of mournful humour, local government is a "thoroughly unexciting subject;" and yet, to quote the same high authority, "it is the instrument of our public education, and it is the guarantee of our political stability. It lies at the root of all our liberties and all our aptitudes." It is hardly necessary in this place to attempt to defend local self-government in the abstract, as all constitutional writers agree in considering it as of high political importance, and as of the essence of our national vigour. But "local government" in the concrete means, in these latter days, very different things according to the political platform from which it is viewed; and is even made by some to include such advanced reforms as the municipalisation of land and Home Rule.

What, however, we take to be the immediate object of those who have elevated local government reform into an election-cry, is the restoration to local councils of that unity and symmetry which the recent mushroom-growth of "Boards" of all sorts has tended to obscure. As has been caustically but truly said, "Throughout the present century new wants have been multiplying. Whenever a par-

ticular want became so clamorous that it could no longer be ignored, the Legislature provided for it as if it were the only want of society. For almost every administrative function the Legislature has provided a new area, containing a new constituency, who, by a new method of election, choose candidates who satisfy a new qualification, to sit upon a new board, during a new term, to levy a new rate, and to spend a good deal of the new revenues in paying new officers and erecting new buildings." It has come, indeed, to be regarded as somewhat of a good joke, that most of us live in four kinds of districts, under six kinds of authorities, and subject to at least eighteen kinds of rates.

It would be strange if a "chaos" of authorities and administrations like this had landed us in anything else than an inextricable muddle of local government and of local finance. A first step in the direction of reform is evidently unification of area and of authority. As Mr. Ernest Hart put it, in his address to the Sanitary Congress, "We must have a single area for all local business, administered by one authority, elected on an uniform basis, and exercising identical powers all over the country. Our local burdens must be fairly apportioned, our rates must be unified, and the state of our municipal finances must be consolidated and kept under control."

The views of the political leaders of the day, as reflected in their manifestoes, appear to be principally concerned with the financial side of the question, with which we have little to do. But there are other equally important reforms which it is necessary to hold in view, and to the accomplishment of which medical men would do well to bring to bear all their influence. The interest of the medical profession in reformed local government may be summed up as follows: As good citizens, they desire to see their municipal affairs efficiently, economically, and systematically administered; as professors of healing, they must be solicitous that the circumstances of air, soil, and water in the district are such as not to endanger their clients' health when well, nor to retard their patients' recovery when ill; as members of a profession, they cannot but desire to see their brother-practitioners who devote themselves to the service of public medicine properly remunerated and properly protected against caprice and wrong-doing of the appointing authority. One reform of local government that will forge to the front, as soon as the question is really grappled with by Parliament, will be the security of tenure of sanitary officers. These have patiently borne their grievances in the fond but hitherto futile hope that Parliament would take up their case. The new election-cry will, it is to be hoped, serve their cause by compelling whatever Ministry may be in office next year to bring in a Bill to put local government throughout the country upon a sound and proper footing.

THE TRAINING OF THE SENSES.

No error has been more deep or more widespread in the educational systems of this country than the comparative neglect of any systematic training of the senses, and the almost exclusive concentration of the learner's efforts upon books and book-knowledge. Whether we contemplate the usual methods pursued in schools of every grade, or the course prescribed for graduation at the universities, we find education to be practically synonymous with the acquisition of the facts contained in books, and the deduction from them of habits of thought and principles of action. That such a process must always constitute a large portion of education, and that by such means many most im-

portant faculties are exercised and developed, cannot for a moment be questioned. The memory can thus be cultivated, the taste developed, and the judgment matured. These are great ends; but, nevertheless, our educational system is in error, because it neglects the order of Nature, which is sense before intellect, observation before reasoning. The senses are the avenues of knowledge to the brain, and their due exercise and cultivation should precede those studies which call into activity the higher cerebral centres of reasoning and reflection. Nature teaches us this principle with singular force, but we are often strangely blind to her plainest admonitions. Watch a little child, and see the intense activity of the senses. The eye is ever on the watch, the hand is ever eager to confirm by touch what sight has already apprehended, and taste seeks to lend its aid even where it is of no avail. But put a question to the child involving judgment, reflection, or comparison, and its face clouds in a moment. The immature brain is yet unequal to the exercise of these higher faculties, and any attempt to stimulate them into activity is futile intellectually and injurious physically. The conclusion from such facts is sufficiently obvious. Instead of foolishly seeking to rouse the higher cerebral centres from their state of wholesome dormancy, we should supply the eager and active senses with abundant material from which in due time principles of thought will be evolved. The child would like to know the name and properties of every visible object, every flower, every tree, every animal, and every bird. But, largely from ignorance, and frequently from impatience, on the part of the parent, this natural and healthful inquisitiveness is checked and blighted. The questioning instinct is dwarfed, and the zeal for knowledge of the youthful learner is diverted, as soon as possible into the less congenial and less profitable channel of books.

Nevertheless, some improvement in this particular can already be detected. The German kindergarten system is admirably adapted to convey knowledge by the natural sense-channels, and its principles are gradually permeating other countries. It is much to be regretted, however, that in England the name of kindergarten is frequently employed with no real appreciation of its proper significance, and merely as a cloak for old and obsolete methods.

Intermediate education is still mainly literary and mathematical, and the natural sciences have as yet only a precarious footing in our schools; but they are steadily gaining the day, and we trust the time is not far distant when the average schoolboy will be as familiar with the plants and flowers of his native land, as he now is with the exploits of heathen gods and goddesses, and when his devotion to Euclid and trigonometry will not preclude him from watching with interest a chemical reaction, or a practical exposition of the laws of heat and motion.

In an university curriculum, it is proper that there should be considerable latitude of choice, and due scope for the play of taste and natural disposition. The thinker is as important in his own sphere as the observer, and many men who are incredibly unobservant become accurate and acute reasoners. So much may freely be granted to immemorial usage, but we can justly complain that our university systems, for the most part, attach an altogether undue preponderance to literary and mathematical, as distinguished from scientific, studies. Great as have been the gifts to man of literature and mathematics, it can hardly be denied that the gifts of science are transcendently greater still. The only disputable question is the relative value of the physical sciences as an engine of education, a point which would

demand more detailed consideration that we can at present bestow upon it. These points are, however, abundantly clear: first, that no faculty is more essential to success in life than correct observation, and that this faculty is most suitably cultivated by the natural sciences; and, secondly, that scientific study consists essentially in deducing general laws from particular facts, and that, under various forms, this constitutes the real business of life.

The botanist observes the separate characters of a flower, and thus learns to assign it to its proper genus and species. The chemist observes the indications of the various tests which he applies, and, by their conjoint testimony, he determines the nature of the body under examination. So, in ordinary life, we estimate character and intelligence by an involuntary comparison of individual acts and indications. The merchant deduces the course of trade from a synthesis of the fluctuations of the market. The physician diagnoses the nature of disease and its probable course by a comparison of numerous, and often conflicting, symptoms. In all these pre-eminently important matters, not literature or mathematics, but physical science, is the genuine analogue.

One qualification must be made. Correct observation is practically valueless, unless it become the parent of accurate deduction. Hence some knowledge of logic and of mental science is of the utmost moment to the scientist. Many men, no doubt, reason well without special training in this department, but bad reasoners may be improved; and, in any case, although a man may handle his tools with natural dexterity, it is better that he should accurately understand their nature and uses.

Looking at medical education in the light of the principles which we have laid down, we find it fairly satisfactory. For the purposes of pure observation, no study can possibly excel anatomy. For the higher purposes of conjoint observation and deduction, we know not where we should look for better material than that afforded by ordinary clinical study. Here, observation and reasoning meet in the nicest harmony, and he will be the most scientific and the most successful practitioner who possesses, in due proportion, the quick eye and the calm judgment, and who most skilfully avoids the opposite errors of imperfect or inaccurate observation, and hasty or erroneous deduction.

THE death-rate from small-pox in Montreal fell 50 per cent. on Tuesday, being only 24.19 in the city and 4 in the adjoining municipalities.

SCARLET fever still continues prevalent at Salford. Last week, 27 fresh cases of it were reported, against 10, 11, 19, and 18 in the four preceding weeks.

THE names of Dr. Alfred Carpenter, J.P. (Croydon), and Dr. Watney (Greenwich) are announced as candidates for Parliament: the former for the division of his county and the latter for (Greenwich). Both are known to be eminently qualified by their education, capacity, and public spirit for the honourable post they seek.

THE death of M. Charles Robin, the eminent histologist, from apoplexy, at the age of 64, occurred on Tuesday last. Since 1852, he had been Professor of Histology at the Faculty of Medicine. In 1871, he, in association with M. Littré, founded the Society of Sociology. Since 1875, he had been one of the Senators for Ain, and

was a firm Republican. By his death, the Senate loses almost its only surviving scientific man.

WE are requested to draw the attention of our readers to the notice of the Commissioners of Inland Revenue which appears in our advertisement-pages, that, by an Act of last session, all bodies corporate and unincorporate are required to pay a duty at the rate of 5 per cent. upon the annual value, income, or profits accruing to them from their real and personal property; and that they will be required, under heavy penalties, to render returns, supported by full accounts, before the 1st December next.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THIS Society will hold the first meeting of the winter session on Wednesday, October 14th, at 11, Chandos Street, W. Dr. Jamieson will read a paper on a new operation for ruptured perineum, and Dr. Heywood Smith will read notes of a case of hernia of the ovary.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THIS society will hold its first meeting on Thursday, October 15th, and not on October 8th, as was stated in the JOURNAL of October 3rd.

PROFESSOR HAESER.

THE death is announced, at the age of 72, of Professor Haeser, the senior member of the medical faculty of Breslau. He was formerly professor in Griefswald and Jena. He was the author of several works, amongst which was a history of medicine, which has gone through several editions, and is much read abroad as well as in Germany. Professor Haeser was also well known in the musical world.

MR. CHRISTOPHER HEATH.

WE are glad to learn that Mr. Christopher Heath has been able to resume his hospital-studies, having completely recovered from his late serious illness. The *Dictionary of Practical Surgery*, by various authors, which Mr. Heath is editing for Messrs. Smith, Elder, and Co., is, we understand, in a very forward state, and will be ready for publication early in next year.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.

A GENERAL meeting of this Society was held at the rooms of the Medical Society last Tuesday, the President, Dr. Norman Kerr, in the chair. Papers were read by Mr. C. G. Robertson on The Pale of Inebriety, and by Mr. Carsten Holthouse, on The Treatment of Inebriety. In the discussion which followed, Drs. Williams, Poole, Jabez Hogg, Edwards, and George Robertson took part. A resolution was agreed to regretting the loss of an Associate, the Earl of Shaftesbury, and condoling with his relatives.

CAMBRIDGE MEDICAL SOCIETY.

THE members of this Society decided this year to have a dinner, which was held (by the kind permission of the Master and Fellows) in the Hall of Sidney Sussex College, on Tuesday, October 6th; the President of the Society, Dr. J. B. Bradbury, in the chair. Among the guests were the Vice-Chancellor of the University (Dr. Ferrers, Master of Gonville and Caius College), the Master of Corpus Christi College, Sir Charles Cameron, Professor John Wood, Professor De Chaumont, Dr. Alfred Meadows, and the Mayor of Cambridge. The members present included Professors Paget, Humphry, Latham, and Macalister.

POOR-LAW INQUIRY AT CARDIFF.

THE result of the public inquiry, recently held by Mr. Bircham, into the charge of neglect made against Mr. R. Lougher, one of the medical officers of the Cardiff Union, has now been announced. Mr. Lougher was blamed for having delayed visiting one of his poor

patients when urgently summoned. It appears that the woman in question fell into ill health early in the present year, and, on the 20th of May last, Mr. Lougher received an order from the relieving officer to attend her, which he complied with on the same day. He found her suffering from debility and want of proper food; so he prescribed for her, and ordered the relieving officer to provide her with the nourishment she needed. He visited her again seven days later, but found he could not then do anything further for her. On the evening of Monday, June 1st, the woman's son called on Mr. Lougher, and asked him to come and see his mother, who was seriously ill. The medical man, however, being very busy, and bearing in mind that he had seen her only a few days previously, did not attend her that night. The woman died before the morning. It is satisfactory to know that, after a public inquiry, the Local Government Board are satisfied that Mr. Lougher was not guilty of direct neglect in the case.

LEAD-POISONING AT SEA.

THE Paris Municipal Laboratory has received a report concerning an epidemic of lead-poisoning which recently happened on a Norwegian vessel coming from Cadiz. Several of the crew exhibited symptoms of lead-poisoning, and the vessel was put into port in New York. The captain and several of his men were sent to the hospital at Coney Island. Two men died; the others recovered, after suffering severely. The affair was investigated, and it was ascertained that impure drinking-water was the cause of the catastrophe. The ship's tank was painted inside with red lead; the water became of a yellowish colour. The Municipal Laboratory has issued a recommendation to landlords and all persons who have cisterns or water-reservoirs that resin or tar, dissolved in turpentine or benzine, should be used for painting them. It appears that, in Paris and its suburbs, a great many cisterns are painted with pigment containing lead.

YORKSHIRE COLLEGE: MEDICAL DEPARTMENT.

THE winter session of this College was opened on October 1st, by Mr. Jonathan Hutchinson, F.R.S., of the London Hospital, who gave the address, which was published in the JOURNAL of October 3rd. The address was delivered in the chemistry class-room, to a large audience of students and supporters of the College. This is the second session of the medical department, under the new arrangements. The toils of amalgamation have passed, and there is a good promise that the energetic endeavours of the promoters will meet with success. Everything possible has been done to place the old Leeds medical school upon a footing of equality with the best modern schools. The staff has been remodelled, and the anatomical teaching has the assistance of a salaried demonstrator, supplemented by four honorary assistants. Physiology is taught by a physiologist, Dr. de Burgh Birch, and all the appliances necessary for the thorough teaching of the subject, have been acquired. There is good laboratory accommodation, suitable for the requirements of classes, and also of private investigation. Pathology is taught systematically and practically, and all the other branches of medical education are filled by teachers of recognised standing. The hospital authorities have opened a new gynecological department, thus completing a clinical school always prominent for the excellence of its physicians and surgeons. Those who are responsible for the changes may congratulate themselves on the success which has attended their efforts, and when affiliation to Victoria University has become a fact, the Yorkshire College will certainly occupy a prominent position as an educational body.

OBSTETRICAL SOCIETY OF LONDON.

ON Wednesday, October 7th, this Society held its first meeting in the new session. After the exhibition of a specimen illustrating what is known as missed abortion, Mr. W. H. Grigg gave some details of a remarkable case where there was evidence that an extra-uterine foetus and placenta had been born into the uterine cavity, and then expelled by

the natural passages. The specimen which Mr. Grigg exhibited was referred to a committee for report. The report of a committee on Dr. Harvey's specimen of rupture of the uterus through the fundus was then read. Dr. Matthews Duncan read an important paper on the Hypertrophies of Lupus of the Female Pudendum. He believed that lupus of the vulva was incurable without surgical interference. Mr. Jonathan Hutchinson declared that the cases described were not instances of what dermatologists understood by lupus. He believed that in all of them a syphilitic taint existed; whilst the presence of obstinate gonorrhoeal discharges kept up the local disease, and prevented it from being amenable to antisyphilitic treatment. He admitted, however, that true lupus assumed a very different aspect on different parts of the body. On the hands, it presented a coarsely papillary character not observed in lupus of the face. Mr. Hutchinson agreed with Dr. Duncan in his surgical treatment of the disease under discussion. Many forms of tertiary syphilitic growth were not amenable to purely therapeutic treatment, and nothing availed except removal by scraping or the cautery. Syphilitic lupus, or syphilitic elephantiasis, was the best name for Dr. Duncan's cases. They did not occur at the age when true lupus was met with. Lupus on the vulva of a young girl was exceedingly rare. In Dr. Duncan's cases, lupus of the face was absent, except in one instance, where there was perforation of the palate—a condition never seen in true, but frequent in syphilitic, lupus. Dr. Playfair believed that Dr. Duncan's cases were examples of true elephantiasis; but, after some observations on the histological aspect of the question by Dr. Galabin, Dr. Thin stated that the microscopic appearances of the tissues affected in Dr. Duncan's cases were not what was seen in true elephantiasis. Dr. West observed that, many years since, he had been the first to direct attention to this disease of the vulva. He then applied to it Huguier's term, *esthiomène*, and did not find that it was syphilitic. Dr. W. A. Duncan had removed the greater part of an hypertrophied vulva two years since, and recently a growth had reappeared on the cicatrix; but this had disappeared during a course of antisyphilitic treatment. After some observations by Drs. Horrocks and Gervis, Dr. Matthews Duncan strenuously denied that there was any evidence of syphilis in his cases, nor were they examples of elephantiasis. He admitted that this disease of the vulva was not the lupus that attacked the face.

A PLUM-STONE IN THE TRACHEA.

A LITTLE boy, aged 9½ years, who had cracked a plum-stone with his teeth, swallowed a portion, which stuck in the larynx. His respiration became stridulous, and five hours afterwards he was brought into the Reich's Hospital in Christiania. No signs of the stone could be seen with the laryngoscope, but, the symptoms being urgent, crico-tracheotomy was performed; the foreign body, which was two centimètres long by one broad, was extracted through the upper extremity of the wound. This was then closed, as the respiration was free. Bronchitis and pneumonia set in, so that it was a month before the child recovered. Dr. A. Malthe, who relates this case in a Norwegian medical journal, considers that lung-complications after tracheotomy are usually due to the inhalation of cold air through the tracheal opening. In this case, ordinary tracheotomy was not performed, because the foreign body was evidently impacted high up in the neighbourhood of the cricoid cartilage.

INJECTION OF A NEW PREPARATION OF ALBUMINATE OF MERCURY IN SYPHILIS.

DR. MAX BOCKHART, of Wiesbaden, describes, in a German dermatological journal, an ingenious method of administering mercury in syphilitic cases by subcutaneous injection, which, he says, is perfectly innocuous, never having caused pain, induration, or abscess. He combines the mercury with blood-serum. The latter, which may be obtained from the horse, sheep, or ox, is sterilised according to Koch's process, and then filtered. Of the filtrate, 40 cubic centimètres is poured into a graduated glass. To this is added a warm (50° Cent.)

solution of 3 grammes of bichloride of mercury, in 30 grammes of water. The resulting precipitate is dissolved in a solution of 7 grammes of common salt in 20 grammes of water. This gives a 3 per cent. solution of mercury blood-serum. This is then mixed with distilled water, so that the whole weighs 200 grammes, which reduces the strength to $1\frac{1}{2}$ per cent., which is the best strength for use; a gramme of it containing 0.015 gramme of mercurial albuminate. This solution is a yellowish opalescent liquid, with neutral reaction, and will keep very well in a dark glass bottle in a cool place. The injections are given once or twice a day, 0.7 gramme being introduced on each occasion, containing about 0.01 gramme, or three-twentieths of a grain, of albuminate of mercury. Besides acting rapidly and powerfully on syphilis, and keeping the system for a long period free from secondary symptoms, this preparation has the advantage of being stable, cheap, and easily prepared.

ON LOCAL ASPHYXIA OF THE EXTREMITIES.

Cases of local asphyxia and symmetrical gangrene of the extremities have been recently described by Messrs. Vernouil and Petit, who are of opinion that paludal cachexy plays an important part in the etiology. It is interesting to compare their observations with that of M. Bouveret, which has been published in the *Lyons Médicale* for June 8th, 1884. The patient, a woman, aged 68, lives in a country where ague is endemic, and she has been repeatedly attacked by it. She also suffers from atheroma of the arteries. In January 1883, she noticed that the middle finger of her right hand was cold and of a dark colour, but the normal temperature and colour returned after dipping her hands into warm water. Some time later, the other fingers of the right hand were similarly affected; and little by little the disease progressed, so that now all the fingers and toes, as well as the palm and back of both hands, become at times cold and livid. Purple patches also appear occasionally on the forearms. The sensitiveness of the skin in the affected parts is much diminished, and sometimes even quite abolished. Dipping the extremities into warm water causes a temporary disappearance of the symptoms.

LORD DERBY ON HOSPITAL-WORK.

On Tuesday, the Earl of Derby formally opened two new wings to the Stanley Hospital, at the north end of Liverpool, to which his lordship presented the 10,000 yards of land required, together with £1,000 to the general fund of the hospital. His lordship complimented the committee on the excellent sanitary and other arrangements of the institution. Hospitals rendered most important services to medical science, and in that regard all classes of society benefitted by them, and of all forms of charity, hospitals were the least liable to abuse. No doubt they were often used by those who were able to pay for medical service, but it was an abuse which might be checked in various ways, and in all our large towns there was abundant scope for all forms of medical charity. In regard to the manner in which such institutions were supported, he had been repeatedly struck by the small proportion which the subscribers to charities bore to the whole community, and he feared that too little regard was paid to the class who would gladly, if asked, subscribe small sums. He also deprecated the feeling which actuated many not to subscribe at all rather than to figure for less than their neighbours might think they ought to give. His lordship concluded by expressing warm interest in an institution so intimately associated with his name and family. Thanks were also voted to the Mayor of Liverpool (Alderman D. Radcliffe) for his exertions in raising the sum of £3,000 to clear off the debt of the institution.

MEDICAL MISSIONS IN INDIA.

The annual meeting of the Zenana and Medical Mission School and Home was presided over by the Lord Mayor at the Mansion House on Tuesday last. The committee, in their report, pointed to the number of pupils—sixty-one—who had availed themselves of the school, and

to the progress of the work for which aid was earnestly entreated. A special appeal was made for £2,000, to enable the affiliation with a London general hospital, and thus prepare the way to become a recognised medical school, to make some payment to the lecturers, to make more complete the departments of instruction, and to more widely assist the candidates unable to fully pay for board, residence, and instruction. The Lord Mayor having opened the proceedings, Dr. Owles moved the adoption of the report, and said there was very great need of medical missions in India; and it was important that they should send to India more women who combined the powers of the healing of the sick and the preaching of the Gospel. The following resolution was passed: "That this meeting hears with great satisfaction of the valuable work already done in the mission-field by the ladies trained at the school and home, and recognises in Zenana and medical mission-work the most effectual agency for reaching the women and children of the East, and commends very earnestly the society to the support of the Christian public." A vote of thanks to the Mayor for presiding concluded the proceedings.

PTOMAINES.

Our knowledge of the putrefactive alkaloids—the so-called ptomaines—has recently been greatly extended by the admirable and exact researches of Professor L. Brieger, who has published his conclusions in the form of a pamphlet (*Die Ptomaine*, Berlin, 1885). Hitherto, continental observers have, for the most part, contented themselves with obtaining so-called "alkaloidal extracts" by the Otto-Stas or other approved methods, solutions in glycerine, etc., giving, it is true, the general reactions of alkaloids; but still solutions uncertain in composition, and prone to turn brown and undergo decomposition. These, when given in uncertain quantities to animals—generally by the hypodermic method—have sometimes proved to be toxic. Brieger has gone much further than this, and has separated definite alkaloids, or salts of definite composition, from the products of putrefaction; and these he has submitted to quantitative analysis. In this way, he has added two new alkaloids to our chemical repertory, namely, a non-toxic diamine, neuridine, $C_8H_{14}N_2$, and gadinine, $C_7H_{13}NO_2$. The characteristic base of putrid mammalian flesh he finds to be the highly poisonous butyl base neurine, $C_8H_{15}NO$, which is not identical with choline (bili-choline, $C_8H_{15}NO_2$). Altogether, Brieger obtained from the putrilage of fish, flesh, cheese, and gelatine, no less than eight bases—neuridine, neurine, gadinine, di- and trimethylamine, tri-ethylamine, muscarine, $C_8H_{15}NO_3$, and ethylene diamine. These, with the exception of the new bases neuridine and gadinine, may be prepared synthetically. Brieger is at present engaged in the study of the products of the actions upon organic matters of specific micro-organisms; and his result will be awaited with no little interest.

SCOTLAND.

EDINBURGH UNIVERSITY BUILDING FUND.

At a meeting of the Edinburgh Town Council, held on Tuesday, there was submitted a letter from Professor Turner, as interim convener of the Building Committee of the University Buildings Extension, asking the council's consideration of the appeal now being made for funds to complete the new university buildings, and stating that at the beginning of the year the sum of £15,000 was required, this had been reduced to £3,000, by means of Mr. McEwan's subscription of £5,000, and further subscriptions to the amount of £7,000. Mr. McEwan's £5,000, however, is not available till the total has reached £15,000 necessary for the scheme. Professor Turner, therefore, hoped that the Town Council of Edinburgh, which had taken such a practical interest in the scheme, and had already contributed £3,100 to the scheme, would favourably consider the present appeal.

GLASGOW SOUTHERN MEDICAL SOCIETY.

At the annual meeting of this Society, held on October 1st, the following gentlemen were elected office-bearers for the session 1885-86. *President*: William Carr, M.B. *Vice-President*: Frederick A. Freer, L.F.P.S.G. *Treasurer*: E. McMillan, L.R.C.S.Ed. *Secretary*: James Hamilton, M.B. *Editorial Secretary*: John Glaister, M.D. *Scalkeper*: David Tindal, M.D. *Court Medical*: A. Napier, M.D. (*Convenor*), R. Pollok, M.B., N. Carmichael, M.D., R. Park, M.D., J. Morton, M.D. *Extra Council*: W. J. Shaw, M.B., A. Rankin, M.B., David N. Knox, M.B.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

At a meeting of the above Society, held in the Faculty Hall, St. Vincent Street, on October 2nd, the following gentlemen were appointed office-bearers for the session 1885-86. *President*: Dr. G. H. B. Macleod. *Vice-Presidents*: Drs. David Taylor (Paisley) and Lapraik. *Council*: Drs. Wm. Whitelaw (Kirkintilloch), W. A. Wilson (Greenock), J. A. Lothian, Wm. Patrick, M. Thomas, A. M. Robertson, S. J. Moore, and A. Wood Smith. *Secretaries*: Drs. J. Wallace Anderson and W. G. Dun. *Treasurer*: Dr. Hugh Thomson.

SICK CHILDREN'S HOSPITAL.

DURING the month of September, there were treated 83 patients in the Royal Hospital for Sick Children, Edinburgh, of whom 58 were admitted as new in-door cases during the month, 25 remained from August; 28 patients were discharged, of whom 20 were cured or recovered, and 8 relieved. The daily average number in the hospital was 40. In the dispensary department, 514 out-door cases were treated and 10 were vaccinated. Of 248 new cases, 191 were from Edinburgh and 37 from Leith, only 20 being from the country. Now that the accommodation is so much increased by the banishment of infectious diseases, a much greater number of general cases will, it is expected, be treated in the hospital.

PUBLIC BATHS FOR MONTROSE.

FOLLOWING the example of Edinburgh, an effort is being made in Montrose to establish public baths, to consist of a swimming-bath and eight plunge-baths; and a public meeting, presided over by the Provost of Montrose, declared in favour of this sanitary project.

IRELAND.

MATER MISERICORDIE HOSPITAL.

This hospital was visited by His Excellency the Lord-Lieutenant and the Countess of Carnarvon last week. Their Excellencies were received by the Most Rev. Dr. Walsh, the Catholic Archbishop of Dublin, the President of the Hospital, Dr. Cruise, President of the King and Queen's College of Physicians in Ireland, Consulting-Physician to the Hospital, and by the members of the visiting staff. The new wing is rapidly approaching completion, and will shortly be ready for the reception of patients.

MR. P. S. ABRAHAM.

A NUMBER of friends of this gentleman, who, having resigned the office of Curator of the Museum of the Royal College of Surgeons in Ireland, which he has so efficiently filled for the last six years, is leaving Dublin for London, presented him with a testimonial and address on Saturday last. The presentation, which was made, on behalf of about seventy subscribers, by Dr. Cruise, President of the King and Queen's College of Physicians, consisted of a very handsome embossed silver salver of Irish manufacture, a silver claret-jug, and a case of ivory-mounted carvers. The address expressed, in a few well chosen sentences, the esteem and regard in which Mr. Abraham was held by his friends, as well for his social and personal qualities as for

the courtesy and readiness with which he placed his scientific attainments and skill at the service of any person seeking his assistance. Mr. Abraham was Honorary Secretary of the Dublin Biological Club, and an active member of the Academy of Medicine in Ireland, of the Council of the Royal Zoological Society, and of the Microscopical Club, and will be much missed in all these bodies. He carries with him to his new sphere of life the best wishes for his success and happiness of a large number of Irish friends.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

St. LUKE'S day this year falling on Sunday, the annual stated meeting of the College and Fellows' dinner will be held on the following day, namely Monday week, the 19th instant. Dr. Cruise will be re-elected President without opposition. The Vice-President, Dr. Duffey, and Professor Purser having both served two years as Censors, will not, in accordance with usual custom, seek re-election. There will be a contest for the two offices thus vacated, three Fellows having been nominated for them. During the recess the College has been painted and decorated, and its two large halls and staircases now present a very handsome appearance.

JERVIS STREET HOSPITAL.

THE rebuilding of this hospital has been completed, and it will be opened for the reception of patients on the 29th instant. The front facing the burial-grounds of St. Mary's Church in Jervis Street is 167 feet in length, and 100 feet in height. The ground floor is of cut limestone, and the three storeys above are faced with red brick-work, dressed with limestone. There is a good basement-storey, which affords accommodation for dispensary purposes, with apartments for the staff, waiting-room, lavatories, etc. At each wing of the building, north and south, staircases are provided, with lavatories, baths, and latrines for each storey, with a hydraulic lift for elevating patients, stores, etc., to all the floors of the building. A glazed metal corridor on each floor at the rear connects each block of these buildings, forming also an airing space for convalescents from the several wards into which they open. The construction of the building has been carried out with due regard to economy of space, abundance of light and ventilation, facility of administration, and specially with regard to safety from outbreaks of fire.

COLLECTIVE INVESTIGATION COMMITTEE.

LIST OF RETURNS RECEIVED DURING SEPTEMBER, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of September, 1885.

Aberdeen Branch: II, III (3), J. Mackenzie Booth, M.D.
 Border Counties Branch: I, T. Davidson (Dumfries); II, W. McLean Wilson, M.B.
 Cambridge and Huntingdon Branch: X, Professor Humphry (71); R. II. Martin.
 East Anglian Branch: X, Dr. Holden (3); F. W. Clarke (3); Intemperance, J. T. Skrimshire, M.D. (2).
 Edinburgh Branch: Intemperance, D. McLeod, M.D.
 Lancashire and Cheshire Branch: Bolton District: X, W. Berry (2). Liverpool District: X, W. Fletcher, M.B.
 Metropolitan Counties Branch: X, E. G. Gilbert; H. Power, F.R.C.S. (3); G. Bury; XIII, W. H. R. Stanley, M.D.; F. W. Alexander.
 North of England Branch: I, R. S. Peart, M.D.; XIII, H. Thompson.
 South-Eastern Branch: East Kent District: I, T. F. Raven. West Sussex District: IV, A. E. Buckell, M.D. (5).
 South Wales Branch: XIII, W. E. Williams, F.R.C.S. (3).
 South-Western Branch: North Devon District: I, H. H. Parsloe (6).
 Southern Branch: Dorset District: II, W. V. Lush, M.D. Wilts District: X, J. Lardner Green (5); Intemperance, G. C. Taylor, M.D.
 Worcester and Hereford Branch: X, Dr. Pike; Intemperance, G. Birt, M.B.
 Yorkshire Branch: Intemperance, J. Branson.
 Isle of Man: XIII, J. W. Wood.

CALLAO AND PERUVIAN SANITARY REGULATIONS.—The Lima medical journal, *El Monitor Medico*, states that, though the sanitary regulations of Peru are pretty complete, it is practically impossible that they can be acted up to. Indeed, Callao, which is the main port of the country, and therefore the spot which it is most important to guard efficiently against the ingress of infection from outside, possesses no sanitary guard and no sanitary service boat.

THE SANITARY CONGRESS.

LOCAL GOVERNMENT REFORM.

THE "Address to the Congress" on "The Essentials of Local Government Reform," was delivered at Leicester on Thursday, September 24th, by Mr. ERNEST HART, the Chairman of the National Health Society.

Mr. HART commenced by observing that the question of local government reform was now by universal consent looked upon as one of the very first matters to which the new legislature that we were on the eve of electing would have to bend its energies. He reminded his audience that this was no new subject. At least seventeen years ago, within his personal political experience, local government was quite as burning a question as it appeared likely to become now; and ardent sanitary reformers of those days were in great hopes of the accomplishment of a thorough and satisfactory settlement of the very difficulties under which the nation was now, as it was then, ignorantly suffering, with a kind of fatalistic idea that they were insurmountable. The chaos of local government was felt then, as it is now, to be a primary obstruction to efficient sanitary administration. There were these differences, however, between the state of affairs at the two periods: that those whom the extravagance and wastefulness of our present local administration affected most immediately and closely would have a far more powerful voice and influence in the forthcoming elections than they had in 1868, and that in the meanwhile there had been a variety of experiments in "boards" of various kinds—sanitary, educational, and what not—which ought to have had some useful lessons for us.

Local self-government had been generally recognised as of the essence of our national vigour, and was the distinguishing feature of our government; but local administration had its drawbacks. The spirit of that self-government which Englishmen have always vindicated to themselves through every developing period of their history, had led to the growth of many discrepancies in their institutions, and to many disconnected and even conflicting laws. Imperfect local administration had been the natural result. The complications of the present system of local government were so numerous and tangled, that few had had the patience to attempt to unravel them. Everyone was agreed that the system wanted reform; but the details to be grappled with were so many that the majority find themselves unable to "see the forest for the trees."

There were probably few people who would not agree with John Stuart Mill that the control of all the business of a locality should be united under one body, and one only. This was called the "ideal of the reformer;" but Mr. Hart saw no valid reason why it should not be carried into effect, save that our methods of legislation were now almost uniformly scrappy and patchy. As had been well said, "almost all the failings of the local administration may be traced back to the mode in which it has grown up." Throughout the present century, new social wants have been multiplying. Whenever a particular want became so clamorous that it could no longer be ignored, the Legislature provided for it as if it were the only want of society. For almost every new administrative function the Legislature has provided a new area containing a new constituency, who, by a new method of election, choose candidates who satisfy a new qualification, to sit upon a new board during a new term, to levy a new rate, and to spend a good deal of the new revenues in paying new officers and erecting new buildings. Thus there has been created, not a system, but a chaos—a chaos of areas, a chaos of elections, a chaos of authorities, a chaos of rates, a chaos of returns." This jungle of institutions was, of course, firmly rooted in the soil by vested interests of all kinds. Every petty board or authority must have its own staff for the purposes of its work, however unnecessarily large or expensive that staff may be. The census of 1881 gave the number of officials employed in the business of local government as 53,493; and the amount paid in salaries by local authorities was calculated by Major Cragie in 1877 at fully £2,400,000 *per annum*. Confusion, extravagance, waste of time, power, and money, were the necessary outcomes of such a system.

Local administration must, therefore, be simplified. There must be a single area for all local business, administered by one authority, elected on an uniform basis, and exercising identical powers all over the country. Our local burdens must be fairly apportioned; our rates

must be unified; and the state of our municipal finances must be consolidated and kept under control.

We devoted an enormous amount of our national strength to the task of legislating, and we scrutinised with vigour the growth of the national estimates; but we allowed our local expenditure to increase without question or inquiry—for the very sufficient reason, perhaps, that none of us could see and grasp it, or control it if we could. Legislation need not of necessity go on, but administration must. Inasmuch as our national health, our national relief of the distressed, our national education, our national internal safety, are in the hands of our local governing authorities, the method in which the administration of such authorities was effected, and its cost, should be matters of very considerable and active interest to us all. Except, perhaps, in large and flourishing boroughs like this, it was a mere truism to say that they were not; that the average citizen, bewildered by the multiple organisations which claimed a right to rule over him, and to exact toll from him, gave up the task of unravelling the tangled skein of local government as a hopelessly bad job, and allowed local administration to be captured by people who make vestries and local boards the medium of "log-rolling." And, as to control of the local finances, the ordinary ratepayer looked on a rise in his rates in the same way that he looked at an increase in his rainfall. Both were matters to be grumbled at; but in neither case did he inquire into causes, and he considered the one as irremediable as the other.

This ought not to be. The best intellects should be attracted to the service of the community, and the office of local councillor should be a distinction instead of, as it is in many parts of the country, something of a reproach. This could only be done by making the local council important enough to attract good men to it. In these boards, men would be trained for the larger business of imperial government, and would come to recognise, what so few of our "machine" politicians can be brought to understand, that the other side may have some arguments that are worth listening to, and some ideas that are worth adoption.

The business of local government might, perhaps, exercise an influence that should act centrifugally as regards London, and restore to local councils that enlightenment and interest which they lacked at present. If it came to be generally recognised that there was some dignity and profit, in the right sense of the word, attaching to the performance of duties in local parliaments as well as in the National Council, people who in London were nobodies, might in the provinces achieve a quite considerable and enviable reputation. If the present centripetal tendency could be turned into a centrifugal one, the happiest results would arise for everybody.

Mr. Hart then proceeded to analyse in detail the various directions which reform should take. The initial difficulty, and the most formidable one, was that of areas. A dweller in a town lived in four kinds of districts, none of which were conterminous (unless by accident) with any one of the others. He was governed by six kinds of authorities, and these authorities and their districts were mostly different for inhabitants of different parts of the same town. He had to pay at least four kinds of rates, which were not all assessed on the same principle; and he was subjected to the burden of a number of debts charged on the different areas which happen to include his house.

There was an universal opinion amongst those who have had occasion to examine the question of areas in its practical working, that the present system was utterly irrational, confusing, and absurd. Simplification of area and authority was, therefore, a cardinal necessity. The unit of area should be the same for all local purposes, and larger areas should be, as far as possible, exact multiples or aggregates of that unit.

For reasons detailed in the paper, Mr. Hart considered parishes and unions both unsuitable, in their present form, to act as the unit of local government.

He thought that a first step in the direction of unification, would be the institution of a boundary commission, with instructions to examine in detail, and geographically, the various areas now in force in each county, and to see how far they could be harmonised and unified on one comprehensive plan. The really wonderful way in which the recent boundary commission got through their very laborious and delicate work, and the surprisingly universal acquiescence in their decisions throughout the country, seems to him to be of the very happiest augury for the success of a similar commission for settling the areas of local government.

In settling such areas, regard should be had not only to the symmetry of the area, but to the natural characteristics and boundaries of the locality, and the class of inhabitants that dwell in it. Another and very obvious point would be, that the district must be important

enough to treat the problems of government in a scientific spirit, and at the same time compact enough, and manageable enough, to ensure the practical and business-like supervision of details.

For each of the present areas there was an authority fulfilling functions more or less important. From a recent Parliamentary return, it appeared that, for 1882-3, accounts were received from no less than 28,222 local authorities in England and Wales. After describing in detail the duties of the several descriptions of authorities, Mr. Hart remarked that it had been argued against their proposed unification that the duties now performed locally were so diverse, that they could not all be fulfilled by the same body. As well might one say that, because the objects of imperial government were many and varied, therefore we should have a separate ministry to look after the Army, another for the Navy, another for the administration of justice, and so on. We had only to imagine each department of state "working by itself, drawing up a detached budget of its own, for its own independent parliament, and obtaining for itself the grant of a separate income-tax," which would be the strict imperial analogue of our present local system, to reduce this argument to an absurdity. No doubt in the future the affairs of the unified local authority would fall more and more under the immediate supervision of committees acting in its name, though responsible to it. But this was only applying to local administration principles of division of labour which hold good and work well in every other department of industry.

An obvious criticism on the proposed amalgamation of all duties of local government in the hands of one authority, would be the impossibility of carrying it out whilst large boroughs were maintained as separate organisations. Certainly no one would wish to destroy corporate activity in large cities, and the performance of all local functions in a town like that (Leicester), for example, by one single board, would be a serious, perhaps too great, strain upon its members. For a great corporation to be under the control of a county board, of hardly, if at all, superior rank to itself, would be justly felt a grievance, and would deter good men from coming on the council. Seen at close quarters, however, these difficulties disappeared. All that was necessary was to make each large town, of say more than 100,000 inhabitants, a "county" by itself, as was already the case in nineteen towns of very various populations for a different reason. There would not be more than thirty places, at the outside, that would require this exceptional treatment.

The boundaries of smaller boroughs would, of course, have to be altered where necessary, so as to fit in with the new primary areas to be settled by the boundary-commission; but otherwise their organisation might be retained, added importance being given to their deliberations by the accession of new and important duties.

For the "primary areas" in the new dispensation which would not be boroughs, the excellent name of baronies had been suggested. "Barony" was the Norman successor of the old Saxon "hundred" (which name could not be used, as it would conflict with the actual hundreds that still existed for some purposes), and was a name common to England, Scotland and Ireland. Indeed, in the latter country it was of some considerable importance. As to the constitution of the administrative body, and the mode of its election, there was not much to be said.

There should be one uniform system of voting, election, qualification, and tenure of office. Each ratepayer should have a vote, but only one, and those qualified to vote should be qualified to be elected, so that working men would be in a position to get their special wants met, and their special difficulties recognised and provided for. Whatever financial reforms took place with regard to local burdens, it seemed inevitable that the owner as well as the occupier would have to take his share of direct local taxation, and in this case he would be clearly entitled, as it would certainly be to his interest, to have a voice in the election of local representatives.

To the new local authority should be transferred all local functions which primarily affected the particular district alone. The conservation of the public health in its broadest sense, including, in that term, the giving of medical relief to the poor, the supervision of public vaccination, the registration of births and deaths, and the burial of the dead, the elementary education of the young, the maintenance of the highways, and generally all matters affecting the well-being of its constituency, should be under the management of this authority. The law should everywhere be uniform. Powers now only given to urban authorities in one case, and to places over 25,000 population in another, should be granted universally. The senseless and mischievous limitation of the powers of so called rural authorities should be broken down. In most of the clauses in the Public Health and other Acts in which "may" appeared, "shall" should be substituted for it.

Local Government officials should be required to devote their whole time to the duties of their office, and should be paid a salary which would attract intelligent and business-like men to accept such appointments.

It had become evident that some authority, such as a county board, should be established as an authority intermediate between the primary and the central authority. To the establishment of such a board both political parties were more or less committed.

A good many proposals had been made as to the constitution of county boards. These had mostly attempted the grafting of such boards upon the existing system of local government, and were, therefore, foredoomed to failure. The erection of one unified local authority for each "primary area" would make the constitution of county boards easier. Notwithstanding the arguments which had been put forward for making these boards directly elective by the ratepayers, Mr. Ernest Hart was inclined to the belief that a more sober and reflective administration of county matters would be achieved by making the members of the county boards delegates of the primary boards; that is, that each of the latter should choose a number of members for the county board, proportionate to the size and importance of its district, from among its own members or those ratepayers qualified to act as such.

The County Board would take over all the administrative business at present performed by the quarter sessions, except that of the control of the police, which, being a department of the administration of justice, should be kept apart from the administration of the public health.

There were also many additional functions which might properly be transferred to it. Much as the county had to provide and administer lunatic asylums, it should take up also the control of all workhouses and pauper-infirmaries in the county, and administer indoor relief. There was no essential connection between providing food and shelter for the poorest and weakest members of the community, and giving temporary medical or other relief to those suddenly struck down by sickness or misfortune. The solution of the "pauper" problem would be immensely simplified by a definite rupture of the two kinds of municipal assistance to the individual now known by the names of "indoor relief" and "outdoor relief." The latter was a fair object for the consideration of the primary authority; the former was a matter affecting more closely the county at large, and needing for its proper administration an area larger than that of the primary authority. There could not be a workhouse for each of these, and there must of necessity be combination. Let workhouses, therefore, be as lunatic asylums were already—provided and administered by the county authority. Medical and other "out-door" relief would still remain in the hands of the primary authority, and, divested of its poor-law taint, might be made, under a judicious system of combination with provident dispensaries, a valuable means of encouraging self-help among the poor.

Financially, too, this transference of in-door relief would be an advantage. All main roads, and the bridges over which they ran, should be under the definite control of the county board. All other roads and bridges should be under the local authority. The county authority would also have to watch, and from time to time to intervene in inquiries and legislation affecting watersheds, drainage, and rivers.

These were definite duties in which there would be no possibility of overlapping of jurisdiction between the primary and intermediate authorities. Nicer questions would arise when a duty, primarily devolving upon a local authority—such, for instance, as the provision of sewerage or of a proper water-supply—was plainly beyond its unassisted powers. In such cases, the county authority should have power to combine two or more authorities for a definite sanitary purpose, and to apportion the expense of the necessary works amongst the jurisdictions concerned. Where one authority obstinately refused to join in a work that was plainly required, or denied facilities to its neighbour which it had no moral right to refuse, then the county board should have the power of coercing such local authority into doing what was necessary. Similarly, if a district was insufficiently supplied with schools, it should be the duty of the county board to see that the deficiency was corrected.

The consent of the county authority ought invariably to be obtained to the taking of water by a local authority for the purpose of public supply, power being given to the central authority, if the consent of the county authority should be withheld, to hear the parties interested, and to decide. The giving of this consent ought never to be a mere formality. The inquiring authority should order skilled investigation by its own officers into the whole circumstances of the watershed as regarded sufficiency of supply for its own wants; and an

unopposed petition for sanction should make it, if possible, more vigilant in ascertaining that the future interests of the community at large would not be prejudiced by its present consent.

It was a point worthy of consideration, whether county authorities could not relieve the Imperial Parliament from part at least of its incubus of private Bills, if they were clothed with powers to authorise the construction of railways, canals, water-works, drainage, and other schemes affecting their county. As regards the gas, and water, and tramway schemes, at least, the county authority would be likely to give as sound a decision as the chance agglomeration of four or five members of Parliament, and those of necessity not the most enlightened or business-like. Other matters which might properly come under the control of the county authority, were the decision as to "local option" with regard to the sale of intoxicating liquors in any area, the administration and supervision of the charities and charitable foundations of the county, and the like.

All skilled and technical officials should be grouped round the county board. This would conduce at once to economy (because each primary authority could not provide an expensive staff for itself), to efficiency (because the county could afford to pay for the entire services of good men), and to continuity and symmetry (because the same official is employed on all works of an identical kind). The superior officials that a county board would require for the proper management of its business would be the following: A secretary; an architect and surveyor, under whose care should be the county buildings, the roads, and the bridges; a skilled chemist, who should act as public analyser of all adulterated food and drugs, of all suspected water, of the purity of gas-supplies, and of the pollution of the air by noxious trades; a veterinary surgeon, to advise as to the contagious diseases of animals and the movement of flocks and herds in the county; and lastly (and most important) a number proportionate to the size of the county of superintending medical officers of health. Nothing was more anomalous in our present system of sanitary government than the position of medical officers of health. In the original appointments of medical officers of health, local authorities were nearly always allowed to decide for themselves according to their own unassisted intelligence, and the consequence was the most extraordinary jumble of health-officering that it was possible to conceive; a jumble of areas, a jumble of salaries, a jumble of terms, and conditions of appointment; a jumble of everything.

Combinations of authorities which had with infinite trouble been got together, in order that an officer debarred from private practice, and devoting himself entirely to his health-duties, might be appointed, had in quite a number of instances crumbled to pieces at the will of a cross-grained or ignorant constituent body. The greatest personal sufferer in all these cases was, of course, the medical officer of health, who had forsaken other avenues of professional advancement in the hope that he might find fame and honour in the paths of public medicine. Officers had been dismissed for speaking their minds with truth and freedom as to the sanitary evils they found around them, or their official lives had been made so intolerable that there was no course open to them but resignation. Practically, every officer, however tried and skilful, had been subjected to the trying ordeal of re-election at frequent, sometimes annual, periods, with the haunting fear ever present upon him, that some member of the local authority with whom the fearless performance of his duty had brought him in conflict, would compass his rejection or supersession.

Health-officers ought to be appointed on some more reasonable system; they must be safeguarded from capricious clippings of their already inadequate emoluments, and they must have greater security of tenure. This would be provided for by handing over their appointment to county boards, and enacting that they were to hold their office on good behaviour, and to devote their whole time to their duties.

The functions of a superintendent medical officer of health might profitably include not only his present duties of disease-prevention and repression, but also many other duties of a kindred nature, at present performed by different people, or not performed at all. For example, he should conduct and control the *post mortem* examinations for coroners' inquests and other medico-legal inquiries, and direct investigations in the case of all suspicious uncertified deaths. He should act as medical assessor or referee in obscure or disputed cases, sanitary or medico-legal, which require forensic adjudication. He should act as inspector of burial-grounds, and advise the county board as to their closure when necessary. He should be empowered to inspect factories, workshops, bakehouses, dressmakers' establishments, and all other workplaces, as to their sanitary condition and the health of the workpeople. He should inspect the sources and take measures for safeguarding the purity of water supplied to urban

communities, examine and report on the supplies of gas, the management of alkali and other chemical works, the arterial drainage of river-valleys within the county, and the prevention of smoke and other noxious vapours in towns and populous districts. Generally, in fact, he should afford skilled medical assistance in all the branches of local government which may require it.

The question which would after all compel attention to local government, if nothing else would, was the very alarming condition of local finance. At present, it was impossible to ascertain the total amount of local taxation at any given moment, or to compare with any certainty the expenditure in rural and in urban districts, or to determine the proportions in which the county expenditure is charged on boroughs, on local board districts, and on rural places, or the proportions in which the school-rate is charged upon local board districts and upon rural parishes partly included in them. It was, as Mr. Rathbone had pointed out, hopeless, from the accounts of twenty-three several kinds of local authority, all differently constituted, all presiding over areas which often overlap or interlace, using different periods of account, and levying rates or contributions on different bases and on different valuations, to extract any clear budget of local finance, to know exactly the total annual income or expenditure or the total indebtedness of the local government of this kingdom, or to compute the proportion which these several sums bear to one another in the same year, or to themselves in former years.

In the short period of fourteen years since Mr. Goschen had originally studied the subject, the expenditure of local authorities had increased from £80,000,000 to £54,000,000, or an increase of 80 per cent.; whilst in the rateable value there had only been an increase of 40 per cent. So that in the period under review the growth of expenditure has been twice as rapid as the growth in value of the property subject to local taxation. But the growth of expenditure was not in itself the worst feature of the returns. So long as the expenditure of the year was fairly met out of current receipts, no great permanent harm might happen. But we were year by year drawing bills upon the future to an increasing amount, and were availing ourselves of loans for the purposes of making both ends meet to a far greater extent than we pay off old scores.

At the end of the financial year 1874-5, the outstanding loans of local authorities amounted to £92,820,000. By 1878-9, they had expanded to £128,190,000, and, in a second interval of four years—namely, by March 31st, 1883—they had further risen to £159,140,000. In eight years, therefore, local indebtedness increased by more than sixty-six millions, or over 71 per cent., being an average increase of £8,300,000. The total amount of new loans raised in these years amounted to £116,665,000, equal to an average of £12,963,000 *per annum*. As might be expected, the largest amount of indebtedness has been incurred by town councils and local boards for sanitary purposes. The loans of urban sanitary authorities increased from £41,539,549 in 1877 to £72,378,929 in 1883; and, during the same time, the loans of School Boards rose from £5,456,361 to £12,818,861, and those of the Metropolitan Board of Works from £11,257,190 to £17,520,679.

The claims upon local authorities had, of course, tended of late years to increase very largely in numbers and amount. But these figures could not be looked at with complacency; nor would they be by the community at large, which busied itself little with local taxation-returns two and sometimes three years old, if the local budget were brought before Parliament in the same way that the national budget now is, and if local accounts were submitted to every ratepayer on the debtor and creditor principle of a joint-stock company's report. If a citizen were told frankly that the total of his rates was 6s. 8d. in the pound, and that the amount of the local indebtedness of his district was equal to its rateable value for three whole years, he would probably stir himself to see that the local finances were got under better control, and put on some sounder footing. At present, local indebtedness was so broken up, and was incurred under so divided a responsibility, that its growth, which could only be checked locally, was not known locally, and could not be effectually resisted, even if it were.

It was one of the proposals of the Government Rating and House-Tax Bill, of 1871, that the house-tax—which was, in its essence, more of a local than a national impost—should be handed over to, and levied by, local authorities. Mr. Gladstone has expressed himself emphatically averse to the system of State subventions to local authorities of the present kind, which appeared, indeed, to be bad in principle and mischievous in practice; and there would probably be great advantage in the compounding, once and for all, of these sops to local clamour, by a tax like the house-tax, which was practically their equivalent in amount, and was incomparably a more legitimate source

of local revenue than the payment of a sanitary officer, for example, was a matter for Imperial subsidy.

As to the incidence of local taxation, there should be an uniform assessment of all real property for purposes of all rates and taxes, whether local or imperial, and an unification of all the rates at present levied at different times and on different systems.

Every local authority and every county board should be required to prepare and to publish for general information full and precise estimates of its proposed expenditure for the coming year, as was already required of communes and departments in France. This would be a very important check upon waste and extravagance, and would afford to every ratepayer the opportunity of familiarising himself with the return he had for his money. An annual balance-sheet should also be prepared, and, when officially audited, published in the local newspapers for general information. This publication should not be optional with the local authority, but compulsory. It was most important that the fullest publicity should be given to everything connected with the finance of local administration. At present, any information on the subject was only obtainable with difficulty, and the annual accounts were nearly always—except in some well administered boroughs—highly complicated and unintelligible.

In conclusion, Mr. Hart gave expression to his profound conviction that no system of administration, however complete in theory, upon a matter of such importance and complexity as the health and well-being of the community, could be expected to attain its object, unless men of superior character and intelligence throughout the country felt it their duty to come forward and take part in its working. The system of self-government, of which the English nation was so justly proud, could hardly be applied with success to any subject, unless the governing bodies comprised a fair proportion of enlightened and well informed minds. A more vigorous and intelligent public opinion on local government had yet to be created in many places, and, until it was created, the action of the authorities would be more or less hesitating and inconsistent. The central authority might control, stimulate, and, in some cases, supplement, the efforts of local bodies, but it could not be a substitute for them. It seemed, therefore, peculiarly incumbent on those who had leisure to take their share in administering local government. In this work, not only would prejudices have to be overcome, and inactivity quickened to exertion; but a sound judgment must be exercised as to the extent to which, and the limits within which, considerations of public welfare ought to interfere with the absolute rights of private owners of property, and even with the personal liberty of individuals. It was work, therefore, which could not be performed without effort; but it ought to, and it was to be hoped that it would, be zealously undertaken, now that Parliament and the nation were becoming alive to the importance of the subject.

THE CHOLERA IN SPAIN.

According to telegrams from Barcelona, cholera has broken out at the San Bandilio Lunatic Asylum, containing 700 inmates. Up to the present seven cases and four deaths are reported to have occurred there.

Sir,—In the JOURNAL of the 3rd inst., under the heading "Cholera," I find it reported "At Hyères there are deaths from the epidemic." Will you, in justice to Hyères, grant me space to contradict most emphatically this report? I returned to Hyères on September 22nd, and, from personal inquiry, can assert positively that not one death from cholera has occurred since that date—not even a suspicious case. I find the condition of the town eminently satisfactory, and my French medical colleagues assure me the health of the population is quite up to the average.—Yours truly,

W. P. BIDEN, L.R.C.P.Ed.

La Tour Jeanne, Hyères, October 5th, 1885.

THE LONDON HOSPITAL MEDICAL COLLEGE.—The Entrance Science Scholarship of the value of £60 has been awarded to Mr. David Brown, and that of the value of £40 to Mr. J. N. Collins.

GUY'S HOSPITAL MEDICAL SCHOOL.—The Entrance Scholarship in Arts of 125 guineas has been awarded to Mr. Henry Woolmington Webber, and the Entrance Scholarship in Science of 125 guineas to Mr. Frederick William Hall.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The Open Scholarships in Natural Science of the value of £60 each have been awarded to Messrs. G. Watson, A. F. Stabb and G. A. Simmons; those of £50 each to Messrs. C. E. Lansdown, H. A. Caley, and V. W. Low; and those of 50 guineas each for students of Epsom College, to Messrs. J. J. Knox and S. P. Matthews.

UNIVERSITY COLLEGE.—The Entrance Exhibition, of the value of £100, has been awarded to Mr. T. L. Pennell; that of the value of £60 to Mr. S. B. Mitra; and that of the value of £40 to Mr. J. J. Macnamara.

THE OPENING OF THE MEDICAL SCHOOLS.

HOSPITAL DINNERS AND CONVERSAZIONI.

ST. BARTHOLOMEW'S HOSPITAL.

THE annual dinner of old students was held at St. Bartholomew's Hospital on Thursday, October 1st. Dr. Matthews Duncan, Physician-Accoucheur to the Hospital, and Lecturer on Midwifery in the Medical School, in the chair. A large number of guests were present, and the proceedings gave general satisfaction.

GUY'S HOSPITAL.

As usual, the medical session at Guy's Hospital was ushered in by a *conversazione*, at which about 3,000 people were present. The medals and prizes to the successful students were distributed by the Treasurer in the Anatomical Theatre, which was crowded with ladies and gentlemen interested in the prize-winners. Dr. F. Taylor first described the various kinds of prizes to be given away. In the course of a short speech, the Treasurer drew attention to the great success which Guy's had for some years past obtained at the various examining bodies. Thus, at the London University, in July last, twenty-four, or a quarter of the successful candidates, came from Guy's; and in the Honours Examination, a quarter of the candidates placed were Guy's men; whilst out of the four scholarships, Guy's obtained two and qualified for a third. At the B.S. Examination, a third of the successful candidates came from Guy's; and at the M.D. Examination, a Guy's man obtained the marks qualifying for the gold medal. At the College of Surgeons, both at the Fellowship and Membership Examination, the percentage of Guy's men passed was very high; thus, at the Primary in the spring, out of thirty-nine candidates from Guy's, thirty-seven had passed. At the Apothecaries' Hall, the surgical scholarship and silver medal for Botany were both obtained by Guy's men. Elderly gentlemen could not, he thought, in their day have passed the examinations required to be faced by the young men of to-day; and often very little was required of them. Thus, Lord Eldon obtained his degree after the one question "What is Golgotha?" But medical examinations did good; they maintained the standard of knowledge, and rendered it certain that the attention given to patients by their doctors would be more and more satisfactory. Dr. Pavy, in proposing a vote of thanks to the Treasurer, spoke kindly to the unsuccessful students, whom he counselled in the future to put forth greater efforts, telling them that many a successful man's turning point had been a little want of success in early life, which had evolved the resolution to do better in the future. Mr. Howse seconded the resolution, which was carried with great cordiality. The Treasurer returned thanks. Drs. Wilks and Hicks, who, during the past session, had both been placed upon the consulting-staff, being called for, addressed the meeting. The company then returned to the part of the hospital devoted to the *conversazione*, where the pretty and elaborate electric lighting by Messrs. Woodhouse and Rawson, and the elaborate decorations by Messrs. Morris and Co., commanded general approbation. Some of the most interesting exhibits were the instruments adapted for the application of the electric light to medicine, Mr. Wilson Swan kindly showing some of his own inventions. The various exhibits of microscopical objects were particularly good, Messrs. Gowan and Crook, students of the hospital, showing some beautiful specimens of bacilli. Messrs. Tooth, Mr. Barraud, and the Autotype Company gave a good display of pictures. Messrs. Coote and Tinny entertained the company with an excellent musical performance. The Anatomical, Comparative Anatomy, and Pathological Museums were lighted with the electric light; and in the latter, Dr. Goodhart exhibited the pathological specimens added to the Guy's Museum during the past year. The grounds were gaily illuminated by Mr. Edward Smith with Chinese lanterns. All the company seemed to have enjoyed themselves thoroughly, and did not separate till a late hour, each carrying away as a memento a very elegant programme, and a leaflet giving an account of the work of Guy's Medical School during the past year.

ST. MARY'S HOSPITAL.

THE annual dinner of past and present students and friends of St. Mary's Hospital, was held on October 1st, in the Venetian room of the Holborn Restaurant, with Dr. Cheadle, Physician to the Hospital, in the chair. The dinner was more largely attended than on any previous occasion, 148 gentlemen being present. The usual loyal and

patriotic toasts were duly honoured, and, in addition, the toasts of the hospital, the staff, the past and present students, and the dean, were drunk. The singing of Messrs. Anderson Critchett, Mivart, J. E. Lane, Lewin and Thornton, added much to the enjoyment of the evening, and Mr. Terriss, of the Lyceum Theatre, afterwards was kind enough to give recitations, which were highly appreciated and deservedly applauded.

A brilliant *conversazione* was given, by the medical officers and lecturers, in the hospital and new school buildings, on Friday, October 2nd. A very large company assembled, and much gratification was expressed at the splendid exhibits, and at the novel and eminently artistic decorations of the wards and rooms which were used for the reception and amusement of the guests. Messrs. Doulton and Co. exhibited specimens of Lambeth art ware, and Mr. Mortlock sent some china; the Electric Apparatus Company showed their specialities; and new varieties of gas lamps were sent by Mr. Sugg; Dr. Silcock and Dr. Handfield Jones exhibited some fine microscopical specimens; Dr. R. Maguire gave demonstrations of micro-organisms and disease-germs; and Messrs. Smith and Beek showed their new star microscope; many rooms were illuminated by Swan's electric lighting apparatus; and a new lantern microscope for the oxy-hydrogen or electric light, was shown by Messrs. Wright and Newton. A Japanese Hall was arranged by Messrs. Pare and Arthur, in which Miss Buhiosan presided over the Japanese Tea-Room. The decorations, which were highly elaborate, were furnished by Messrs. Maple and Sons, Messrs. Morris and Co., Messrs. Druce, and Messrs. Gillow; and those in the oriental rooms by Messrs. Robert Levy and Co. During the course of the evening, two bands—namely, that of the Grenadier Guards, under the leadership of Mr. Dan Godfrey, and the Band of the St. George's Rifles, conducted by Mr. W. J. Fleet—played selections of music; whilst Mr. E. Plater's Glee Union sang many part-songs, glees, and madrigals; and Mr. Clifford Harrison gave some highly appreciated recitations. The trouble of arranging this most successful gathering was undertaken by the indefatigable Dean of the School, Mr. G. P. Field, assisted by Mr. Malcolm Morris, Dr. Handfield Jones, Mr. Silcock, the House-Surgeons, Dr. Rowe, Mr. Callender, Mr. Cockey, Mr. Luff, and many others. The company did not separate until past midnight.

DISTRIBUTION OF PRIZES AT QUEEN'S COLLEGE, BIRMINGHAM.

THE annual *conversazione* and distribution of prizes took place at Queen's College, Birmingham, on October 1st. Among those who accepted invitations to be present were the Mayor (Alderman Martineau), and Dr. Malins, Dr. A. Hill, Mr. Lawson Tait, Mr. Sampson S. Gangee, Dr. Saundby, Dr. Johnston, Dr. Wade, Dr. E. B. Whitcombe, Dr. Nicol, Mr. Priestley Smith, Alderman Chamberlain, Alderman J. Powell Williams, Professor Tilden, Professor Poynting, Dr. Edginton, Professor Loreille, Professor Smith, Dr. Drury, Mr. G. Elkington, Mr. J. Satchell Hopkins, Mr. W. Holliday, Dr. Blake, Dr. E. Underhill, Mr. Bennett May, Dr. Barratt, Mr. Haslam, Mr. G. A. Pantom, Mr. J. H. Stone, Mr. J. Vose Solomon, etc. The company having assembled in the examination room, the Rev. Dr. Wilkinson, as Vice-President of the College, took the chair. He was supported by the Mayor and several members of the Council and staff of the College; the Rev. W. H. Poulton (Warden), Dr. Bassett, the Rev. Canon Bowby, Mr. G. Jones, Mr. J. Manley, Mr. Oliver Pemberton, Dr. Sawyer, Dr. Sims, Professor Rickards, Professor Windle, Professor Barling, Professor Bostock Hill, and Mr. Eliot.

THE VICE-PRESIDENT called upon the Mayor to distribute the College prizes, which were then awarded.

THE MAYOR made some reference to the high reputation of the medical profession in Birmingham, and also dwelt upon the great loss which the town had sustained through the death of Dr. Heslop. In the public life of Birmingham, an infusion of educated professional men had been of the greatest benefit to the public service, and the speaker held up the example of enlightened medical publicists as a thing to be followed by the students of Queen's College.

DR. SAWYER, President of the Clinical Board, presented the clinical prizes as follows: Medicine (senior), S. H. Harrison; Surgery (senior), F. G. Gardner; Surgery (junior), J. E. Foster; Midwifery, F. G. Gardner. He then explained that, as President of the Clinical Board, he occupied a representative position with regard to the General and the Queen's Hospitals, which at present were happily united for purposes of clinical instruction. This union had been found in the past to conduce very much to the efficiency of clinical teaching in the town, and they trusted that the union might long continue. In addition to the prizes he had just distributed, prizes still more valuable had been awarded for clinical work—namely,

resident appointments at the hospitals. During the past year, these appointments had been gained as follows. General Hospital: Medical Assistant, Mr. S. H. Harrison; Surgical Assistant, Mr. C. E. Oldacres; Dressers, Messrs. A. Berrill and A. H. Nott. Queen's Hospital: Resident Dressers, Messrs. J. H. Blakeney, W. H. Loxton, W. J. Read, and L. A. Taylor. Having expressed deep regret at the absence of his predecessor in office, Dr. Russell, whose serious illness was deplored throughout the medical profession, Dr. Sawyer congratulated the College upon the improvements that had been effected during the past year. They could point with pride to the improvements in their anatomical museum, which had been effected under the skill and care and constant attention of Professor Windle. Another great improvement had been accomplished in the election of a Professor of Pathology, with the special duty, scarcely fully recognised before, of demonstrating histological subjects. They had also associated the College with the Birmingham Borough Lunatic Asylum, where their students, under Dr. Whitcombe, might obtain knowledge the importance of which they would fully appreciate afterwards in practice. Having congratulated the College on the high positions which its students had attained at the Universities and in the examinations of the Royal College of Physicians and the Royal College of Surgeons during the past year, Dr. Sawyer advised the students to inquire into all things, to prove all things, and to hold fast that which is good.

MR. A. F. CLAY, at the invitation of the warden, stated that when Dr. Russell resigned the onerous duties of senior physician of the General Hospital, and was subsequently elected on the consulting staff, a committee was formed, to present to him a testimonial, in the shape of an illuminated address. So well did the proposal commend itself, that 109 past and present students of the college immediately subscribed to the fund. Having read letters from gentlemen who had subscribed to the testimonial, in which were expressions of the highest esteem for Dr. Russell, and of great gratitude to him for his kindly manner of imparting instruction and encouragement, Mr. Clay said that, though Dr. Russell's serious illness prevented the presentation of the testimonial even privately, the subscribers hoped to do something to perpetuate the name of their most industrious and most kind teacher, towards whom they cherished a feeling which could only be expressed by the word love. Mr. Smith, who was intimately acquainted with Dr. Russell, had acquainted him with the fact that the address which was to have been presented that evening had been prepared, though Dr. Russell's illness rendered it impossible even that it should be read to him. Dr. Russell had, with great difficulty, dictated a letter, which was read by Mr. Clay, in which the writer eulogised the high character of the students of the Birmingham Medical School, relating instances of their personal kindness to him on stated occasions. In conclusion, Mr. Clay said that, though unable to communicate with Dr. Russell, the committee would feel it their duty to communicate to Mrs. Russell and her family the great sympathy they had with her under existing circumstances.

THE WARDEN, in proposing a vote of thanks to the Mayor, for distributing the prizes, commended to the students his worship's advice; but remarked that, though they acknowledged the correctness of the Birmingham motto, "Forward," the authorities of that college, desirous as they were of improvement, in their small way, said, "Festina lente."

MR. PEMBERTON seconded the motion, which was heartily agreed to; and the MAYOR having responded, the company dispersed to view the exhibits, and enjoy the music provided for them.

THE ANCIENT AND MODERN METHODS OF TREATING SMALL-POX IN INDIA.

A PAPER on this subject was read by Dr. Pringle at a recent meeting of the Society of Arts. The ancient method was inoculation, while the modern was vaccination. The details given by Dr. Pringle of the practice of the inoculation in India, were the result of continuous personal observation during the past twenty years, in the independent native state of Tirri Ghurwal, in the Himalayas. This territory was what might be termed the Himalayan portion of the Mesopotamia of the North-West Provinces of India, or the country lying between the Ganges and the Jumna. Here it would appear that inoculation had been practised from what might be termed time immemorial.

After giving the details of the operation, and showing some of the original inoculating instruments, and touching on the peculiar religious ceremonies observed, Dr. Pringle entered into full particulars of the benefits of this practice. These he compared with the effects of

spontaneous small-pox in the plains at the foot of the Himalayas, where no inoculation was practised. He drew attention to statistics compiled from the admission registers of the gaols in the North-West Provinces between the years 1861 and 1872. The total number of prisoners subjected to inquiry was 268,445; of this number, 85 per cent. were visibly marked with small-pox, and $7\frac{1}{2}$ per cent. were doubtfully marked cases, giving a total of 92½ per cent. of the adult population marked with small-pox. Dr. Pringle's experience, during the past twenty years, of the non-criminal portion of the community in the same locality, was much the same.

In this home of inoculation in the Himalayas, the case was quite different, a small-pox marked adult being, comparatively speaking, rare. In accounting for this remarkable difference, between the visible effects of spontaneous small-pox and those seen in the cases of inoculated small-pox in the Himalayas, Dr. Pringle remarked that, in his opinion, it would seem to be due to what he termed accidental cultivation of the product of the spontaneous small-pox eruption, to a considerable extent on the lines of M. Pasteur's recent discoveries. This accidental cultivation consisted in the lymph being carried on through many transmissions till the cultivated product resembled in its action cow-pox lymph, and only produced local symptoms at the point of insertion, or else, very rarely, a small-pox eruption.

In 1864, Dr. Pringle commenced the present system of voluntary vaccination in the Mesopotamia of the Ganges and Jumna, from fifty miles above their junction at Allahabad to their sources in the Himalayas. He commented on the points in which the practice of vaccination differed in India from that carried on in this country. These he summed up under the head of climatic causes, which, owing to the high temperature met with in the plains of Hindostan from April to October, limited the practice of vaccination to cold weather months, namely, from the middle of October to the middle of March. Latterly, by retrovaccinating—that is, vaccinating a calf and taking the lymph from the eruption—Dr. Pringle had succeeded in making his sanitary circle, with its population of ten millions, and other circles of similar extent, independent of any supplies from the National Vaccine Establishment. The highest caste Brahmin inoculators, converted into vaccinators, operated on the calf while Brahmins held it, and other Brahmins brought their children for vaccination. The Maharajah of Tirri Ghurwal had been so satisfied with this prophylactic, that he not only paid all the expenses attendant on it—about £50 a year—out of his own private purse, but had forbidden, under severe penalties, the practice of inoculation; while, in having his own son and heir vaccinated, he had set an example to his subjects which they had not been slow to follow. In comparing the two prophylactic measures, Dr. Pringle pointed out that, while the practice of inoculation no doubt kept up the disease of small-pox, and was dependent on its presence for the virus required for the operation, yet even, imperfectly as it was carried on, it was nevertheless a very great boon to the population, as it could be practised throughout the year. The Himalayas would have been nearly depopulated had small-pox been allowed to sweep off the large percentage of the population, which it did annually in the plains, where religious observances requiring the promiscuous collection of cases of the disease at the "sutla," or small-pox festivals, served only to spread the disease. The repetition of the inoculation, at any future period of life, was never thought of, and in this, it was, in his opinion, superior to vaccination in countries like India. Dr. Pringle discouraged revaccination in his circle, and made quality, and not quantity, the basis of his work, explaining to his subordinates that, if the former imparted the immunity claimed for it, the result would quickly be followed by the latter.

In concluding, Dr. Pringle illustrated the absolute necessity of carefully supervising any system of vaccination, both as regards the veracity of the returns submitted, and the quality of the work, with reference to the knowledge and skill of the operators.

PRESENTATIONS.—Mr. L'Heureux Blenkarne, of Buckingham, has been presented, by the Loyal Grenville Lodge of Oddfellows, with a testimonial, consisting of a handsome solid oak case, containing a complete set of table cutlery, bearing a suitable inscription, on his retirement from the post of surgeon to the lodge.—Dr. D. G. Prothero, who, through ill-health, has been obliged to relinquish his practice at Great Malvern, has been presented, by his patients and friends, with a handsome silver tea-tray, bearing the following inscription: "Presented to D. G. Prothero, Esq., M.B., M.R.C.S., on leaving Malvern, by his friends and patients," together with an illuminated address.

SUPERANNUATION.—Mr. Samuel Watson, late medical officer for the Coltingham district of the Sculcoates Union, Yorkshire, has obtained a superannuation allowance of £50 *per annum*.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 14th day of October next, at 2 o'clock in the afternoon.

Tuesday, October 13th, 1885.—Trust Funds Committee, 3 P.M.; Arrangement Committee, 4 P.M.; Premises Committee, 5 P.M.; Scientific Grants Committee, 6 P.M. *Wednesday, October 14th, 1885.*

—Subcommittee of Journal and Finance Committee to consider proposal of Collective Investigation Committee, 11 A.M.; Journal and Finance Committee, 11.30 A.M.; Council, 2 P.M., at Exeter Hall.

FRANCIS FOWKE, *General Secretary*.

161A, Strand, September 17th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

A meeting of the Council will be held on October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before the meeting, namely, September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HEMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the

Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the President-elect, Mr. J. T. Hatfill (Willenhall).—VINCENT JACKSON, General Secretary.—Wolverhampton, September 11th, 1885.

OXFORD AND DISTRICT BRANCH.—A meeting of this Branch will be held, in Oxford, on Wednesday, October 28th. Members who wish to communicate papers are requested to inform one of the secretaries (W. L. MORGAN, Esq., 42, Broad Street; Dr. DARBISHIRE, 60, High Street, Oxford), on or before October 19th.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 22nd, at 5 o'clock. Dinner at 5.30 o'clock, punctually. Subject for discussion: The Treatment of Obstinate Constipation. Mr. Frederick Treves will open the discussion. Gentlemen wishing to read papers or cases are requested to send notice to W. M. KELLY, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Tregedra, on Wednesday, November 4th. Members wishing to read papers, etc., should send titles to Dr. Sheen by October 19th, in order that the same may be inserted in the circulars.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, October 5th, 1885.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The inaugural meeting of the winter session will be held on Thursday, October 15th, at 8.30 P.M., at the Hackney Town Hall, when a paper will be read by Jonathan Hutchinson, Esq., on "Some Clinical Notes on Tumour." The chair will be taken by the President of the Branch.—J. N. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

READING BRANCH.

The annual meeting of this Branch was held in the Library of the Royal Berks Hospital, on September 23rd. The meeting was fairly attended.

President's Address.—Mr. WALFORD, the President, took the chair, and delivered the following address.

Gentlemen,—The duty I have undertaken is a somewhat presumptuous one, and I must ask your charitable construction of what I have written. In 1866, I occupied this position—so that time is getting on. Of those who were amongst us recently, I have spoken, and I come now to those who are before me, and to the younger I especially address myself: for to those who have been some years in harness, I cannot say anything—I would rather listen to than speak to them. In looking back, I wish to see the lesson it teaches, and to give utterance to it, for such as have recently begun the ascent of the hill of life. My observations must be general. I can take up no branch of the practice of medicine or surgery, being really out of harness and not in working order. But I should like to lay down this proposition: "That the medical attendant should desire to do all that is possible in any case that may come before him," so that he can feel that nothing has been left undone. For, there is a best possible to be done in each case—in everything the same is true. To aim at doing the best in the one thing we have chosen is our duty, and this involves health, all that is necessary to secure health, and then the spirit of self-sacrifice. To keep this in one's mind, what watchfulness it involves! It should keep us conscious of our dependence on knowledge—informed up to the level to which the science has progressed—thus manifesting the true professional spirit of the successful practitioners of medicine. To be legally qualified to do all this, which those before me are, is one thing—to be actively engaged in honestly carrying it out, is another. "The mind's the standard of the man." Thus

to act, what does it involve? Such thought, such cerebral activity, that personal health must not be neglected; otherwise, we shall break down in our work, or not be ready when we are needed. Of course, we know only too well how great are the differences among men; but the true professional spirit involves that a man uses the whole of his power in and for the discharge of his duty. Then I would that he should ask himself, if he be in possession of all the power his nature is capable of? If he be below the level to which he might attain, he has not done his best—he has not fully discharged his responsibility professionally. Then as to what can be done to attain to, and keep up, this level of brain-power, I hold the first thing is to use to the fullest the power he possesses; and whether a man has arrived at his highest possible capability, he can only determine by going forward on the pathway he is pursuing, and must not feel sure that he has reached the end or summit of the evolutionary process. This evolutionary process it is which has given us our great men, capable of doing what they do—the outcome of which is the highest physical development of which the individual organism is capable. An important question arises here: Is it possible to attain this highest level without the use of alcohol? using the term to mean that form of it which agrees with the individual. That alcohol aids the power of the brain, I think no one will deny. In my observation, I have thought that the man who gets a living out of his brains is the man who needs a stimulant. In a review of a book on the "Drink Question," in the *Times* of August 14th, 1884, will be found all that I can desire to say on the question. An extract or two you will permit me to make. "There is abundant evidence that life can be sustained, and even that health can be preserved, especially in hot climates, without the use of alcohol; but the practical question is, whether this life is as full and useful as it might be, or whether it does not fall short of the proper development of the capacities of the individual." "Where there is no continuous strain upon the intellect, the alcohol is not required as a source of power, and it becomes a surplus material which has to be eliminated from the system, and which even then acts as a poison." "We must arrive, then, at the general conclusion that, for the enormous majority of sober people, alcohol is an useful article of diet." "But no one who deals fairly with himself will ever find any practical difficulty in arriving at a standard of quantity for his own guidance." Thus, it appears that alcohol is a part of the conditions on which our work is to be done; and also, that more than is necessary is as bad as excess in eating. As to when it should be taken (it is understood to be taken only at meals, or a meal), I am decided in my conviction that alcohol at luncheon disturbs the continuous even action of the brain. Food may then be taken, but not stimulants. The time for stimulants should be with the principal meal; and this meal when active mental or bodily work is over, when the mind is no longer on the stretch; and I consider we are taught this in the New Testament. In Luke xvii, 7th and 8th verses, appears: "But who is there of you, having a servant plowing or keeping sheep, that will say unto him, when he is come in from the field, come straightway and sit down to meat; and will not rather say unto him, make ready wherewith I may sup, and gird thyself and serve me, till I have eaten and drunken; and afterward thou shalt eat and drink?" All this has reference to health—health to be used in serving others; and that "we may eat our own bread;" for, "If any will not work, neither let him eat" (2nd Thess., iii, 10). There is this consideration to be borne in mind—namely, our creature condition—so that our health or usefulness depend upon our observance of the laws of our being. Truly, we are erring creatures, and are bound to practise forbearance; and true, indeed, it is that "as we sow, so shall we reap." This, then, gentlemen, is the stage of evolution at which I have arrived. You will note it, and be thankful that you have advanced far beyond it. Of one thing I feel sure, and that is that I am behind you; and so I ask you, be pitiful to me, and thankful for yourselves, "remembering the higher standard which has prevailed whilst your minds were being formed." At any rate, what I have said I believe to be truth. Gentlemen, farewell.

The President received the thanks of the meeting for his address.

President-elect.—Mr. Armstrong, of Wellington College, was chosen as President-elect.

Lunacy-Certificates.—Mr. May brought forward the subject of the present state of the law relating to the signing of lunacy-certificates, and the following resolution, on the motion of Mr. May, was carried: "That the Council of the British Medical Association be requested to consider the expediency of promoting a change of the law which permits actions to be brought against medical men for signing lunacy-certificates."

Dinner.—Subsequently the members adjourned to the Queen's Hotel for their annual dinner.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held at Hastings on Friday, September 25th.

Collective Investigation.—Mr. H. Algernon Hodson, of Brighton, was appointed Honorary Secretary for Collective Investigation for this District.

The Application of a Special Form of Jury-Mast in Certain Cases of Curious Disease Affecting the First Four Dorsal Vertebrae.—This paper, read by Mr. WALTER PYE, was illustrated by diagrams taken from photographs of patients. After a preliminary statement in explanation of the writer's opinions upon the general question of the jacket-treatment of spinal disease, it was pointed out that there were three situations in which a jacket failed to give of itself any efficient support, namely, in many cases of lumbar caries, in cervical caries, and in disease in the upper dorsal vertebrae. The methods employed to overcome the difficulty in the two first cases were mentioned, and then the treatment of the third form of the disease (that is, when one or more of the four upper dorsal vertebrae are attacked) by means of a jury-mast was explained. This mast was attached by a light plaster-case, or felt-jacket, to the lower healthy vertebrae; its upper free portion being bent so as to overhang the spine above the angle of disease. To this free part, which stopped short behind the occiput, two cross-bars were pivotted, and the patient's shoulder-girdle and chest were slung up to them by means of axillary bands, and a broad webbing-strap, fastened to the jacket. It was shown that the progressive drooping forwards of the shoulders and upper part of the chest was then, in a great measure, corrected, without any undue weight being put upon the pelvis. Moreover, the jury-mast encouraged the development of a compensatory lordosis in the lumbar region, which aids, in most cases of dorsal angular deformity, the maintenance of the erect attitude.

Perforating Ulcer of Stomach.—The CHAIRMAN and Mr. W. GRANT JONES related cases of perforating ulcer of the stomach. The former entered at some length into the pathology and treatment of such cases.

Aphasia Following Injury.—Mr. VERRALL read notes of a case of temporary aphasia following a blow upon the occiput, the force telling by *contrecoup* upon the left frontal convolution. Speech was recovered and lost again several times during the first fortnight after the accident, the relapses being apparently due to passing congestion of the brain. Recovery was eventually complete.

Clinical Figures.—Mr. VERRALL showed, for Messrs. Danielsson and Co., specimens of their *Clinical Figures*.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

New Facts concerning the Transmission of Infectious Diseases.—*Professor Peter on the Etiology and Treatment of Cholera.*—*The Action of Mercury on the Blood of Syphilitic Patients.*—*The Constant Use of Chloroform.*—*Effects of Intravenous Injections of Oxidised Water.*—*Contagious Disease in Animals.*—*Female Medical Students and the Internats.*

M. LANCEREAUX, in a communication to the Académie des Sciences, stated that a series of facts, collected in his hospital-wards, convinced him that small-pox, measles, and scarlet fever were transmissible from the onset. The period of incubation varied; it was from eight to ten days in inoculated small-pox; from ten to twelve in spontaneous small-pox. A mild form of small-pox might, by transmission, provoke a violent or a mild form.

M. Peter, in a communication to the same institution, on the cholera-epidemic of 1884, stated that he treated forty-three cholera-patients in his wards at the Charité Hospital, twenty-six were cured, seventeen died. M. Peter did not believe that cholera was, pathologically, a separate affection, but the last expression of a morbid progressive series of phenomena, beginning with simple diarrhoea, going on to cholera from diarrhoea, then to cholera nostras, and finally to Indian cholera. The morbid series might remain incomplete, and stopped at cholera or cholera nostras. The difference between cholera nostras and Indian cholera was, according to M. Peter, the greater morbid intensity of intrinsic causes. Indian cholera and cholera nostras, he affirmed, were the same affection, and could be provoked by morbid agents. Spontaneous genera-

tion of cholera was not inconsistent with its importation. The cause of cholera, according to M. Peter, was some organic poison, probably a ptomaine, which acted on the solar plexus by means of the nerves of the gastro-intestinal mucous membrane. During the typhoid phase, the patient was exposed to sepsis from within or without; during convalescence he was liable to neuralgia, and paralytic and cerebral disturbances. M. Peter recommended blisters above the abdomen, with subcutaneous injections of from five millegrammes to one centigramme of hydrochlorate of morphine under the skin, for relieving cramps, and continuous currents for nervous irritation. This treatment arrested the vomiting. Spinal ice-bags he also believed to be efficacious.

According to M. Gaillard's experiments, the action of mercury on the blood of syphilitic patients, is at first to lessen the proportion of corpuscles and hæmoglobin, but the normal proportion is quickly regained, and then exceeded.

M. Regnault has observed, from personal experience, that repeated inhalations of small doses of chloroform produce insomnia. M. Dubois has noticed the same effect in chronic intoxication from chloroform; the condition also provokes neuralgic or rheumatic pains, extending along the limbs, and sometimes attacking the articulations. Sleeplessness is preceded by a condition of excitement, redness of the face, then an inclination to sleep, and accommodatory asthenopia. Brain-work becomes impossible in consequence of incoherence of ideas. If at this period a power of sleeping remains, it is always broken by starts, just as after violent exercise has been taken; the limbs are often cold and numb. At an advanced stage trophic disturbance is manifested; the nails become soft, bunions appear on the toes, the patient grows thin and pale, and the circulation becomes faulty. About three years later on, a circle of pain girds the waist, and profuse sweats appear, as well as all the symptoms indicative of serious anæmia.

M. Regnard has made experiments to ascertain the value of venous injections of oxidised water. He finds that animals thus treated die from the formation of bullæ of gas, which act as emboli. Oxidised water decomposes as soon as it is in the blood, and liberates gases, which form bubbles, and impede the pulmonary capillary circulation. M. Laborde does not believe that these gaseous emboli are so dangerous; he affirms that he has injected eighteen litres of air without any accident supervening. He always took especial care to inject very slowly. MM. Laborde and Quinquand have, by their previous experiments, ascertained that injections of oxidised water produced profound sleep, and general anæsthesia, and stronger doses resulted in suffocation. The oxygen of the blood was gradually diminished in quantity because the hæmoglobin was destroyed, and large quantities of hematin were formed.

M. Alexandre, in his report to the Prefect of Police concerning the service of inspection of the contagious diseases of animals, states that only three animals had recently been attacked by charbon; these, which were in the same stable, had been killed. Foot and mouth disease attacked 55 sheep and 42 cows; peripneumonia appeared in 80 different stables, and contaminated 408 animals, representing a money value of 1,000,000 francs (£40,000); 222 died, 128 before inoculation, and 94 after; 322 horses were attacked with glanders. These last statistics are not accurate, for a considerable number of horses with glanders are given over to the knacker. For rabies, 354 dogs, 8 cats, 2 horses, and 2 goats were killed. M. Alexandre attributes the frequency of rabies to the faulty application of the dog-tax; half of these animals belonged to owners who evade payment of the duty. He also deprecates the suppression of the dog-muzzle, and urges the police-prefecture to put sentiment aside, and enforce its use. M. Alexandre proposes that, as at Berlin, all unmuzzled dogs be killed, for the liberty given to animals involves serious dangers to human life.

The prefect of the Seine, in accordance with the wish expressed by the municipal council of Paris, has decreed that female dressers at the hospitals (externes) shall be allowed to compete for the house-surgeonship (internes) on complying with all the formalities required by the *service de santé*. Female internes will be submitted to the same rules and regulations as their male colleagues.

EGYPT.

[FROM OUR OWN CORRESPONDENT.]

Sanitary Statistics in Egypt.

CAIRO, September 28th, 1885.

DR. ENGEL, who is attached to the Sanitary Direction, has published an *Essai de Statistique Sanitaire de l'Égypte*, founded on the returns of births and deaths during the five years 1880 to 1884, inclusive, and on the census which was taken in 1882.

Dr. Engel allows that the statistics he gives are subject to serious

error, which arises from two main sources. First, there are no returns of the births of Europeans. This is due to the capitulations, which are always found to interfere with any sanitary undertaking. The second source of error is the uncertainty of declaration and registration of births and deaths among natives, which affects chiefly the small villages. Dr. Engel is of opinion that the uncertainty is less than is commonly supposed. He meets the first source of error by separating the statistics of Europeans from those of the natives.

Allowing for a large margin of error, there are certain main deductions which may safely be made from the figures as they stand. Thus the deaths under ten years exceed those over ten. In the summer months, from June to August, the infantile mortality suddenly mounts up, and exceeds several times the mortality of the remaining part of the population, showing that it is the summer-heat which is specially injurious to children, whether directly or indirectly.

The statistics show an excess of males over females, both in the births and deaths, for the whole of Egypt. In both Cairo and Alexandria, the male births are about 1 per 1,000 more than the females. As regards the deaths, in Cairo the numbers of the sexes are nearly equal; but, in Alexandria, there is an excess of 3 per 1,000 of males. This difference between the two towns is accounted for by comparing the ratio of the sexes in their respective populations; thus, in Cairo, there are 6,000 more female inhabitants than males, while, in Alexandria, there are 5,000 more males. Cairo is the residence of the large majority of native princes and pashas, and hence contains the large harems. Alexandria, on the other hand, contains one-fourth as many Europeans as natives, and a large part of the Europeans are single men.

The birth-rate of Cairo is 50 per 1,000, and the mortality 45, taking the average of the four years 1880, 1881, 1882, and 1884. In 1883, the year of the cholera, the mortality rose to 64.

Taking the same average, the birth-rate of Alexandria is 43 per 1,000, and the mortality 35.

In Port Said, the mortality (apart from cholera) is 23, in Ismailia 39, and in Suez 44.

These are the numbers, taking the whole population together; and they seem to indicate that, of these five towns, which contain the majority of the Europeans in Egypt, Port Said is the most healthy, and Cairo the least so. But, fortunately, Dr. Engel provides us with separate statistics for the Europeans from the year 1882, and by them it is seen that the above inference would be very erroneous as far as Europeans are concerned. In 1884, the mortality among Europeans was 12 in Cairo, 16 in Alexandria, 24 in Ismailia, 28 in Port Said, and 44 in Suez.

Judging from this year alone, then, Cairo is the most healthy of the five towns for Europeans. The larger total mortality in Cairo is easily accounted for by the greater proportion of natives, and consequent high infant mortality, and the absence of drainage or any system of sewage-removal, all the other four towns being better provided in this respect. The infiltration of the Cairo soil with sewage may affect the whole population through emanations; but no doubt it acts chiefly on the poorer native inhabitants, whose houses are built over unprotected cesspools, and who use, and sometimes drink, the water from wells closely contiguous to the cesspools.

On the whole, the population of Egypt seems to be steadily increasing.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

University Examinations.—Botanic Gardens.—Chair of Physiology at Owens College.—Western Infirmary.—City Death-rate.—Opening of Medical Societies.

THE preliminary examination in medicine takes place this week, and there is the large number of 330 candidates, which is in excess of previous years. In the professional examinations, which commence on Monday of next week, the numbers are very much beyond the average. For the first professional, there are 165 entries; for the second, 115; and for the third, 71, giving a total of 351. The explanation of this increase is probably the fact that the students are now beginning to avail themselves of the new regulations, under which it is possible to come forward for these examinations at an earlier period than heretofore in their course of study. It is, of course, early to hazard any opinion as to the ensuing session, but everything points to as numerous an influx of students to the medical classes as in any preceding sessions. The opening address of the winter session at the University will be delivered by Professor Bower, the recently appointed Professor of Botany.

The financial bankruptcy which has overtaken the present Botanical Gardens of Glasgow, and which seems to threaten their continued existence, is not altogether a matter of indifference to our University. It appears that, at some time or other, the University authorities advanced the sum of £2,000 to the Gardens, on the understanding that they were to be open to students for botanical study, and that a certain portion of the ground should be devoted to the cultivation of plants illustrating the different natural orders. Now that there are no funds for the maintenance of the Gardens, and that there seems every probability of their being sold or converted into plots for building, it will be a serious misfortune to the University to be thus suddenly deprived of the means of imparting practical instruction in botany to the students; for, even if the £2,000 are refunded, this sum will go a very little way in providing gardens suitable for botanical study. It is to be hoped that some escape will be found out of the present monetary difficulties in which the Gardens are, and that they will not be lost to the city after all the care and expense that has been lavished on them, and the high state of perfection to which they have been brought.

I understand that Dr. J. McGregor Robertson, the present Muirhead Demonstrator of Physiology in our University, is a candidate for the vacant Brackenbury Professorship of Physiology in Owens College, Manchester, and that his chances of success are thought very favourably of, as the limitation of £600 put on the emoluments of the chair will necessarily confine the candidature to younger men, and among these Dr. Robertson has always been regarded as one of the most rising and promising. He is a clear and ready lecturer and a good experimentalist, while his conduct of the practical classes for histology and physiological chemistry have always made them most acceptable to the students. Should he be successful, Owens College will undoubtedly obtain an excellent teacher, and one who has been trained in a good school under an able master.

The meeting in behalf of the funds of the Western Infirmary, of which I spoke in my last letter, has taken place, and ended, of course, as it was seen beforehand it must do, in a vote of confidence in the institution and those who manage it, and in a resolution to raise the necessary £5,000 of deficit which is likely to show itself at the end of the year should no sudden and unlooked for legacies come in previously. I have no doubt the money will be forthcoming, as there is no reason to think that there is anything but the most rigid economy in the management of the charity, but it is not a satisfactory ending to the conference. Unless another year sees the directors with a larger number of legacies falling due than they have had in the past twelve months, the same deficiency will present itself again, as now, and again a call will have to be made on the generosity of those who are always appealed to when money is wanted. The building of the Freeland wing, and the opening of it for patients, have necessitated an expenditure which the present income of the Infirmary is unable to meet; and the only satisfactory solution of the difficulty is to ensure, by increased subscriptions, a larger yearly income.

The death-rate of the city still continues low, being, last week, only 18.6 per 1,000. It would seem that there is just now less disease throughout the city than there has been for a very long time; and Dr. Russell's last report, for the fortnight ending September 26th, states that we must go back to 1879 to find so low a mortality of infants. At present, there is an absence of the infectious diseases of children in the epidemic form. Some fresh cases of small-pox have been registered, but they have all been traced directly or indirectly to Montreal. At the same time, the city of Glasgow is somewhat exposed to the invasion of small-pox from the neighbouring suburb of Maryhill, where about twenty cases have occurred. The disease first showed itself in July among the workers in a paper-mill, and was thought to be probably caused by some infected rags; and, though revaccination has been resorted to, it has made some head among the population.

Last week saw some of our medical societies hold their opening meetings. At the Medico-Chirurgical Society, there was the usual election of office-bearers, when Professor George Macleod was again chosen President. The rest of the evening was taken up by some cases brought forward by Dr. Alex. Paterson, among which was one of ligation of common carotid artery for aneurysm and another of suprapubic lithotomy. At the Southern Medical Society, the office of President was conferred on Dr. William Carr. The recently formed Andersonian Naturalist's Society had, on Tuesday evening, an interesting address from the President, Professor Wilson, on the adaptations in stem and leaf form for resisting wind-currents.

THE Russian medical authorities have sent Dr. Raptshewski to Spain to study the cholera-epidemic and Dr. Ferran's inoculations.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Opening of the Winter Session.—Death of Mr. T. Shadford Walker, Dr. Gill, and Dr. Walker, of Anfield.—*The Infectious Diseases Hospital Question.*—*Enlargement of Stanley Hospital.*—*The North Wales Poor-law Conference and the Compulsory Notification of Infectious Diseases.*—*Alarm of Cholera.*—*New Women's Hospital at Bootle.*

ON Saturday afternoon last, the opening of the winter session of the Medical Faculty of University College took place in St. George's Hall. Lord Derby, as usual, presided. The main points referred to by the Principal, Professor Rendall, in his annual statement, were the formal admission of the College to Victoria University, and the establishment of two new professorships—one of Art, one of Engineering. Mr. W. M. Conway and Professor Hele Shaw, lately of University College, Bristol, have been appointed to occupy these chairs. Professor Bradley delivered an admirable address on the study of universality.

The unexpected death of Mr. T. Shadford Walker, the Lecturer on Ophthalmology, which took place on the 28th of last month, cast a certain gloom over the proceedings, which was in some measure relieved by the feeling references made to the sad event by Lord Derby and the Chairman of the Medical Council, Dr. Wallace. Not only will Mr. Walker be missed by the members of his own profession, amongst whom he was deservedly popular, but also by a very large circle of friends. In art circles, his loss will be especially felt, for he was an enthusiastic member of the Liverpool Art Club, of which he had been President, besides being a well known collector of articles of vertu of various kinds. The annual medical dinner has been for the present postponed as a mark of respect to the memory of the deceased gentleman.

During the past few weeks, death has also removed two other well known members of the profession: Dr. George Gill, who of late years had taken a prominent part in municipal affairs as a member of the City Council, and Dr. Walker, of Anfield, who died in consequence of injuries received while attending on a horse in his stable.

Dr. Hamilton has succeeded in carrying his resolutions respecting the proposed new infectious diseases hospitals. So far as one can at present judge, the matter is now placed on a definite footing, and is in a fair way of being carried to a successful termination. We shall then have two hospitals for general infectious complaints—one at the north, and the other at the south, end of the city—together with a convalescent institution at Hightown, near Crosby.

The new wings of the Stanley Hospital were opened on October 6th by Lord Derby. The debt on this charity has now been cleared off, with the exception of £100.

At the eighth annual meeting of the North Wales Poor-law Conference, held on September 30th at Carnarvon, under the presidency of Sir Llewellyn Turner, it was unanimously decided that it was of great importance that the notification of infectious diseases should be rendered compulsory, and that the Local Government Board should be urged to promote legislation for this purpose. Several medical men, mostly medical officers of health, spoke in favour of compulsory notification.

Some excitement was caused a few days ago by its being reported that a vessel had arrived in the Mersey from Marseilles, with several cases of cholera on board. It was subsequently ascertained that this was not the case, but that the disease, from which only two members of the crew were suffering, was simply diarrhoea.

Last December, Dr. Young, of Bootle, established a maternity charity and dispensary for diseases of women and children in that borough. As it has become evident that this supplied a public want, the charity has now been formally placed on the footing of a public institution, with a committee of management and a medical staff.

PRIZE SUBJECTS IN VALENCIA.—The following prize themes are announced by the Medical Institute of Valencia. The essays must be sent to the secretary before December 1st. Pathogenesis of Neuroses: differential diagnosis between them; Hysteria and Hypochondria: their prophylaxis and treatment; Judicial Criticism on Osteotomy and Osteoclasis in Ankylosis; the form of Administration and the doses of Gaseous substances and Electricity; Transfusion of Blood; the Existence of a Disinfectant capable of destroying Microbes and their spores, without damaging coloured textile fabrics.

TWO will and two codicils of Dr. William Johnson Smith, of Greenhill, Weymouth, have been proved, the personalty amounting to upwards of £75,000.

CORRESPONDENCE.

PROFESSOR SCHÄFER'S INTRODUCTORY ADDRESS.

SIR,—Any one, like myself, who is deeply interested in an adequate provision for the advancement of scientific medicine in this country, must have read Professor Schäfer's address with considerable pleasure. It cannot be too frequently and emphatically proclaimed, that England is vastly behind the leading continental nations in the requisite means for prosecuting scientific research. It is earnestly to be wished that the Government will ere long recognise that it is their duty to foster such research, which of itself rarely brings any pecuniary return to him who undertakes it, by granting funds for building, and suitably endowing, laboratories in London, and other places where medical schools exist. Yet, thanks to the munificence of the public, we are not altogether so deficient in such laboratories as Professor Schäfer's remarks would lead one to suppose. True it is, that London is, in this respect, lamentably behind all the leading capitals in Europe. But Professor Schäfer forgets that in certain of the provincial towns—notably in Edinburgh—very ample accommodation, and fairly equipped laboratories, have been provided for research in some of the sciences to which he more particularly alludes. Indeed, in all the Scottish Universities, as well as in some of the recently founded English Universities, it is rare to find a professor of physiology, pathology, or pharmacology without one or more laboratories for research, small and insufficient though these sometimes are. In Edinburgh, the space and appliances at the command of each of these departments are probably as good as can be met with in all but one or so of the lavishly endowed German Universities. I fear the Edinburgh people will be rather indignant, after their noble efforts in raising their new buildings, when they are told by Professor Schäfer that there exists nowhere in the United Kingdom "a laboratory devoted to experimental pharmacology, and presided over by one who has familiarised himself with all the details of this important branch of medical science." Does Professor Thomas R. Fraser, one of the leading pharmacologists in Europe, not answer to this description? And small and incommensurate though his laboratory is, does not that of Lauder Brunton, in Professor Schäfer's own city, meet his requirement, at any rate as to a qualified teacher? While I freely admit how far we are behind other countries, yet I have enough of patriotism not to represent matters to be worse than they really are.

Again, Professor Schäfer gives to the University of Cambridge "the honour of having instituted the first chair of Pathology properly so called, and of having made provision for the necessary laboratories." I suppose Professor Schäfer means by this a chair of general pathology as distinguished from mere pathological anatomy. Such a chair has been in existence in Edinburgh University for many years. It may be, as every one can understand, that pathological anatomy occupies the greater part of the professor's prelections, but that is the fault of the subject, not of the chair. The laboratory-accommodation is, so far as I know, much the best in the kingdom.

In Aberdeen, also, there has been, through the munificence of Sir Erasmus Wilson, a well endowed chair of Pathology, with fair laboratory-accommodation, since two or three years before the foundation of the Cambridge chair. The Aberdeen professor must devote himself entirely to the duties of his chair.

It may be said these are trifling matters, and have no bearing on the main purpose of Professor Schäfer's otherwise excellent address, yet it is only right that, in justice to schools outside the metropolis, these errors should be pointed out.—I am, etc., M. H.

MESMERISM AT THE MANCHESTER MEDICAL SOCIETY.

SIR,—The Manchester Medical Society requires no champion to proclaim its past history and its present prosperity, or to defend it from paltry attacks, yet this is no reason why the inaccurate and ungenerous statements of your "Own Correspondent" in the JOURNAL of October 3rd should not be exposed and corrected.

In the first place, your correspondent, with assumed mental anguish, hastens to correct an error committed by "one of your weekly contemporaries, who had allowed its readers to suppose that the authorities of Owens College had lent a hall" for the exhibition of mesmerism. Had your correspondent been present on the evening in question, as he would allow your readers to believe, his opinion might have been of some value; but when he states that the exhibition, "as a matter of fact," took place in the Medical Society's rooms, it is evident that he could not have been present, otherwise he would have distinguished between the Chemical Theatre of the Owens

College and the comparatively small rooms occupied by the Medical Society in the same building. Further, the 500 cards of invitation distinctly stated that the demonstration would take place in the Chemical Theatre; and, moreover, the three leading Manchester papers, on the following day, gave a full account of the evening's proceedings, and mentioned where it had taken place. As your correspondent does not even appear to know the proper title of the College, the prestige of which he affects with so much anxiety to sustain, he may perhaps be excused having a confused notion of every other detail. He concludes his remarks by stating that "certainly the 'show' was much better suited to the tastes of the occupants of the circus-gallery than to the members of any learned society." Whether this opinion was shared by anyone actually present on the evening referred to, I have no accurate means of knowing, but I can affirm that everyone I have since met who witnessed the demonstration—and I have discussed the matter with at least a score of our leading professors, teachers, and medical men—not one expressed a hint of disapproval at what took place, or stated that they disbelieved in the genuineness of what they had seen. In fact, from what I have heard, I am quite convinced that the opinion of your correspondent is totally at variance with the impression produced upon the minds of the majority of those present, and especially those who have most reason to be credited with having some right to form a judgment upon such a subject.

On the evening when the demonstration took place, everyone present was invited to investigate and comment upon anything that was done, and no attempt was made to evade the most trifling question, or the most severe tests, and the evening concluded with the appearance, at any rate, of unanimous approval and satisfaction.

In contrast with the spirit of your correspondent, allow me to quote from a communication received by you from your special correspondent in Aberdeen, and published in the JOURNAL, November 13th, 1880: "Professor Stirling gave a lecture on mesmerism, and specially alluded to the too much neglected works of the late Mr. Braid, of Manchester. Many of Mr. Braid's facts have been rediscovered recently in Germany, by Weinhold and Heidenhain. The subject is one which must shortly occupy the attention of the physician and physiologist, as well as the psychologist."

Six weeks ago, I was practically ignorant and wholly sceptical of the merits of mesmerism; now I am convinced that it is a subject of deep psychological interest, but devoid of any practical application in the domain of surgery, and I strongly deprecate its being made the means of pecuniary gain and public amusement.

These convictions, I believe, I share in common with the major part of those who have had frequent opportunities of investigating the subject during the last few weeks in Manchester, through opportunities which, in all probability, would never have offered had not the original demonstration taken place within the precincts of the Owens College, and under the auspices of the Manchester Medical Society.—I am, etc.,
WALTER WHITEHEAD.
Manchester.

MATERNAL IMPRESSIONS AND CONGENITAL DEFORMITIES.

SIR,—In proposing to make the influence of "maternal impressions" a subject for collective investigation, Mr. Noble Smith can hardly have considered how much anxiety and worry he proposes to add to the already overburdened pains and penalties of maternity. Anyone who has witnessed the heart-sickness of a mother when she learns she has given birth to a deformed child, will think twice before he asks her to search her mind for a possible cause of such a misfortune in mere anticipation of its occurrence. That physical deformities are hereditary no one doubts, and when they are known to exist (that is, after birth), a searching inquiry into their origin is most desirable; but that the mental vagaries of the mother can influence the physical conformation of her offspring, is hardly believed by anyone who has taken the trouble to examine the subject. The whole subject has been thrashed out by Darwin in his *Animals and Plants under Domestication*, and the method of inquiry suggested by Mr. Smith was adopted a century ago by a no less credible authority than Dr. William Hunter. "Dr. William Hunter told my father," says Darwin (chapter xxii) "that, during many years, every woman in a large London lying-in hospital was asked before her confinement whether anything had specially affected her mind, and the answer was written down; and it so happened that in no one instance could a coincidence be detected between the woman's answer and any abnormal structure; but when she knew the nature of the structure, she frequently suggested some fresh cause." This was obviously a more

crucial test of the question than a general appeal to the profession can be, as cases will no doubt be forthcoming from those who believe, or, I would rather say, those who have not been at the trouble of eliminating the superstition from their minds, and none from those who do not believe. Moreover, statutes of this kind would be valueless without a record of the whole number of births among which they occur, as one coincidence in a hundred would be more likely to convince sceptical persons than one in a thousand.

With this exception, I feel that Mr. Smith's proposed inquiry will be a most interesting and valuable one, and it is one which I have myself made some efforts to carry out.

We want a careful study of the life-history of the foetus, as it is during this short and very plastic stage of his existence that a man's future bodily and mental condition largely depends. The influence of heredity, the physique, ages, habits, diseases, and the sanitary and social surroundings of the parents, require careful and systematic study, and will be found written on the newborn child if we can find the alphabet. Much is already known, and it is by studying the wider departures from the type, as Mr. Smith proposes to do, that the greatest progress may be expected to be made. If, however, he intends to decide the questions by pitting the "stubborn facts of practical men" against "scientific reasons," he will I fear have a good deal of prejudice to contend with, and his progress will be less rapid and satisfactory than some of us could desire.—Your obedient servant,
C. ROBERTS.

Bolton Row, Mayfair, W.

SIR,—The letter from Mr. Noble Smith, in your JOURNAL of October 3rd, has induced me to bring before your notice two cases which occurred in my practice in August and September last, which are of considerable interest as bearing on the above subject.

The first case was that of a woman, of a somewhat nervous and impressionable temperament. She had previously borne eleven children, all healthy. About six weeks after conception, she was called to a man who had hung himself, and said (to use her own words), "that, much against her will, she helped to 'do' for him, and that it took a great effect on her at the time." After a natural labour of about six hours, a female child was born, in every respect normal except the head, which was about the size of an orange. The frontal bones were absent, the eyes being at the top of the head, looking upwards. The occipital bone was but slightly developed, the parietal not at all, the only covering being the meninges. The mouth was well formed, but there was no nose. The child was alive until within a short time of its birth.

The second case occurred in another village, fourteen days afterwards. Here the woman was not at all of a nervous disposition, and close questioning could elicit no history of fright or accident; but only, that "she had felt different all along." She had previously borne eight children, all healthy. The malformation was very curious. The head and thorax were healthy, but small. Both femora were dislocated, one leg being down by the side of the head, the other thigh curled round the back. The abdominal wall below the umbilicus was absent; but, instead, was a thin membrane, extending from this point to the anus, enclosing the bowels and liver. This membrane was continuous with the membranes of the placenta. An abortive umbilical cord, about an inch in length, could be traced at their junction. Just above the anus could be seen on either side a fold of skin, a quarter of an inch long, probably rudimentary labia. At the back, at the base of the spine, was a large globular swelling, which, when opened, was found to contain a teacupful of clear straw-coloured serous fluid. At the base of this sac, but not communicating with it, was another and smaller sac, which, on examination, appeared to be the bladder.—I am, sir, yours truly,
A. RANDALL DAVIS.
Hythe, Kent.

BEQUESTS AND DONATIONS.—Mr. H. Waring has bequeathed £100 to the Essex and Colchester Hospital, and £100 to the Eastern Counties Asylum for Idiots.—Mr. James Vaughan, of Builth, formerly a surgeon-major in the Honourable East India Company's service, has bequeathed £100 to the Brecon Infirmary.—Mr. R. C. L. Bevan has given £100 to the Hospital for Women.—Mr. William Fry, Junr., of Merion Square, Dublin, has given £50 to the City of Dublin Hospital.

THE death of Professor Dr. Starke, chief physician of the Charité in Berlin, and lecturer in the Military Academy, is announced.

PROFESSOR LITZMANN has resigned the Professorship of Midwifery and the direction of the Obstetric Clinic in Kiel.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SENIORITY IN A HOSPITAL-STAFF.

"SURGEON" asks for an opinion on the following. Owing to the resignation of A, a vacancy occurred on the honorary surgical staff of a provincial hospital. The work, however, having greatly increased of late, the committee, with whom the election rests, decide that "two honorary surgeons shall be appointed." B, C, D, and E are candidates, B receiving the largest number of votes, and C the next, are duly elected. Which of these gentlemen should rank as senior on the hospital-staff? Has B the right to claim seniority?

* Unless the "electing committee" are empowered by some exceptional arbitrary rule to select, as they deem best, either of the two successful candidates for the position of "senior," B, there cannot, we think, be a doubt, is rightfully and legitimately entitled, by virtue of the majority of votes recorded in his favour, and also by time-honoured custom, to rank as senior to C, the other elected candidate. A simple and practical illustration of the point in question may be found in the case of parliamentary candidates, under the old system of election, in which precedence was always given to the one returned at the head of the poll, as in the instance of B.

ELECTION OF POOR-LAW MEDICAL OFFICERS.

SIR,—The following very exceptional and puzzling case cropped up in the election of a dispensary medical officer in one of the unions in the west of Ireland.

A., B., and C. were three candidates for a poor-law appointment. There were twenty-eight members of the Dispensary Committee present. On the first poll being taken, A. received ten votes, B. and C. received nine votes each. A second poll was then taken between B. and C., to see which of them would drop out, and there voted thirteen members for B. and thirteen for C. Two members of the Committee refused to vote for either candidate.

Now the question I am anxious to have answered is: "Can A. claim the position legally? or, in the event of a new election being ordered by the Local Government Board, must A. begin his poll with B. and C., over whom he obtained a majority?"

By replying to this in the next issue of your JOURNAL, you will much oblige your obedient servant,

* Assuming the rules as to election of officers by guardians to be the same in Ireland as in England, there has been no election. Every officer must be appointed by a majority of the guardians present at the meeting, and the candidate who obtained ten votes against two others who obtained nine each has not obtained a majority of the votes of the guardians present. On the second poll, when there was still a tie, the chairman ought to have given a casting vote; but, as he did not, the whole proceedings are abortive, and there must be a new election.

MEDICAL ETHICS.

SIR,—Will you be so good as to express an opinion on the following case.

A. resides and boards with B., in a provincial town, having for a companion, C., who is Mrs. B.'s sister, for whom board, dress, etc., is provided.

During last illness, A. was attended by Dr. D., who had been her physician for some years, and was greatly esteemed by her. Seeing that the illness, erysipelas, was serious, Dr. D. called in consultation Dr. E., on two successive days. The case ended fatally, and the medical attendant charges for three, four, and three visits during the last three days of the attendance, together with his consultant's fees.

Some time afterwards, Dr. F. sends in a claim for eleven visits, at a guinea for each attendance, four, three, and four visits respectively, for the same days as the regular medical attendant charged for.

On seeking an explanation for this claim, I am informed that, during an exacerbation of the disease, B. "ran" for Dr. F., who happened to be his own medical attendant, and lived close by, who appears to have continued his visits, but not by the desire of the medical attendant, who charges at the rate of three visits for a guinea, whilst Dr. F. claims payment for eleven visits at a guinea for each. He also sends a claim for nine guineas, for eighteen visits, to C., being at a much higher rate of charges than would have been made by A.'s own trusted medical attendant, who, it appears strange, was not called in by A., if she considered herself responsible for payment for medical attendance.

When these claims were sent in, wishing in the most friendly spirit to have everything settled amicably, I wrote a very guarded letter to Dr. F., suggesting that (although I did not see the *raison d'être* of his attendance) he should assimilate his charges to those of Dr. D., who is a much older member of the profession, in regard to visits to A., and although I considered it questionable if the estate was chargeable with attendance on C., that his visits should be charged at the usual rate for people in their circumstances at the same distance. I also proposed arbitration by the consultant, Dr. E., but my letters have not been replied to, and Dr. F. again sends in his claim. I may add, that the payment of all claims will curtail some small legacies to necessitous people. Your opinion and advice on this case will oblige,

EXECUTOR.

* 1. The person primarily liable to pay F.'s fees is B., who called him in. If, however, you are satisfied that he really attended on A. for the number of visits named, you would be justified in paying for those visits such fees, as, looking to the position of the parties, are reasonable. (Probably the amount charged by Dr. D. is a good measure of what is reasonable, but we cannot answer such a question definitely, without knowing the respective qualifications of D. and F.) 2. Unless F.'s attendance on C. was ordered by A., or sanctioned by her knowingly, her estate is not liable, and, as executor, you have no right to pay such a claim in preference to legacies.

The Caucasian health-resorts or "baths" are increasing in popularity, a thousand more visitors having patronised them this year than last.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL SCHOOL.

THE introductory lecture at the opening of the winter session of the Army Medical School at Netley was delivered on October 2nd, by Professor de Chaumont, F.R.S. The principal topic of the discourse on the occasion consisted of a review of the changes which have taken place during recent years in the organisation of the Army Medical Department, and the influence of these changes on the functions of medical officers and on the health of the army. Forty-eight surgeons on probation had arrived to attend the courses of instruction; forty being for the British Medical Service, and eight for the Indian Medical Service. Veterinary Surgeon F. Smith had also joined, to attend the practical course of Hygiene at the School.

PROMOTION TO THE HIGHER RANKS IN THE MEDICAL STAFF.

SIR,—I beg to recommend to the notice of the powers that be the following very wise regulations for the Indian Medical Service, which make the juniors more hopeful to attain the positions from which many of us will be practically debarred by the block existing in the higher ranks.

"The tenure of office of Surgeons-General and Deputy Surgeons-General is limited to five years."

"Deputy Surgeons-General, if not disqualified by age, are eligible either for employment for a second tour of duty in the same grade, or for employment in the higher grade of Surgeon-General by promotion thereto."

Like our own service, all officers of the administrative ranks are retired when they shall have attained 60 years of age. In the combatant ranks, a Lieutenant-Colonel, who has been four years in command of a regiment of cavalry or infantry, is placed upon half-pay, irrespective of age, and may then attain the rank of Colonel. I agree with your correspondent, "Medical Staff," that promotion for service in the field, or for distinguished service of any kind, should not be at the expense of other officers then serving. Such promotions should be at the expense of the State and supernumerary to establishment. The principle of acting-appointments on increased pay should be recognised. Thus, a Brigade-Surgeon acting as Deputy Surgeon-General should be entitled to the increased pay of the higher appointment while so acting.—I am, yours, etc.,

MARK TAPLEY.

THE EGYPTIAN CAMPAIGN.

SIR,—All medical officers who have served with the Nile Expeditionary Force will have been surprised and disappointed on finding that their chief, Surgeon-General O'Nial, C.B., after months of hard work, after performing the arduous and responsible duties of P. M. O. to the satisfaction of Lord Wolseley, and the admiration of those under him, has practically been allowed to go without reward in the recent distribution of honours. To confer on him the rank he already held locally, and to which, from his position on the list of Deputy Surgeons-General, he would, in the ordinary course of events, have become entitled in a few months, is surely not a proper recognition of the exceptionally able manner in which his work was done.

Why, the same promotion has been given to the late Dr. Barnett, who, had he lived, would have passed over the heads of eighteen of his seniors, and he was only P. M. O. at Suakin for a couple of months.

Why has not Dr. O'Nial been awarded the K.C.B.? Is there an officer of the force who will say that the department was better administered, or the duties of P. M. O. better performed in the Egyptian campaign of 1882 than in the Nile campaign of 1884-5? Not one. Not a word is spoken but what is in praise of the arrangements made by the P. M. O. for the treatment and comfort of the sick and wounded, and of the manner in which the duties of the medical officers were carried out. The work has been more difficult, the responsibility greater, the results more satisfactory, but Dr. O'Nial gets nothing, and Dr. Hanbury is a K.C.B.

Is it that the number of K.C.B.'s to be held by officers of the Medical Staff is limited by some War Office rule? or is it fear of arousing the jealousy of the seniors of other departments that prevents the authorities doing justice to the merits of this distinguished officer? Whatever the reason may be, there can be no question that the omission to grant him the distinction he has so well earned has given rise to a feeling of disappointment amounting almost to indignation amongst those who served under him in the late expedition.

SUDAN.

NAVAL MEDICAL SERVICE.

THE following appointments have been made at the Admiralty during the past week. J. C. DOW, Surgeon, to the *Pembroke*, additional, for Melville Hospital; M. O. C. McSWIN, Surgeon, to Chatham Division, Royal Marines; ROBERT FENNER, to be Surgeon and Agent at Cromer.

ARMY MEDICAL SERVICE.

THE Khedive of Egypt has conferred upon Surgeon-Major B. B. CONNOLLY the fourth class of the Order of the Osmanieh for services before the enemy during the operations in the Sudan last year. Besides those services, Mr. Connolly has a distinguished record. He served during the Franco-German war of 1870-71, and was present at the battle of Beaumont, and at the battle of and capitulation of Sedan (German Steel war medal). He was engaged throughout the campaign against the Jowaki Afreedees in 1877-78 (medal with clasp). He was Secretary and Statistical Officer to the Principal Medical Officer, Lines of Communication and Base, in the Zulu war of 1879, and in the subsequent operations against Sekukuni (medal). He served in the Egyptian war of 1882 (promoted Surgeon-Major, medal, and Khedive's star); and in the Sudan Expedition under Sir Gerald Graham in 1884 as Principal Medical Officer of the Cavalry Brigade (mentioned in despatches, and clasp).

The Queen has been pleased to grant to Surgeon-Major JOHN GODFREY ROGERS,

Army Medical Staff, Her Majesty's Royal licence and permission that he may accept and wear the insignia of the third class of the Order of the Osmanli, which His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan, has been pleased to confer upon him, in recognition of his services while actually and entirely employed beyond Her Majesty's dominions in the Egyptian Army.

Surgeon E. N. SHELDRAKE has been appointed Surgeon to the Grenadier Guards vice C. E. Harrison, M.B., promoted to Surgeon-Major. Mr. Sheldrake entered the service so recently as the 30th of May last, since which time he has been serving at Woolwich.

Surgeon-Major FREDERICK PENNINGTON has been granted retired pay with the honorary rank of Brigade-Surgeon. His commissions bear date: Assistant-Surgeon, April 22nd, 1858; Surgeon, March 1st, 1873; and Surgeon-Major April 1st, 1873. Mr. Pennington served in Oude during the Indian Mutiny in 1857-58 (medal); in the Ashanti war in 1873-4 (medal); and in the Egyptian war of 1882 (medal and Egyptian bronze star).

Surgeon-Major OWEN OWEN has also gone on retired pay, with a step of honorary rank. He entered the service January 19th, 1860; became Surgeon March 1st, 1873; and Surgeon-Major April 1st, 1875. He served in the New Zealand war in 1865-6 with the 60th Regiment (medal), and in the Afghan war of 1878-80, including the attack and capture of Ali Masjid (medal with clasp). At the time of his retirement he was serving at Cyprus.

Surgeon-Major J. W. BELCHER, M.D., has also accepted retired pay, with a step of honorary rank. His commission as Assistant-Surgeon dates from April 1st, 1861; as Surgeon, from March 1st, 1873; and Surgeon-Major, January 27th, 1876. Dr. Belcher has no war record.

Surgeon T. Y. BAKER has likewise retired as Honorary Brigade-Surgeon. He entered as Assistant-Surgeon October 1st, 1860; became Surgeon March 1st, 1873; and Surgeon-Major October 25th, 1875. He also has no war record.

Quartermaster CHARLES JOHNSON, of the Medical Staff, is granted the honorary and relative rank of Captain.

Surgeon-Major BENJAMIN BAKER, of the 3rd Battalion Queen's Royal West Surrey Regiment (otherwise the 2nd Surrey Militia, has resigned his commission, which bears date July 8th, 1878. He is permitted to retain his rank and uniform.

Acting-Surgeon J. P. PURVIS, of the 2nd Volunteer Battalion of the Queen's Own Royal West Kent Regiment (late the 3rd Kent Volunteers), is appointed Surgeon in the same corps.

Acting-Surgeon THOMAS SCOTT, M.D., of the 3rd Volunteer Battalion Duke of Wellington's West Riding Regiment (late the 9th West Riding Volunteers), has resigned his appointment, which dates from October 28th, 1874. Acting-Surgeon R. E. WILLIAMSON, M.B., is appointed Surgeon to the corps.

Surgeon H. K. ALLPORT, at present serving in Bengal, is, consequent on the death of Surgeon-Major J. Lloyd, appointed to the civil medical charge of Sectapore, in addition to his military duties.

Surgeons O. TODD, M.B., and E. BUTT, have been permitted to exchange places on the Indian roster of service.

Surgeon-Major C. B. JENNINGS, now serving in Bengal, has passed the examination for the lower standard in Hindustani.

INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL G. S. W. OGG, M.B., of the Madras Establishment, has retired from the service, which he entered on September 12th, 1854; he is granted a step of honorary rank. The Army Lists do not credit him with any war-service.

Surgeon-Major FRANCIS PARSONS, of the Bengal Establishment, whose retirement we recently announced, is now granted the rank of Brigade-Surgeon.

Brigade-Surgeon JAMES ROSS, Madras Establishment, whose retirement has also been announced, is likewise granted a step of honorary rank.

Surgeon R. R. WEIR, Bengal Establishment, is temporarily deputed for duty under the orders of the Engineer-in-Chief, Sind-Pishin Railway.

Surgeon-Major C. CAMERON, Bengal Establishment, Civil Surgeon of Gondal, is directed to take visiting medical charge of Buxtee, in addition to his own duties, during the absence on leave of Mr. T. M. Sullivan.

Surgeon J. BLOOD, Bengal Establishment, is reappointed a civil surgeon of the 2nd class (grade station, Shalchekanpore), and placed in medical charge of the Kheri district.

The services of Surgeons R. PEMBERTON, A. T. L. PATCH, M.B., and E. R. DA COSTA, all of the Madras Establishment, are placed at the disposal of the Public Department.

Surgeon-Major A. H. LEAPINGWELL, Madras Establishment, is appointed Honorary Surgeon to the South Indian Railway Volunteers.

Brigade-Surgeon W. H. ROBERTS, Madras Establishment, is permitted to do duty at the office of the Deputy Surgeon-General, Her Majesty's Forces, Eastern District.

Surgeon F. R. DIVECHA, Madras Establishment, is directed to do general duty under the Deputy Surgeon-General, Her Majesty's Forces, Nagpore Force.

Surgeon J. W. CLARKSON, Bombay Establishment, Deputy Sanitary Commissioner of the Concan Registration District, has been permitted by the Secretary of State for India to return to duty.

Surgeon-Major A. STEPHEN, M.B., Bengal Establishment, is appointed to officiate as Sanitary Commissioner of the Punjab during the absence on privilege-leave of Deputy Surgeon-General H. W. BELL, C.S.I.

Surgeon-Major C. R. G. PARKER, Madras Establishment, is appointed to the medical charge of the 10th Native Infantry at Vellore, vice Surgeon R. Pemberton, transferred to civil employ.

Surgeon J. H. T. WALSH, Bengal Establishment, has passed the examination for the lower standard in Hindustani.

ASYLUMS IN RUSSIA.—A new asylum for idiots has been built near the lunatic asylum at Udelnaya, in Russia. The director of the latter asylum, Dr. Nikiforoff, has been appointed to have charge of that for idiots, in which two-thirds of the beds are free.

Mr. A. M. SYDNEY TURNER, having received an intimation from the Committee of the General Infirmary, Gloucester, that the retention by him of the office of coroner for the city, while a surgeon to the infirmary, is incompatible with its interests, has resigned the former appointment, and Mr. Morton York has been elected his successor.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE CONWAY BOARD OF GUARDIANS AND MR. DAVIES.

It will be within the remembrance of our readers that, about five months ago, we drew attention to the persecution to which Mr. Davies, the medical officer of the Creuddyn district of the Conway Union, was exposed, at the instance of the Rev. W. Venables Williams, the chairman of that board. For some time previous, it had been the endeavour of the chairman to force Mr. Davies to accept a small fixed sum, wherewith he should find and dispense cod-liver oil, quinine, etc., instead of these drugs being supplied, in accordance with the recommendation of the House of Commons, by boards of guardians generally, and in contravention of a specific agreement this board had made with Mr. Davies at the time of his appointment. Finding that Mr. Davies would not agree to this serious curtailment of his small income, the guardians cancelled his contract, anticipating therefrom that he would have no case against them, in the event of his taking legal proceedings. Mr. Davies not yielding, the board, at the suggestion of the chairman, went a step farther; they passed a resolution declining to pay the salary he had earned for the quarter ending June 24th, hoping thereby to drive this gentleman into litigation, when, as the chairman confidently assured the board, he would be certainly nonsuited.

At this stage of the proceedings, the Local Government Board was interrogated, in the House, by Mr. Thorold Rogers, as to the legality of this action of the board, when Mr. Russell stated "that the annulling of a contract did not determine the tenure of a medical officer's appointment; that the Conway Board had acted improperly towards Mr. Davies; and that this opinion of the department had been conveyed to the guardians."

We now learn, from the *Liverpool Daily Post*, of September 19th, that at the meeting of the board, on the preceding day, it was unanimously resolved that the notice in June last, declining to pay Mr. Davies's quarter's salary, be rescinded, and that he be now paid. On putting the resolution to the vote, the chairman explained "that in future, as their contract with Mr. Davies had terminated, he would only have his salary, £75, and be bound to supply all cod-liver oil, quinine, etc. If they wanted to bring on a crisis, they should stop the current quarter's salary, and let Mr. Davies sue if he liked." The matter then dropped.

We formerly pointed out that this board was in error in the course they took with Mr. Davies, and our opinion was confirmed by the Local Government Board. We have now again to state that the chairman is altogether wrong in assuming that Mr. Davies is bound to supply those drugs. A specific arrangement was entered into, when the guardians advertised for a medical officer, that such drugs should be supplied by them; and no amount of casuistry, on the part of the chairman and the board he heads, will enable them to get out of their obligations. This board has been already referred to in the House of Commons. The next question that is put shall distinctly reach the action of this chairman, seeing that it is due exclusively to him that the sick poor of the Creuddyn district will have to go without those drugs, which are often of material use in curtailing the duration of sickness, and, therefore, the cost of their maintenance to the rate-payers.

LEAVE OF ABSENCE.

SIR,—Will you oblige me by stating if it is compulsory for a parochial medical officer, before taking an annual holiday, to apply to the board of guardians for leave of absence. Very recently, feeling that a complete rest was necessary, I wrote a most courteous note to my board of guardians, asking their permission for a few weeks' leave of absence, at the same time stating that I was leaving in my place a fully qualified man. I did not leave till I heard from one of the guardians that my leave was granted. I was very much surprised, on my return home, to see in the local paper that, at the meeting at which my leave was asked for, the vice-chairman charged me with leaving before my leave was granted, which was utterly false, and as much as hinted that my leave should not be granted, and would up by threatening me, should anything unpleasant occur, that he would hold me responsible for it.

I have taken no notice of his threats, as I consider them as contemptible as they are mean. I am under the impression that a parochial officer is not bound to ask for leave of absence so long as he leaves a fully qualified medical man in his place. Your opinion, therefore, will much oblige,

MENDIP.

*. When a medical officer has been appointed to a workhouse, or a district, the regulations of the Local Government Board enjoin that he shall immediately name some qualified medical man as his deputy, to whom application can be made in the event of illness, or any unforeseen absence from duty. So far for ordinary circumstances. When, however, such medical officer proposes to leave

his home for a more or less lengthened period, it is customary to report to the board of guardians such intention, first, as an act of courtesy; and, secondly, to prevent any subsequent unpleasantness, in case the medical gentleman left in charge neglected his duty. Our correspondent appears to have complied with these conditions, and therefore had nothing to fear in the shape of personal consequences from the vice-chairman, or any other ill-conditioned member of the board, so long as such guardians stands alone in the expression of his opinion. We would advise our correspondent to follow the same course on any future occasion, when it is expedient for him to take a holiday. Boards of guardians have seldom, if ever, objected to a medical officer absenting himself from duty, when an explanation of his motive for doing so has been duly forwarded; and where assent has been given, no consequences of an unpleasant character have ever been visited on him through any shortcomings of his substitute. The most that has ever happened has been this, that such deputy has been interdicted from acting in the future.

HEALTH OF ENGLISH TOWNS.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,525 births and 3,007 deaths were registered during the week ending Saturday, October 3rd. The annual rate of mortality, which had steadily declined in the seven preceding weeks from 21.8 to 15.9 per 1,000, rose again last week to 17.6. The rates in the several towns, ranged in order from the lowest, were as follow: Bolton, 12.3; Birkenhead, 12.9; Halifax, 13.5; Nottingham, 13.6; Norwich, 13.7; Hull, 14.0; Huddersfield, 14.9; Brighton, 15.9; London, 16.0; Sunderland, 16.2; Bradford, 16.3; Blackburn, 17.2; Derby, 17.5; Birmingham, 17.6; Bristol, 17.7; Preston, 18.2; Leeds, 18.5; Salford, 18.9; Leicester, 19.9; Sheffield, 20.0; Wolverhampton, 21.7; Manchester, 22.4; Portsmouth, 22.9; Liverpool, 23.3; Newcastle-upon-Tyne, 23.8; Plymouth, 24.0; Cardiff, 25.3; and the highest rate during the week, 26.0 in Oldham. In the twenty-seven provincial towns the death-rate averaged 17.6 per 1,000, against 16.9 in London. The 3,007 deaths registered during the week in the twenty-eight towns, included 136 which were referred to diarrhoea, 52 to whooping-cough, 49 to scarlet fever, 46 to measles, 41 to "fever" (principally enteric), 35 to diphtheria, and 7 to small-pox; in all, 366 deaths resulted from these principal zymotic diseases, against 393 and 374 in the two preceding weeks. The zymotic death-rate was equal to 2.1 per 1,000. In London the zymotic rate was 1.8; while it averaged 2.4 per 1,000 in the twenty-seven provincial towns, and ranged from 0.0 in Huddersfield and Halifax, to 4.2 in Preston, 4.3 in Liverpool, and 5.1 in Salford. The fatal cases of diarrhoea, which had steadily declined from 628 to 156 in the eight preceding weeks, further fell last week to 136, and caused the largest proportional fatality in Portsmouth, Sunderland, and Preston. The deaths referred to whooping-cough, which had been 46 and 59 in the two previous weeks, declined last week to 52 and caused the highest death-rates in Salford and Blackburn. The 49 fatal cases of scarlet fever exceeded by 13 the number returned in the preceding week; this disease was proportionally most fatal in Leicester. The deaths from measles, which had been 36 and 37 in the two previous weeks, further rose last week to 46, and caused the highest death-rate in Salford. The 41 fatal cases of "fever" showed a decline of 14 from the number recorded in the previous week, and showed the largest proportional fatality in Norwich and Portsmouth. The 35 deaths referred to diphtheria in the twenty-eight towns, last week exceeded the number in any week since February last; 24 occurred in London, and 6 in Liverpool. The 7 fatal cases of small-pox included 5 in London (exclusive of 2 deaths of London residents registered in the Metropolitan Asylum Hospitals situated outside Registration London), 1 in Bristol, and 1 in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined in the seventeen preceding weeks from 1,389 to 163, further fell to 131 on Saturday, October 3rd; the admissions, which had been 47 and 27 in the two previous weeks, further declined to 18. The death-rate from diseases of the respiratory organs in London was equal to 2.6 per 1,000, and was slightly below the average. The causes of 62, or 2.1 per cent., of the 3,007 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

In the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 790 births and 424 deaths were registered during the week ending Saturday, September 26th. The annual rate of mortality, which had been 20.0, 17.2, and 16.6 per 1,000 in the three preceding weeks, rose again to 17.4, and exceeded by 1.5 the average rate for the same period in the twenty-eight large English towns. Among the Scotch towns, the rate was equal to 13.3 in Perth, 14.0 in Dundee, 14.1 in Greenock, 16.0 in Edinburgh, 17.9 in Aberdeen, 18.5 in Paisley, 19.0 in Leith, and 19.3 in Glasgow. The 424 deaths registered during the week in these towns included 25 which were referred to diarrhoea, 11 to scarlet fever, 8 to whooping-cough, 7 to "fever," 6 to diphtheria, 2 to measles, and not one to small-pox; in all, 59 deaths resulted from these principal zymotic diseases, against 66 and 54 in the two preceding weeks. These 424 deaths were equal to an annual rate of 2.4 per 1,000, which slightly exceeded the average zymotic death-rate in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns were recorded in Glasgow, Paisley, and Greenock. The deaths from diarrhoea, which had declined from 51 to 28 in the three previous weeks, further fell during the week to 25, and were less than half the number registered in the corresponding week of last year; 10 were returned in Glasgow, and 5 in Aberdeen. The 11 fatal cases of scarlet fever showed a further slight increase upon the numbers recorded in recent weeks, and included 9 in Glasgow. The deaths referred to whooping-cough, which had declined from 14 to 9 in the three previous weeks, further fell during the week to 8, of which 7 were recorded in Glasgow. The 7 fatal cases of "fever" exceeded by 4 the number in the preceding week, and included 4 in Glasgow. The 6 deaths from diphtheria exceeded the number in any recent week; 3 were returned in Greenock, and 2 in Glasgow. The death-rate from diseases of the respiratory organs in these Scotch towns during the week was equal to 2.4 per 1,000, against 2.0 in London. As many as 49, or 11.6 per cent., of the 424 deaths registered during the week in these Scotch towns were uncertified.

During the week ending Saturday, October 3rd, 786 births and 400 deaths were registered in the eight principal Scotch towns, having an estimated popula-

tion of 1,269,170 persons. The annual rate of mortality, which had been 16.6 and 17.4 per 1,000 in the two preceding weeks, further fell during last week to 16.4, and was 1.2 per 1,000 below the average rate for the same period in the twenty-eight large English towns. Among the Scotch towns, the rate was equal to 11.4 in Leith, 13.2 in Paisley, 13.8 in Aberdeen, 14.7 in Edinburgh, 16.9 in Greenock, 17.0 in Dundee, and 18.6 in Glasgow. The 400 deaths registered during the week in these towns included 41 which were referred to the principal zymotic diseases, against numbers declining from 84 to 59 in the four preceding weeks; of these, 13 resulted from diarrhoea, 9 from whooping-cough, 6 from "fever" (principally enteric), 6 from scarlet fever, 3 from measles, 3 from diphtheria, and 1 from small-pox. These 41 deaths were equal to an annual rate of 1.7 per 1,000, which was 0.4 below the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates during the week in these Scotch towns were recorded in Edinburgh, Glasgow, and Perth. The deaths from diarrhoea, which had declined from 51 to 25 in the four preceding weeks, further fell last week to 13, a number only one-fourth of that recorded in the corresponding week of last year; 7 occurred in Glasgow. The 9 fatal cases of whooping-cough exceeded by 1 the number in the preceding week, and included 7 in Glasgow, and 2 in Edinburgh. The 6 deaths referred to scarlet fever showed a decline of 5 from the number in the previous week, and were all returned in Glasgow. The fatal cases of "fever," which had been 3 and 7 in the two preceding weeks, were 6 last week, of which 2 occurred in Perth. The 3 deaths from diphtheria showed a decline of 3 from the number in the previous week, and included 2 in Edinburgh. The fatal case of small-pox was recorded in Glasgow, and was of a child aged two months. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 2.4 per 1,000, against 2.6 in London. The causes of 65, or 16.3 per cent., of the 400 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending September 5th, the number of deaths registered in the sixteen principal town-districts of Ireland was 339. The average annual death-rate represented by the deaths registered was 20.5 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 20.7; Belfast, 22.4; Cork, 17.5; Drogheda, 29.6; Dublin, 22.2; Dundalk, 17.5; Galway, 3.4; Kilkenny, 16.9; Limerick, 14.8; Lisburn, 9.7; Londonderry, 19.6; Lurgan, 10.3; Newry, 14.0; Sligo, 19.2; Waterford, 30.1; Wexford, 4.3. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.7 per 1,000, the rates varying from 0.0 in Waterford, Galway, Newry, Kilkenny, Drogheda, Wexford, Sligo, Lurgan, and Armagh to 4.8 in Lisburn. Among the 94 deaths in Belfast were 1 from measles, 2 from scarlatina, 1 from typhus, 3 from whooping-cough, 1 from diphtheria, and 8 from diarrhoea; and among the 11 deaths in Londonderry were 2 from enteric fever. In the Dublin Registration District, the deaths registered during the week amounted to 154. Twenty-four deaths from zymotic diseases were registered; they comprised 2 from scarlatina, 3 from whooping-cough, 2 from simple continued and ill-defined fever, 14 from diarrhoea (of which 10 were of children under one year old), etc. Thirty deaths from diseases of the respiratory system (including 17 from bronchitis and 9 from pneumonia) were registered. The deaths of 14 children (including 11 infants under one year old) were ascribed to convulsions. One death was caused by apoplexy, 1 by epilepsy, 6 by other diseases of the brain and nervous system (exclusive of convulsions), and 6 by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 22 deaths, mesenteric disease 5, and cancer 4. One accidental death was registered. In one instance, the cause of death was "uncertified," and in 19 other cases there was "no medical attendant."

In the week ending September 12th, the total number of deaths registered in the sixteen principal town-districts of Ireland was 373. The average annual death-rate represented by the deaths registered was 22.5 per 1,000 of the population. The deaths registered in each of the towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 25.3; Belfast, 25.0; Cork, 16.2; Drogheda, 4.2; Dublin, 25.8; Dundalk, 17.5; Galway, 13.4; Kilkenny, 8.5; Limerick, 21.6; Lisburn, 33.8; Londonderry, 16.0; Lurgan, 15.4; Newry, 28.1; Sligo, 0.0; Waterford, 16.2; Wexford, 8.0. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.7 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Kilkenny, Wexford, Dundalk, Sligo, and Lurgan, to 9.7 in Lisburn; the seven deaths from all causes registered in the last-named district comprising two from measles. Among the 105 deaths in Belfast were 3 from whooping-cough, 3 from enteric fever, and 17 from diarrhoea. In the Dublin registration-district, the deaths registered during the week amounted to 181. Thirty deaths from zymotic diseases were registered in Dublin; they comprised 1 from scarlet fever, 2 from typhus, 2 from whooping-cough, 4 from enteric fever, 17 from diarrhoea (including 11 of children under five years of age), 1 from dysentery, etc. Twenty-four deaths from diseases of the respiratory system were registered; they comprised 16 from bronchitis, and 2 from pneumonia. The deaths of 30 children (including 23 infants under one year old) were ascribed to convulsions. Nine deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 9 by diseases of the circulatory system. Phthisis caused 19 deaths, mesenteric disease 2, and cancer 6. Two accidental deaths were registered. In 32 instances there was "no medical attendant" during the last illness.

In the week ending September 19th, the number of deaths registered in the sixteen principal town-districts of Ireland was 378. The average annual death-rate represented by the deaths registered was 22.8 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 25.8; Belfast, 25.5; Cork, 25.3; Drogheda, 16.9; Dublin, 22.4; Dundalk, 17.5; Galway, 6.7; Kilkenny, 25.4; Limerick, 13.5; Lisburn, 14.5; Londonderry, 35.7; Lurgan, 41.0; Newry, 14.0; Sligo, 24.1; Waterford, 30.1; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.0 per 1,000, the rates varying from 0.0 in Waterford, Galway, Newry, Kilkenny, Wexford, Sligo, and Lurgan, to 10.3 in Armagh; the 5 deaths from all causes registered in the last named district comprising 2 from scarlatina. The 99 deaths from all causes in Belfast comprise 1 from measles, 2 from scarlatina, 3 from whooping-cough, and 6 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 155. Twenty-six deaths from zymotic diseases were registered in Dublin; they comprised 3 from scarlet fever, 3 from whooping-cough, 1 from diphtheria, 2 from simple continued and ill defined fever, 3 from enteric fever, 9 from diarrhoea, etc. Twenty-three deaths from diseases of the respiratory system were registered; they comprised 14 from bronchitis and 4 from pneumonia. The deaths of 11 children under 5 years of age (including 8 infants under 1 year old)

were ascribed to convulsions. Two deaths were caused by apoplexy, 7 by other diseases of the brain and nervous system (exclusive of convulsions), and 4 by diseases of the circulatory system. Phthisis caused 16 deaths, mesenteric disease 7, and cancer 2. One accidental death was registered. In 30 instances there was "no medical attendant" during the last illness.

In the week ending September 26th, the number of deaths registered in the sixteen principal town-districts of Ireland was 341. The average annual death-rate represented by the deaths registered was 20.6 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 15.5; Belfast, 20.0; Cork, 25.3; Drogheda, 16.9; Dublin, 21.7; Dundalk, 13.1; Galway, 23.5; Kilkenny, 12.7; Limerick, 21.6; Lisburn, 38.7; Londonderry, 12.5; Lurgan, 15.4; Newry, 17.6; Sligo, 19.2; Waterford, 11.6; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.6 per 1,000, the rates varying from 0.0 in Limerick, Londonderry, Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, and Lurgan, to 14.5 in Lisburn; the 8 deaths from all causes registered in the last named district comprising 3 more from measles. In the Dublin Registration District, the deaths registered during the week amounted to 149. Eighteen deaths from zymotic diseases were registered in Dublin; they consisted of 2 from measles, 5 from scarlet fever, 1 from whooping-cough, 1 from cerebro-spinal fever, 1 from enteric fever, and 8 from diarrhoea. Twenty-four deaths from diseases of the respiratory system were registered: they comprised 13 from bronchitis, and 8 from pneumonia. The deaths of 17 children under 5 years of age (including 15 infants under 1 year old) were ascribed to convulsions. Three deaths were caused by epilepsy, 1 by apoplexy, 7 by other diseases of the brain and nervous system (exclusive of convulsions), and 8 by diseases of the circulatory system. Phthisis caused 24 deaths, mesenteric disease 2, and tubercular meningitis 5. Two accidental deaths and two cases of suicide were registered. In one instance, the cause of death was "uncertified," and in 18 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending September 5th, that the annual death-rate recently averaged 30.5 per 1,000 in the three principal Indian cities: it was equal to 26.3 in Calcutta, 28.0 in Bombay, and 34.6 in Madras. Cholera caused 26 deaths in Calcutta, and 18 in Bombay; while the mortality from "fever" was excessive in each of the three Indian cities. According to the then most recently received weekly returns, the average annual death-rate per 1,000 persons estimated to be living in twenty of the largest European cities was equal to 24.5, and exceeded by as much as 6.5 per 1,000 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 30.0, and showed a further increase upon the rates recorded in the two preceding weeks; the 523 deaths included 153 from diarrhoeal diseases, 7 from diphtheria, and 7 from typhus and typhoid fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 19.9, and was equal to 16.7 in Copenhagen, 19.2 in Stockholm, and 27.2 in Christiania; diphtheria and croup caused 14 deaths in Christiania, and 2 deaths were referred to scarlet fever in Stockholm. In Paris, the death-rate was 22.0, against 20.6 and 22.1 in the two preceding weeks, and exceeded by as much as 6.2 per 1,000 the rate recorded during the week in London; the 449 deaths included 36 from typhoid fever, 138 from diarrhoeal diseases, and 15 from diphtheria and croup. The 177 deaths in Brussels, of which 48 resulted from diarrhoeal diseases, were equal to an annual rate of 21.5. In Geneva, the 23 deaths corresponded to an annual rate of 16.8 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 17.3, the highest rate being 19.8 in the Hague; scarlet fever caused 2 deaths in Amsterdam, and 5 in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.8, and ranged from 23.0 and 24.5 in Vienna and Berlin, to 31.4 in Prague and 32.6 in Breslau. The continued prevalence of summer diarrhoea caused the comparatively high death-rates in most of these cities; 159 deaths were referred to this disease in Berlin, 47 in Hamburg, and 55 in Buda-Pesth. Small-pox caused 8 deaths in Vienna, 4 in Prague, and 4 in Buda-Pesth. The death-rate was equal to 27.9 both in Rome and in Turin; 3 deaths were referred to small-pox in each of these cities, and 30 deaths resulted from diarrhoeal diseases in Rome. No returns appear to have been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the recorded death-rate averaged 24.3, and ranged from 21.7 in Baltimore to 26.7 in Philadelphia. Diarrhoeal diseases again showed fatal prevalence in each of the American cities; typhoid fever caused 18 deaths in Philadelphia, and diphtheria 15 deaths in New York.

It appears, from statistics published in the Registrar-General's return for the week ending Saturday, September 12th, that the annual death-rate recently averaged 27.6 per 1,000 in Bombay, and 35.6 in Madras. Cholera caused 8 deaths in Bombay; and the mortality from fever was excessive in both these cities. According to the then most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-one of the largest European cities averaged 23.8, and exceeded by 6.5 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 27.3, and showed a decline from the rate recorded in the preceding week; the 455 deaths included 88 from diarrhoeal diseases, and 7 from typhus and typhoid fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 18.8, ranging from 16.7 in Christiania to 19.5 in Stockholm; diphtheria and croup caused 5 deaths in Christiania, and measles 2 in Stockholm. In Paris, the death-rate was equal to 20.4 per 1,000, showing a further decline from the rates in recent weeks, but exceeding the London rate by 4.8; the deaths included 132 from diarrhoeal diseases, 6 from small-pox, and 25 from typhoid fever. The 194 deaths in Brussels, of which 48 resulted from diarrhoea, gave a rate of 23.5. The rate of mortality in Geneva was equal to 23.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 18.3, the highest rate being 20.9 in the Hague, where 3 deaths from whooping-cough were recorded. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.5 per 1,000, and ranged from 22.4 and 23.4 in Vienna and Berlin, to 27.7 in Munich, and 31.5 in Trieste. The fatal cases of diarrhoeal diseases, although showing a general decline, were again excessive in Berlin, Hamburg, and Buda-Pesth; small-pox caused 9 deaths in Vienna, 6 in Buda-Pesth, and 2 in Prague. In three of the largest Italian cities, the death-rate averaged 26.8; it was equal to 22.2 in Turin, 28.9 in Venice, and 31.3 in Rome. Small-pox caused 8 deaths in Venice, and 3 in Rome; in the last-mentioned city, 6 fatal cases of typhoid fever, and 7 of measles, were also recorded. In four of the largest American cities, the mean death-rate was equal to 25.1; the rate ranged from 17.5 in Baltimore to 29.1 in New York.

Diarrhoeal mortality showed an excess in New York and Brooklyn; and typhoid fever caused 16 deaths in Philadelphia, and 6 in Baltimore.

MEDICAL NEWS.

UNIVERSITY OF DURHAM FACULTY OF MEDICINE.—At the recent examination for degrees in Medicine and Surgery, the following candidates satisfied the examiners.

First Examination for the Degree of Bachelor in Medicine (Old Regulations).—*Second-class Honours.*—A. F. G. Codd, St. George's Hospital.

Pass-list, in Alphabetical Order.—E. C. Arnold, St. George's Hospital; C. Averill, M.R.C.S., L.S.A., St. Bartholomew's Hospital; W. C. Brown, College of Medicine, Newcastle-upon-Tyne; E. H. Gibbon, College of Medicine, Newcastle-upon-Tyne; H. E. Haycock, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; A. K. Holt, St. Bartholomew's Hospital; J. A. Mantou, St. Bartholomew's Hospital; A. Miers, Leeds Medical School; I. G. Modlin, College of Medicine, Newcastle-upon-Tyne; J. Norton, Westminster Hospital; G. A. Robinson, London Hospital; C. W. Smeaton, Leeds Medical School; J. A. Smith, Leeds Medical School; C. J. Stanley, King's College; C. W. Steenberg, College of Medicine, Newcastle-upon-Tyne; R. Thompson, Guy's Hospital; W. Thompson, Leeds Medical School.

The following passed in Anatomy, Physiology, and Botany.

J. B. Baker, M.R.C.S., L.R.C.P., Charing Cross Hospital; E. E. S. Coombe, University College; T. Lund, College of Medicine, Newcastle-upon-Tyne; F. J. McArdle, University College, Liverpool; C. W. E. Toller, St. Bartholomew's Hospital.

The following passed in Chemistry.

G. T. Giddings, London Hospital.

First Examination for the Degree of Bachelor in Medicine (New Regulations).—J. S. Walton, College of Medicine, Newcastle-upon-Tyne.

The following passed in Anatomy and Physiology.

A. J. Hopper, College of Medicine, Newcastle-upon-Tyne; E. Jepson, M.R.C.S., L.S.A.

The following passed in Chemistry, Chemical Physics, and Botany.

S. J. Ailden, College of Medicine, Newcastle-upon-Tyne; N. Davis, College of Medicine, Newcastle-upon-Tyne; R. C. De Lacey, College of Medicine, Newcastle-upon-Tyne; L. A. McNabb, College of Medicine, Newcastle-upon-Tyne; G. Metcalfe, College of Medicine, Newcastle-upon-Tyne; H. J. Parry, College of Medicine, Newcastle-upon-Tyne; D. R. Roberts, College of Medicine, Newcastle-upon-Tyne; C. B. Smith, College of Medicine, Newcastle-upon-Tyne.

The following passed in Chemistry and Chemical Physics only.

W. H. Coates; N. Faichnie, University College, London; J. G. Hoyle, St. Bartholomew's Hospital.

Second Examination for the Degree of Bachelor in Medicine (New Regulations).—*Second-class Honours.*—M. M. Bowlan, College of Medicine, Newcastle-upon-Tyne.

Pass-list, in Alphabetical Order.—G. Berwick, College of Medicine, Newcastle-upon-Tyne; E. Bowmaker, College of Medicine, Newcastle-upon-Tyne; J. W. Leech, College of Medicine, Newcastle-upon-Tyne; G. Metcalfe, College of Medicine, Newcastle-upon-Tyne; W. H. G. Williams, College of Medicine, Newcastle-upon-Tyne.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 1st, 1885.

Francis, Alfred George, M.R.C.S., Southchurch, Essex.

Jaynes, Frederick John, M.R.C.S., Worrimington Grange, Gloucestershire.

Oliver, George Henry, M.R.C.S., 73, French Gate, Doncaster.

On the same day, the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,

Ewens, George Francis William, Ealing House, West End, Hammersmith.

MEDICAL VACANCIES.

The following vacancies are announced.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant. Applications by October 17th.

MANCHESTER HOSPITAL FOR CONSUMPTION.—Honorary Physician. Application by October 31st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Resident Clinical Assistant and Registrar. Salary, £70 per annum. Applications by October 10th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Resident Medical Officer. Salary, together with board and rooms in the Hospital, £240 per annum. Applications by October 20th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.

QUEEN'S COLLEGE, Galway.—Professorship of Natural Philosophy. Applications by October 28th.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Salary, £100 per annum. Applications to F. D. Wise.

ROYAL LONDON OPHTHALMIC HOSPITAL, Blomfield Street, Moorfields.—E.C.—House-Surgeon. Applications by October 12th.

ST. ASAPH HOSPITAL.—Medical Officer. Applications by October 28th.

ST. MARY'S HOSPITAL.—Physician-Accoucheur. Applications by October 12th.

ST. OLAVE'S UNION.—Resident Assistant Medical Officer and Dispenser. Applications by October 19th.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Resident Medical Officer. Application by October 13th.

STOCKTON UNION.—Medical Officer and Public Vaccinator.—Applications by October 17th.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Physician. Applications by October 14th.

WEST LONDON HOSPITAL, Hammersmith Road.—House-Physician and House-Surgeon. Applications by October 22nd.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Resident Medical Officer. Salary, £100 per annum. Applications by October 12th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £150, with board, lodging and attendance. Applications by October 26th.

MEDICAL APPOINTMENTS.

ANDERSON, Joseph, M.B. and C.M. Aberd., appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* C. J. Heath, M.R.C.S., L.S.A., resigned.

EMRYS-JONES, A., M.D. Edin., M.R.C.S. Eng., appointed Visiting Ophthalmic Surgeon to the Bolton Infirmary.

GREVES, E. Hyla, M.D., appointed Pathologist to the Royal Infirmary, Liverpool, *vice* A. Creswell Rich, M.B., M.R.C.S., resigned.

HASELL, Edward S., M.R.C.S. Eng., L.S.A., appointed House-Surgeon to the Northern Branch of the Brighton, Hove, and Preston Dispensary.

MAYNARD, Frederick Pursent, M.B. Durh., M.R.C.S., L.R.C.P. Lond., appointed Assistant House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* W. F. Moore, promoted.

MOORE, Walter Francis, M.B. Durh., M.R.C.S., appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* J. Anderson, promoted.

MURPHY, Edmond, L.R.C.S.I., L.K.Q.C.P.I., etc., appointed Medical Officer to the Ballyroan Dispensary District, Queen's County, Ireland, *vice* William Blunden, M.B. Dub., L.R.C.S.I., etc., resigned.

POWELL, J. Harry, M.R.C.S. Lond., L.R.C.P. Edin., appointed House-Surgeon to the Weston-super-Mare Hospital and Dispensary.

THORNBURN, William, M.B., B.S., B.Sc. Lond., appointed Surgical Registrar to the Manchester Royal Infirmary, *vice* Professor A. H. Young.

THORNBURN, William, appointed Surgical Tutor to Owens College, Manchester.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BOOKLESS.—At The Cheviots, Wimbledon, on October 2nd, the wife of J. Pitcairn Bookless, Esq., M.D., of a daughter.

GAIRDNER.—At the College, Glasgow, on October 1st, the wife of Professor Gairdner, M.D., LL.D., of a son.

MARRIAGES.

CORNISH—CLAPHAM.—On October 3rd, at the Parish Church, Uppelme, by the Rev. Henry Bramley, vicar, Charles Henry Cornish, F.R.C.S., of Taunton, to Elizabeth Frances, widow of Samuel Clapham, formerly of Leeds and Victoria.

GODFREY—LITTLE.—On June 30th, 1885, at Christchurch, Georgetown, Demerara, by the Rev. T. J. Moulder, Joseph Edward Godfrey, M.B. and C.M. Edin., to Alice Helena, youngest daughter of George Little, Highbury Place, London.

MEREDITH—GREEN.—On September 15th, at Trinity Church, Boston, U.S.A., by the Rev. Phillips Brooks, assisted by the Rev. William Lawrence, William Appleton Meredith, of Queen Anne Street, London, to Caroline Sargent, daughter of Henry A. Green, Esq., of Boston.

DEATH.

MARTIN.—On October 1st, at Kingsgate Road, Kilburn, N.W., John Martin, L.R.C.P. Ed., L.S.A. Lond., and L.F.P.S. Glas., aged 65, formerly of Liverpool.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—British Gynecological Society. Specimens by Dr. Fancourt Barnes, Mr. Reeves, and others. Dr. Jamieson: Ruptured Perinaum. Dr. Heywood Smith: Hernia of the Ovary.—Royal Microscopical Society, 8 P.M. Dr. Maddox: On the Feeding of Insects with Bacilli. Mr. T. B. Rosseter: On the Gizzard of the Larvæ of *Cerethia plumicornis*.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. A. Q. Silcock: 1. Case of Iodic Purpura; 2. Specimen of Pyo-salpinx. Dr. W. B. Cheadle: The Treatment of Chorea.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living and Card Specimens at 8 P.M. Mr. W. Lang: 1. Detached Retina in Yellow Spot Region reshown; 2. Pemphigus of Conjunctiva. Mr. Spencer Watson: Granular Lids and Vascular Cornea treated by Peritomy. Dr. J. B. Lawford: Tuberculosis of Choroid. Mr. G. Anderson Critchett: A Case of Orbital Cellulitis. Dr. W. A. McKeown: Intracapsular Injection of Water in Cataract-Extraction. Mr. Walter H. Jessop: On a Case exhibiting Definite Movements of the Pupils with the Action of the Extrinsic Muscles of the Eye. Mr. E. Nettleship: A Case of Fatal Meningitis after Excision of the Eyeball. Mr. Simeon Snell: Foreign Bodies in the Back Part of the Eye, with Preservation of Sight.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY...St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.,; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CUCAINE IN DENTAL SURGERY.

SIR,—In your "Therapeutic Memoranda," there appear, from time to time, instances of the value of cocaine as a local anæsthetic. May I testify, from personal experience, to its value in dental surgery? For the last few days, I have suffered intense pain from a lacerated and tender gum, in consequence of a tooth being broken during extraction. This nothing relieved till I got a four per cent. solution of cocaine, and with a camel's-hair brush painted it thoroughly along the torn surface, with the result that, in ten minutes, almost complete anæsthesia was produced, which lasted from one and a half to two hours. I think dentists with advantage might apply such a solution to the gums of patients after the extraction or breaking of a tooth, which, with the help of nitrous oxide, might enable them to believe that there really exists such a thing as painless dentistry.

I may also state that, in March last, I used a two per cent. solution of cocaine in an aggravated case of scarlet fever sore-throat, where there was severe spasm causing dangerous dyspnoea, with the result that, half an hour after its application, the patient expressed herself free from pain, and shortly afterwards fell asleep, the first time for three nights.—I am, yours truly,

ALLEN THOMSON SLOAN, M.D.

THE INFLUENCE OF DIET UPON CANCER.

SIR,—That diet has some influence upon the production of cancer is now generally believed. Since Moore first drew attention to the matter, in 1865, whilst discussing the question of the increase of cancerous disease, confirmatory evidence—partly comparative, partly direct—has been produced by several observers. But, in the case of the human subject, an inquiry intended to elicit evidence upon this point is open to certain objections if it is simply limited to the statement of the habits of a person in the matter of eating. For, undeniably, a "large eater" and a "small eater" are only relative terms. Women are universally small eaters; and, whilst full-bloodedness amongst them is quite the exception, they do not generally exhibit an undervalued condition. Ladies, as is well known, are averse to eating much, because they are averse to placing themselves in the position of imperilling their "figures" by growing stout. In the case of men, a different state of things prevails. Men often eat largely without necessarily manifesting any trace of their eating habits. Their business-occupations enable them to throw off any ulterior effects which full living might be supposed to induce. Consequently, although eating largely, they cannot be said either to eat to excess, or to suffer from the food they consume. But a small-eating woman, by leading a life of ease and indolence, might suffer as much from the penalty of good living as a man who ate to excess. Still, inasmuch as it is impossible to assert that food and feeding occupies more than a subordinate position in the category of mundane attractions made accessible for women by nature, it is conceivable that diet has less opportunity of influencing the production of cancer in women than in men. Now, if the terms "large eater" and "small eater" are only relative, as they obviously must be, how can the question of diet in this relation be determined? By using the term *plethoric*, which is descriptive of a condition exhibited or not by the patient at the time of examination. If *plethoric*, then the diet, whatever its nature, has been in excess of the person's requirements. If not *plethoric*, the patient could scarcely be accused of free living, even although the presumption would be in this direction, when further inquiry elicited the fact that good living was the rule. There is little known as yet of the connection between diet and cancer; but, as a matter of opinion, I am chiefly disposed to believe that the influence of diet upon cancerous disease is chiefly centred about those persons whose practice throughout life has been to live freely, whose *plethora* has always been a positive quantity, and whose cancer becomes developed in one of those organs immediately concerned in actively disposing of the surcharge of food ingested.—Yours, etc.,

H. PERCY DUNN.

APHASIA, FOLLOWING CONVULSIONS IN A CHILD.

SIR,—N. M., a little girl, aged 2 years and 4 months, who had had a rather troublesome teething-time, with irregular febrile attacks, irregular bowels, mostly constipated, spasm of the glottis, and an acute erythematous eruption, was taken ill five years ago, while sitting in the harvest-field under a burning hot sun, and, on being removed home, had a severe attack of convulsions, lasting from the afternoon during the whole of the night and into the following forenoon. In the evening, however, when I saw her again, she was quite conscious and even cheerful, and sitting up in bed. She was slightly feverish for some few days, but was able to be out of bed. On the third or fourth day after the convulsions, she began gradually to fail in power of speech, losing it completely, even to the extent of aphemia, in a day or two. This symptom was associated with partial hemiplegia on the right side, and dragging of the right foot. If set down on the floor, the child was unable to raise herself up without assistance. This was followed by marked choreiform movements of the right hand, with inability to grasp anything for more than a moment. All the symptoms continued more or less for six weeks, during which time she was otherwise well, having a fair appetite, and playing about as best she could; and at the end of this period, her speech gradually returned; and, although she remained slightly "backward" in intelligence for a year or two, she has been in excellent health ever since.

The treatment adopted was iodide and bromide of potassium, with rhubarb and soda mixture, an occasional calomel or grey powder, and slight counterirritation behind the ears. Syrup of iodide of iron was given during convalescence.

Considering her previous history, it was dreaded, at an acute form of a meningitis that had hitherto been latent. This was rendered doubtful, from the facts that she had never complained of her head, not even immediately before being seized with the convulsions, which were general and not unilateral; that there was scarcely any sickness, and that the bowels were relaxed; and that the head was not hot.

Exposure to the sun would no doubt be a potent factor in producing most of these transitory phenomena.—Yours faithfully,

B. S.

HEREDITARY COLOBOMA IRIDIS.

SIR,—The letter from Mr. Noble Smith, which appears in the BRITISH MEDICAL JOURNAL for October 3rd, has reminded me of a case, which came under my observation a short time ago. Whilst in attendance upon a woman (whom I will call Mrs. T.), I observed that apparently double iridectomy had been skillfully performed, in each case vertically downwards. On inquiry, she informed me, however, that she had never been operated upon, her sight having been always quite good. All her children, of which she had several of both sexes, were free from the peculiarity. Not very long after this, I noticed a similar condition in another woman (Mrs. C.), living some few miles from Mrs. T., though in her case vision was defective, and there was marked strabismus in addition. (I am sorry I have not further notes on these two heads.) She also was blessed with a family, but, in this instance, the youngest child (a girl, and the only girl) had a similar condition of iris, but only on the left side. I subsequently ascertained that Mrs. C. was elder sister to Mrs. T. In the case of the parents of the two married sisters, I was informed the eyes were natural. (The father's eyes were described as having been always weak, but I inferred, from the account given, that there had been some imperfection of the lachrymal apparatus and nothing more.) Of the children (three in number), the eldest, a son, was normal; the second (a daughter, Mrs. C.), had double coloboma, defective vision, and strabismus, and of her family the boys' eyes were normal and the youngest child and only girl was affected on the left side only; whilst the third (Mrs. T.) had good vision, though presenting the peculiarity in both eyes, and gave birth to sons and daughters whose eyes were in every respect normal.—Believe me, etc.,

R. J. K.

TRANSFIXION OF THE SCROTUM.

SIR,—The accident which I briefly record is so unique, that I offer no apology for sending it to your columns.

Eight days ago, I was called to see J. C., a farm-steward. He had finished the building of a corn-stack, against which had been rudely placed a pitchfork, with the wooden handle uppermost. The shaft, which was of ash, and measuring about one inch and a quarter in diameter, entered his scrotum close to the perineum, passed upwards, and emerged on the dorsal surface, close to the penis, extruding the right testicle partially, and the left completely. No help being at hand, the poor man pluckily seized the scrotum in his left hand, and with his right withdrew the fork-handle, which had transfixed him to the extent of two and a half feet. This operation, he says, was attended with much pain. He thereafter walked home, a distance of thirty or forty yards, supporting his injured scrotum and displaced testicles.

About an hour elapsed before I saw him, and I was much struck with the disparity between the injury and the constitutional effects; the only complaint was slight nausea. I washed the testicles in a weak boracic lotion, and then restored them to their normal sites. I stitched up both wounds in the scrotum with carbolised silk, and applied a compress of boracic lint squeezed out of hot water, which has been the only dressing.

Strange to say, no rise in pulse or temperature has ever taken place, and I am sufficiently optimistic to believe that, in spite of the formidable nature of the injury, my patient (naturally a hale, plucky man) is now on the high road to complete recovery.—I am, etc.,

ALEXANDER FERGUSON, M.D., F.R.C.S.E.

Tweedbrae House, Peebles.

WINTER HOLIDAYS.

SIR,—In the JOURNALS for September 26th and October 3rd, mention is made of the difficulty invalids experience in selecting a suitable winter-residence. Perhaps a few words of advice from a medical man, who has made many voyages in the Mediterranean, Atlantic, and Indian Oceans, may be useful to those who must soon make up their minds to go somewhere. Chiefly let me speak to those who intend to seek for health upon the bosom of the ocean. I would say to these, avoid the Mediterranean; the air, though certainly soft, and, for the most part, warm, wholly lacks the fresh crispness of the Atlantic. Again, there are few ports in this tideless sea where one may not pick up a typho-malarial fever; the ancient cloacæ have for ages discharged their contents into the Mediterranean harbours, and a walk on the deck of a ship at anchor is often far from refreshing.

To the invalid whose sole pursuit is health, I can strongly recommend a certain part of the Atlantic, in which I have regularly cruised during two winters and the early part of one summer. Draw a line from the *Beak of Lisbon* southward, and also include the Azores; then, continuing south of the Cape de Verde and Teneriffe, and widely avoiding the West Coast of Africa, terminate the line at Ceuta, opposite Gibraltar. Let us see what we have in our net. First, Lisbon and the noble Tagus, a rapidly flowing tidal river. Why not also take in Oporto, but a little to the north? We have St. Mary's in Spain, and Gibraltar. At the latter, anchor far out, and fresh balmy air can be enjoyed. But, alas! all Spanish and Portuguese ports will be avoided for some time, through fear of cholera. The North Coast of Africa, Ceuta, possesses a delightful winter climate. Finally, we have the lovely Atlantic Isles; and truly there are few more lovely sights in the world than Funchal, Madeira, as seen from the deck of a ship. Teneriffe is striking, grand, and singular, and the climate excellent. The anchorage off both these islands cannot always be depended upon; but the Azores have a good harbour, a good climate, and much beauty. West and north of my pet bit of generally tranquil ocean, the Atlantic is stormy. A long stretch to the south to St. Helena can also be made in a healthy quiet sea. The Cape is stormy. The Indian Ocean wants the freshness of the Atlantic. I have never visited Australasia.

How anyone can propose to themselves a pleasure-voyage under steam, I know not. Sailing is delightful, steaming is prolonged nervous suffering. Auxiliary steam, of low power, is certainly a great addition to a sailing craft, to get her out of either danger or doldrums. I spent 300 days in a fine frigate-built, wooden East Indianman, wholly under sail, Calcutta to Sydhed. We encountered a severe gale off the Cape, but able to carry our hatches open, and enjoy an almost dry deck; the noble craft carried us over everything. I fear our invalids will hardly find many such vessels now-a-days, but have to be content with an iron tank, with steaming apparatus filling up the best central portion.

By those who desire to visit the Mediterranean lands as visitors to their endless wonders, Sir Henry Thompson's remarks upon the care of health in Italy should be carefully perused, and the penalty of a fever, if possible, avoided.—Your obedient servant,

A SURGEON-MAJOR.

ERRATA AND CORRIGENDA.—In the Prize List, University College, Liverpool (JOURNAL, October 3rd, p. 867), the name of Mr. W. E. Livsey should have been added to those of Messrs. Kanthack and Sweeney under "Lyons Jones Scholarships." In the article "Removal of a Leech from the Posterior Nares," in the JOURNAL, of June 27th, p. 1296, for "Hirudo Tazalla" read "Hirudo Tagalla or Ceylonica"; and on p. 1247, for "Selawzor" read "Sclangor."

LIBRA. The article on Mal del Pinto appeared in the JOURNAL for November 4th, 1882.

THE PICRIC ACID TEST.

SIR,—A short time since, I came across a little note in Messrs. Fletcher's *Memorabilia* to the effect that picric acid to be used in testing for sugar should not give a red colour when a saturated solution is boiled with half its volume of liquor potasse. I accordingly tested the picric acid I had been using in this way, and found that it did give a rather deep red colour when boiled with liquor potasse. Previously to this I had made a practice, as a matter of curiosity, of boiling every sample of urine that I tested with picric acid and liquor potasse, and was almost driven to the conclusion that sugar in traces was a normal constituent of healthy urine. As I am not aware that in any of the communications on the subject of picric acid as a test for urine, this impurity has been spoken of, I think it well to place it before the profession, in order to prevent others from being misled as I was.—Yours faithfully,
2, Lawn Terrace, Dawlish. A. DE W. BAKER, L.R.C.P. Lond., M.R.C.S.E.

PAIN IN THE THIGH IN SPINAL DISEASE.

SIR,—May I ask, through the JOURNAL, the advice of my brother members on the following point? How best can relief be given to pain and contraction of the extensor muscles of the thigh, arising from pressure on the cord by a gradually bending spinal column? It is believed that the bodies of the vertebrae are united by bone, and that the intercostal spaces are gradually being obliterated. The patient can walk about; he suffers most at night. The case is rendered more difficult to treat by the presence of chronic eczema of the whole surface (almost), so that only the mildest topical medication can be used. The continuous current has been tried.—Yours truly,
M.D.

MICROPTHALMOS.

SIR,—The following case of this defect of development is perhaps worth placing on record. The child, a female, is 7 weeks old, and is fairly well developed. She was born with two teeth. For the first two days the eyeballs could not be seen in consequence of closure of the eyelids, and when the child was able to open them, it was observed that the eyes were preternaturally small. The eyeballs are proportionally diminished, the right being smaller than the left. There is slight coloboma of the left iris, but the pupil responds to light. The pupil of the right eye is only a small irregular opening. The cornea of the left eye is quite transparent, but that of the right is slightly opaque. On the left side the appearance is exactly that of a miniature eye with all the parts perfect. I have not been able to examine the fundus, so cannot say in what condition it is. The parents are healthy, and have another child, a fine well developed boy, four years old; his eyes are free from disease or defect. The mother ascribes the unfortunate condition of her second child to a fright when she was three months pregnant, caused by seeing a dead child with the eyes not closed.—I am, etc.,
WILLIAM KETCHEN, M.D., F.R.C.S. Ed.
Surgeon to the North Riding Infirmary, Middlesbrough.

PRACTICE IN AUSTRALIA.

SIR,—I have to-day seen the letter of "Verbum Sap." in your issue of June 20th. With regard to Sydney, where I spent nearly a fortnight, I have no hesitation in saying that there are as many medical men in Macquarie and Liverpool Streets as there are in Harley Street and surrounding neighbourhood, with this disadvantage, that the consultation-fee is 10s. 6d. instead of £1 1s. to £2 2s.; and the still further disadvantage that many of them are only too glad to accept club-practice. At Surrey Hills, a suburb of Sydney, there was a medical man who started a dispensary, visit and medicine, 2s. 6d. I am unacquainted with the country districts of New South Wales, but I hold in my hand a letter from a friend who has been practising there for the past two years, in which he says, "Do you want my opinion of Australian practice? I say this, and mean it; if I had not created ties here, I would not stop a day longer in the colony." Another friend left Victoria, and bought a large practice in a country town, one of the best in New South Wales. The work was so heavy that he took in a partner, but both of them had to retire in less than eighteen months. There was plenty of labour, but no remuneration. The successive droughts impoverish the people.

I will now speak of Victoria, which is the wealthiest and most populous, considering its size, of all the Australian colonies, and through which I have been travelling, by road, for the past six months, so that I have been pretty high through the length and breadth of the land. I only regret my inability to refer to individuals and places by name, but for manifest reasons I am unable to do so.

Your correspondent will probably agree with me that the appearance of prosperity is not always consistent with prosperity, and especially is this the case when it refers to medical men. I am at a loss to understand how one gentleman offers his creditors a composition of a shilling in the pound, and yet another young gentleman, only lately out from home, whose plate has not been up a twelve-month in Melbourne, is doing £2,000 a year, and this information is supplied to me on very good authority; but the former I know to be a fact, whereas, the latter, one must be very credulous to believe; the addition of a nought or two makes a world of difference.

I have myself seen young medical men out here keep their "buggy" within six months after starting. This has naturally been interpreted by the outside world to mean prosperity, but I know it to be one of the little devices resorted to by my brethren to deceive the uninitiated. Bank-managers know something about these matters. It is often a case of "swim or sink," and colonials are very fond of show and dash. There are men to be found in every large town who are doing exceedingly well, but the same may be said of those at home. I have seized the opportunity afforded me by travelling, of calling upon medical men, but have not come upon one who is making more than £500. Only the other day I heard of a practice of a £1,000, and called upon the happy possessor of it, who was desirous to retire on my behalf, as he was getting into advanced years, and was an invalid, but he assured me that he had never made £500. There is a living to be made for anyone not objecting to ride thirty miles to a patient, and to keep two horses.

I have frequently been requested by persons to stay and practice in a place, but have never seen my way to making more than a bare living. I have spoken to medical men in the country, who have been practising for the past twenty or twenty-five years, about these £1,000 a year practices, but they have invariably smiled, and one made the appropriate remark that the day was not far distant when a medical man would be glad to go behind the desk for a living.

At Shepparton, a town of 1,500 inhabitants, the only medical man there died a few months ago, but the vacancy has been filled up by three newcomers. At Enwa, population 700, there was the greatest difficulty, eighteen months ago, to

get a medical man to go there at all, even under a guarantee, whereas, now, there are two. I would mention that, besides the town-population, there is the district to be considered, and this varies greatly according to whether it is a pastoral or agricultural one. At Ballarat there are more medical men to-day than there were when the population was greater by 1,500. Several medical men have, of late years, made the attempt to establish themselves there, but have failed. At Sandhurst, the third town of importance in this colony, no less than three or four medical men have, within the last eighteen months, left. I do not suppose there is a town but what has got one or two fresh arrivals.

For the appointment of quarantine-officer at Queenscliff, near Melbourne, lately vacated, there were seven applicants, salary £400, no private practice. In the small towns, the medical man in charge of the hospital does the leading practice; then, after the clubs have fallen into the hands of a second practitioner, there must be but little for a third man. I say small towns because there are but three large ones besides Melbourne. I know no country where men are more on the move than here; I suppose with a view to improving their position. Every foreign degree is registerable, so it is, in very truth, a refuge for the destitute.

The curse of the country are the clubs, to which storekeepers, and even wealthy people, belong, the remuneration being about 15s. per family per annum, less in Sydney; no dispensing. In Sandhurst, however, several have amalgamated, and pay 10s. per family; midwifery, £2 2s.; but in Sydney it is as low as £1 1s. About half a medical man's receipts are obtained probably from clubs, so the work done is no easy matter. Would it amount to 1s. 6d. per visit? Club-practice is not the same as at home, for the mechanic here is a man of great importance, and will demand your most assiduous attention. The *Argus* generally contains an advertisement from a place or club in want of a medical man, which strikes a new arrival, but a knowledge of the locality shows the absurdity of it. People are fond of trying to get one medical man to compete against another when there is but a living for one. Practices are now often bought and sold with perhaps a month's introduction, or less; but if the law on this continent is similar to what it is in New Zealand, it is a most risky investment, for there is nothing to prevent the vendor returning and starting afresh, your only remedy being to sue for the amount of the penalty, which is very satisfactory if there is no money to be got out of the individual. Such a case was reported in the *Medical Australasian Gazette* for, I think, April or May of this year.

There are openings in the country for bachelors who think £300 will repay them for keeping one or two horses, and do not object to ride twenty miles or so to a patient; but I do not think they would ever get beyond that sum. Married gentlemen making £500 a year, I would advise to stay where they are, for this is no country for an English lady to live in, except it be in one of the large towns.

Prices in Melbourne are about as follows. A house, with four small rooms, and small yard, £1 per week; general servant, 13s.; groom, £1, with board; mutton, about 4d. per pound; beef more expensive; milk, 6d. per quart; vegetables dear, especially so in summer. The cheapness of meat is somewhat lost by the fact that your servants insist upon having it at every meal, and will often refuse to eat it cold. Clothing is considerably dearer. New Zealand is a cheaper country, but I do not believe there are any openings there, one gentleman having made his practice by charging 1s. 6d. per visit, with medicine. All medical men make enormous bad debts; one in New Zealand telling me his have been upwards of £500 per annum for the past three years.

A brother of mine, who spent two months in Sydney, writing from New Zealand, says, "If you are waiting to see an opening, you will find none; you will not find ground to rest the sole of your foot on." I have spoken of Sydney as it was six months ago, but I know several new arrivals have since settled there. In the suburbs of Melbourne you will see quite as many red lamps as in those of London, but you will also see a medical man's name painted in enormously large letters on the side of the house, so that it can be read from a considerable distance. In the country towns, the medical men average about 1 per 1,000 of the inhabitants.

The following extract is from a letter just received from a gentleman in large practice in Melbourne, and who was formerly in the country. "I question if any country practices, except a few, are really worth very much; certainly not of the value they are usually represented." This was in reply with reference to a practice about which I had written, knowing that he had a practical knowledge of the locality, and is not one to which I have before alluded.

If any of your readers will get the official pamphlet on Queensland, the youngest colony, and calculate the number of professional men to the population, I think they will conclude that there can be no opening there. My disinterestedness may not be patent to "Verbum Sap.," but I think it will be to most of your readers when I say that I am to-day without a practice, though desirous of obtaining one.

I could mention the names of four or five medical men who, after practising for two or three years, have returned to England. They lived in towns I have visited, and did not sell because I suppose they had nothing much to dispose of. Doubtless there are a good number at home.—Yours truly, A MEMBER.

THE BRADLEY FUND.

SIR,—Please acknowledge the following contributions in the next issue of your JOURNAL. And as it has been decided to close the subscription-list on Monday, October 20th, I shall be glad if those gentlemen who have not already paid their subscriptions would kindly forward me their cheques as soon as convenient.—I remain, yours faithfully,
Eastwood House, Chesterfield. RICHARD JEFFREYS.

	£	s.	d.
Mr. Alfred Willett, 36, Wimpole Street, W.	..	2	0
Mr. Malcolm M. McHardy, 5, Savile Row, W.	..	2	0
Dr. G. C. Dale, Ivy Lodge, Upper Tooting, S.W.	..	1	0
Mr. Matthew Hallwright, Edgbaston	..	1	0
Dr. Arthur W. Orwin, 15, Weymouth Street, S.W. (second donation)	..	1	0

BRITISH MEDICAL BENEVOLENT FUND.

THE Hon. Dr. Beane, of Melbourne, who is now in this country, has made a third donation of £100 to this charity.

MEMBER B. M. A.—Apply to the Secretary, Queen Charlotte's Lying-in Hospital, Marylebone Road, London, N.W., where medical pupils are received. An application must also be made to the secretary or dean of any of the metropolitan medical schools, but the special hospital will best meet your requirements. The only registrable English licence has fallen into abeyance for certain reasons.

IMPEDIMENTS TO UTERINE ACTION.

Sir,—As "trifles make the sum of life," so in obstetrics, attention to trifles saves much time, and therefore conduces much to the safety of the patient. This must be my apology for bringing before the profession what is possibly well known to many of its members. I have frequently observed in my practice that a common cause of failure of uterine action in the second stage of labour, is the ponding back of the liquor amnii behind the child, so that the uterus cannot contract properly on the surface of the body, and from which it is separated by a layer of fluid. To remedy this, it is my practice, after rupturing the membranes, which I always do in multipara, as soon as ever the os is fully dilated, to introduce a gum-elastic catheter under the head into the uterus, and to leave it there until the head is well down on the perineum, when it should be withdrawn. The catheter then introduced serves the purpose of draining off the superfluity of liquor amnii, and it also acts as an additional stimulus to uterine action, besides which, by attaching to it a long piece of India-rubber tubing carried to a vessel at the bedside, the patient may be saved much wetting of the bedding, etc. It is almost needless to state that the catheter should not be used for other purposes, and should be well washed in antiseptic fluid as soon as possible after use. Another troublesome complication of labour which I have frequently come across, but which is not, I think, mentioned in many of the text-books, is the condition called pendulous belly. This mostly occurs in women who have had large families, or are debilitated from some other cause. In it, owing to laxity of the abdominal walls, and consequent want of support to the uterus, that organ becomes more or less acutely anteflexed. Consequently, at the time of labour, the child's head is further forward than it should be, and instead of descending into the pelvis it remained impacted against the symphysis pubis. In this condition uterine action is often violent but futile. To remedy it, the patient should be got into bed as soon as seen, placed on her back, and the binder tightly applied, and tightened from time to time as the child descends. If the condition be detected early in pregnancy, an abdominal belt should be worn during that period.—Yours faithfully,

A. DE W. BAKER, L.R.C.P. Lond., M.R.C.S.E.

2, Lawn Terrace, Dawlish.

SERIOUS ACCIDENTS DURING COITUS.

Dr. ZEISS, of Erfurt, mentions, in the *Gynäkolog. Centralblatt*, two instances which have come under his notice of serious accidents occurring during coitus. The first was that of a newly married young woman, who, after the first connection, suffered from such serious hemorrhage that, as cold sponging and washing did not arrest it, Dr. Zeiss was called in on the following afternoon. He found the patient faint, almost pulseless, and covered all over with a cold sweat. A quantity of blood and clots had to be removed before he could make an examination. He then saw two lacerations in the hymen, and from the deeper of these, a vessel, out of the ruptured end of which a continuous stream of blood was flowing. Digital compression against the bone not proving efficacious, he put in a stitch, which was left in for three days. The patient slowly recovered her strength under tonics. Neither she nor any of her family had the hemorrhagic diathesis. The other case was that of a married woman, aged 25, who had been delivered with forceps, but had done well and begun to attend to her household duties on the ninth day. At this time coitus took place, apparently in the genu-pectoral position. The woman suddenly felt a sharp pain and a considerable quantity of blood flowed from the vulva. Medical assistance was obtained, and cold disinfecting injections used, which arrested the hemorrhage. When Dr. Zeiss saw her, he found a rent an inch and a half long on the right side of the upper part of the vagina, with jagged and gaping edges. This was treated successfully with iodoform-powder, and the vagina plugged with iodoform gauze.

THE CONNECTION BETWEEN QUINSY AND RHEUMATISM.

Sir, With all respect for Mr. Green's opinion, I would remark that the Collective Investigation Committee, in their report on Rheumatism, came to the conclusion that no certain connection between quinsy and rheumatism could be made out. Moreover, quinsy is essentially connected with adolescence and a strumous habit, and if Mr. Green will take care to inquire, he will be able to make out in almost every case, previous muscular or mental exhaustion. In young boys at school I believe masturbation is a frequent cause, and in after-years excessive sexual indulgence. Of course, I believe that a weak state of health renders one susceptible to take rheumatism. Since writing the above, I have seen a person who is frequently subject to quinsy, and she assures me she has never had so much as rheumatic pains. The attacks have always come on after extra fatigue. There are two points worthy of note, and they are, a second attack rarely follows except after some months' interval, no matter what the exposure. Laryngitis is a very rare accompaniment, contrary to what would be the case were tonsillitis the direct result of cold.—I am, sir, your obedient servant,

Claremont Road, Surbiton.

F. P. ATKINSON.

"A FLEABITE."

Sir,—I shall be glad if some member or members will kindly explain the following case. A patient of mine, a barrister, and of good physique and constitution, suffers in a remarkable, and to me a unique, manner, from the bites of fleas. He feels no pain at the time the bite is inflicted, and it is generally about twelve hours before the lesion is complete, when it shows itself in the form of a livid and almost purpuric mark, varying from half an inch to an inch in length, and nearly the eighth of an inch in breadth. From the above-named time considerable pain of a burning character is felt, and this lasts for two or three days. If the bites are on the inner and palmar aspect of the wrist, vesicles are formed within twenty-four hours, and if in the neighbourhood of the groin, the inguinal glands become slightly enlarged and decidedly painful. As far as I am able to judge, there is no hemorrhagic diathesis on the part of the patient, but I am informed that his little nephew suffers very similarly. Fleabites, as we all know, are proverbially unimportant, but in the case I have described they are a real grievance, and I therefore venture to ask the advice of more experienced gentlemen than myself.—I am, sir, yours faithfully,

ASSOCIATE.

MEDICAL ETIQUETTE.

Sir,—I think it is grossly inconsistent, as well as unfair, to the general practitioner, for a man who puts Physician as well as Surgeon on his door-plate, to receive half-a-crown and five shilling fees and retain club appointments.—I remain, yours obediently,

GENERAL PRACTITIONER.

* Physician and Surgeon means L.R.C.P. and M.R.C.S., which are the ordinary qualifications of a general practitioner.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Ward Cousins, Southsea; Mr. Anderson, Preston; Mr. H. Handford, Nottingham; Mr. C. Grimsly, St. Asaph; Mr. W. E. Livsey, Liverpool; Mr. J. Arthur, Henley-in-Arden; Dr. H. Smith, London; Mr. W. Thorburn, Manchester; Mr. J. St. M. Thomson, Dalkeith; Mr. J. Hamilton, Glasgow; Mr. J. O'Sullivan, Kilkenny; Mr. S. F. Murphy, London; Messrs. J. H. Peck and Co., Wigan; Mr. W. R. Parker, London; Mr. Keetley, London; Mr. W. W. Millard, Edinburgh; Mr. J. E. Lane, London; Mr. E. Murphy, Ballyroan; Mr. A. Teevan, Melbourne; Dr. Lowther, Grange-over-Sands; Dr. Sidney Davies, Cairo; Mr. H. Byles, Eccleshill; Mr. R. J. Kerby, Charing, Kent; Dr. C. Roberts, London; Dr. P. Cowen, London; Our Liverpool Correspondent; Mr. J. W. Hunt, London; Mr. Christopher Heath, London; Dr. Anderson, Glasgow; The Secretary of the British Gynecological Society, London; Dr. J. A. Lindsay, Belfast; Dr. A. Emrys-Jones, Manchester; Dr. A. W. Sinclair, Selangor, Malay Native States; Dr. Joseph Rogers, London; Dr. Ketchen, Middlesbrough; Mr. J. E. Godfrey, Demerara; Mr. F. P. Atkinson, Surbiton; Mr. H. H. Tomkins, Gloucester; Mr. J. Warnock, Edinburgh; Dr. Maxwell, Woolwich; Mr. H. Boyle Runnalls, Saltash; Dr. Wyckoff, Brooklyn, New York; Mr. A. de W. Baker, Dawlish; Mr. S. Bingham, South Petherton; Mr. H. Greenway, Plymouth; Mr. J. Eaton, Cleator Moor; Dr. de Burgh Birch, Leeds; Mr. T. Holmes, London; Professor J. W. R. Tilanus, Amsterdam; Mr. A. J. Lee, London; Mr. A. S. Coleman, Leicester; Mr. J. Patterson, Ramelton, co. Donegal; Dr. R. H. Fox, London; Dr. W. A. Bralley, London; Mr. R. Roseburgh, Weston-super-Mare; Mr. T. L. Hall, Leominster; Dr. S. Thomson, London; Dr. T. R. Fraser, Edinburgh; Miss E. Hooley, Coldham; Dr. Walford, Reading; Mr. F. Hall, Bury, Lancaster; Mr. C. H. Bishop, London; Dr. Rencoul, Liverpool; Our Cairo Correspondent; Our Berlin Correspondent; Our Paris Correspondent; Our Edinburgh Correspondent; The Secretary of the British Medical Benevolent Fund, London; Mr. W. A. Meredith, London; Mr. R. Jeffreys, Chesterfield; Mr. F. Dodgson, Cockermouth; Mr. D. A. Davis, Swansea; Dr. Bradbury, Cambridge; Dr. Maywall, Woolwich; Mr. B. Strachan, Sunderland; Dr. J. Tatham, Salford; Mr. W. Whitehead, Manchester; Our Glasgow Correspondent; Mr. R. A. Rawlins, London; Dr. Walford, Reading; Mr. J. Gould, Hatterleigh; Mr. E. S. Hasall, Islworth; Dr. Styrap, Shrewsbury; Mr. H. G. Clark, Glasgow; Mr. A. Priehard, Clifton; Mr. J. West, London; Dr. M. Hay, Aberdeen; Dr. J. Williams, Sheffield; Mr. A. R. Davis, Hythe; Dr. A. Thomson Sloan, Edinburgh; Mr. W. T. D. Caldwell, London; Dr. W. J. Mickle, London; Mr. C. H. Bishop, London; Mr. F. P. Atkinson, Kingston-on-Thames; Anxious; Messrs. Bowley and Draper, Dublin; Mr. T. Jenner Verrall, Brighton; Mr. H. B. Sellers, Rochdale; Mr. T. W. Newsholme, Sheffield; Dr. E. F. Neve, Edinburgh; Dr. Thudichum, London; Mr. L. F. Hill, London; Dr. Asher, London; Dr. D. M. Sergeant, London; Dr. F. M. Blackwood, Chester-le-Street; Mr. A. Johnston, Ambleside; Mr. W. Donovan, Erdington; Mr. C. Williams, Norwich; Mr. B. C. A. Windle, Birmingham; Mr. S. Morton, Sheffield; Dr. Leslie Phillips, Birmingham; Mr. J. M. Brighes, Forest Hill; Mr. W. P. Biden, Hyères; Mr. W. E. Hacon, Canterbury, New Zealand; Our Aberdeen Correspondent; Our Manchester Correspondent, etc.

BOOKS, etc., RECEIVED.

Pharmacy, Materia Medica, and Therapeutics. By W. Whitla, M.D. London: H. Kenschaw. 1885.
A Guide to the New Pharmacopoeia (1885), Comprising an Epitome of the Changes, and an Account of the New Preparations, their Characters, Uses, Doses, and Modes of Administration, together with a Therapeutical Commentary. By Prosser James, M.D. London: J. and A. Churchill. 1885.
A Summary of New Remedies. By Thomas M. Dolan, M.D. London: Baillière, Tindall, and Cox. 1885.
Diseases of Sedentary Life. By J. Milner Fothergill, M.D. London: Baillière, Tindall, and Cox. 1885.

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A CLINICAL LECTURE

ON

LEAD-POISONING.

By THOMAS OLIVER, M.D., M.R.C.P. Lond.,

Physician to the Infirmary, Newcastle-upon-Tyne, and Lecturer on Practical Physiology, University of Durham College of Medicine.

It is seldom that a physician to a general hospital has so many as five cases of lead-poisoning under his care at one and the same time. Most of you have seen these cases with me in the wards up-stairs, and have heard my remarks upon them at the bedside; but, as one of the cases has terminated fatally, I wish to-day to draw the attention of this class to the general question of lead-poisoning.

In and around Newcastle are several lead-factories, from which we draw most of our cases. It is amongst people who are engaged in its manufacture, or amongst potters, who use it for glazing purposes, that the symptoms of lead-poisoning are chiefly met with, and not, as a rule, amongst those who handle the metallic ore—the lead-miners. In fact, so little is lead-poisoning known amongst lead-miners, that Mr. Montgomery, of Blanchland, who has practised for forty years amongst them, has never met with one case. It is different with the smelters, or those who reduce the ore to pig-lead. From time to time, of course, symptoms of accidental lead-poisoning arise, owing to the employment of contaminated articles of food, and the use of drinking-water (soft in character) which has lain in leaden cisterns or pipes. You have learnt elsewhere how the presence of certain salts—nitrates, nitrites, and chlorides—increases the solvent action of water upon lead; and, on the other hand, how others—chiefly salts of lime, phosphates, carbonates, and sulphates—by becoming encrusted upon the interior of these vessels, prevent the water becoming impregnated with lead. Great reason, therefore, for us exercising care that the drinking-water which reaches the interior of our houses should come direct from the main, and never be stored; and that pipes of galvanised iron should take the place of lead. I know of one gentleman (a clergyman) who suffered from lead-poisoning, as the result of his drinking water daily from the tap attached to a leaden pipe in his garden, where he was wont to say he always found the water coolest and most refreshing. Here be it remarked, the evil effects of lead are not due to the swallowing of large doses, repeated for a short time, but are due rather to the entrance into the system of lead in infinitesimal quantities, regularly and for an extended period.

The subject of my remarks, G. S., aged 33, a lead-refiner from Wear-dale, was admitted under my care on December 9th, 1884, complaining of headache, fits, loss of vision, and epistaxis. In the early part of 1883, the patient had been in the infirmary, under my care, for loss of power in both arms, particularly the wrists. At that time, there was a history of his having had fits ten weeks previously, and, during his residence up-stairs, he had a very severe hæmoptysis, which was never repeated. A loud, rough, systolic *bruit* was detected over the aortic area, followed by an accentuated second sound. The urine had a specific gravity of 1010, and contained a small quantity of albumen. Under the use of iodide of potassium, and the application of electricity, the patient recovered to a very great extent the use of the extensors of each forearm. Returning to Stanhope, he went back to the lead-factory, where he was employed in smelting the ore, and latterly in working a crane. This he continued at until last October. He had been suffering from frontal headache, accompanied at times by vomiting and a dimness of vision, but he still followed his employment. The serious state of his health only dawned upon him when one day, at a pigeon-shooting match, he found that all at once he could not see. He had not had drink, nor could it be said of him that he had ever been intemperate. The loss of sight was only temporary; for he tells us that he followed his employment for a few days after this. His power of seeing gradually decreasing, he relinquished work—a step hastened by attacks of epistaxis, which frequently recurred. Beyond the nature of his employment, there is nothing personal that calls for mention. He never suffered from syphilis; his father died of apoplexy at the age of 56; and he lost one brother nine months ago from lead-poisoning, in whom the symptoms of lead-poisoning were at first “dropped wrist,” and, latterly, symptoms of a cerebral type. At the present time, the patient has five brothers working in the lead-factory. All of them are well. With the exception of the illness which brought

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him to me two years ago, the patient had always enjoyed the best of health.

Towards the end of November, and without any warning, the patient had a fit, epileptiform in character, which rendered him unconscious for some little time; and, on the night before his admission, he had a severe bleeding from the nose, which lasted from 9.30 P.M. until 2.30 A.M. of the following day.

On admission, I found him sallow and cachectic, his cheeks somewhat pendulous, fuller than usual, and expressionless. There was slight paresis of the left cheek; he could depress both angles of the mouth, but had great difficulty in elevating them. When the tongue, which was moist and clean, was protruded, it was noticed that the left angle of the mouth overlapped it more than the right. His teeth in front were fairly good, but were remarkably long, owing to a retracted condition of the gums, which exhibited a blue line. He did not complain of any bad taste in his mouth, but his breath was very foetid. There was no anaesthesia of the skin of the face. The arms were not so plump as they should be for a man of his age. As for his right arm, its muscles were attenuated. He could supinate his hand well enough; but, when it was lying in a prone condition, he could not extend the wrist nor the fingers; paralysis of the extensors was most marked in those of the index and little finger. When asked to extend his fingers, it was noticed that the whole of them were thrown into a state of disordered movement, during which the movements of flexion were seen to overpower his abortive attempts at extension. There was slight anaesthesia and analgesia over the back of the wrist. On the front of the arm, the veins were seen to be unduly distended, especially about the bend of the elbow. Sensation was normal over the arm and upper part of forearm and ball of thumb; while over the front of wrist, palm of hand, and finger-tips, there was diminished sensation to touch and pain. The interosseous spaces on the back of hand were hollowed out, and the phalangeo-metacarpal joints were more prominent than usual; but, neither grating was felt nor pain experienced in them. In the left arm, the appearances were the same as in the right; there was a similar distribution of the loss of muscular power, and of the loss of extension, only not quite so well marked as in the right. His legs were fairly developed. The knee-jerk was normal. The plantar reflex was slightly exaggerated on the right side—but, with that exception, his sense of touch and pain was normal.

Chest.—The apex of the heart was felt beating in a line with the left nipple, and about 2½ inches below it. Over this area was heard a well marked reduplicate first sound, followed by accentuated second sound. On tracing this reduplicate first sound upwards, in an oblique direction to the right, it became a loud rough systolic murmur, heard most particularly over the aortic area, where, too, the second sound was deeply booming in character. In the vessels of the neck the systolic *bruit* was only faintly heard; the second sound was very distinct. Over the apex of the left lung, the inspiratory murmur was interrupted; the expiratory was prolonged. The pulse was 104. The vessels were hard and incompressible.

Eyes.—The border of the right disc was extremely ill-defined; it could not be separated from the adjacent retina. The disc exhibited a peculiar marbled or mottled appearance; vessels could not be traced in their entirety for any distance. Surrounding the vessels could be seen here and there numerous white patches, most marked on the retina. The retina was generally pale, and studded with numerous patches of a glistening white chalky colour; a few of the retinal vessels had ruptured. The border of the left disc could not be defined except inferiorly and internally. Here the disc was atrophied, and extremely pale. Just below the central point of the disc, a few hæmorrhages could be seen. In the retina was a large white field, on which small greyish-white points could be seen. Surrounding the vessels were masses of white exudation. The disc itself was mottled in appearance, and showed traces of hæmorrhage.

On microscopic examination of the blood, the white corpuscles were found to be slightly increased, as many as from eight to ten being seen in the field; they were, if anything, larger than normal, and extremely granular; the red seemed healthy, and formed rouleaux. The number of red corpuscles was diminished; of three enumerations with Gowers' hæmacytometer, there were only found, on an average, 2,636,666 in a cubic millimetre, a little more than half the usual number met with in health.

Urine was passed in small quantity latterly, but on admission as much as three pints daily was passed; it had a specific gravity of 1010; contained about one-eighth of albumen, which gradually increased to about one-third.

As time wore on, a large bulla appeared on the under surface of the tip of the right middle finger; it gradually filled with pus, and was

successfully treated by incision and poulticing. A few days after this, the patient began to complain of great pain in the right foot. This was soon followed by the appearance of a large bulla, about the size of a shilling, on the under surface of the big toe. Its contents at first were serous, afterwards purulent.

From day to day, the patient varied very little; his course was downward from the day of his admission. Sometimes, at our visit, we found him completely blind; at other times, he could not only see us, but could count fingers held up before him. Occasionally taking the place of this blindness, which was temporary, there was deafness. Frequently, he was delirious, almost maniacal. He would at times keep shouting for people whom he named; would get out of bed, seemingly unconscious of what he was doing, but he was never severely convulsed. His pulse kept high, always 104 to 112. Epistaxis recurred pretty frequently, leaving him weaker and weaker. The fits, though frequent, were minor in character. During his sleep, which was heavy and at times comatose, his breathing was stertorous. Debility gradually increased; dulness on percussion was detected over the base of each lung, and here moist crepitation could be heard. On the evening of January 19th, 1885, I found him sitting by the fire, breathing very heavily and deeply asleep. His pupils were dilated just beyond the normal, and did not react to light. He was unconscious. In a few hours, he regained consciousness, but died during the night, comatose.

A *post mortem* examination was made on the next day, of which the following is an abstract. The lower extremities were oedematous. Both pleural cavities contained serum. The right lung was adherent at the apex; on section, it was almost entirely airless; the upper lobe was oedematous; the left lung was in a similar condition. The heart was very much enlarged; the left ventricle was hypertrophied, its walls being at least three-fourths of an inch in thickness; the right ventricle was normal, both in regard to cavity and to thickness of its walls. The tricuspid orifice admitted four fingers readily, and the mitral orifice three. The aortic valves were very slightly incompetent. The anterior right cusp, on its ventricular aspect, presented just beneath the corpus Arantii a firm elevated body, about the size of half a small orange-pip. The valves were otherwise healthy. There was a slight atheromatous deposit in the wall of the aorta above the valves. The mitral curtains were slightly thickened. Weight of heart, 1 lb. 6½ oz. The liver presented nothing remarkable. The spleen weighed 10½ oz. The capsule of the right kidney was adherent; on removing it, a portion of the cortex was torn away with it; the surface was granular. On section, the cortex was seen to be much diminished, in some places being only a line or two in thickness. The structure was generally firm and fibrous. The organ weighed 5 oz. The left kidney presented similar appearances; it weighed 4½ oz. In both kidneys small cysts were found filled with clear fluid. The vessels at the base of the brain were normal. The substance of the brain on section was seen to be pale, sodden, and oedematous. Beyond this, nothing abnormal was detected.

Sections of the kidney, on microscopic examination, showed a marked increase of stroma, the corpuscles of which had undergone great proliferation. The tubules were here and there almost obliterated; many of them were distorted; some were lined with a layer of small round cells, while others were completely empty or contained heaps of broken down cells. The stroma was generally increased, but in some places the hyperplasia was more marked than at others. Many of the glomeruli appeared healthy, while others had their capsule thickened; others, again, were shrunken and appeared more like small irregularly shaped masses of fibrous tissue than anything else. The walls of the arteries were much thickened; so much was this the case with the smaller vessels, that they looked as if they were occluded. The capsule of the kidney was thickened. Sections of the medulla oblongata, examined microscopically, showed nothing abnormal beyond marked thickening of the small vessels.

REMARKS.—Amongst the earliest symptoms of plumbism which attract our attention, I should feel inclined to place cachexia. Previously to this, there has been experienced by the patient a general feeling of ill-health, and nutrition has not been maintained. An anæmic condition is soon developed, in which the skin acquires a dull earthy hue. To the dull, anæmic, and somewhat listless look, there is frequently added a peculiar fulness of the cheeks, that we are often able, especially in the case of women, to diagnose lead-poisoning when we see the patients in the streets. Many of them are young women. They have the anæmic look of patients who have lost largely of blood, without presenting anything like an uterine facies. On the other hand, the appearance is different from the greenish pale hue of chlorosis. Associated with, or closely consequent upon, this saturnine cachexia, there is generally digestive derangement; constipation, with

colic; the breath is fetid; the tongue foul; the teeth discoloured; the gums retracted, showing an unusual length of teeth, and exhibiting a blue line at the junction of teeth and gum. I have not noticed vomiting as a frequent symptom in lead-poisoning, unless the kidneys have been affected or head-symptoms predominant; nor can I say that I have found the pulse slower than in health, as some assert. It is rather the reverse of this; for, in most of my cases, the pulse has been higher than normal, even when the kidneys have been affected, strange to say. Sooner or later, there is developed paresis of the extensors of the forearm, which gradually deepens into a true paralysis. Many of these muscles undergo atrophy. This condition is due partly to disuse; but, as the atrophy extends to other muscles which are not paralysed, and is of itself at times a symptom of lead-poisoning—its seat being frequently the muscles between the thumb and forefinger—the cause of the atrophy must be something other than want of use of muscle. The extensors of the forearm are the muscles generally and most deeply paralysed, but the loss of power is by no means confined to them. Frequently they are spared, and the muscles of the leg affected, as in one case I have seen, where the peronei are involved. In those cases where "dropped wrist" occurs, the symptoms of lead-poisoning have been as a rule slowly developed. You have this taking place without any marked disturbance of the central nervous system, and with or without the presence of albumen in the urine. Many of these patients have been employed in the lead-factory for years, and only by degrees have they felt their health give way. It is otherwise, however, with some; in not a few—and I refer particularly to young females—symptoms of lead-poisoning are often suddenly developed, a few months of work in a factory being sufficient to call forth the most alarming symptoms—extreme headache, dimness of vision, and fits of an epileptiform character. In these, the urine may or may not be albuminous. Frequently, the optic disc is seen to be the seat of very marked changes. What is of interest in these cases—the most dangerous because they are the most acute—is that the symptoms often come on suddenly, are frequently the first warning that the patient has of being poisoned. Once having suffered in this manner, the patient is thereafter completely disqualified for undertaking further duties in the factory. No medical inspector would allow, if he knew, such a woman to begin work again amongst lead; experience having shown that a renewed brief exposure to the poison is sufficient to bring back the symptoms with tenfold vigour.

Of the eighteen cases of lead-poisoning which have been under my care during the last six years, eight exhibited "dropped wrist," one suffered from right hemiplegia, with aphasia; one from a peculiar tremor of the arm and leg. Dropped wrist was double in seven of the eight cases, and one had ataxia of the arms. Of the remainder, five exhibited cerebral symptoms: one had marked general muscular atrophy; one is suffering from cirrhosis of the liver. In most of the cases, we find that the patient, after having suffered from colic, becomes aware of a gradual loss of power in the muscles of the forearm. This paresis passes into a true paralysis, which shows itself, generally, at first in the extensor communis digitorum, and extends to the other muscles supplied by the musculo-spiral nerve, with the exception of the supinator longus. With this loss of voluntary control, the muscles also lose their faradic contractility; and, according to Duchenne, "the extensor communis digitorum, extensor indicis, extensor minimi digiti, and the extensor secundi internodii, are the first to suffer in their electro-contraction." It is only, however, when the extensores carpi radiales longiores et breviores, and the extensores carpi ulnares are paralysed together, that the wrist drops, and the patient is unable to extend them. Pronation and supination are not, as a rule, interfered with. The loss of voluntary power and electro-contraction is frequently followed by atrophy; and here I would again remind you that these changes may proceed to muscles beyond the forearm. In one of my cases, there was pretty general muscular atrophy. At times, the muscles of the ball of the thumb become affected, and when this is the case, the appearance is not unlike that seen in progressive muscular atrophy. The slow development of progressive muscular atrophy, and the fact that the wasting precedes the loss of the electrical contractility, would help you to distinguish between the two diseases, bearing in mind, however, that a progressive muscular atrophy may be the result of lead-poisoning. As a rule, paralysis from lead-poisoning is double and symmetrical. In only one of my cases was it confined to the muscles of one forearm. Loss of sensation is less commonly met with. In G. S.'s case, there was marked anæsthesia and analgesia over the back and front of the wrist, the palm of the hand, and the finger-tips. I have not seen any mention of tremor as a symptom of lead-poisoning. In one of my cases—a male, kindly sent to me by Dr. Beatley—there is a peculiar shaking

of the left arm and leg. The man has worked for twenty-eight years in a pottery, his duty being to dip the jars into a solution of lead, and place them in the oven. He admits having drunk beer pretty freely, but states that he always enjoyed good health until two years ago. The tremor is very noticeable; beginning in the left thumb, the shaking extends up the arm, throwing the limb into a state of violent tremor, over which he has no control. It is not a painful shaking, nor does it altogether prevent him following his occupation, though he says it is very detrimental to him. It is only within the last six months that the shaking has extended to the left leg, but here it is not so bad as in the arm. Strange, too, the shaking never begins in the two limbs together at the same time, and never in the leg first. It is always conveyed from the arm to the leg; the leg may be in a state of complete rest, while the arm is violently agitated. In his case, there is no marked paralysis; the grasp of the left hand is feebler than that of the right. The shaking of the arm can be stopped by forcibly extending the thumb. In the left leg, though there is neither knee-jerk nor ankle-clonus, foot-trepidation can be easily induced by causing the patient to bear his weight upon the toes. His gums show a well marked blue line; his urine is not albuminous.

The presence of a blue line on the gums I regard as a very important sign of lead-poisoning, but only when accompanied by other symptoms. In thirteen of the eighteen cases, it was present; of the remainder, some had had a blue line a few years ago, and had lost it. I make it a rule to examine the gums in cases of suspected lead-poisoning; and, in its absence, would attach very great importance to the character of a paralysis, or muscular atrophy if present, and to the facial appearance—pale and rounded. Buzzard (*Diseases of the Nervous System*) has, in the absence of blue line, detected lead-poisoning by the seat of the paralysis, and the diminution of the excitability of muscles to faradism. Knowing that the presence of a blue line on the gums is quite consistent with good health—that it may disappear, and return after the use of potassium iodide—and that it is seldom, if ever, met with in people who scrupulously use the tooth-brush, you see why we attach little importance to this sign alone. If present, however, it is a valuable aid to a diagnosis. It is due to the formation of sulphide of lead—caused, as Mr. Tomes has shown, by the decomposition of food left about the margins of the teeth and their interstices; the sulphuretted hydrogen thus liberated acts upon the lead which is in the tissues, and causes its deposition. I regard this as the origin of the sulphur rather than the sulphocyanic acid of the saliva. Hilton Fagge showed that the discoloration of the gums is not uniform, but is distributed in loops corresponding to the vascular papillæ of the mucous membrane, that the pigment consists of granules, some of which are deposited inside, others outside, the small blood-vessels. The lead, to be acted upon by the sulphuretted hydrogen, is circulating either within the blood-vessels, or is in the nutritive fluid which bathes the tissues. Precipitated from the blood in the manner described, it would explain the atrophy which the gums undergo at their junction with the teeth; the sulphide of lead, by obstructing the circulation through the capillaries, would interfere to a greater or less extent with their nutrition.

In 11 of my 18 cases, colic was present; that is a smaller average than most have noticed. Tanquerel found colic present in 12 out of 14 cases, and Dr. Porter, of Sheffield, in his very interesting thesis on lead-poisoning, found it present in 27 out of 30 cases. Combined with colic, there is generally a history of constipation, occasionally of nausea and vomiting. As a rule, the attacks do not last long; rest from work and the use of saline purgatives, sulphate of magnesia and iodide of potassium, and the use of baths, being sufficient in most to bring about a cure in a few days.

Of the tendinous swellings, mentioned by Ferrier as forming on the tendons at the back of the wrist, and of neuralgic pains in the muscles and joints, I have not seen anything, nor do we in Newcastle see anything of gout and its relation to lead-poisoning—a strange fact, knowing the frequency with which it is noticed by London physicians. We get the kidney-affection, as I shall speak of later on. I have met with rheumatism, but in Newcastle I have never yet seen gout caused by lead-poisoning. In this, I believe I am giving expression not only of my own experience, but of that of my colleagues. I find menstruation profuse and frequent, a very common symptom amongst all classes of women, and the same remark applies to abortion. How far this menorrhagia has to do with causing the peculiar anæmia or cachexia, it is impossible to say. The fact that saturnine cachexia is met with in males as well as females, shows that it is not all due to loss of blood; that some specific effect, in other words, is produced by lead upon the blood. The blood examined by Gowers' hæmacytometer

showed in every case a marked diminution of the coloured corpuscles, from three to four millions in each cubic millimetre.

I have noticed, too, slight increase in the number of white cells. There was, I may remind you, frequent and profuse epistaxis in Sanderson's case. As for the large bullæ, which suddenly, and with pain, appeared on the hand and foot, and which soon became purulent, I offer no explanation.

Of the cerebral phenomena met with in lead-poisoning, and to which the term *saturnine encephalopathies* has been applied, epileptiform convulsions are the most common. By many writers they are regarded as occurring late in the disease. I cannot say this is my experience. Preceded, as these fits generally are, by intense headache, vertigo, and dimness of vision, we meet with them, and that without prodromata, in young women who have worked only a few months amongst white lead. Too frequently, indeed, they are ushered in suddenly, and are the first indications of lead-poisoning. I am not referring to the headache, vertigo, and epileptiform convulsions due to uræmic poisoning, but to those which occur early in the course of the disease, and when the urine is free of albumen. Such symptoms we can only regard as specific, and due to a special action of lead upon the brain. The convulsions which come on late in the course of the disease, when the urine contains albumen, are in all probability the result of uræmia. In the brains of those who have died from lead-poisoning under my care, who, during life, suffered from convulsions, nothing abnormal was found after death, more than the hydremia (pallor and œdema) seen in Bright's disease. No lead was found in a portion of Sanderson's brain, submitted to chemical analysis by Professor Bedson—a fact which forces us to acknowledge in his case a causal relationship between the kidneys and the fits. It is more difficult to account for the noisy, and, at times, maniacal, delirium which was present. At times loud, boisterous, and unconscious. Sanderson could occasionally be suddenly brought to understand where he was, and to answer rationally, only to wander off again, however. The subject of transient deafness, he was also the victim of temporary amblyopia. Completely blind when we approached his bed, he frequently became able to see us, and even to count objects held before him ere we left. When conscious, he was always in a state of dread, and his one complaint was intense weakness.

Though a late symptom, in the case here recorded, obscurity of vision, temporary or permanent, and even complete loss of vision, are frequently met with early in the illness. In the transient form of amblyopia, which comes on suddenly, and disappears just as suddenly, no changes may be observed in the disc or retina on ophthalmoscopic examination. An anæsthetic condition of the retina probably explains these cases. That lead acts directly upon disc and retina, there is little doubt. There is a neuro-retinitis due to lead-poisoning. I do not believe that the intraocular changes in plumbism are always secondary to disease of the kidney. In many of my cases, marked neuro-retinitis existed long before albumen appeared in the urine; nay, more than that, I am inclined to think, from Sanderson's case, that a plumbic and albuminuric neuro-retinitis may run side by side. A girl, who is at present upstairs, has most marked optic neuritis, associated with intense headache, but the urine is entirely free from albumen. She had only worked a few months in the lead-factory, when cerebral symptoms developed, and we find her to-day with her optic discs swollen, their edges obscured, the arteries small, and veins swollen, no hæmorrhages. Sanderson's case was one of longer standing, and in him the discs were mottled, their outline irregular, and borders ill-defined, while here and there large patches of hæmorrhage were noticeable, and the vessels were obscured in their course by a dense whitish exudation. It is difficult to say how much of this was due to the disease of the kidneys. A pale zone surrounding the retinal arteries, I have occasionally noticed, in those who are suffering from lead-poisoning, and in whom there is no albuminuria. In others, the disc is the seat of a primary atrophy. Here the sight is naturally much affected, and the blindness is progressive; conditions explained by the extreme change which the nerve-expansion has undergone. For an atrophied disc there is little hope: for an œdematous one, always the chance that the fluid may be absorbed, and the nerve-terminations be little the worse for their temporary compression.

Garrod (I quote from Warburton Begbie's papers, Sydenham Society's publication) was the first to draw attention to the relationship between lead-impregnation and gout. Although we see many cases of lead-poisoning in Newcastle, we seldom meet with gout as one of its manifestations. I have seen one or two cases in which there has been co-existent rheumatic arthritis, of the wrists particularly, and three or four in which the heart and pericardium have been affected; but I do not remember seeing one case in which gout has been associated with lead-poisoning, although after death the kidney

has been found contracted and puckered, but not red. It is possible that the explanation lies in the different habits of the working-classes in London and the north. In both of the cases recorded by Dr. Begbie, there was a history of the intemperate use of beer and porter, drinks which have always been regarded as having an influence in the development of gout.

Dr. Garrod found, in his cases, that the blood was rich in uric acid, while the urine contained a deficiency of it, and in Dr. Begbie's two cases the amount of uric acid eliminated from the system was diminished. In the early stage of all my cases, the daily amount of urine was much in excess of the normal. It was of low specific gravity, and always contained a marked deficiency of urea. This has gone on for long, without albuminuria appearing, and what are we to regard as the explanation? When albumen has been present in the urine, the deficiency in the elimination of urea has not been interfered with. I think pathologists have laid too much stress upon interstitial nephritis as being the constant and typical anatomical change met with in the kidney in lead-impregnation. The kidneys I have seen have been certainly very much smaller than they ought to have been. Their cortex has been adherent, their stroma has been increased, but there has been a degree of tubular, as well as intertubular, nephritis. Many of the renal cells have been seen to be voluminous, their contents undergoing fatty granular degeneration, while others have completely broken down, and filled the tubules with their debris.

I am inclined to believe that lead acts as a special poison to the renal cells—paralyses their function, and hence, as the result of this low form of irritation, of which the kidney is the seat, more blood naturally passes through it in a given time, and the balance of the removal of waste is sought to be attained in the larger quantity of urine which is eliminated. This in no way specially raises the question of whether urea exists preformed in the blood of the renal artery, the renal cells simply removing it, or whether the urea is formed in reality in the renal cells themselves. If these cells have their function paralysed, then, according to the one theory, the urea which is already formed will go on increasing in the blood, producing its own special effects; whereas, by the other theory, only its elements would accumulate.

Physiology teaches us that urea exists in the blood of the renal artery, and that the liver is the organ which contributes most largely to its formation, the primary source being the nitrogen of the food, and yet I cannot say that my clinical experience is at one with this teaching. An appeal is made to pathology to support the view that the liver is the source of urea. In acute atrophy of the liver, we are told (Foster's *Physiology*, p. 439) that urea disappears entirely from the urine, and its place is taken up by leucin and tyrosin. These, the products of the pancreatic digestion of nitrogenised food, are taken up by the portal vein, carried to the liver, where they are unacted upon by the diseased hepatic cells (which, had they been healthy, would have, in all probability, formed urea), and afterwards, entering the general circulation, pass out of the system through the urine in the same form as they entered the blood. Without denying the presence of leucin and tyrosin in the urine of patients suffering from acute atrophy of the liver, I maintain that too much has been made out for the liver in its relationship to the formation of urea. In Sutugin's case of acute atrophy of the liver (*London Medical Record*, April, 1885), the urine is stated to have contained bile, albumen, leucin, and tyrosin, also a normal amount of urea.

An isolated case goes for little; but what is our experience in other forms of liver-disease? I find that, while in Bright's disease the urine has contained a percentage of urea varying from .87 to 1.5, the urine of patients suffering from cirrhosis of the liver has shown a percentage of 3.5, and that, too, in a case which terminated fatally, and where, after death, a very large portion of true hepatic tissue had been replaced by the dense white fibrous bands frequently met with in that disease. Here, then, in a case—not one only—where the supposed urea-forming organ is diseased, more urea is passed off by the urine than in cases of Bright's disease, where the liver has not been much, if at all, at fault, structurally at least. While working at this subject, I have been interested in the facts revealed by a chemical analysis of effusions—pleural and abdominal—in various diseases. I have found urea present in the effusion of pleurisy, in the ascitic fluid of cirrhosis of the liver, and in abdominal effusions in Bright's disease. Add to these the urea-eliminating function of the skin, and we at once see that it requires no highly specialised cell to remove urea from the blood; that, while the cells of the convoluted tubules of the kidney undoubtedly excrete urea, the same substance, owing to its extreme solubility, must pass with the urine through the glomeruli. We would naturally expect, if the kidney is simply an excretor, and

the liver the chief organ forming urea, that, in cases of Bright's disease, where the kidneys are at fault, and the liver fairly healthy, and especially, too, as the urine in these cases generally shows a deficiency of urea, that, owing to its retention in the blood and system generally, any serous effusion met with in this disease would exhibit a high percentage of urea. Now, my experience is just the opposite of this. The serous effusion of pleurisy in otherwise a very healthy man contained .236 per cent. of urea; the ascitic fluid of advanced cirrhosis of the liver, .168 per cent.; the same percentage, too, was met with in another case of hepatic cirrhosis; while the abdominal fluid of a case of large white kidney contained only .101 per cent. of urea. Making every allowance for the difference in the amount of the various effusions, and for the difference in the diet of the patients, I fail to see, on the theory of the liver-origin of urea, why, in those cases where the liver is diseased, not only does the urine show a higher percentage of urea, but abdominal effusions in that and other diseases show a higher percentage of urea than the same in Bright's disease, wherein we are told urea is retained in the blood. These results have made me doubt the high urea-forming power ascribed to the liver, and have somewhat shaken my belief in the relationship of the highly organised cells in the kidney to the urea which is said to pre-exist in the blood.

All this is by the way, so far as lead-poisoning is immediately concerned. What I have found in plumbism is that, as a rule—and this applies particularly to women—whether the urine is albuminous or not, it is passed for a long time in large quantity, is of lower specific gravity than in health, and contains a deficiency of urea; that, sooner or later, the urine becomes albuminous, and then cerebral symptoms, which already may have been present, become increased in severity; that the kidneys in young people, particularly women, become frequently early affected in the disease, and often lead quickly to a fatal termination, while motor trouble may be absent from first to last; that acute cerebral symptoms, such as cephalalgia, temporary amblyopia, and optic neuritis, are frequently the first symptoms of the disease; that in these cases the urine is generally found of low specific gravity, is passed in larger amount than in health, shows a deficiency of urea; and, as the urine in such does not always contain albumen, the cerebral symptoms must be regarded either as the toxic result of lead acting directly upon nerve-tissue, or indirectly, in which it is aided by the inadequate manner in which the kidneys are removing waste material from the body. By these means, and not upon albuminuria, as some maintain, do I seek to explain the occurrence of cerebral symptoms early in the course of the disease. The effect is analogous to that produced by many poisons. The action of lead upon the system may be local, as in cases of "dropped wrist" pure and simple, where the lesion is either at first a myositis, followed by an ascending neuritis, or is primarily a peripheral neuritis; or, more central still, is in the anterior horns of grey matter of the spinal cord, causing anterior poliomyelitis. Lead acts more injuriously upon nerve-tissue than upon any other, disturbing in the most serious manner its function without producing any visible change in its structure. *Post mortem*, though death has apparently been caused by the condition of the brain, nothing may be found in that organ to explain it.

In the matter of treatment, means of prevention must occupy the first place, and, of these, cleanliness is the most important. Baths; frequent ablution; avoiding eating with unwashed hands, in the factory particularly; wearing of respirators in the dusty atmosphere of the workshop; the habitual use of lemonade, made with sulphuric acid; the occasional use of sulphate of magnesia, acidulated with sulphuric acid, have been recommended, and are very beneficial. The difficulty, however, is to get the workpeople, unless compelled, to make use of them. In some of the large lead-factories on Tyneside, baths and all other sanitary requisites have been provided for the workers; but only I am told for the employers to find that their workpeople will scarcely, if at all, make use of them. When lead-colic has been established, and is severe, the employment of opium is called for, and the use of fomentations.¹ Should the bowels not be relieved in a day or two,

¹ Within the last few months, lead-manufacturers in this district have insisted upon their special sanitary regulations being complied with—and that not without cause. I have before me a copy of the special rules and regulations bearing upon this point in use at the Tyne Lead Works, Hebburn, a careful following out of which will reduce, I am sure, to a minimum the risk of poisoning by lead. The regulations of this Company formed the basis of the present Act of Parliament in reference to this subject, and are complete in almost every detail. Messrs. Foster, Blackett, and Wilson tell me that "all the men and women employed in our white lead department are carefully inspected every week by our medical officer, and any he may find of weakly constitution, or suffering in any way from contact with lead, are suspended from working for three months, when they are allowed to resume work, and are again inspected by our doctor. Notice of this fact is at once sent to the other lead-manufacturers in the district. We find this system

sulphate of magnesia becomes necessary. When there is paralysis or headache, iodide of potassium, with magnesia-sulphate, is of all others the remedy. The slowly-interrupted current has, in my hands, combined with iodide of potassium, proved very efficacious in the treatment of lead-paralysis. Nearly all have recovered, some entirely, others slowly and somewhat imperfectly; of these latter, most have had albuminuria.

In the words of the BRITISH MEDICAL JOURNAL (March 7th, 1885), "it is a disgrace to our civilisation that any industry should be attended by such terrible sacrifice of health and life." If experience should prove that the method of making white lead by Professor Gardner's patent is attended with less risk to health—electrolysis here taking the place of slower chemical action—the process conducted in a closed chamber, and the lead never coming into contact with the hand, then it is the duty of Parliament to interfere and prevent by law what we cannot but regard as an industry whose baneful effects are far reaching, and employment in which, particularly in the case of women, who seem to be very susceptible to its pernicious influence, tends only to pauperise those who are trying to gain an independent livelihood.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

A SERIES OF CASES ILLUSTRATING THE USE OF THE EUCALYPTUS-AIR AND DRY DRESSINGS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By A. W. MAYO ROBSON, F.R.C.S.,

Honorary Surgeon to the Leeds General Infirmary; and Lecturer on Operative Surgery at the Yorkshire College.

ALTHOUGH it is becoming the fashion, in certain quarters, to considerably modify the strict rules of antiseptic surgery advocated by Professor Lister, I cannot help thinking that the use of some atmospheric purifier gives us greater certainty of success, especially in hospital practice. Believing this, I still use either carbolic spray or eucalyptus-air in operating.

The carbolic spray often chills the patient, and wets and obscures the vision of the operator, so that if one can find a substitute free from these defects, it must be advantageous to employ it.

The eucalyptus-air apparatus, which I had the honour of showing at the meeting of the British Medical Association in Worcester, seems to me to supply the place of the carbolic spray, without its disadvantages; and, as shown by the brief reports of the following cases, from among many others in which it has been employed, the wounds, as a rule, run a perfectly aseptic course. The dressings employed are a single layer of gauze, wet with a solution of carbolic acid, 1 in 40, or of perchloride of mercury 1 in 2,000, applied next the wound, and over this a thick cover of salicylic silk or wool, the whole being retained in position by means of a gauze bandage. If no drainage-tubes have been employed, there is a first and final dressing; but if tubes have been inserted, they are removed on the third day, and another dressing is applied. This system of dry dressing is employed by my colleagues at the Infirmary in Leeds, and we have every reason to be satisfied with it, as being cheap, convenient, and efficient.

1. Double Macewen's operation for genu valgum, in a boy, aged 15. Operation, February 5th, 1885; temperature never above normal. Dressed twice; plaster-of-Paris applied on the tenth day, when he was made an out-patient.

2. Double Macewen's operation for genu valgum, March 12th, 1885, in a girl, aged 8, only once dressed. Temperature never above 99° F.

3. Numerous osteotomies, running a similar course.

4. Amputation of breast and axillary glands for scirrhus, in a patient aged 58. Dressed on the third and seventh days. Union by first intention: Made an out-patient on the ninth day. Temperature never above 99.2° F.

works to the advantage of both the workpeople and ourselves, and we rarely have any case of serious illness. In fact, if the rules now in force are carefully attended to, there is no more danger to health than in any other employment. We have no difficulty in getting our workpeople to comply with the rules; if they in any way objected, we would not employ them."

5. Excision of cystic tumour of breast, in lady, aged 45. Union by first intention. Only once dressed, to remove drainage-tubes. Temperature never above normal.

6. Numerous amputations of mammary gland, in hospital and private practice, with very similar courses.

7. Excision of knee, in girl aged 12; dressed at the end of the week, to remove drainage-tubes, and only thrice dressed afterwards; union by first intention. Temperature normal throughout.

8. Excision of sac of spina bifida, with aseptic course, and cure. Two cases.

9. Amputation for gangrene of leg. Temperature never above 99° F. Dressed on the fourth, seventh, and eleventh days, and made an out-patient on the seventeenth day.

10. Case of excision of varicocele. Temperature never above normal. Dressed on the sixth and tenth days. Several cases similar to the above.

11. Abdominal sections for pyo-salpinx; aseptic course and rapid recovery.

12. Numerous abscesses in various parts, incised and drained. Aseptic throughout.

13. Incision of large scrotal hæmatocele. Temperature never above 99° F. Five dressings; aseptic course.

14. Empyema. Several cases, with satisfactory course.

15. Operation for strangulated femoral hernia, with radical cure. Temperature never above 99.6° F.

16. Ophthalmic cases, as reported by my friend and colleague, Mr. Hewetson, who informs me that since he has used the eucalyptus-air in ophthalmic operations, he has never lost a single case of cataract.

17. Excision of several bones of the tarsus, in a girl aged 13; dressed weekly for four months; perfectly sweet throughout, and temperature never above normal.

The above brief record will, I trust, serve to show that the eucalyptus-air machine is capable of enveloping the region of a wound in a pure atmosphere, free from organic particles which may set up putrefaction, and that the dry dressings are thoroughly efficient in keeping the wound aseptic.

It is important to bear in mind that the chamber containing the cotton requires recharging occasionally, and that a little fresh eucalyptol should be added to both tubes, after the apparatus has been employed a few times.

I need scarcely add, that every antiseptic precaution is adopted in the way of attention to hands, sponges, instruments, etc.

THE IMMEDIATE IMPROVEMENT OF HEARING FOLLOWING DIVISION OF CICATRICES IN THE MEMBRANA TYMPANI.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By H. BENDELACK HEWETSON, M.R.C.S.,

Ophthalmic and Aural Surgeon to the General Infirmary, Leeds.

It must have been observed very frequently by those who are constantly treating perforations of the membrana tympani, associated with chronic otorrhœa, that there is a great tendency to a diminution in the acuteness of hearing in cases in which the membrana tympani has become healed, and the perforation closed.

When attending the meeting of the International Aural Congress at Bale last autumn, I was much struck by some observations which were made on the subject by Professor Politzer. It occurred to him that the cicatrix, or semilunar cicatricial band, which frequently exists in these cases, extending from the middle of the membrana tympani, skirting the edge of a healed perforation, so dragged on the malleus as to limit its power of recording sonorous vibrations. Professor Politzer himself quoted several cases in which the hearing-power was actually doubled immediately this cicatricial band was divided. I accordingly took an early opportunity of testing the operation.

The first case in which I performed the operation was in a hospital-patient of mine, attending my aural clinic at the Leeds General Infirmary. He came under treatment in March, 1884, and was then suffering from chronic otorrhœa following suppurative otitis, with a perforation in the left membrane, about the size of a No. 4 shot, straight below the handle of the malleus. So soon as the discharge was healed (under treatment by injection of a one in sixty solution of carbolic acid, after which iodoform was blown on to the ear, which took place in two months and a half), it was evident that the boy did not hear so well. Originally, the discharging ear was the better of the

two, the hearing in the other being almost lost from neglected chronic catarrhal deafness, associated with attacks of catarrhal otitis in childhood, but without a perforation in the tympanum. I waited some months, in order to give the cicatrix time to contract to the full; and, in February last, seeing that there was no improvement in the hearing, I divided the semilunar cicatricial band, where it was visibly the thickest, in two places, by means of a Graefe's cataract-knife. Before doing so I carefully tested his hearing. With the right ear he heard my watch at two inches distance, and not at all with the opposite ear. Immediately after division he heard the same watch six inches off, and could hear conversation much more easily, although he could not hear a whisper.

The sections in the membrane were about $\frac{3}{4}$ of an inch deep, and they visibly gaped, thus showing clearly the way in which the hearing became improved, namely, by releasing the cicatricial drag on the handle of the malleus. Testing the hearing a month from the operation, I found the hearing-distance from the watch still the same, but I thought that he did not hear conversation quite as well.

The second case which I have to report was in the person of a man, aged 52, who had had suppurative otitis at 14, during an attack of scarlet fever. In the left ear there was a thick semilunar cicatricial band surrounding the space formerly occupied by a perforation. The watch was heard only on close and firm pressure; but, on division of the cicatrix, slightly away from the ear, about a quarter of an inch. The most marked improvement, however, was for conversation, the man volunteering at once that the voice-sounds were heard much louder with this ear, which previously was almost useless for conversational purposes.

I only operated on the second case a fortnight ago, but, up to now, he says that his worst ear is now the best. In this case I only divided the cicatrix once, to the extent of $\frac{1}{4}$ of an inch, about the centre of the semilunar curve.

I felt quite sure that, although this treatment is really only in embryo, even the record of two cases, showing such marked signs of improvement, would be of interest to the Otological Section. My great fear is that there will be a tendency to after-contraction and return of the deafness; but I am glad to say that this has not taken place in the case operated on last February.

Dr. WOAKES (London) said that his experience was confined to separation of adhesions between the drum-membrane and the internal wall of the middle ear. In these cases a certain amount of improvement in the hearing-power had followed, and the improvement seemed, to some extent, to depend upon the subsequent treatment.

Dr. LUCAE (Berlin) said that there were also cases where the patient, after the operation, heard worse. Generally, he would say, in those cases where the patient was hearing the voice only in the neighbourhood of the auricle, the operation of division of the cicatrix would make the hearing worse: on the contrary, where there was a hardness of hearing of middle degree, the hearing-power after the operation would be either the same or improved. He generally preferred to treat those cases also by his mechanical treatment, by means of his "federnde drucksonde," described a year ago in the *Archiv für Ohrenheilkunde*.

CASE OF RHINOLITH: WITH REMARKS.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By E. CRESSWELL BABER, M.B.,
Surgeon to the Throat and Ear Hospital, Brighton.

On April 4th last, I was consulted by Dr. A., a neighbouring practitioner, suffering from a discharge from his left nostril, and, with his permission, I give the following particulars of his case.

He stated that, for the last two or three months, he had had a discharge from the left nostril. In the daytime it would be watery, but in the night there was a thick discharge, sometimes tinged with blood, which soiled his pillow. If he lay on the right side, it did not discharge as much as when lying on the left side. He had suffered no pain, neither had he noticed any nasal obstruction. He fancied the discharge was at times rather fetid. He had not suffered from his ears. There was no history of any reflex nasal symptoms.

On examination, the external nose presented no distinct deflection of the dorsum. Both alae nasi were reddened at the posterior part, the left much more so than the right. The right side was free to the passage of air; the left was much obstructed. On anterior rhinoscopy on the right side, there was seen to be a large deflection of the septum

into the cavity, and the inferior turbinated body was somewhat swollen, otherwise normal. On the left side, the anterior nostril was filled up with thick discharge and granulations. By posterior rhinoscopy, the turbinated bodies were plainly seen, and were normal on both sides. After syringing the anterior nares, I found between the anterior end of the left inferior turbinated body and the septum a black substance, presenting to the probe a very irregular surface. It was quite hard to the touch, and movable. Only a small portion of it was exposed, the remainder being covered with granulations and swollen tissue. I tried to seize it with forceps, and to get a hook round it; but, though I could move it, I desisted for the time on account of the pain and free bleeding which ensued, and directed Dr. A. to syringe with salt and water and to return in a day or two. On questioning the patient carefully, he remembered distinctly, when 3 or 4 years old, putting a black boot-button into his nose, but he did not remember into which side; neither had he any recollection of its coming out again. He had not the least idea of its being in his nose, not having thought of it until questioned, and having had no inconvenience from it whatever till the last two or three months, when he had the discharge. Two days later (April 3rd), I had a letter from Dr. A., saying that after my examination of his nose he could distinctly feel that I had moved something which, pressing on some nerve, gave him neuralgic pain in the eyeball. This induced him, on his arrival at home, to try to shift the offending body. After a few attempts, he succeeded in bringing out, in three or four pieces, the offending button.

When seen on April 7th, he stated that he had since had some bleeding, but that the discharge had ceased. The left nostril was freely pervious. On examination of the left nasal cavity, the septum presented, opposite the anterior end of the inferior turbinated body, a small dark reddish mass, like a granulation with dried blood, which felt quite soft to the probe. Behind and above this point, the septum was deflected to the right. The anterior end of the inferior turbinated body was much flattened, and showed a concavity into which the foreign body had evidently fitted. The palatal movements on deglutition were plainly seen through the inferior meatus. The remaining structures, including the middle turbinated body, were fairly normal.

I have not seen Dr. A. since, but have heard from him quite recently (July 5th) that he is not feeling the least ill result from the long imprisonment of the foreign body. The foreign body, of which you see almost the whole here, was kindly examined for me by Dr. Sheridan Delépine, Pathologist to St. George's Hospital, from whose report I will read the chief points. From this it will be seen that the body, though originally a boot-button, has, in the course of years, become so coated by deposit from the nasal secretions as to form a true nasal calculus or rhinolith.

Report by Dr. Delépine.—The weight is a little less than half a gramme, or nearly seven grains. (This is only an approximative weight, as the calculus had been broken when I received it, and it is possible that some fragments may have been lost when the specimen was cut; also some blood must have remained attached to the concretion, as seems to be shown by the percentage of organic matter.) The dimensions are approximately the following: length, $\frac{5}{8}$ inch; width, $\frac{3}{8}$ inch; thickness, $\frac{1}{8}$ inch. The shape is irregularly oval, somewhat rhombic; the surface slightly nodulated and mammillated (this is best seen under a low power, about $\times 5$), and shows here and there small depressions, hemispherical, giving those parts of the specimen a sluggy look). The general colour is dark reddish brown, almost black in certain places; in other parts, it is more rusty, whilst the greater part of one surface is covered with a paler reddish yellowish white (ochraceous) deposit, which, at one point, is almost perfectly white, partly colourless, evidently crystalline (some phosphatic crystals). The calculus feels hard and rough: it is brittle; in the attempt to cut it, it was broken in two large fragments, and a number of smaller angular ones. The section shows an irregular flattened central cavity, the walls of which are very unequal in thickness, being very thin one side, less than mm. 0.75, and rather thick on the other (about mm. 1.5 to mm. 2). They are distinctly laminated on the thin side. The broken surface of the walls is irregular, somewhat angular, and crystalline, showing here and there dark shining surfaces.

Chemical Analysis.—A rather large proportion of organic matter is found by incineration of the fragments, more than 35 per cent., out of which, however, something must be allowed for the decomposition of the carbonates, which are abundant in this calculus, as shown hereafter. It must be also remembered that part of the fragments and dust examined were probably partly composed of dried blood. What remains after incineration is practically entirely soluble in

hydrochloric acid, with which it gives a bright, brownish, yellow solution. This solution, when tested in the ordinary way, is found to contain a large proportion of iron, and some calcium. It is also found to contain a large quantity of carbonic acid, and a distinct amount of phosphoric acid. A doubtful reaction also led me to believe in the presence of tin, but I have not been able to confirm this on further examination, not wishing to destroy the calculus for that purpose. The analysis gives, therefore, the following results: inorganic matter 63 per cent., namely, iron (very large amount); calcium (small quantity); magnesium? sodium? phosphoric acid, carbonic acid; organic matter with carbonic acid, and ammonia? 37 per cent.

It is probable that the calculus is composed of the following salts and elements; carbonate and oxide of iron, possibly phosphate; carbonate and phosphate of calcium; phosphate of magnesium and ammonium? organic matter.

The quantity of iron salts (more than 30 per cent.) precludes *in toto* the idea of the concretion being formed in the organism. The iron must have been almost entirely introduced from without. The history furnishes the clue to the origin of that iron; therefore, there can be no doubt that the patient's recollections are correct, and that the button must have remained impacted in his nose for twenty-five years.

REMARKS.—Rhinitis generally, as in this case, owe their origin to the impaction of foreign bodies on which the salts of the pituitary secretion became deposited. This is doubtless favoured by the obstruction to the escape of fluid which they present. Stones of fruit often form their centre; but in other cases, such as one recently reported by Schmiegelow, of Copenhagen, no foreign body can be detected as a nucleus. The present calculus is small compared with others which have been described. Apart from the iron of the button, it has the usual composition of these concretions. A singular feature of the case is that the foreign body should have remained in the nasal cavity for so long without, according to the patient, giving rise to any symptoms. The diagnosis of the case presented no difficulty whatever, but it sometimes happens that rhinoliths are mistaken for malignant disease, as in an instance reported by Dr. Jacquemart in the *Annales des Maladies de l'Oreille et du Larynx* for May 1884. I think it very probable that the deflection of the septum was produced by the long continued pressure of the rhinolith. Reflex symptoms are sometimes produced by nasal calculi. The marked redness of the left ala in this case may probably be considered of this character. The removal of a rhinolith, if small, need present no difficulty; but in treating cases of nasal discharge, it is important to be alive to the fact that such concretions may be present, and be the cause of all the mischief.

A FEW REMARKS ON THE INFLUENCE OF MALARIA ON THE PROGRESS OF OTHER DISEASES.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By W. R. THOMAS, M.D.,

Physician to the Public Hospital and Dispensary, Sheffield.

I BELIEVE that malaria has a much greater effect upon the progress of other diseases than we give it credit for, rendering recovery much more prolonged than we expected, giving rise to serious symptoms which give great cause for anxiety, and complicating the disease which we have to treat. For many years, I have noticed, both in hospital and in private practice, that, when I have had to prescribe for certain diseases, a febrile state, I may say an unexpected febrile state, has complicated these diseases, giving rise, in my mind, to great anxiety as to the future progress of the patient. The following case is a striking example of the influence of this malaria.

A. B., a lady, had suffered from a very severe attack of pneumonia. The lower two-thirds of her right lung had been in a state of hepatisation, and she had been in great danger. The lung now cleared up, and all the severe symptoms passed away, but I noticed that the pulse still continued to be high permanently, varying during the day. The lady complained of perspirations, which came on every evening, and continued for some hours, and I found that these were always preceded by a febrile state, when the skin was hot and burning, and that every morning, although she did not shiver, she always felt very cold. I naturally feared that some chronic lung-mischief might have been set up, that caseation might, perhaps, be going on somewhere, and examined both lungs very carefully, but could not discover any local cause for the general symptoms. As the patient was living in a

valley which generally was hidden by a dense fog during the winter months, from evening until dawn, I trusted that the case might turn out to be one similar to many I had seen before, and gave two grains of quinine every four hours. I was delighted, but not surprised, to find that she rapidly improved. All the symptoms which had weakened the patient to such an extent passed away rapidly, and she soon was as strong as ever.

REMARKS.—It might be said that quinine is a remedy likely to be beneficial in a case of this kind occurring anywhere, and that it is not necessary for us to consider its effect upon malaria at all. That is so. On the other hand, I have found that, if given in cases where I have had reason to suspect the influence of malaria, as in this, it has always acted quickly, and evidently, giving almost proof of its action; whereas, in other cases, where exposure to malaria has not taken place, the beneficial effect is not so quick and evident, often not present at all; and, indeed, other remedies seem almost to act as well; and, again, this is one out of a number of cases where the remedy has acted in a similar manner.

I shall relate one of a number of similar cases which I have noticed, and which, I trust, will prove interesting.

C. D., a young lady, aged 24, had been ill for two years, and had been steadily getting worse. When I saw her, her lips were pale, skin sallow; she was very thin, was becoming weaker daily, and suffered from several aches in back, lower extremities, and elsewhere. There was not any disease of lungs or heart, but hæmic murmurs were heard, both cardiac, and in some of the veins of the neck; I could not account for this great anemia in any way. The menses appeared regularly, and in quantity less than heretofore, but she suffered from slight leucorrhœa. There was no evidence of malignant disease of stomach or elsewhere, although I carefully looked for it. The spleen was slightly enlarged. She suffered from palpitation, brought on by the slightest exertion or mental excitement, together with shortness of breath. The respirations were rapid when spoken to. The legs were swollen, and I thought the abdomen was slightly so. I prescribed iron for her, and found that she did not derive any benefit from the treatment. Finding that she suffered from febrile symptoms which came on daily, the perspirations, which were but slight, came on every evening. Knowing that she lived in a low-lying neighbourhood, and having seen similar cases before, I now prescribed, with a certain amount of confidence, two grains of quinine every four hours, and was pleased to find that my patient steadily improved day by day. No other change in treatment had been adopted.

The patient was afterwards removed to another neighbourhood, where she was not exposed to the malarial poison; and has never since, I believe, suffered from a recurrence of the attack.

So convinced am I that the malarial poison is a great factor in the causation of anemia, and, indeed, often the sole factor, that whenever I have a case to treat, or one of pernicious anemia, I always make particular enquiries about the situation of the house in which the patient lives, and the presence of febrile symptoms.

CONCLUDING REMARKS.—As I wish to be brief, I shall not relate any more cases, but state my conviction that malaria is a very potent enemy of man, not only producing a disease or diseases of its own, but also influencing the progress of other diseases. Day by day we meet with patients who suffer from periodic headache, relieved by quinine. I generally find that such patients are exposed night and day to the influence I am speaking of, and that removal to a greater altitude is followed by relief of headache. Frequently, as I have mentioned in another paper, I see children wasting without evident cause, no tubercular disease anywhere, no rickets, no disease of any kind, but a febrile state of wasting. This state, without other evident cause, generally makes me look out for malaria, and if I find that exposure to it has taken place, I generally, with confidence, prescribe quinine, and then removal, and but seldom have had occasion to regret the treatment adopted.

NOTES OF A CASE OF CHRONIC INVERSION OF THE UTERUS.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By D. A. DAVIES, M.B.,

Physician to the Swansea Hospital.

MRS. T., aged 38, mother of four children, the youngest aged 3, was attended by a midwife in her last confinement. She lost much blood. Three days afterwards, when sitting up on the night-commode, she felt a severe shock; she felt as though something were coming away

from her, and was helped back to bed, sick and faint. She was not seen by a medical man for some months afterwards.

Attempts were made repeatedly to reduce the uterus, which was found to be completely inverted; but without success. When I saw her, she was greatly emaciated, looking worn and very anæmic. This had been induced by the frequent hæmorrhage and leucorrhœal discharge, and frequent vomiting. Her health had become gravely deteriorated.

After some ineffectual attempts at reduction, I gave a dose of opium to allay irritability, and fixed Aveling's retractor, and the uterus corrected itself during the night. I removed the instrument the next morning. The cup was in the uterus. The curious point in this case is, that two days afterwards, on examining the woman, I found the posterior wall bulging in and down; in fact, reinversion was proceeding, not, as is usually described, by the fundus becoming cup-shaped and tending to come down, but by the bulging of the posterior wall.

I was able to correct this immediately by pressure with the fingers. The uterus corrected itself with a distinct slip; and I had no further trouble with the case. I kept her in bed for a month, and fed her up; but it was three or four months before she began to feel really strong. Menstruation became regular, and normally frequent; and she has since been delivered of another child without any incident worth noting.

CASES OF PAINFUL MAMMA IN YOUNG GIRLS.¹

By JOHN H. MORGAN, M.A. Oxon., F.R.C.S. Eng.,

Assistant-Surgeon to the Charing Cross Hospital; Assistant-Surgeon to the Hospital for Sick Children, Great Ormond Street.

F. H., a healthy, well made girl, aged 11½, was brought to see me at the Hospital for Sick Children on account of great pain in the left mamma, which had existed for nearly a twelvemonth, but had latterly become more severe. She was rather weak and overgrown, but otherwise she appeared to be in good health. There was no history of any blow or injury. The left mamma was very little larger than the right, yet there was a slight but decided swelling of the whole gland. She complained of continuous pain in this region, and the very slightest pressure caused her to wince. The mother stated that, at times, the pain was very severe, and there was no doubt, from the child's manner when seen, that this was the case. There was nothing to warrant the suggestion of hysteria. No catamenia had appeared, nor were there any other indications of their advent. It was stated, however, by the mother that two elder daughters, by a former marriage, have found the catamenia appear at 11½ years of age, and both had premonitory symptoms, the one experiencing severe headache, which ceased upon the appearance of the menses, and the other suffered from a rash upon the body, and headache. In both these children there was no appearance of any flow for two years subsequent to its first occurrence.

The painful condition of the mamma in this child continued for six weeks, notwithstanding local and general treatment, during which time no alteration in the condition of the gland was to be noticed. There was no heat or redness of the areola, and there was but little enlargement, nor was any change observed in the appearance or condition of the nipple. At the end of this period, however, the right breast became afflicted in an identical manner.

For another six weeks—during which she was treated with aloetic purgatives, with iron, and with the local application of belladonna—the condition remained much the same; but at length it began to intermit, the pain disappearing for a few days and again recurring, until, at the end of the fifth month after I first saw her, the symptoms disappeared, no catamenial show having then occurred.

In the last four years I have had several cases of this painful affection of the mamma brought to my notice. The ages of the girls varied from 10½ to 12 years, and most were tall and well formed. In five of the cases the left breast only was affected, and in one case the right, whilst both were consecutively the seats of pain in the case above detailed. Seeing this more frequent tendency of the left mamma to become affected, it occurred to me that it might be due to the pressure of the chest against a desk in writing, and in one or two of the patients this was thought a possible explanation, but in none of them did the pain cease for many weeks after they had been kept from school, or prohibited from writing.

All the cases remained under observation for many weeks, and I cannot say that they were much relieved by local or general treatment. The pain, as in the above case, became intermittent, and at

last ceased. Some nervous symptoms were present in two of the children, one having been previously under treatment for chorea, which had not entirely disappeared, and another suffered from occasional headaches, vomiting, and pain in the lower part of the abdomen.

I have been unable to meet with much information on the subject of this condition in any works on surgery, or in any special treatises on diseases of the breast, and I believe that the condition is a rare one from the few cases of its occurrence among the very large number of patients which come before me. The absence of any great heat, redness, or swelling, puts inflammatory conditions out of the question, and the age of the patients, the obstinate and chronic character of the pain, together with the slight enlargement of the gland, and its extreme tenderness on pressure, would seem to point to some developmental change in the structure of the gland, which accompanies, or may even precede, the changes which are doubtless commencing about that period of life in the ovaries and organs of generation, with which the mamma has so many sympathies.

CASE OF RUPTURE OF BLADDER: DEATH FROM HÆMORRHAGE.

By C. EMILIUS THOMPSON, M.R.C.S., L.S.A., Salisbury, South Australia.

J. W., a lad, aged 15, was brought to my house from his home, a distance of two miles, on the 19th of March last, at 9.30 A.M. I was informed by his parents that he had gone to bed on the previous evening between 10.30 and 11 P.M., after making a good supper, being then in good health and spirits. About an hour afterwards, he came to his father, and complained that he was in great pain, and unable to pass urine. He had passed urine at 10 P.M. freely. By much straining, he did pass a few drops mixed with blood. Nothing was done for him, and he continued to suffer great agony, a few drops of pure blood escaping *per urethram* in the course of the night. When I saw the patient, he presented all the symptoms of having suffered from profuse hæmorrhage. His face was blanched, pulse small and fluttering, respiration somewhat hurried, and there was intense thirst. He complained of great pain over the lower part of the abdomen, and stated that he had been unable to pass urine since the previous evening before going to bed. The hypogastric region was somewhat prominent and unyielding. Dullness on percussion extended from the symphysis pubis to the umbilicus. No sense of fluctuation could be obtained by palpation. A No. 9 catheter was passed without difficulty, and a few drops of venous blood drawn off, quite unmixt with urine. Stimulants were administered, and the boy was carefully removed to his home, where, after a delay of an hour and a half, he was placed under ether, and I performed the median operation for stone (Dr. W. P. Nesbitt assisting), with the view of exploring the bladder, and removing the blood-clot with which we supposed it was filled. On introducing the finger into the bladder as far as possible and syringing with warm water, the true nature of the case became apparent. A small quantity of partly clotted blood was washed out, but the water soon returned almost colourless. The smooth mucous membrane of the neck of the bladder could then be recognised by the finger. A catheter was introduced through the wound and tied in. The patient succumbed six hours after the operation.

A *post mortem* examination was made twenty-one hours after death. Rigor mortis was marked. There were no external marks of violence. On cutting through the abdominal wall in the median line, a firm layer of blood-clot of very dark colour was exposed, extending in a somewhat pyramidal shape from one inch below the umbilicus as far as the symphysis pubis, the apex being towards the umbilicus. The blood had infiltrated between the abdominal wall and the parietal peritoneum. There was no blood in the peritoneal cavity. The pelvis was full of venous blood, in great part clotted, especially around the bladder, the walls of which were thickened by adherent clot to the extent of three-quarters of an inch beneath the peritoneal investment. There was no odour as of urine mixed with the blood. Owing to the quantity of firmly clotted blood in the pelvic cellular tissue, it was impossible to obtain a view of the bladder *in situ*; and, in the process of removing the organ, it tore slightly with the moderate traction made on it in raising it from its attachments. It was contracted and empty. The mucous membrane was smooth, of a dusky pink colour, but otherwise healthy. The outer surface of the bladder was almost completely surrounded by firm adherent clot. There was a rent, about two and a half inches long, commencing in the base of the

¹ Read at a meeting of the Harveian Society

organ near the neck and extending upwards and to the left. The rest of the organs of the body were anæmic, but otherwise healthy.

REMARKS.—The case was one of unusual difficulty of diagnosis, owing to the absence of any history, either of violence or previous illness. Both the boy and his parents denied all knowledge of any cause for his condition. The singular direction taken by the extravasated blood gave rise to physical signs compatible with the supposition that the bladder was distended with clotted blood, while the history of the previous eleven hours, of a constant desire and inability to micturate, together with gradually increasing faintness and pain in the hypogastrium and at the end of the penis, and the results of catheterisation, were not incompatible with such a condition. On the other hand, it was difficult to imagine a natural cause for such a hæmorrhage occurring into the bladder of a lad of 15 without any previous warning or ailment whatever. Though it was impossible to obtain legal evidence of the fact at the inquest, it is practically certain that the boy was knocked down by a man with whom he was quarrelling, immediately before he retired to rest; and the presumption is, therefore, that he received a blow or kick in the belly, or fell upon a stone or a log of wood. The close relationship of his assailant affords ample reason for the boy's persistent denial of his having received any injury. It is to be regretted that the exact measurement of the original rent could not be ascertained, but I am of opinion that it was not enlarged to any great extent at the *post mortem* examination. Such profuse hæmorrhage is probably unusual in the rare accident of rupture of the bladder, and, with so much internal injury, the complete absence of external marks of violence is noteworthy, even bearing in mind the yielding nature of the abdominal wall; and this absence is rendered further remarkable from the fact that the injury must have been sustained at a time when the bladder was comparatively empty.

CLINICAL MEMORANDA.

MOLLUSCUM FIBROSUM SEU SIMPLEX.

MARGARET D., aged 71, when seen by me in 1883, was the subject of the rare disorder named as above by Mr. Hutchinson. She was a strong looking woman. When first examined, she told me that the tumours on her head, face, neck, and arms commenced about twenty-five years ago. Subsequently, however, she said that she understood that she had a few of those tumours from birth.

She has had several children and grandchildren, none of whom presented any tendency to tumours, nor had any other of her relations suffered from the affection. She suffered no pain nor inconvenience from the tumours, some of which were over three-quarters of an inch in length and quite pendulous. They were mostly, however, very small; the smaller were, as a rule, sessile, and the larger pendulous.

The present case bore some points of resemblance to that recorded by Mr. Jonathan Hutchinson as having been at Blackfriars Hospital in 1866. The tumours were not, however, nearly so numerous as in the case referred to.

Mr. Hutchinson alludes to the not unfrequent occurrence of solitary tumours of the same kind. Some such cases, in which the tumours attained a considerable size, have come under the writer's notice, one especially, growing on the thigh of an aged woman, was only discovered after her decease. Another, on another female, also very advanced in years, was situated between the mammae. In each of these, as in D.'s case, the fibrous and fatty nature of the tumours was highly probable. There seems to be also not necessarily any connection between the sebaceous follicles and those tumours.

The non-contagious nature of molluscum simplex was shown by the case under consideration, as D. was the only member of her family similarly affected, as she stated, and as far as was known to me. This point is also borne out, to a considerable extent, by the circumstance that, of the large number of practitioners to whom I was able to show the case at the Academy of Medicine of Ireland, some time since, not one knew of any other case of the kind in Dublin at the time.

The diagnosis between the molluscum simplex and molluscum contagiosum, is clearly seen in the case under consideration by the absence of a central aperture, or of an umbilicated appearance, and by the comparative laxity of the structure or tissue in the former, as, even on the back of the hand, where the tumours are less pendulous than on the neck, chest, etc., the nature of these tumours is evidently distinct from those of the contagious affection.

The very chronic character of fibroma, as it has been named by Dr. Tilbury Fox, is well illustrated in D.'s case, as, though now advanced in years, she latterly admitted that she had a few of the tumours when a very young child, if not at birth.

It has been a matter of regret that the patient would not submit to any treatment or operation whatever for the tumours; indeed, she was unwilling to submit to much examination, and refused to allow herself to be shown a second time to the profession, and it was with much difficulty that her objection to being sketched was overcome.

This case was represented in a sketch exhibited at the Belfast meeting of the British Medical Association. She complained of no inconvenience from the tumours, nor did they appear in any way to have affected her health. CHARLES FREDERICK MOORE, Dublin.

HERPES FOLLOWING THE EXTERNAL USE OF BELLADONNA AND ATROPINE.

G. A., aged 40, was the subject of chronic rheumatism. Two months ago, he was ordered belladonna-liniment, for application to a painful knee-joint. The use of this was followed by an eruption of herpes, with a good deal of swelling over the seat of application of the liniment. Last week, he had an attack of iritis in the right eye, for which a solution of atropine was used to dilate the pupil. Some of the solution ran over the cheek, and was, in a few hours, followed by an herpetic eruption of exactly the same character as had followed the use of the belladonna-liniment. The swelling was so great that the eye was completely closed.

M. MACKINTOSH, M.B.
Lavender Hill, S.W.

THERAPEUTIC MEMORANDA.

NITRITE OF AMYL AN ELIMINATOR OF URIC ACID.

I MAY be allowed to report that the patient suffering from gout, whose case I referred to in my article on this subject in the JOURNAL of May 23rd last, still remains well. He has been taking an inhalation of the nitrite fortnightly since then, and has mentioned to me that he feels the better for it.

I am pleased to observe that Dr. Mortimer Granville finds nitrite of sodium beneficial in "gout-epilepsy," partly on elimination grounds. Nitrite of amyl has long been given in epilepsy; but, where there is also an incoordination between the manufacture in, and elimination from, the system of uric acid, I have no doubt but that the nitrites are specially beneficial. I know of no other agents which eliminate uric acid as such.

Dr. Handford, of Nottingham, in a Therapeutic Memorandum (June 20th), endeavoured to point out that I had not supported my paper referred to by sufficient evidence. I have again to ask him to produce the exact quantitative analytical experimental proof which is possible to him—for or against my position. He might now do good service to truth, by overturning or confirming the basis of the observations of Signori Giuseppe and Sansoni, Dr. Mortimer Granville, and myself.

ARCHIBALD MACDONALD, M.D. Edin.,
Liverpool.

A REMEDY FOR THE GALVANIC TASTE.

ONE of the material inconveniences of galvanisation of the head and neck complained of by patients is the persistence of the galvanic taste. Although its duration becomes evanescent as "tolerance" to the current is established, at first it lasts many hours, frequently all day, and spoils the taste of all food. A patient whom I, in conjunction with Dr. Saundby, am treating with galvanism, tells us that a little pinch of coffee chewed from time to time is an efficient antidote to this disagreeable sensation.

LESLIE PHILLIPS, M.D. Brux., Lincoln's Inn, Birmingham.

OBSTETRIC MEMORANDA.

POST PARTUM RETROVERSION OF UTERUS: PENT-UP LOCHIA: PROLONGED RETCHING: RECOVERY.

ON December 9th, 1884, Mrs. Kate E. was confined of her second child, and had quite an easy time, all going on well. She kept her bed for nine days, and got up and sat in a chair with a blanket over her for two days. On December 17th, the lochia entirely ceased. She first sat up in a chair, with a blanket over her, on December 19th, when she complained to her nurse that she felt weak over her "stomach," as if something had "gone." She found relief, whilst sitting, bending over with her chest approaching her knees, and her hands pressing her abdomen. On December 22nd, she first came downstairs. On the 24th, she was seized with retching; this continued for several

days. On December 29th, at 10 P.M., I saw her in consultation with her medical attendant. She was deathly pale, retching at short intervals, and fearing death. The diagnosis up to now was gastric irritation from stimulants, with which I entirely disagreed. I asked for and obtained permission for a vaginal examination, and discovered an enlarged, boggy, tender, retroverted uterus, which convinced me absolutely as to the cause of the retching. There was some difference of opinion on this point; a mixture containing morphine was prescribed, together with instructions to give iced milk, and so forth, as for gastric irritation, and we both left the patient.

At 2.30 A.M. on December 29th, four or five hours after the consultation, I was called, as they thought Mrs. E. was dying. I took with me an elastic ring pessary, and two quarter-grain morphine-suppositories. I at once pushed back the uterus past the promontory, and inserted the ring pessary; I also inserted the two suppositories, and left. At 10 A.M., I found the patient peaceful; a copious, foul-smelling, dark discharge was coming away from the vagina. At 7 P.M., the discharge was continuing; the retching had quite ceased in the early morning. For four days, this discharge continued; and the nurse we had called in on the morning of the 29th syringed the parts freely, twice a day, with warm water. During this time, the patient partook of a suitable light diet, and took ergot every six hours. From the 29th to the 31st inclusive, she was free from pain, except at the bottom of her back and in the hypogastric region. This I attributed to the ergot. On January 12th, 1885, I paid my last visit; the patient was downstairs; had got back her old buxom looks; felt nothing of the pessary; had only a "few whites," and was quite well in fact.

WILLIAM FEARNLEY, L.R.C.S.Ed., London.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

STAFF HOSPITAL, UMBALLA.

COMMUNUTED FRACTURE OF SKULL: ESCAPE OF BRAIN-SUBSTANCE:
RECOVERY, WITH NO CEREBRAL COMPLICATIONS.

[Whilst officiating as Divisional Staff-Surgeon, Umballa, during the absence on leave of Surgeon Major O'Connell, M.S., the following case came under the care of Surgeon RAGLAN W. BARNES, Medical Staff.]
SUNDER, a woman aged 28, married, was brought by the police on June 5th, 1885; she stated that she had been struck with a chopper. She was suffering a good deal from shock and hæmorrhage, which had been very free, but her mind was unclouded, and she gave her account of the affair clearly, and without any signs of rambling. Her temperature on admission was 99° Fahr.; pulse 88; respirations 23. She had sustained the following injuries: (1) an incised wound on the upper and outer surface of the left arm, one inch and a half long, dividing the structures to the bone; (2) an incised wound, about three inches in length, reaching from the second cervical vertebra to the upper margin of the occipital bone, laying bare the bone throughout its course; (3) an incised wound two inches long over the left parietal bone, reaching to and fracturing the bone, a piece of which, in form and size somewhat larger than a rupee, was lying loose in the wound. On removing this, it was seen that there was a laceration of the dura mater, and that brain-substance was escaping freely; (4) an incised wound three quarters of an inch long, situated over the right orbit, and reaching to the bone; (5) several lacerated wounds of the scalp.

The wounds were carefully cleansed with a solution of carbolic acid (1 in 50), silver sutures introduced, and pads of lint, soaked in tr. benzoin. co., applied after the head had been shaved. She was placed in bed, with ice-bags to the head, and a brisk purgative given.

The progress of the case was uninteresting, from the mere fact that there was nothing to record. The wounds were again dressed seventy-two hours after the first dressing, when they were found to have healed by first intention, and the sutures were removed.

From the date of her admission on June 5th to her discharge on June 29th, she had not one untoward symptom. She complained of a good deal of pain in the neighbourhood of the fracture for the first few days, but her temperature night and morning was normal, her intellect unclouded; she had neither rigors nor pyrexia, and when discharged, she was, to all intents and purposes (so she stated), as well as before her injuries.

BOURNEMOUTH COTTAGE HOSPITAL.

CASE OF FRACTURE OF THE BASE OF THE SKULL: RECOVERY.

(Under the care of Dr. DOUGLAS.)

[Reported by Mr. T. G. PARROTT, Resident Medical Officer.]

On November 11th, 1884, Edward H., aged 22, fell a distance of about nine feet, striking his head on a boarded floor. He was conscious for a short time after the accident, but was carried into the hospital insensible. He was pallid, with cold extremities; blood, of a bright red colour, was projected profusely from the right ear, with a well marked pulsation. He moved his arms and legs, and evinced pain on pressure over the right parietal region. At 3.20 P.M., after he had been put to bed, he vomited up a large quantity of food and bile, mixed with a little blood. The pupils were dilated, but sensible to light. When spoken to in a loud voice, he seemed to hear, and answered with a groan. The pulse was 56, and the temperature normal. He passed urine later. The ear was plugged, and the pad and bandage applied, but these were soon saturated with blood, and had to be changed several times. An ice-bag was applied to the head, and hot water-bottles to the feet. In the evening, a turpentine enema was given, and a mustard-plaster applied to the epigastrium.

November 12th. He passed a restless night, and vomited altered blood five times. He got out of bed once in the night. He understood what was said to him, and complained of pain in the head.

November 13th. The right pupil was dilated, and there was ptosis of the right upper eyelid. The pulse, in the morning, was 61; in the evening, 52; on the following day it rose to 76. On November 16th, he complained of much throbbing pain in the right ear. He remained in a semi-unconscious condition, with closed eyes. The discharge from the ear gradually changed its character from blood to pus, the latter being very abundant and foul smelling. Constipation was very troublesome.

On November 19th, the ptosis of the right eye was more marked, but on November 21st he could raise the right eyelid slightly. On November 26th, the pupils were equal; he was completely deaf on the right side.

December 3rd. A fluctuating swelling behind the right ear was opened, and a large amount of pus escaped; a drainage-tube was placed in the wound. On December 8th, a counter-opening was made lower down behind the ear. The discharge from the ear gradually diminished after the first operation.

The course of the temperature was as follows. It remained at or near the normal till November 17th; it sank to 98.0° Fahr. that evening, and the next morning was 97.8° Fahr. On the evening of November 18th, it rose to 99.8° Fahr., and then gradually rose, with some remissions, till the mornings of November 26th and November 27th, when it reached 102° Fahr., falling to 100° Fahr. each evening; after that it gradually fell, till it reached the normal line permanently on December 14th.

He gradually gained strength. A depression remained behind the right ear, corresponding to the normal prominence behind the left, and there was slight tenderness, and a red blush over the depression. He could only hear a watch on the right side when placed close to the ear. When discharged on January 16th, 1885, he could use the right eyelid as well as the left. There was some deafness of the right ear.

REMARKS BY MR. PARROTT.—There seems little doubt but that this was a case of fracture of the middle fossa of the base of the skull, extending from side to side. The symptoms leading to this conclusion were the profuse hæmorrhage from the ear, followed by equally profuse suppuration, the paralysis of the third nerve on the right side, and the prolonged convalescence. The good result seems due to the fact that the patient was young, steady, and of good constitution.

REQUESTS AND DONATIONS.—The Corporation of the City of London have given £105 towards erecting an out-patients' wing at the Victoria Hospital for Sick Children, and £105 to the East London Hospital for Children and Dispensary for Women.—The Trustees of Prison Charities have given £105, additional, to the National Hospital for Consumption, at Ventnor.—The North-West London Hospital has received £130, the net proceeds of a dramatic performance given by Mr. Under-Sheriff Crawford, at St. George's Hall, on the 17th of February.—Mr. David Moore, surgeon, has bequeathed £100 to the Walsall Cottage Hospital.—The Sussex County Hospital, Brighton, has received £100 under the will of Madame Maroncelli.—The Rev. R. P. Allen, and Mrs. Allen, have given £100 to the Chichester Infirmary.—Mr. John Whitley (the Treasurer), and Miss Mary Farrar, have each given £50 to the Halifax Infirmary.—The Grocers' Company have given £50, additional, to the Great Northern Central Hospital.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 9TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the chair.

Hæmatemesis and Melæna in which Blood was first vomited twenty-one and a half hours after Birth; Death within twenty-four hours.—Dr. SAWTELL read particulars of this case, and exhibited a preparation of the stomach showing ulceration. A small male child, born April 9th, 1885, after a natural, but rather tedious, labour, suddenly vomited blood twenty-one and a half hours after birth, and, a few hours later, melæna succeeded. Up to this time milk was taken, and vitality seemed but slightly impaired. The discharge of blood continuing, much altered by admixture with meconium and mucus, the child rapidly sank, and died within twenty-four hours from the first appearance of blood. Besides general measures, sulphuric acid was given in tincture of cardamoms. *Post mortem*, the stomach alone showed causal lesions, namely, small, but deep, round or oval ulcers on the posterior wall of the cardiac end, near the lesser curve. Dr. Sawtell remarked that, after some examination of the subject, he had failed to find any record of a similar case. He quoted Billard's paper in the *British and Foreign Medico-Chirurgical Review* for 1853, in which Rahn-Escher stated that softening of the stomach and bowel was sometimes found. An interesting case, observed by Dr. R. Neale revealed no lesion of any kind. Dr. Edis, in the *BRITISH MEDICAL JOURNAL* for 1879, dealt with spurious hæmatemesis; so also Dr. Thorburn. But records of true intestinal hæmorrhage in infants were so rare that Dr. West related only three as occurring in his extensive practice, and only one of these in the new-born. Finally, Rilliet's elaborate essay did not give any cases of ulceration. The author inclined to the opinion that the ulcers arose from portal obstruction and erosion by gastric juice, and concluded his paper by pointing out the difficulty of diagnosis and treatment, and the truth of Dr. West's observation that the new-born suffered less from the effects of hæmorrhage than might be expected.—Dr. RADCLIFFE CROCKER remarked on the analogy borne by this case to those of purpura neonatorum, except that the hæmorrhages in the latter were usually confined to the skin, and the cases generally did well.—Dr. Edis pointed out that, in cases of bleeding nipples, children sucking at them returned the blood swallowed with the milk, and often in an uncoagulated state. In these, however, removal of the cause banished the effect due to it.

Two Cases of Strangulated Umbilical Hernia, treated by Excision of the Sac and Skin Covering, with Suture of the Ring, after Reduction.—Mr. CLEMENT LUCAS, who read this paper, began by stating that for several years he had been in the habit of excising the sacs, when called upon to operate for strangulation in cases of hernia (of whatever kind), and that he had been led to do so, not so much for the purpose of producing a radical cure (though this was an advantage), as to lessen the mortality from the operation. He regarded the sac itself as a danger, from its badly nourished texture, its tendency to suppurate or slough, and its liability to collect discharges, and guide them into the peritoneal cavity. To rid the patient of this abnormal, over-strained, ill-nourished, not only useless, but absolutely injurious, piece of tissue, should be the aim of every surgeon when called upon to operate for strangulation, after reducing the bowel. To speak of such a proceeding as "unsurgical," was a wanton misuse of the adjective. It was probably the only operation for radical cure that would bear the test of time. He regarded no operation for femoral hernia complete till the sac had been excised, even though the bowel might have been reduced before opening the sac. The same might be said of acquired inguinal hernia. The congenital inguinal presented especial difficulty, as the whole sac could not be excised without sacrificing the testicle, but he usually excised the funicular portion, and rigid antisepsis was here advisable. He was about to advocate much more radical measures in cases of umbilical hernia than were usually adopted, and he believed the mortality would thus be greatly lessened. The first case was of peculiar interest, inasmuch as the operation was performed on a patient in an advanced stage of dropsy from Bright's disease. It might be studied with a case reported in the *Guy's Hospital Reports* for 1879, page 331. In that case he had twice operated on a femoral hernia, at an interval of eleven months, for strangulation during dropsy from heart disease. A married laundress, aged 48, had suffered some years from winter cough, but, till June, 1883, believed herself healthy. She then began to suffer from dropsy. In July, 1884, paracentesis abdominis was

performed, when she was under the care of Dr. Wilks. She was tapped a second time in February, 1885, and a third time on April 9th of this year, when eighteen pints of fluid were withdrawn. She then had very general anasarca, *adles* over both lungs, and dullness of the bases, urine depositing one-third albumen on boiling, and containing some blood. On May 22nd, at 4 A.M., the umbilical hernia, which she had had some years, became strangulated, and Mr. Lucas operated at one o'clock, having failed to reduce it by taxis. It was found necessary to open the sac, when a considerable quantity of fluid escaped, and a large piece of purple small intestine came into view. The opening was enlarged so far as to admit the finger into the abdomen; but, owing to the water-pressure behind, it was found impossible by manipulation to reduce the bowel. Finding the obstacle to reduction was the peritoneal fluid, Mr. Lucas placed the patient on her side, and, holding the intestine on one side, with his finger passed through the aperture, allowed, in this way, three and a half pints of ascitic fluid to escape. After this, the bowel was easily returned. He then cut away the whole of the sac, and afterwards all the thin distended skin. Three stout chromicised catgut sutures were next passed through the margins of the umbilical opening to the peritoneal surface, tied, and cut short. The skin-margins were then brought together with wire sutures. Carbolic spray and antiseptic dressings were used. Sickness ceased at 10 the next morning, and the patient was comfortable. All the wire stitches were removed on the sixth day, and the wound appeared to be healed, although the urine still contained one-third albumen and some blood. A few days later, slight suppuration took place, and the cause proved to be one of the catgut stitches, which came away unchanged on the fifteenth day. After this, she gradually improved, and left the hospital on July 25th, at which time there was no tendency to protrusion at the umbilicus. The second case was that of an exceedingly stout plethoric woman, aged 52, who was admitted into Guy's Hospital on September 6th, 1885. She was married, and had four children. When lifting a heavy pole of clothes eleven years ago, she first felt something give way at the navel. Since that time, she had on four occasions required chloroform for the reduction of the hernia, which was of large size. The last time it was thus reduced was in August, 1884. At 10 A.M. on September 5th, as the result of a severe fit of coughing, the rupture became distended and irreducible. She was seized with severe pain over the stomach; and vomiting occurred soon after, and continued till her admission at 7 o'clock in the evening of September 6th. Her bowels had not acted since the hernia came down. She was sick soon after her entry, bringing up dark greenish fluid. She was in much pain, and very restless. The hernia was of large size, and uneven on the surface, four inches by three in diameter, tense, devoid of impulse, and tender on manipulation. Taxis having failed both before and after the administration of chloroform, Mr. Lucas proceeded to operate at 9 o'clock in the evening. A vertical incision, about four inches in length, was made at the upper part of the tumour; and, the sac being exposed, the ring was divided outside, and taxis again applied without success. The sac was then opened, and some blood-stained fluid escaped. The sac was found to contain a large mass of adherent omentum, forming an omental sac, within which the bowel was strangulated. After division of the stricture, several feet of dark-coloured intestine were reduced; the transverse colon then appeared in the sac, but it was not strangulated. Two large pieces of omentum were then ligatured with green catgut and cut away. The sac was next separated from its connections, and cut away, except at the lower part, where the adherent omentum made it impossible completely to remove it. Three stout green catgut ligatures were then passed through the edges of the aperture to the peritoneal surface, and the opening thus closed, the stumps of adherent omentum and sac being outside. The skin was cut away, and its edges brought together with wire-sutures, and an aperture left for drainage at the lower front. Carbolic spray and antiseptic dressings were used. She had no sickness after the operation, and was quite relieved from abdominal pain, the abdomen remaining soft and free from tenderness. On the 10th, there was a rise of temperature, and, on being dressed, some blood-stained discharge escaped from the lower part of the wound. After a week, a slough came away, evidently the remnant of the sac and stump of omentum. After this, she rapidly improved, and had a normal temperature. Her bowels acted on the 15th. On September 23rd, the drainage-tube was removed. On the 27th, she was up, and was practically convalescent. The cases illustrated the value of removing the sac and closing the abdominal aperture. Neither patient was in a good condition for operation, one being in an advanced stage of dropsy from heart-disease, the other exceedingly fat and flabby. In both a large quantity of bowel was strangulated, and in one the hernia was much complicated by adherent omentum. In both some suppura-

tion occurred, and in one sloughing; yet no suppuration extended to the peritoneum, as would probably have been the case had the aperture been left patent. Both patients recovered without any symptom to cause serious anxiety.—The PRESIDENT congratulated Mr. Lucas on the success of his treatment, and suggested that the discussion of the paper should be confined to the subject of strangulated hernia.—Mr. GOLDING BIRD failed to quite agree with the arguments advanced by Mr. Lucas, though he considered that the practice recommended was sound. He urged that *post mortem* examination of such cases showed that peritonitis always began around the bowel, and not at the mouth of the sac, as described by Mr. Lucas, and he thought the history of the second case seemed to indicate the existence of some other cause than mere back-flow of pus as producing the result. In other forms of hernia than umbilical, he contended, the practice in question should not be had recourse to. In the latter, he had for some years adopted the plan.—Mr. WALSHAM had performed the operation, removing the sac, in three cases of umbilical hernia, in seven of femoral, and in two of inguinal. One of the umbilical cases recovered well, was not fitted with a truss, and required none. He urged the necessity of completely extirpating the sac, of paring the edges of the tendinous ring, and of suturing the latter together. He preferred carbolised silk, as safer than catgut, for ligaturing; the latter was apt to fail. In a fatal case, in which death occurred on the second day, he found that almost complete healing had occurred on the peritoneal face of the wound. In none of his cases had a truss been used, and there had not been any return of the hernia two years after the operation.—Mr. MAKINS had performed one operation of the kind, which proved successful, but the patient, a phthisical man, aged 40, died three weeks later from hæmoptysis, when the wound was quite healed.—Mr. BALANCE said that, two years since, he operated on a woman of 50 years of age, fat, the subject of an umbilical hernia as large as a cocoon, and which contained six inches of gut and a mass of omentum. The intestine was returned with difficulty; the omentum was pulled out and removed freely, together with the whole of the sac, and a considerable amount of skin. He had seen the patient recently, and there was no return of the hernia.—Mr. SYMONDS described an unusual case, in which an umbilical hernia consisted of two parts, one only being reducible. The other part was strangulated, and, on being exposed, it was returned to the abdomen after first being reduced into the other chamber of the sac, through an aperture in the septum separating the two cavities. The hole in the septum was sutured. In a second case, also, two herniæ were found, a septum dividing them, as in the former case. The result, as regarding return of the rupture in these cases, was not known; but both of them recovered from the operation. In femoral hernia he always removed the sac, and in one instance a return took place. He considered it essential to a radical cure that the edges of the cut sac should be sutured, otherwise the hernia was apt subsequently to return as bad as ever.—Mr. GODLEE observed that the whole thickness of the covering of an umbilical hernia was often so thin, that the sac could scarcely be separated from the skin. In one case of his own, the edges of the abdominal aperture could not be apposed because the opening was too large, and he drew the attention of the Society to a rare form of hernia in children, in which the hernia was directly into the umbilical cord. In one such case he operated unsuccessfully. The cæcum, and some adjacent intestines, were found in the sac.—Mr. HOPKINS said he had operated in one case, the age of the patient being 70 years, in which, having made a semilunar incision around the sac, reduction could not be effected, but which followed after opening along the linea alba.—The PRESIDENT considered it very cheering to hear of so many successful operations on strangulated umbilical hernia, especially as it was a very dangerous condition. He thought that removal of the sac should only follow when it had been opened for purposes of exploration, and he deprecated the adoption of the practice, as an universal rule, for application to all herniæ. He would perform the operation himself under appropriate circumstances, although as yet he had never done so, having found the plan of a small incision outside the sac, or even a small opening into the neck of the sac and incision of the structure, succeed in all cases. He would strongly recommend this minor proceeding, and especially in old people.—Mr. BARKER urged that the difficulty of separating the sac from the skin need not, as suggested, bar the operation. The sac could be removed through an elliptical incision, the parts being dissected away for an inch around the opening. In two cases operated on, he found no difficulty in removing all the sac, and good union followed. Particularly should the skin be cut away if there were ulcers upon it.—Mr. HOWSE thought that each case should be treated on its own merits, and not in accordance with sweeping general rules. In recent cases, and when healthy tissue existed, the patient ought not to be submitted to the

risk incurred by the formation of a large wound, with possible failure to bring the edges together. Less radical proceedings were to be depended on in such cases if immediate steps were taken for relief, and no case of strangulated umbilical hernia should be kept without relief beyond a very few hours. In his opinion, the treatment advanced by Mr. Lucas should be adopted only in cases of long standing.—Mr. Lucas was glad to find that the operation had been so often adopted by other surgeons. He expressed surprise at the conservative suggestions made by Mr. Howse, but said he did not urge the invariable necessity of paring the edges of the sac. He insisted that, if suppuration occurred in a large sac having a large aperture at the umbilicus, pus would certainly find its way into the abdomen. In his own second case, the stump of omentum sloughed naturally, and thus complicated recovery, but did not produce peritonitis. He did not approve of silk ligatures in preference to catgut. He believed the sac was a dangerous thing, and therefore to be got rid of. It was badly nourished. Its removal would greatly reduce the mortality from the operation. If the sac were adherent to the skin, it was immaterial, as both might be cut away together. It was unsafe to open a sac, and leave the omentum and other things in it. It was much less serious to remove the sac and its contents. He believed that radical cure would be ensured by removal of the sac, provided a truss were worn sufficiently long; and in umbilical herniæ the suture of the ring gave very material assistance. In cases, however, in which reduction proved easy of accomplishment, removal of the sac might possibly be dispensed with.

Trephining for Compression by a Clot derived from the Middle Meningeal Artery, and which suggested the Resort to Compression or Closure of the Carotid as a Means of Arresting Hemorrhage.—Mr. CHARTERS SYMONDS read this case. A man, aged 43, fell from a height of six feet, striking his head. He was admitted immediately into Guy's Hospital, and was seen shortly afterwards in a totally insensible condition, with right hemiplegia, a pulse of 52, and still falling. He had two abrasions on the left temporal region, and a large extravasation of blood. Though there had been no conscious interval, Mr. Symonds immediately trephined on account of the hemiplegia and deepening coma. The site selected was rather posterior to that usually chosen, as here the chief injury seemed to have been received. On elevating the disc of bone, a pulsating clot was exposed and removed. The bleeding was profuse, and to reach the laceration a great deal of bone was removed by Hoffman's forceps, two loose pieces of the sphenoid being found. Two lacerations were found in the vessel; one was closed by under-running the vessel with fine gut; the other by completing the division of the vessel and twisting both ends. The bleeding, however, still continuing, and the bone having been incised to the base, the hemorrhage was finally arrested by under-running the artery with a piece of the dura mater, and making traction on the ligature carried out of the wound, and by a pair of torsion-forceps pushed down into the farthest accessible point and given a half-twist. The operation altogether lasted two hours, and the man lost much blood. Recovery was immediate. As soon as the clot was removed, the pulse rose from 43 to 64, and the muscles of the right foot moved; and at the conclusion of the operation the man could move his right arm and leg, and give his name and address. The next day he answered all questions, and spoke rationally, and seemed to have completely recovered his consciousness. The same afternoon he became restless, and finally delirious, coma supervened; the temperature rose gradually, reaching 104.8° F. shortly before death, which occurred fifty hours after the accident. At the *post mortem* examination, the dura mater over the exposed area was yellow and purulent, and there was general congestion. The temporo-sphenoidal bone on the right side was bruised, as was the cerebellum. The fracture ran from the site of the operation to the wing of the sphenoid, and there divided into two branches, one running over the orbital plate to reach the cribriform plate of the ethmoid, the other reaching the same point after traversing the optic foramen and sphenoidal fissure. In his remarks, Mr. Symonds said that his main object was to call attention to the paucity of information upon the best method of dealing with the bleeding vessel, and to suggest a resort to compression of the carotid from the moment such a case was seen, and to its ligature, should, after trephining, other means fail to arrest the bleeding. Though no mention was made in the leading works of this method of arresting the hemorrhage, he had no doubt that the idea had occurred to others before it had to him, in connection with this case, two years ago. He said that probably such severe hemorrhage was not often encountered, and suggested that perhaps the loss of the local pressure of the cranial contents, owing to the non-recovery of the brain, might partly explain it in this case. To the severity of the operation, to its great prolongation, and to the loss of blood, he attributed the fatal menin-

gitis, and did not think that the result affected the average success of trephining. As to whether it would be better to secure the external or common carotid, he thought that, while ligation of the external would remove the special cerebral dangers attending closure of the common, its safety was yet to be established. He considered that, with the present method of treating wounds, less danger need be apprehended from secondary hæmorrhage, and he would therefore prefer to close the external carotid. Mr. Furneaux Jordan's suggestion to ligature the carotid instead of trephining, while it was thought effective, would, Mr. Symonds considered, be confined to those cases seen very early, and would therefore have but a limited application. The absence of the interval of consciousness was considered to be due to concussion, while the strictly localised character of the paralysis was unlike that seen in cases of cerebral laceration.—Mr. Howse narrated two cases bearing on that of Mr. Symonds; the first was that of H. H., aged 10, admitted on July 26th, 1884, at 12.30 midday. He had fallen down a fore hatch, a distance of six feet, eighteen hours before admission. On admission, he was in a state of coma, which came on four hours after the accident. The pupils were unequal, left and right; the limbs rigid; there was convulsive movement of the right arm and leg. Three hours after admission, trephining of the left parietal eminence was performed, with removal of blood-clot, and fresh hæmorrhage. Digital compression of the common carotid was kept up for three hours. He moved the right arm and leg on the evening of the 26th; no hæmorrhage recurred; he went on well, and had no pyrexia. August 21st. The wound had healed; the pupils were equal; he went into the park; when walking, he dragged both hips somewhat, though the right the most; the right shoulder tended to drop; the reflexes were equal; there was left facial paralysis. September 3rd. Paralysis of the right arm and leg had become worse. September 15th. There was tonic contraction of the right arm and leg. October 8th. The right arm was completely contracted; the left facial paralysis was persistent; the general health perfect. November 20th. He was removed to a medical ward. The second case was that of F. F., aged 51, a carman; a healthy man. This patient was loading a wagon with rags when the hook by which he was holding gave way, and he was pitched forward on to his forehead, falling about ten feet; he was brought immediately to the hospital. On admission, 11 A.M., there was no sign of paralysis anywhere; he was heavy and drowsy, but answered questions; much effusion existed under the scalp, bleeding from the right nostril, none from either ear or mouth; the pupils were normal; the pulse was slow and laborious. 12.30 P.M. There was increasing insensibility, and he was now quite unconscious; his breathing was stertorous; there was right hemiplegia, with some amount of spasm. At 2 P.M. Mr. Howse trephined the skull, with the largest sized trephine, over the left parietal bone, towards the upper part. There was a large clot of blood between the dura mater and the bone, this was removed; there was much hæmorrhage. Dressings were applied, and it was hoped that the bleeding would cease under pressure and cold. After the operation, the patient moved his arm and leg a little, but they still remained very rigid. He continued unconscious. As the hæmorrhage continued, at 5 P.M. the dressings were removed, and more bone was removed (mainly with Hoffman's forceps), and several branches of the middle meningeal artery were ligatured. This failed to arrest the hæmorrhage, so Mr. Howse cut down upon the external carotid artery, and ligatured it. The hæmorrhage immediately ceased. The patient, however, remained insensible, and died about 8.45 the following morning. *Post mortem* examination.—The left parietal bone was separated from the frontal at the coronal suture, the right also for about an inch, and then a fracture ran obliquely backwards across this for about three inches; the bone was not depressed. Some amount of clotted blood still remained on the dura mater. The under surface of the left middle cerebral lobe was much bruised to the depth of about half an inch. The viscera were healthy.—On the suggestion of the President, Mr. Howse undertook to contribute reports of these two cases for publication in the *Transactions*. The President also remarked that a paper on the subject had been published, within the last eighteen months, in an American journal.

BEQUESTS AND DONATIONS.—Mrs. Susannah Brooksbank, of Arundel Terrace, Brighton, bequeathed £500 to the Samaritan Fund of the Sussex County Hospital, Brighton, and £200 to the National Hospital for the Paralyzed and Epileptic.—The British Home for Incurables has received £300 under the will of Miss Jane Lake.—The Leeds Hospital for Women and Children has received £200 (less duty) under the will of Mr. Thomas Dixon, and £50 under that of Mr. John Wilkinson.—The Bristol Dispensary for the Cure of Complaints in the Eye has received £250 under the will of Mr. E. Phillips, of Clifton.

REVIEWS AND NOTICES.

DIE WANDERLEBER UND DER HÄNGERBAUCH DER FRAUEN. Von Dr. LEOPOLD LANDAU, Docent für Gynäkologie an der Universität Berlin. Mit 23 Holzschnitten. Berlin: Hirschwald. (Movable Liver and Pendulous Abdomen in Women.)

SINCE Cantani, in 1865, described a case of what he believed to be a displaced liver, Thierfelder, Blet, and Edinger have collected histories of later cases described by several observers who, stimulated by the example of the Italian physician, succeeded in finding what they considered to be instances of this condition. Amongst our own countrymen, Drs. Wickham Legg and Eustace Smith have written on the subject. The former (*Cases bearing on Diseases of the Liver, St. Bartholomew's Hospital Reports*, vol. xiii, 1877) has expressed his want of confidence in the correctness of the diagnosis of the cases which had been recorded, in relating at full length a suspected instance of movable liver under his own observation; Dr. Eustace Smith, however, has described a case where the condition in question was proved by examination after death.

Dr. LANDAU'S *Wanderleber* is an important and interesting monograph on this subject. The author has collected thirty-one cases of alleged displacement of the liver; twenty-seven of these occurred in women, and four in men. Necropsy generally disproved the diagnosis. In Müller's case, the true condition was cancer of the omentum; in Wickham Legg's, enlargement of the right kidney. Three cases could not be correctly defined as movable liver, since extreme lateral curvature or cancer of the liver and ascites existed. Only one of the male cases appeared, on fair grounds, to be really genuine. Only two of these cases were described by English writers, but, considering the numerous errors of diagnosis in the entire list, this fact can hardly be detrimental to the honour of clinical medicine in Great Britain.

Turning to Dr. Landau's own opinions and experience, we find that he, notwithstanding the numerous sources of fallacy in diagnosis, boldly declares that he has observed sixteen cases of more or less distinctly movable liver, and about fifty of simple falling of that organ below its natural level. He has enjoyed the opportunity of watching each case for months at least, and generally for years. Several chapters are devoted to the consideration of the true position of the liver, the diseases which may cause its displacement, and the structures which contribute to its support. The author concludes that an increase in the capacity of the abdominal cavity, without a corresponding increase in the bulk of its contents, is the most immediate cause of idiopathic displacements of the liver. That organ is evidently supported in part by its ligaments, but it is also kept up to its natural level by the well packed viscera below and the anterior abdominal walls which keep them in such accurate position. Any displacement of the intestines must, then, of necessity, impair the passive support of the liver. Flaccidity of the abdominal walls is the commonest cause of such displacement. It disorganises the whole of that mechanism by which the viscera are kept in proper relation to each other, so that ducts, vessels, and nerves may not be stretched, whilst heavy organs may lie, to a definite extent of pressure, upon lighter ones, without harm to the latter. In other words, pendulous belly is almost invariably the cause of movable liver. The intestines slide downwards and forwards when the parietes become relaxed, hence the liver loses their services as supporters. They also drag upon their attachments, and stretch the structures contained therein. Lastly, the displaced liver presses unduly upon the tender viscera below it, which are deprived, in part, of their external and anterior supports. This becomes another and an evident source of pain and discomfort. It will be seen that Dr. Landau traces the affection of which he writes to the same cause to which he and other authorities ascribe floating kidneys, displacements of the uterus, and hernia. In fact, movable kidney is a form of rupture, and, like all other ruptures, due to loss of the natural retentive power of the abdominal walls.

Hence, as a question inseparable from the subject of movable liver, Dr. Landau devotes a large portion of his monograph to a consideration of pendulous belly, and brackets the two conditions together when speaking of symptoms and treatment. He rightly lays stress upon the fact that not every thick walled belly is pendulous, and that not every pendulous belly is thick walled. Heavy fat omentum, extreme distension with flatus, and other conditions, are not inseparable from true pendulous belly. In those morbid or quasi-morbid conditions, the abdominal walls may have increased in their supporting powers, as in normal pregnancy, so that the intestines are maintained in their

proper position. But true relaxation of the abdominal walls invariably affects the position of the intestines, and this, of necessity, involves more or less downward displacement of the liver.

The discomfort produced by the allied conditions of pendulous abdomen and movable liver include, as have been said, effects of pressure, of impairment of nutrition, of local visceral changes, and of nerve-irritation. These effects may be directly traced to the weight of badly supported heavy organs upon lighter structures below them, and the dragging of the viscera on ducts, vessels, and nerves. In consequence, the patients complain of a feeling of weight, or bearing down, which is, of course, often attributed to uterine disease; they show symptoms of different forms of intestinal disturbance; and, lastly, they are more or less subject to dull or even acute abdominal pains.

The remedy for movable liver, then, must be the relief of pendulous abdomen, by means of a well made abdominal belt. The intense relief which that useful appliance affords, is known to all who have seen a fair number of cases of pendulous abdomen in multiparous women; and Dr. Landau finds that it proves equally beneficial in cases where marked increase in the mobility of the liver exists.

The last chapter gives details of the sixteen cases of movable liver, under the author's own experience. All the patients were women, and all, with one exception, had borne children. The exception was an instance of displacement of the liver, traced to frequent and violent spasmodic sneezing, and this case was also exceptional in that the abdomen did not appear to be pendulous.

Dr. Landau's work is of great clinical and pathological interest, and will prove valuable to the general practitioner as well as to hospital physicians and surgeons. The subject is well within the scope of collective investigation. It is much to be desired that *Die Wanderleber und der Hängebauch der Frauen* should be speedily translated into English.

A SCHOOLMASTER'S RETROSPECT OF EIGHTEEN AND A HALF YEARS IN AN IRISH SCHOOL. By MAURICE C. HIME, M.A., LL.D., Head Master of Foyle College, Londonderry.

In a small volume of 134 pages, Dr. HIME discusses almost every conceivable educational topic, propounding his views, perhaps, somewhat dogmatically, and expresses his wonder that anyone could differ from the opinions which he enunciates. The work is largely autobiographical, and the author does not conceal his satisfaction with regard to the results of his eighteen years of labour as a schoolmaster. To do Dr. Hime justice, he makes no extravagant claim for his little pamphlet, but candidly confesses that it was composed to while away the idle hours of one of his vacations. Some such explanation was clear from an examination of the work. We regret to find certain evidences of hurried composition. A scholar, and especially one engaged in the work of education, should not use so inelegant a word as "middlingly," nor can he be excused for employing the word "grind" in its vulgar sense of "teach."

Dr. Hime holds firmly to the old fashioned opinion that the ancient classics must be the basis of all education, and that the natural sciences are of little value. His reasoning on this subject strikes us as somewhat curious. "Most young schoolboys regard the learning of natural and experimental science as a mere excuse for idleness; and this, in point of fact, it is—a comparatively pleasant and easy method of getting through a school-day. To allow a boy to learn these sciences instead of classics, seems to me to be like allowing him to eat for his dinner raisins and almonds, and jam-tarts, and pancakes, instead of good substantial beef and mutton." Dr. Hime, apparently, has not read that remarkable passage in Herbert Spencer's work on *Education* in which that acute reasoner shows that a knowledge of science is at the root of all our happiness and well-being, and that the practice of the schools in putting literature before science is a perverse reversal of the natural order.

While the general character of Dr. Hime's work is somewhat superficial, we are glad to be in accord with the author upon many of the views which he expresses. He deprecates corporal punishment, and advances many reasons to show that it is demoralising to both pupil and master. He is fully alive to the vital importance of physical development and attention to health, and he strongly advocates the encouragement of outdoor games. He fully recognises the dangers of precocity, and his remarks on the "overpressure" controversy are sensible and moderate. Most of all, we commend his high ideal of the scholastic profession; and we sympathise with his condemnation of the scanty consideration which schoolmasters receive, and with his regret that our universities make no provision for instruction in the important science and art of teaching.

Dr. Hime advances the rather startling but weighty suggestion that

all schoolmasters should take out a degree in medicine. "For this degree, therefore, I think every schoolmaster, head and assistant, ought to qualify. The best means of ventilating a schoolroom; the best hours for meals; the best food to take at meals; the best division of hours for teaching; the boundary lines which divide proper pressure from either overpressure or underpressure; . . . the shape, and size, and requirements generally, of a well arranged dormitory; the injury to mind and body of a certain form of juvenile immorality (who, by the way, that thoroughly understood the vast importance to a boy's health of cleanliness, and fresh air, and perfect moral purity, would tolerate in a dormitory cubicles, those inventions of the evil one?); physiology—these, and all questions of the kind, ought to be perfectly understood by every schoolmaster" (p. 66).

We agree with the reasoning in this paragraph, but we are doubtful whether men who had gone through a medical curriculum, and obtained their qualifications, would ever thereafter be content with a schoolmaster's life. Perhaps the desired end might be attained in another way. In the not distant future, when instruction in the art of teaching will form a branch of university training, we think the intending schoolmaster might attend courses of lectures in, say, physiology and hygiene, and thus acquire, in a short time, as much medical knowledge as he will ever be likely to turn to practical account.

The importance of medical knowledge to a schoolmaster as a means of enabling him to check, most prudently, certain forms of juvenile immorality cannot, indeed, be overestimated. Schoolmasters have a most solemn responsibility in this matter, and no nice repugnance, however natural, can justify them in neglecting their plain duty. There can be no doubt that juvenile vice of this kind is largely prevalent; and, although its effects are not so fatal and ruinous as the older authorities believed, they are, nevertheless, most grave. If such vices do not often cause death or insanity—except in subjects already predisposed to certain visceral or mental disorders—they cannot fail to poison the mind, and embitter the whole after-life. No schoolmaster is discharging his full duty who does not do his utmost (and his opportunities are many) to check this great evil. How best to do so is a difficult question. If a boy be detected in such vices, he should be reasoned with calmly and kindly, and the grossness of such practices pointed out. Often he is quite ignorant of the nature of the act, and one warning will be sufficient.

A more difficult question arises as to how far a schoolmaster should instruct boys in sexual matters. At present they are left to pick up such information in the most deplorable manner possible, namely, from loose talk and impure jests which they hear through various sources, from discussions amongst each other, dictated by natural, though ignorant and mischievous, curiosity, and occasionally from books which are simply poisonous. Surely a little plain instruction from a schoolmaster, given to lads at puberty, and imparted with calmness and delicacy, would best meet the evil.

We do not shut our eyes to the fact that such instruction is beset with difficulties, might occasionally do harm, and ought only to be entrusted to wise and experienced hands, but we are confident the balance of advantage would be enormously on the side of the course we advocate. Sooner or later young men must acquire knowledge on such questions, and it rests with us whether that knowledge shall come to them in the form of grave and passionless instruction from a revered teacher, or surrounded by an unholy halo of pruriency and obscenity.

Lastly, it must never be forgotten that, with all his faults, the British or Irish schoolboy is a noble specimen of frankness and manliness, and it is as unchivalrous to associate his name too frequently with certain vices, as it is to turn to the subject of prostitution whenever any mention is made of woman, collectively or individually.

BEQUESTS AND DONATIONS.—The Royal Hospital for Women and Children has received fifteen postal orders for 20s. each from "Liverpool Jack."—Mr. Nathaniel James Powell, of Beckenham, has bequeathed £250 to the Royal Hospital for Incurables at Putney, £200 to the Earlswood Asylum for Idiots, £100 to the London Hospital, £100 to the City of London Hospital for Diseases of the Chest, and £100 to the Eastern Dispensary, Leman Street.—The Stewart Institution for the Training and Maintenance of Imbecile Children, Parsonstown, Co. Dublin, has received £200 under the will of Miss Ross, and £50 under that of Miss Lizzie Haughton.—Mr. C. Wathen, the Mayor, has given £100, and "A Lady," £50, to the building fund of the Bristol Hospital for Sick Children.—"U" has given, through Mr. James Hamer, £100 to the General Hospital, Birmingham.—"P. P." has given £50 to the Royal Maternity Charity.—Mr. John Yeare has given £50 to the Cancer Hospital, Brompton.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 17th, 1885.

REFORMED LOCAL GOVERNMENT AT CLOSE
QUARTERS.

By a curious law of periodicity, which is observable in matters political as in everything else, local government reform has once more become one of the great questions of the day. As an election war-cry, its potency has been somewhat dimmed by both parties having taken it up with emulous enthusiasm; and, in any event, its intrinsic complication would prevent its becoming a topic on which an orator could hope to stir his audience to enthusiasm. There was, therefore, something of self-abnegation in the lecture which Sir Charles Dilke set himself to deliver on Wednesday to the electors of Halifax. The contribution of the late president of the Local Government Board towards the discussion of this "thoroughly unexciting but as thoroughly vital subject," is quite the most important that has yet appeared; and it is impossible, therefore, to avoid referring to it. For year after year, in the late Parliament, the mouths of members were made to water by the dim adumbrations of the "comprehensive" measure of local self-government, which the Cabinet had in its pigeon-holes, and was only waiting a favourable moment, which never arrived, for giving to the world. Sir Charles Dilke evidently feels that this Bill, which served more than once as an admirable buffer against attacks, and even defeats, on questions of local taxation, should no longer hide its light under a bushel. Accordingly, he unfolds its main provisions to an appreciative, if not a rapt audience, at Halifax, and, through the medium of four columns of the *Times*, to the rest of the world.

We have no space here to discuss Sir Charles's proposals in detail. It will be time for this when they are crystallised into that now universal product, a Bill in Parliament. But we cannot help thinking that his central idea of having three sets of local authorities—the parish vestry, the district council, and the county board—is foredoomed to failure. So far as we understand the plan, the existing urban sanitary authorities and the existing rural sanitary authorities are to be retained as the district councils; and to them are to be subordinated a vestry for each parish, which is to be clothed with a great variety of ordinary and some extraordinary powers. Over the district councils are to be elective boards for counties, with possibly over these again elective local government boards for the several divisions of the kingdom. Poor-law relief and control is not to be worked in with this new system; it is to be administered "by the new authorities of the various districts, acting in combination as guardians of the

poor for the union which would comprise the district, and by the apportionment of the cost of relief on the basis of the rateable value in the several districts." This seems a highly complicated plan, and could hardly fail to prove entirely unsatisfactory from an administrative point of view.

Sir Charles Dilke appears to think that, by elevating and dignifying the parish, we shall be helping "to undo the Norman conquest in order to revert to the more English and wiser system of the Saxon times." Now, with all respect to the Jutes and Angles, it is really impossible to compare the state of social affairs eight hundred or a thousand years ago with that existing at present. The parish, as a practicable area of local government, is, we are convinced, now impossible. Sir Charles Dilke himself admits that parishes "are extraordinarily unequal in size and population;" and yet he proposes, whilst giving them certain powers, to subordinate them to the existing sanitary authorities, re-named "district councils," without, so far as can be gathered, anything more than minor corrections of boundary. A few facts will show how hopelessly unworkable a scheme of local government like this would prove. There are about 15,000 parishes in England and Wales. Many of them have an area of less than 50 acres, and many an area exceeding 10,000 acres. There are 800 parishes with a population of less than 50 persons, and 6,000 parishes with a population under 300. On the other hand, there is a considerable number of parishes with a population exceeding 30,000. Totterdell Park township contained 109,455 people at the last census. The average population is about 1,500, and the greater number of parishes have a population varying between 200 and 1,000.

Of sanitary districts, which are to be a kind of superior area, there are about 1,300, namely, 700 urban and 600 rural, omitting some 250 municipal boroughs. Some urban districts have a population of as few as 200 people, and a considerable number have less than 1,000 population. On the other hand, one has a population of 130,000. One rural district has a population of 4,000, and an area of 40 square miles, and another a population of 32,000 and an area of 250 square miles.

It does not appear to be contemplated that any large re-arrangement of areas would be wanted in the cases cited, but that they would work in easily with the new triple, nay, quadruple, scheme of local government. It is impossible for those with practical knowledge of the way in which local business is managed to believe that a system so complicated could succeed. It is a primary essential for the efficient working of local machinery that it should not be on too puny a scale. Remembering how unions were formed, in the most "opportunistic" fashion conceivable; how urban districts were formed, in the most reckless and casual fashion imaginable—it is evident that the first step to be taken is a rectification of boundaries, which shall give to a district of sufficient size for the conducting of business in an efficient manner, one authority to look after its affairs, and only one. For all local purposes which affected more districts than one, this primary authority would have the county board to look to. The less the question of local government reform is complicated by caveats and exceptions, the more readily will it be received by the country at large. We confess to a feeling of doubt whether Sir Charles Dilke's measure is one calculated to remove the present defects of our existing system of local government in the best and most satisfactory way; and we much fear that the degenerate and crippled parish of these

latter days will, whatever may have been the case before the Norman Conquest, be found to be now quite unworkable as an administrative organism.

STRANGULATED UMBILICAL HERNIA.

THE treatment of this form of hernia has not hitherto been considered as amongst the triumphs of surgery, its success, when a cutting operation, involving the opening of the sac, has been necessary for the return of the bowel, having been limited. Surgeons will, therefore, probably, welcome the renewed attention which is likely now to be drawn to the subject by a paper read by Mr. R. C. Lucas at the last meeting of the Clinical Society, and which, together with the discussion thereon, will be found fully reported in another part of our columns to-day. The author began by observing that he considered that the great mortality which followed the operation for strangulation in cases of umbilical hernia, when the sac is opened, might be explained, partly, perhaps, by the ill condition of the parts involved in the operation, but "mainly by the fact that, when suppuration or decomposition occurs, drainage of the noxious fluids is almost certain to take place directly backwards into the peritoneal cavity." Surgeons, consequently, have been constrained to trust as much as possible to taxis, and, when compelled to operate, to keep the operation within the narrowest limits, by making a small incision at the upper part of the tumour, dividing the ring, and then only, if still necessary, making a small opening into the sac itself, to expose the intestine as little as possible, contenting themselves with the reduction of only the strangulated portion of bowel, and leaving the rest of the contents of the sac unreduced; or, if there be difficulty in reducing the strangulation, resting content with simply freeing the bowel from constriction. A more extensive method of operation, at any rate, for the worse kind of cases, has probably now been inaugurated, and will lead, it may be anticipated, to a lessened mortality.

For years past, as Mr. Lucas states, he has been accustomed, when operating for strangulated hernia of whatever kind, to excise the sac, "not so much for the purpose of producing a radical cure (though this is an advantage), as to obtain better results for the operation itself," believing, as he does, that the sac is the source of septic material, whence peritonitis may ensue, that it is the cause of occasional reprotrusion during convalescence, of occasional sloughing, or of subsequent relapse. The practice should, therefore, be, first, to return the bowel; and, secondly, excise the sac; and, in the case of femoral hernia, the author of the paper in question deems no operation complete until the sac has been excised, whether it may have been found necessary or not to open it, in order to reduce the bowel. In acquired inguinal hernia the same plan of treatment is advised; but in the congenital variety, as its complete adoption would involve the sacrifice of the testis, the surgeon should withhold his hand.

The paper, which had for its chief intention the advocacy of this radical plan of treatment in cases of strangulated umbilical hernia, was illustrated by two cases of that variety, in which the plan of treatment therein advocated was adopted, and they both were admirable examples for the purpose. One patient was the subject of accompanying visceral complications, that tended to render a successful issue improbable, and the other was very obese; but both recovered. In the former case there was advanced dropsy, due to Bright's disease, for which the patient had been already tapped three times. When

the sac was opened, reduction was found to be impossible until three and a half pints of ascitic fluid had been allowed to escape. The sac of the hernia was then cut away, close up to the abdominal aperture; and the tendinous ring was closed by three green catgut stitches, which were passed through its margins, tied, and cut short. The skin of the tumour was then cut away, and the margins in its aperture were brought together with wire sutures. The patient subsequently did well, except for some suppuration which occurred at the wound, about a fortnight afterwards, when one of the catgut stitches came away unchanged.

In the second case, omentum was adherent to the sac, but was ligatured with catgut and almost all cut away. The subsequent steps of the operation were similar to those adopted in the former case. The antiseptic spray was used on each occasion. In this latter instance, there was a slough, consisting of the remnant of the sac and the stump of the omentum, which came away in a week's time, after which the patient rapidly convalesced. The suppuration in each case would probably have proved fatal, had it communicated with the peritoneum through a patulous hernial ring; as is pointed out, the closing of the ring with sutures, by preventing such communication, probably saved each patient.

In the subsequent debate, which, at the suggestion of the President, was restricted to the consideration of the treatment of strangulated umbilical hernia, it became evident that the plan of procedure sketched out by Mr. Lucas is by no means confined to the surgeons of Guy's Hospital. Representatives of other medical schools had had similar cases, with equally good results. Mr. Golding-Bird frequently adopted the plan, though not swayed by the arguments by which it had been enforced; and remarked that the peritonitis, when it ensued, nearly always commenced on the bowel, and not at the margin of the sac. Mr. Walsham had had excellent results in his cases, but preferred carbolised silk to catgut for the suturing of the tendinous ring. The President and Mr. Howse both advised that the operation should be restricted to severe and long-standing cases, deprecating the adoption of the practice, as an universal rule, for application to all herniæ.

Probably, as a result of this discussion, it will be found that the method will, at any rate, be largely employed for umbilical herniæ, where the rupture is large, where strangulation has been of many hours' standing, and where the skin covering the sac is ulcerated. Whether, in other varieties of hernia, it should become the general practice, as was urged by the reader of the paper on which our remarks have been based, we may leave to more extended experience to demonstrate; but that the procedure will be adopted for many cases of strangulated umbilical hernia, we cannot longer doubt.

PROVINCIAL MEDICAL SCHOOLS.

THE last few years have witnessed a remarkable revival of provincial medical schools. The attractions of London are less potent than they formerly were, whilst the long prevailing idea of the inferiority of provincial places of education has greatly declined, and it can no longer be accepted as a fact that students whose education has been conducted in one or other of our great towns, are less fitted to practise their profession, and to take their social status, than are the alumni of London medical colleges.

The change we witness in respect to these matters is already great, and, what is more, it is steadily progressive. To what causes are

to attribute it? A slight consideration is suggestive of several. Experience and observation have shown that men brought up in provincial schools have, in proportion to their numbers, attained professional eminence and positions not inferior to those sent out from the metropolis. Not but that the latter, indeed, have secured most of the highest posts and honours which a court and the wealth of the capital of the kingdom can confer, or which are lodged in the hands of the medical corporations. For, as a matter of course, London will attract men who enter the profession well furnished with means and powerful friends, and who aim at, and can afford to wait for, the highest rewards attainable in their calling. But in their general fitness for their varied and responsible duties, the students of provincial schools will favourably compare with their fellows hailing from London colleges. Indeed, we have the conviction that the hospital-schools established in the great centres of industry in this kingdom, afford wider and fuller scope for the acquisition of such knowledge as is of the highest importance in the career of a medical man, than do the educational institutions of London. Moreover, whatever advantages the provinces have possessed in past years, these have been annually augmenting. Every great centre of industrial activity has increased immensely in population, in its institutions for medical relief and instruction, in its possession of medical men of European reputation, and, to borrow a comprehensive word from the French, in its solidarity.

In fact, the growth of educational establishments in the provinces has far outstripped that seen in the metropolis.

Apart from the old universities, Oxford and Cambridge, which, until quite recently, have not stooped from their dignity, nor surrendered their conservatism, to make medical education a real portion of their works, we have now the University of Durham, and the Victoria University, with its centre at Manchester. Both these graduating bodies cultivate the patronage of medicine, and affiliate to themselves colleges specially established for the education of medical men. They consequently hold out facilities for graduation, and this especially in favour of men trained in the provinces. The natural result is an elevation in the position of provincial medical schools, and in the status of their pupils.

But this is not all. Professional education outside London is receiving a strong impetus by reason of the institution of colleges for advanced education in many of the largest cities of this country to which a medical department is attached. It is in this direction, above all, that the advance of provincial medical instruction, in comparison with London, is most marked.

In former years, whilst provincial schools afforded equal, if not superior, advantages to their scholars in the matter of practical instruction in medicine and surgery, it must be admitted they had to contend with great difficulties in providing efficient instruction in certain subjects of study, as anatomy and physiology, and still more in collateral sciences—chemistry and natural history, and physical and mechanical science, and they were deficient in museums and libraries. But, in all these particulars, there has been an entire change for the better. The liberality of private benefactors has raised up colleges, and endowed chairs for the teaching of every branch of knowledge, and particularly of those collateral branches essential to the education of medical men. Indeed, the question may be raised, if, in several of these provincial institutions, the opportunities for the study of chemistry, physics, and mechanics do not surpass those

to be met with in London medical schools. Indeed, the authorities of the latter need look well to the inducements they have to offer students if they would retain the patronage and reputation they have heretofore enjoyed.

The principle hitherto acted upon in the metropolis, of instituting in connection with each general hospital a complete school for teaching all that is required by the medical examining-boards, is attended by a dissipation of power, whilst it multiplies lecturers at the cost of efficiency.

But to show where the weakness of medical education in London exists, is not our present purpose. We are concerned with an examination of the position of the provincial schools, and will now call to our aid some excellent remarks made by Mr. R. J. Pye-Smith in his introductory address at the opening of the Sheffield School. This institution is an example of the incorporation of a medical school with a college—the Firth College, recently founded for teaching science with special reference to its technical applications. The medical department, as it may now be called, has, it seems, existed for sixty years, but has had but a chequered history. Mr. Pye-Smith says: "The work of those who have hitherto carried on the school has always been gratuitous, the students' fees having been entirely devoted to maintaining the greatest efficiency practicable under the adverse circumstances of very limited space, few students, and a low exchequer."

These remarks are an epitome of the history of the generality of provincial schools in past years, but now a new era has begun with them, chiefly, as said before, by the foundation of Colleges for general and scientific education in almost every town which has in past times aimed to become a centre for medical instruction. To the well-wishers of the profession, the impending extension of the area of medical education will be a matter of congratulation. It implies the utilisation of vast stores of experience and knowledge which have hitherto laid waste. As Mr. Pye-Smith contends, an efficient medical school in a town is fraught with great and practical advantages to the whole community, and also to the hospitals with which they are connected. It attracts good men, ambitious of the position of teachers; and, at the same time, the position, when attained, reacts favourably upon the teachers themselves. "For it is impossible for a man to be surrounded by a class of intelligent and questioning students without having the rust rubbed off some parts of his armour."

By their incorporation with colleges for general scientific culture, the opportunity is given to the provincial medical schools for wider development and greatly increased usefulness; and surely the time is not far distant when, by amendments in the system of medical education, the large hospitals and infirmaries founded in many towns, and abounding in materials for the practical instruction of students, may likewise be turned to profitable account, and supplement the medical educational machinery of the kingdom.

MECHANICS AT THE PRELIMINARY EXAMINATION.

THE new regulations of the General Medical Council with regard to the preliminary examination in mechanics, has been the source of considerable inconvenience at many of the medical schools, and has caused no little consternation among some of the new students. Under the regulations in force until October 1st, mechanics was a compulsory subject in which every medical student had to qualify, but the examination might be passed either before or after registration. Under the new regulations, the examinations in mechanics

must be passed before registering as a medical student. Although this decision was made public after the meeting of the General Medical Council at which the decision was arrived at, a large number of intending students appear to have failed to make themselves aware of the alteration. The notice given was undoubtedly too short, and the ill-advised resolution of the General Medical Council, carried, we may observe, in opposition to the opinion of many of its members most competent to judge such a question, has been a source of great inconvenience, and will be the source of great injustice unless some way out of the difficulty be speedily found.

In some cases, the difficulty has been evaded, and we understand that very many students, acting under advice, have registered this year before the end of September; they will not be affected by the new regulations. The case of students who have overlooked the regulations, and have not been advised to take this simple means of evading the difficulty, is undoubtedly hard; but there is every reason to hope that the legislative body which created the difficulty will take prompt steps to remove it. A meeting of the Executive Committee of the General Medical Council has been summoned for Friday next, October 23rd, and a meeting of the General Medical Council has been called for November 24th. The Executive Committee has the power of temporarily suspending regulations made by the full Council, and has recently exercised this power to rectify the blunder of refusing to accept the matriculation examinations of the Queen's Colleges in Ireland as qualifying examinations in preliminary general education. The General Medical Council has been summoned to meet at an unusual, and to many of the members most inconvenient, time of the year, in order to discuss the difficulty which has arisen in Ireland with regard to the Queen's Colleges; but the fresh difficulty created by the sudden enforcement of the new regulations with regard to mechanics will also without doubt come up for discussion, and there is every reason to believe that the obnoxious regulation will be suspended.

THE Queen has accepted the dedication of the *History of Queen Charlotte's Lying-in Hospital*, of which the Secretary, Mr. Thomas Ryan, is the author. The work, which will shortly be issued, is to be published by subscription, and sold for the benefit of the charity, which is greatly in need of funds.

PROPOSED PERIODICAL CONGRESS OF RUSSIAN SURGEONS.

PROFESSOR SKILASOVSKI, of Moscow, writes to the *Vratch*, urging the importance of regular meetings of Russian surgeons every two or three years, to be held alternately in St. Petersburg and Moscow, for the purpose of keeping the knowledge of provincial surgeons up to date.

VACCINATION OFFICERS' ASSOCIATION.

THE next meeting of members of this Association will be held on Saturday, October 17th, at 2.30 p.m., at the Charing Cross Hospital Medical School, 62, Chandos Street, Strand, W.C. The following agenda are announced: 1, To read minutes of last meeting; 2, Correspondence; 3, Report of Committee; 4, Election of members and honorary members; 5, Certificate postponing vaccination.

CELIBACY.

OUR Paris correspondent writes:—According to M. Lagneau, the well known statistician, there is a lower rate of mortality among bachelors under 22 years of age than among married men. Above that age, the contrary is observed, and married men live longer than bachelors. Among bachelors, 38 per 1,000 are criminals; among married men, 18 per 1,000.

RESTRICTIONS ON RUSSIAN MEDICAL STUDENTS.

It is announced that the number of candidates for the vacancies in the medical school at Krieff is so great that an order has been made restricting the privilege of studentship to those who have received their previous education at a gymnasium. The Russian medical schools are becoming so crowded that some method must be resorted to for diminishing the number of applicants. It is impossible to give clinical instruction satisfactorily to such large numbers as there are at present. It is also stated by a Russian political journal that all students who are not Christians are to be deprived of their stipends. This is specially directed against Jews, who mostly belong to the medical faculties, and who, it is said, form a tenth part of the whole number of medical students.

THE MICROCOCCUS OF VAGINITIS IN CHILDREN.

DR. JOHN CSÉRI examined the vaginal secretions of twenty-six children from 3 to 10 years of age, who were being treated in the Pesth Children's Hospital for various chronic diseases. In all of them, a coccus was found, identical with Neisser's gonococcus. Dr. Cséri asserts, contrary to Fraenkel's views, that this coccus is the same as that found in gonorrhoea. Many cases of chronic catarrhal vulvo-vaginitis are certainly infectious; others have not been proved to be so. The coccus of the infectious form is identical with Neisser's gonococcus. Cultivations have not, however, yet been made. The secretion of infectious vulvo-vaginitis affects the eye. The spreading of this disease in children's hospitals takes place by means of washing, closets, bath-tubs, dressings, and the nurses themselves.

A HEN'S EGG IN THE VAGINA.

DR. VON GAENNER mentions, in the *Correspondenzbl. für Schweiz. Ärzte*, a curious case of a hen's egg in the vagina, which he had some difficulty in removing. It had caused great difficulty in micturition. The egg lay so high in the vaginal canal, that it was with the greatest difficulty that he could introduce his finger behind it; and, as the vagina was far from roomy, he could not manage to hook the finger over it. The only instrument that seemed suitable for the removal, without breaking, of a foreign body of this kind, was Breisky's forceps for the extraction of oviform pessaries, but this was not at hand. At last, however, having emptied the bladder by making pressure with one hand over the abdominal wall above the symphysis, while a finger of the other hand remained in the vagina, the egg was expelled entire the day after its introduction, no difficulty being experienced in forcing it through the vulva.

APOMORPHINE IN CROUP AND BRONCHITIS.

DR. STUTZ, of Neuminster, is loud in his praises of apomorphine, subcutaneously injected in diphtheria complicated with croup, and in primary croup itself. Of ten of these latter cases, he lost only one, and this he attributes to his not having been called in quickly enough. Similar treatment is also very valuable in dyspnoea due to bronchitis. He has also been successful in cases of arsenical poisoning in children; and in one where a woman had such severe pharyngitis that she was quite unable either to swallow or speak. An apomorphine-injection quickly emptied the stomach of pus and mucus, and enabled her both to speak and swallow.

OBSTETRICAL STATISTICS OF THE MATERNITY CHARITY AT THE HAGUE.

FROM a report just issued by Dr. Piepers, the physician in charge of the extern maternity charity in the Hague, Holland, we learn that, during the nine years that the charity has been in existence, there have been 13,818 confinements, in which medical aid was sought in 1,253 cases, and operations of various kinds performed in 949 of these, resulting in the death of 16 women and 142 children. The number of cases has increased steadily, being for the first year of the establishment of the charity 929, and during the last or ninth year, ending

June 30th, 1885, no less than 2,204. Dr. Piepers gives some detailed statistics of the cases which have been attended during the last twelve months. Nine midwives were employed. The medical man was called in 362 times, frequently finding, when he arrived, that all was going well; sometimes advice, and at others medicine, was required. One or more operations were performed in 127 cases, in addition to extraction of a retained placenta in 8 cases. Of the 127 cases where operations were required, 15 children were still-born. There were 73 forceps-cases; all the mothers lived, and 68 out of 73 children were born alive. Three of the forceps-cases were face-presentations, both mothers and children being saved. There were 19 breech-presentations, in 4 of which the children died, the mothers all recovering. Of these 19, nature was 9 times allowed to take its course, with a result of death to 1 child, which was due to the carelessness of a conceited young midwife, who omitted to send for assistance; in 7 of these cases, extraction by the hand was performed, with 2 foetal deaths; and 3 times the blunt hook was used, with 1 foetal death. Of 12 footlings, 11 were born alive, the still-born one being putrid; 3 cases were extracted, the forceps being once applied to the head. In 9 cases, turning was performed for transverse presentation; one of these was the only fatal case of internal hæmorrhage occurring this year; the child also was dead. Prolapse of the cord occurred 9 times; 3 of the children died. There were 5 cases of placenta prævia; 2 were delivered by version; 1, where the child was dead, by forceps; and 2 without any operative interference; all the mothers and 4 of the children lived. Dr. Piepers attended 10 cases of twins; in 1 case, both children were acephalous and dead. There were 2 cases of triplets, in neither of which was the medical man sent for before delivery. There were no cases of eclampsia.

A SHORT WAY TO STOP SANITARY INFORMATION.

THE *Russian Official Gazette* announces that the Minister of Public Education, and some other high officials connected with the Ministries of the Interior and of Justice, with the aid of the chief counsel of the Sacred Synod, have ordered the complete suppression of the journal, *Zdorouje* (Health), which especially concerned itself with sanitary matters. It is to be hoped that officials, so highly placed as those who issued this order, are themselves incorruptible; but, after Stepniak's revelations about the way in which Russian officials manage to augment their nominal incomes, it is really rather hard to suppress the thought that a good many persons in this country would be only too glad to devote a good round sum to the stoppage of all public journals which are given to ventilating sanitary questions.

THE SCIENCE AND PRACTICE OF TEMPERANCE.

IN a valuable and interesting paper, read at Glasgow, on the 9th inst., Professor J. G. McKendrick has given utterance to some weighty conclusions. While avowing himself an abstainer, Dr. McKendrick pointed out the mistake of exaggeration and misstatement on the physiological action of alcohol. Such an assertion as that a glass or two of wine or beer daily would necessarily prove injurious to health, and produce a deterioration of tissue, could not be proved. Dr. McKendrick, too, declared that only men of extreme convictions would condemn the use of alcohol as medicine. The advocates of abstinence would do well to lay this judicious advice to heart, in order that a noble movement may not be prejudiced in the minds of thoughtful and intelligent persons.

CLINICAL SOCIETY.

THE first meeting of the Clinical Society during the present session was held on Friday last. As will be seen from the report of the proceedings which we publish elsewhere, the papers were of considerable interest. The President, Mr. Bryant, in welcoming the members after the long vacation, expressed the pleasure which it gave him to meet them again, and the hope that they had returned with fresh zeal and interest to the work of the Society. He then drew attention

to an advance copy of the Society's *Transactions* which he held, and remarked that a copy would be forwarded to each member at an early date. This was nearly double the size of former volumes; it contained the lengthened debate on Charcot's disease, as well as the very valuable report on Spina Bifida which was made to the Society last session. It is, perhaps, to be regretted that the Council of the Society has not seen fit on this occasion more than in past years to publish the debates, with the papers read before the Society. The addition would much enhance the value of the volume in the case of most of the debates; but at the same time the size of the book would naturally be much increased, unless the debates were printed in smaller type than the original papers, whilst the extra expense would also be considerable. The President also announced last Friday night that, at the next meeting of the members, an important practical question will be put to the vote. This is, whether tea and coffee shall be served before or after the meeting. As Mr. Bryant observed, this is not a scientific question, but is partly physiological, and eminently practical. No debate on the point will take place on October 24th, but the question will simply be put to the meeting, and a vote regarding it then and there taken. After this, the more scientific part of the proceedings occupied the meeting. The first paper was read by Dr. Sawtell, who described a fatal case of hæmatemesis and melena in a newly born infant, produced by small ulcerations of the mucous membrane of the stomach. Mr. Lucas then narrated particulars of two cases of strangulated umbilical hernia which he had treated by excision of the sac and skin-covering, with suture of the ring, after reduction. In both patients, the hernia was complicated with severe visceral lesions, so that they were good cases for testing the value of the procedure, but both recovered. From the debate that ensued, the operation, as it would appear, has not rarely been performed in London. Finally, Mr. C. Symonds detailed the history and treatment of a man suffering after a fall from compression of the brain, produced by a clot derived from the middle meningeal artery, in whom, after trephining, there was much difficulty in controlling the hæmorrhage. The case had suggested to the author of the paper the possibility of arresting such hæmorrhage by compression or ligature of the carotid. Mr. Howse also detailed two similar cases, in one of which he had ligatured the external carotid artery, and in the other had treated intracranial hæmorrhage with compression of the carotid continued for three hours.

THE MEDICAL SOCIETY OF LONDON.

THIS Society will hold its first meeting on Monday next, October 19th. The President, Dr. W. M. Ord, will deliver an address, and Dr. W. H. Broadbent will read a paper on Examples of Syphilitic Disease of the Brain and Nervous System.

TESTIMONIAL TO DR. HANDFIELD JONES, F.R.S.

THE prizes and certificates of honour for the past year were distributed to the successful students at St. Mary's Hospital Medical School on October 1st, by Dr. Handfield Jones; after which, an interesting demonstration on behalf of Dr. Handfield Jones took place, and he was presented with a handsome microscope, with an illuminated album containing the autographs of those among the staff and students at St. Mary's who had subscribed to the testimonial. Dr. Sieveking, the senior physician, in presenting it, made the following remarks. "We now arrive at the final, but, I trust, not the least interesting, part of to-day's proceedings. It is now thirty-four years since St. Mary's hospital was opened, and thirty-one years since this school was founded by the energetic liberality of men most of whom have passed away. A few still survive; and one of those, who has completed the long-period service, and gone through the heat and turmoil incident to the foundation of a new school of medicine—the gentleman whom we all honour, respect, and love—is he who has to-day presented the prizes to the fortunate competitors. In Dr. Handfield Jones you see a man who, by the indomitable perseverance and

work for which he is proverbial, is an example to young and old ; and it is on the completion of his term of office that we, his friends, wish publicly to proclaim how much we esteem him, and thus mark the services he has rendered to St. Mary's. We beg his acceptance of the testimonial and of this microscope, but must ask him not to measure our esteem by the value of the gift, but to take it rather as an indication of the feelings we entertain for him, and as a memorial of our gratitude for the admirable example of honesty of purpose, of persevering labour, and great success in scientific work, which he has set us. Would that it were in our power to reward such a man as he ought to be rewarded ! The rewards that await the genuine man of science in this country may be almost said to count for nothing ; and it might not be too much to wish that Her Majesty's advisers might see fit to benefit her councils by the introduction of men like Dr. Handfield Jones, in full possession of his faculties, and full of the results of a laborious scientific life. Consider the amount of benefit that men like Dr. Handfield Jones have conferred upon Her Majesty's subjects. Gratuitously, and without prospect of anything like public recognition, he and men like him have saved the lives and assuaged the sufferings of thousands. Far be it from me to grudge the honours bestowed upon our sailors and soldiers, who have fought and bled for our honour and prosperity ; but I would put it to you whether the quieter and less showy self-sacrifice of a great hospital-physician, who has laboured for thirty-three years in the cause of suffering humanity, is not well worthy of some public recognition of good work done for the community. And I would ask, further, why his powers should not still be enlisted, and his declining years comforted by a liberal pension, for which he might be required, as the Indian judges are after their retirement from the bench in India, to serve as assessor in the multifarious questions of sanitary import which assail every Ministry. A physician is rarely a politician. His calling lies in a different direction ; but, whether he inclines to Radicalism or Conservatism, his judgment in sanitary matters would be equally valuable, if he could bring to bear upon them the enlightened, unprejudiced, and scientific mind of Dr. Handfield Jones. I hope you will all, especially the younger part of my audience—for we old fogies can do but little in the advancement of the question—bear this point in mind, and promote its solution, as I am confident that it will be for the good of the community. It remains for me now to tender to Dr. Handfield Jones the cordial good wishes of his numerous friends both in this assembly and those scattered over the world, and to express a hope that he may live many years to enjoy the respect and esteem of his professional brethren and other friends."

MEDICAL AND SURGICAL WORK IN INDIA.

PEOPLE in England, when they speculate, often ignorantly, on the government of India by a race alien in blood, language, and religion to the various races who make up "the people of India," leave out of the account altogether the work daily and hourly done by the medical profession in that vast empire, and yet that work has probably done more to reconcile the people to foreign rule than many of the best intended acts of a benevolent Government. From time to time, evidence of this work accumulates on our hands to such an extent as to make us ashamed of the small space we give to record it. Our table groans under the accumulation of reports of sanitary commissioners, who watch over the health of the people committed to their charge ; of administrative medical officers, on the hospitals, dispensaries, lunatic asylums, and other medical charitable institutions which minister to the wants of the community. The medical colleges at the principal seats of Government in India are, year by year, sending out capable native and Eurasian medical practitioners, who are fast superseding the ignorant *hakeems*, and extending the benefits of western medical and surgical science to increasing numbers of the teeming population of Hindustan. The civil surgeons of stations do an amount of surgical work which often far exceeds that in some of the largest hospitals in European capitals, and will compare favourably as regards results

with the best of them. We have before us a voluminous Report by Dr. Walker, the Inspector-General of Civil Hospitals in the North-West Provinces, which more than justifies the above remarks, and is only one of many which tell the same tale of good work done. Dr. Walker reports 77,529 minor and 14,938 major surgical operations done in his district in the last year, with 11,143 cures, 1,973 patients relieved, and only 281 deaths. Surgeons Willcocks and Anderson are brought prominently to the notice of Government for their surgical activity, and the success that has followed their performance of the great operations, each of these gentlemen having done, on an average, three operations daily in the year under notice. What will our London hospital-surgeons say to 1,036 operations for stone, and 6,366 for cataract, "good sight" resulting in 4,592 of the cases ? It is noted that the operation of lithotripsy finds great favour among the native population, the hospitals in which it is most often done being most frequented by sufferers from stone. There are certain districts in India in which this tormenting complaint prevails to a great extent, while in others it is rare. We are familiar in this country with the fact, that two counties—one in England, the other in Scotland—have an unenviable notoriety in this respect, namely, Norfolk and Fife. In all parts of India, native travelling lithotomists are to be met with, whose apparatus is always the same : a knife and a small curved horn. Many of their patients, such at least of them as escape death from hæmorrhage, recover fairly well. The reports from the Central Provinces showed that an equal amount of yearly increasing good work is being done. In the hospitals and dispensaries of that Province, 645,669 cases were treated in the year 1884. It is satisfactory to notice that the outlying dispensaries, under native practitioners, are, year by year, being more and more brought under the superintendence of the civil surgeons, who are encouraged by Government to pay frequent visits to them to help and guide those in charge.

THE OLDEST METROPOLITAN MEDICAL SCHOOL.

ON Thursday, October 8th, Mr. W. Marrant Baker, delivered the introductory address at the Abernethian Society of St. Bartholomew's Hospital, Dr. E. W. Roughton, President, in the chair, on "The Two Foundations of St. Bartholomew's Hospital." St. Bartholomew's Hospital, he stated, was founded more than seven centuries ago, by "Rayer," commonly called Rahere, from the Latin *Raherus*. Thus, Mr. Baker observed, it might boast of being the oldest hospital in London. In the British Museum was a manuscript, written a few years after Rahere's death, by one of the monks of the Priory of St. Bartholomew the Great, and devoted almost entirely to the life and acts of the founder of the hospital. It showed that Rahere was born of low lineage, but in his youth he haunted the houses of noblemen, and even the king's palace (Henry I), where the inferiority of his birth was probably overlooked for the sake of the brilliancy of his social gifts. He was often referred to as the king's minstrel, or even jester, but no doubt erroneously, for his position seems rather to have been that of court favourite. Repenting of his follies and sins, whatever they might have been, he went to Rome, where, being grievously sick, and deeming his last hour nigh, he vowed that if God would grant him his health, he would return to his country, and there found a hospital, wherein he might minister to the necessities of the poor. His vow was heard, he recovered, and St. Bartholomew is said to have appeared to him by night, and commanded him to found a church in his name, at Smithfield, in the suburbs of London. He returned thither, the king approved of his design, and the church was founded in March, 1113, while the "hospitable house" was erected a little way off. Smithfield was at that time a marsh, with the public gallows standing in the only dry spot, and it was no easy task to build there. Rahere took advantage of the superstition of the age, and, by feigning himself an idiot, obtained the help of children and servants in collecting building material. By his preaching, he brought in further contributions, and thus the work

was completed; many alleged miracles of healing bringing fame and gifts to the church. The king confirmed his previous grant by a charter, which gave full liberty and great privileges to the priory and hospital. Rahere died, after having been Prior for twenty-two years and six months, and was buried in his own church, of which only the choir now remained. The lying-in and sick wards of a parish work-house of the present day would probably represent more nearly the condition of the hospital for some centuries after its foundation, than any department of a modern hospital. Not much of its plan and extent was known for several generations, and then, only after repeated restorations, one of which was undertaken in 1423, at his own cost, by Richard Whittington, Lord Mayor of London, immortal in folklore as well as in civic fame. Smithfield was noted as a place for tournaments, and it was probable that many a dismounted knight had been taken within the friendly shelter of the hospital, where his bleeding wounds would be staunching with red-hot irons and boiling pitch, by the priestly house-surgeon and dresser of the period. It was known that Wat Tyler was carried into the hospital, after his conflict with Walworth, the Mayor, in Smithfield. The cattle-markets and horsefairs, and the great annual fair at St. Bartholomew-tide, would also probably provide plenty of surgical cases in the early, as they certainly did in the later stages of the hospital's existence. At the Reformation, the priory and hospital of St. Bartholomew did not escape the downfall of monastic institutions, and the ecclesiastical part disappeared without much regret. But, with the hospital the case was different, and, in 1537, Sir Thomas Gresham, with the aldermen and citizens of London, begged the king to grant them the governance of the hospitals then existing in London. In 1544 letters patent were issued, vesting the governance of the hospital in a master and four chaplains, but its possessions were not regranted. This attempt was naturally a failure, and about two years later the king consented to grant to the Corporation of the City a new charter, by which the hospital should be refunded for the reception of one hundred poor and sick, and to endow it from its former possessions to the extent of 500 marks yearly, on condition that the citizens should be bound to give a like sum yearly. Thus the second foundation of the hospital came about, and King Henry VIII was called the second founder. In the reign of Edward VI, a preface, with an account of the rules and regulations of the hospital, was published in reply to certain slanders which had been spread abroad. This was reprinted in the last volume of the hospital *Reports* (see *JOURNAL*, October 3rd, page 662). The governors of the new foundation were a president, four surveyors, four "almoisers," the treasurer, and two "scrutiners." The officers were, the hospitaler, the renter clerk, the baker, the porter, the matron, twelve sisters, and eight "byddles." There were also three chirurgeons, and a minister, named the "visiteur of Newgate." The earliest separate engraving of the hospital, that Mr. Baker could trace, was published in 1720, in *Stow's Survey of London*; it then formed two small quadrangles, instead of one large square. At the same meeting of the Abernethian Society, Mr. Baker exhibited a collection of nearly forty engravings, relating to the hospital, in the library.

THE OPIUM-SMOKING EVIL.

A CERTAIN amount of pleasure of its kind may doubtless, as stated by some authors, be derived from smoking opium. If it were not so, we should know nothing of the later and worse consequences of this practice. Such enjoyment as there is, it is true, is short-lived, and the after-effects produced by this drug, as most of those who have had occasion to use it are but too ready to admit, are sufficiently unpleasant, to say no more of them, to cure the craving of any but an eager student in experimental narcotism. It may be said that such difficulties are not insuperable. No, but they must be obviated by some system of counter-drugging, or by training the constitution by habit to bear a certain amount of the opium. But what amount? and how to bear it? These are questions which cannot be concisely an-

swered. Quantity, in this case, comes readily to mean the measure of a constantly increasing appetite, and endurance is merely another name for an unhealthy slavery, difficulty to escape from, and difficult to live under, which may well be said to begin in delusion, and to end, commonly, in disastrous arrest of every useful function. Something may be said for moderation in the use of alcoholic liquors or tobacco. In regard to the habitual, or even occasional, employment of opiates outside of medical practice, there is no such term as moderation. Disease is their only excuse. Their value, therefore, is purely therapeutic, and the preferable form for their administration in most cases of illness, and merely with a view to their efficiency, is not that of inhalation. We have had occasion to write on this subject before, and have drawn attention to dangers other than moral or mental, or such as only generally affect the physical state. The fact that persons who often know nothing, or next to nothing, about their own health, and yet are the very unfittest subjects for such a drug as opium, may freely treat themselves with it for any casual pain or worry, appears to us a yet graver source of evil. To restrict the right of sale of this poison to chemists or dispensing practitioners, and to limit the privilege allowed to them, would encroach on no private right, and would give security where now there is none. We have been led to make these observations at the present time by seeing a card of advertisement, apparently for public distribution, which intimates that an establishment, where opium-smoking is taught, will shortly be opened in the West End of London. We sincerely deprecate any such arrangement, and trust that the introduction of such injurious novelties may do something to direct legal action in the way which we desire. A suggestion is made that medical men should avail themselves of the opium-pipe as a therapeutic agent. We feel sure that we represent the bulk of medical opinion in repudiating this suggestion.

THE ENTRIES AT THE MEDICAL SCHOOLS.

It is impossible to publish a complete list of the entries at the medical schools this session in the present number of the *JOURNAL*, as entries are still taking place, and the full figures will not be available until the end of this week. A detailed statement is, therefore, reserved until next week. We understand that the general average number of entries will, in all probability, be maintained; and that several schools show a very notable increase. At St. Bartholomew's Hospital, the total number of entries has been 148; at St. Thomas's, 113; at the London, 108; at Guy's, 90; at St. Mary's, 52; at Charing Cross Hospital, 63; at Westminster Hospital, 35.

THE LONDON TEMPERANCE HOSPITAL.

THE western wing of the London Temperance Hospital in Hampstead Road was formally opened on Friday last by the Bishop of London, in the presence of a considerable number of the friends of the temperance cause who had assembled in the dining-room of the new wing. Mr. Thomas Cash, the chairman of the Board of Management, presided, and stated that, according to the rules of the institution, alcohol might be administered to the inmates only in exceptional cases, but it was a strong confirmation of the wisdom of the non-alcoholic treatment that in only three out of upwards of 3,000 cases of in-patients had alcohol been used, and that while in those cases no sensible benefit resulted, the average mortality of the hospital had been but 5 per cent. from its opening in October, 1873. The western wing now about to be opened would serve for the reception of upwards of 70 patients, thus raising the number of beds in the entire hospital to 122. The Bishop of London, in the course of his address, said there was, no doubt, a considerable change in the opinion of the medical profession, as compared to what it was fifty or sixty years ago, and it was a healthy change, the result of a real examination of the question. The advocates of temperance desired that the thing should be tested by practical experience. If the treatment of the patients in that hospital were so tested, they should rejoice; for the temperance-cause had everything

to gain and nothing to lose by calling on the medical profession everywhere to ascertain for themselves, by the strictest tests, whether the assertion of the advocates of the temperance-cause was true, that alcohol was very rarely needed in the treatment of disease or of accident; and that, where there was no disease and no accident, and really health, it was certainly useless, and very probably mischievous. The Chairman stated that the number of in-patients admitted last year was 584, and of out-patients over 2,000. The total number of patients treated since the commencement was 22,500. They would have expended on the building, by the time the hospital was complete, £54,000. They had received £47,000, and they therefore required £7,000 more. They had a great many promises, and he trusted the £7,000 would soon be raised, but what they wanted was an increase in the annual subscriptions. He moved a vote of thanks to the bishop for his address.

THE EXTENSION OF UNIVERSITY TEACHING.

MR. WALTER PYE, of St. Mary's Hospital, delivered, at the Broadway Lecture Hall, Hammersmith, on Wednesday evening, the first of a course of ten lectures, under the auspices of the Hammersmith and West Kensington Committee of the London Society for the Extension of University Teaching, the subject of the discourse being, "The Laws of Life and the Laws of Health." It was stated, in opening the meeting, that, if these lectures went on, and men and women—women especially—understood the laws of health, how to clothe and feed properly, they would have a normal death-rate of twelve per 1,000, the kingdom over; and those persons who lived to 105 would be considered to have reached normal life. Mr. Walter Pye, in the course of his lecture, spoke of the necessity for acquaintance with the first principles of human physiology, before the rules which governed their physical well-being could be studied, either as individuals or as members of a household or of a community. The study of this subject was simple, and there was a beauty in the human body such as could not be equalled by any living machinery. Mr. Pye, with the help of diagrams, described, in an interesting manner, the doctrine of individual cell-life, and the phenomena common to all living things.

A HOMEOPATHIC FEE.

A PARIS homeopath having sued a duchess for a fee of 600,000 francs, obtained a judgment for 84,000 francs, but was ordered to pay all the costs himself.

SCOTLAND.

ABERDEEN UNIVERSITY COURT.

At a meeting of this Court, held on October 9th, the following gentlemen were appointed Examiners in Medicine. Mr. J. Macdonald Brown, M.B., Edinburgh; Mr. Francis Warner, M.D., London; Mr. John Alexander, M.D., Glasgow; Mr. J. A. McWilliam, M.D., London; Mr. Alfred H. Carter, M.D., Birmingham; and Mr. A. D. Leith Napier, Dunbar. At the same Court, the following appointments by professors of assistants for the coming year were approved of. Chemistry: Mr. Henry T. Jones. Anatomy: Mr. Patrick Whyte Rattray, A.M., M.B. Materia Medica: Mr. John G. Hall, M.D. Medical Jurisprudence: Mr. Alexander Macgregor, M.B.

EDINBURGH UNIVERSITY COURT.

At a meeting of Edinburgh University Court, held on Monday, it was resolved, after consideration, to sanction the institution of a lectureship in embryology, with classes, during both winter and summer sessions, a fee of two guineas to be charged for the course. The under-noted individuals were recognised as teachers of medicine whose course of instruction would qualify for graduation in Edinburgh University: Professor D'Arcy Thomson, Dundee, in natural history; the Rev.

John Lowe, F.R.C.S.E., teacher of practical materia medica, Edinburgh; Mr. John Rutherford Hill, teacher of practical materia medica, Edinburgh; and Mr. R. Urquhart, teacher of practical materia medica, Edinburgh. At the same meeting the appointment of Mr. David Hepburn, M.B., as assistant to the professor of anatomy was approved.

AMBULANCE-WAGON FOR DUNDEE.

For some time past an experiment has been made in Dundee with an ambulance-wagon which was presented by Mr. Armitstead to the St. John Ambulance Association. The results, according to the chief constable, have been very satisfactory, and it has been resolved to hand it over to the town. It is intended that Lord and Lady Strathmore shall make the formal presentation.

IRELAND.

DR. FRANCIS JOHN O'REILLY has been appointed a justice of the peace for the County Meath.

HEALTH OF BELFAST.

DURING the past month, the general death-rate, and that from disease of the lungs, have been below the average of the last four months; diarrhoea has, however, been prevalent, and has kept up the death-rate from zymotic diseases. The other principal zymotics have been much below the usual average, while measles and scarlatina, which were lately epidemic, have nearly disappeared.

PROPOSED REDUCTION OF THE SALARIES OF POOR-LAW MEDICAL OFFICERS.

Of late, the guardians of various unions in Ireland have passed resolutions reducing the salaries of their medical officers, by 20 to 25 per cent., in consequence, as alleged, of the depressed condition of the times. Among others, the guardians of the Youghal Union have adopted a resolution of a similar kind, but, very fortunately for poor-law medical officers, the Local Government Board have refused to sanction such an illegal proceeding. It is scarcely reasonable or just to reduce the scale of payment on the grounds assigned, so long as the officers satisfactorily perform the duties they undertook to perform. At the same time it is competent for the guardians, should a vacancy occur, to reduce the salary of the appointment to a certain extent, but then, in this case, candidates go up for the post with their eyes open, a far different proceeding to reducing the salaries of medical officers after many years' efficient services.

BEQUESTS TO DUBLIN HOSPITALS.

SEVERAL of the Dublin hospitals, in addition to numerous Catholic charities, will permanently benefit by the will of the late Mr. Hugh Blayney, a grocer and spirit-merchant of the city. He has bequeathed a number of shares of Bank of Ireland stock to trustees, the dividends or annual profits of a certain number of which are to be contributed towards the maintenance and support of the respective institutions. The Mater Misericordiae Hospital is to get the dividends of twenty shares; St. Vincent's and Jervis Street Hospitals the dividends of ten shares; and Mercer's, Cork Street, the Coombe, the Incurable, and the Buckingham Street Children's Hospitals, each the dividends from five shares.

THE HOUSE OF INDUSTRY HOSPITALS.

MR. GUY P. L'ESTRANGE NUGENT, Assistant-Physician to these Hospitals, has been elected by the governors, by a majority of one vote, to the vacant physicianship caused by the death of Dr. MacDowel. During the time that Mr. Nugent has filled the senior post, he has admittedly discharged its duties to the advantage of the patients and to the satisfaction of the medical staff, the pupils, and

the governors of the hospital; yet, out of the seven gentlemen who took part in the election, three voted against him, for no other apparent reason than that he was not of the same religion as they were. It is acknowledged by the organ that is supposed to represent the religious views of these gentlemen, that it has "nothing but praise for Dr. Nugent personally," neither does it "regret the result arrived at." This being so, we cannot but regret their action, and trust that such sectarianism may not be copied by "the other side" in the election of a successor to Mr. Nugent as assistant-physician, but that the best man, irrespective of his creed, will be selected.

CHOLERA.

CHOLERA IN SPAIN.

OUR correspondent from Valencia writes, under date October 8th, 1885.

Since my last letter, there has been little or nothing worthy of notice occurring in this city or province concerning the state of health; and I was in hope to tell you of the Te Deum festival being held as a Governmental proof that we had been free—absolutely free—from cholera, for twenty days without a single case having occurred, which is the summing up of the ministerial decree; when, alas, about ten or twelve days ago, a sister of charity was transferred to do nursing duty to the "Asilo de Lactancia" (or wet nursing asylum for orphan infants whose mothers were cut down by cholera), from the General Hospital—in neither of which establishments had a single case of the disease occurred. The evening on which she arrived in her new quarters she was seized with malignant cholera, and died four hours after seizure. The next day, she was replaced by another sister from the same hospital to the same duty, and in three hours she too died. Then came the alcalde, medicos, scavengers, etc. Since then, no other case has occurred in that most susceptible institution, filled with babies and dirty wet nurses. Well, about eleven days passed, and no death, and the papers again gave out that the Te Deum would be held on or before the 15th instant; when to-day I see another sporadic case has occurred in the centre of the city; so that, if we have to wait for the Te Deum till twenty days pass without a single case, it may take us round the year's circle; and you must remember that the diagnostic report of the medico is what gives the matter importance. I have every reason to believe that the last so-called "sospechoso" was merely ordinary colic. The death-rate is lower still than when I last wrote, namely, from four to fourteen daily—the majority children—from all diseases; even the intermittent fever, which was so general, has almost gone. The official bulletin of yesterday gives 294 cases and 106 deaths for the whole of the peninsula; the cities and provinces of Barcelona, Huesca, Valladolid, Saragossa, and Tamora supply the great majority.

In yesterday's local paper, the *Provincias*, I read the following conclusions of the "dictamen" of the Scientific Commission who accompanied Dr. Ferran in his last experiments to prove his peculiar theory by his so-called "preventive cholera-vaccination."

1. The vaccination cannot be considered inoffensive.
2. The attenuation of the bacillus has not been demonstrated.
3. The imagined prophylactic proceeding of Dr. Ferran is empiric, because it lacks all scientific rules or laws.
4. By means of the vaccination, an epidemic of the disease could be produced.
5. The result does not demonstrate that it produces immunity from cholera.

There is here just now "a chiel' amang us takin' notes, and faith he'll prent them" in reference to the hygienic state of Valencia; and before this reaches you, his report, which I feel sure will be both able and true, will have been read all over Britain.

I have seen several observations made and questions put in the medical journals upon the sudden disappearance of birds from a cholera-infected district. What I have observed here was the complete and sudden disappearance of all the small birds except the swallow, and their flight was always very high and quick, as if much frightened and disturbed. A friend who was in Almeria during the second day of the fearful outbreak there, told me (and he then did not know the cholera had broken out) that the sparrows in vast numbers gathered in the neighbourhood of his fonda or hotel, and screamed and rushed about as if escaping from a great fire, and then disappeared; and they have not yet returned, either here or there.

PREPARATION AGAINST CHOLERA IN LONDON.

So long back as 1871-73, when cholera was, together with small-pox, raging on the Continent, and had been conveyed by emigrants from French and German ports to the United States of America, where it committed even greater ravages than it had on this side the Atlantic, the Local Government Board entered into communications with the Metropolitan Asylums Board, with a view to ascertaining how far the latter, as the only sanitary authority for the whole of London, was able, or would be willing, to provide hospital-accommodation in the event of the cholera invading this country, as it had on each previous occasion of its appearance in Europe.

It was not intended that the Asylums Board should undertake the entire responsibility of providing against the contingencies of a wide-spread epidemic, the distribution of which it would, of course, be impossible to foresee. This duty would naturally devolve, as hitherto, on the several local sanitary authorities, the vestries and local boards of the districts where the disease should be most prevalent, but that the Asylums Board should provide "a first line of defence" in the form of a certain and limited number of beds for cholera-cases, or of accommodation for the inmates of certain workhouses, who might be displaced by the appropriation of these buildings as hospitals for the districts in which they were respectively situated.

After interviews, first with Drs. Buchanan and Bridges, and, later, with the President of the Local Government Board, the managers of the Asylums Board, in a letter addressed to the President, stated that they were not prepared to erect cholera-hospitals, nor to set apart any portion of the fever and small-pox hospitals under their control for the purpose, since such a course would be attended with considerable difficulties, the utmost they could do in this direction being to allow the use of the *Dreadnought* hospital-ship for cases actually occurring in the port, but not for any from the shore. They believed that cholera-patients would be better treated at their own homes, or in hospitals as near thereto as possible; but if the guardians of the several parishes and unions should, at the desire of the Local Government Board, convert any part of the workhouses into cholera-hospitals, they were willing to provide for the accommodation of the paupers thus displaced in default of the guardians doing so themselves.

The alarm having subsided, nothing more was done until the re-appearance of cholera in Egypt in 1883, when, in reply to a letter from the Local Government Board, they consented to set apart a certain number of beds at the Homerton and Stockwell hospitals for the accommodation of cases of cholera.

The passing in that year of the Prevention of Diseases (Metropolis) Act completely changed the position of affairs. The managers were now informed by the Local Government Board that they were, by that Act, constituted the sanitary authority for the entire metropolis for the purposes of the Act, empowered to utilise their own hospitals, ambulances, appliances, and staff, to purchase or hire buildings, etc., or to contract with other persons or authorities, and in other ways to provide for the accommodation of cholera-patients in any part of the metropolis, and irrespective of existing boundaries, regard being had only to the density of population, the prevalence of the disease, and the distance of the sites selected from the dwellings of the patients.

They were, at the same time, assured that the Board would expect the vestries and local boards to make provision for any excessive incidence of cholera in their several districts.

The Asylums Board, in their reply, a memorandum dated December 30th, 1884, stated that, as the result of their endeavours since the receipt of this last communication, they had obtained from boards of guardians and governors of hospitals offers of accommodation to the extent of 1,200 beds, making, with 300 which they could provide in their own hospitals, a total of 1,500 beds available at the shortest notice.

They had also secured several open sites for the erection, if need should arise, of temporary hospitals sufficient for the accommodation of about 200 patients in about fourteen days after notice of such need should be given. Unfortunately, they added, there were still large areas, especially in the south of London, where they had been unable to find any suitable buildings or spaces for the erection of temporary hospitals. Still, they hoped that the provision they had been able to make would suffice for such time, at least, as might enable the local authorities to supplement it where necessary. But, they continued, they had learned that, in the opinion of many competent medical authorities, it was highly undesirable, in the interests of the patients, that they should be removed to any considerable distance, even if it were impossible for them to be attended in their own homes; they believed that the local authorities would be better able than they

to provide hospital-accommodation in buildings or houses in their respective districts, and still easier to secure premises as refuges for the healthy members of the families of persons attacked with cholera. Such removal of healthy individuals, they were aware, could not be enforced by the existing law or Orders in Council; but should any difficulties be experienced, the Council might, they thought, by a further Order provide for the emergency.

These questions have been ably and clearly discussed in a report drawn up, at the request of the Asylums Board, by Mr. Shirley Murphy, whom they had consulted in the matter, and which has now been communicated to the vestries and local boards by the order of the Local Government Board.

The following is a list of the premises of which the managers of the Asylums Board have already obtained promises in case of need, with the extent of accommodation in each.

Sanitary Division.	Institution.	No. of Beds.
Poplar	Workhouse	30
Mile End Old Town	Workhouse	40
Hackney	Workhouse	60
Hackney	Eastern Hospital, Metropolitan Asylums Board	50
Hackney	German Hospital	16
Whitechapel	London Hospital	150
Whitechapel	Workhouse	14
City	St. Bartholomew's Hospital	50
Islington	London Fever Hospital	50
Holborn	London Homeopathic Hospital	72
Strand	King's College Hospital	50
St. Pancras	Royal Free Hospital	30
St. Pancras	Central London Sick Asylum	60
Hampstead	North-Western Hospital, Metrop. Asylums Board	50
St. Marylebone	Workhouse	60
St. Marylebone	Middlesex Hospital	30
Paddington	Workhouse	25
Paddington	St. Mary's Hospital	50
Westminster	Westminster Hospital	20
Chelsea	Workhouse	25
Chelsea	St. George's Union Infirmary (in Chelsea)	50
Kensington	Workhouse and Workhouse Infirmary	64
Fulham	Western Hospital, Metropolitan Asylums Board	50
Fulham	Workhouse	20
Lambeth	St. Thomas's Hospital	24
Lambeth	Workhouse	50
Lambeth	South-Western Hospital, Metrop. Asylums Board	60
Newington	Workhouse Infirmary	30
St. Olave's	Guy's Hospital	50
St. Olave's	Workhouse	50
Camberwell	Workhouse Infirmary	24
Rotherhithe	Workhouse (St. Olave's)	50
Greenwich	South-Eastern Hospital, Metrop. Asylums Board	50
Plumstead	Woolwich Workhouse	6
Total		1500

The open spaces on which temporary hospitals could be erected within fourteen days are—

Sanitary District.	Situation of Ground.	No. of Patients.
Poplar	East and West India Docks (several acres)	50 beds or more.
Bethnal Green	Peel Grove Burial Ground	20 beds.
Whitechapel (Lower)	St. Katherine's Dock	20 beds.
St. George's-in-the-East	London Docks	20 beds.
St. Marylebone	Vestry Stoneyard	10 beds.
Bermondsey	South-Eastern Railway (Bricklayers' Arms Station)	40 beds.
Rotherhithe	Manager's Wharf	30 beds.
Total		190 beds, or more.

THE WOLVERHAMPTON AND DISTRICT MEDICAL SOCIETY.—The annual meeting of the above Society was held on October 8th, at Wolverhampton, Mr. Newnham presiding. The following report of the work done during the preceding session was carried. Papers had been read to the Society by Dr. Ransome, of Manchester, on Chest Mapping and Measuring; Dr. Totherick, on Cases of Illness brought on by Waiting at Railway-Stations; Mr. V. Jackson, on a Cheap and Ready Way of Treating Club-Foot; Mr. A. Chesshire, on the Value of Cocaine as a Local Anæsthetic; Dr. S. J. Smith, on Puerperal Fever; Mr. Crockett, on Puerperal Fever; Mr. Manly, on Climacteric Disorder. Twelve cases and sixteen morbid specimens had also been exhibited.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) The previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the President-elect, Mr. J. T. Hartill (Willenhall).—VINCENT JACKSON, General Secretary.—Wolverhampton, September 11th, 1885.

OXFORD AND DISTRICT BRANCH.—A meeting of this Branch will be held, in Oxford, on Wednesday, October 28th. Members who wish to communicate papers are requested to inform one of the secretaries (W. L. MORGAN, Esq., 42, Broad Street; Dr. DARBISHIRE, 60, High Street, Oxford), on or before October 19th.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 22nd, at 5 o'clock. Dinner at 5.30 o'clock, punctually. Subject for discussion: The Treatment of Obstinate Constipation. Mr. Frederick Treves will open the discussion. Gentlemen wishing to read papers or cases are requested to send notice to W. M. KELLY, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Tredegar, on Thursday, October 29th. Members wishing to read papers, etc., should send titles to Dr. Sheen by October 19th, in order that the same may be inserted in the circulars.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, October 5th, 1885.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this Branch will be held at the Surrey County Hospital, Guildford, on Thursday, October 29th, 1885, at 3.30 P.M.; Dr. Morton, of Guildford, in the chair. Dinner will be provided at 6 P.M., at the White Lion Hotel; charges, 7s. exclusive of wine. Agenda:—Mr. Henry Hugh Clutton: The Treatment of Cystic Bronchocele. Dr. J. Herbert Stowers: The Skin-diseases of Childhood, their Nature and Treatment. Dr. Morton will exhibit a case of Excision of the Hip-joint. Mr. Sells will exhibit a case of Excision of the Knee.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Bridport, on Wednesday, October 21st, 1885. The business meeting will be held at the Town Hall, at 2.45 P.M. Agenda:—Election of Officers for 1886. Place of the May meeting. Communications:—Dr. Batterbury: Two cases of Intrathoracic Tumour. Dr. Dyer: Two cases of Inversio Uteri. Dr. Griffin: Case of Severe Wound of the Knee-joint treated with Glycerine and Carbolic Acid. Dr. Griffin: Treatment of Placenta Prævia. Dr. Lush: Specimen of Lead Pipe eroded by Sewer-Gas. Discussion: Habitual Constipation and its Treatment. Dinner at the Bull Hotel at 5 P.M. Charge, 6s. each, without wine. Members intending to be present, and who have not signified their intention to Dr. Lush, are requested to send word to Mr. W. A. E. Hay, West Allington, Bridport, on or before Monday, October 19th.—WM. VAUDREY LUSH, M.D., Weymouth, C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

BORDER COUNTIES BRANCH.

The autumnal meeting of this Branch was held at the Golden Lion Hotel, Maryport, on Thursday, October 1st, 1885, at three o'clock.

Chairman.—In the unavoidable absence of Mr. Hall, President, the chair was occupied by Dr. EATON, Cleator Moor, President-elect.

Eleven members and four visitors were present.

Vice-President.—On the motion of Dr. MACLAUREN, seconded by Dr. EATON, Dr. J. S. Muir, Selkirk, was elected Vice-President for life, unanimously.

Medical Advertising.—On the motion of Dr. LEDIARD, seconded by Dr. EATON, the following resolution was carried by the meeting unanimously.

"That this meeting strongly disapproves of medical advertising."

A sample of the kind of advertising alluded to was passed round.

Patients.—Dr. CRERAR, Maryport, showed the following patients.

1. A child with arrested development of one eyeball.
2. A woman whose breast had been removed for cancer twelve years previously.
3. A man with recurrent epithelioma of mouth and glands of neck, the primary disease having been operated on by the late Professor Spence about six years before.
4. A case of recovery from fracture of the spine in the lower dorsal region. Dr. Crerar also read the following notes of Cases 2, 3, and 4.

CASE II. Cancer of the Breast: no Recurrence.—A. K., aged 64 years, complained of pain in her left breast twelve years ago. Dr. Crerar observed all the present symptoms of hard cancer, including great pain and rapid progress of the disease. The breast was large; its removal at the earliest possible period was advised, and, meantime, opiates were administered. She declined to be operated upon, and expressed a belief that the medicine was curing her. Dr. Crerar undeceived her on this point, and pressed immediate extirpation of the diseased gland. She then consulted Dr. Douglas, of Workington, a practitioner of great experience. He was of the same opinion as Dr. Crerar. The patient now decided to undergo the operation. At her request, Dr. Douglas was present at the operation, assisting. Dr.

Crerar removed the breast. The wound, which was extensive, healed well, and the patient remained free from disease to this day. The interest of the case consisted in absence of recurrence, even twelve years after operation. In reply to inquiry, Dr. Crerar said he had not more than naked-eye proof that in this case the tumour was cancerous, but he had no doubt that it was so.

CASE IV. Fracture of the Spine: Recovery.—T. D., aged 27 years, was working six years ago as a miner in a coal-pit, and in a stooping position, after the manner of colliers, when a heavy piece of "metal" fell from the roof and struck him with great force on the back. He was carried home carefully, and Dr. Crerar first saw him lying on his back upon the floor. He had complete power over the lower limbs; but, on examining his spine, it was found to be fractured and partially dislocated, the injuries involving the eleventh and twelfth dorsal and the first three lumbar vertebrae. The injuries were very distinct. Dr. Crerar expected paralysis of the parts below the injury in a few hours; but, as the cord seemed to have escaped, a hope was expressed that the man might possibly recover. He lay on his back about eight months, nearly losing his penis at one time by sloughing, but he made a good recovery. The seat of the injuries was very apparent on October 1st, 1885, a good deal of callus having been thrown out. He had married since the accident, and had become the father of a family. He was strong and well, working every day as a coal-miner without any inconvenience. Seeing that so few who had sustained fracture and dislocation of the spine recovered, this case appeared to be one of considerable interest.

CASE III. Cancer of Tongue: Removal: Return of Disease.—R. L., aged 62 years, at one time the master of a foreign-going vessel, was never a strong man. Six years ago, he consulted Dr. Crerar about his tongue, one part of which had become the seat of uneasy sensations. Believing that incipient cancer of the tongue existed, operation was advised; and for this purpose he went to Edinburgh, where Professor Spence removed the left half of the tongue longitudinally, well beyond the seat of the disease. He made a good recovery, and gradually regained the power of speech. About two years ago, he sustained compound comminuted fracture of the right thigh, involving the knee-joint, and necessitating amputation, which was done by Dr. Lediard, of Carlisle. He recovered well from this operation; but, sad to say, after all these sufferings, the patient was again the victim of cancer, the disease having returned in the root of the tongue, where it now formed an open sore, a large malignant mass growing also below his left ear externally. The disease in the tongue was gradually extending downwards, the larynx being considerably affected. He suffered intense pain, with occasional remission; but his end was evidently near.

Remarks on Hospitals, with Special Reference to those for Infectious Diseases.—Dr. EATON (Cleator Moor) noted the difficulty of getting people to submit to be taken to a fever-hospital, especially children, when suffering from the usual zymotic diseases, and stated that such hospitals ought to be prepared to accommodate several varieties of zymotic disease. He thought, also, that the notification of cases of infectious disease should be compulsory throughout the country; and that private beds, in separate wards and pavilions, should be available in connection with such hospitals, so that the well-to-do would readily submit to treatment there, at a fair tariff, when their houses or lodgings were not capable of affording proper isolation, and the private practitioner would thus be relieved of the temptation to secrecy as to the existence of such cases. Dr. Eaton then quoted Professor M. de Chaumont, Mr. A. Wynter Blyth, and Mr. H. C. Burdett on the origin of hospitals; and, after referring to the origin of hospitals, gave a chronological account of the foundation of the London hospitals, noting that only three were recorded during the sixteenth century, none during the seventeenth, and 13 during the eighteenth. In the first three-quarters of the present century, 30 hospitals were founded; and, at the end of 1882, the number of hospitals in London amounted to 175, not including workhouse-hospitals. Throughout England, the total number was 597, besides 602 in the Local Government Medical Service. In Wales, there were 22 general hospitals, and 47 in connection with workhouses, and this estimate did not include lunacy, fever, accident-cottage, and dipsomaniac hospitals, or convalescent-homes. Hospitalism was next considered, with a review of the opinions of the late Sir James Simpson, Mr. Erichsen, Dr. William Farr, Miss Nightingale, Dr. Lefort, Dr. Stule (Superintendent of Guy's Hospital), Professor T. Holmes, and Sir James Paget. Dr. Eaton summed up as follows. "From what I observed twenty-two years ago at the Glasgow Royal Infirmary, I can firmly endorse these opinions of Professor Holmes. At that time, Mr. Lister (now Sir Joseph Lister, Bart.) had commenced the antiseptic treatment of wounds, and his wards were situated on the same land-

ing as, and only two stairs' width from, wards attended by other surgeons, who were treating their cases by the older methods. Cases of phagedæna and pyæmia, I remember, were confined to the wards of the latter, clearly proving that the hospital *per se* was not the cause of these so called hospital-diseases, but that something which careful and antiseptic dressing of wounds could neutralise was the cause." The explanation of the terrible mortality in the large hospitals at the end of last century was then given, and the necessity for having fever-hospitals, as well as their proper size and locality, was discussed, the opinions of distinguished authorities and experienced medical officers being quoted. Dr. Eaton, in conclusion, gave the following opinion from his own experience. "It is the heedlessness of the patient's relatives and visitors, that, in country districts, so frequently prevents the medical officer of health from being able to stamp out prevalent infectious diseases. When small-pox was epidemic at Cleator Moor in 1873, I frequently observed that certain whole families altogether escaped infection, though living next door to houses stricken with the disease, and, apparently, chiefly because they refrained from intercourse with their neighbours; for though, unfortunately, I have no record of the proportion of those attacked that had been vaccinated or not vaccinated, the disease was so prevalent throughout the district amongst both classes, that the escape of any families was noteworthy, and, when epidemics of scarlet fever or whooping-cough have been prevalent in the district, I have generally traced the spreading of the disease to the children from infected houses playing with other children indiscriminately." Dr. Eaton then summarised the essentials as to the construction of hospitals as to locality and site, foundations, building materials, form of building, shape and arrangement of wards, ventilation, warming, lighting; the position of nurse's room, the furniture of wards and furnishings, and the best forms of beds, mattresses, etc. He then spoke on the following subjects—the best disinfectants, and how to use them; the precautions against visitors carrying away infection; the arrangement of lavatories, water-closets, and how to secure disinfection of all excreta before they are allowed to enter the sewers; the propriety of having all plumber's work open for inspection, and every pipe labelled; the best form of water-closet, and the best forms of disinfecting apparatus; the water-supply, ambulances, stretchers, hospital-clothes, the periods when patients can be safely dismissed from fever-hospitals; the qualifications, work, and treatment of trained nurses; and the accommodation for zymotic disease required in proportion to population.

Case of Gastro-intestinal Hemorrhage.—Dr. BLACK (Keswick) was called, on April 29th, to Mrs. T., in labour with her sixth child. The labour was tedious. The head and face of the child were of a dark purple colour. It did not cry till some time after birth. The cord was not divided immediately. On May 4th, Dr. Black was sent for to see the child. It had been vomiting, since the previous day, what at first had a yellowish appearance, but had now become much darker. The tongue was deep red. The body had a jaundiced appearance. On May 5th and 6th, the vomiting continued. The radial pulse was imperceptible. The extremities became cold, and the face appeared pinched and death-like. Previously to vomiting, the child became restless, and tossed its head from side to side, when blood would well out of the mouth and nose. Its odour was peculiarly offensive. The child died on the afternoon of May 6th. *Necropsy.*—The stomach was greatly distended, and of a dark purple hue. It contained about a tea-cupful of dark semi-coagulated blood. The under surface of the liver was of a greenish-black colour, the upper normal. The spleen was dark and friable; the lungs and heart anæmic.

Removal of a Piece of Gum-elastic Catheter from the Bladder.—This case was read, for Mr. C. J. MURIEL (Whitehaven), by Mr. J. C. C. HARRIS. THOS. B., aged 30, formerly a soldier, but now an iron-worker, had had ague in India, and also gonorrhœa, followed by gleet. For about five years, he had suffered from a troublesome stricture, for which he had been admitted into the Whitehaven Infirmary four times. He was naturally a very timid man, extremely sensitive to pain, and would cry like a child for fear when expecting any medical examination. He was admitted a fifth time into the Infirmary on April 6th, 1885, with his stricture in the same state as it had been on the previous occasions. He could only pass a small-sized catheter, and that with great difficulty, but this time he complained of having, about a month or so before, broken a gum-elastic catheter in the bladder, and the piece, remaining there still, gave him much pain and trouble. He was in bad health, his heart being found to be fatty, his urine albuminous and scanty, containing waxy casts and a large amount of mucus: its specific gravity was 1012. The patient often had rigors and sweating, but the previous history of ague, and the fact that these rigors often came on him when in perfect health, dimin-

ished their importance. After general treatment, which improved his health, the old stricture was treated, and it soon gave way, as before, to the treatment used, and a fair-sized catheter could at length be passed. All this time, in spite of frequent exploration, the piece of catheter in the bladder had never been detected. Still the patient persisted in declaring that it was really in his bladder, and begged to have it removed. He was once more examined under chloroform; on this occasion, Mr. Muriel could distinctly feel a foreign body, like a stone, as did the house-surgeon, Mr. Harris, but it was never distinctly felt again. The patient then repeatedly passed minute pieces of a sort of phosphatic calculus with his urine. After consulting with his colleagues, Mr. Muriel operated on June 24th, performing lateral lithotomy, and extracting, after some amount of trouble and manipulation, a piece of catheter with a phosphatic deposit at each end (as shown in the specimen which was exhibited at the meeting). It was a piece of a small sized gum-elastic catheter (probably about a No. 1 or No. 2), about six inches long, having at each end a calcareous deposit of a phosphatic nature, about the size of a pigeon's egg. The patient made a most rapid recovery, his temperature never rising above 99.6° F. He was convalescent in fourteen days after the operation, all his urine flowing by the right channel, and the wound completely healed. A No. 12 catheter was passed for him once a day, and he was discharged on July 27th as "cured."

Notes on a Case of Carbolic Acid Poisoning.—Mr. HARRIS read this case for Dr. WELBY L'ANSON. J. H., aged 17, a servant-girl, was seen at 9 A.M. on August 22nd, suffering from the effects of swallowing two ounces of carbolic acid about 7.30 A.M. The symptoms were: Profound coma, stertorous breathing, pupils contracted, conjunctiva insensible to touch, limbs flaccid, breath smelling strongly of carbolic acid, mucous membrane of mouth stained white. The stomach-pump was employed, ammonia administered, sinapisms applied, a stimulating enema injected, whilst galvanism and artificial respiration were also brought into use, but the patient died in four and a half hours after taking the poison. No necropsy was permitted.—In the discussion which followed, the meeting seemed disposed to agree in the view that some coroners were disinclined to order *post mortem* examinations from parsimonious ideas, thereby risking public safety.

Tumour of Pharynx.—Dr. HIGHER (Workington) exhibited a specimen of tumour of the pharynx. The patient was a woman, aged 30, six months pregnant. She complained of choking sensations. On examining her throat, a large tumour was detected, protruding from the pharynx. It looked and felt like the tongue. Laryngoscopic examination showed its origin from the left anterior wall of the laryngeal portion of the pharynx. The patient died suddenly. At the necropsy, Dr. Higher found that the tumour grew from the left great cornu of hyoid bones. Its dimensions were: length, three inches; greatest width, one inch and three-quarters; and weight, one ounce and a quarter. Dr. Coats, to whom it was sent for examination, described it as a large mucous polypus, consisting of loose connective tissue covered by mucous membrane, and one which resembled the tongue very closely. Mr. LENNOX BROWNE, to whom it had also been submitted, stated that, in the opinion of himself and colleagues, it was a tumour of great rarity, and in their experiences (both professional and literary) it was unique.

Dinner.—Ten members and visitors afterwards sat down to an excellent dinner at the Hotel; Dr. Eaton in the chair, and Dr. Crerar in the vice-chair.

Next Meeting.—The next meeting of the Branch will be held in December at Carlisle.

SOUTH MIDLAND BRANCH.

THE autumnal meeting was held at Stony Stratford, on Tuesday, October 6th, under the presidency of Mr. W. H. BULL. Twenty-two members were present, and were handsomely entertained at luncheon by the President prior to the meeting.

Branch Representative on Council.—Dr. BRYAN gave a report of his attendance at the meetings of Council as representative of the Branch.

Medical Benevolent Fund.—Mr. TERRY urged the claims of the Medical Benevolent Fund.

New Members.—Two gentlemen were elected by the Branch Council members of the Association and of the Branch, namely, Mr. M. M. Hailey, Newport Pagnell; and Mr. M. H. Molohan, Towcester.

President's Address.—The PRESIDENT read a short introductory address, dwelling specially on the importance of not losing sight of the expression of the face, and the general appearance of the patient, as aids to diagnosis in disease. There was always a tendency to an oversight in this respect; far too much trust was often placed in the numerous scientific appliances at our disposal at the present day.

Papers and Cases.—Dr. LANE read an interesting case of Melanotic Carcinoma, showing great diffuseness of growth; and exhibited a specimen. A good discussion followed, in which many of the members present took part, mentioning illustrative cases.—Mr. DEATH read a case of Apoplexy in a Child.—Dr. MORE related a case of Amputation of the Leg, in an old woman, for senile gangrene.—Mr. R. A. MILLIGAN read a short note on the Radical Cure of Varicose Veins by Excision, several of the members taking part in the discussion which followed.

Additional Meetings.—Mr. EVANS (Honorary Secretary) made some remarks, advocating increased activity in the Branch; and proposed that two additional meetings should be held during the year, thus making them quarterly;—namely, one in each district of the Branch, and one (the present annual meeting) of the whole Branch. The subject had previously been mooted by himself at a committee meeting, and also by the President at an autumnal meeting, two or three years ago. Mr. Evans also quoted an important paragraph from the report of Council to the annual meeting of the Association at Cardiff, advocating additional meetings of the Branches (see JOURNAL for July 25th, 1885, page 171).

A prolonged and animated discussion ensued, in which nearly all the members present took part. On a show of hands being made, it was found that the numbers for and against were nearly equal. Several amendments were proposed; but, ultimately, it was resolved that the opinion of every member of the Branch, "Yes" or "No," be obtained, by the insertion of a paragraph in the subscription-circular issued in January.

Vote of Thanks.—At the termination of the meeting, a cordial vote of thanks was unanimously passed to the President for his hospitality, and for his able conduct in the chair.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Bacillus of Syphilis.—*The Use of Chloride of Rubidium.*—*Alcoholic Paralysis.*—*Sudden Death Among Hæmophiles.*—*Herpes of the Cornea Accompanied by Anæsthesia.*—*Mahé on the Cholera-Route.*—*Work Done by the Conseil d'Hygiène.*—*General News.*

MM. ALVAREZ and TAVEL are engaged in researches on the microbe of syphilis, and have just published the following facts. There exists in some normal secretions a bacillus not yet described, which is identical in shape, and in its behaviour under the influence of reagents, with that of *Lustgarten*. The bacillus studied by MM. Alvarez and Tavel resembles the bacillus tuberculosis. It is stained by some of the processes hitherto considered special to the bacillus of Koch, and that of leprosy. It differs from the bacillus tuberculosis by being less granular and thinner. After staining in fuchsin, and subsequent treatment with nitric acid, it is more easily affected by alcohol than is Koch's bacillus. Ehrlich's method has no effect on this bacillus.

Dr. Charles Richet, in a communication to the Académie des Sciences, describes the results of his experiments with chloride of rubidium. Its physiological effects are the same as those of chloride of sodium, but its toxic properties are only half those of table-salt. Dr. Richet, therefore, recommends the substitution of the chloride of rubidium for chloride of sodium in therapeutics.

Paralysis, resulting from alcoholism, has been studied by M. Lancereaux. Dr. Oettingen, formerly his house-surgeon, has chosen this important subject for his doctoral thesis. This form of paralysis, according to Dr. Oettingen, is not of central origin but peripheral, and results from diffused neuritis. Alcoholic paralysis is always preceded by a series of symptoms, clearly indicative of alcoholism, and is accompanied almost always by phenomena special to this form of paralysis, namely, acute pain in the limbs, pricking sensations, and paresis, which is most intense on waking, and is generally the forerunner of paralysis. The extensor muscles of the toes are paralysed the first, and the foot resembles a case of talipes. This form of paralysis sometimes steals on slowly, at others increases rapidly, and becomes generalised. Facial paralysis never occurs, and deglutition is rarely affected. The bladder and intestines preserve their normal condition, neither is there paralysis of the muscles of the eye. Clinically speaking, there are three different forms. The first consists of paresis easily cured; the second is chronic paralysis, and may continue for months and years. The third progresses rapidly, and is generally fatal after a few months. The general health becomes seriously

deteriorated, the tongue is dry, incurable diarrhoea sets in, with frequent sickness, and eschars appear on the sacrum. Generally, muscular atrophy accompanies alcoholic paralysis, also trophic and vasomotor disturbance. The pain is best combated by electricity.

Dr. Emery, of Libourne, has read an interesting paper before the Société de Médecine et de Chirurgie, of Bordeaux, on Sudden Death amongst Hæmophiles. He describes three cases. In two, death resulted from pulmonary apoplexy, in the third it was probably due to cerebral hæmorrhage, but no necropsy was made. The first patient observed by Dr. Emery was a child in arms; its mother noticed that red spots appeared on the back, the loins, and the inner side of the thighs, in fact, wherever the clothes pressed upon its body. The child frequently rubbed one foot against the other, then red spots appeared on the inner side of the feet. They were scarcer on its face and hands, but on slight pressure or friction they were readily produced. The child's health was good. Its hæmophilic condition was manifested by a series of purple spots, appearing at certain intervals, but unaccompanied by any form of suffering; its dentition passed off without any difficulty. At the age of eleven, it died, suddenly, from pulmonary apoplexy. Neither the parents nor the grandparents of the child were hæmophilic, its brothers and sisters were also free from this condition.

Dr. Galezowsky draws attention to a new fact which he has observed in connection with herpes of the cornea. This membrane is in a state of complete anæsthesia where the eruption appears. It may be rubbed and scraped, and the ulcerated spots may be touched by a probe, a needle, or the fingers, without causing any pain. This anæsthesia only exists where there is eruption, the healthy parts of the cornea remain normally sensitive. This symptom facilitates differential diagnosis between this affection, and abscesses or phlyctenules of the cornea. In both of these last affections the cornea is extremely sensitive, the slightest touch producing pain.

M. Mahé, the French representative of the sanitary council at Constantinople, has published a pamphlet entitled *Mémoire sur la Marche du Choléra Asiatique des Indes Orientales vers l'Occident depuis ces dernières Années* (The Progress of Asiatic Cholera from the East Indies towards the West during recent years). In his pamphlet M. Mahé states that, in 1875, Syria was visited by an epidemic of cholera, Persia in 1876, Mecca in 1879, Hedjaz in 1881 and 1882, Egypt in 1883, and Toulon in 1884. M. Mahé classifies these epidemics under three different heads; one he says, came through direct irradiation (irradiation directe) from Hindostan, others were imported from Hedjaz, Egypt, or elsewhere. The origin of the remainder could not be traced; that of Hamah, in Syria, furnishes an example; this epidemic broke out in 1876, it remained localised; Hamah was at a distance from any seat of contagion. M. Mahé furnishes evidence that the epidemic was imported into Hedjaz by the vessels coming from the East Indies. He rejects the theory that cholera originated in the unhealthy valley of Minah. He affirms that the port of Bombay constitutes a permanent source of danger, threatening Egypt and Europe.

A report on the work done by the Conseil d'Hygiène Publique et de Salubrité du Département de la Seine from 1872 to 1877, and 1878 to 1880, has just appeared. Chaix is the publisher. The first volume is by M. Bezançon, and treats the subjects and sanitary events of the years 1872 to 1877. The second is by M. Paten; his work extends from 1878 to 1880. Before this publication, it was almost impossible to obtain the information collected in it; now all students of hygiene, manufacturers, etc., can learn and put in practice the hygienic laws to be observed in factories, workshops, hospitals, or barracks, and profit by instruction how to utilise substances often thrown away as refuse and many others of sanitary importance.

M. Vallin, in his *Traité des Désinfectants et de la Désinfection*, has collected all the scattered information of any value that has been written on the subject of disinfectants and methods of disinfection.

Masson, the well known medical and scientific publisher, has just brought out an interesting volume by Dr. Léon Collin, Vice-President of the Conseil d'Hygiène du Département de la Seine. Its title is *Paris: La Topographie, son Hygiène, ses Maladies*. In the first chapters of the book, the geography, topography, meteorology, and hydrology of Paris are studied. The author gives minute details concerning the distribution of the population, showing how many people are massed together on a given area, and enters a strong protest against building fine houses which present every sanitary defect of ventilation, drainage, and construction. M. Collin urges that the system in practice at Bâle should be adopted, which prevents newly built houses from being inhabited until four months after their completion. A special body of sanitary inspectors enforce the observance of this wholesome regulation. The President of the Conseil d'Hygiène also enters into the question of the disposal of sewage.

The Minister of Public Instruction informs the Académie de Médecine that the Minister of the United States has, in the name of the Washington National Health Office, asked to be provided with all the documents and statistics concerning the origin and increase of cholera in France.

NICE. [FROM OUR SPECIAL CORRESPONDENT.]

The Health of Nice. As it has become pretty generally known that there have been cases of cholera at Nice, and as many erroneous statements have from time to time appeared in the daily press as to the number of cases that have occurred, it appears desirable that a correct report should be submitted to the public, that they may know the exact extent of the outbreak. Through the courtesy of the municipal authorities, I have, in conjunction with Mr. Gurney, of the British Consulate, been allowed unreserved access to the official registers of death at the Hôtel-de-Ville, and I am thus enabled to speak with practically complete authority on the subject.

I must begin by saying that, owing to what many in England will think a mistaken sense of regard for the reputation of the town, no deaths have been registered under the name of cholera, the cases appearing under a varied nomenclature—such, for instance as “gastro-enterite,” “enterite,” “gastro-enterite,” “diarrhœe,” etc. As a certain number of deaths occur each year from these various causes, it has, in consequence, not been possible directly to say how many of the cases thus registered have been due to cholera, and how many to the simple forms of these diseases. To overcome this difficulty, I have ascertained the average number of deaths from various forms of gastro-intestinal disease for the last five years; and, by deducting this number from the totals for this year, a fair estimate of the deaths from cholera can be made. One great disadvantage of the nomenclature adopted by the authorities has been to spread a report that there is not only cholera in Nice, but an outbreak of typhoid fever as well. I have ascertained that this is not the case, the number of deaths from typhoid fever being no more than the average for the last five years.

As a basis for comparison, it should be stated that the population of Nice in the summer is probably from 65,000 to 70,000. Accuracy in this particular is impossible, on account of the large and indefinite floating population. One thing is certain; namely, that the population has been very rapidly increasing in the last five years, and that allowance must be made for this in dealing with the averages about to be given. The figures I shall quote are the exact figures taken from the registers, no allowance being made for this increase. They may, therefore, be taken to be considerably under the mark which would be reached by a corrected average.

The first case of cholera seems to have broken out towards the end of August, in the person of an engine-driver, who had come from Marseilles, and was taken ill almost immediately after reaching Nice. I shall, however, give the number of deaths from intestinal disorders from August 1st.

Between August 1st and 15th, there were registered 140 deaths from all causes, of which 36 were from gastro-intestinal disorders. Of these 36 cases, 27 were in young children. The percentage of abdominal cases was thus 25.4, against an average percentage of 30 for the previous five years.

From August 15th to 31st, out of a total of 126 deaths, 39 were from gastro-intestinal disorders, 14 of the 39 being young children. The percentage of abdominal cases was 30.9, against an average of 25.8 for the corresponding period of the previous five years. This percentage of 30.9 was not an abnormal one, having been frequently surpassed in ordinary years.

In September, cases of cholera began to increase, and we find that between September 1st and 15th there were 64 deaths from abdominal disorders, out of a total of 148 deaths, giving a percentage of 45.9, against the average percentage of 24. Of these 64 deaths, 40 were of persons between the ages of 5 and 60 years, only 8 being in young children.

Between September 16th and 30th, there were 83 deaths from abdominal disorders, out of a total of 174, giving a percentage of 47.7, against the average of 23.2. Of these 83 cases, 56 were in persons between the ages of 5 and 60 years, only 5 being in young children.

The maximum number of deaths occurred on September 18th, when 12 deaths from intestinal disease were registered. After September 24th, the number steadily decreased, only 3 deaths from this cause being registered on the 28th, and 1 on the 29th.

With the beginning of October, the weather became warmer, and there was a slight increase in the number of deaths from gastro-intestinal disorders. These, from 1 or 2 *per diem*, to which they had dropped in the last days of September, rose again to 3 or 4 *per diem*. Between October 1st and 10th, inclusive, there were 84 deaths from this class of disease, out of a total of 108 deaths, giving a percentage of 31, as against the average of 19.5 for the previous five years. Nearly the whole of the deaths were of persons between the ages of 5 and 60 years.

From these data, it will be easy to estimate with sufficient accuracy the number of deaths from cholera, by deducting from the total deaths from gastro-intestinal disease the average number which would have occurred in an ordinary year. August can be left out of account, as it is obvious that scarcely any cases occurred during that month. Any deaths that may have taken place before September 1st will be more than counterbalanced by the absence of correction of the averages for increase of population.

Thus, then, we have from September 1st to 15th, 64 deaths from gastro-intestinal disease. From this total deduct 19, the average for five years. There remain 45 deaths accountable to cholera. September 16th to 30th, 83 deaths; deduct 19, the average for five years; there remain 64 deaths accountable to cholera. October 1st to 10th, 34 deaths; deduct 11, the average for five years; there remain 23 deaths accountable to cholera.

Thus, then, between September 1st and October 10th, it may be asserted confidently that the total number of deaths from cholera has not exceeded 132, which gives an average of 3.3 *per diem*. The epidemic cannot, therefore, be looked upon as other than of the smallest dimensions.

I have instituted inquiries as to the class of persons chiefly attacked, and as to the quarters of the town where the greater number of cases have occurred. As there is no means of saying, out of the total number of deaths from gastro-intestinal diseases, which were cases of cholera and which of the non-specific forms of disease, I must here deal with the whole number of 181 deaths. Of these 181, there were 77 persons classed as indigent, that is, in receipt of public relief in some form. Only 6 cases can be distinctly claimed as belonging to the middle classes—a nun, a rentier (that is, living on his means), a “propriétaire,” a “chef d’état-major,” and a clerk. The remaining cases (where the occupation has been noted) were distributed among the various classes of working men and women—masons, coopers, ironers, etc. Where no occupation is mentioned, the patients have been married women, children, or old people past work.

As regards the quarters of the town chiefly attacked, the “old town,” as is to be expected, stands easily first in the number of victims. Those parts of the new town where the best streets and houses are, are practically free; but some of the streets in the new town, inhabited by the working classes, have had a few deaths.

Much has been said in Nice about the extent of the disease among the soldiers, and very exaggerated reports as to the number of cases and of deaths in the regiment stationed here have been spread. There has, indeed, been an outbreak of cholera at the barracks, with the occurrence of five deaths. The last of these took place on September 16th; and, owing to the measures taken by the military authorities, the disease has for some time disappeared amongst the troops.

Various statements have been made as to the way in which the disease was first introduced into the town. I cannot ascertain that any of the reports current are based upon facts. The probability is that it was imported directly by persons coming direct from the infected districts. One such case I mentioned at the outset of my report, and many similar cases may probably have occurred. Last year, great difficulties were placed in the way of persons coming from Marseilles, Toulon, or Italy, to Nice, by the establishment of local quarantines. This year, no such quarantine was imposed; and, in the ordinary course of events, there would be considerable coming and going between the various towns.

During the last few days, there has been a complete change of weather, from the bright, balmy, summer-like days we were having at the beginning of the month, to overcast weather, with heavy rain at intervals, and a chilly air. This is the usual way in which our bright cool autumnal weather is ushered in; and we are hopeful that a few days will see an end to this outbreak of disease, which, as I have shown, has throughout been of slight proportions. There is little doubt that the number of deaths would have been considerably less than was actually the case, had it not been for the extreme prejudice which exists in the minds of the lower classes in these towns against doctors, and against any sort of medicines, except certain useless “tisanes” of their own concoction. The doctors and the police have, they assert, entered into a conspiracy to give them something to put them out of

their misery as quickly as possible, and to get them buried in the shortest possible time. It is needless to add that ideas of this kind are not favourable to the effectual treatment of a disease like cholera.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Death under Chloroform.—*District Lunacy Board.*—*Local Medical Agency.*—*Pathological and Clinical Society.*—*Disease among Horses.*—*Professor McKendrick on Temperance.*—*Sunday Sale of Methylated Spirits.*

A DEATH under chloroform occurred last week at our Royal Infirmary. The patient, a middle-aged man, was the subject of a femoral aneurysm, for the cure of which it was decided to ligature the external iliac artery. The operation was performed very successfully, and was practically completed, when the patient showed signs of returning consciousness; and, as he seemed to feel the insertion of the sutures, a little more of the anæsthetic was administered. Without any warning, pulse and respiration ceased, and all efforts to restore animation failed. It was known beforehand that the heart shared in the arterial degeneration of which the aneurysm was an indication, but its condition was not thought such as to preclude the use of chloroform. The case will, of course, admit of different views as to the actual and exciting cause of death; but it is another in the now long list of fatalities which seem to stamp chloroform as a most capricious and uncertain drug.

The meeting of our District Lunacy Board on the 7th instant was of a formal and unimportant character. The only business done was to arrange for deciding on the plans sent in by architects for the new asylum at Hartwood. There seems to be a want of energy in getting on with this much needed accommodation.

As a matter of purely local interest, I may mention that, on the suggestion of several influential members of the profession, a medical agency has been started in our midst, which proposes to deal with the medical transfer of practices, and the providing of qualified assistants or of gentlemen willing to act temporarily as *locum tenens* in cases of illness. Whether its sphere will be more than local, will depend on the management of the enterprise, but it will relieve many of our hospital staff of no small amount of work, judging from the notice-boards at our infirmaries.

At the opening meeting of this winter session of the Pathological and Clinical Society, held on the 13th instant, there was no lack of interesting material for discussion. Among the specimens shown by Professor Gairdner, was the lung of a boy aged 11, in whose case there had been an unsuccessful attempt at pneumo-surgery shortly before death, the *post mortem* examination revealing that the partly bronchiectatic, partly gangrenous cavities in the lower lobe had been mainly determined by a foreign body impacted in the air-tubes, probably during infancy. As the present membership of the Society is two below the complete number, two new members fall to be elected at the November meeting.

Last year considerable fatality occurred amongst horses in Glasgow, from their being fed on the variety of Indian pea known as lathyrus sativa, which possesses decidedly poisonous properties. It seems that the disease caused by this seed has again appeared, owing to its mixture, by sellers of grain, with ordinary oats. When eaten, to even a moderate extent, the pea causes muscular rigidity, so that one of the leading symptoms of the disease is impending suffocation from laryngeal spasm. The line of treatment followed is the performance of tracheotomy, and in the only case that has as yet occurred this year the result was successful. Last year, while several of the animals operated on recovered, there were as many as twenty deaths. The pea in question seems to be the one which from time to time has been used on the continent for feeding swine, with the result that, while the creatures become enormously fat, they completely lose the use of their limbs. From it, too, in several parts of the continent, a light pleasant bread was formerly made of the flour, but it produced such dreadful effects on those consuming it, that more than one edict was issued against its use.

Of the papers read at the recent Evangelical Conference here, that by Professor McKendrick, on temperance, has naturally attracted a good deal of attention, both on account of the standpoint from which the subject was treated, and the special fitness of the author to deal with it. He frankly admitted that the total abstinens were in the right position with regard to the question of national intemperance, and that the undisputed and terrible evils that sprang from the abuse of drink quite justified their attitude; but he thought that the views

taken up by many of them as to the effects of alcohol on the human body would not stand criticism, and that these men acted injudiciously in closing their eyes to that large class of evidence which cannot be disputed, and which shows clearly that there is a large class of healthy persons who have reached old age, and who have taken alcohol in moderation during their long lives, and been none the worse for it. Such facts as these, and others that could be brought forward, Dr. McKendrick thinks should not be overlooked and treated as of no moment, as, by doing so, harm is apt to be done to the real progress of temperance. As to the necessity for the use of alcohol, Dr. McKendrick spoke with no uncertain sound. He considered it quite an established fact that the best health, the greatest vigour, and long life were quite compatible with entire abstinence from its use.

Among the other points spoken of by Dr. McKendrick, was the necessity for more thorough supervision of the quality of the drink sold to the poor of this country, some of which was absolutely poisonous, and calculated to produce the most deadly effects. The facts brought out in a conviction that has just taken place here for the sale on Sunday of methylated spirits, give point to this warning, and show to what an extent of brutal ignorance and indulgence the craving for drink will descend. For some time the authorities have been aware that the Sunday sale of methylated spirits has been largely on the increase, and there was very certain proof that it was being used as a beverage. In the present prosecution, evidence showed that the amount of methylated spirit sold by the accused had averaged thirty gallons a month, and that, on Sundays, the shop where accused carried on his business was besieged by purchasers of the drug. A fine of £40, while heavy, can scarcely be reckoned so in proportion to the harm and mischief wrought. No doubt the publicity of this case will do good; and as it is said that, in certain quarters of the city, the chief business of many of the druggists, when open on Sunday, is in the sale of this drug, the authorities will be somewhat more vigilant than they appear to have been in the past in preventing the development of such a deadly traffic.

CORRESPONDENCE.

OVUM IN OVO: ABNORMAL HEN'S EGG.

SIR,—Under this heading, communications have been recently made to the medical journals. In the fourth volume of the *Obstetrical Transactions* (1862), I figured and described, under the title "Ovum in Ovo," a remarkable specimen. At various intervals, a hen laid double eggs. The shell of the included egg was always of a red tint, like the Cochin fowl's and the partridge's; the shell of the including egg was always of a dull, chalky white. The mother was evidently a half-breed between a Cochin and a Dorking. The Cochin egg was always—in nine ascertained instances—inside the Dorking egg. To find two yolks in one shell is common enough; but it is certainly rare to find two perfect eggs, one contained within the other. That two ova may descend along the oviduct together, getting a common investment of albumen, and then of shell, is an intelligible occurrence. But it is not so easy to understand how an egg, after obtaining its albumen and shell, the latter of which is added near the cloaca, can become associated with another ovum, and be invested in the albumen and shell of its fellow. Does the first ovum, after receiving its own albumen and shell, get carried back up the oviduct to meet the second ovum, and then descend along with it through those tracts which supply successively the albumen and the shell? Or, does the first egg, after completion, lie in the lower part of the oviduct, waiting the arrival of the second egg, and get immersed in its fluid albumen before the deposit of shell has commenced?

As far as I know, this case is unique. The preservation of the distinctive characters of the Cochin and Dorking eggs in this *ovum in ovo* suggests interesting speculations on the transmission of parental peculiarities.

In the *JOURNAL* of October 10th, page 730, are some observations on dystocia, from ponding-up of liquor amnii, and from pendulous belly. I take this opportunity to refer Dr. A. de W. Baker to my *Obstetric Operations*, and the new *System of Obstetric Medicine and Surgery*, by myself and Fancourt Barnes, for precise and illustrated descriptions of those two causes of dystocia. I believe I was the first to introduce the expression, "ponding-up of liquor amnii."—I am, s
yours truly,
ROBERT BARNES.

THE HEALTH OF CANNES.

SIR,—The almost daily inquiries which reach me, induce me to ask to be allowed to state, through your columns, that Cannes is, and has been throughout the summer, absolutely free from cholera; that the general health of the town is excellent; and that travellers to Cannes, *vid* Lyons and Marseilles, are not subjected to fumigation, disinfection, or other inconvenience, at any point in their journey.—Your obedient servant,

PHILLIP T. RIDDETT,
British Vice-Consulate, Cannes, Acting British Vice-Consul.
France, October 8th, 1885.

THE ROCHDALE PAIL.

SIR,—Dr. Cameron, the Medical Officer of Health for this borough, has called my attention to a letter in your last issue, signed "Nemo." The pail and lid made by Haresceugh, of Leeds, was used by this corporation for seven or eight years, but were found quite unsatisfactory (1) because in a few months they ceased to be air- or water-tight, and (2) because they were worn out in less than two years. In consequence of this, I made several experiments, and have patented a lid and pail much more durable and permanently air- and water-tight, and for which I received a special certificate of merit at the Sanitary Exhibition at Leicester. The principle is a malleable iron rim to preserve the wooden edge of the pail and give an air-tight joint with the lid, which is secured by a single turn of a lever.—I am, your obedient servant,

E. G. KIRK, Superintendent of the Sanitary Department, etc., of the Borough of Huddersfield.

THE AMERICAN MEDICAL ASSOCIATION AND THE INTERNATIONAL MEDICAL CONGRESS.

SIR,—I received, on September 6th, a circular entitled, "Why the action of the American Medical Association should be endorsed." A great deal has been written in connection with the International Medical Congress on this side of the Atlantic, and now the home-journals are at hand, to throw a further light upon the subject, by showing how it is regarded elsewhere.

Sir James Paget's letter to Dr. Muir Hays must carry with it that weight which all who are familiar with his earnest, thoughtful writings, will instinctively recognise. I think the profession in America—by which I mean the vast majority of the legally qualified, regular medical practitioners—thoroughly understand the situation. The contest here is between them, and a small minority of well known medical luminaries, many of whom are specialists; and the specialist is very apt at times to be somewhat weak-kneed in the ethical light of his consultations. I do not dispute the position that Sir James Paget assumes, nor shall I attempt to argue, whether the action of the American Medical Association be correct; but I do maintain that the profession outside these United States is very ignorant of what we here have to contend against. It is this side of the case that I propose to deal with, and I wish to put before you some reasons for our apparently intolerant action. As a registered medical practitioner of the United Kingdom, and a licensed practitioner of the State of California, I feel that I can view the question impartially.

In Great Britain and Ireland, the registration system and the working of the medical Acts protect alike the profession and the people; they confer a status on the one, and, by eliminating the fraudulent element, preserve an easily gullible public from the injurious influence of the impostor and charlatan. The profession is well and thoroughly organised by its Association and affiliated societies, the poor-law officials, and Government appointments. The army and navy is officered by men who belong to the only system of medicine and surgery in existence. In all these branches of the body politic, medical irregularity has no place. This forms a homogeneous whole, a power for improvement, progress, and defence; an impregnable scientific, rational, and ethically regular, stronghold. The licensing bodies are few; the standard of education and the requirements of examining boards are higher than the average that obtains on this side of the Atlantic. The area of country is infinitesimally less, the population more concentrated, the means of communication more perfect, and the strong arm of the law a power which is enforced; and by the knowledge of that fact, as much as by its enforcement, exercises a salutary influence. This condition of things brings about an inevitable result. The profession is secure in its social position, its scientific reputation, its legalised authority. There is a conscious superiority, a fearless expression of opinion, a contemptuous indifference; and with all these, as a logical sequence, a pitying sympathy alike for victim and empiric, a broad spirit of liberality, a tolerance, which at times can cross the border-line.

Turning from this aspect of the question, it is with feelings of sadness and disgust that I view our own. A vast area of country, in parts but sparsely settled; outlying districts, with uncertain and difficult communication. No national law; a state law, in four or five instances, a host of irregulars, impostors, and charlatans, in every depth of ignorance and iniquity. These laws regulating the practice of medicine are often harmful, and always difficult to enforce. Convictions are hard to obtain, and when trials are had before a jury, the law is a dead letter.

There are numerous "schools" and "colleges," the majority of which have the power of granting diplomas. The requirements of some of these bodies are very low, and, as a consequence, results obtained are inferior. The social standing of the profession is *nil*, that of any "other kind of doctor" is just as good. It has no distinctive position. The people understand that there are three "schools" of medicine—the Allopathic, the Homœopathic, and the Eclectic. If you attempt to argue they say you are jealous. If you assure them that homœopathy is an obvious fraud and a preposterous humbug, that no homœopath practices what he professes, they say that we are trying to defend our "nasty medicines." If we say that the eclectics are equally dishonest in not adhering to their system, we are met by the taunt of bigotry and unprogressiveness. Finally, if we tell them that there are no restraints in regular medicine, save and except only that none must profess to treat by an exclusive system, or lend a name or aid to any secret remedy of universal application, they say we must be afraid of these men who differ so slightly from ourselves. Legally, the irregular has the same standing as the profession. In courts of law, his evidence is accepted as that of an expert, and he is even permitted to sign his own death-certificates. If, when pitted against him, we expose his ignorance of anatomy, physiology, and pathology, we are often assured that these are not required in actual practice.

Such is the standing they have acquired that, in some states, mixed boards of health have been appointed, comprised of "representatives" from the "different schools of medicine." There is no civilised country in the world where empiricism has such latitude and scope, none where intelligent people will allow themselves to be so easily duped. The American Medical Association adopted a code of ethics that cannot possibly be objectionable to any right minded, regular practitioner. It promotes organisation amongst the profession by conferring membership only on those who belong to the local or State societies. It is limited in numbers, but its sphere of usefulness is extending, and its influence is becoming more widely felt. It is the only national source to which individual members of the profession can look for counsel or support. Its journal is still young, but it has already done good work, and I think we may safely look forward to the time when the Association will really be a more representative body than Dr. Packard at present considers it.

Finally, I would again repeat, that while ignorant of the *modus operandi* through which the international congress should be organised, and, therefore, hesitating to express an opinion, yet my sympathies are altogether with the American Medical Association, and I trust that the comments of those in distant lands may be rendered less severe in the light of a few plain facts.—Faithfully yours,

JAMES H. PARKINSON, L.R.C.S., Sacramento, California.

THE METROPOLITAN INTRODUCTORY ADDRESSES.

SIR,—I suppose that it is hopeless for Scottish universities and corporations to expect justice from all their London rivals, especially when some of the latter are smarting under the successes of the former. I fear that it is only to this feeling that we can attribute the incomplete, narrow, unfair, and often erroneous statements which appear from time to time, not indeed usually from the highest members of the profession, but still from those who in some cases, by their position and ability, are entitled to the respect of Englishmen and Scotsmen alike.

In your issue of the 3rd instant (page 639), we find Professor Schäfer stating in his inaugural address, "It is to the University of Cambridge that the honour belongs of having instituted the first chair of pathology, properly so called, and of having made provision for the necessary laboratories."

In Edinburgh University, sir, a "chair of pathology, properly so called," has existed for many years, and the practical class-rooms and laboratories have been used by nearly every student who has obtained the degree, a knowledge of practical pathology having been long absolutely compulsory.

Again, the method of "materia medica" teaching recommended by Professor Schäfer has long been in vogue in Edinburgh, where so

much stress is laid upon the training in pharmacology and therapeutics.

Why should Professor Schäfer ignore these facts? It cannot be said that he was referring entirely to England or the London schools, or else he would not refer to the fact that "our students find it necessary to go to Berlin, or Leipzig, or Strasburg, etc."

Again, in Mr. Pepper's introductory address, he remarks that there would be no reason to complain if the Scotch kept their licentiates amongst themselves, etc., and in the next sentence observes, "many distinguished members of the profession practised in London and elsewhere under the ægis of a Scotch qualification."

Is it to be inferred from this that Mr. Pepper thinks that the latter fact affords a reason for complaint? Why should it? Are these distinguished members who practise in London with Scottish qualifications so undeserving of their distinction?

The old statement about gentlemen who fail to pass their ordeal at the English colleges going over the border, with its usual prefix, "it is well known," is brought up by Mr. Pepper. Now, is this well known? Even if it were, it would be quite likely to be due to the constant authoritative statements of some London teachers that the Scotch licence is easier. What happens? Believing their teachers, such students go up to Scotland, and to my own knowledge frequently are unsuccessful. Probably they try again and again, and eventually get the Scottish licence just the same as they would the English, if they had possessed courage to persevere, and if they had not believed what they were told in London.

We hear nothing from Mr. Pepper about Scottish students unsuccessful in their examinations, migrating to London for their diplomas. I have met with more than one such case. No doubt instances could be multiplied, and Scotland could retort in the same strain, "it is well known," etc. But this would not be argument.

Dr. Fowler (BRITISH MEDICAL JOURNAL, October 3rd, p. 648), in his remarks about students from the London schools betaking themselves to or beyond the border, and acquiring, "by no immoderate exercise of intellect or learning," an university degree, and in his comparison between the value of such degrees and the diplomas of the London colleges, appears to ignore the fact that medical degrees and diplomas are not only a guarantee of examinations of certain difficulty having been passed, but also of the standard of training and preparation for life-work.

The freedom of the schools and hospitals, the want of which, in London, Professor Schäfer deploras, exists in Edinburgh. The complete and thorough equipment of Edinburgh University and Medical School, in the way of distinguished and able teachers, its laboratories, hospitals and dispensaries, all welded together into one large and complete school, even if the examinations, both of the university and colleges (especially of the former), were not recognised as of high standard by those who have really taken the trouble to investigate the matter, should shield it at least from Dr. Fowler's covert sneer.

Why should not London teachers give honour to whom honour is due? Edinburgh, as a teaching school of medicine, has a world-wide reputation. Why should it be again and again stated in London that students flock over the border for easier degrees, if it be true that the University of Edinburgh is teaching so well that it is at present taking a large share in the supply of professors and lecturers to British and foreign medical schools; and if it be true that the standard of its medical degrees is considered good in unprejudiced circles both at home and abroad?—I am, etc.,

Edinburgh. ERNEST F. NEVE, M.D. Edin., M.R.C.S. Lond.

LOCAL GOVERNMENT REFORM ESSENTIAL TO SANITARY PROGRESS.

SIR,—I have been delighted with your address at Leicester in the JOURNAL of October 10th; it throws light and a hope of order over a chaos which I thought was irremediable; but you care not for opinions, but facts. Take the following.

The city and county of Bristol sanitary district at present comprises the parliamentary borough, with a population of over 218,000; in future it will not be co-extensive with the parliamentary borough, which will contain a population of over 300,000. Three unions or boards of guardians have authority and taxing powers within it, namely, the Bristol Incorporation of the Poor, consisting of nineteen ancient parishes, containing but a small part of the population, about one-third; the Barton Regis Union, in which is St. Philips, with over 50,000 inhabitants; the Bedminster Union, containing Bedminster, with over 40,000, etc.; Barton Regis and Bedminster Unions are also

large rural authorities. The sanitary authority has taxing power over St. Philip, Clifton, Westbury sub-district, etc.

Through pressure from the sanitary authority, the three unions have provided for the removal of cases of infectious diseases among paupers. The sanitary authority have provided for the removal of cases among non-paupers, for whom they charge £1 a week. Between the sanitary authority and the three boards there is no good feeling. The guardians try to make out most patients as non-paupers. The sanitary authority wish every patient to pay. The medical officer wishes all cases removed, but, if possible, in conformity with his instructions.

For over twenty years I have, owing to this anomalous subdivision, led a most miserable life; have been in hot-water with the different boards of guardians more times than I could count. I have had the Philistines on me again and again, and were it not for my loving my work, I would have thrown it up long ago, for any post, though of less remuneration. My committee have always stood by me; for all that, I have had a most uneasy and miserable office. The three boards wish to throw all the expense they can on the Bristol Sanitary Authority, because they can tax the whole of the boards of guardians. The sanitary authority wish to reduce their expenses to a low figure, having in view the November elections. At present "there is peace in Israel," owing to the late scare about cholera. Whenever a great epidemic hovers in the distance, they are all like smoked bees—you can handle them as you like. A good cholera-scare is an incalculable blessing.

Rural Medical Officers of Health.—On the whole, owing to their relation to the guardians, they are simply a delusion and a snare, the men are able, but they are human, and their wives and children eat bread. Take the following case. Some cantankerous guardians wish to reduce the medical officer's salary; the principal guardian has a dangerous nuisance on his premises; if the officer reports it, the guardian's vote and influence are lost to him.

Division in Sanitary Matters.—Duties under Public Health Act, 1875, are done by sanitary authorities; the licensing of dairies, baby-farms, etc., are under the magistrates or council, etc. In the latter cases, only perfunctory work done, at least within my observation.

My dear sir, the whole matter appears to me an inextricable chaos. I do not pretend to grasp all your points, but, so far as I understand them, they are excellent.

I could mention numerous instances of the clashing of authorities, and occasionally of work left undone by repudiation of the work by both parties.

Your task is enormous; will require experience, great clerical experience, and judgment. The excellent manner in which the Parliamentary Boundary Commissioners did their work is a great omien, and shows it is possible.

I am no politician, but I hope and pray you will be in the next Parliament. I wish you God speed.—Believe me, yours sincerely,
EXPERIENTIA DOCET.

RE THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS' COMBINED SCHEME.

SIR,—The scheme of the combined Colleges has now been working for twelve months, and, as a student, I wish to point out how it affects students generally. Let it be granted that a student enters a hospital on October 1st, having no previous knowledge of anatomy, physiology, botany, materia medica, physics, and chemistry. At the end of his first winter session, he takes up the second part of his first examination, and passes in anatomy and physiology, which subjects, with dissecting, have occupied the first winter. To do this, he must spend a good portion of his April vacation in town, as the examination takes place in that month. Returning in May, lectures on materia medica and botany are attended, in order that he may pass the first part of examination in July; as the theoretical chemistry and physics lectures have been delivered during the previous winter, he has to get up four subjects (namely, botany, materia medica, physics, and chemistry) in three months. Did the Royal Colleges consider this in the light I now place it? By their framing a rule which does not allow the second examination to be taken until the first has been passed six months, they encourage cram pure and simple. Supposing a student does not pass the whole of his first examination by the end of July, it necessitates his working during the long vacation, and also during the first month of his second winter—that is, if he intends to pass the second professional at the end of his second winter. As no lectures are given during August, September, and October, on the subjects for examination, coaches have to be employed, because it is impossible to attend to advanced anatomy and physiology until the first examination has been passed; thus, part of the second winter is lost. May I

suggest, without presumption, that the *materia medica* examination be allowed to stand over until the second summer session. This, I believe, would meet with general favour, and would allow the anatomical and physiological studies to have free course. Trusting you will find space for this letter, which is not written for the sake of fault-finding, but to show that, though framed in a liberal spirit, the new scheme has unwittingly encouraged cram.—I enclose my card, and remain, yours truly,
VERUS AMICUS.

MESMERISM AT THE MANCHESTER MEDICAL SOCIETY.

SIR,—Mr. Whitehead's letter in your issue of October 10th, in which he charges me with making attacks on the Medical Society, and sundry other shortcomings, does not call for much comment. I trust, however, you will allow me to say that I fully appreciate the past history and present prosperity of our Medical Society, and am, moreover, quite as jealous of its reputation as its President; but as I made no attack on it whatever, and, indeed, nothing was farther from my thoughts, I have no somersaults to take and no leek to eat.

I certainly did, "as a matter of fact," state in my letter that the sole responsibility for the performance in question rested with the President, and that his action in this matter involved no one else; but as he himself, in a letter to your contemporary, expressly states this, I fail to see why he is so angry with me.

One paragraph of my letter did, I admit, speak somewhat contemptuously of the *menu* provided for the Society on the occasion referred to; but, in doing so, I implied no condemnation of mesmerism as a psychological study, or of experiments conducted by those trained in physiological science; and the President will, I trust, forgive me for saying that, while all would gladly listen to a lecture on the subject by a Foster, a Preyer, or a Stirling, or sit at the feet of the most recent convert, the President himself, there were not a few who thought that the proper place for the performance of the somewhat stale experiments of the "world's greatest mesmerist" was the Grand Circus in Peter Street.—I am, sir, etc.,

YOUR MANCHESTER CORRESPONDENT.

THE ETIOLOGY OF CONGENITAL DEFORMITIES.

SIR,—Mr. Robert's letter in reference to this subject seems to call for some reply from me. My own views (as expressed elsewhere) are that scientific evidence proves that the mental impressions of the mother are not capable of influencing any particular part of the body of her offspring. But upon the other hand, I believe that we possess evidence to show that a strong mental shock may influence the development generally of the fetus *in utero*, and so perhaps give rise to deformity. There must be some influence to produce malformation when it occurs *de novo*, and it has seemed to me that further study may perhaps elucidate the mystery.

Mr. Roberts well expresses this opinion when he states that "we want a careful study of the life-history of the fetus."

I would add, in reference to his concluding question, that I certainly do not propose to pit "the stubborn facts of practical men against scientific reasons," but rather to induce practical men to apply stubborn facts in a scientific manner to further this enquiry, and to add to the information already supplied by numerous observers, including Darwin, Mr. Roberts himself (in his papers in the *Lancet*, 1880), and Mr. E. J. Chance, in his work on bodily deformities, where he has argued the subject both practically and scientifically. As an example of the kind of inquiry I would encourage, I may suggest the endeavour to elucidate the subject of "indirect atavism," or the influence of a male upon the subsequent offspring of a female by another male, as shown, for instance, in the quagga markings on the foals of Lord Morton's celebrated mare. The mare having once been covered by a quagga, produced offspring by a pure-bred horse possessing distinct markings of its former sire.

NOBLE SMITH.

MATERNAL IMPRESSIONS AND CONGENITAL DEFORMITIES.

SIR,—The value of an inquiry into the influence of "maternal impressions" upon the production of deformities, would appear, from its premises, to be of doubtful service. As pointed out by Mr. C. Roberts in his letter of last week, the subject has been thrashed out by Darwin, and has been fully investigated, after the method proposed by your original correspondent, by Dr. William Hunter. Besides this, there are to be found papers on the subject, as well as references, by many authors. The ingenious offer to become the

"recipient of communications upon the subject, both as to heredity and maternal impressions," and to publish the same, will doubtless be duly appreciated by all workers in the same field, though the principle is liable to be questioned. Without comparing my opportunities for such investigation with those possessed by your correspondent, I have been for the last seven years collecting notes of every case of abnormality that has come under my observation at the Hospital for Sick Children, Great Ormond Street, and have analysed most carefully the questions of maternal impressions and heredity in every case. To vex every poor mother with inquiries as to her impressions of the condition of her coming child would, independent of its banefulness, be to commence the investigation in a wrong direction. The plan which I follow is to ask the mother whether she can account for the deformity, and if she then relates any story of fright, etc., to compare the date at which this occurred with the state of development to which the parts concerned should, at that period of fetal life, have arrived. Out of a large number of cases, there are very few which will bear the light of such investigation.—Yours obediently,
Grosvenor Street, W. JOHN H. MORGAN.

PROFESSOR SCHÄFER'S ADDRESS AT UNIVERSITY COLLEGE.

SIR,—I have read with much surprise the recommendations of this eminent professor, that the present level of *materia medica* teaching should be reduced. In fact, it is not very clear to me that he would not be willing to abolish the subject altogether. I do not think that anyone can contend that the present level of teaching of *materia medica* and pharmacology in British schools is excessive.

It appears to me that every student aspiring to a medical qualification should be able to recognise any pharmaceutical specimen capable of recognition by the unaided senses; that he ought to be familiar with the tests for the recognition of other medicines, and with the method of manufacturing all chemical remedies. Lastly, he should have a manual knowledge of compounding medicines; and in making this remark, I entirely agree with Professor Schäfer, that the time of a professional man ought to be too valuable to be occupied with compounding prescriptions. I trust that in these countries, as long since in parts of the Continent, the division between medicine and pharmacy will be rendered complete. The medical man ought not to compound, and the compounder ought not to prescribe. Still it is essential that the prescriber should know practically how compounding is done, or he will never be an original prescriber, or a prescriber of the first class. As an examiner of large experience in *materia medica* and pharmacology, I feel obliged to say that the educational level of students in these departments, and particularly in prescription-writing, is not always what could be desired. I would be easy upon the characteristics of natural orders, and other such botanical details; but with regard to the teaching of the immediate details of *materia medica* and pharmacology, any lowering of the present educational standard would, in my opinion, be injudicious.—I am, sir, yours, etc.,
F. J. B. QUINLAN.

Dublin.

OBITUARY.

T. SHADFORD WALKER, M.R.C.S.

ON the 28th ult., the city and the medical profession of Liverpool sustained a great loss in the sudden death of Mr. T. Shadford Walker, who for a long period had occupied the leading position as an oculist in that town. For the last two or three years, it was known that he was the subject of an insidious form of renal mischief; and, for some time past, those who were intimate with him noticed slight but significant symptoms which pointed to a weakness of the cerebral vessels. But the attack of cerebral hemorrhage, which began on the evening of Friday, the 25th ult., and terminated fatally early on the morning of the following Monday, was very unexpected, and fell as a great blow upon all who knew him.

Mr. Walker, who was only in his fifty-first year, was born at Burslem, in the heart of the Potteries, and received his medical education at King's College. He came as a young man to Liverpool, to fill the post of house-surgeon to the Royal Infirmary, and soon afterwards became attached, as assistant-surgeon, to the Eye and Ear Infirmary, then located, in a very humble fashion, in some private houses at the top of Mount Pleasant. In the capacity of assistant and full surgeon, he served that institution for nearly twenty years faithfully and well, and contributed in no small degree to the success

of the scheme which culminated in the erection of the present beautiful and commodious hospital, and its establishment on a firm and prosperous basis.

Mr. Walker, it is true, contributed very little to the mere literature of his profession, but he was a master of its practice; and so well aware of this were his medical brethren, that they conferred upon him the highest honours that were in their power. They made him President of the Medical Institution; and, at the meeting of the British Medical Association in Liverpool in 1883, he was chosen as President of the Section of Ophthalmology. He was a neat and dexterous operator, while his treatment commanded success by the care and prudence with which he managed it. As a natural consequence, the public placed the fullest confidence in him, while the profession knew that their patients were safe in the hands of an able surgeon and an honourable gentleman.

But Mr. Walker was not a mere medical man and nothing else: he was a man of the widest culture and of the most extended sympathies. As a boy, in his native town, he lived amongst the products of Wedgwood's handicraft and Flaxman's pencil; and, as he grew up, the taste for all that was artistic and beautiful grew with him; so that, in later years, he collected around him specimens of the choicest pottery, illuminated works of the rarest kind, and engravings of the highest class. His collection of Wedgwood, indeed, was one of the finest in the country. Possessed of an astonishing memory, he had stored it with the results of ample reading and extensive travel, so that there was hardly a subject upon which it was not a pleasure to hear him converse. He was one of the originators of the present flourishing Art Club in Liverpool, and subsequently its President. But, while acknowledged as an authority in more than one department of art, perhaps one of his greatest charms was a certain simplicity of character, which would make him descant upon his favourite topics to the merest tyro with the same relish and interest that he would to the most eminent connoisseur. There are not a few men in Liverpool who gratefully acknowledge that whatever liking they have for beautiful and artistic things was instilled into them in Mr. Walker's hospitable house.

Mr. Walker was one of a class of men of whom our profession boasts too few. Of earnest and diligent workers in their own department we have no lack; and, without such earnestness and such diligence, our art could not advance. But there is a certain fear of the medical man losing, in the absorbing pursuit of his own specialty, that genial all round character which carries out the Baconian idea of "universality," and enables a man to sympathise with and appreciate the efforts of workers in other departments of human labour and learning. A man of Mr. Walker's character elevates his profession as a cultured and liberal calling in the eyes of the public, and it will be long ere the excellent influence which he exercised in this way dies out in Liverpool. The crowd of sorrowing mourners who accompanied his remains to their resting-place testified more than words can do to his worth as a man and a friend.

STEPHEN MONCKTON, M.D. Lond., Maidstone.

This physician was born at Breachley, in the weald of Kent, in 1824, where his father, Dr. Monckton, was in practice. He was educated at Maidstone. He studied medicine at King's College, where he was considered to be a particularly brilliant student, possessed of great power of language. He became a member of the Royal College of Surgeons and Licentiate of the Society of Apothecaries in 1845. In 1850 he took the degree of M.D., University of London. After passing the College examination, he returned to Breachley, and joined his father in practice. His ancestors had inhabited that village for two centuries. After a career of well merited success as a country practitioner, he removed from Breachley to Maidstone in 1861. He was elected Physician to the West Kent General Hospital, retaining that appointment till his death. His last piece of professional work was a visit to that hospital on August 27th, 1885. In 1875, he was elected Fellow of the Royal College of Physicians, having taken the membership in 1867.

In private practice Dr. Monckton was eminently successful; greatly sought for and esteemed as well in his own consulting-room as at the bedside, by the invalids themselves, and by his professional brethren, and this in spite of certain peculiarities of manner and eccentricities of demeanour which were not always winning and attractive to strangers. He was a keen and energetic sportsman almost to the last. For some time he had been subject to heart-disease, of which he died on September 30th. He leaves a widow and four children, one of whom, Mr. H. Holland Monckton, is a student at King's College, and an undergraduate of St. John's College, Cambridge. Dr. Monckton

was added to the Commission of the Peace in 1869. He took a prominent part in the Grammar School and other public institutions in the town, and was ever to the front in any object of a useful and philanthropic nature.

F. W. WARREN, F.R.C.S.I.

WE regret to announce the death, on Sunday last, from typhoid fever, of this gentleman, after a comparatively short illness. Mr. Warren was only 33 years of age. He succeeded the late Mr. B. Wills Richardson as Surgeon to the Adelaide Hospital in June, 1883, having previously acted as Surgical Registrar to the same institution. Prior to his connection with the Adelaide, Mr. Warren had worked long and steadily at Stevens's Hospital, and was Professor of Anatomy in the School of Medicine connected therewith, but now for some years defunct. Indeed, his non-appointment by the governors of the hospital to a vacancy on its medical staff, in opposition to the wishes and recommendation of the members of that staff, had, it is said, a considerable influence in causing the collapse of the school. Mr. Warren was best known in Dublin as a successful and popular tutor, and his untimely death is much regretted by his numerous friends.

MEDICO-LEGAL AND MEDICO-ETHICAL.

VISITING CARDS AND TESTIMONIALS.

SIR,—Kindly give me your opinion in the following case.

A country-house in the neighbourhood has been for many years empty. On the death of the owner recently, the heir, a stranger to the district, came to reside there. Now (1) Is it customary for medical men, in such circumstances, to leave their cards on the new squire? (2) Is it customary to forward, unsolicited, copies of the testimonials given them by the professors of the school at which they studied? This has been done in the present instance by a neighbouring practitioner, who has, in consequence, been called in to attend the family.

I would like your opinion for my guidance should similar circumstances arise again.—I am, yours, etc.,

A JUNIOR MEMBER.

* In the *Code of Medical Ethics*, the principle is clearly and distinctly laid down that for practitioners (under the circumstances specified by "A Junior Member") "to forward unsolicited copies of the testimonials given them by the professors of the school at which they studied," is truly charlatanic in character, and degrading to the faculty; and, further, that to call upon new residents in the neighbourhood, and leave their card—ostensibly as a mark of respect, but in reality to seek for practice—is closely akin to solicitation, and, as such, must be regarded as incompatible with the dignity of the profession. It cannot, therefore, be too deeply impressed upon such that the true dignified practice, and the most consistent with a due respect for self and the faculty, is to wait until their professional or social acquaintance is sought; in such case, moreover, it is far more likely to be appreciated.

MEDICAL ETIQUETTE.

SIR,—You would oblige by answering the following queries in your next issue.

A. was sent for hurriedly to a case, but, being in the country, could not be got, and the messenger was advised by A.'s servant to get the nearest doctor. B. was sent for, and attended the case, knowing that the invalid was a patient of A.'s, and that A. had been sent for in the first instance.

1. Was it right for B. to say to the patient that he would call again, even although requested to do so by the patient?

2. Was it right for B. to send in a bill to A.'s patient?

3. Was A. wrong when, on visiting the patient next day, he told him, on being asked regarding the fee for B., that he did not suppose for a moment that B. would charge?

4. Is B. correct in saying "that it is both allowable and customary for one medical man called in in absence of another to charge for his services"?—I am, sir, yours faithfully,

A MEMBER.

* An answer to the several questions submitted by "A Member" will be found embodied in the following ethical rule.

"When a practitioner is called in to an urgent case, either of sudden or other illness, accident, or injury, in a family usually attended by another, he should (unless his further attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

FEES FOR MEDICAL CERTIFICATES.

SIR,—Will you kindly give your opinion in the following case?

On September 8th, a farmer called at my surgery to consult me, having received a severe bruise on the leg, another on the thigh, also a small lacerated wound of the nose, which he told me was inflicted by a neighbour who, during a quarrel, attacked him with a largish stick, for which assault he had summoned the person to appear at the Petty Sessions.

The clerk to the magistrates sent the sergeant of police to me for a certificate, to give my opinion as to the nature and amount of injury received. I gave the certificate, and requested the sergeant to get my fee allowed by the magistrates. The clerk, however, when the application was made, advised the magistrates not to allow it.

Will you kindly inform me if I cannot legally claim my fee (£1 1s.) under the circumstances stated above? if so, what course I must adopt to obtain it?

Although my personal attendance was not considered necessary, I think it most unreasonable that members of our profession should be expected to give gratuitously written opinions for the benefit and guidance of magistrates.—I am, your obedient servant,
JOHN GOULD.

. Fees to witnesses in criminal cases are only allowed when they attend in court. You are not obliged to give a written opinion for the guidance of magistrates; and, in future, had better decline to give one until you have got your fee. Your patient is, of course, liable to pay you for your attendance on him.

FAMILY DOCTORS AND OBSTETRICIANS.

SIR.—A. and B. are two neighbouring practitioners on terms of friendly intimacy. C. is a private patient at a considerable distance from both. A. has always attended C.'s family since they came into the neighbourhood, some six or seven years ago. Up till now, there has been no midwifery-practice in C.'s family; but, some months ago, C., expecting her confinement, wrote and asked B. would he undertake the attendance on her. B. at once replied that he would do so. Neither B. nor C. had, up to this time, communicated with A., who was admittedly the family medical attendant; and there had been no falling out or unpleasantness of any kind between A. and C.

B. having arranged to attend C. in her confinement, communicated the fact to A. C. or her husband did not and have not yet communicated on the subject with A. at all. I may add that A. and B. are medical officers of country dispensary districts, about six miles apart, and C.'s family reside outside both of their districts.

Kindly give your opinion as to whether there has been any breach of professional etiquette in above case.—Yours, etc.,
QUERIST.

. In replying to our correspondent's question, "as to whether, in our opinion, there has been any breach of professional etiquette in the above case," we feel constrained to remark that, although there does not appear to have been any direct infringement of the strict letter of medico-ethical morality, the true spirit of professional brotherhood seems to have been more or less ignored or evaded. In the absence, however, of an exact knowledge of the nature of B.'s reply to the request made by C., we venture to express a confident hope that it was unwittingly done. Be that as it may, it would, in our opinion (especially under the peculiar circumstances, and the "terms of friendly intimacy" subsisting between A. and B.), have been a graceful, brotherly act on the part of B., if, on receiving C.'s request to attend her in her expected accouchement, he had at once suggested to her the professional expediency (so to phrase it) of consulting the family medical attendant in the matter, unless there were cogent, valid reasons to the contrary.

Hard though the lesson be, A. will, in our judgment, act wisely in refraining from resenting the discourteous and capricious whim of the expectant lady; and he will also do well to let a like principle govern his conduct toward B.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Deputy Surgeon-General G. L. Hinde, C.B.	—	Curragh.
Brigade-Surgeon J. Davidge	Egypt	Portsmouth.
" G. C. Gribbon, M.B.	Egypt	—
" C. E. Smith, M.B.	Woolwich	Colchester.
" R. Waters, M.D.	Egypt	Belfast.
" G. E. Will	Egypt	—
" O. Codrington, M.D.	Netley	—
Surgeon-Major J. Martin	Bengal	—
" O. Owen	Cyprus	—
" J. W. Belcher, M.D.	Devonport	Ashton-u.-Lyne.
" A. F. Churchill, M.D.	Egypt	—
" T. Y. Baker	Salford	—
" J. Hector, M.B.	Bengal	—
" J. E. Fishbourne	Egypt	—
" G. B. Mouat, M.D.	Egypt	London.
" H. J. O'Brien, M.B.	Cork	Bahamas.
" W. M. Harman, M.B.	Malta	—
" N. B. Major	—	York.
" G. C. Irving	Winchester	Malta.
" T. Kingston, M.D.	Dublin	Ballincollig.
" T. W. Jackson, M.B.	Leith Fort	Bombay.
" G. Ryan	Aldershot	Guernsey.
" F. G. Adye-Curran, M.B.	Bahamas	—
" J. J. Crean	—	Hulme.
" E. B. Connolly	Egypt	—
" R. Harman, M.B.	Bombay	—
" P. R. Gabbell	—	Devonport.
" R. H. Quill, M.B.	Buttevant	—
" W. B. Slaughter	Guildford	Dover.
" T. J. Gallwey, M.D.	—	Shorncliffe.
" W. H. Briggs	—	Colchester.
Surgeon C. H. Swayne	Egypt	—
" J. A. Gormley, M.D.	Egypt	Dover.
" B. W. Wellings	Egypt	—
" R. Smith, M.B.	Colchester	Warley.
" G. Laffan, M.D.	Egypt	—
" W. Keays	Dublin	—
" J. L. Booth	Dover	Canterbury.
" H. L. Donovan, M.D.	Netley	Curragh.
" S. L. O'Neill	—	Netley.

	From	To
Surgeon W. P. Feltham	—	Aldershot.
" A. Harding	Egypt	Portsmouth.
" J. D. Day, M.B.	Bengal	—
" W. R. Henderson, M.D.	Bengal	Dublin.
" W. O. Wolseley	York	Coventry.
" G. T. Goggin	—	Bengal.
" W. Hellernan	—	Wexford.
" D. L. Irvine	—	York.
" C. H. Clabburn, M.B.	—	Aldershot.
" M. O'C. Drury	Egypt	—
" G. E. Twiss	—	Dublin.
" T. B. A. Turkey	Egypt	—
" J. Maconachie	Egypt	Portsmouth.
" R. P. Hetherington, M.B.	Egypt	—
" R. C. Johnston, M.B.	Egypt	—
" R. T. McGeagh, M.D.	Egypt	—
" W. G. Birrell, M.B.	York	Salford.
" C. M. S. Magrath, M.B.	Egypt	—
" A. V. Lane	—	Colchester.
" F. T. Wilkinson	—	Chatham.
" J. Temple	—	Dublin.
" W. H. P. Lewis	—	Devonport.
" H. O. Stuart	Egypt	Woolwich.
" H. A. de Lom	Egypt	—
" W. C. Beavor	York	Malta.
" S. Butterworth	—	Dover.
" S. Hickson, M.B.	Dublin	Bengal.
" E. Davis	Canterbury	Dover.
" S. Powell, M.B.	York	Fleetwood.
" A. E. Morris, M.D.	Portsmouth	Bengal.
" A. O. Fitzgerald	Limerick	Bengal.
" R. E. Molesworth	Devonport	Bengal.
" G. L. Josling	Dover	Bengal.
" W. T. Swan, M.B.	Woolwich	Bengal.
" J. Bulfin, M.B.	Portsmouth	Bengal.
" R. L. R. Macleod, M.B.	Edinburgh	Bengal.
" J. H. Curtis	Cork	Bengal.
" G. G. Adams	Devonport	Bengal.
" J. M. F. Shine, M.B.	Fermoy	Bengal.
" W. B. Day, M.B.	Dublin	Bengal.
" D. R. Hamilton, M.B.	Edinburgh	Bombay.
" R. G. Thompson, M.D.	Dublin	Bombay.
" C. T. Blackwell	Dublin	Bombay.
" K. I. Power	Dublin	Bombay.
" M. L. Hearn	Newbridge	Madras.
" S. L. Deeble	Portsmouth	Madras.
" R. H. Hall, M.D.	Aldershot	Cork.
" W. H. Bennett, M.B.	Aldershot	Belfast.
" R. G. Hauley, M.B.	Aldershot	Dublin.
" F. W. H. D. Harris	Aldershot	Duxbury.
" J. F. McMillan	—	Aldershot.
" S. G. Allen	—	Aldershot.
" J. S. Green, M.B.	—	Fermoy.
" G. H. Symes, M.B.	—	Curragh.
" C. A. Lane, M.B.	—	Glasgow.
" P. C. H. Gordon	—	Gosport.
" L. T. M. Nash	—	Dublin.
" J. H. Brannigan	—	York.
" M. O'Halloran, M.D.	—	Curragh.
" C. S. Sparkes	—	Aldershot.
" W. H. Pinches	—	Portsmouth.
" H. F. Horne	—	Aldershot.
" J. H. Daly	—	Winchester.
" G. J. A. Tukey	—	Shorncliffe.
" P. B. Skerrett	—	Dublin.
" H. C. Dent	—	Aldershot.
" F. J. Greig	—	Edinburgh.
" C. Hayden, M.D.	—	Devonport.
" H. D. Rowan, M.B.	—	Canterbury.
" H. Carr, M.D.	—	York.
" H. G. Hathaway	—	Dover.
" A. L. H. Dixon	—	Colchester.
" C. G. Woods, M.D.	—	Exeter.
" P. J. R. Nunnerly	—	York.
" B. A. Maturin	—	Portsmouth.
" H. V. Dillon	—	Devonport.
" T. Daly	—	Newcastle.
" M. J. Sexton, M.D.	—	Colchester.
" H. T. Baylor	—	Colchester.
" H. E. Cree	—	Aldershot.
" F. L. Carte	—	Aldershot.
" W. H. Starr	—	Aldershot.
" A. A. Sutton	—	Aldershot.
" A. P. H. Griffiths	—	Aldershot.
" W. S. Boles, M.B.	—	Aldershot.
" H. L. G. Clevers	—	Aldershot.
" F. J. W. Stoney	—	Aldershot.
" J. FitzG. Burke	—	Aldershot.
" H. N. Kenny, M.B.	—	Aldershot.

ARMY MEDICAL SERVICE.

The following officers of the Medical Staff, serving in the Bengal command, whose tour of foreign service will expire during the trooping season of 1885-86, will proceed to England during the ensuing trooping season, and will be detailed by the Surgeon-General, Her Majesty's Forces, for duty with the troops embarking in the several troopships: Brigade-Surgeons E. H. Roberts, B. C. Kerr, M.D., W. Ashton, M.B., F. W. Wade, A. S. K. Prescott, and J. Y. Donaldson, M.D.; Surgeons-Major E. J. Boulton, C. S. Wills, C.B., R. H. Jarew, R. C. Eaton, A. W. Roche, D. Leckie, M.D., R. Exham, J. Macartney, M.D. (in exchange with Sur-

geon-Major M. D. O'Connell, M.D.), and R. Blood, M.D.: Surgeons O. G. Wood, M.D., A. E. Hayes (in exchange with Surgeon H. J. Michael), P. J. Dempsey, M.D., F. R. Barker, M.B., C. B. Hill, J. R. A. Clark, T. Dorman, M.D., A. W. P. Inman, M.B., T. M. Corker, M.D., T. B. Moffitt, C. A. Webb, J. G. S. Lewis, G. W. Robinson, J. Watson, M.D., E. Butt (in exchange with Surgeon O. Pold, M.B.), A. O. Geoghegan, M.D., C. R. Egan, M.B., A. M. Kavanagh, J. G. Harwood, R. D. Donaldson, A. H. Burlton, H. L. E. White, G. F. Poynder, G. K. S. Bigg, G. F. A. Smythe, H. L. Battersby, E. Landon, B. T. McCreery, M.B., J. M. Bolster, D. Wardrop, M.B. W. L. Reade (in exchange with Surgeon G. T. Goggin), H. G. Christian, M.B., J. M. Jones, A. Asbury, R. W. Barnes, G. H. Sylvestre, M. F. Macnamara, J. O. G. Sandford, M.D., R. L. Love, M.D., J. Harran, A. Sharpe (in exchange with Surgeon J. F. Williamson), and E. O. Wight (in exchange with Surgeon E. H. Myles).

Surgeon-Major R. W. BERKELEY has been promoted to be Brigade-Surgeon, *vice* E. J. Hopwood, who has been granted retired pay. Mr. Berkeley entered the army as Assistant-Surgeon April 22nd, 1858; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1873. He is at present serving in Bengal, but has no war record.

Surgeon-Major JAMES MARTIN has been granted retired pay, with the honorary rank of Brigade-Surgeon. His commissions bear date: Assistant-Surgeon, November 16th, 1858; Surgeon, March 1st, 1873; and Surgeon-Major, November 12th, 1873. He was engaged in the war in Abyssinia in 1867-68 (medal), and in the Afghan war in 1878-80, and was present at the capture of Ali Musjid, where he was wounded (medal with clasp).

Surgeon-Major V. S. GOULDSBURY, M.D., C.M.G., has also been granted retired pay with a step of honorary rank. He joined the service as Assistant-Surgeon September 30th, 1863; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He has been employed in the African branch since 1871.

Surgeon W. M. JAMES, serving in Bombay, has obtained six months' leave of absence to England on urgent private affairs.

Surgeon C. J. ADDISON, serving in the Bombay Presidency, has been transferred from Poona Circle to general duty, Mhow Circle; and Surgeon W. KELLY, M.D., also serving in Bombay, has been transferred from Sind Circle to general duty, Quetta District.

Acting-Surgeon W. CHALMERS-COWAN, of the 1st Forfarshire Artillery Volunteers, has been promoted to be Surgeon.

Surgeon-Major W. S. HEDLEY, M.D., has been granted retired pay, with the honorary rank of Brigade-Surgeon. Dr. Hedley's commission as Assistant-Surgeon dates from September 30th, 1864; that of Surgeon from March 1st, 1873; and Surgeon-Major from September 30th, 1876. He is without personal experience of war.

Surgeon-Major J. E. FISHBOURNE has also retired with a step of honorary rank. His Assistant-Surgeon's commission dates from March 31st, 1865; Surgeon, from March 1st, 1873; and Surgeon-Major from March 31st, 1877. Mr. Fishbourne served in the Afghan war in 1878-79 (medal), and with the expedition sent against the Mahsood Wurzeeres in 1881, in charge of the field-hospital. He also had charge of a field-hospital at the first cataract during the Nile expedition in 1884-85. He received the thanks of the Governor-General of India in Council for meritorious services during the epidemics of cholera in 1869, and again on the occasion of the withdrawal of the troops from Afghanistan in 1879.

Surgeons G. T. LANGRIDGE, B. W. FOWLER, W. E. WEBB, M.B., R. W. MAPLETON, M.B., W. L. GUBBINS, M.B., R. G. THOMSETT, P. J. M'QUAID, M.D., and JAMES RING, M.D., have been made Surgeons-General. With the exception of Mr. Fowler, all these gentlemen have seen war service. Messrs. Langridge, Gubbins, Thomsett, and M'Quaid were engaged in the recent war in Afghanistan; Messrs. Langridge, Mapleton, and Ring in the Transvaal war in 1881; and Messrs. Webb, Thomsett, and M'Quaid in the Egyptian war of 1882.

Deputy-Inspector General J. C. CAMERON, M.D., died on the 2nd ultimo. He entered the service as an Assistant-Surgeon, March 27th, 1835; became Surgeon, April 15th, 1844; and Surgeon-Major, October 1st, 1858; he retired on half-pay with the rank of Deputy Inspector-General, May 1st, 1860. He served as Surgeon to the 37th Regiment in Bengal during the Indian mutiny, and received the medal awarded for the campaign.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR D. W. MARTIN, M.D., Bengal Establishment, Medical Officer of the 30th Native Infantry, and officiating Civil Surgeon at Chindwara, is permanently appointed to the Central Provinces as a Civil Surgeon.

Surgeon-Major D. P. MACDONALD, M.D., Medical Officer 11th Prince of Wales's Own Bengal Lancers, is appointed to the medical charge of the Bundelcund Political Agency, in addition to his own duties.

Surgeon W. L. PRICE, Bengal Establishment, is appointed to the officiating medical charge of the 5th Bengal Cavalry, at Thull Chofiali, *vice* Surgeon G. S. A. Ranking, who has been granted leave.

Surgeon F. C. REEVES, Madras Establishment, is appointed to the medical charge of the 10th Native Infantry, at Vellore, in the place of Surgeon Pemberton, who has been transferred to civil employ.

Brigade-Surgeon W. H. ROBERTS, Madras Establishment, is directed to proceed for duty to Suakin, as Principal Medical Officer; and Surgeon-Major S. L. DOBIE, and Surgeon H. THOMSON, are also ordered to proceed thither as Executive Medical Officers.

Surgeon-Major P. W. COCKELL, Bombay Establishment, has retired on a pension of £365 *per annum*, payable in England. He entered the service as an Assistant-Surgeon, July 23rd, 1858, and obtained the rank of Surgeon-Major July 23rd, 1870. He served during the Indian Mutiny, in 1859, and was present at the siege of Dwarka, as a volunteer.

Brigade-Surgeon W. E. CATES, Bombay Establishment, Examiner of Medical and Fund Accounts, Bombay, has been granted leave of absence, on medical certificate, for 240 days.

THE NAVY.

SURGEONS T. J. PRESTON, M.D., W. PEARSON, and C. L. VASEY, have been promoted to be Staff-Surgeons.

The following appointments have been made at the Admiralty during the past week:—A. H. MILLER, Surgeon, to the *Fernon*, additional; G. BATE, Surgeon to the *Boscawen*; W. PEARSON, M.D., Staff-Surgeon, to the *Raven*.

THE TITLES OF ARMY MEDICAL OFFICERS.

SIR.—Your most excellent leading article on Military Titles for Army Medical Officers has been highly appreciated by officers of all ranks of the medical ser-

vices in this country. It is true that some of our junior officers may be a little impulsive in their demands for definite military rank and status; but we have the highest authority for being "zealously affected in a good cause." I have had pretty extensive opportunities of ascertaining the opinions of both the seniors and juniors on this subject: and, as far as I know, they are all agreed that we should be granted honorary military rank; as has been done in the case of the officers of the Commissariat and Transport Staff, the Army Pay and Ordnance Store Departments. There is also only one opinion about the recently introduced designation of the medical branch of the army, namely, "Medical Staff," which is, that it is utterly wanting in definiteness. A title which would clearly indicate, and convey a distinct idea of, the body to which it is applied should be adopted. I have every reason to believe that, if the votes of the army medical officers were taken on the subject, an overwhelming majority would be found in favour of the title,
ROYAL SURGEONS.

SURGEON-MAJOR T. Y. BARKER.—In the JOURNAL of October 10th, the rank of that officer was inadvertently given as "Surgeon." Dr. Barker has been appointed, under the provisions of the Royal Warrant of December, 1879, to the medical charge of the troops at Cardiff.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE DISTRICT MEDICAL OFFICER FOR CAMBERWELL.

At a meeting of the Council of the Poor-Law Medical Officers' Association, held at their rooms, 3, Bolt Court, the subjoined resolution was unanimously adopted.

"That this Council, having perused the correspondence relating to the epidemic of small-pox in Camberwell, regrets to find that two medical members of the board have unjustifiably, on apparently insufficient grounds, opposed the grant which was proposed to be given to the District Medical Officer for extra services in visiting and attending a great number of non-pauper cases of small-pox, more especially as, at the same meeting, a gratuity was granted to the relieving officers for the extra work they had performed in connection with such cases. And this Council further desires to express its recognition of the courteous and kind consideration exhibited by Dr. Massey in his advocacy of the just claims of such officers."

SIR,—I decline to request space to answer in detail the Rev. A. Drew. His letter is a curious instance of confusion of memory. Most of the arguments in it are those he should have used when he brought forward his motion, but did not. They were afterthoughts, and were produced upon a subsequent occasion, when they again failed. The Camberwell Board is noted for its liberality.—I am, your obedient servant,
DAVID M. SERJEANT, M.D.

POOR-LAW MEDICAL OFFICERS' SUPERANNUATION AND MEDICAL MEMBERS OF PARLIAMENT.

SIR,—At the meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, on Thursday, the 5th instant, *inter alia*, the case of Mr. Isaac Flower, until recently medical officer of the Codford St. Peter district of the Warmistun Union, Wilts, was taken into consideration, and a resolution was come to that I should lay the facts before the medical public, through the columns of the BRITISH MEDICAL JOURNAL, etc.; and, in accordance therewith, I have respectfully to request insertion of the following in your this week's issue.

Mr. Flower was appointed district medical officer on the formation of the union forty-nine years ago, and has held office uninterruptedly during the whole of that lengthened period, to the satisfaction of the poor and the board of guardians, before the latter of which he has never been arraigned, nor his conduct in any way questioned. His salary, inclusive of all extras, was £100. Last summer, finding that infirmities were coming upon him, which would interfere with the due performance of his duty (he has entered on his seventy-fifth year), he tendered his resignation, and, at the same time, made application for superannuation-allowance. In due course, the question came before the board of guardians for consideration; at such meeting, Lord Haytesbury moved that a permanent annuity should be granted; this was negatived. It was then proposed that one year's salary should be given in the form of a gratuity; to this, an amendment was made that the sum should be £50 only. This, on being put to the vote was carried by twelve to eleven; but we learn that, up to the present, Mr. Flower has not signified his acceptance of this insulting offer; he has, however, written to the Local Government Board, stating the facts, and asking their influence, and has had for reply, "that it is entirely within the discretion of a board of guardians whether or not they will grant a superannuation-allowance, either for a limited period or otherwise, to an officer on his ceasing to hold office; but they will, if he desire it, forward a copy of his letter for the consideration of the Warmistun Guardians"—a perfectly useless procedure, *per se*, as all that would accrue would be that the board would direct that the department's communication should be laid upon the board-room table.

Having regard to the lengthened tenure of office, the high character of Mr. Flower, and his advanced age, this procedure of the Warmistun Board of Guardians is in the highest degree unjust to this gentleman; and this brings me to the next point in my letter, where, let it be distinctly understood, I write for myself alone, and not under the direction of the Council. I refer to an increase of medical members of Parliament, by whose aid only can this permissive super-

annuation Act be amended, as well as other legislative requirements affecting the pecuniary and social interests of medical men.

I see that there are several medical candidates before the constituencies; and I further note that the two Scotch and the London Universities have candidates competing who are not of the medical profession; it is not to be expected that the present representative of the London University can be disturbed, but we surely can, if we like, wrest the two Scotch from the hands of lawyers or laymen. In the case of Edinburgh and St. Andrew's, we have an able, nay, gifted, surgeon, Mr. Erichsen. I trust I shall not be held to be presumptuous in asking my fellow-graduates to disregard all considerations as to whether this gentleman be a liberal or conservative, but vote straight for him, solely on the grounds that he is a high class medical man. I would urge the same policy in every borough or division of a county where a medical man is a candidate; and I do so for the reason that there will be plenty of candidates left to take care of general political considerations; but, unless we are up and doing on this occasion, we shall be in the future, as we have been hitherto, without political influence in the councils of the nation, a want which I have experienced most strongly during the thirty years I have striven to secure medical, poor-law, and sanitary reforms, through the action of the House of Commons.—I am, sir, yours obediently,

JOSEPH ROGERS, Chairman Poor-law Medical Officers' Association.

81, Montague Place, Russell Square.

FEES FOR LUNACY-CERTIFICATES.

SIR,—Will you please inform me, through the JOURNAL, whether I am entitled to the usual fee in the following case?

I am a Poor-law medical officer, and am requested by the relieving officer to visit a pauper-lunatic. I advise his removal to an asylum, but, as there is no magistrate in the parish, the relieving officer calls in the aid of the clergyman. We sign the lunacy-certificate in the usual way, and the pauper is removed and admitted to the asylum. When I send in my bill for the usual fee to the clerk of the guardians, he informs me that, since the certificate was not signed by a magistrate, he cannot allow it.—Yours, etc.,

M.B.M.A.

. We have before explained that, under the provisions of the Pauper Lunacy Acts, the magistrate or justice of the peace is the authority to whom the relieving officer has to communicate that there is a person of unsound mind resident in the district, whereupon the magistrate, etc., directs such lunatic to be brought before him, accompanied by a surgeon, who has previously seen and examined such alleged lunatic. The certificate having been filled in, the magistrate, etc., decides what fee should be paid to the medical gentleman; that he is by law empowered to do; but, in the vast majority of cases, the selection of the examining medical man, and the fee he is to be paid, is left to the discretion of the board of guardians, whose district medical officer the certifying surgeon generally is.

In the case before us, where the magistrate was not available, the officiating clergyman occupies the position of such magistrate; and, in our judgment, the clerk was not justified in making this technical objection. Should this person again refuse to recognise the claim, we advise that our correspondent should lay the facts before the Local Government Board, and ask the department to direct the guardians to pay the fee which has been customarily given in cases where a justice has countersigned the admission-order. It is not an uncommon thing for clerks, especially if they are legal gentlemen as well, to start these discreditable objections to the payment of extra fees to medical officers.

SIR,—I shall be exceedingly obliged if you could advise me on the following matter. I am Poor-law medical officer of the Boxford District of the Cornford Union. In July, 1884, I was called upon to fill in a special lunacy-certificate received from the relieving officer in the case of a man who had no money, although at the time he was not on the parish. I examined the man, and certified him to be of unsound mind; a magistrate saw him, and after he was taken to the union, but not to an asylum. As the man was not taken to an asylum, I thought at the time that I was not entitled to any fee, so never applied for one until this quarter. Some weeks ago, however, I found out that there was no doubt that I am entitled to a guinea. I therefore applied for the fee this quarter, but to-day received the following statement from the clerk.

"The item of £1 is out of date, therefore this board cannot pay it, in accordance with the orders of the Local Government Board.—A. NEWMAN."

Had I better apply to the Local Government Board?—Your obedient servant,

JAMES J. REYNOLDS.

. Our correspondent having omitted to send in his claim within the time allowed by the statute, can only now obtain payment by writing to the Local Government Board a statement of the facts, and asking the department to grant an extension of time. This the superior board can do, if so inclined. If permission be given, the guardians will then be in a position to pay the fee. If they had proceeded to do so without the sanction of the department, all those who signed the cheque would have been surcharged by the auditor. It is probable that our correspondent will be wiser in future.

TYPHOID FEVER WITH RESPECT TO AGE.

SIR,—The prevalence or absence of deaths from enteric fever in a district indicates pretty accurately its sanitary condition, and the purity or otherwise of its water-supply; but when deaths of bedridden octogenarians and of infants on the breast are attributed to this disease, we accept them with serious misgivings. This is an extract from Dr. Davies' address in the Public Health Section at the meeting of our Association in Cardiff this year. In the JOURNAL of October 3rd, another medical officer of health quotes an unmistakable case of typhoid in an old man of 79 years, and goes on to state that he shall not be so much impressed with the statements made on this subject in the text-books, and continues, that he writes for the purpose of putting others on their guard. I beg to say that my experiences as a medical officer of health, during a period of five years, and subsequently in practice as a physician in the West End, confirm the opinions expressed by me in the JOURNAL in 1879. In this article, on

the Communicability of Typhoid Fever, the following sentences occur. "No doubt a great deal of the discrepancy which has hitherto existed, and still exists, concerning its etiology, is due to the difficulty of diagnosing the many varieties of the disease. Enteric fever is very common in infancy." Typical cases are quoted. One, an infant fed solely on the mother's milk; another, amongst the aged, a nurse of 60.—I am, etc.,

W. SISCLAIR-THOMSON, M.D.

Ladbroke Grove, W.

SANITAS.—1. An alphabetical list of the sanitary districts in the several divisions of the kingdom, with their population and the salaries of the medical officers of health, will be found in Churchill's *Medical Directory*. The few medical appointments under the Local Government Board are wholly in the gift of the president for the time being.

2. Such information would best be obtained from the *Field* newspaper.

HEALTH OF ENGLISH TOWNS.

DURING the week ending Saturday, October 10th, 5,622 births and 3,011 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been equal to 15.9 and 17.6 in the two preceding weeks, was again 17.6 last week. The rates in the several towns, ranged in order from the lowest, were as follow: Leicester, 13.8; Wolverhampton, 13.8; Derby, 14.0; Bristol, 14.1; Huddersfield, 14.3; Birkenhead, 14.4; Blackburn, 14.8; Nottingham, 15.1; Bradford, 15.3; Brighton, 15.6; Birmingham, 15.6; Norwich, 16.6; London, 16.7; Hull, 16.8; Halifax, 16.9; Leeds, 17.7; Oldham, 17.8; Bolton, 19.0; Sunderland, 19.2; Sheffield, 20.1; Newcastle-upon-Tyne, 20.1; Salford, 20.2; Portsmouth, 21.3; Liverpool, 22.5; Cardiff, 22.5; Manchester, 22.7; Plymouth, 23.3; and the highest rate during the week, 28.1 in Preston. The death-rate during the week in the twenty-seven provincial towns averaged 18.4 per 1,000, and exceeded by as much as 2.8 the rate in London, which, as before stated, was only 16.1 per 1,000. The 3,011 deaths registered during last week in the twenty-eight large towns, included 1,149 which were referred to the principal zymotic diseases, against 373 and 366 in the two preceding weeks; of these, 97 resulted from diarrhoea, 51 from whooping-cough, 49 from scarlet fever, 42 from "fever" (principally enteric), 33 from measles, 24 from diphtheria, and 2 from small-pox. These 303 deaths were equal to an annual rate of 1.8 per 1,000. The zymotic death-rate in London was equal to 1.8 per 1,000, and corresponded with the average rate in the twenty-seven provincial towns, among which it ranged from 0.0 and 0.6 in Brighton and Hull, to 2.7 in Halifax and in Cardiff, 4.3 in Portsmouth, and 5.7 in Preston. The deaths referred to diarrhoea, which had declined in the nine preceding weeks from 625 to 135, further fell last week to 97, and showed the largest proportional fatality in Portsmouth and Preston. The fatal cases of whooping-cough, which had been 59 and 52 in the two previous weeks, further declined to 51 last week. The 49 deaths referred to scarlet fever corresponded with the number in the previous week; this disease caused the highest death-rates in Birkenhead and Preston. The fatal cases of "fever," which had been 55 and 41 in the two preceding weeks, were 42 last week, and caused the highest rates of mortality in Hull and Cardiff. The 38 deaths from measles showed a decline of 8 from the number recorded in the previous week, and showed the highest proportional fatality in Salford. The fatal cases of diphtheria, which had been 28 and 27 in the two preceding weeks, declined last week to 24, of which 14 occurred in London, and 10 in Salford. The 2 deaths from small-pox during the week in the twenty-eight towns were both recorded in London, and were exclusive of 1 of a London resident from this disease registered in the Metropolitan Asylum Hospital Ship moored off Dartford, and outside Registration London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the eighteen preceding weeks from 1,389 to 131, further fell during the week to 112; the admissions, which had been 47, 27 and 18 in the three previous weeks, further declined to 15 last week. The death-rate from diseases of the respiratory organs in London last week was equal to 2.9 per 1,000, and was below the average. The causes of 55, or 1.8 per cent., of the 3,011 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

IN the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 836 births and 400 deaths were registered during the week ending Saturday, October 10th. The annual rate of mortality, which had been 20.0, 17.4 and 16.4 per 1,000 in the two preceding weeks, was again 16.4 last week, and 1.2 below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.6 in Perth, 11.4 in Paisley, 11.6 in Perth, 14.3 in Edinburgh, 14.3 in Dundee, 16.1 in Aberdeen, 17.6 in Greenock, and 19.5 in Glasgow. The 400 deaths registered during the week in these Scotch towns included 15 which were referred to diarrhoea, 12 to scarlet fever, 8 to whooping-cough, 7 to diphtheria, 4 to "fever," and not one either to small-pox or measles; in all, 49 deaths resulted from these principal zymotic diseases, against 59 and 41 in the two preceding weeks. These 49 deaths were equal to an annual rate of 2.0 per 1,000, which slightly exceeded the average zymotic death-rates during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns last week were recorded in Greenock, Aberdeen and Glasgow. The deaths from diarrhoea, which had declined from 51 to 13 in the five preceding weeks, rose again last week to 18, but were less than one-third of the number registered in the corresponding period of last year; 9 occurred in Glasgow, and 4 in Dundee. The fatal cases of scarlet fever, which had been 11 and 6 in the two previous weeks, increased to 12 last week, and included 7 in Glasgow, and 2 in Aberdeen. The 8 deaths from whooping-cough were within one of the number in the preceding week, and were all recorded in Glasgow. The 7 fatal cases of diphtheria showed an increase of 4 upon the number in the previous week, and included 3 in Glasgow, and 3 in Edinburgh. The 4 deaths referred to "fever" showed a further decline from recent weekly numbers; 2 occurred in Glasgow. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 2.6 per 1,000, against 2.9 in London. As many as 64, or 16.0 per cent., of the 400 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

IN the week ending October 10th, the number of deaths registered in the sixteen principal town-districts of Ireland was 328. The average annual death-rate repre-

sented by the deaths registered was 19.8 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 20.7; Belfast, 23.1; Cork, 13.6; Drogheda, 12.7; Dublin, 21.0; Dundalk, 21.8; Galway, 13.4; Kilkenny, 0.0; Limerick, 18.9; Lisburn, 29.0; Londonderry, 23.2; Lurgan, 5.1; Newry, 10.5; Sligo, 9.6; Waterford, 20.8; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.4 per 1,000, the rates varying from 0.0 in nine of the districts to 14.5 in Lisburn; the 6 deaths from all causes registered in that district comprising 2 more from measles and 1 from scarlatina. The 97 deaths from all causes in Belfast, comprised 3 from measles, 2 from scarlatina, 2 from typhus, 4 from whooping-cough, 1 from diphtheria, 2 from enteric fever, and 4 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 143. There were only 14 deaths from zymotic diseases registered in Dublin; they comprised 3 from scarlet fever, 1 from influenza, 1 from whooping-cough, 1 from ill-defined fever, 2 from enteric fever, 4 from diarrhoea, 1 from erysipelas, etc. Twenty-two deaths from diseases of the respiratory system were registered, being 3 below the average for the corresponding week of the last ten years, and 5 under the number for the week ended October 3rd; they consist of 17 from bronchitis, and 5 from pneumonia. The deaths of 12 children under 5 years of age (including 9 infants under 1 year old) were ascribed to convulsions. Six deaths were caused by apoplexy, 9 by other diseases of the brain and nervous system (exclusive of convulsions), and 9 by diseases of the circulatory system. Phthisis caused 13 deaths, and mesenteric disease 3. Eight accidental deaths and 1 case of suicide were registered. In one instance, the cause of death was "uncertified," and in 18 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.

It appears, from statistics published in the Registrar-General's return for the week ending September 19th, that the annual death-rate averaged 20.4 per 1,000 in the three principal Indian cities; it was 26.2 in Calcutta, 26.2 in Bombay, and 34.3 in Madras. Cholera caused 16 deaths in Calcutta, and 9 in Bombay; and fever showed considerable prevalence in each of these cities. According to the then most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-one of the largest European cities averaged 22.7, and exceeded by 5.6 per 1,000 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 23.6, against 30.0 and 27.3 in the two preceding weeks; the 508 deaths included 115 from diarrhoeal diseases, 15 from typhus and typhoid fever, and 8 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 19.0, ranging from 17.3 in Copenhagen to 21.1 in Christiania; diphtheria caused 3 deaths in Copenhagen, and whooping-cough was fatally prevalent both in Stockholm and in Christiania. In Paris, the death-rate was equal to 18.6; it showed a further decline from the rates recorded in recent weeks, but exceeded by 2.9 per 1,000 the rate during the week in London; the deaths included 25 from typhoid fever, and 7 from small-pox. The 192 deaths in Brussels included 50 from diarrhoeal diseases, and were equal to an annual rate of 20.4. The rate in Geneva did not exceed 13.1 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate was 19.3, the highest rate being 14.9 in Rotterdam, where 2 deaths were referred to scarlet fever. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 23.6, and ranged from 19.2 and 19.6 in Dresden and Vienna, to 27.0 and 28.5 in Breslau and Prague. Diarrhoeal diseases continued to be fatally prevalent in most of these cities; small-pox caused 9 deaths in Vienna, and 4 in Buda-Pesth; and 27 deaths were referred to diphtheria in Berlin. In three principal Italian cities the death-rate averaged 25.8 per 1,000, and ranged from 23.9 in Turin to 27.6 in Rome; 5 deaths resulted from small-pox in Venice, and 3 in Rome, and typhoid fever showed fatal prevalence in each of these cities. In four of the largest American cities, the rate of mortality averaged 22.3, and ranged from 20.1 in Philadelphia to 24.0 in New York. Diarrhoeal diseases continued fatally prevalent in New York and Brooklyn; typhoid fever caused 28 deaths in Philadelphia, and scarlet fever 4 in Baltimore.

It appears from the statistics published in the Registrar-General's return for the week ending September 26th, that the annual death-rate was equal to 27.4 in Calcutta, and to 25.2 in Bombay. Cholera caused 14 deaths in Calcutta, and 5 in Bombay; other diarrhoeal diseases and "fever" also caused considerable mortality in each of these Indian cities. According to the then most recently received weekly returns, the annual death-rate in twenty of the largest European cities averaged 23.1 per 1,000 of their estimated population, and exceeded by no less than 7.2 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 26.3, showing a decline from the rates in previous weeks; the 508 deaths included 115 from diarrhoeal diseases, and 15 from "fever." In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged only 19.0, and ranged from 17.3 in Copenhagen to 21.1 in Christiania; diarrhoeal diseases caused 10 deaths in Copenhagen and 11 in Stockholm. The rate of mortality in Paris was equal to 20.9, and showed an increase upon that which prevailed in the previous week; diarrhoeal diseases caused 114 deaths; typhoid fever, 25; and diphtheria and croup, 16. In Brussels, the death-rate was 23.5, and 47 of the 196 deaths resulted from diarrhoeal diseases. The 23 deaths in Geneva corresponded to a rate of 16.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was only 16.6, the highest rate being 17.0, both in Amsterdam and the Hague; scarlet fever and diphtheria each caused 3 deaths in Amsterdam. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 23.7, and ranged from 20.8 in Berlin to 26.0 in Hamburg, and 26.6 in Prague. Small-pox caused 10 deaths in Vienna, 5 in Buda-Pesth, and 3 in Prague, and diphtheria showed more or less fatal prevalence in each of these German cities. In three large Italian cities, the death-rate averaged 27.8, and ranged upwards to 33.5 in Rome; 20 deaths resulted from diarrhoeal diseases in Rome, and small-pox caused 5 deaths in Venice, and 2 in Rome. No returns appear to have been received from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the mean death-rate was 23.2, the rates ranging between 20.8 in Baltimore, and 24.7 in New York; diarrhoeal diseases caused 127 deaths in New York, and 64 in Brooklyn; typhoid fever caused 23 deaths in Philadelphia, and 5 in Baltimore.

It appears from statistics published in the Registrar-General's return for the week ending October 3rd, that the annual death-rate averaged 30.4 per 1,000 in the three principal Indian cities; it was 25.5 in Bombay, 32.1 in Calcutta, and 33.0 in Madras. Cholera caused 8 deaths in Calcutta, 5 in Bombay, and 2 in Madras; "fever mortality" showed considerably greater excess in Calcutta than in either of the other two Indian cities. According to the then most recently received

weekly returns, the annual death-rate in twenty-two of the largest European cities averaged 21.4 per 1,000 of their aggregate population, and exceeded by 3.8 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 25.3, and showed a decline from the rates in previous weeks; the 450 deaths included 77 from diarrhoeal diseases, 21 from scarlet fever, and 11 from "fever." In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged only 18.2, the highest rate being 20.3 in Christiania; the 50 deaths in the latter city included 11 from diphtheria and croup, and 3 from scarlet fever. In Paris, the death-rate declined to 18.1, and the 775 deaths included 106 from diarrhoeal diseases, 23 from typhoid fever, and 20 from diphtheria and croup. The 175 deaths in Brussels gave a rate of 20.8, and included 36 from diarrhoeal diseases. The rate in Geneva was equal to 19.7. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was so low as 16.6; the rate ranged from 13.9 in the Hague to 17.6 in Amsterdam. The zymotic death-rate in these Dutch towns was unusually low. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 23.5, and ranged from 19.4 and 20.1 in Dresden and Berlin, to 26.1 in Hamburg, and 26.3 in Breslau. Small-pox caused 14 deaths in Vienna, 4 in Trieste, 3 in Prague, and 2 in Buda-Pesth; diphtheria showed the largest proportional mortality in Breslau, Hamburg, and Berlin. The death-rate averaged 23.8 in three of the principal Italian cities, and ranged from 19.6 in Turin, to 23.1 in Rome; small-pox caused 12 deaths in Venice, and 4 in Rome; typhoid fever 8 in Rome and 8 both in Turin and Venice. No returns were received either from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the rate averaged 23.3, ranging from 16.9 in Baltimore, to 25.6 in New York. Diarrhoeal diseases caused 121 deaths in New York, and 57 in Brooklyn; typhoid fever caused 17, and diphtheria 12, deaths in Philadelphia.

It appears from statistics published in the Registrar-General's return for the week ending October 10th, that the annual death-rate was recently equal to 26.5 in Bombay, and 29.5 in Madras. Cholera caused 11 deaths in Bombay and 5 in Madras; "fever" mortality showed the largest excess in Madras. According to the most recently received weekly returns, the annual death-rate in twenty-one of the largest European cities averaged 21.9 per 1,000 of their estimated aggregate population, and exceeded by 4.3 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 23.2, and showed a further considerable decline from the rates in previous weeks; the 412 deaths included 16 from "fever," 12 from scarlet fever, and 6 from diphtheria. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 17.6, ranging from 15.2 in Copenhagen, to 21.0 in Stockholm; scarlet fever and diphtheria showed fatal prevalence both in Stockholm and Christiania. In Paris, the death-rate was equal to 20.5, showing a considerable increase upon the rate in the previous week, and exceeding the rate in London by 3.8; the deaths included 105 from diarrhoeal diseases, 29 from typhoid fever, and 23 from diphtheria and croup. The rate in Brussels was 17.8, 30 of the 150 deaths being attributed to diarrhoeal diseases. The 23 deaths in Geneva gave a rate of 16.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.9, the highest rate being 21.8 in Amsterdam, where the deaths included 4 from scarlet fever and 4 from diphtheria. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 23.3, and ranged from 19.9 and 22.1 in Vienna and Berlin, to 26.4 in Munich and 27.9 in Buda-Pesth. Small-pox caused 10 deaths in Vienna, 10 in Buda-Pesth, and 6 in Prague; diphtheria showed considerable mortality in Hamburg, Berlin, and Buda-Pesth. The 72 deaths in Venice gave a death-rate of 25.7, and the rate in Rome was 25.4. Diarrhoeal diseases caused 29 deaths in Rome and 10 in Venice; 7 deaths from typhoid fever were recorded in Rome, and 5 from small-pox in Venice. In four of the largest American cities, the mean recorded death-rate was 23.3, the rates ranging from 19.8 in Philadelphia to 24.8 in New York. Diphtheria caused more or less mortality in each of these American cities; 21 deaths from typhoid fever were recorded in Philadelphia, and 7 in Baltimore.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON RURAL DISTRICT.—Dr. A. Bostock Hill has had the good fortune to be able to report at the close of his first year of office that the district committed to his charge is in a satisfactory sanitary condition. The death-records of the district were also satisfactory for 1884, showing rates of but 14.54 per 1,000 from all causes, and 1.2 per 1,000 from zymotic diseases. Only on three occasions did outbreaks of disease assume an epidemic character, namely, in January, when measles broke out at Sutton, and caused about 100 cases, of which 3 proved fatal; in the summer, when an outbreak of measles, remarkable for its mildness, occurred at Erdington; and in the autumn, when a slight epidemic of whooping cough occurred at the workhouse, resulting in 14 cases and 1 death. A clean bill of health as regards diarrhoea is also a matter of congratulation for the district, especially when the prevalence of the disease in the neighbouring district of Birmingham and the exceptional heat of last summer are taken into account. Dr. Hill takes occasion to invite the masters and mistresses of schools to give him information of all cases of infectious disease of which they may become aware. Sewerage in the more populous parts of the district appears to have progressed, but much still remains to be done in securing the construction of water-closets and their connection with the sewers.

BARNESLEY.—The mortality in this borough during 1884 was very high, being at the rate of 25.61 per 1,000 from all causes. Of these, the seven principal zymotic diseases were responsible for the large proportion of 6.67 per 1,000, mainly owing to severe epidemics of scarlet fever and diarrhoea. It is satisfactory to note, however, that the mortality from typhoid fever has been gradually decreasing during the last decade, there being only six deaths from that disease registered last year. Dr. Sadler is convinced that this improvement is related

to the introduction of the present excellent supply of water, to better sewerage, and to the greater attention paid to the arrangement of house-drains. In connection with the epidemic of scarlet fever in 1884, which caused no fewer than 120 deaths in a population of about 31,000, it is noteworthy that "practically no use was made of the Fever Hospital during the year for the prevention of disease in the borough." The health-officer explains this by saying it is not large enough for such an epidemic as the town passed through last year, although he admits that, if the first cases had been known of and isolated, the epidemic might have been altogether prevented. He also points out that, except in cases of small-pox, it has hitherto been considered necessary to make for the use of the hospital what, for the majority of people, have proved to be prohibitive charges. The Sanitary Committee seem, however, to have taken this defect to heart, and to have so revised the charges as to make the hospital really available for the future as a means of preventing the spread of disease in the borough. Dr. Sadler also remarks that the people themselves are, more often than not, extremely careless and reckless as regards infectious disease. Children, when well, are allowed to run in and out of infected houses, and, when themselves in an infectious state, are allowed to mix with healthy persons. At school, too, children, bearing on their clothes or in their persons the seeds of infection, mix with other children in rooms not always so well ventilated as they might be. As Dr. Sadler observes, people are, to a great extent, influenced for good or ill by the energy, or otherwise, of those in authority in their district; and, on this point, he acknowledges with satisfaction a very marked increase of late in the earnestness with which the functions of the Town Council, as a sanitary authority, have been taken up.

BARNSELY RURAL DISTRICT.—Two years' work in this district, as recorded in the last two annual reports of Dr. Sadler, the medical officer of health, seems to exemplify the slowness with which sanitary science is wont to progress in rural districts. The spread of infection by intercommunication has especially troubled the health-officer, who seems, however, to have done his best in the circumstances. He has to deal with a population as fearless, not to say reckless, of the dangers of infection as they are of those they encounter in their daily work in the coal-pits. As an instance of this disregard of ordinary precautions, he mentions that, in one case, twenty people were counted following out of one cottage the coffins of two children that had died of scarlet fever; and that, in another case, a boy, from a house till then free from disease, was sent for medical assistance for a neighbour's child, wrapped in a shawl taken from the bed of a patient then known to be ill with scarlet fever. The health-officer's experience has taught him to attach particular importance to his receiving early information of infectious disease, and the necessity of proper isolation of the first cases, if the epidemic extension of the disease is to be prevented. Scarlet fever has been the most prevalent and fatal disease during the past two years, especially in Nether Hoyland, Cudworth, and Caulton. In the first-named township, about 200 cases, with 21 deaths, occurred during the last half of 1883, in a population of 10,000, and 12 deaths had to be registered in 1884; whilst in Cudworth, 53 cases, with 15 deaths, occurred last year in a population of about 1,000. The schools were closed, and other precautions recommended; but reckless intercommunication at the village "feast" seems to have nullified these good efforts, and greatly spread the disease. Diarrhoea prevailed also, especially at Nether Hoyland, and is connected by Dr. Sadler with the very deficient water-supply of that place. The general death-rate of 1883 was 19.28, and of 1884, 23.26 per 1,000. The zymotic rates were 3.41 and 6.2 per 1,000 respectively. The population is estimated at 22,000.

BEDMINSTER RURAL DISTRICT.—There are few points of medical or sanitary interest in the last two reports for this district, although they are commendably free from technicalities. They show the value of vaccination as a prophylactic of small-pox, and contain useful hints as to the prevention of phthisis and heart-disease. Speaking of rheumatism, Mr. Adams properly advises those persons disposed to the disease to abstain from beer and cyder, and to spend the money in flannels, and in taking measures to keep their dwellings warm and dry. Many of the houses in the district are damp, badly constructed and ventilated, and, on the part of the poorer people, there seems a general disregard of all sanitary precautions. Amongst the educated classes, there is an intelligent and growing appreciation of the laws of health and disease; but this does not free them from the effects wrought by their neighbours who disregard these laws. A case is mentioned by Mr. Adams, where the children in a family had scarlet fever, saw no doctor, whilst the mother continued to take in washing. The infection was sent

home from this house to another family in so-called clean clothes; and, ere long, the father of the second family and some of his children sickened of scarlet fever. In view of the possibility that cholera may reach us soon, the health-officer is wise in advising his sanitary authority to provide a suitable place for the immediate reception of any cases of the disease. The rates of mortality were 15.3 per 1,000 in 1883, and 16.4 per 1,000 in 1884.

CHESTERFIELD RURAL DISTRICT.—This district, with a population of about 54,000, affords Dr. Angus Mackintosh peculiar facilities for observing the effects of the various conditions which influence public health, and it is satisfactory to find he avails himself of his opportunities. In an interesting report for 1884, he recalls to his sanitary authority the various occurrences of the year, and the lessons to be learnt from them. Some of these lessons would seem to have been overlooked by the authority, perhaps only for a time; but the health-officer avoids any direct condemnation of the authority's hesitation to carry out his suggestions. He no doubt feels that the strong evidence he brings forward must have its due effect in the end. Dr. Mackintosh lays stress on the importance of proper disinfection of dwellings, etc., after infectious disease; and he fears that neglect of this matter is one of the causes of the persistence with which fevers, especially scarlet fever, continue to prevail from year to year in the district. School-closing, again, is a question upon which he holds a very strong opinion, and to which he attaches much importance. He seems to prefer, as a rule, complete closing for a time to the practice of excluding particular scholars. He also urges the importance of infectious hospital-provision, and gives the authority his advice in detail as to the accommodation that should be provided. Foot-and-mouth disease among cattle is regarded seriously by Dr. Mackintosh in its relation to the public health; and he records a case, in which the germs of the disease in the milk of a cow were suspected of causing puerperal fever in a woman lately confined, who used the milk. He also considers that cooking cannot be relied upon to destroy the germs of foot-and-mouth disease in the flesh of infected animals; and, as it is probable that the disease is conveyed to man by the flesh of diseased animals used as food, he would condemn all animals so affected as unfit for human food. During the year, there were four outbreaks of scarlet fever, causing 33 deaths. Typhoid fever caused 6 deaths; whilst five serious outbreaks of measles resulted in 37 deaths. There were several outbreaks of small-pox, the infection in each case being imported by servants sent home whilst incubating the disease. Diarrhoea prevailed during the autumn, and caused 57 deaths, a very severe outbreak at Whalley-thorne in July being traced to a polluted water-supply. The death-rate from all causes was 17 per 1,000, including a zymotic rate of 3.1 per 1,000.

HELMSEY RURAL DISTRICT.—In introducing his report for 1884, Dr. Bruce Low emphasises the importance which should be attached to the annual reports of health-officers, and the beneficial effects which such reports are calculated to have, when properly prepared and circulated. He considers that "all health-reports should be accessible to any resident who wants information regarding his locality;" but it is to be feared that, in too many cases, health-officers do not attach sufficient importance to this matter. There is many a ratepayer who might seek in vain, in the reports of the health-officer of his district, for more generally useful information than a few statistical records can afford. Dr. Low is particularly struck by the reckless, and often culpable, carelessness with which infected persons neglect "to keep the infection to themselves." He relates the case of a visitor to the district, who took apartments in a house containing several children, and brought there a child just recovering from whooping-cough, without notifying the nature of the illness. As a result, all the children in the house caught the disease, which also spread to other houses, and caused two deaths. The general sanitary work of the district seems to be in good hands; and the immunity of the district from "filth-diseases" speaks well for the care taken to secure cleanliness of the back premises of houses, and the proper disposal of excrement. The zymotic death-rate was only 0.5 per 1,000 in a population of about 4,000, and the general death-rate was 17.84.

KENDAL.—In his report for 1884, Mr. Charles E. Paget gives an instructive table of the mortality in the borough since 1838. That table shows that, whereas the average annual rate of mortality from all causes, for the four years 1838-41, was 31.0 per 1,000 (including 7.9 from the principal zymotic diseases), those rates have since been gradually declining, until the period 1881-4 produced the average rates of 19.0 per 1,000 from all causes (including 1.5 from zymotic diseases).

A large part of Mr. Paget's report is devoted to a discussion of the mortality from fevers during the last forty years. He is of opinion that much formerly recorded under the heading of "typhus" should in reality have been under "typhoid;" and he attributes the steady and considerable decline that has occurred in the number of deaths from fevers to the progress of sanitation in the district, shown by the provision of pure water, proper drainage, abatement of nuisances, etc. Last year was marked, however, by a severe and exceptional epidemic of enteric fever in the borough; and, with regard to this, the health-officer remarks that, while it is almost certain that the sewerage-system of Kendal has reduced the mortality and prevalence of enteric fever in the town, a peculiar concurrence of causes led to a distinct indication last year of a weak point in that system—namely, the defective ventilation. As the result of this dearly bought experience, the sanitary authority have entered vigorously upon the work of ventilation of the main sewers, and it is hoped that house-drains will also be properly dealt with as regards their disconnection from the main sewers and their ventilation. The general substitution of water-closets for the ashpit-privies (at present very general in certain parts of the town) is another matter to which the health-officer attaches importance. With regard to the Borough Sanatorium, Mr. Paget is of opinion that it is one of the greatest and most permanent sanitary improvements effected during the last few years in Kendal. The disinfecting-stove also proved very useful during the last year, and the sanitary inspector reports that 950 articles of clothing were properly disinfected in it. Altogether, sanitary work in Kendal seems to be progressing.

KING'S NORTON.—Mr. Hollinshead has presented to his authority an useful, and, on the whole, a favourable report for the past year; but it brings into relief once more the difficulties which ignorance, carelessness, and prejudice continually throw in the way of a health-officer. A great many deaths in infancy are, Mr. Hollinshead points out, due to want of proper care and management on the part of parents, who begin to feed their young children at too early an age with solid food, and who delay seeking medical advice for their little ones until help from a doctor is useless. Diarrhoea, of a severe and well marked choleraic form, prevailed during the summer and autumn; but, out of 117 cases, only six proved fatal. Measles, scarlet fever, and whooping-cough also prevailed, but the mortality from those diseases was not great. In fact, the death-rate from all causes was only 14 per 1,000, and from zymotic diseases only .78 per 1,000. With regard to general sanitary matters, Mr. Hollinshead emphasises the advantage of an unpolluted soil, and of clean and wholesome dwellings and surroundings. He anticipates much good in these directions from the operation of the new by-laws in the district, and he indicates various ways in which the drainage-arrangements of the district can and should be improved. The present arrangements for removal of refuse, etc., do not apparently satisfy the health-officer, who again expresses his opinion that it would be "to the benefit of the district, if the board were to take the matter in its own hands, and have its own horses and carts."

LLANELLY RURAL DISTRICT.—In his annual report for 1884, Dr. J. Raglan Thomas refers to the advantage the district has derived from the system of paying a small fee to medical men for reporting to the sanitary authority fresh outbreaks of the principal infectious fevers. He adds that, during the year, there has been a considerable reduction in the number of outbreaks of infectious disease, and also in the actual number of cases. The necessity for some infectious hospital provision being made by the sanitary authority is again urged by the medical officer of health, as affording the best means of coping with infectious disease occurring in poor and crowded cottages. Some interesting experience was afforded by an analysis of the water supplied to Cromfelin. The water is conveyed by galvanised iron pipes from the spring to the village; and the analyst reported that "the very pure water of the spring had, in virtue of the dissolved oxygen and carbonic acid naturally present in it, dissolved an important quantity of zinc." Whether this contamination of the water by zinc is seriously injurious to health is, however, a matter upon which the experts are not agreed; but it cannot, at all events, be considered desirable. The statistics given in the report show that the death-rate of the district has been gradually decreasing during the last thirty years, and that 1884 produced the lowest rate during that period. The general death-rate per 1,000 for the whole district for 1884 was 15.66, whilst for 1851-60 it was 19.50. Mr. Thomas calculates that the figures for the past year, compared with the previous decade, show a saving of "one hundred lives a year to the district and the State." The zymotic rate for 1884 was 1.4 per 1,000.

NEW WINDSOR.—The rates of mortality in this borough during the last two years have been low. From all causes, the death-rates were in 1883, 13.5, and in 1884, 13.3 per 1,000, including respectively 1.2 and .38 per 1,000 from zymotic diseases. Dr. Casey remarks, however, that it must by no means be inferred, from these favourable figures, that the conditions of health within the town are perfectly satisfactory. In his report for 1883, and again in that for 1884, he points out that, owing to the defective state of the existing by-laws, houses may be, and are, constructed without proper regard to sanitary requirements. As regards water-supply, Dr. Casey considers the larger number of the wells, in the older parts of the town at least, to be dangerously polluted; and having in view a possible visitation of cholera, he would "urge that all such wells be regarded as unsafe, and be mistrusted until their purity has been ascertained by chemical analysis." It is to be hoped, however, that the health-officer does not put too much faith in chemical analysis in cases where the wells are so situated as to be liable to contamination.

ST. AUSTELL RURAL DISTRICT.—Mr. W. Mason finds it necessary in his last annual report, to repeat the advice he has given on former occasions, as to the necessity of an infectious hospital for each district; and he is, unfortunately, able to support his plea by the actual occurrences in his district during the year. Small-pox was imported three times, but without spreading, and scarlet fever prevailed in some localities. There were also cases of typhoid fever, and two of typhus. Two cases of typhoid were traced by the medical officer of health to contaminated water. In one case, rats found their way into the pump from which the drinking-water was procured, and several members of the family using the water were laid down with the disease. The execution of several works of sewerage and water-supply is recorded by the health-officer, but a somewhat formidable list still remains to be disposed of by the rural sanitary authority. Mevagissey, Fowey, High Street, Lanjeth, and Treemoon, require improvement of their water-supply; and the drainage of Mevagissey "is in a disgraceful condition" for want of water for flushing. The drainage of Watering Hill, Mount Charles, and Trewhiddle, also requires to be taken in hand. The death-rate for 1884 is given as 19.6 per 1,000 for the whole district. The St. Austell and Mevagissey death-rate is less than in the previous year, the increase being in Fowey and Gram-pound; whilst the birth-rate in St. Austell, Mevagissey, and Gram-pound, has been in excess, and in Fowey has been decreasing.

ST. GERMAN'S RURAL DISTRICT.—A considerable portion of Mr. B. Kerswill's last annual report is devoted to a record of the serious outbreak of typhoid fever which occurred at Torpoint last autumn. The disease broke out in August, and continued throughout the autumn, causing about 120 cases, of which twelve proved fatal. The actual cause of the outbreak is somewhat uncertain, but the medical officer of health considers the spread of the disease to have been undoubtedly due to defective drainage and a deficient supply of water. Many of the pumps in the town had to be closed on account of pollution, and others had to be closed for many hours during the day, with the result of producing a serious scarcity of water. Circumstances noted by the health-officer lead him to infer that the germs of the disease had remained dormant in the sewers since the epidemic of 1883, owing to want of proper and efficient means of flushing. Mr. Kerswill holds the rejection of the Torpoint Water Bill by the Committee of the House of Lords, in March of last year, responsible for delay in sanitary improvements, and also for the suffering caused by the scarcity of water. The matter seems, however, to have been again taken up by the sanitary authority. The necessity for immediate action, both with regard to the drainage and the water-supply, is obvious, if further ravages from typhoid fever are to be avoided. The total deaths during the year amounted to 311, or at the rate of 19.5 per 1,000. The zymotic death-rate was 2.3 per 1,000, for which the occurrence of seventeen deaths from typhoid fever, and six from infantile diarrhoea, are mainly responsible.

TODMORDEN URBAN.—Mr. Thorpe estimates the population of his district at 24,142 persons, and returns the death-rate at 17.6 per 1,000, as compared with 17.6 and 18.19 per 1,000 in the two previous years. The birth-rate, which for the previous six years had been steadily declining, exhibited an increase in 1883, but shrank again in 1884. In speaking on the subject of infantile mortality, Mr. Thorpe observes that since public attention has been so much directed to the subject of educational overpressure, he has watched carefully, but has failed to detect any ill effect arising from it within the district. It may be possible that the children of large towns, who are not so

well cared for as those of Todmorden, do suffer in that respect. If head teachers would pay due regard to the physical powers of the scholars, and not urge them beyond the capabilities of those powers, few complaints would be heard on this point. Nine deaths were recorded in 1883 from typhoid fever, and 3 in 1884, which arose for the most part from impure water. Altogether 41 deaths occurred from zymotic disease in 1884, as against 44 in 1883.

WELLINGBOROUGH RURAL DISTRICT.—Mr. J. Howell Thomas deplores the lack of assistance extended by the general public to the health-officer, in his often fruitless endeavours to prevent the spread of infectious disease, and he combats the nonsensical superstition which appears to prevail in his as well as in many another district, that scarlet fever, measles, and whooping-cough are diseases which children must have—the sooner the better. He very properly points out that when these diseases do not prove fatal, they leave the children weak, and often permanently ailing. Mr. Thomas remarks that this generation and the coming one will have to pay for the neglect of sanitary matters by the past generation; and, with the view of preventing the perpetuation of faulty sanitary notions, he urges his sanitary authority to apply to the central board for the urban powers necessary to enable them to make and enforce by-laws as to the construction of new buildings, etc., in the more populous and increasing villages. This is salutary advice, and it is to be regretted that although given in his report for 1883, it was not adopted, and the health-officer had to repeat it in his report for 1884. The death-rate from all causes in this district, with its population of 24,000, was 15.4 per 1,000 in 1883, and 15.2 in 1884. Zymotic disease produced a rate of 1.2 per 1,000 in 1883, and 2.0 per 1,000 in 1884.

WHITEHAVEN RURAL DISTRICT.—In his annual report for 1884, being his first in the capacity of medical officer of health for this district, Mr. L. B. Fisher observes that epidemics of typhoid fever ought rarely to arise if proper action be taken on the appearance of the disease. It may be said that every outbreak of enteric fever marks the presence of some unsanitary condition: perhaps a polluted water-supply, or, as in some instances recorded by Mr. Fisher, the existence of uncovered collections of feculent matter, or of the excreta of febrile patients. The water of the district seems to demand most pressing attention of the sanitary authority, as the supply to many places is considered by the health-officer to be of the most unsatisfactory kind. Hensingham, Overend, Distington, Harrington, Sandwith, and Kirklands, are all in more or less need of improvement in this respect, not only as regards their drinking supply, but also for flushing the sewers, etc., and for affording adequate facilities for personal cleanliness. The medical officer of health also points out the need for an improved system of drainage for Nethertown, and the necessity for sewerage Kirklands. The death-rate from all causes for the year was 18.28 per 1,000. The zymotic death-rate was 1.25 per 1,000. This latter class included 8 deaths from diarrhoea, 5 from whooping-cough, 4 from scarlet fever, 3 from typhoid fever, and 2 from diphtheria.

HOSPITAL AND DISPENSARY MANAGEMENT.

RICHMOND DISTRICT ASYLUM, DUBLIN.

It is always a pleasure to receive Dr. Lalor's annual report, on account of the evidence it contains of life and practical devotion to the patients. That some superintendents of asylums fall into a melancholy groove of routine-work, depressed by the hopeless condition of the great mass of the patients under their care, must be admitted. It is difficult to blame them severely for it. They go their weary round every day, and are only too thankful when their work is over. An escape, or even a suicide, is almost a relief to the dreariness of their lives. But if we cannot feel surprise and can scarcely blame, we do not admit that this result is necessary by any means. The superintendent who sinks into inertia or despair, fails to get out of the material in his hands the scientific lessons which, however unpromising to appearance, it would really teach. He may be a good administrator, but he is blind to the real differences, alike important and interesting, which actually exist in even a ward of chronic dements, and yet more in other cases. Or again, science apart, a superintendent overcome by the thankless task before him, as he regards some hundreds of incurables, does little or nothing to arouse or amuse them. Spasmodic attempts may be made, but they end at last, it

may be, in little or nothing. Very natural, certainly, but not justifiable.

That neither despair nor inertia is necessary is shown by the work which is being constantly done at the Richmond Asylum. Dr. Lalor seems never to lose his faith, but to carry out his plans for the occupation and instruction of the inmates with unflagging interest. The conclusion is inevitable that, if he can keep up such marvellous spirit, and this with a class of patients largely incurable, all other superintendents can do the same. It appears that, out of an insane population of 1,047, no less than a daily average of 563 attended the school. The subjects taught include reading, writing, arithmetic, grammar, geography, and religious instruction, besides singing, marching to music, and last, but not least, drill, in which, on an average, 230 patients were engaged during the year. Visitors, both from the United States and from England, bear witness to the satisfactory state of the asylum, and the beneficial effects of the occupation and teaching of the patients. Among these are Dr. Nichols of New York, and Dr. Hack Tuke, whose observations from personal inspection are given in the appendix to the report. The statistical tables contain much valuable matter, but omit to state the recoveries and deaths for more than one year. We would strongly impress upon those who prepare these tables the necessity of supplying so serious an omission, which can only be due to inadvertence. So well conducted an asylum must shine in its numerical results, which ought not to be hidden under a bushel. If otherwise, the worthlessness of statistics would be demonstrated.

EAST RIDING LUNATIC ASYLUM, BEVERLEY.

The thirteenth annual report of this asylum states that an outbreak of typhoid fever in the asylum, ending in seven deaths, has caused much debate as to the cause. Eventually, Dr. Page was sent down by the Local Government Board to institute an inquiry, and he attributed the epidemic to pollution of the water by sewage from the asylum sewage-farm. Whether this be one explanation or not, Dr. Macleod, the superintendent, traced several of the cases to the condition of the drain-pipes, which allowed the return of the gas to the house. With this exception, everything appears to have prospered at this asylum, and it appears to deserve the encomium. The tables appended to the report are, as they should be, as clear a report as possible of the history of the patients under care since the opening of the institution. The net recoveries amount to 25.3 per cent., or, omitting transfers, which is only fair to the managers and superintendent, 35.4 per cent. The mortality since the date of opening (1871) has been 9.97, reckoned on the average number resident. These two facts are found by a glance at these tables, for the preparation of which much credit is due to whoever compiled them. It is a matter of regret that all asylum-reports are not in this respect like them.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, October 8th, 1885.

Goody, Edward Samuel, M.R.C.S., 58, Kennington Road, S.E.

On the same day, the following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, namely,

Ward, John Oddy, Kippax, near Leeds.

The following gentlemen also on the same day passed their Primary Professional Examination.

Burgess, James George, Guy's Hospital.

Cooper, Henry Scarborough, Westminster Hospital.

West, Henry Tottenham, Belfast Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual quarterly first professional examination, held on Monday, October 5th, 1885, and following days, the undermentioned candidates were successful.

Jean Helen Grant, London; Philip Lee, Monkstown, co. Cork.

At the ordinary monthly examinations for the Licences of the College, held on Monday, October 5th, and following days, the undermentioned candidates were successful.

For the Licences to practise Medicine and Midwifery.—Ambrose Birmingham, Balbrinroe, co. Mayo; William E. Le Fann Hearn, M.B., Melbourne Univ., Hamilton, Victoria, Australia; Gerald Irvine, Irvinestown.

For the Licence to practise Medicine only.—Clarinda Boddy, London.
For the Licence to practise Midwifery only.—John Cuthbert, Bromsgrove, Worces-
 tershire; Edward W. Gray, M.B. Univ. Dublin, Newry; William J. R. Knight,
 M.D.Q.U.I., Cookstown, co. Tyrone; James Alex. Lindsay, M.D.R.U.I.,
 Belfast; Edward L. Pooler, M.D.R.U.I., Newtownards.

The undermentioned Licentiate in Medicine, having complied with
 the by-laws relating to membership pursuant to the Supplemental
 Charter of December 12th, 1878, was duly enrolled a Member of the
 College.

Theophilus W. Trend, Lic. Med. 1863, Raeberry Lodge, Southampton.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the last meeting
 of the Court of Examiners, the undermentioned gentlemen, having
 passed their final examination for the Letters Testimonial, and taken
 the declaration, and signed the roll, were admitted Licentiates of the
 College.

Robert Abraham, George W. Armstrong, Thomas Browning, William G. Chute,
 Arthur R. T. Craig, Frederick A. G. Davis, George B. Elliott, Henry L.
 Finny, Henry C. Graves, Andrew Harris, Edward Heard, Gerard H. Irvine,
 John Keatly, Bernard B. Kennedy, Timothy Killen, John B. M'Bride,
 Thomas C. Moore, Michael J. Moran, Samuel F. Murphy, William J. Pea-
 cock, William G. Rutherford, William Stritch, and John A. Whitty.

Forty-six candidates presented themselves, of whom twenty-four
 were stopped.

MEDICAL VACANCIES.

The following vacancies are announced.

EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical
 Attendant. Salary, £100 per annum, with furnished apartments in the
 asylum, board, and washing. Applications by November 7th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.
 —Resident Clinical Assistant. Applications by October 17th.

MANCHESTER HOSPITAL FOR CONSUMPTION.—Honorary Physician. Ap-
 plication by October 31st.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Resident
 Medical Officer. Salary, together with board and rooms in the Hospital, £40
 per annum. Applications by October 29th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by
 November 9th.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—House-Surgeon. Salary,
 £80 per annum, with rooms. Applications by October 28th.

QUEEN'S COLLEGE, Galway.—Professorship of Natural Philosophy. Applica-
 tions by October 28th.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Salary, £100
 per annum. Applications to F. D. Wise.

ST. ASAPH UNION.—Medical Officer. Applications by October 28th.

ST. OLAVE'S UNION.—Resident Assistant Medical Officer and Dispenser.
 Applications by October 19th.

STOCKTON UNION.—Medical Officer and Public Vaccinator.—Applications by
 October 17th.

WEST LONDON HOSPITAL, Hammersmith Road.—House-Physician and House-
 Surgeon. Applications by October 22nd.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medi-
 cal Officer. Salary, £150, with board, lodging and attendance. Applications
 by October 26th.

MEDICAL APPOINTMENTS.

ANNACKER, Ernest, M.R.C.S., L.R.C.P. Lond., appointed Resident Medical Officer to
 St. Mary's Hospital, Manchester, *vice* F. Bennet, M.B. Lond., B.Sc.,
 M.R.C.S., resigned.

ANNES, F. R., M.R.C.S., L.R.C.P., appointed Resident Surgeon to the Seaman's
 Infirmary, Ramsgate, and Visiting Surgeon to the Ramsgate and St. Lawrence
 Royal Dispensary, *vice* G. H. Dondney, resigned.

BARRON, Alexander, M.B. Lond., M.R.C.S. Eng., appointed Curator of the Patho-
 logical Museum, University College, Liverpool, *vice* F. T. Paul, F.R.C.S.,
 resigned.

BARRON, Alexander, M.B. Lond., appointed Assistant to the Professor of Pathology,
 University College, Liverpool.

BARRON, Alexander, M.B. Lond., appointed Medical Tutor to the Royal Infirmary,
 Liverpool, *vice* E. Hyla Greaves, M.D., resigned.

NAPIER, A. D. Leith, M.D., C.M., appointed Examiner for Degrees in Medicine in
 the University of Aberdeen, in the subjects of Surgery, Midwifery, and
 Diseases of Women.

POWELL, John Jos., M.B. Lond., appointed Senior Resident Medical Officer at the
 Royal Free Hospital, Gray's Inn Road, W.C.

SHARPIN, Edward Colby, M.R.C.S. Eng., L.R.C.P. Ed., appointed Surgeon to the
 Bedford General Infirmary and Fever Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

*The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d.,
 which should be forwarded in stamps with the announcements.*

BIRTHS.

BUSHE.—At Chaubattia, Kumdon, India, the wife of Surgeon-Major Cecil J. L.
 Bushe, M.B., Medical Staff, prematurely, of a daughter (stillborn).

SCROGGIE.—At 47, Schoolhill, Aberdeen, on October 12th, the wife of John G.
 Scroggie, M.B. and C.M., of a son.

MARRIAGE.

COREN—ASHER.—On the 6th October, at the Central Synagogue, Great Portland
 Street, by the Rev. Dr. H. Adler, assisted by the Clergy of the Synagogue,
 Abraham Cohen, Esq., M.A., M.D., of 10, Stranraer Place, Maida Vale, to
 Hannah, only daughter of Asher Asher, Esq., M.D., 18, Endsleigh Street,
 Tavistock Square.

DEATH.

CLARKE.—On the 2nd October, at 2, York Buildings, Clifton, Bristol, William
 Michell Clarke, M.R.C.S., L.S.A., aged 56.

THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.—The Entrance
 Science Scholarship, of the value of £50, has been awarded to Mr. G.
 Watson; the entrance Scholarship of £25 *per annum*, tenable for two
 years, to Mr. R. A. Earle; and the Entrance Scholarship of £20 *per*
annum, tenable for two years, to Mr. F. A. Wagstaff.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—The Entrance
 Scholarship of £30, tenable for one year, has been awarded to Mr. F.
 H. A. Taylor; and that of £20, tenable for one year, to Mr. J. H. T.
 Goodwin.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.—The Open
 Scholarship in Science, of the value of £130, for candidates under
 twenty-five years of age, has been awarded to Messrs. Kerr and Jones,
 both B.A., of St. John's College, Cambridge (equal); and that of £130,
 for candidates under twenty years of age, to Mr. A. Stevens. The
 Jeaffreson Exhibition, of the value of £50, has been awarded to Mr.
 Williamson.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—The open Scholarship
 in Natural Science, of the value of £100, has been awarded to Mr.
 Arthur Francis Stabb; and that of the value of £60, to Mr. Seymour
 Graves Toller. Messrs. C. R. Box, A. C. Lankester, T. A. Dukes,
 and M. C. Clutterbuck, obtained the number of marks qualifying for
 a scholarship.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Entrance
 Scholarship of £30 has been awarded to Miss Annette M. Benson,
 and the John Byron Scholarship of £25 a year for four years, tenable
 at the discretion of the Executive Council, to Miss Gabrielle Breeze.

MOSCOW UNIVERSITY MEDICAL FACULTY.—The hospital attached to
 the Foundling Institution in Moscow is to be made available for
 clinical instruction of the students of the university. Professor
 Kusmin, and other professors and lecturers, have arranged to give
 courses there.

UNIVERSITY OF DORPAT.—In the University of Dorpat, there are
 now 1,704 students, of whom 716 belong to the medical faculty, 124 to
 the pharmaceutical, 284 to the legal, 239 to the theological, and 63 to
 the philological.

HUMAN ELECTROTYPES.—M. Kergovatz, a chemist of Brest, has,
 says the *Scientific American*, proposed a new method of disposing of
 the human body after death, which he considers preferable in every
 way to either burial or cremation. His system is an antiseptic one,
 much simpler and less expensive than the old process of embalming,
 and is nothing more than a new galvano-plastic application. The
 body is coated with a conducting substance, such as plumbago, or is
 bathed with a solution of nitrate of silver, the after-decomposition of
 which, under the influence of sunlight, leaves a finely divided deposit
 of metallic silver. It is then placed in a bath of copper-sulphate,
 and connected for electrolysis with several cells of a gravity or other
 battery of constant current. The result is, that the body is encased
 in a skin of copper, which prevents further change or chemical action.
 If desired, this may again be plated with gold or silver, according to
 the taste or wealth of the friends of the dead. M. Kergovatz has
 employed the process eleven times on human subjects, and on many
 animals, and states that in all cases it was perfectly satisfactory. In
 spite, however, of his warm recommendation, the idea, our contempo-
 rary thinks, is repulsive. It seems a mockery to give permanence to
 the temple, when all that once made it valuable is gone.

MEDICAL MAGISTRATE.—Dr. George Murray Humphry has been
 placed on the Commission of the Peace for the borough of Cambridge.

The Stepney guardians have increased the salary of Dr. Henry
 Beattie, the medical officer of the union, from £350 to £400 *per*
annum.

At the last meeting of the Launceston guardians, a discussion arose
 with regard to the refusal of the Local Government Board to confirm
 the reappointment of Mr. F. Williams as medical officer of health
 unless the salary was increased from £30 to £50 *per annum*, although
 Mr. Williams has hitherto been satisfied with the smaller amount,
 and is willing again to accept it. In the result, the guardians deter-
 mined to adhere to their appointment without any alteration, and in-
 structed their clerk so to inform the Board above.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council of the College was held on Thursday, the 15th inst. The minutes of the last ordinary meeting read and confirmed. It was moved and seconded that a letter of condolence be sent to Mrs. Gay, on the death of her husband, which was unanimously agreed to. The Committee of Management reported on a letter from the Children's Hospital, Dublin, that it be recommended to the two Colleges that Mr. Madden be informed, in reply to his communication, that the Colleges see no reason for altering their regulations by adding the Children's Hospital, Dublin, to the institutions at present recognised by them. This report was adopted.

The Committee further report that, in pursuance of the provisions of Section VI of the Scheme for the Examining Board, by which one representative from each College is required to retire annually from the Committee of Management, both retiring representatives being eligible for re-appointment, the two junior Members, namely, Dr. Norman Moore and Mr. William S. Savory, retire from the committee.

The report was read and adopted, and Mr. Savory was reappointed as representative of the College. Mr. Jonathan Hutchinson was re-elected to the Court of Examiners. Sir James Paget, at the request of the Council, consented to sit for his bust. A report, copies of which may be had from the Secretary, was submitted, approved, and directed to be presented to the Fellows and Members on the 29th; and we understand that the Council invited the Fellows and Members to make, in the form of resolutions, any suggestions or recommendations, as expressive of their opinion, on any of the matters contained in the report; and it will probably lead to the expedition of business if Fellows or Members proposing to make resolutions were to furnish copies of them to the Secretary a few days before the meeting.

Professor John Wood was nominated Bradshawe Lecturer for the present year.

A letter from Messrs. Dundas and Wilson was read, informing the Council that, subject to the life of his daughter, Mr. Moncrieff Arnott had left the sum of £1,000 to the College, to be applied to the Museum and the lectures in connection therewith.

Mr. Hutchinson moved the following resolution: "That a committee be appointed to consider the practicability of adding a wing to the Museum of the College, to have for its especial (but not exclusive) object the display of casts, photographs, drawings, etc., illustrating the results of disease and injury in the living subject;" which was seconded by Sir James Paget, and carried unanimously. The committee appointed were Sir J. Paget and Sir J. Lister, Messrs. Marshall, Lund, Hutchinson, Hulke, and Durham, along with the President and Vice-Presidents.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Dr. Ord) will deliver an address. Dr. W. H. Broadbent: Examples of Syphilitic Disease of the Brain and Nervous System.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Dickinson: Malignant Tumour connected with Cranial Bones. Dr. Payne: Bacilli from a Case of Rhinosarcoma. Dr. Hale White: Ulceration of Gallstones into Stomach, causing Pyloric Obstruction. Dr. Sainsbury: Tumour from the Base of the Brain, containing Skin. Mr. Shield: Cancer of the Bladder. Dr. Gulliver: Multiple Hydatids of the Brain. Mr. Barker: Primary Lympho-sarcoma of Tonsil. Mr. Mansell-Moullin: Bladder and Rectum six months after Littré's Operation for Imperforate Anus. Mr. Lockwood: Malformation of the Heart. Mr. Eve: Two cases of Sarcoma of the Tongue. Mr. Alban Doran: Broad Ligament Cyst. Dr. Lediard: 1. Black Tongue (card); 2. Primary Sarcoma of Femoral Glands (card); 3. Intercondylar Fracture of Fibula (card). Dr. Bruce, of Edinburgh, will exhibit some Pathological Specimens of Fine Sections of Entire Viscera.

FRIDAY. Clinical Society of London. Mr. Mayo Robson: Two cases of Cholecystotomy, with remarks. Dr. Edward Seaton: The Characteristic Symptoms of a Febrile Epidemic Illness at a School. Dr. Samuel West: A case of Idiopathic Purulent Peritonitis in a Child aged 10; with Necropsy. Mr. W. Rivington: Two cases of Ligature of the External Iliac Artery for Femoral Aneurysm.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY.....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 9; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE BRADLEY FUND.

SIR,—Will you kindly acknowledge the following additional subscriptions?—
Yours faithfully,
Eastwood House, Chesterfield.

RICHARD JEFFREYS.

The Proprietors of the <i>Provincial Medical Journal</i>	£	s.	d.
Mr. Edward Cock Dean, St. Thomas Street, S.E.	..	5	5
Dr. W. H. Hooper, Cheltenham .. ..	..	2	2
Dr. E. Cresswell Baber, Brighton .. ..	..	1	1
Anonymous, London .. ..	..	1	0
	..	0	5

HOME FOR AN HYSTERICAL CASE.

HYSTERIA asks for the name and address of a "home," where a lady, suffering from hysteria, and great nervous exhaustion, can be placed at a reasonable charge.

THE CONNECTION BETWEEN QUINSY AND RHEUMATISM.

SIR,—In your last issue, I find that Dr. Atkinson rather takes me to task for stating my belief in a connection between quinsy and acute rheumatism; he further says that the Collective Investigation Committee, in their report on rheumatism, came to the conclusion that no such connection could be made out. I believe I have every report of the Collective Investigation Committee, and cannot find the statement borne out. On the contrary, they state that more than 25 per cent. of the cases were preceded by quinsy, and that the subject would demand further consideration. I am well aware that quinsy is generally preceded by over-exertion, either mental or bodily, and also by exposure to wet and cold; but are not these the same conditions which tend to produce acute rheumatism? For at least ten years, in fact ever since a series of questions on the treatment of quinsy were issued by Dr. Brunton in the *Practitioner*, I have made a point of making inquiry as to the connection between acute rheumatism and quinsy; and although I have not kept notes of all these questions, the following points have impressed themselves on my mind. 1. That the subjects of acute rheumatism are often found to have suffered from quinsy earlier in life, but rarely after the rheumatic habit has become established. Sometimes the converse of this is met with. 2. That the subjects of quinsy, who are usually the younger class of patients, frequently have relatives, and generally very near ones, who are subject to attacks of rheumatic fever. 3. That one does not meet with cases in which no connection appears to be found, but they are in a minority, and certainly do not amount to one-third of my total cases.

I have to tender my thanks for the letter kindly written by Dr. Haig Browne in the *JOURNAL* for October 10th, which appears to bear me out in the above statements. Trusting you will pardon my again troubling you in this matter, I am, yours truly,
W. E. GREEN.
Belgrave House, Sandown.

THE BIBLICAL "SINEW OF THE HIP."

E.M.S. (Liverpool).—"The sinew of the hip upon the hollow of the thigh which the children of Israel eat not of," is the ischiatic plexus of nerves, with all its branches and ramifications, from the pelvis down to the foot.

DYSDROSIS OF FEET.

SIR,—Will some one kindly inform me what is the best remedy for bad smelling feet? I have tried my patient with Condy's Fluid in warm water, without benefit; and oblige
A MEDICAL MAN.

A STRING OF QUERIES.

SIR,—Perhaps some of your numerous readers will kindly reply to the following queries. Is the impure water of a sewage-farm, where it forms more than three-fourths of the stream, wholesome for milch-cattle to drink? Is it possible for germs to pass into the stream, with the percolating water; if so, might they not do harm to animals drinking the water? Take cholera-bacilli, for example. Are not poisonous and offensive vapours distinct, though often blended? Why is stagnant water effluvia more conspicuous at night than during the day?—I am, sir, yours, etc.,
W. W.

M.R.C.S.—It is hardly advisable to recommend works of this class. The ambulance-corps and societies furnish the most legitimate kind of medical literature for the non-medical public.

SELTZOGENES.

If "L.R.C.S.I." will try fluoric acid, he will find that it will not only clear off the dirt which has accumulated in the seltzogene, but will eat away the glass itself, if allowed to remain long enough. It is a very powerful acid, which must be kept in a gutta-percha bottle.—Yours truly,
JOSIAH WILLIAMS.

MR. G. BIGGS.—Entirely a matter for private arrangement, and depending upon a great variety of circumstances, on which we can form no judgment.

PROVIDENT DISPENSARIES.

SIR,—Will you kindly state in the *JOURNAL* this week whether any little work on "Provident Dispensaries" has been published similar to that on "Cottage Hospitals," by Mr. Burdett; and, if so, where it can be obtained?—I am, sir, yours faithfully,
JOHN M. BRIGHT.
Alvaston, Park Hill, Forest Hill.
* Apply to Mr. Allam, Metropolitan Provident Dispensaries Association, Bedford Street, Strand, W.C.

THE ASSOCIATION OF OPHTHALMIA NEONATORUM WITH JOINT-DISEASE.

SIR,—Under the above heading, you published, on October 10th, a case in support of the observation previously made, that a form of gonorrhoeal rheumatism occurs in infants as a result of purulent ophthalmia. One sentence in that report requires correction; it reads, "There was an apparent enlargement of either epiphysis." It should be, "There was no apparent enlargement of either epiphysis." As the chief difficulty in these cases will be to separate them from the results of syphilis, the condition of the epiphyses is of importance, and was, therefore, specially noted. You will oblige me by allowing this correction to appear.—Your obedient servant,
R. CLEMENT LUCAS.

EXTRA-UTERINE FETUS BORN INTO UTERUS.

In a reference to this interesting case, under the heading "Obstetrical Society of London" (*JOURNAL*, October 10th, p. 709), the name of the gentleman who read the notes and exhibited the specimen was Mr. Edward F. Grün, and not Mr. W. H. Grigg, as was inadvertently reported.

THE TEMPERANCE HOSPITAL.

A CORRESPONDENT calls our attention to the report of an inquest, in September last, on the body of a labourer who died in the Temperance Hospital. It appears that the deceased had sustained severe injuries at the elbow-joint, and, from the newspaper report, we infer that death arose from traumatic inflammation in some form. Our correspondent asks if the surgeons at this hospital have been converted to the truth that large quantities of brandy may be necessary to sustain life; the newspaper report stating that this stimulant was freely administered. Alcohol has its use as a therapeutic agent, and we understand that this is only the third or fourth instance, since the opening of the hospital, in which an alcoholic remedy has been resorted to. If we are not mistaken, it is a curious fact that each of these patients has died. Possibly, the explanation may be that alcohol was not given till the last extremity.

The absolute exclusion of alcohol as a drug does not necessarily enter into any programme with which we are acquainted, although its sparing and accurately scientific use is widely advocated.

RIDING LEGGINGS.

SIR,—Two or three weeks since, there was an inquiry in the *JOURNAL* for a good waterproof covering when riding. For years I made inquiries almost everywhere for the same thing, but never heard of anything which I thought was just what I wanted. I at last described what I wanted to an outfitter, and got a water-proof coat made specially. It is a short reefing jacket, of light material, water-proofed between two thin layers of cloth, with legs which are attached by buttons inside, and can either be buttoned up inside the breast of the coat when not required, or left at home. The legs let down, and reach just to the top of the calf, and are buttoned over a pair of ordinary leather leggings; and what I find the greatest boon of all is, I have an apron which can be carried in the pocket, or, when required, buttoned inside the jacket, and lies over the pommel of the saddle, effectually keeping out the wet. I always found the most trouble in keeping the wet off the front of the saddle, which ran down the legs and on to the seat, making the trousers very much like a cold poultice, and requiring an entire change of clothing on returning home. The garment could be obtained from any waterproofing establishment, through a gentlemen's hosier, or outfitter, if the measurements are taken properly. If there should be a difficulty in procuring one, I shall be glad to put anyone into the way of getting what to me has been a great comfort.—Yours truly,
T. TINSLEY.
Whitby.

THE PICRIC ACID TEST.

SIR,—If Mr. Baker will refer to the *JOURNAL* of last year, vol. ii, page 697, he will find that Dr. George Johnson has pointed out the fact of commercial picric acid giving a red colour when boiled with liquor potassæ; and has also indicated the remedy, namely, solution and recrystallisation.—Yours faithfully,
Dorchester.
W. B. KENDALL.

SIR,—Can any of your readers recommend me a home, with employment, for a lad of 16, slightly deficient mentally, but not sufficiently so to be eligible for any asylum.—Yours truly,
A. F.

OVERCROWDING OF THE PROFESSION.

SIR,—In the *BRITISH MEDICAL JOURNAL* for September 26th, there is a letter from Dr. Buchanan referring to the number of medical men in Glasgow. He produces statistics to show that they are not keeping up in point of numbers with the corresponding increase of the population. Statistics will prove anything, and some might take a different view from Dr. Buchanan, maintaining that Glasgow is overstocked. In my opinion, it cannot be discussed by figures, but by the supply and demand aspect. Look at the number of hospitals, dispensaries, homes, etc., where free advice and medicine are given. Thirty years back, the people had little to choose between the Royal Infirmary and parochial relief. Now they can get free advice on any ailment from head to foot, including medicine, and in many cases home-attendance under qualified men. Take the Western Infirmary—wards and dispensary—where people can gain access to any specialist, and take the thousands who are treated annually. The Fever Hospital takes cases of small-pox, scarlet fever, or measles, in many cases from houses that could safely employ a medical attendant without danger of infection to the locality.

I do not wish to say anything regarding the abuse of medical charities; but, in conclusion, I would point to the comparatively recent growth of medical clubs, lodges, etc. All these institutions in their action resemble the changes wrought by machinery, and one man does the work of three.

If Dr. Buchanan would give the statistics of the number treated in all our charities in Glasgow, deduct it from the population, and then show one medical man to every 1,300, he would certainly surprise—yours truly
GLASGOW.

TRANSFIXION OF SCROTUM.

SIR,—Having read Dr. Alexander Ferguson's very unique case of the above, in your *JOURNAL* of October 10th, I should like to record a very similar one, which occurred in my practice in August last.

E. A., a small farmer, living four miles distant, was dismounting from a load of peas, threw the fork down in front of him; the top of the handle (generally smooth) happened to be broken off, leaving a very jagged end, which caught him in the perineum, as he jumped from the cart, when he experienced what he termed a "nasty jar," but, withal, continued working until he felt wet, and, on looking, saw blood streaming down his thighs. He walked home, a distance of one and a half miles, and then drove to me (four miles).

On examining, I found the right testicle exposed, through an angular rent in the scrotum, two inches long, which I washed with carbolic lotion, one to forty, then brought the edges of the wound together by seven silk sutures, and, lastly, applied dry lint, and strapped the whole.

After ten days' rest in bed, the wound had sufficiently healed to enable the patient to get about, wearing a suspensory bandage. The peculiar points of this case are, firstly, the slight discomfort experienced by the patient at the time of the accident; and, secondly, the fact that he was able to walk so far without any pain to speak of, and the rapid healing of the parts without any rise of temperature from first to last.—I am, yours truly,
C. HAYDEN COX, L.R.C.C.P., L.R.C.S.I.

The Limes, Cottenham, Cambs.

ON LEFT-HANDEDNESS.

SIR,—Can any of your correspondents tell me where I can get any real information on this matter? Of course, I have read all that has been brought forward, but it has not helped me at all.

I will instance my own family. My mother was a splendid pianist, left-handed for choice; my father entirely right-handed. I am able, fortunately for myself as a surgeon, to use both hands equally well; that is to say, I can dissect, etc., as well with my left hand as my right. My eldest child, a girl, has a desire to use the left hand, but has been made to use the right. My second child, a girl, also has a predisposition for the left hand; the third child, a great powerful boy, is utterly left-handed, but has been taught to use his right; the fourth, a girl, is absolutely left-handed, and is at present rather too young to educate.

I merely make these statements that I may get some hints, possibly on the rationale of the condition, or that some correspondent may be able to refer me to some recent research on what is certainly a very curious circumstance. If left-handedness be the primary condition, it may be almost regarded as a gift if the right side be educated up to it, for example, in music or athletics; but we all know a left-handed man in a cricket eleven is an emphatic nuisance, and there is no changing him.

I can go no further back than my own mother; my wife is right-handed, and my father, as I said before, certainly so. As regards myself, I do not care which side of the table I operate on, right or left; but I never could throw, or bowl a cricket-ball with my left hand. I could row on either side of the boat on the river with perfect ease.

I am sure there must be some reason for this condition, but, according to my reading, I have not convinced myself with any satisfactory explanation.—I am, etc., F.R.C.S.

PAIN IN THE THIGH IN SPINAL DISEASE.

SIR,—If "M.D." will inject one-third of a grain of hydrochlorate of eucaine, I think he will be gratified with the results. Of course, nothing will permanently succeed without a properly adjusted support.—Obediently yours,

RICHARD NEALE, M.D. Lond.

60, Boundary Road, South Hampstead, N.W.

THE ETIOLOGY OF GOITRE.

SIR,—I should like just to say a few words on your article in *BRITISH MEDICAL JOURNAL*, September 16th, 1885, referring to Dr. Thursfield's paper on the above subject.

Some of his theories, I think, are quite untenable. It happens to have fallen to my lot to have seen more cases of goitre in twenty-four hours than most medical men have done in twenty-four years, although, I must say, not in a professional capacity, but as a traveller. In 1876, I passed through Novi Bazaar, on my way to the frontiers of Bosnia and Montenegro. As I rode into Novi Bazaar, I was much astonished at seeing such a vast number of people of both sexes, from the age of 12 and upwards, suffering from this unsightly disease in various stages of development; and, as I remained in the town for the space of two or three days, I had an opportunity of observing. I should say that, without the least exaggeration, quite half of the residents were afflicted with goitre. Novi Bazaar, in Bosnia, is probably two miles nearer the sky than Constantinople, and situated in a very mountainous region, which is covered with snow from December to April or May.

Scimitza, which is a day's journey farther on, is at a still greater altitude than Novi Bazaar, but not one in a dozen of the residents there were afflicted with goitre. You say that "the most valuable part of the paper is the discussion of the influence of the habit of carrying weights on the head, and the facts adduced ought to be sufficient to give the theory a place in the text-books."

This is not nearly so common a practice in Novi Bazaar, where goitre is more prevalent than anywhere I know of, as it is elsewhere, where such a disease is unknown, and the practice common.

Again, your article says, "He confirms the statement that this practice, if it come into operation about the time of puberty, leads to a greater prevalence of goitre in a hilly region, and that, after its abandonment, goitre is less often met with."

In the earlier part of my life, I spent much of my time in hilly districts of South Wales, where it is the daily custom of females to carry weights on the head. They begin at the age of 12 or 13, with small bundles, and pitchers of water, or pails of milk; and, as they get older, larger weights are carried. It is no uncommon thing to see girls of 18 or 20 years of age carry as much as 30 or 40 lbs. weight on the head, a pad, of course, intervening. This is not an occasional thing, but a daily habit; and so skilfully will these girls balance a large pail of water, or pail of milk, on the head, that the hands are not required to hold, but are utilised also, probably by a parcel in each hand. This exercise gives the Welsh mountain-girl a graceful carriage, and an exceedingly erect figure. So rare is goitre there, that I scarcely ever remember to have seen a case.

Comparing Novi Bazaar with the hilly districts of South Wales, I venture to say that the theory of carrying weights on the head being productive of the disease is disproved by the facts which I have adduced.

"Endemic goitre," you say, "is believed to be diminishing, even in the districts in England where it was once most common." Why is this? As to its cause, many hypotheses have been advanced. Some authors attribute it to the use of snow-water, others to the presence of a large quantity of calcareous salts in the water, others to the absence or diminution of the due quantity of iodine in the water and food of the people, and in the rocks and soil of the country, etc. It is most probably produced by the united action of several causes connected with the water and the air consumed by those affected with it, the nature and position of their dwellings, etc. Doubtless it is sometimes hereditary; and, as predisposing causes, we may put down poverty and distress, and a scrofulous or lymphatic constitution. I am more disposed to think that improved sanitary habitations, and surroundings, plus purer air and water, have more to do with "the diminution of endemic goitre in districts in England where it was once most common" than the abandonment of carrying weights on the head.—Yours truly,

JOSIAH WILLIAMS, Sheffield.

J. H. STOTT.—*Theory and Practice of Medicine* (Dr. Bristowe); *Surgery, its Principles and Practice* (Mr. T. Holmes); *System of Obstetric Medicine and Surgery* (Drs. R. and F. Barnes); *Pharmacy, Materia Medica, and Therapeutics* (Dr. Whittall); *Elements of Human Physiology* (Professor Hermann); and *Student's Guide to the Diseases of Children* (Dr. Goodhart).

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Wallace Anderson, Glasgow; Mr. B. G. Mould, London; Dr. Norman Moore, London; The Secretary of the Pathological Society of London; The Secretary of the Clinical Society of London; Mr. E. C. Sharpin, Bedford; Our Edinburgh Correspondent; Our Paris Correspondent; Mr. L. Wainright, London; Dr. J. W. Moore, Dublin; Mr. J. J. Powell, London; Mr. G. P. Field, London; Dr. Rogers, London; Dr. Myers, London; Dr. Grimshaw, Carrickmines, Co. Dublin; Dr. Quinlan, Dublin; Our Manchester Correspondent; Mr. Edmund Owen, London; Messrs. Wallace, Plant, and Co., London; Dr. Lush, Weymouth; Messrs. Christie and Co., London; Mr. Colby, Bedford; Mr. Robinson, Dublin; Mr. Scroggie, Aberdeen; Mr. J. Bellamy, London; Mr. A. H. Carter, Birmingham; Dr. S. White, Sheffield; Mr. A. Barron, Liverpool; Dr. Norman Kerr, London; Mr. Frankan, London; Dr. Falkiniss, Dublin; Mr. J. W. Barnes, London; Mr. W. B. Kendall, Manchester; Our Glasgow Correspondent; Our Dublin Correspondent; Mr. Jackson, London; Dr. A. McDonald, Liverpool; Mr. R. C. Lucas, London; Our Aberdeen Correspondent; Mr. R. G. Tendick, Clifton; Mr. M. B. F. Bush, Bristol; Dr. W. S. Church, London; Dr. F. de H. Hall, London; Mr. J. H. Morgan, London; Mr. D. H. Gabb, Hastings; Mr. M. G. Biggs, London; Mr. T. S. Hutchinson, Sittingbourne; Mr. C. O. Elkerton, London; Mr. G. Rendle, London; Dr. A. Walker, Newton Heath; Mr. W. M. Williams, Bettws-y-Coed; Dr. A. D. L. Napier, Dunbar, N.B.; Mr. E. S. Cockell, West Hartlepool; Mr. M. Greenwood, jun., Dalston; Mr. J. T. Hugo, Reading; Mr. T. Lambert Hall, Leominster; Mr. H. Power, London; Dr. Fraser, Edinburgh; Mr. R. E. Carrington, London; Mr. G. Kirk, Huddersfield; Mr. M. Mackintosh, London; Mr. T. Pocock, Bournemouth; Mr. A. Johnston, London; Mr. R. Colthurst, Clifton; Dr. W. M. Banks, Liverpool; Mr. A. A. Napper, Guildford; Mr. J. Ferguson, Perth; Dr. W. Jelly, Valencia, Spain; The Secretary of the National Dental Hospital, London; Mr. J. H. Gornall, Warrington; Dr. J. Andrews, Dublin; Dr. J. McNaught, Newchurch; Dr. Thudichum, London; Dr. A. Maclean, Thurso, Caithness; Mr. F. R. Anness, Ramsgate; Mr. W. E. Green, Sandown; Dr. R. Neale, London; Dr. Maxwell, Woolwich; Mr. P. T. Riddett, Cannes, France; Messrs. Peck and Co., Wigan; Dr. A. Macdonald, Liverpool; Mr. R. Walker, Aberdeen; Mr. J. Stott, Camberley; Mr. H. E. Brown, Buxton; Dr. R. Barnes, London; Mr. Hime, Londonderry; Dr. Dingley, Wolverhampton; Dr. Lindsay, Belfast; Dr. Arlidge, Stoke-on-Trent; Mr. J. Hadley, London; Mr. W. Young, London; Mr. D. L. Davies, Neath, S. Wales; Dr. Seymour Taylor, London; Mr. J. Hunter, Queensferry, N.B.; Miss J. Thorne, London; Mr. W. Paulson, Loughborough; Mr. C. G. Steele, Liverpool; Mr. J. Collier, Manchester; Mr. T. Ryan, London; Mr. T. Godfrey, Mansfield; Mr. J. B. Burr, London; Mr. J. Startin, London; Dr. J. Tatham, Salford, etc.

BOOKS, etc., RECEIVED.

Murchison on Diseases of the Liver. Edited by T. Lauder Brunton and Sir Joseph Fayer. Third Edition. London: Longmans, Green, and Co. 1885.

Diseases of the Larynx. (Gottstein.) Edited by P. McBride, M.D. Edinburgh: W. and A. K. Johnston. 1885.

Medical Index. Hartford: Burr.

System of Practical Medicine. By American Authors. Edited by W. Pepper, M.D. Assisted by Louis Starr, M.D. London: Sampson Low, Marston and Co. 1885.

The Westminster Hospital Reports. Edited by H. B. Donkin, M.B., and C. Macnamara, F.R.C.S. Vol. I. London: J. E. Adlard. 1885.

The History of Cholera in India from 1862 to 1881. By Deputy Surgeon-General H. W. Bellew, C.S.I. London: Trübner and Co. 1885.

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THE HARVEIAN ORATION, ON THE HISTORY AND PROGRESS OF MEDICINE.

*Delivered before the Royal College of Physicians of London,
Monday, October 19th, 1885.*

BY RICHARD QUAIN, M.D., F.R.C.P., F.R.S.;

Consulting Physician to the Hospital for Consumption and Diseases of the Chest at Brompton, etc.

Foundation of the Harveian Oration.—Recent Harveian Orations.—Choice of a Subject.—To search out the Secrets of Nature.—Why is Medicine depreciated?—What Prospect for the Future?—Difficulties incident to the Healing Art.—Extrinsic Causes of Discredit on our Profession.—Expressions of Adverse Opinion.—Origin and Course of the Healing Art.—Revival of Science and Learning.—Linacre and the Foundation of the College of Physicians.—Progress of Medical Science subsequent to the Foundation of the College.—Sources and Phases of Superstition.—Relics, Talismans, and Amulets.—Astrology and Alchemy.—The Royal Touch.—Credulity.—Aspect of the College in relation to Superstitious Practices.—Modern Systems. Cullen, Brown, Broussais. Homœopathy.—The Influence of Superstition and System in discrediting the Healing Art.—Limits reached by Observers before the Present Age.—Direction of the Change that has occurred.—Anatomy and Histology.—Physiology.—Pathology.—Etiology.—Illustration of Preventive Medicine.—Cattle-Plague.—Cholera.—Small-pox.—Progress of Pathology.—The work of the Pathological Society.—Morbid Anatomy.—Morbid Processes.—Parasitic Pathology.—Experimental Pathology.—Instruments of Diagnosis.—Special Progress in Diagnosis.—Therapeutics.—Two Directions of its Advance.—Introduction of Anæsthetics.—Special Drugs.—Future Prospects of Therapeutics.—Retarding Circumstances.—By Experimental Pharmacology.—Position of the College in respect to Therapeutic Research.—Evidence of the Improvement claimed.—Diminished Mortality.—In Special Diseases.—In the Army.—Diminished Sickness.

*Foundation of the Harveian Oration.—President and Gentlemen,—*It is known to the majority, or even to all, of those whom I have now the honour to address, that our great ancestor Harvey, when he conveyed by indenture his patrimonial estate to our College, made that conveyance subject to certain trusts. One of these trusts, sir, had reference to the duty of to-day, which, at your request, I am about to endeavour to discharge.

Save for a few brief periods of intermission, this duty has been fulfilled annually since the year 1656, when the first Harveian Oration was delivered by Dr. Edward Emily. In the long roll of those who have succeeded this first Harveian Oration, we find the names of many Fellows who have been highly distinguished, not only in the annals of our College, but also in the still wider annals of English science and literature. To follow such eminent men, in the discussion of subjects on which little that is new can now remain to be said, is an undertaking from which I should naturally have recoiled. But, remembering, sir, that the request proceeded from you, the distinguished President of our College, once a fellow-student, always a friend, I felt that it was no longer open to me even to hesitate. I felt that I must adopt the words of the Controllor Calonne, who, when asked by Queen Marie Antoinette to undertake a duty which Her Majesty considered to be difficult, replied, "If it be only difficult, it is done; if it be impossible, it shall be done." In the spirit which suggested his answer I am here; and I crave the indulgence of my hearers whilst I address myself to my task.

Recent Harveian Orations.—For more than twenty years, I have listened with attention to successive Harveian Orations, and I have read with care those which have been published during the same period. I have scarcely known which most to admire: the patient research on which these orations have been founded, the philosophic spirit which has breathed through them, or the eloquent and impressive manner in which the conclusions of the authors have been laid before the College. Some of my predecessors have reminded us of Harvey's personal history and surroundings. By others, we have been told what was known of the circulation of the blood before his

time; and his method of research and his calm inductive reasoning have been admirably portrayed. By others, again, Harvey's claims to originality in relation to his great discovery have been fully set forth; and have been established with a certainty which can never be disturbed. In one of these brilliant discourses, his observations on Generation found an able and fitting exponent. On another occasion, his philosophy, more especially with reference to the doctrine of final causes, was admirably discussed. On another, the bearing of his discovery upon the improved knowledge of therapeutics, and the better practice of medicine which has resulted from it, was fully described; and the great philosopher was regarded in the light of a physician as well as in that of a physiologist; while we seem still to listen to the oration of last year, in which Harvey was represented as having anticipated some of the great discoveries which mark the present period. Reflecting on these admirable discourses, I felt that it would be impossible for me to retrace such familiar ground, otherwise than at the risk of reminding many of my audience how often they had already heard the same story, related in a more eloquent and a more impressive form.

Choice of a Subject.—Meditating, then, on the subject on which I should address you to-day, I remembered that I should have before me the portrait of our great predecessor, who might for a moment be assumed to animate the picture, and to be prepared to listen to what I had to say. And venturing then to ask myself what the founder of this Oration would most desire to hear, it seemed to me that he would say—as might be anticipated from a character so unassuming, so simple, so opposed to ostentation and display—"Of myself, I have heard much; I appreciate the honour, the esteem, and the regard entertained for me by my successors. My work has accomplished all that I could have hoped for or desired. Tell me, then, if you can, something of the profession which I love so well."

To search out the Secrets of Nature.—Anxious to fulfil a wish so unselfish and disinterested, and remembering that Harvey had assigned to the Harveian Oration the duty of encouraging his fellows to search out the secrets of nature, it occurred to me that there are two of these secrets which, though not strictly of the kind to which our benefactor's words were intended to apply, are yet of sufficient interest and importance to justify me in asking your attention to them for a brief time to-day.

Why is Medicine depreciated?—The first of these secrets has reference to the past. Why is it that, amongst a vast number of persons, alike in ancient and in modern times, medicine has not enjoyed that high estimate of its value, as an art and as a science, to which it is justly entitled?

What Prospect for the Future?—The other problem requires the exercise of the prophetic spirit; since I seek to ascertain whether we have any grounds for anticipating a more satisfactory future for our profession, either in the security of the foundations on which it is laid, or in the consequent appreciation of it by the public.

Why then is it that, both in ancient and modern times, medicine has been so often regarded with scepticism and want of confidence, and so often treated with satire, and even with contempt?

Difficulties incident to the Healing Art.—In seeking an answer to this question, we cannot be surprised that scepticism as to the powers of the healing art should be rife, both within and without the profession, when we regard the nature of the problems with which we have to deal. The want of faith may be traced to two sources: one intrinsic, and due to the inherent complexity and difficulties of the subject; the other accidental, external, to be found amongst the people at large. In its scientific aspect, medicine possesses this peculiar difficulty and source of uncertainty: that the individuals or units with which we have to deal not only differ from each other, but also vary constantly, each one within itself. They are subject to endless influences from within and from without, mental or physical, inherited or acquired. This ceaseless change of circumstances, and the variations consequent upon it, complicate and confuse the problems presented to the scientific physician, increase the labour of his investigations, and render his conclusions so far uncertain that only repeated verification can bring satisfaction to his mind. This source of difficulty is, however, so fully appreciated by those whom I now address, and by all, indeed, who are interested in the pursuit of science, that I do not propose to dwell upon it here, but rather to turn to what I have called the external causes, which, by affecting the feelings and judgment of the masses, have frequently thrown doubt and discredit upon our professional proceedings.

Extrinsic Causes of Discredit on our Profession.—Evidence of the existence of such doubts, both in the past and in the present, is to be

found in the judgments of men of science, not excluding indeed members of our own profession; in the sarcasms of dramatists and satirists; and still more in the daily action and behaviour of the sick, who, by submitting themselves to the treatment and by accepting the nostrums of charlatans and quacks, in the same spirit in which they would have recourse to our own aid, manifest the equal esteem in which they hold us all.

Expressions of Adverse Opinion.—I can best address myself to my argument by recalling to your memory some of the oft-quoted sentiments which, in the half truths they have expressed, indicate the aspect in which our art has appeared to thoughtful minds.

"Quot Themison agros autumnus occiderit uno?"

asks Juvenal satirically, in reference to the leading practitioner of his day—an expression which has been parodied in our own times by an eminent statesman, who asked his friend and physician how many deer he had killed during his autumnal holiday; and, on being told a dozen or more, exclaimed, "I congratulate you; you could not have had more success amongst your patients!" Turning to our profession, we find Celsus asserting that "optima medicina est non uti medicum." Even Hoffmann exclaimed, "Fuge medicos et medicamenta si vis esse salvus." Dr. Gregory, half a century ago, expressed a remarkable opinion, not more discouraging to his profession as a physician than damaging to his reputation as a prophet, when he said, "I think it more than possible that, in fifty or a hundred years, the business of physician will not be regarded even in England as either a learned or a liberal profession." Magendie once stated that "the doctor is often superfluous, sometimes mischievous, and occasionally fatal."

It was not likely we should escape from Shakespeare's criticism. "Thou art not the physician," said Timon to the banditti; "his antidotes are poisons, and he slays more than you, rob." The opinion entertained of our profession by Molière is too familiar to need repetition; whilst Voltaire tersely described our practice as "pouring drugs of which we know little into bodies of which we know less." The late Dr. Arnold wrote, not so long ago: "The philosophy of medicine, I imagine, is almost at zero; our practice is empirical, and seems hardly more than a course of guessing, more or less happy." I might easily extend this list, but there is probably no question more comprehensive and more damaging in its inference than that asked by the late Sir William Hamilton: "Has the practice of medicine made a single step since Hippocrates?" Embodying, as it does, the essence of adverse criticism, and coming from so high an authority, I nevertheless hope to succeed in showing how utterly unfounded is the suggestion which it embodies.

The tone of low esteem which runs throughout these quotations, often the reflex of current opinion, as well as of that of the individual, compels an attempt on our part to trace the causes to which it may be attributed. These, I think, may be considered as threefold in their character: first, the very course and progress of the science and art of medicine itself from the earliest times to the present day; secondly, the amazing credulity of the mass of mankind; and, thirdly, the obstinate and unreasoning incredulity of no inconsiderable minority.

Origin and Course of the Healing Art.—In looking back on the history of our art, we may remember how it was believed to have emerged from the clouds, and how those who practised it were regarded as gods; how, subsequently, in the hands of Hippocrates, the art first assumed the form of a science, and was, by him and his immediate successors, pursued on a line of careful observation, influenced by, but not entirely subjugated to, the prevailing philosophical speculations on the nature of things; how, further, impeded in its origin, it became for centuries the prey of rival systems, which, based on *a priori* speculations, and founded on ignorance, were made to fit in with notions engendered by imperfect knowledge. The mere mention of some of these systems is sufficient to suggest the absurdities they propounded, and to justify the taunts and sneers of those who, even could they accept the doctrines set forth, were shaken in their faith when they witnessed rival sects strenuously contending each for its own infallibility. Galen strongly condemned the distinctions made by these sects, as leading to interminable hypotheses and disputes, in which each individual supported his own theory to the disparagement of others, and to the great injury of medicine in general.

How, then, can we blame the critic who was bewildered by the rival factions of dogmatists, empirics, methodists, pneumatists, and eclectics, together with the many others in whose hands medicine was "reduced to a mere department of speculative philosophy, involved in futile disputations and in formulas based on no substantial facts," and who for six centuries practically monopolised the healing art? Through the dark ages, during which medicine was largely under Arabic influence, our science consisted, for the most part, of

wordy commentaries on the writings of the ancients; and the practice, mainly confined to the priesthood, was regulated by the grossest superstition. Those were the days of the astrologer and miracle-worker, of cures by prayers, relics, and royal touch, and of the search for the *elixir vite*, the time when surgery was in the hands of barbers.

Revival of Science and Learning.—But it must not be forgotten that, during this very period, when all science was at a standstill, and when we can scarcely point to a single observation or discovery, the universities were founded, and, in the hands of a few, in small and scattered schools, the light of investigation, although dimmed in the prevailing atmosphere of mysticism and hypothesis, had been kindled and was kept alive; notably at Salernum, where an attempt was made to substitute a scientific procedure for the generally prevalent superstitions. At Bologna, Padua, and other schools, anatomy, long discarded, was again beginning to be studied; and thus the revival of learning, and the foundation of the modern scientific method by Bacon, did not find our art absolutely unprepared to receive them. None the less, in Harvey's day, the whole work had to be begun anew; the preceding centuries had been almost so much lost time, all that had been handed down from them in the shape of fact was of the most meagre character; dissection had fallen into disuse; without knowledge of structure, there could be no physiology, still less any rational pathology and diagnosis; and all that existed of therapeutics was the empirical knowledge of the efficacy of a certain number of drugs.

Linacre and the Foundation of the College of Physicians.—It was not long, however, before improvement reached us. In 1518, Linacre, who had studied at Salernum, returned to found our College by obtaining, through Wolsey's influence with Henry VIII, the charter "whereby medicine was rescued from the tender mercies of the ecclesiastical profession."

Progress of Medical Science subsequent to the Foundation of the College.—The history of our profession from this time presents a record of ever increasing additions to our knowledge, acquired by careful observation and experiment. Each division of our complex science received a fresh impetus, not a few becoming differentiated and distinct, and all pursuing for the next two centuries a path of uninterrupted progress. Anatomy, which Vesalius, Fallopius, Fabricius, and others had built up, reached, in the hands of their successors, a degree of precision only limited by the nature of the subject. Physiology, which can scarcely claim to have been a separate branch before Haller, was pursued with increasing energy by Hunter, Spallanzani, Hewson, and many others. To Sydenham, Baglivi, and notably Boerhaave, may be ascribed the merit of applying to medicine the method of observation which may be said to have been dormant since the days of Hippocrates. Morbid anatomy, which first took shape in the hands of Bonetus, and was developed by the labours of Morgagni, more than sustained its position by the labours of the Hunters, of our illustrious Fellow, Mathew Baillie, and of many eminent French pathologists. Thus, then, did every branch of our science make progress. Unfortunately, however, incidental to this progress, often inseparable from it, and always detrimental to it, there has continued a tendency to system-making and speculating of the shallowest and most specious character. I am not concerned with the causes which occasioned the delusions hence arising, nor with the justification they might plead for their existence in times when superstition and credulity were rife; it is sufficient for my argument that they existed, and that they contributed, not without reason, to the low esteem in which the efforts of even the foremost of our profession were held. But, whilst the true science which budded forth with Hippocrates was stifled by the systems of his successors, its revival with Harvey and his contemporaries was too powerful to suffer the same fate; henceforth the vain imaginings ran their course side by side with the progress of scientific truth, frequently to its hindrance and injury, but still more frequently to be cast aside and forgotten.

Sources and Phases of Superstition.—The sources of the various superstitions which degraded our science, and which even still afford some ground for scepticism, are to be sought, not only in the inherent tendency of the human mind to accept the marvellous and supernatural, to court deception, and to be pleased rather than otherwise with the result of its quest—*quandoquidem populus decipi vult, decipitur*—but also in the admitted influence of the imagination over certain functions of the body. The simple, and to us fairly intelligible, occurrence of the occasional removal of pain by a concentration of the attention elsewhere, or by the substitution for it of some strong emotion, may account for much that, in the past no less than in the present, has become preposterous and absurd from the lengths to which it has been carried. With such material to work upon, it was and

continues easy for designing charlatans, or mistaken zealots, to develop the most outrageous hypotheses and practices.

Relics, Talismans, and Amulets.—The revival of learning and the scientific method, whilst lighting up the path for the few, left the masses untouched; and the superstitions which we somewhat complacently refer to the dark ages remained unaffected by the results that accurate observation was producing. The practice of the healing art was not yet entirely removed from the hands of the priesthood; and the treatment of disease by supplications, by the laying on of hands, by the power of relics, shrines, and holy wells, found still its administrators and its dupes. The superstition of the curative virtues resident in sacred things was easily extended to objects intrinsically less reverend in their nature; and talismans of stone, metal, or wood, engraved with cabalistic signs, or phylacteries, which were texts written on scraps of parchment, and, like amulets, intended to be worn on the person, were easily acquired adjuncts to the necessarily limited supply of saintly relics. And yet who shall say that a time which has produced clairvoyance, metallic tractors, and the "mind cure," is free to cast reproach at the deeds of these dark ages?

Astrology and Alchemy.—The whole so-called cabalistic sciences of astrology and alchemy, developed as they were by men of ability like Paracelsus, came to acquire a strength which they would scarcely have possessed if left alone to the ignorance of the people. John French, in a work on alchemy published in 1850, and supposed to have been among the last on the subject, thus enunciates the pretensions of of his craft: "If men did but believe what this art could effect, and what variety of wonder there is in it, they would no longer be bound up to Galen or Aristotle, but would subscribe to be faithful to the principles of Hermes and Paracelsus."

The Royal Touch.—Perhaps among the most curious of all the superstitions that have debased our profession, is that of the royal gift of healing. Commencing with Edward the Confessor, the touch continued to be practised by our sovereigns, though with many exceptions, until the days of the first George. Nor was it limited to this country. France claims Clovis as the originator, and the ceremony was certainly performed by many of his successors. "In no reign," says Dr. Pettigrew, "did the practice prevail to such an extent as in that of Charles II, and it is not a little remarkable that more people died of scrofula, according to the bills of mortality, during this period than in any other." It may be further observed that surgeons did not disdain to recommend this treatment to their patients. It was at the instigation of Sir John Floyer, a physician of eminence, that Samuel Johnson was twice "touched" by Queen Anne; and, as Boswell remarked, evidently without success. This power has not been held to be limited to royalty: "Even to-day," wrote the late Dr. Meryon, "in Scotland the seventh male child in a family has the gift of curing the king's evil by touch."

Credulity.—The existence of these and a thousand other superstitions, the record of which excites alike our amusement and amazement, could not have been sustained for a moment except for the credulity of those on whom they were practised. "The kind of credulity," says Sir James Simpson, "which the public thus show daily in relation to medicine, they show in relation to no other practical art or science. Indeed, if a similar species of charlatany were attempted in relation to most other arts and sciences, the delusion would be at once detected, and the imposture duly denounced; whilst, in medicine, the delusion would, on the other hand, probably make the propounder's fame and fortune, and in the course of years be forgotten. Truly we may say with Crabbe—

"This love of life, which in our nature rules,
To vile imposture makes us dupes and fools."

Aspect of the College in Relation to Superstitious Practices.—So widespread and importunate were these errors, that we find even our own College gravely testing men in their knowledge of astrology (1593-96), deputing members of our body to inspect bewitched people, and summoning those who assumed the power of cure by touch, requiring them to exercise their skill in the presence of the College.

It is not to be forgotten that Harvey himself, following on the lines of Galen and Aristotle, adopted a view as to the nature of life which is a phase of the almost universal conception held in one form or another up to our own day. It appeared as the "animism" of Hoffmann and Stahl, who bequeathed to us, as a consequence, what is known as "expectant medicine." Another development of the same idea is the theory of a vital principle, the "vitalism" of Haller and Barthez, from which even now we cannot be said to be entirely free.

Modern Systems. Cullen, Brown, Broussais; Homeopathy.—Scarcely more than a century ago, the medical world was divided by the contending schools of Cullen and Brown: the latter with his sthenic and

asthenic diseases and tonic and depressant treatment; the former, in hot hostility, advocating the hypothesis that disease was the result of opposite conditions of spasm and debility. Soon after this appeared, in France, the doctrine of Broussais, who held that gastro-enteritis is the basis of pathology, and local depletion the proper remedy for fever. There is yet another system which cannot be passed over without reference, namely, homeopathy, which teaches that disease consists of symptoms which are to be treated by remedial agents producing like symptoms, the potency of the medicaments increasing in proportion to their dilution.

The Influence of Superstition and System in Discrediting the Healing Art.—The influence which these myths have had upon the healing art has been most varied. But certainly they have played a large part in occasioning the low regard in which practitioners of medicine have too often been held by the public. I cannot do better, perhaps, than quote the words of Dr. Percival, who said: "A list of all the follies which at different periods have been established as articles of faith in medicine, would form the severest satire on the healing art."

Limits reached by Observers before the Present Age.—But, despite all these untoward influences, the progress, as I have reminded you, was sound so far as it went, when we consider the disadvantages under which the workers pursued their investigations. Nevertheless, they came to a line, beyond which they made but slight advance, a line indistinct, perhaps, and not equally sharp and well-defined in every subject, but withal a line across which, without the intervention of some great change, they could never have passed. We may apply to this period the words that Bacon used in reference to science in general in a previous age. "Learning is neither prosperous nor greatly advanced, and a way must be opened to the human understanding entirely distinct from that known to our predecessors, and different aids procured, that the mind may exercise her power over the nature of things."

Looking back, as I can, to the manner in which the component parts of the medical curriculum were pursued, when I began my student life, and contrasting this manner with what goes on around me now, I cannot doubt, in the words of Bacon that a new way has been opened—an *instauratio magna*. When I tell some of my younger listeners that only forty-six years ago the late Sir Robert Carswell, the first pathologist of his day, whose drawings of morbid appearances remain a monument of accuracy and skill, never used a microscope in his course of lectures, and that his only reference to microscopic appearances was to mention that pus consists of a clear fluid and globules, some idea may be formed of the change which has taken place.

Direction of the Change that has Occurred.—And now, during a few moments, let me indicate to you the direction in which this change has been effected, seeking, meanwhile, if we may find therein any data which may help us to reply to my second question—What are our hopes for the future? Clearly the direction was towards a better comprehension of the nature of life, and, inferentially, of disease; together with a more accurate knowledge of the body, both in its structure and its functions. The halt to which observers had come was largely compelled by narrow methods of experiment; and it is particularly to improvement in the methods and instruments of research that much of our advance is to be attributed, as it is also from such improvement that still more is to be expected.

Anatomy and Histology.—First, in respect to gross anatomy, the science of structure, little could be added to the knowledge which has been continuously accumulated since the days to which I have previously referred; but it was Bichat who, in 1801, by his treatise on the minute anatomy of the tissues, opened up a new branch of inquiry which, but for the microscope, could not have existed, and for which the microscope has done what the reflecting telescope did for astronomy. It would not seem, however, that the work of himself and his followers had borne much practical fruit, even in my early days. I have told you what was then the state of the microscope in reference to morbid anatomy. Its position in respect to healthy histology was scarcely better; and it is only since then that the impetus for investigation has arisen, and the application of this impetus to physiology. Prominent among the researches into structure, was the recognition by Schwann and Schleiden of the so-called cell in all living tissues; a doctrine which has been subsequently extended to embrace the existence of protoplasmic forms generally. I need not more than mention the very considerable position, both as regards extent and accuracy, which histology has assumed within the past few years.

Physiology.—So long as the study of the phenomena of the living body was hampered by the dominant notion of a special vital principle, not amenable to the laws which governed inert matter, and

which was to be investigated in ways other than those which were producing such grand results in the domain of chemistry and physics, the progress of physiology was likely to be slow and accidental. The turning point in the subject was undoubtedly its being brought into harmony with the principles which govern other experimental sciences, and being pursued along the same path. So far as the change can be attributed to one man, it is to Mayer that this credit must be given, for his work in 1845 on the relation of organic motion to the exchange of material. For some time from that date, no function of the body escaped investigation by a method of direct experiment, of which a mistaken humanity and senseless clamour have since deprived us, always aided by the experiments which nature offers to the physiologist in the shape of disease, complicated though they be by conditions which render them more difficult of explanation. From the chemical side, physiology has received much assistance. Our knowledge of the composition of the blood and its derived secretions, though still leaving much to be desired, has done something towards unravelling the complex chemistry of the tissues. The chemistry of digestion and respiration, which, a century—nay, fifty years—ago, was a jargon compounded of the residues of the Hippocratic notion of the four elements, and of alchemy, interspersed with streaks of the new chemistry which was then arising, is now pursued on lines in harmony with those of every day laboratory investigation. To mention but one practical result thence obtained, I would refer to the artificial digestive juices and prepared foods which are among the most valuable of our remedies. On the physical side are the study of the phenomena of muscular contractility, and the expression of the work done in such terms, that it may be calculated with the same accuracy as the fuel value of a pound of coals; the study of the laws of osmosis, which underlie all the physiology of absorption and nutrition; the conditions affecting and determining gaseous interchange, which explain the process of respiration; the nature of elasticity, and the important share it takes in the physics of the circulation; turn which way we will, we see now in our physiological laboratories—themselves the creation of the last twenty years—experimenter and instrument-maker competing in a demand and supply of the apparatus by which such work as I have indicated has been rendered possible.

Pathology.—To speak of the advance of physiology is to imply a progress in pathology, since the latter is but the application of the former under the conditions of disease. Mutually aiding each other as they have done, it was not until physiology was on a secure foundation that pathology could claim the title of rational. Although healthy structure came to be known, and the dependence upon it of function to be recognised, it was long before the same idea prevailed in respect to disease. It is the especial glory of Virchow's work on cellular pathology, that he applied consistently to morbid structure and action the same principles which had already made considerable advance in regard to health.

Etiology.—Proceeding on such lines, lines that we feel assured are tending towards great truths, we find that in every branch into which pathology is artificially separated improvement is taking place. The causation of disease—etiology—it is now known, must be sought in disturbances of our environment, or in defective inherited tendencies. How immeasurable is the distance which separates the mental attitude of the inquirer of to-day, engaged in tracing the causation of an epidemic disease, from the mystics who bewildered themselves with the notions of malignant spirits, evil humours, or even now of epidemic waves.

Illustration of Preventive Medicine.—To illustrate especially the advance we have made in our knowledge of etiology, I would select but one point, which is the practice of arresting the diffusion of disease by limiting the spread of contagion.

Cattle-Plague.—This practice was illustrated on a gigantic scale by the rinderpest or cattle-plague, which appeared in this country in 1865. Towards the end of June in that year, a few bullocks, imported from Revel, bringing with them the infection of cattle-plague, were sold in the Metropolitan Cattle Market. From this single centre, the disease spread throughout the country, until it had established 25,000 foci of infection within the year. Then a remedy was applied. All traffic of cattle was stopped; all infected beasts were killed, and all healthy bovine animals with which they had come into contact. The pestilence was stayed, but not until 300,000 animals had died or been killed, with a loss to the country, at a low estimate, of £3,000,000 sterling, and an indirect loss to the same amount. All this might have been spared if it had been possible for the authorities, by a better knowledge of the nature of the disease, to extinguish it at its single primary focus by the sacrifice of a small number of animals at the cost of a few pounds.

Cholera.—The system of preventive treatment which thus proved so

successful in the case of the lower animals has, as far as may be, been employed in certain infectious diseases, such as cholera, scarlet fever, typhoid fever, and diphtheria. To isolate the sick and such persons as have been in relation with them, until the very end of the period of infection; to thoroughly disinfect the secretions and other products from the patient at the earliest possible moment; to properly dispose of the dead; to cut off from the public all sources of contaminated supply, whether of water, milk, or other kind of food—these are a few of the principal measures which the experience of a comparatively recent period has taught us to practise in contagious diseases, with results so satisfactory as to encourage us in their further extension. We have rational grounds for the belief that, if the spread of infection were restricted by law, this class of diseases would soon be effectually extinguished. The result of such measures in reference to cholera-poison are particularly striking. Many of us remember the invasions of this country by cholera, and its fatal progress, in the years 1831, 1847, and 1854. When sanitary measures were yet in their infancy the epidemic of 1866, though grave in certain districts—Swansea, for example—was rendered harmless in other places. From that period to the present, there has been no serious outbreak of cholera in this country, although there have been infectious arrivals on our shores on several occasions, as in 1873 and 1884 at Southampton, Swansea, Liverpool, and in the Thames. This satisfactory result is entirely due to the efficient arrangements made by the proper authorities to limit the spread of the disease. In this matter they acted under, and carried out, the judicious counsel given by that wise administrator, Mr. Simon, when acting as medical adviser to the Privy Council and the Local Government Board. I need scarcely add that this teaching has not been lost upon Mr. Simon's former colleagues and able successors.

Small-Pox.—Nor would it be satisfactory for me to pass over the subject of vaccination, the procedure by which that dire disease small-pox may be prevented or modified. "One fact is worth a ship-load of arguments," and therefore it will be sufficient to say that Ireland, stated to be the best vaccinated country in the world, is practically at this moment free from small-pox; that, since 1874, not a single case of death from variola has occurred in the German army, which dwells in the midst of a population protected by compulsory revaccination; whilst, on the other hand, we see at this moment, in the city of Montreal, unprotected by vaccination, a frightful mortality. It is painful to contemplate such a consequence of ignorance or neglect; but, as Mr. Simon said in his letter on vaccination to the President of the General Board of Health, "it goes with the credulity which characterises the present age to be incredulous of proved truth. Alike in rejecting what is known and in believing what is preposterous, the rights of private foolishness assert themselves. It is but the same impotence of judgment which shrinks from embracing what is real, and lavishes itself upon clouds of fiction."

Progress of Pathology.—I feel, sir, that it would be almost impertinent in me to address such an audience as I see before me on the details of the improvements in our knowledge of pathology and the allied subjects, the diagnosis and treatment of disease; but, when I recall the views quoted by me in an early portion of this address, as to the absence of present progress of our science, and the hopelessness of its future—when I recall that these opinions have been held not only by men of science, but by many others—I feel it to be one of the duties of the present occasion to indicate our real position in definite language, the echo of which may possibly be heard beyond these walls. It will, at least, reach the ears of some one who will bear with satisfaction that the reproaches raised against us have no longer any foundation, and that the progress of our art and of our science has been greater during the last half-century than during all the preceding centuries. Nay, more; that recent progress gives promise of still more rapid progress in the future.

It is not necessary to recount an elaborate list of discoveries in support of this assertion. One may safely say that there is no organ, no structure, no function of the body in health or disease, which has not received the stamp of improved knowledge during the period referred to.

The Work of the Pathological Society.—In our knowledge of the structural changes which occur in disease, accuracy is now replacing with great strides the previous uncertainty and vagueness; and I feel it is due, in this connection, to refer to the good work of the Pathological Society of London, whose forty volumes of *Transactions* are a brilliant monument of labour and research, and a bright exemplar to future years. It is but justice to say, in memory of one long since dead, that the Society was established in 1843 by the intelligent zeal of a member of our College, the late Dr. Edward Bentley, a name which will be remembered and honoured by those of his friends and

colleagues who yet survive, although unheard of or forgotten by many who fully appreciate the value of the Society which he was the chief means of establishing.

Morbid Anatomy.—I need but remind you how extensive has become our knowledge within the past few years of the facts of structure revealed by the microscope in connection with new growths, with regard not only to their distinctive characteristics, but also those which connect apparently diverse forms, and indicate their relation to the tissues in which they occur. The structural lesions comprised in the term "degeneration" are now clearly recognised and defined; and, without pretending to a complete knowledge of these morbid conditions, that which we do know about them possesses a character of certainty and truth, dependent on the essentially correct method by which the facts have been determined.

Morbid Processes.—Concurrently with the growth and diffusion of a scientific knowledge of the causation of disease, and of its structural manifestations, there has arisen a better understanding of morbid processes. The condition of inflammation, which has been recognised from the earliest times, and has probably given rise to more discussion than any other subject in pathology, is now regarded in a manner which, whilst it admittedly leaves much to be discovered, is at least in harmony with our knowledge of the functions of normal nutrition. The pathology of fever also, though not yet complete, may be said to have been scientifically studied during the last fifty years. The systematic use of the clinical thermometer, the application of chemical testing to the secretions, and the improvements in the methods of bedside investigation generally, have revealed to us a vast number of facts which were unknown to observers at the beginning of the century. Another factor of the greatest importance, both in relation to normal function and to disease, is the direct influence exercised by the nervous system on the tissue-metabolism. We have no clear knowledge how this influence is exercised, but the existence of some control is certain; and it is curious to notice how older notions of neural pathology recur in the more accurately defined conceptions of to-day. The comprehension of the part played by the blood in disease is also an advance which has been eminently fruitful in results, and which differs widely from the doctrine that at one time attributed every malady to some vitiated condition of the circulating fluid.

Parasitic Pathology.—But nothing will bring the conviction of recent progress more completely home to our minds than a brief retrospect of parasitic pathology during the last forty or fifty years. How great a step, though it looked but small at the time, was the discovery of the first vegetable parasite in the skin and hairs, by Gruby and others, about the year 1840. The notion of parasitism as a cause of disease has clung to pathology in all ages; and the analogy between fermentation and the acute specific processes, had long possessed the mind of every thoughtful physician. But we ought clearly to bear in mind, in justice to modern medicine, that the *Torula Cerevisia* itself was not discovered until 1835, by Schwann and others, and that it is only within the last few years that the presence and activity of an organism have been definitely connected with a specific febrile disease—I refer to the discovery of the spirillum of relapsing fever by Obermeier in 1873. A new era in pathology, whatever may be its result, has arisen within the last few years with the rise of bacteriology. Following their master Koch, a host of highly trained and eager observers in Germany, France, England, and other countries, are now engaged in the study of the acute infective diseases, and by ever improving methods striving to contribute something fresh to the great, but still obscure and unsettled, subject of the relation of these organisms to pathology. Fallacious, no doubt, as were some of the earlier conclusions on this subject, there seems to be no question that the study of bacteria and bacilli has greatly widened our views of the nature of disease, and that it promises to lead to practical results of the first importance in its prevention or modification, as in the hands of Pasteur and others.

Experimental Pathology.—The value of all this progress has been greatly extended by the aid of that new line of scientific inquiry which has already done so much, and which promises still more—I mean experimental pathology. Of this subject, Hunter laid the foundations a hundred years ago; but it was reserved for our own time to see the extension of his method on a large scale in this country to the subjects of fever and infection—to the study of disease artificially produced, which, in the hands of Sanderson, Klein, Greenfield, and others, has been so materially promoted by the establishment of the Brown Institution.

Diagnosis.—Whilst pathology has been thus steadily progressing side by side with physiology, diagnosis, or symptomatology, the science and art of clinical observation has proportionately profited by our improved knowledge of these subjects. The leading feature of

modern diagnosis is the full adoption of methods and instruments of scientific exactness, which, by the aid they give to the senses, the diseased organs may, as it were, be made to reveal their own condition.

Instruments of Diagnosis.—The stethoscope, introduced by Laennec in 1819, was used by but a few at the commencement of the second quarter of this century; and I well remember how an eminent physician to St. George's Hospital, whom I met in consultation little more than thirty years ago, characterised it as a dangerous instrument. The ophthalmoscope, invaluable in the detection of diseases of the eye, reveals to us also many morbid conditions of the brain and spinal cord, and even more general disease, such as is represented by albuminuria. The laryngoscope is of equal value in reference to the diagnosis of diseases of the throat and chest. Instruments are now in constant use which accurately measure and graphically record the condition and movements of the several organs—the sphygmograph and cardiograph; whilst even the number and value of the blood-globules are revealed to us by the hæmacytometer and hæmoglobi-nometer. The general adoption of the clinical thermometer and of the electric battery has marked an era in medical diagnosis. The microscope has become indispensable to the medical practitioner; and even the spectroscopic has some clinical uses. The chemistry of the secretions is now universally practised, the routine examination of the urine having revealed to us a large number of interesting facts. On some of these I might have dwelt, had time allowed me; but I can only refer in a word to the evidence which the examination of the urine furnishes of the remarkable relation which exists, in a great number of instances, not only between the liver and glycosuria, but between the liver and azoturia and albuminuria. The subject is one of deep and general interest, fully demanding investigation.

Special Progress in Diagnosis.—No advance has been more important than that of the differentiation of the several forms of fever, an advance to which you, sir, have yourself so largely contributed. The increase of our knowledge of the symptomatology of diseases of the nervous system has been equally marked. In all directions we may note greater definiteness of knowledge and of diagnostic power. Many forms of disease, previously unknown, are now recognisable by the exercise of ordinary carefulness.

In a word, it may be said that those only who lived and practised in what may be called the pre-accurate period of medicine, and who are still engaged in practice, can appreciate the vast improvements which have been introduced in the course of a professional lifetime, in the art of the observation of disease, and can perceive how some of these are suggestive of still greater results in the future.

In speaking of the progress of medicine, I would, of course, be understood to include those departments which have been somewhat arbitrarily separated from it—surgery and gynaecology. But, as special branches of the healing art, their advancement has been so considerable as to demand, for their full exposition, some one more competent for the duty than I have any claim to be.

Therapeutics.—I now come to a most important part of my present inquiry; the practical application to treatment of the great advances which I have just recorded in the medical sciences. We must not forget, in our enthusiasm as scientific observers, that our very *raison d'être* as physicians is the prevention and cure of disease. With these two branches of practical medicine we are equally concerned: our College has ever been as distinguished for its influence in the one as in the other. As early as 1650, the College presented to the Lords of the Council a statement of "Annoyances" by way of preservation from the plague, very similar, indeed, to what the College might suggest at the present day.

Two Directions of its Advance.—With reference to the question how far our methods of treatment of disease have been improved, I fear I must expect to meet with a certain amount of scepticism. But this scepticism is unreasonable. During the last fifty years, medicinal treatment has advanced in two directions: by the introduction of many new drugs of great importance, and by the conversion into rational remedies of a large number of substances which were previously employed in a purely empirical manner. These results have been greatly facilitated by the discovery of the alkaloids, the first of which was morphine, in 1817. With these and other active principles, the practical physician is able to determine with accuracy the value of drugs which possess definite physiological actions, and to apply them in a simple, uncomplicated form, especially by subcutaneous injections. Nay, more; the pharmacologist is no longer satisfied with the direct supply from nature; he is now busily engaged preparing synthetically a series of entirely new agents.

Introduction of Anæsthetics.—There are those who, seeing no progress in therapeutics, must have forgotten that some of the most effi-

cient means for diminishing human pain and suffering, the whole class of anesthetics, commencing with the application of ether in America in 1847, have been discovered within the last forty years. In this connection, also, I would mention the revival, on scientific principles, of the administration of nitrous oxide gas as an anæsthetic. Of still more recent introduction are chloral-hydrate and cocaine; whilst nitrite of amyl, of sodium, and nitro-glycerine are recognised as invaluable agents in the reduction of arterial tension.

Special Drugs.—The proper use of the bromides is comparatively new; indeed, bromide of potassium was omitted from the *London Pharmacopœia* of 1851 as being an useless drug. At the present time, we find the dominant idea in pathology, the doctrine of germs, pervading and influencing therapeutics also. Antiseptics, with which the name of Lister is inseparably connected, and antipyretics, are being employed in treatment to an extent of which the last generation could not have dreamed, and with results of the greatest practical advantage. The introduction of the salicyl-compounds in the treatment of rheumatism is still a comparatively recent event. Some of the new antipyretic drugs almost rival in power quinine and salicine themselves. Surely all this is improvement of the best kind. Let us pause for a moment, and contemplate the condition and prospect of a surgical patient only fifty years ago: no anæsthetic to induce insensibility to pain; no antiseptics to promote healing of the wound; no chloral to procure sleep; no antipyretic in general use to control fever. With such instances before us, how unjust to say, with some, that medicinal therapeutics remain stationary.

Future Prospects of Therapeutics.—Turning now to the prospect for the future, I may be allowed to add a few words on the means by which further therapeutical advance can be secured. There are two lines of investigation which must be followed, namely, clinical observation and pharmacological research. We must not approach these inquiries with the question, now too often heard, Have you any faith in physic? but with minds free from prejudice and incredulity, and hopeful of results not inferior to those which have characterised recent investigations. It would be unbecoming in me to attempt to indicate in this assembly the manner in which clinical observation of the action of remedies should proceed. Still, it seems to me that there are one or two points which greatly threaten, in practice, to interfere with the rational administration of remedies, and which I would desire to condemn, inasmuch as they tend seriously to retard our future.

Retarding Circumstances.—There has grown up a habit of prescribing ready-made physic, of using compounds which contain a variety of drugs, each having different properties—a practice in which there is a mental proclivity to regard the disease as suitable to the physic in hand rather than to take the trouble to find a remedy that is suitable to the disease. This system is unpractical, unscientific, and least calculated to promote a knowledge of the legitimate use of medicinal agents. In fact, the art of writing a rational prescription is in danger of becoming lost.

Closely connected with the practice here condemned is that which hastily repudiates remedies on the ground of their failing to fulfil the intentions with which they have been prescribed. A chapter might be written on this subject, which, however, I shall summarise by saying that when these incidents cross my path—as they do that of all of us—I am disposed to fear that my diagnosis, and not the drug, has been at fault.

Secondly, we must regard with jealousy what is called the statistical method of inquiry—that method in which an aggregate of units is made to represent a single substantial fact. If these units differ among themselves, and if the recorders of these single facts be not quite certain of the uniformity of the facts with which they are dealing, the inference must be misleading. It was Morgagni who said that “facts must be weighed, not counted,” and there is nothing more certain than that, if this sage advice be not followed, the conclusions will be unsound. This is the danger to which what has been called “collective investigation” is liable. So long as the inquiry is confined to simple facts which the observers are not likely to mistake, it is probable that valuable results may be obtained. But so soon as the problems to be inquired into are such as demand a clear judgment and close reasoning for their solution, the capacity of the observers comes into play as an important qualifying consideration in estimating the value of the results that are formulated. And when the method is applied to obscure points difficult of verification—such, for example, as the hereditariness or the infectiousness of phthisis—the conclusions may easily be rendered mischievous and unworthy of confidence.

Experimental Pharmacology.—Having thus spoken briefly of clinical observation, the next method by which therapeutical science can be advanced is that of experimental pharmacology—the scientific

investigation of the action of medicinal agents on healthy animals. These two modes of inquiry should be carried on simultaneously, each suggesting, and at the same time testing, the methods of research pursued by the other. *How better and more fully?*

By the aid of pharmacology, the circumstances of an experiment are greatly simplified; we can vary the conditions under which it is conducted, and thus trace the numerous influences which either assist or counteract the action of drugs, and which lead to variable and apparently conflicting results in man. By this means also we can determine which part of a complex mechanism, such as the nervous system, is affected by particular agents—whether, for example, the nervous centres, the nervous tracts, or the peripheral endings. And, again, it is only by experiments on animals that we can safely test the action and strength of new drugs, and the phenomena and morbid results produced by poisonous doses; whilst from such experiments we receive many fresh suggestions for the introduction or manufacture of allied products. In England, for the moment, we are compelled almost entirely to accept such results at second-hand, legislation interfering with this method of inquiry. We must revert to the liberty of action possessed by France, Germany, and other countries, or must send our inquirers to pursue science in places where they are free to do so without incurring legal penalties.

Position of the College in Respect to Therapeutic Research.—The results of investigations such as these, too often buried in elaborate monographs, may never reach the physician in a form to bring home their application to his mind and in his practice. How they might be made more popular and more available in our daily procedure, is a question which should claim attention within these walls. Our College might do much for the encouragement of research in therapeutics, and we might require from the candidates for our licence a better knowledge of the subject. Fortunately, we have means which might be made available for promoting the first of these objects in the funds derived from the Croonian Trust, recently increased in value. It is a grateful duty to remember the name of the founder, Lady Sadlier, a duty strictly in accord with the desire of Harvey that, on these occasions, our benefactors should be duly commemorated. Lady Sadlier, in 1700, founded the Croonian Trust, a trust which established a lectureship remunerated by a yearly payment of £10. The property bequeathed to us has increased in value, and now affords the College an available income from this source of over £200 a year. Harvey also desired that the Harveian orator should exhort the Fellows and Members of the College to search and study out the secrets of Nature by way of experiment. How could the Croonian fund, thus so much increased in value, be appropriated with more justice, or with greater advantage than in promoting the scientific study of the treatment of disease, the very object for which our College exists?

Secondly, seeing the large number of individuals who, through receiving the licence of this College, annually join the profession, it is quite within our power so to regulate the course of education and the examinations, as to bring the subject of therapeutics into that position in the curriculum in which it would receive the most practical and profitable consideration. And in mentioning the control thus obtained by the College over the medical profession, it is my pleasing duty to refer to those real benefactors who, in the year 1859, re-established the class of licentiates, with a result which has enabled us, by the increase of our funds, to assume that independent position to which the College is justly entitled, but which, nevertheless, it had not previously enjoyed.

Evidence of the Improvement Claimed.—But, sir, whilst I have indicated to you, in the faint outline which alone time permits, the progress which our science and our art have made in every direction, my argument would be incomplete unless I produced some evidence that the improvements on which I have insisted have been productive of substantial results. We must not only claim to have replaced blind groping along the pathways of knowledge by a method based on reason and observation, in which we recognise the nature of our ignorance as well as the extent of our acquisitions; but, as exponents of a practical science, we are bound to show that our progress has been real. This, I think, may be done; even though it be briefly. The first object of medicine, it has been well said, is to prevent disease, and the next to cure or relieve it; and the nearer we approach to these ends, the more successful may we claim to be. The prevalence of disease is displayed in the returns of mortality and of sickness; and a reference to the pages of those masterpieces of vital statistics, the Registrar-General's annual reports, will furnish us with ample data for estimating the increasing value of preventive and remedial medicine in improving health and lengthening life, or the incidental national gain in labour and wealth which proceeds therefrom.

Diminished Mortality.—During the forty-three years intervening between 1838, when registration began, and 1881, when the last census was taken, the population of England and Wales increased from upwards of fifteen millions to nearly twenty-six millions, and all evidences of improved health should be considered in reference to this total increase of population, as well as to such other influencing factors as the distribution in town and country, in respect to sex and age-periods.

Summarising the results of these statistics, we note that there has been a steady decline in the mean death-rate per 1,000 living, from 23.3 in 1838 to 19.6 in 1884. The decrease is still more strikingly shown if we compare the mean rate for the thirty-seven years preceding 1875, when the Public Health Act became law, which was 22.3, with that for the succeeding eight years, when it fell to 20.3.

Taking the mean death-rate for the forty-five years from 1838 to 1883, as 22.0 per 1,000 living, the improvement within each of the past four years has been considerable: in 1881 it was 18.9; in 1882, 19.6; in 1883, 19.5; and in 1884, 19.6. This means that, if the death-rate of the previous decade, which was 21.4, had been maintained, the deaths in England and Wales, during the four years in question, would have been nearly 213,000 more than they actually were.

The decline in the rate of mortality has occurred at all ages except from 45 to 75 in males, and from 55 to 65 in females; the greatest improvement occurring in both sexes at ages below five years. Mr. Noel Humphreys, in an able paper on this subject, concludes that the effect of this decline in the death-rate is to raise the mean duration of life among males to the extent of two years, and among females to nearly three years and a half; and further, that by far the larger proportion of the increased duration of life in England and Wales is lived at useful ages, and not in the dependent conditions of childhood and old age. More recently, Mr. Makuna points out that the diminution of mortality means also the survival to maturity of most of the saved infants and children, and useful lives to some of them. And Dr. Longstaff considers that the tendency appears to be for useful working life to be increased, but for old age to be slowly shortened.

In Special Diseases.—It is impossible for me here to consider in detail how the diminished mortality is distributed among different diseases, or to assign to the two factors of that improvement, better sanitation and better methods of treatment, their respective shares in producing the result. But it is distinctly in those diseases which are caused by insanitary conditions, and which are so far preventable, that the greatest improvement has taken place. Following the main grouping of sickness adopted by the registrar-general, there has been a decline from the mean rate for the decade 1871-80, during the years since 1880, in zymotic, parasitic, constitutional, developmental, and local disease. Only in dietetic diseases has there been a slight increase. As regards special diseases, the diminished mortality has been most marked in the group of fevers (typhus, typhoid, and simple continued), and in phthisis.

I cannot refrain from dwelling for a few moments on the special applications of these general results to well-defined classes; and for this purpose I will select the army, though the same truths could be established, I believe, in other classes also.

In the Army.—The general death-rate of the army at home for the decade 1870-79 was 56 per cent. below that before 1854, and the rate for 1880 was 62 per cent. below it. And, again, whilst in 1880 the death-rate per 1,000 living was 17.6, in 1881 it was 14; in 1882, 11.8; and in 1883 it fell to 9.8.

Professor Maclean, speaking lately at Netley, said, in respect to the European part of the Indian Army, that the mortality in 1859-60 was about 79 per 1,000, whilst in 1882 the death-rate in all India, from all causes, was only 13.07 per 1,000. He further stated that he had known, in the "pre-sanitary age," dysentery kill 1 in 5 of those attacked; and in a regiment with an average strength of 1,098 there has been as many as 2,497 admissions into hospitals in a year, with 104 deaths, chiefly from dysentery and hepatic abscess; whilst in 1883, in the same part of India, out of 13,000 men only 3 out of 500 cases of dysentery proved fatal.

To speak of such a change, and not to mention the name of Edmund Parkes, would be unjust alike to his memory, and to the fair claims of the profession which is itself honoured in calling him a member. We may say of him as Idomeneus, speaking of the wounded Machaon, said to Nestor,

Ἰητρός γὰρ ἀνὴρ πολλῶν ἀντάξιός ἄλλων—

or, as Pope has rendered it,

"A wise physician, skilled our wounds to heal,
Is more than armies to the public weal."

Diminished Sickness.—The statistics from which conclusions may be

drawn as to the amount of sickness that prevails are necessarily imperfect, and any statement as to the decline of the sick-rate is difficult to prove. But the late Dr. William Farr considered that, for every death, there are two cases of severe sickness, and that the rates of mortality and sickness "within certain limits, rise and fall together." And since it is considered that for every death there are twenty-five cases of illness, mild and severe, a diminished death-rate means a lessened amount of illness. The full significance of these facts in their bearing on our national wealth and productive power, as well as on the individual well-being and capability for work, can scarcely be overestimated; but these subjects lately received so complete and admirable an exposition at the hands of Sir James Paget, that I need not further allude to them here.

When we thus regard the rapid and marked progress which our art and science have made during little more than half a century, I feel that we are fully justified in believing that progress in the future will be even more remarkable, and that, with materials for investigation in abundance, with willing and able workers, and with our College aiding and guiding the work, there can be neither fear nor doubt for the continued advance of the healing art.

In an earlier portion of this address, I have mentioned those who have spoken in disparaging terms of our future. Let me now, on the other hand, refer to an opinion of greater interest and greater force, expressed recently by one of our most eminent statesmen, who has said to me, and repeated on more than one occasion: "Your profession has a great future before it, and I believe that in one generation, or at most two, it will be far in advance of the other learned professions." This opinion is fully in accord with our recent progress. There is before us a great future, and it is my faith in this future which has led me to speak to you in a sanguine spirit. I have done so in full reliance on the value of the results which will be accomplished by those who are engaged in our great work, on the spirit which moves them, and on the means which they must have at their disposal for investigation. I have spoken to you as a prophet; but let me add, in conclusion, one word of hope and of prayer: that at no distant period the Fellow of this College, who has the privilege of occupying the position which I have filled to-day, may be able to speak to you no longer as a prophet, but as a historian, to record the great work which had been accomplished, and the share which our College had taken in its achievement.

WINTERING ABROAD.—Among the many who will probably fly from our land during the coming winter, we doubt if any will find a more enjoyable or economical way of doing so than by taking advantage of the five months' cruise in a large steamer which has been announced in our advertising columns for the past few weeks; and as the programme embraces some of the most health-restoring and lovely isles in southern latitudes known to medical science, there will be none of that monotony inseparable from a voyage in a sailing ship. With cholera prevalent at Nice and other parts of south France, as well as in Spain, Italy, and Sicily, we think some of our winter absentees will be well advised if (in preference to going this season to their usual haunts) they vary their plan, and take a ticket for this sea-voyage. The fare, which is inclusive of everything except wines and spirits, which may be purchased on board, is certainly very moderate, being only at the rate of £1 per day; and as sea-voyages can effect astonishing cures when other means fail, the present is a very favourable opportunity for such sufferers to derive the full benefits of a well planned cruise; and we feel sure that many who are now at a loss to know where to advise their patients to go for the winter will be glad to have their attention directed to this trip, full particulars of which can be obtained at the Winter Cruise Office, 13, Lime Street, London, E.C.

BEQUESTS AND DONATIONS.—Mr. George Sturge has given £1,000 to the Samaritan Fund of the Westminster Hospital, the income of which is to be paid to or for such in-patients as may be necessitous, within three months of their discharge, for the purpose of their having necessary nourishment, clothing, or change of air.—The Sussex County Hospital has received £1,000 under the will of Mr. William Duke, of Grand Parade, Brighton.—Mr. Hanson Freeman, of Bilton Court, Knaresborough, has bequeathed £1,000 to the Halifax Infirmary.—The Adelaide Hospital, Dublin, has received £500 under the will of Miss Elizabeth Ross, and £100 under that of Mr. George Castles.—The Lancaster Infirmary and Dispensary has received £500 under the will of Miss Susan Crompton.—The General Hospital, Birmingham, has received £250 under the will of Mr. Peter Roxburgh and £90 under that of Mr. William Fleeming.

INTRODUCTORY ADDRESS

In relation with the last year, passed by us ON

THE HEAT OF FEVER.

Delivered at the meeting of the Medical Society of London, Monday, October 19th, 1885.

By W. M. ORD, M.D., F.R.C.P.,

Physician to and Lecturer at St. Thomas's Hospital; President of the Society.

GENTLEMEN,—My first and most pleasing duty is to offer you a hearty welcome on our reassembling in this room after the summer recess. My next thought is, I must confess, of how we may turn the coming session to best use—of how much mutual brain-picking we may be capable, to the advantage of all, even of the sufferers. But, in logical order, comes before this some looking back upon work already done, particularly the work of the last session. It is hardly necessary to remind you that the intellectual activity of our last session was most vigorous, particularly in that part of it which was passed under the able guidance of my large-hearted and able predecessor in this office. We may remember particularly what dignity was brought to our annual *conversazione* by the remarkable essay on Old Age and changes incidental to it, which formed the subject-matter of Dr. Humphry's oration. And our financial retrospect is not less satisfactory. We may congratulate ourselves that we occupy these new rooms free from sense of indebtedness to anyone outside the Society. The financial genius of Mr. Goodsall has brought it about that all that we owed in respect of the alterations in our building should be covered by debentures subscribed for entirely by our Fellows. If we are satisfied with such progress as has been made, we must be impelled to maintain it; and, in order to facilitate that free communication of knowledge and thought which is the true object of societies such as this, our Council has determined that, in the coming session, a whilome custom, in desuetude for many years, shall be revived. Certain evenings will be set apart, as our programme indicates, for purposes of clinical discussion—of discussion of the cases of patients brought here for inspection and examination. November 9th has been chosen as the first evening for use of this kind; but on November 2nd our meeting will have an allied character. Dr. Gowers has kindly consented to open, on that evening, a discussion on the Clinical Value of the Deep Reflexes. This is a point on which my own experience leads me to believe that we can gain most valuable instruction by comparison of our various observations. I trust that our Fellows will come to our aid in large numbers on that evening, and contribute to some effective determination of the indications which may be drawn from these easily observed signs.

Another part of our proceedings, to which we shall all look forward with certain anticipation of receiving valuable instruction, will be found in the Lettsomian Lectures, this year to be delivered by Mr. Hutchinson.

The volume of our *Proceedings* which I hold in my hand has essentially a retrospective aspect, but it leads me also to speak of the session to come. The volume contains only papers read during the past session, the discussions not being included. The Council, after much deliberation, decided to omit the publication of our discussions until measures should have been taken to ensure fuller and more satisfactory reports of them than have been hitherto available. Arrangements will be made for full reporting of discussions for the future, and it is hoped that the inclusion of them will add great value to our next volume.

And now rises the somewhat of bitterness which runs through all human things. Death has run his line through the names of several of our Fellows since last October. There are so many the less to join in the effort to advance medical knowledge, to join in the friendly intercourse and high aspirations of this Society. I will not ask your forgiveness if I say some few words which may be put on record touching our lost friends.

Daniel Noble, M.A., M.D., F.R.C.P., joined this Society in 1868, and died in January last at the age of 75. Born at Preston, he came to London for medical study at the Borough School and Guy's Hospital. He practised in Manchester, and there attained a position of eminence. He was a man of wide learning, and of good organising power, so that he took a leading part in combating a visitation of

typhus in 1847, and in preparing to resist a dreaded invasion of cholera in 1866. He became M.D. of St. Andrew's in 1853, Honorary M.A. in 1860, and F.R.C.P. Lond. in 1867. He published the following works: *The Influence of Manufactures upon Health and Life*; *The Brain and Its Physiology*; *Elements of Psychological Medicine*; *The Human Mind in Its Relation with the Brain and Nervous System*; *Mesmerism True, Mesmerism False*; *Epidemic Fever of 1847*; *Cerebro-spinal Convulsion, with Illustrative Cases*.

William Martin Coates, F.R.C.S., Surgeon to the Salisbury Infirmary, died on March 28th of this year. A student of St. Bartholomew's Hospital, he took his London diplomas in 1832-3. He was subsequently, for a time, teacher of anatomy and midwifery at the Ecole Pratique de Médecine at Paris. He was, for forty years afterwards, Surgeon to the Salisbury Infirmary, an appointment which he resigned shortly before his death. He is recorded to have, as a surgeon, manifested a remarkably keen power of diagnosis, and to have been a bold and rapid operator. He was the author of several works, namely, *The Nature and Treatment of Talipes Varus*; *Chloroform and Its Safe Administration*; *Treatment of Bronchocoele and of Enlarged Glands by Injection of Iodine*; *On Puerperal Fever*; *On Listerism*; and an Address delivered by him as President of the Section of Surgery, British Medical Association, Ryde, 1881, on the *Operative Treatment of Hemorrhoids*. He continued to practise till within a few months of his death, which occurred at the age of 73; and he leaves three sons qualified in the profession, a fourth in process of qualification. He had been a Fellow of this Society from the year 1869, and was, at the time of his death, a member of the Committee of Referees.

In Joseph Bunny, M.D., of Newbury, a very old member of our profession passed away. His medical education was carried on in Edinburgh, at Guy's, and at St. Thomas's. After taking his London diplomas in 1820, he took his degree at Edinburgh in 1823, and then commenced practice in Newbury. There he was for ten years surgeon, for thirty-two subsequent years consulting surgeon, to the dispensary. He was coroner from 1839 to 1873, and was a Justice of the Peace. In him, Newbury is said to have lost one of its oldest and most respected inhabitants. He became a Fellow of this Society in 1873, and died last May at the age of 86. Truly a sort of man making important compegnance of the backbone of country life, and of this Society.

In John Gay, who died this autumn, on September 15th, this Society has lost a very typical Fellow. Looking backward over the record of his life and work, remembering the gentle friendliness and the absence of self-assertion which characterised him, recognising his love of investigation and his sense of scientific truth, one cannot help feeling that, so far, at least, full justice has not been done to his deservings. He was in harness, with his neck well in the collar, from 1833 to 1883. At the outset of his career, he was the most distinguished student of his year in the then and now great school of St. Bartholomew's. Fifty years later, he read before this Society a paper on Certain Points connected with the Anatomy of the Venous System. In the time intervening, his studies and occupations were various. He wrote many papers, most of which were strongly impressed by original thought and bold induction. Few of them, therefore, failed to excite vigorous debate. Such were his papers on Femoral Rupture, on Indolent Ulcers, on Varicose Disease and its Allied Disorders. He filled many offices. He was elected, in 1836, to be Surgeon to the Royal Free Hospital, and held the office till 1853. Later on, he became Surgeon to the Great Northern Hospital. In 1869 he was elected on the Council of the Royal College of Surgeons; and, besides these, he held, at various times, many public appointments of various importance. He joined this Society in 1849, was treasurer for three years from 1867, and was President in 1870. His last publication was, as we have seen, read here in 1883; but he had also been Orator, in 1860; and had, in 1867, delivered the Lettsomian Lectures, taking as his subject Varicose Disease and Ulcers of the Lower Extremities. His work may speak for him, and to our pride. It will not be forgotten, will probably be better valued as time goes on. But we may, at all events, keep well in mind his genial personality. If he worked, if his eye was always ready to catch some new sight of truth, he was also a thoroughly genial president, companion, and friend. As a companion, I may speak of him from experience. In many a country walk I have known him make the way easy, with pleasant and always kindly talk. I never heard him say an ill word touching anyone, and I have found him alert to see and enjoy with me whatever of interest nature placed to meet us by the wayside.

Of such men I would believe that our Society is made—of large-hearted men, who are content to go on working patiently and faithfully, in the determination to know, as far as may be, and to be useful as far as may be, and, withal, not to be ever feverish in urging their claims to recognition on the passing generation.

Edwin Canton, another past president of this society, presents for us a strong contrast to John Gay. He was a man of exceptional brilliance in his profession and outside it. In John Gay, we have seen the man of great social attraction from the domestic side, the man attaining reputation, almost insensibly, by the patient unravelling of knots, which he had set himself to loosen. In Edwin Canton we see the man who was easily first in the lines wherein he sought distinction, and who failed to attain great reputation, I think, for want of earnestness and steadfastness of purpose. Born in 1817, educated at King's College, and afterwards at Charing Cross Hospital, he became Assistant-Surgeon to the latter in 1854, full Surgeon in the next year. Before receiving these appointments, he had been for several years a teacher in the school, as Lecturer on Surgery and Surgical Anatomy. It is recorded of him that, at Charing Cross Hospital, he distinguished himself by excelling in every duty which he undertook. He was brilliant as a teacher and lecturer, brilliant as an anatomist, brilliant as a surgeon, combining readiness with caution, showing deep insight and broad view of the causes of disease, and, in operating, never losing the fruit of his anatomical skill. He was also brilliant as a writer. This power took him, perhaps, too often outside the literature of his profession, yet, when he thus stepped outside, into journalistic or other exercise of the pen, he was still brilliant among his compeers. He has left his mark in *Punch*, and in other weekly journals. His social powers were great, but scarcely of the domestic kind. He loved to mix in society, and was prominent therein, during his heyday. On the one side he enjoyed scientific society, on the other theatrical. And he seems to have been very much at home in both.

His medical writings were not numerous. Perhaps the most remarkable is his paper on the *Arcus Senilis*. This, indeed, is a classical paper, worthy of the brilliant author.

Besides these, I may record, first, an illustrated work, entitled *Surgical and Pathological Observations*; secondly, *Notes on the Morbid Anatomy of Chronic Rheumatic Arthritis of the Shoulder and Other Joints* (illustrated); thirdly, *Remarks on Interstitial Absorption of the Neck of the Femur from Bruise of the Hip*. These notes, as I quote from an obituary notice, represented some of the best pathological work ever done by their author; they were based upon careful examination of specimens which he afterwards presented partly to the museum of the Royal College of Surgeons, partly to the museum of his own medical school.

He held many offices in this Society, and was President in 1863. He gained the Fothergillian Prize for an Essay on Injuries and Diseases of the Spine, which is spoken of as one of the best papers ever sent in for the prize. The date is already far back; it is 1857. I have not seen the paper, but am told it is of such merit that its publication might even now be useful to the Society and the profession.

Mr. Canton retired from hospital-work in 1878, and died this autumn, in the 68th year of his age.

When I pass from these relations, in which sorrow and pride are so intimately mingled, I feel that what I should say is not so clearly adown for me. I will dare, therefore, to choose for myself, and say a few words to set you thinking, a few words touching a difficulty which occurs to me constantly in the study of disease. We all now use the clinical thermometer. We all, from day to day, see it indicating, in various cases, a heat of the body rising to various degrees above the average, with, as our experience tells us, indications increasing in gravity in some proportion to the ascent of the mercury. We know again that, for the most part, the rise of temperature coincides with the establishment of the process of fever. Now, this increased heat of the body in fever is to me a very constant stimulant of thought. When I ask people how it comes about, I am generally told that it is simply a matter of increase of combustion; that the oxidation-processes of the body go on with undue vigour in fever; that the system is burning its candle at both ends, and that the two flames give more heat than one. When one looks at a patient who has passed through a febrile illness, one is ready to accept the explanation. He may have had no wasting discharge, hemorrhage, or other obvious drain; yet there he lies, bloodless and emaciated, to a degree which leads one readily to believe that on his bed of fever he has been consumed in all his tissues by an unseen fire.

But, for some years, my acceptance of this ready and most plausible way of accounting for the phenomenon has been hindered by an attentive consideration of an article on the Process of Fever, contributed by Dr. Burdon Sanderson to the Reports of the Medical Officer of the Privy Council, for the year 1875. The article contains an exhaustive notice of the best observations made, up to that time, with reference to heat-production in the body during pyrexia. Now, I am

giving an address, and not reading a paper; I am, therefore, speaking to suggest a subject and line of thought, and not, as you will see afterwards, to go on to set before you conclusions which I hold that I can prove. I refrain from recapitulating the complex and very refined data upon which Dr. Burdon Sanderson sums up impressively. Suffice it to say that, after careful analysis of these data, he writes thus: "The general conclusion to which the preceding calculation leads us is a very important one, namely, that, although as compared with the heat-production of an individual on fever-diet, the heat-production of a febrile person is excessive, it is not by any means greater than the heat-production of health." There is, in fever, it must be admitted, increased exhalation of carbonic acid, increased excretion of urea, but, after calculation, they do not represent a source of heat sufficient to cause the increased temperature of the body. I have read the article again and again, I have referred to various authorities on the subject, and I am compelled to say that the increased combustion explanation, which satisfied me before, has no longer the same value. To what, then, as I felt obliged to lose faith in my first belief, should I turn? Might, as some have argued, the increase of heat in the body be brought about by retention, by some state of the surface which would prevent the liberation of heat from the body and lead to accumulation within? The well conducted observations of Leyden and Liebermeister tend to show that, far from being retained, heat is discharged from the surface in larger quantities during fever than in health. And we all know that intense hyperpyrexia constantly co-exists with profuse sweating, involving the freest possible discharge of heat from the surface of the body, as in severe cases of acute rheumatism. If we are bound to deny the cogency of the two explanations, we are impelled to find a new one. And in illustration of another possibility to which I would draw your attention, let me use an illustration.

Let us suppose that we place over a flame a metal basin containing water, and let the water come to the boil. Let us place a thermometer in the water. So long as there is water left, the thermometer never rises above 212° Fahr., let the boiling be ever so fierce. The evaporation always compensates for the heat introduced. This is, in a way, a parallel to the marvellous heat-regulation of the body, which maintains it at a fixed temperature whatever be the heat or cold of the surrounding air. The heat introduced from the flame is used up in turning water into steam, and raising the steam. Let oil be poured on to the surface of the water, and hinder the extrication of vapour. Heat is then also retained and the temperature rises in the water, as it would in the system on the retention-hypothesis. On the other hand, let the water evaporate entirely. Then the metal basin becomes heated indefinitely, and the thermometer rises in proportion. The water had afforded to the heat the means of further usefulness in which it—to use an old term—became latent, or took another form of energy.

Now, what I am going to ask you to think about is this. Is it possible that the increased heat of fever may be brought about by the cessation of processes in which heat ought to be used up—either as motion, or chemical action, or other kind of energy; so that the process which may be represented by the boiling water ceasing to exist, like the water when boiled away, the heat generated for maintenance of the process overflows, and warms to excess the body, like the metal basin from which the water has evaporated? Is the increment of heat of body in fever due not only to combustion or other disintegrative process thereto allied, but also to the persistence, in the form of heat, of energy which should have taken another form? This appears to me in a high degree probable. Throughout the body, we recognise two processes ever going on: the building up of tissues on the one hand, their disintegration on the other. The disintegration of tissues is clearly attended by the liberation of heat. Their upbuilding presents itself to me as necessarily attended by the consumption or disappearance of heat, which assumes some other form of energy, kinetic or potential. There is here suggested to me the contrast between evaporation and condensation, between solution and crystallisation. You will ask me if I have any knowledge of experiments demonstrating the using up of heat in the tissue-formation of animal bodies. I have none. So far as I know, all the processes which have been examined have proved to be heat-evolving, even to the formation of peptones. Also, so far as I know, no processes of tissue-building have been investigated from this point of view, and it is difficult to see how, with our present means, any such process comes within the possibility of investigation. But if we have no direct evidence in this matter to help us, we may gain some help from a consideration of the chemical processes of fever. These comprehend, in the first place, an exaggeration of the combustions of health. But they also comprehend changes which exactly reverse those of health, and indicate strongly that there are, first, a cessation of changes which should occur in health; and,

secondly, a production of changes not occurring in health. The proportions of soda and potash which should be eliminated from the body in health are reversed in fever. The same holds of chlorides and phosphates. The potash and the phosphates are the associates of the highly organised principles; the chlorides and the soda of the introduced and further organisable principles. On the view that there is, in fever, arrest or default of the building up of the tissues, we can imagine the retained chlorides and soda waiting with the organic substances on promotion, like salmon at the foot of a fall, till at the end of fever they part with their associate organic matters, and pass them on to the elevating influence of the potash and phosphates. We can imagine the potash and phosphates during fever swept away as useless, because in the arrested ascending metabolism they have nothing wherewith to combine, and are, for the time, useless, fit only for the draught. It is, in fact, presented to me strongly that these chemical variations indicate the cessation, in various degrees, of that process of tissue-building which should, in health, use up heat, and which, ceasing in fever, leaves heat to run wild.

Thinking over such problems, and failing hitherto to find any possibility of experimental investigation of the using up of heat in ascending metabolisms of the body, I turned myself to the vegetable kingdom. In fruits we have, as it seems to me, two processes, of meaning exactly opposed one to the other: the building up of the fruit, wherein we have the formation of cellulose, starch, etc., and the ripening, wherein we have the breaking down and the production of sugar. I determined to investigate fruits of rapid growth, and test their temperature as compared with that of the surrounding air. Before doing this, I consulted botanical books, and questioned great living botanists. But information was not forthcoming from either source. The kindness of a friend who has large hothouses near London enabled me to make some experiments, which I venture to say have some importance in vegetable physiology, as well as in their relation to the question of pyrexia.

The cucumber was the fruit which I chose for my observations. It is a fruit which grows very rapidly, and a fruit in which the signs of ripening can be readily seen. It is grown in houses, at a fairly fixed temperature, and in an atmosphere of considerable moisture. Having chosen my growing cucumbers at a stage free from any fear of ripening, I had a glass bottle, with wide open mouth, filled with water, suspended by the side of each fruit, the bottle equalling the fruit as nearly as possible in size. After twenty-four hours or more, I commenced observation. I used a delicate pointed thermometer, lent to me by that skilful constructor, Mr. Hawksley. With this, I took, first, the temperature of the air of the hothouse around the fruit; next, the temperature of the water in the bottle; next, the temperature of the cucumber at different points of its length. This was done by plunging the sharp end of the bulb containing the mercury to a fixed depth, marked by a line on the bulb. I took the temperature of the cucumber at various points in its length for a definite reason. Cucumbers begin to grow at the base or stalk-end, and further growth is beyond this at the tip or flower-end. If any difference of temperature between the fruit and the air should be found, it might be argued to be due to evaporation if the difference were equal at all points; but, if the difference should vary at the several points tested, the influence of metabolism might be recognised.

On May 23rd, 1884, a very warm day, I examined a young growing cucumber thirteen inches long. The temperature of the house was 86.1° Fahr.; the temperature of the water in the bottle was 85.3° Fahr. The cucumber gave the following readings: at the stalk, 84°; two inches along, 85°; middle, 86°; two inches from tip, 84.6°; tip, 83.9°. The experiment was repeated with another cucumber on the same day, and with similar cucumbers on other days. All the observations were to the same effect. I note one or two other observations.

On June 7th, the weather being much cooler, and the air of the house being at 75.6°, the water in the bottle was at 76.9°. A ripe cucumber was found to be at 77.5° in the middle; a young cucumber, pendulous, 74.6° in the middle; a young cucumber, horizontal, 74.7° in the middle.

On June 14th, the weather being again warm, the water stood at 86° in a bottle on one side, at 86.3° in a bottle on the opposite side of the cucumbers to be examined. A cucumber, nearly ripe, gave 84° close to the stalk, 84.3° in the middle, 83.2° at the tip; a small, but evidently growing cucumber, 83.5° in the middle; a nearly ripe cucumber, cut the preceding day, and placed close to the others, 87° at all parts.

I trust that you will find in these observations, as they stand, something of interest. They show, at least, that the traditional coolness of the cucumber is not a mere creation of fancy; that the

growing fruit is actually cooler than the medium in which it is growing. So far as these observations are concerned, a new fact has been established; but the observations are not numerous, and the inferences are not sure. I hope to extend the observations; to introduce many controlling experiments; and so go on to safer inference. Nevertheless, arguing upon what we have before us, and upon parallel experiments made upon bananas, with which I will not now trouble you, we may acknowledge that the comparative coolness of the growing fruit may have been due to evaporation, and that the warmth of the separated fruit may have been due to the comparative cessation of evaporation. On the other hand, I may urge that the air of the hothouse was loaded with moisture, as is the case in properly managed houses of this kind; and that moisture was deposited in beads on the surface of the fruit. This, of course, is against the evaporation-explanation. And, so far, I should urge that the difference in the temperature of the fruit at various points in its length is against evaporation. Further, it is in favour of the hypothesis of metamorphosis in metabolism, in that the temperature was most reduced where, according to all appearance, tissue-formation should be most rapidly proceeding. If time serve me during the coming year, I hope to institute experiments which shall eliminate the evaporation-difficulty, and to investigate other fruits; but, so far as I have gone, I think that I am entitled to argue that there is indication that the metabolisms leading to formation of tissues from juices do actually use up heat.

Now, let us apply what has been said to help us in understanding the causation of pyrexia and hyperpyrexia. Dr. Broadbent has written thus. "If a theory of the febrile process is to be formed, it must be based upon a theory of the relation between the nervous system and the processes of nutrition and oxidation, and especially the latter." When I read this, I can read that my distinguished friend's thoughts go much with mine. I believe that, in the production of fever-heat, there is a first factor of increased oxidation, or combustion, or disintegration, setting free heat. I cannot, however, find this sufficient to account for all the increase of heat observed in pyrexia, and still more in hyperpyrexia. The further increment I believe to be furnished by heat going astray in default of correlative change in metabolism. And, like Dr. Broadbent, I am inclined to recognise in the nervous system the power, inciting, on the one hand, to disintegration, controlling, on the other, the nutritive functions. In the progress of febrile diseases, there is a manifest correspondence of deeper and deeper affections of the nervous system, with higher and higher degrees of temperature. As temperature rises, headache, excitement, insomnia are followed by delirium; on delirium follow various involuntary movements, and finally convulsions; to these succeeds coma. As death by coma approaches, the temperature rises rapidly, and, in many cases, is increased, or, for a time, maintained after death, when the oxidation-processes dependent on the circulation of blood must have ceased. The coincidence up to death may be argued to be due to effects of increased heat of the body upon the nervous tissues, but this argument is strongly met by the difficulty of explaining the rise of temperature without invoking the aid of the nervous system. What I would suggest is that in all fever, slight or intense, there is superadded to the combustions which we recognise an influence of the nervous system, a trophic influence, arresting processes in which heat should be transformed; and that the increasing temperature of fever is determined by increase of this inhibitory influence. When death occurs, inhibition, a partial condition, must be replaced by annihilation, a complete condition; and at that stage, while we cannot allot any part to disintegration, we can claim that complete cessation of constructive metabolism must set absolutely free all heat previously generated.

All that I have been urging is, you will say, only theoretical. It is a new contemplation of things daily under our eyes. The practical objects of this Society justify me in going on to indicate how in some degree these speculations may bear upon treatment. We have lying ready to our hands a great armoury of drugs useful, in various ways, in the fight with pyrexia. Of these I will not now speak, not from want of respect, for I am conscious of the great value of many of them; but I wish to speak particularly of the usefulness of another remedy, also always ready to hand—baths—in the control of high fever, as its causation is here presented to us. I have for many years studied the use of baths in the treatment of diseases of various kinds, and have had personal experience of them in most of the important wells of Germany and France. My belief is that baths—large applications of fluids of various temperatures to large surfaces of the skin—come in as moderators; that their main beneficial use consists in attracting, so to speak, the attention of the nervous system, and drawing it off from certain pernicious paths upon which it has em-

barked. Some years ago, I was much struck with some remarks made at a meeting of one of the learned societies by Dr. Thudichum, in which he threw doubt upon the idea that the reduction of temperature in fever by cold baths was a purely physical phenomenon, dependent simply upon abstraction of heat. I had been using graduated baths in hyperpyrexia, placing the patient in water at 95° Fahr., and cooling the water very evenly down to 70° or 75° during half an hour. The result had been, in some cases, an abatement of temperature as large as ten degrees; and with this had come sleep, replacing insomnia; calm, replacing delirium; easy breathing, replacing panting. The change in the nervous state from excitement to tranquillity had been as pronounced as the reduction of temperature. Soon afterwards, I made an experimental test of the power of such baths to reduce the temperature of a dead body to such an extent. I placed the body of a person dead the day before, after rigor mortis had ceased, in a bath heated to, and maintained at, 107° Fahr., until it was ascertained by the thermometer that it was heated through. Then I placed thermometers in the body, at various points and at various depths, taking care so to implant them that the water would have no access to their bulbs; and then I cooled the water to 95°; and, during a subsequent half-hour, cooled it gradually to 70°. The reduction of temperature in the superficial parts of the body was much less than that brought about by a bath, and the temperature in the deeper parts was scarcely affected. Even if the circulation had been going on; no lowering of temperature at all approaching a lowering of six degrees could, I think, have been produced. It must be acknowledged that the experiment was incomplete, in that I did not maintain a circulation of warmed water in the blood-vessels; but, so far as it gave results, they were adverse to the simple physical theory.

In dealing with this question of baths, we must remember the enormous influence exerted upon the central nervous system by slight impressions made over a large peripheral distribution of nerves. A scald sufficient to produce but a slight vesication, when it involves the whole surface of the body, will kill. And I believe that the application to the whole surface of the body of water at a different temperature from that of the body acts in fever by exerting a reflex inhibitory influence upon the nervous system, leading to a relaxation of its trophic constraint. Of course, few remedies are simple in their action, and I should be prepared to admit the assistant influence of the lower temperature of the bath from the physical side. Anyway, in the treatment of hyperpyrexia, I know of nothing so trustworthy as the bath—cool, cold, or graduated. For my own part, I prefer the latter, and have again and again seen it reduce temperature and save life, when quinine, salicin, salicylate, and other febrifuges had failed to arrest a steadily rising temperature already above 106° Fahr. And now my speculations are at an end. I have wished to say something that might give you food for thought, perhaps set some of you on the path of investigation, which I should myself like to follow more closely than circumstances are likely to permit. I cannot claim to have proven much, if indeed anything. I have not sought to do so. I have only sought, on a day when a new session opens, to suggest some new explanations of phenomena coming under our daily observation.

A NOTE ON TWENTY-SEVEN CASES OF PERINEORRAPHY.

By FANCOURT BARNES, M.D.,
Physician to the Chelsea Hospital for Women, etc.

In the Chelsea Hospital for Women, during the last twenty months, I have operated for ruptured perineum twenty-seven times. Of these cases, sixteen were treated by the old method of dissecting off a certain area of mucous membrane, and bringing the surface thus freshened into symmetrical apposition. In eight of the sixteen cases just mentioned, the sphincter ani had been torn through; in the remaining eight, the spineter ani was intact. The result of the operations in all these cases was successful. In all these cases, a suppository containing one-sixth of a grain of morphine was given at the conclusion of the operation, and it was necessary to continue the administration, in the form of suppositories or otherwise, during the days between the operation and the removal of the stitches. As a rule, no enema or purgative was given until the seventh day. The stitches were removed on the tenth day. In three (out of the eight) cases where there had been rupture through the sphincter, the tear had been sewn up immediately after the laceration by the medical man in attendance. The result of this manœuvre, however, was not successful; none of the patients, although apparently possessing fair perineæ, were able to retain their feces. The only result of the operation was

the manufacture of a bridge of tissue, masking a fistula, leading from the vagina into the rectum, with the sphincter united. This bridge of tissue (or, as I have sometimes called it, the pons asinorum) had of course to be divided before the ordinary dissection could be proceeded with. It is to my mind an argument, among others, against the practice recommended by some obstetricians of invariably "putting in a stitch," as they say, at the time of rupture. For years past, I have had the opportunity, in the British Lying-in Hospital, of observing that perineæ, whether ruptured through the sphincter or not, will always heal in varying degrees, it may be, from the bottom of the wound. In this way, I have often seen tears up to or through the sphincter, left to themselves, heal entirely, and this without the knees being tied together.

Last May, Mr. Lawson Tait was kind enough to show me his operation for restoring the perineum on two of my patients in the Chelsea Hospital for Women. In one case, the sphincter was torn through; in the other, it was not. Mr. Lawson Tait's operation consists in splitting the recto-vaginal septum with the scissors, and closing the wound thus made with silver sutures. Lawson Tait's operation has the following advantages over the old plan. The splitting of the vagino-rectal septum, and the introduction of the sutures, can easily be done in from five to eight minutes. The old plan, in the hands of most operators whom I have seen, occupies seldom less than twenty, sometimes fifty minutes. It is needless to point out that, in this one respect alone, the patient undergoes less danger. The stitches are inserted within the margins of the wound instead of through the skin, as in the old plan. There is no loss of tissue. If the operation fails, the patient is no worse off than she was before.

Since seeing Mr. Lawson Tait do these two operations, which were both successful, I have repaired the ruptured perineum by his method in eleven cases; two torn through the sphincter, nine not through the sphincter. All these cases have done perfectly well. In my opinion, Mr. Lawson Tait's operation is a great improvement upon the old plan. The patient, instead of being in pain until the stitches are removed, and requiring a continuous administration of sedatives, is free from pain. This is owing to the sutures being placed inside the wound, instead of through the skin. The new perineum is thicker and more solid than that obtained by the old method. Mr. Lawson Tait advises the daily use of enemata, and does not prohibit the patient living on her ordinary diet.

THE SYMMETRICAL DISTRIBUTION OF HERPES ZOSTER.

By ROBERT SAUNDY, M.D.,
Assistant-Physician to the General Hospital, Birmingham.

I HAVE been reading the paper on "Symmetrical Completion of Herpes Zoster," in the JOURNAL of August 8th, and would ask to be allowed a little space for comment upon the views expressed in it.

1. The case recorded is put forward as one of symmetrical completion of herpes zoster. The completion is not a fresh outbreak of herpes on the opposite side of the body, but, nine months later, certain ill-defined pains radiating from the nape of the neck, oppression over the eyes, and vertigo, in some respects resembling Menière's disease, with general constitutional disturbance.

This cannot be regarded as an indisputable instance of symmetrical completion; and, in the absence of any precise information as to the patient's previous history and present condition, especially without reports on the digestive system, urine, and ear at the time of the occurrence of these symptoms, it is not at all a satisfactory foundation upon which to build a superstructure of transcendental pathology.

2. The author quotes the ancient doctrine, that bilaterally complete zoster is fatal, and suggests that, if not fatal, it gives rise to constitutional symptoms, of which the present case is an example.

Without going further, I would say that, in my own experience, bilateral herpes has run a course in no way distinct from that of the one-sided affection; but the generally received explanation of the old aphorism is, that it sometimes depends upon serious organic disease.

Bilateral zoster is often said to be syphilitic; but this is not true of all cases, I am convinced.

So much for the alleged fact; but the author goes further, for, assuming such constitutional disturbance to occur, he seeks an explanation in the theory that, when half a nerve-centre is affected, the resulting phenomena are local only; but, when the whole centre is involved, constitutional symptoms are superadded, as a consequence of the "loss of a definite entity."

This theory involves two assumptions: (1) that destruction of a bilaterally associated nerve-centre gives rise to constitutional disturbance, and (2) that the lesion causing herpes zoster causes destruction of the nerve-centre. No proof is afforded of either; and, so far as I know, there are no facts in pathology to warrant them. On the contrary, apart from the pathological process involved in its general destruction, general constitutional symptoms do not follow from the suppression of the function of even large parts of the nervous system. It is, therefore, unreasonable to attribute so much to the "loss of a definite entity" of microscopic dimensions only. If there were actual destruction of the nerve-centre in zoster, we should expect some paralysis of motion or sensation; but the commonest permanent result is chronic painfulness, generally attributed to a lesion of the nerve-trunk, but for the recognition of which there must be a percipient centre.

3. Having assumed that he has met with a case of bilateral zoster giving rise to constitutional symptoms, having further assumed that such an association is usual, and stands in need of explanation, and having formulated the explanation already quoted, he announces the discovery of a "natural law governing the action of the nervous system in disease." This "law" is not formulated; but it appears to be, that neuroses do not attain their acme until both sides of the body are affected. Hemiplegia is said to afford illustrations of it; but the "law" needs to be formulated a little more precisely before any opinion of its value can be formed.

4. Finally, he suggests that this case affords an example of the similarity of plant and animal pathology.

He quotes a passage from Sir James Paget's address at Cambridge, which appears to be a sufficient answer to such a suggestion, as in it Sir James points out the fundamental distinction between the elementary pathological processes of animals and plants, caused by the influences of the nervous system. Plants have no differentiated nervous system; and, therefore, they are the last place in which to seek analogies with neuro-pathology.

He thinks that the death of a branch from frost is analogous to this attack of herpes affecting a definite nerve-area after a chill; but the comparison is strained. In the first case, we have to do with the direct effect of cold, as in gangrene after frost-bite; in the second, with the indirect and obscure action of a chill of the surface, determining changes in subjacent structures.

We want thoughtful men to help to organise facts; and I am, I trust, always grateful for well considered speculations, adapted to the outline of our present knowledge. It is from no disapproval of speculation generally, but from doubt of the method adopted in the present instance, that I have ventured to point out what appear to me to be objections to it.

CIRRHOTIC ENLARGEMENT OF THE LIVER IN A FEMALE.

By JAMES OLIVER, M.B. Edin., M.R.C.P. Lond.,
Assistant-Physician to the Hospital for Women, Soho Square.

AN interstitial hepatitis resulting in cirrhotic enlargement of the liver is, by some authorities, denied; whilst others, admitting its existence, express the opinion that the affection is one totally distinct from that of cirrhotic contraction. The active congestion, going on to actual inflammation, and produced by the more or less constant irritation of the organ by the imbibition of alcohol, results in an exudation and proliferation of cells which, in the early stage, are seen to be oval, fusiform, and round in shape. Later on, these so called embryonic cells undergo gradual change, and develop fibrous tissue, which will be found along the course of the blood-vessels, and penetrating between the lobules.

In this stage, the liver is usually enlarged. The newly formed fibrous tissue, however, tends to retract, and cause wasting of the lobules, thereby developing a cirrhotic contraction, and producing the well known hob-nail liver.

The symptoms associated with cirrhotic enlargement, it is to be remembered, are not solely dependent upon the structural changes occurring in the liver, but are rather the result of the cause of the irritation in this all important organ. The alcohol, prior to its passing to the liver through the medium of the portal circulation, exerts its deleterious influence on the mucous membrane and other structures of the gastro-intestinal tract, creating a chronic hyperæmia, which

eventually results in impairment of function, not only of the secreting, but of the absorbing, tissues of the canal. Hence the reason that, even in the early stage, we may have loss of flesh, a marked symptom of the disease.

It is possible—nay, likely—that interstitial hepatitis may result from causes other than alcohol; regarding these, however, little or nothing is known.

CASE.—E. H., aged 28, married ten years, no children, and no miscarriages, four months ago began to notice a slight increase in the size of the stomach, and ever since then there had been complete amenorrhœa. The catamenia appeared at the age of 11, and, hitherto, she had been always perfectly regular, the hæmorrhagic discharge recurring every twenty-eight days, and continuing three or four. For the last three months, she had suffered from sickness, vomiting food at all times soon after its ingestion. The patient had a feeling of intense lassitude, and was constantly more or less drowsy. Two years ago, the appetite began to fail; and, during the last twelve months, she had lost flesh. At times she had suffered pain in the region of the liver, and under both shoulder-blades. During the last two months, headache had been a troublesome symptom, and there had been occasional attacks of profuse epistaxis. Lately there had been diarrhœa, not specially in the morning. Her habits had been intemperate; she had taken two pints of beer daily, besides some spirits. The liver was uniformly enlarged, measuring nine inches and a half in the nipple-line, and five below the ribs; the lower margin, hard and regular, was felt below the umbilicus. The slightest pressure anywhere in the region of the epigastrium caused a feeling of sickness. The urine was thick, and of a deep colour; it contained lithates, bile-pigment, and a small quantity of albumen. For two months, the patient had to get up at least once every night to pass urine. There was slight œdema of the ankles; no ascites.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE MECHANISM AND MANAGEMENT OF THE THIRD STAGE OF LABOUR.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By D. BERRY HART, M.D., F.R.C.P.E.,

Lecturer on Midwifery and Diseases of Women in the School of Medicine, Edinburgh.

It may seem, on first sight, that the subject chosen for discussion is too elementary and well threshed out to claim much of the attention of our present meeting; but, although no process has been so much and so often studied practically by the vast majority of our profession, it is yet true that we know only too little of its real mechanism, and are in great variance in regard to its treatment; and this in spite of the fact that the expulsion of the placental membranes entire and without any internal manipulation, in a natural labour, is of the highest importance in relation to after-septic processes, whether the graver septicæmia of puerperal fever, or the less severe and yet troublesome attacks which often leave chronic endometritis, cellulitis, and peritonitis as their sequelæ.

Apart from all this, however, the present time seems to me opportune for considering the subject in our country. The attention now paid to abdominal palpation before and during labour, the increase in our knowledge of the exact relations of the membranes in the third stage—due mainly to the splendid work of my friend Dr. Freeland Barbour, and the application to obstetrics of the principles of antiseptics imperishably connected with the name of Lister—enable us to consider the whole matter from new and commanding stand-points.

In the following remarks, I purpose briefly to relate the facts known to us in relation to the natural and morbid mechanism of the third stage, pointing out what has yet to be discovered in order to make our knowledge complete. The management which seems to me to favour the natural process, or to be necessary when the natural becomes morbid, will also be briefly considered.

I.—THE NATURAL MECHANISM OF THE THIRD STAGE OF LABOUR.

The mucous membrane of the unimpregnated uterus forms a layer one-twenty-fifth of an inch thick, and consists of a connective tissue basis resting on the uterine musculature, and having its free surface covered with ciliated epithelium. Keeping only to practical points, we may say that the important features of the uterine mucous membrane are its lymphatics and its glands.

The lymphatics have their origin between the bundles of connective tissue, and are of the greatest importance in relation to the absorption of septic mischief.

The glands pass in all directions through the mucous membrane, but run mainly towards its junction with the uterine muscle; and, as they are lined with the same columnar epithelium as the free surface, it is evident that the thickness of the uterine mucous membrane is honeycombed with this epithelium down to its base.

As the result of conception, we find that, at the second month of pregnancy, a remarkable change has taken place. The mucous membrane has, by a metamorphosis of its connective tissue and glands, become what is termed the decidua. That portion of it which (with a limited number of the chorionic villi) forms the placenta, is termed the decidua serotina; that part which has grown round the ovum is known as the decidua reflexa; the remainder is the decidua vera. Microscopically, we find the uterine glands markedly enlarged, and persisting in the decidua vera and serotina. (Figs. 3, 4, and 5.)

Passing on to consider the full-time uterus, we find it lined by what are termed the placenta and membranes, and containing the foetus and liquor amnii. The remarkable changes that have brought about this cannot be detailed here, but we may briefly sum them up as follows. The permanent chorion has, by the immense proliferation of certain of its villi, and by the great dilatation of the capillaries and increase of the tissue of the decidua serotina, formed the placenta; round the rest of the chorion, the decidua reflexa has blended with the vera; while, inside of the chorion, the amniotic folds have enclosed the foetus. (Fig. 7.)

Thus, the placenta is formed by the amnion on its uterine surface, with the chorion beneath that. Its main mass is made up, however, of three elements; namely, (a) the chorionic villi in large amount, and forming the greatest portion of its thickness, floating in (b) the placental sinuses, which are the immensely dilated capillaries of the serotina; and (c) the decidua serotina next to the uterine wall, with spaces which are lined by columnar epithelium and are the fundi of the uterine glands already mentioned as persisting in the second month of pregnancy. (Fig. 7.)

The membranes from within outwards are amnion, chorion, decidua reflexa, decidua vera. (Fig. 6.)

The amnion is loosely connected with the subjacent chorion—a provision of interest, as we shall shortly see. The membranes are now thinned to about one-fifth of their former thickness; and in the deep layer of the decidua vera we have glandular spaces near the musculature—the fundi of the uterine glands, of which the upper portions have disappeared. Thus, in the deep part of the membranes and placenta, close to the musculature, we have a spongy or trabecular layer; the spaces being the remains of the uterine glands, and the partitions between them representing the connective tissue of the unimpregnated mucous membrane.

An entire section of uterine wall and membranes would thus show four main structures; namely, (1) uterine muscle, united by (2) a trellis-work arrangement to (3) the part of the membranes made up of the compact layer of the decidua vera, decidua reflexa, and chorion, and (4) the amnion, loosely attached to the chorion. (Figs. 6 and 8.)

At the placental site, we have, similarly, (1) uterine muscle, united by (2) a trellis-work arrangement in the deep portions of the decidua serotina to (3) the main mass of the placenta. (Fig. 7.) The uterine wall is half an inch thick, and the membranes and placenta line it smoothly and without wrinkle.

At the beginning of the third stage of labour we have the uterus, containing placenta and membranes, occupying the true pelvis and lower part of the abdomen. Clinically, we find that it is rounded, and of such a size to be readily grasped by the abdominal hand. Within the twenty or thirty minutes following, a series of contractions will expel the placenta; and the uterus will now be noted as flattened antero-posteriorly, and of such a size that it is not so readily grasped as before. This change of shape and size in the uterus is characteristic, and shows at once that the placenta has left the uterine cavity. Within the few hours following, the uterus increases in size, so that it lies with its fundus at the level of the umbilicus.

The determination of these three sizes and shapes (especially the

first and second) in the third-stage uterus, and of their significance, seems to me of the greatest practical value.

While these are the rough clinical facts, I must now consider in more detail the anatomical conditions of the uterus, membranes, and placenta, during the third stage, as well as the method by which the placenta and membranes are expelled. As the result of the remarkable power the uterus has of retracting itself (that is, of contracting or thickening, and retaining that condition), we find, in the third stage of labour, the uterine walls thickened to nearly double the thickness they had at the end of pregnancy, and the uterine cavity (so-called) greatly diminished in capacity. As after-sections of it show, there is no real space in the third-stage uterus, either with or without the placenta. After the placenta has been expelled, the walls of the uterus—anterior and posterior—are in apposition; and, before the expulsion, placenta and membranes are accurately grasped by it.

But lining the uterine musculature, we have the membranes and placenta, the former structures being unable to diminish their area, and yet keep a flattened un wrinkled surface, as the uterine muscle does. Owing to the partition-layer in the deep portion of the membrane and placenta, there is a wrinkling of the membranes, so that they are thrown into innumerable little waves, and at the same time a progressive thickening of the placenta. (Fig. 9.)

In a five-months' parturient uterus (second stage of labour), which I owe to the great kindness of Professor Turner, the wrinkled and wavy condition of the membranes is well seen. (Fig. 1.) In the full-time uterus, containing the placenta and membranes after the expulsion of the child, this condition has been studied and figured by Dr. Freeland Barbour, in a contribution to our knowledge of this part of the subject which I cannot praise too highly. From a study of his work, and also from a verification of it by the examination Dr. Barbour kindly allowed me to make of a specimen, the condition of the membranes, prior to their expulsion, is probably as follows. The amnion has become more or less separated from the subjacent chorion. The loose union of the two, and the fact of the amniotic cavity being, as it were, forced down during the first stage, seem to me to explain this. The chorion and compact layer of the decidua are thrown into wavy folds, into the apices of which the trabeculae of the spongy layer of the decidua vera run. (Fig. 9.) These special trabeculae are thus subjected to strain, and ultimately snap.

We have, then, this important fact, that, by repeated uterine contractions occurring during the third stage of labour, the membranes are thrown into folds, the trabeculae of the spongy portion of the decidua passing up to the apices of the folds stretched, and snapped; and, in this way, they are, by uterine contractions, separated from the uterine wall at the level of their spongy layer. This means, of course, that the uterine glands and the connective tissue are now exposed, and their epithelium and connective tissue liberated, as it were, to regenerate the new mucous membrane formed during the puerperium and subsequent days.

As regards the expulsion of the placenta, I believe that by uterine retraction and compression it is detrued or expelled; the line of its separation, like that of the membranes, lying in the spongy layer of the decidua serotina. During this detrusion, it carries the membranes with it, breaking through any of the partitions in the spongy layer of the membranes which uterine contraction has failed to snap.

There has now to be discussed the important question, how the placenta comports itself during detrusion. Time does not permit my considering this fully; but I may briefly say that little has been done to shake the conclusions long ago arrived at by Dr. Matthews Duncan, in his well known and classical paper. I believe that the normal and best mechanism, unless in fundal insertions, is that the placenta is expelled edgewise. In fundal insertions it is expelled with the fetal surface outwards, and with clots in the sac of the membranes. This expulsion is helped by late ligature of the cord, as the placenta, by the aspiration of the blood from the fetal portion, is moulded more easily.

It is evident, however, that Duncan's mechanism may be easily disturbed by adhesion of part of the membranes and the fetal surface made to present. The fact, however, that the third-stage uterus has anterior and posterior walls, and effects the expulsion of the placenta and membranes by retraction and compression, makes it evident that what Duncan has described is the typical and most favourable mechanism.

I may now sum up the matter as follows.—a. The uterine glands in the unimpregnated uterus are pits of epithelium, sunk in the mucous membrane to give us the spongy layer in the decidua and placenta—a line of fracture, as it were—and a residue of epithelium for *post partum* regeneration of the mucous membrane. b. The separation of the membranes is effected by uterine retraction. c. The separation

of the placenta is the result of uterine retraction and detrusion, and not of shrinking of the placental area and formation of a retroplacental clot. *d.* The placenta and membranes are not separated and expelled until twenty or thirty minutes after the birth of the child; in primiparæ, longer time is taken than in multiparæ.

These statements are based on the clinical results of the abdominal palpation of the uterus during the third stage; on the results of those who have examined uteri after Porro's operation; as well as on a study of the way in which the uterus and cervical canal act during labour.

As is well known, Porro's operation consists essentially of abdominal section, section of the uterine wall in the direction of its long axis, extraction of the child, application of a clamp at the level of the isthmus, removal of uterus and placenta by a transverse cut above the clamp, and treatment of the pedicle extraperitoneally. It is such uteri that Ahlfeld and Barbour have examined; and the question arises, how far we can trust the results obtained from these? The results bear on the separation of the membranes and of the placenta, and especially on the alleged separation of the latter by a retroplacental blood-clot.

The mechanism of the separation of the membranes, as already given by Barbour, is borne out, I think, by the condition of the deep layer of the decidua vera before parturition, the method of uterine contraction, and the fact that I found the same wrinkling of the membranes (though, as one would have expected, less marked) in a six-months' uterus, where the foetus was still in the vagina at the *post mortem* examination.

As to the separation of the placenta, Barbour's preparations show that shrinking of the placental area does not separate the placenta, and cause a retroplacental blood-clot; and the preparation I examined, although the foetus was not completely born, bears this out. Singer's recent criticisms on this point seem to me quite inconclusive.

II.—DISTURBANCE OF THE NATURAL MECHANISM OF THE THIRD STAGE OF LABOUR.

I now wish to direct attention to some forms of disturbance of this mechanism, to which sufficient consideration has not been paid. These are: (*a*) Detention of the placenta in the cervical canal, and elongation of the cervix; (*b*) Partial adhesion of the placenta at its lower margin, separation of the upper portion, and retention of blood-clots; (*c*) Adhesions of membranes.

A. Detention of the Placenta in the Cervical Canal, and Elongation of the Cervix.—In this case, it will be found that the uterus lessens in bulk, but that the placenta is not expelled. On palpation, a bulging (which may be very well marked) will be felt above the pubis; and the uterus, empty and flattened, can be easily made out, capping the suprapubic tumour. Of this I have seen one undoubted instance, and Schroeder has also drawn attention to it.

B. Partial Adhesion of the Placenta at its Lower Margin, Separation of the Upper Portion, and Retention of Blood-clots.—This condition I believe to be more common than is believed, and to constitute a dangerous class of morbid cases. The clinical symptoms I have found are that there is usually very little escape of blood, but a distinct increase in the size of the uterus after some little diminution in bulk. If the case be left alone, the membranes become distended with blood-clot, are forced into the vagina, and cause straining on the part of the patient. The membranes may then rupture, and blood-clots escape. Examination then reveals the condition of partial adhesion already described.

C. Adhesion of Membranes.—This has clinical symptoms much as those described above, except that the diminution in the bulk of the uterus, prior to its increase, is more marked.

III.—TREATMENT.

I have now to take up the important matter of treatment. In considering this, I limit myself, as every medical man must do, to the question of what treatment a study of the natural process allows. Some vaunted methods of treatment merely prove how much the organism can bear with impunity.

As already stated, I believe that the great facts in the natural history of the expulsion of the placenta and membranes are that they are not separated for some time after the birth of the child, that they are then expelled by uterine contraction and retraction, that the placenta is expelled from the uterus usually edgewise, and that no access of air occurs into the genital tract.

In the management of a normal third stage, the patient should therefore occupy the dorsal posture, and the accoucheur should grasp the uterus with his left hand to ascertain its tone. When this is good, he retains his grasp merely to note if the uterus relaxes. When

good pains come on, I do not consider it necessary that these should be helped by the practice of expression, or what is known as Credé's method. In a normal case, the risk is that the placenta, bulky as compared with the membranes, may be squeezed out too soon, and parts of the membranes left behind.

When, however, the placenta remains in the uterus half an hour after the delivery of the child, expression should be tried, but only with the left hand. After some practice, one can tell whether the placenta can be expressed, or whether adhesions are present. In the former case, the accoucheur feels the uterus diminishing in bulk as the placenta is expressed; whereas, in the latter case, no impression is made on it by moderate pressure.

When the placenta is in the vagina (a condition recognised by the altered shape of the uterus), but does not soon appear at the vaginal orifice, slight downward pressure in the axis of the brim will help its expulsion. If more than slight pressure is needed, the question must then arise whether the retention is not due to non-separation of part of the membranes. The cleansed fingers may be passed into the vagina, the presenting part of the placenta laid hold of, and gentle traction in the proper axis will effect delivery.

When the placenta is detained in the vagina, it is sometimes convenient to place the patient in the semi-dorsal posture, to draw down and back the posterior vaginal wall with the cleansed fingers, so as to straighten it; and then, by slight downward pressure, with the external hand in the axis of the brim, to effect delivery.

In those cases where uterine action is feeble, expression is of the very greatest value. It then imitates the natural process, and places such a case on a level with the normal. The uterus should be grasped with the left hand as fully as possible, the thumb being in front and the fingers behind. It is then squeezed firmly in the direction of the line joining the finger and thumb, without any downward pressure.

In partial adhesions of the placenta, or in adhesion of the membranes, the practice of expression is in the highest degree dangerous. The non-adherent portion is separated and forced down and out, while bits of the placenta or membranes are left behind exposing the patient to septicæmic risks.

When morbid adhesions exist, the accoucheur must separate them manually, using all antiseptic precautions. The hands must be thoroughly cleansed with corrosive sublimate solution (1-2000), and a vulvar and vaginal douche of 1-4000 given. After the separation, the douche of 1-4000 must be repeated, the amount of introduction of the tube depending on the extent of the internal manipulation. In this, as well as in a natural case, it is well to have the diapers used in the puerperium dipped in corrosive sublimate (1-2000), and dried, or the discharge received into sublimated wood-wool wadding.

IV.—POINTS YET TO BE SETTLED.

And now I have only to say that much requires to be done before we can rest content in this matter. The diagnosis by palpation must be improved. We must know more accurately the average time required for the separation and expulsion of the placenta from the uterus. As yet, statistics have not sufficiently distinguished between the expulsion of the placenta from the uterus and separation from the mother. We have also yet to learn the causation and pathology of morbid adhesions, to perfect our knowledge of the clinical symptoms and physical signs of abnormalities, and in this way to fit ourselves for their proper treatment.

In this slight sketch, no notice has been taken of traction on the cord as a means of delivery of the placenta. Theoretically, I should condemn it; but the want of practical knowledge of its use precludes further consideration of it from me.

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DESCRIPTION OF PLATES.

- Fig. 1.—Section of five months' parturient uterus (second stage of labour), with placenta still attached. Note the elongated cervical canal, the os internum corresponding to that in Braune's section, and the wrinkling of the decidua.
- Fig. 2.—Lateral sagittal section, of a two months' pregnant uterus. The fetus is removed, and the decidua reflexa (a) only partly shown.
- Fig. 3.—Uterine wall and decidua reflexa attached; from a two months' pregnancy. Note the divisions into compact and spongy layer.
- Fig. 4.—Decidua serotina, with reflexa springing from it. Note crypts on surface for chorionic villi.
- Fig. 5.—Decidua serotina, showing glands (a) lined by columnar epithelium, persisting at second month.
- Fig. 6.—Diagram of membranes at full time (Leopold).
- Fig. 7.—Diagram of placenta at fifth month (Leopold).
- Fig. 8.—Spongy layer of decidua vera at full time.
- Fig. 9.—Section of membranes and uterus during third stage of labour.
- Figs. 1, 2, 3, and 4 were photographed, traced, and drawn from specimen.
- Figs. 5, 8, and 9 are drawn from microphotographs taken with electric light (50 candle-power).

ON CYCLIC ALBUMINURIA (ALBUMINURIA IN THE APPARENTLY HEALTHY).

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

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ATTENTION has been recently given to a form of albuminuria which has been spoken of as "albuminuria in the apparently healthy," "physiological albuminuria," "intermittent albuminuria," and by my colleague, Dr. Moxon, in the *Guy's Hospital Reports*, vol. xiii, third series, "Albuminuria of Adolescents." It is important that the albuminuria in question should be distinguished from the ordinary form of albuminuria, as the gravity of the two is diametrically opposed. Several cases have, during the last six years, fallen under my notice, and I have observed in them a character which has served as a ground of distinction, and enabled me to express an opinion at the commencement which has been verified by the advance of time. The character to which I refer is the diurnal alteration that takes place in the condition of the urine. Examined at one period of the twenty-four hours, the urine is found to contain, it may be, a large amount of albumen, whilst, at other periods, there is none, and what is observed one day is repeated with more or less closeness the next. These cases thus have a cyclic character belonging to them, hence my adoption of the term "cyclic albuminuria" as the heading of this communication. It appears to me an appropriate one to employ for the purpose of classification. The description to be given of what is noticeable is as follows. In the early morning, the urine is free from albumen; albumen then shows itself, it may be at 9, 10, or 11 A.M., or not till the early part of the afternoon. After reaching its maximum it declines, and often by the evening has disappeared. It is rare to find that it has not disappeared by bedtime. The period of diurnal appearance is, without too closely limiting it, pretty uniform for each case; some days the amount may be observed to fall, and then rise again; also there may be considerable variation in the amount of albumen observed upon different days. The condition noticed may go on, not only for weeks and months, but even for years. It is not accompanied by any impairment of health, and there are none of the ordinary constitutional indications of the existence of Bright's disease present. In some cases, I have noticed that there has been a sharp and unduly forcible cardiac impulse, but the pulse has been soft, and not hard and sustained as in Bright's disease. Such being the history belonging to the albuminuria in question, there is nothing to lead in a direct manner to its recognition, and it is generally in an incidental way that it becomes brought into view. The urine, in other respects, presents ordinary characters. No casts of tubules are to be observed, but frequently crystals of oxalate of lime are present.

The age in the cases that have fallen under my notice has varied from 9 to 49. Altogether, I have seen three cases in children, namely, at 9, 11, and 13. Two were boys, the other a girl.

It is not surprising that the condition should excite grave looks and the shrugging of shoulders on the part of members of the profession, which give alarm to the patient; but there is nothing to show, from the experience that has yet been gained, that it is to be regarded as an early stage of Bright's disease, or that it leads on to anything serious.

The kind of albumen present in several of the cases has not been

simply seralbumen, but a mixture of caseiform or alkali-albumen with seralbumen.

I do not propose, at the present moment, to offer any theory in explanation of these cases. Analogous phenomena are, however, noticeable in the case of persons subject to the phosphatic diathesis. Here the urine voided may be perfectly bright and clear in the early morning, whilst, for a few hours after breakfast, it is turbid from the deposition of phosphates, and becomes clear again in the afternoon, and remains so till the following day after breakfast, when the same cyclic course of events is repeated. Again, without our being able to account for it by the operation of external influences, a diurnal variation occurs in a regular manner in the temperature of the body. An illustration is here afforded of a physiological cyclic change; and other illustrations showing the tendency in this direction might be adduced.

I will now supply the details of a few cases selected from those which have fallen under my notice.

In the spring of 1881, Mr. O. T., a tall, well built, well nourished, healthy-looking youngman, twenty-one years of age, discovered the existence of albumen in his urine. He was engaged in practical chemical work, and was led to examine his own urine when suffering from a temporary attack of lumbar pain. To his dismay he found albumen present, and for some time was in a state of mental distress about it. When the case fell under my observation, I desired that specimens of urine passed at different periods of the twenty-four hours should be brought to me for examination, and recognised the case to be one of the class I am describing. Frequent examinations of the urine were made, and, at one time, this was done for three weeks on every consecutive day. What was observed was this. The urine passed on rising in the morning was never found to contain albumen. Sometimes as early as 10 or 11 A.M., but at other times not till about 2 P.M., albumen began to be perceptible.

On first being found the quantity was slight, but went on increasing till usually about 6 P.M., when the maximum point was reached. It afterwards declined, and usually, on going to bed, the urine was free from albumen, or, if it contained any, it was only a trace. Breakfast was taken at 8 A.M., lunch at 2 P.M., and dinner at 6 P.M. Beyond the presence of albumen, the urine presented normal characters, except that it threw down oxalate of lime crystals. Casts of tubules were never found. There was no constitutional evidence of Bright's disease; the pulse was soft; there was undue cardiac impulse, but it was sharp, and not heaving.

Such was the condition existing in 1881, and, being desirous of knowing whether it had disappeared or not, I wrote in March of the present year, and requested that I might be afforded the opportunity of again examining the urine. I received in reply as follows:—"In answer to your request of yesterday, I shall be very pleased to do anything I can to be of service to you. For a short time I tested my urine frequently, with the same results. I then gave it up, as I found it only led to my getting mentally uneasy, so that, for the last three years, I have never tested for albumen. I will try to come to see you soon, as you request. We are so busy just at present, that I am afraid I cannot well get away during business-hours. However, I will try one day next week, and, in the meantime, will make a few more tests of the urine passed at different periods, and let you know the results when I see you."

On the following week I received a visit from Mr. O. T. He brought with him specimens of urine, and told me he had found that the old condition still existed in the same form as before; the urine being free from albumen in the morning till about noon, the maximum amount being present between 4 and 6 P.M., and the urine being free again at bedtime, or, if not absolutely free, only containing a trace. I examined the specimens brought, and the results obtained confirmed this statement, but the afternoon urine contained less albumen than I had noticed previously. This might have been incidental. The bodily health was good in every way. There had been no illness during the four years that had elapsed, and no deviation from the state before observed was perceptible.

I have again procured specimens just previously to the Association meeting, so as to bring the report of the case up to the present time. The urine passed at 8 A.M., July 20th, was free from albumen. That passed at noon contained a trace; that passed at 5 P.M. a considerable amount, and that on going to bed a trace. The same kind of condition that was before noted, therefore, still exists.

In July, 1883, Mr. T. W. R., aged 18, was brought to me by his father, with the history that he had recently successfully gone through the examination for a civil service appointment in one of the British possessions, and, on afterwards presenting himself for medical examination, was not passed, on account of the presence of albumen in his

urine. He had been at Cheltenham College, and had been reckoned as one of the healthiest there, engaging freely in the different sports pursued by the students, without the thought having occurred to himself or others that anything wrong existed with him. The urine passed at the time of consultation, about the middle of the morning, contained a slight amount of albumen. I desired that specimens passed at different periods should be sent for examination, and it was found that the early morning urine was free from albumen, whilst albumen was present in notable amount at 1 P.M., and absent again at bedtime.

Examinations were made July 19th and 30th, and August 4th, 8th, and 30th; they all agreed in showing the early morning urine to be free from albumen. The amount varied in the early afternoon urine, and by the end of the evening the urine had become free from albumen, or only contained just a perceptible trace. Microscopic examination revealed the presence of oxalate of lime crystals, and no casts. The result of this examination was communicated to the authorities in Whitehall, and I was asked to meet the medical advisers (two of the most distinguished persons in the profession) of the Board at a time appointed for the candidate to attend. This, as at the previous medical examination, was, unfortunately for the candidate, in the afternoon, and, as was to be anticipated, the urine voided at this time for examination contained albumen. Had it happened that the medical examination, in the first instance, had been conducted during the early part of the morning, the candidate would have undoubtedly been passed without any question being raised, for there was nothing beyond the condition of the urine that had been described against him. I expressed and recorded in writing my conviction, from what I had seen in other cases, that the candidate's condition was not to be looked upon in the light of ordinary albuminuria, and that it would not interfere with his continuing in the possession of health and ordinary working power. He was not, however, accepted. He had one more chance left him, which was to go in for the examination again in the following year, which his age just permitted. This he did, and came out in a higher position amongst his competitors than at the previous one. When he afterwards attended to be medically examined, his urine was free from albumen, and he was passed. In the previous March, it had been examined, and was also found free. I have just (July 1st, 1885) obtained an opportunity of seeing the person, and examining the urine. Four specimens were brought, derived from what was passed at 7.30 A.M., 1.30 P.M., 5 P.M., and 12.30 P.M. Under ordinary testing they would all be pronounced to be free from albumen, but, with scrupulous attention, the 1.30 P.M. and 5 P.M. specimens showed just a discoverable impairment of brightness, and the 5 P.M. specimen more so than the other. There had been an uninterrupted enjoyment of good health, and the bodily condition was in every respect satisfactory.

T. F. H., aged 49, consulted me in February, 1882, with the history that he was the subject of albuminuria, and that it had been noticed that albumen was present at one time, and not at another. Although his bodily health had not suffered, he had been advised to give up hunting and shooting, and otherwise adopt an invalid mode of life. He had been in the habit of examining his urine himself, with heat and nitric acid, and came with the statement that albumen was to be found between breakfast and lunch, but not in the early morning or at bedtime, or, if at bedtime, only to the extent of a trace. Finding, by my own examinations, that this statement was correct, I gave a different prognosis from that which had been given to him before, and recommended him to lead a prudent but ordinary mode of life, both as regards exercise and diet. I have watched the progress of this case, and examined the urine from time to time. I notice, in my case-book, that, in June, 1883, all the five specimens brought were free from albumen. The last visit to me was in May of the present year, and again I see the report that no albumen was to be found. The general health was good.

In November, 1881, W. H., aged 19, was brought to me by his local medical attendant on account of the presence of albumen in his urine. He had already been taken to a physician, and the father had been alarmed by being told, in answer to an inquiry about the future employment of his son, that he had no future of any duration to look forward to. Investigation showed that, in the early part of the morning, the urine was non-albuminous. Soon after breakfast, albumen began to be perceptible, and, a little later on, was more abundant. Usually at bedtime, the urine was free from albumen, but sometimes a trace was found. In March, 1882, the condition of the urine was the same. There was no sign of any impairment of health. In December, 1883, I was afforded an opportunity of examining the urine again, and there was then an absence of albumen.

C. M., aged 19, appeared in good health, but albumen had been

discovered in his urine when being examined for life-assurance. I saw him in consultation in March, 1883, and it had been previously noticed by the medical practitioner that the albumen was not always present. The early morning specimen was free, whilst, after breakfast, albumen was found.

Last week, a gentleman, aged 28, came to me with a letter from a medical practitioner. The letter is dated Liverpool, July 20th, 1885. It runs as follows. "About a week ago, I found albumen in the urine of the bearer. The specimen I examined was passed in the evening, he having had a meat-tea, and played a few games of lawn-tennis. The albumen produced a decided milkiness with picric acid and heat, also with nitric acid, and left a deposit after twelve hours' standing equal to about one-tenth of the urine. The urine was acid; specific gravity 1025; no sugar; no casts, but a very abundant deposit of octohedral crystals of oxalate of lime. The urine passed the following morning fasting had the merest trace of albumen. In the evening, a few days later, the albumen had returned. I had not examined it in the interim. The following morning fasting no albumen, but after breakfast, consisting of sole and an egg, the albumen had returned in somewhat larger proportion. So much for the present condition. About four years ago, his life was refused by an assurance-society. I examined his urine at that time, and found some sugar in it—a very little, but he has heard that the assurance medical examiner found albumen. He was treated by my late partner some months, and you then saw him, and saw nothing wrong with his urine."

Reference to my case-book shows that this person came to me in 1881, with the history that sugar had been found in his urine. At the time of his visit, his urine was free from sugar. I put him upon a test-diet for a few days, that is, desired him to partake freely of starchy and saccharine matters; and, still finding his urine free from sugar, I told him that he might consider that he was not the subject of diabetes. He has now come to me as the subject of albuminuria, and my own observation shows, as had been noticed by the medical practitioner who sent him to me, that it is only during a part of the twenty-four hours that his urine contains albumen. The urine passed on rising in the morning of July 24th was of specific gravity 1030, with no albumen, and 6.804 per 1,000 of acidity. At 11 A.M., the condition was specific gravity 1024, considerable amount of albumen, and acidity 1.701 per 1,000. At 5 P.M., specific gravity 1031, less albumen, and acidity 6.048 per 1,000. At bedtime, specific gravity 1023, faint trace of albumen, and acidity 2.520 per 1,000.

July 25th. On rising, there was again an absence of albumen, the specific gravity was 1030, and the acidity 6.930 per 1,000. Microscopically, the only abnormal condition discoverable in the several specimens was the presence of crystals of oxalate of lime. Such is the information as yet obtained, and upon it I judge the case to fall in the category of those I have been describing. Much to the relief of the patient, I expressed this opinion to him. He is of a highly excitable temperament, and was in an exceedingly anxious state about himself. It is curious that he should have come to me first with reference to sugar, and now with reference to albumen; and I hope it will turn out that the encouraging terms in which I spoke to him with regard to the latter will prove as well founded as they did with regard to the former.

A case fell under my notice a few months ago, in which a first impression, based upon a statement of the patient that he was suffering from albuminuria, and that it had been observed that his urine was free from albumen in the early part of the morning, was found, on full investigation, to be erroneous. It was a case of a gentleman, aged 48, with a gouty family history, and a presumption that he himself owed his troubles to gout. Albumen had been discovered in his urine in 1879, when seeking advice from a physician regarding the most suitable continental watering-place to visit. Ever since this time, albumen has been known to exist, and, as I have mentioned, the patient came to me with the statement that, in the early morning, the urine was free from albumen. He was the subject of alarming attacks of what he called faintness, of so severe a character as to lead him to think that he was in imminent danger of death from stoppage of the heart. Upon one occasion, when driving in the park, an attack occurred, and he was taken to the house of Dr. Fothergill. I was glad that he fell into the hands of a person so capable of observing the nature of the condition existing, and I learnt from the patient that, notwithstanding the kind of feeling he experienced, his heart was found to be beating forcibly, and he told me that Dr. Fothergill had referred the attack to contraction or spasm of the cerebral vessels. I see Dr. Fothergill present, and perhaps he remembers the case. As far as the general condition was concerned, the symptoms were suggestive of the existence of gouty or granular kidney, but the urine was of normal quantity, colour, and specific gravity, and, at its

maximum, only contained a slight amount of albumen. My own examination confirmed the statement that had been made, except that, on scrupulous inspection, the existence of a faint trace of albumen was perceptible in the morning urine. The microscope, however, revealed the presence of casts of tubules, and this carried the case at once out of the group I am describing.

In what I have stated about cyclic albuminuria, I do not mean to imply that this is the only form of albuminuria which is associated with the apparently healthy state. On the contrary, I am of opinion that albumen may be persistently present, and yet not necessarily mean that a grave condition exists. I have seen cases which have afforded grounds for this conclusion. The subject is one which requires the light of further inquiry to be thrown upon it.

Dr. FOTHERGILL (London) said that every medical man possessed of common sense was glad to hear any man who was willing to lay the axe to the root of that demoralising superstition, that albuminuria necessarily involved disease of the kidneys.

Dr. JAMES BARR (Liverpool) drew attention to the mechanical nature of the transudation of albumen. Dr. Barr believed that, in those cases, the albuminuria depended on excess of pressure within the glomeruli. If a fluid were free to move (of course, there was no fluid perfectly mobile), the driving force applied to this fluid increased the velocity, and diminished the lateral pressure; the latter depending on the statical condition of the fluid. In cases of physiological albuminuria, the central propelling organ was weak; and, although the tension in the arteries was not usually very high, yet there was a want of tone in the arteries, and there was a greater obstruction to the circulation than the weak heart was able to overcome. This want of freedom to the outflow of blood increased the statical pressure, and diminished the velocity of the blood-flow; so that the pressure within the glomeruli was increased, and the velocity diminished. This view readily explained the cyclical motion of the transudation; when the patient was in bed, there was greater freedom to the circulation, and less work for the heart; so that the pressure within the Malpighian tufts was not sufficient to transude albumen. When the patient rose in the morning, the heart had more work to do, both on account of the exertion and of the sudden inrush of fluid to the blood-vessels; and consequently the circulation became more sluggish, and the statical condition of the blood increased. In the treatment of these cases, the more attention was paid to the general condition of the patient and the state of the circulation, the better results would be got.

Dr. DAVIES THOMAS (Adelaide) said that the question of the presence of albumen in the apparently healthy was one of great practical importance to the medical advisers of life-assurance societies, and to those who were frequently called upon to advise the acceptance or rejection of candidates for various appointments. It might very properly be dealt with by the Collective Investigation Committee. The inquiry should extend over a long period.

Dr. W. R. THOMAS (Sheffield) stated that he had noticed that, in cyclic albuminuria, there was generally an increased quantity of salts in the urine. The professional man who did the bulk of his work in the morning, found that the urine passed about two o'clock in the afternoon contained not only albumen, but also a greater quantity of phosphates than that passed at other times. Again, those who went through a great amount of physical work, passed not only albumen, but also urates, etc., in larger quantities at that time than at other times during the day. He, therefore, rather felt inclined to think that whenever, in these cases, the kidneys had increased work to do, it would always be followed by increased excretion of salts and albumen.

Dr. BULKLEY (New York) wished to corroborate, from his own personal experience, the statement which had been made that the occurrence of albumen in the urine was not always of the grave significance often supposed. In 1868, he had had very severe acute albuminuria, with blood, which slowly disappeared, so that, in a few months, he was apparently well. A second attack followed a few months later, from which he recovered. Then, for a period of several years, he occasionally found albumen in the urine, and often not. He had been twice examined and accepted for life-insurance, as a first-class risk; he supposed that the urine had chanced to be examined, possibly, during one of the intervals of freedom in cyclic albuminuria. His health, of late years, had been perfect.

Dr. TYSON (Folkestone) said that he had acute nephritis eleven years ago; after which, albuminuria remained for many months, which passed off slowly, yet surely. Yet two causes—exposure to draughts, and an excessive meat-diet—would now bring on a sickening pain in the left loin; not so much now as formerly. It was possibly due to a

stretching of the capsule from congestion. He did not think that there was albumen, as his health was good in every way.

Mr. S. B. FARR (Andover) related the case of a patient who experienced a severe attack of congestion of the kidneys through exposure to cold in November, about four years ago. Animal or any other diet did not produce albuminuria, but beer and wine would do so. The patient had previously been the subject of gout.

ANATOMICAL MEMORANDA.

THE USE OF THE FOSSA AT THE LOWER END OF THE FIBULA.

If the usual text-books be consulted, they will be found to say that the fossa, at the lower end of the fibula, gives attachment to the posterior fasciculus of the external lateral ligament of the ankle-joint. Examination of numerous specimens shows that this is only partially true, and that the most important use of the fossa has been overlooked. The ligament (posterior fasciculus of the external lateral) is attached into the lowest part of the fossa, quite close to the apex of the external malleolus. The upper part of the fossa serves for the reception of the ligament during dorsal extension of the foot.

By dorsal extension, is meant a straightening out of the foot upon the leg. Many anatomists call this action flexion of the foot, because the flexor muscles of the leg are concerned in its production.

C. B. LOCKWOOD, F.R.C.S., etc.

OBSTETRIC MEMORANDA.

EXPULSION OF THE FÆTUS IN ARM-PRESENTATION.

I BELIEVE that the spontaneous expulsion of the fetus in cases of arm-presentation is so rare, that the following case may perhaps be worthy of record. The mode of expulsion is well illustrated in Leishman's work on *Midwifery*, in which it is stated that Denman was the first to describe these cases, and was severely called to task by the eminent men of his day for suggesting the possibility of such an occurrence.

I was called to Mrs. N., in labour with her fourth child. The water had broken three days previously. On examination, I was unable to decide the nature of the presentation, but could tell that it was neither head or nates. On examining again, I found the arm hanging out of the vagina up to the shoulder, with very strong expulsive pains. I tried to introduce my hand to reach the feet, but the expulsive efforts were so great, that I was obliged to desist. I sent for chloroform, but the messenger had scarcely left the room, when the patient said the child was coming. On looking, I saw to my surprise the nates coming down by the side of the arm. Another expulsive pain, and the legs appeared, the case being now resolved into one of ordinary breech-presentation. The head was easily disengaged, and a dead, but in no way decomposed, child was born, although the mother maintained that she had gone to her full time. The child was very small, which probably accounted for the ease with which it went through its acrobatic performance.

HERBERT THOMPSON, M.R.C.S.

Sevenoaks.

EMPHYSEMA OF THE CELLULAR TISSUE, DUE TO LABOUR.

THE record in the JOURNAL of a case of "Emphysema of the Cellular Tissue due to Asthma," has induced me to send a note of a similar condition, arising, however, from a different cause, which has occurred recently in my practice.

On October 1st, I attended Mrs. H. during her confinement. The labour, though somewhat tedious, was not unusually so for a primipara. Towards the end of the second stage, the patient complained of pain in her throat, which was attributed to the powerful manner in which she exerted her buccinator muscles, in her wish to aid uterine contractions by the help of the accessory muscles of respiration. The labour was duly completed, and, the complaint not being renewed, no further heed was paid to it. Next morning, however, on visiting her, a markedly emphysematous puffing was observed on the right side of the neck, and crackling sensations were readily felt also, on the left side of the neck, as well as over an area of the upper part of the chest, limited on both sides by a line drawn from the outer part of the clavicle to the junction of the third costal cartilage with the sternum. Examination of the cavity of the mouth revealed, about the middle of the right cheek, a small surface denuded

of mucous membrane, with surrounding emphysema. Doubtless this denuded surface permitted the passage of air into the cellular tissue of the parts above mentioned. The condition gradually improved, and has now altogether disappeared.

JAMES HUNTER, M.B., South Queensferry.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GUY'S HOSPITAL.

TRACHEOTOMY OF SOME MONTHS' STANDING: DIFFICULTIES TO THE
REMOVAL OF THE TUBE: EVENTUAL RECOVERY.

(Under the Care of Mr. GOLDING-BIRD.)

[From the reports of Messrs. PENDER-SMITH and W. BRETT.]

LIONEL M., aged 2½, was admitted on May 4th, 1885. Mr. Golding-Bird had performed tracheotomy in December, 1884, for croup: though nearly asphyxiated when the operation was performed, the patient made a rapid recovery. The silver was replaced by an India-rubber tube about the tenth day. When, later, his medical attendant endeavoured to do without any tube at all, on each occasion that the tube was interfered with or removed, an attack of dyspnoea intervened, of such severe character that life seemed threatened. Hence the tube was being worn up to the date of admission into the hospital, with a view to its permanent removal.

On admission, the child was perfectly healthy and in good spirits, able to talk intelligibly, without stopping the mouth of the tracheal tube which he was wearing. When the tube was stopped, only by the greatest effort, apparently, was air drawn in by the mouth, with a loud croupy noise; in a minute the child became cyanosed, struggled violently, and vomited; but he quickly recovered when the tube was again unstopped. Precisely the same symptoms occurred if the tube were removed and a valve of India-rubber were fastened over the wound to prevent ingress of air, but not to obstruct expectoration; but in this case the symptoms might not come on for half-an-hour or longer. The child always resisted violently any interference with the tube, dreading its removal. Failing to obtain any satisfactory view with the laryngoscope, Mr. Golding-Bird removed the tube, under an anæsthetic, on May 19th, enlarged the wound in the soft parts about one-third of an inch upwards and downwards, and then inserted the dilator into the trachea. Nothing was found to account for any obstruction in the trachea itself, and a No. 7 flexible catheter was then passed upwards from the wound, through the glottis, into the mouth. Nothing obstructed the passage of the instrument.

From May 18th, until June 11th, the tube, which had been replaced after the exploration, was daily removed for half an hour or longer, and at times a flap-valve of gutta-percha tissue was placed over the wound. When this was done, however, and the child found he had to breathe through the mouth, he would begin to resist and struggle, and then what seemed merely an act of waywardness and temper in a few minutes developed into true dyspnoea and cyanosis. It was, however, always noticed that, if the child could be coaxed into breathing through the mouth, and the valve were placed over the wound without his knowing it, the attacks of dyspnoea were longer in appearing.

On June 11th, chloroform was again administered, and Mr. Golding-Bird opened up the original wound in the neck, more freely than on the former occasion, so as more thoroughly to expose the tracheal wound. On now dilating the latter, it was seen that the last of the three tracheal rings that had been originally divided was rather in-rolled at its edges, and growing from it were two masses of granulation-tissue, of the size together of a split pea, which moved to and fro with each breath. These, with the intumed cartilage, clearly diminished the diameter of the trachea below, but not to such an extent as to cause the attacks of dyspnoea that had been so often witnessed.

The granulations and inverted portions of cartilage were snipped off, and then an India-rubber drainage-tube, No. 7 (English gauge), was passed upwards through the glottis, out of the mouth, and the two ends, one from the tracheal wound the other from the mouth, were then tied together externally. The skin-wound was partly united with sutures, and the tracheotomy-tube replaced.

June 12th.—The drainage-tube through the glottis had caused no trouble nor irritation.

June 13th. The drainage-tube was removed for good. On removing the tracheotomy-tube also, and blocking the opening, the boy breathed much better through his mouth than before.

June 16th. The tracheotomy-tube was removed for good; but the child, being aware of it, resisted strongly. He was pacified by being told it should be replaced; the India-rubber shield was therefore tied on again in the usual position, the tube-portion having been cut completely off. The child imagined that he was wearing the tube as before.

June 26th. The same treatment was pursued. The child breathed more by the mouth, and talked much more. He struggled violently if the shield of the old tube were removed, but was quiet as soon as it was replaced, believing it still to be his tube. The opening in the neck had all but closed. Lint was placed under the shield to-day, so that no air at all could pass through the wound.

June 27th. The opening was completely healed. For the first time, the child did not resist the removal of the shield (in his idea, the tube).

July 5th. He was discharged, quite well.

REMARKS BY MR. GOLDING-BIRD.—Difficulties in the way of permanent removal of the tracheotomy-tube, when the inflammatory disease for which operation was undertaken has subsided, have been variously ascribed to abductor paralysis, to the presence of granulations, and to spasm of the glottis. All children show a momentary fright when they find themselves first without their tubes, and in not a few cases will they make no effort to respire normally until driven to do so by contraction of the wound; but complete recovery is otherwise uninterrupted. Certain cases, on the wound contracting, gradually become cyanotic, and compel the surgeon to reopen the trachea; such difficulties may be caused by paralysis, or spasm, or laryngeal growth. I have known a child tracheotomised for urgent dyspnoea, apparently croupous, who could not breathe when the tube was eventually removed; every means were taken to induce it to do so, and spasm was the cause assigned to this disability. The child died shortly afterwards, from an intercurrent malady, and the glottis was found obstructed by warts, the real cause of the original dyspnoea. The possibility of mistaken diagnosis must be remembered. The case that I have reported here, however, belongs to another class: namely, where, on removal of the tube, even with the wound still patent, urgent dyspnoea rapidly sets in; this points to obstruction below the wound; and such existed in an intumed ring of cartilage and granulation-tissue. But, further, on this obstruction being removed, and the wound covered with a valve, the child would not, or could not, breathe by the glottis; and this was undoubtedly due to spasm, exaggerated, as the report shows, by the emotion of fright, when the child discovered himself without his tube. The treatment, which was eminently successful, was directed to destroying the habit of spasm in the glottis-muscles, by the presence of a foreign body (drainage-tube) for twenty-four hours, and to quieting fear by the employment of legitimate deceit.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 20TH, 1885.

J. S. BRISTOWE, M.D., President, in the Chair.

Sarcoma of Skull.—Dr. DICKINSON related the case of a boy, aged 12, who, in March, 1884, began to complain of tenderness at the vertex; subsequently a lump appeared there. He frequently complained of pains in the limbs. Later on, other lumps, of soft consistency, appeared in other parts of the skull; and, finally, after losing his sight on several occasions, decided exophthalmos appeared, and subsequently became extreme, so that the eyes appeared as though pedunculated. The examination of the eyes by Mr. Adams Frost revealed only atrophy of the optic discs. Vomiting, headache, insomnia, irregularity of the pulse, were the most prominent symptoms, followed immediately before death by drowsiness and delirium. At the necropsy, the great distortion of the head was found to be due to numerous soft, fluctuating, round-celled sarcomata; a fluctuating swelling over the tibia was due to suppuration.—In reply to Dr. NORMAN MOORE, Dr. DICKINSON said that the lungs were the only viscera affected; and added, in reply to Mr. R. WILLIAMS, that several tumours were present when the case was first seen.—Dr. NORMAN MOORE recalled that, in the last case of the kind shown to the Society, there was also

proptosis, which led to sloughing; most of the other cases had been in younger children.—Mr. B. JESSETT commented on the absence of cerebral symptoms, and referred to a case occurring in the adult.

Rhinoscleroma.—Dr. PAYNE said that, on more careful examination of specimens from the case of rhinoscleroma shown by himself and Dr. F. SEMON during the last session of the Society, he had succeeded in finding a micro-organism which was associated with the disease. The bacillus was small, and required prolonged staining (twenty-four hours) in methyl-violet to develop the colour; the specimens required to be subsequently decolorised by Gram's solution.—Dr. THIN asked whether the bacilli were in the cells, between the cells, or in the blood-vessels.—Dr. PAYNE said that, in some parts, they appeared to be in the cells; but this was not universally the case.

Pyloric Obstruction.—Dr. HALE WHITE exhibited a specimen of pyloric obstruction from the body of a woman in whom the gall-bladder was found full of calculi; the gall-bladder was adherent to the pylorus, which was so much thickened that it had caused the obstruction; the cystic, common, and hepatic ducts were normal. There was an opening on the inner surface of the stomach at its junction with the duodenum; this led by a sinus into a sac, about the size of a large pea, situated in the thickness of the pylorus; this sac contained several minute gall-stones. The anterior end of the thickened gall-bladder was adherent to the pylorus opposite this sac. The history of the case appeared to be that some gall-stones had ulcerated from the gall-bladder, and had formed a sac for themselves in the thickness of the pylorus. The communication between the gall-bladder and the sac subsequently became closed; the gall-stones formed a sinus opening into the stomach. The irritation of this process had set up the thickening of the pylorus, which the microscope showed to be due to hyperplasia of the fibrous tissue and increase of the muscular coat. Such a mode of production of pyloric thickening was very uncommon, if not unique.—Dr. NORMAN MOORE had met with two cases bearing on this point. The first was a woman in whom severe vomiting was followed in a few hours by death. The common duct had become adherent to the duodenum, and had ulcerated through into the duodenum. In the second case, jaundice was followed by death in a few days. The gall-stones had ulcerated from the neck of the gall-bladder into the liver, a large hepatic abscess had formed, and the gall-stones lay free in it. The absence of jaundice, or its appearance so late as in the last case, was the point of special interest in the cases, and the one which brought them into relation with Dr. Hale White's.—The PRESIDENT related the case of a woman who had jaundice for twenty years, off and on. She had a tumour in the caecal region. The tumour suppurated; and, on incision, a mass of tissue, infiltrated with pus, was opened. Biliary gravel was freely passed, and the patient recovered.

Cysticerci of Brain and Pia Mater.—Dr. G. GULLIVER showed a specimen from the brain of a woman who died of cirrhosis, without exhibiting any symptoms referable to the brain until a few hours before death, when epileptiform seizures came on. The cerebral meninges were injected, a cyst was found in the pons Varolii, and, altogether, fifteen other cysts were found in the grey matter, and budding out from it into the sulci; a few cysts were also found in the pia mater. No cysticerci were found in the muscles. The case was a typical case in some respects, as the brain was, after the muscles, the most frequent site of cysticerci. As a rule, they produced no symptoms beyond epilepsy, which might be intermittent, or, as in this case, might be fatal.—Dr. HALE WHITE remarked on the extreme rarity of multiple hydatid.—Dr. WILKS thought the case was very rare; he had only seen one case many years ago. He had never seen a case of true multiple hydatid of the brain.

Primary Lymphosarcoma of Tonsils.—Mr. A. E. BARKER related the case of a lady, aged 74, who suffered from a rapidly growing tumour of the tonsil. The tumour, as it appeared to be encapsuled, was removed without difficulty; enlarged cervical lymphatic glands had been previously removed. On section, the tumour proved to be a typical lymphosarcoma. Recurrence, involving the structures at the root of the neck and in the glands, as low down as the clavicle, took place on the opposite side of the throat within six weeks, and the lady died two months later. The operation was undertaken as a palliative, as obstruction of the fauces was commencing. Though the disease was very rare, two other cases had since (within the last year) occurred at University College Hospital; one of these cases occurred in an old man of 70, and the operation had not yet been followed by recurrence.

Sarcoma of Tonsil.—Mr. BILTON POLLARD showed a specimen of a sarcoma of the tonsil, which had been removed by Mr. Marcus Beck at University College Hospital. The patient, a man, aged 72, had enjoyed good health until three months before admission, when he began to suffer from difficulty in respiration, and discovered a small

swelling, about the size of a marble, on his right tonsil. On admission, the growth was about the size of a large walnut, and caused a little swelling in the region of the tonsil; it interfered considerably with breathing. The growth was movable, and was easily shelled out with the finger after an incision had been made over it. The tumour was encapsuled. Microscopic section showed it to be composed of small round cells, closely packed together, and lying in a homogeneous matrix. In the fibrous tissue, which formed the capsule, there were bundles of transversely striated muscular fibres, and within the substance of the growth, at some distance from the surface and completely surrounded by sarcomatous tissue, there were similar bundles of muscular tissue. It was well known that the cells of sarcomata infiltrated the tissues beyond their capsule; but it was worthy of note that such growths might infiltrate the surrounding tissues, and absorb them into their substance, and yet remain encapsuled.—Mr. BUTLIN said the cases confirmed the view that the disease was not so rare as had been supposed. Five years ago, he had been able to collect about twelve cases in which microscopical examination had been made, but he had since seen five or six cases; and he believed the disease was not very rare. Except as a measure of relief, when the tumour obstructed the fauces, operation was useless. Though it was customary to speak of those cases as primary sarcomata of the tonsil, he questioned whether the tumours were not portions of disseminated lympho-sarcoma, the first big tumours appearing in the tonsils.—Dr. F. SEMON said that recently numerous cases had been brought forward, and he had, within the last year, received reports of numerous cases of malignant tumour of the tonsils. Operation appeared to be quite hopeless.—Mr. GOLDING-BIRD confirmed Mr. Butlin's opinion, both with regard to the comparative frequency of the disease and the hopelessness of operation.—Mr. R. WILLIAMS said that malignant disease of the tonsil was about as common as malignant disease of the larynx.

Bladder and Anus Six Months after Littre's Operation.—Mr. MANSELL MOULLIN showed a specimen from a successful case of Littre's operation; a long narrow channel, however, existed, communicating with the prostatic portion of the urethra, and feces occasionally passed through the urethra. Extensive prolapse occurred through the wound. The gut below the opening made by the operation had not contracted when the patient died.—Mr. PITTS said that, in a case in which he had performed Littre's operation, death occurred in a fortnight; the bladder was contracted, and there was distinct surgical kidney. A similar condition existed in another case.—Mr. MANSELL MOULLIN said that neither the bladder nor the kidneys were diseased in his case.

Broad Ligament Cysts above the Fallopian Tube.—Mr. ALBAN DORAN exhibited a Fallopian tube and broad ligament, formerly attached to a large multilocular ovarian cyst. Between the two layers of the broad ligament was an oval thin-walled cyst, half an inch in diameter. Under the broad ligament, along its line of reflexion over the Fallopian tube, was a similar, but smaller cyst. These two cysts were evidently identical in their origin, which was from the connective tissue in the broad ligament. Large thin-walled cysts were common below the tube, whilst above it they were practically unknown. There were very plain reasons why cysts above the tube did not grow large. The connective tissue beneath the broad ligament along the upper border of the tube was relatively dense and scanty, and the blood-supply was limited; the reverse was the case below the tube. For similar reasons, cysts under the serous coat of the small intestine remained small, whilst omental and mesenteric cysts often attained large proportions. There was little evidence that cysts of the broad ligament above the tube ever grew large, yet such might have been the case in some recorded cases of pelvic cysts with abnormal peritoneal relations. The unusual relation of the tube to the cyst would then be a source of confusion, and therefore of possible misinterpretation. The identity of cysts of the broad ligament above and below the tube was evident, and from this it followed that those below could not be invariably, if even as a rule, parovarian. Mr. Doran briefly referred to other arguments which he had brought forward in previous communications to the Society, in favour of the frequently non-parovarian origin of the thin-walled simple cyst of the broad ligament.

Card-Specimens.—Mr. H. A. LEDIARD (Carlisle): 1. Primary Sarcoma of Femoral Lymphatic Glands. 2. Intercondyloid Fracture of Femur.—Mr. C. B. LOCKWOOD: Heart with Band uniting Vena Cava Superior to Left Auricle.—Mr. J. H. MORGAN: Granuloma of Upper Lip following a Dog-bite, and growing to a large size in the course of a fortnight.—Mr. SHATTOCK: Congenital Absence of Tibia.—Dr. BRUCE (Edinburgh): Pathological Specimens of Entire Viscera.—Mr. GOLDING-BIRD: Aneurysm of Profunda Artery.—Dr. SAVAGE: Bladder from a case of General Paralysis of the Insane, in which Hemorrhage from the Urethra had occurred; the

bladder was thickened with villous fringes; there were also dilated ureters and surgical kidneys.—Mr. HORSLEY had seen a similar condition in a patient who died owing to the pressure of a tumour on the spinal cord.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, OCTOBER 15TH, 1885.

THOMAS SYMPSON, F.R.C.S., Vice-President, in the Chair.

Election of Officers.—It was announced that Dr. Argyll Robertson had been elected as vice-president, Mr. Adams Frost, honorary librarian, and Mr. Stanford Morton a member of council.

Double Coloboma of Eyelid.—Mr. LANG showed a case of double coloboma of the right upper lid in a boy aged 12. One fissure was in the centre of the lid, and the other was one centimetre to its inner side. The piece of lid which intervened between the fissure contained normal lashes and Meibomian glands. Closure of the fissures restored the lid almost to the normal state. The cornea had suffered somewhat before the patient was operated on.

Changes in Optic Discs persistent Ten Years after Accident.—Mr. BRUDENELL CARTER showed a case in which, after a railway-collision in January, 1876, there was amblyopia, with loss of accommodation, and decided diminution of the size of the vessels of the disc, especially of the arteries; the pallor of the surface of the disc was marked. The condition had remained unaltered, and was the same now as it was ten years ago. The patient had lost colour-sense. He possessed about one-fifth of normal vision when hypermetropia 2 D was corrected. He was one of Messrs. Gillow's decorators, and could hardly distinguish different shades of colours.

Persistent Hyaloid Vessels.—Mr. BRUDENELL CARTER also showed a case in which the persistent remains of the hyaloid vessels had been mistaken for a morbid flocculus.

Corneal Pigmentation by Aniline.—Mr. J. G. MACKINLAY showed a man, aged 44, who had been employed in aniline dye-works for seven years, working ten hours and a half daily. The cornea and conjunctiva were deeply stained by a brown dye. The iris could only be seen with difficulty. The head and beard were dyed a red-brown, and the skin of the face, neck, and hands of the same colour. There was no albuminuria. He could name green, blue, or black colours, and matched wools fairly well.

Tubercle of Choroid.—Mr. J. B. LAWFOORD read notes of some cases of tuberculosis of the choroid, and exhibited specimens of the bacillus tuberculosis in the nodules of the choroid. Four eyes had been examined, obtained from cases of general tuberculosis, and in all tubercular meningitis had been present. In three of the cases, the bacilli were found in the choroidal tubercles, but, in the fourth case, careful and repeated examination failed to detect them, though, in this case, the rods were easily and abundantly discovered in the meninges about the chiasma. The specimens were prepared after the Weigert-Ehrlich and Gram methods; the latter was found, on the whole, preferable.

Peritomy for Granular Lids.—Mr. SPENCER WATSON showed a case of granular lids and rough vascular cornea treated by peritomy, with partially successful results. The patient was a woman, aged 22. The right eye was operated on in May, and the left in July last. The improvement was but partial in both eyes, the cornea having become somewhat clearer and less vascular, but the palpebral mucous membrane remained as rough and granular as before the operations.—Mr. ANDERSON CRITCHETT thought that Mr. Watson had exaggerated the late Mr. G. Critchett's opinion, which was that, in many cases, peritomy sufficed without other treatment; in others, it was necessary to treat the granulations after peritomy. If a considerable power of constitutional repair were present, then the tight cicatrix necessary for the complete cure would be formed, but this frequently failed to occur in strumous subjects. No doubt, in some cases, the treatment by jequirity was sufficient.—Mr. NUTTLESHIP said that, in his experience, peritomy had, in a certain proportion of cases, given most brilliant results. In one case in which he had freely used jequirity, the subsequent performance of peritomy was followed by a most satisfactory result, the cornea becoming almost perfectly clear.

Orbital Cellulitis.—Mr. ANDERSON CRITCHETT read a paper on a case of orbital cellulitis. The attack occurred in the spring of 1884, and the patient, a young lady aged 15, was transferred to Mr. Critchett by Sir William Bowman. There was marked proptosis of the right eye, with considerable chemosis, accompanied by severe orbital and frontal pain; the pupil acted sluggishly, and the media were so hazy that no view of the fundus could be obtained. The temperature was 100° Fahr., and there had been a slight rigor. The

patient was placed under an anæsthetic, and a free incision was made through the right upper lid into the orbit. Sero-sanguineous fluid escaped copiously, but no pus; no tumour could be felt. The deep-seated pain ceased, but the proptosis continued. Ten days later, the sight of the left eye, which had hitherto been excellent, became affected, so that in the course of a few hours the patient could barely count fingers, while simultaneously there was a marked improvement in the vision of the right eye. In thirty-six hours, the sight of the left eye was again normal, and the right eye had relapsed. These alternations continued at intervals of about four days during the next fortnight, when the proptosis of the right eye increased to an alarming extent; and after a consultation, at which Sir William Jenner, Sir William Bowman, Mr. Hutchinson, and Mr. Critchett were present, it was decided that Mr. Critchett should make fresh incisions into the orbital cavity without delay. At the operation, it was found that a portion of the lacrimal gland had been forced downwards to the external canthus, and the incisions were followed by a considerable escape of serum, but no pus. From the date of the second operation, the patient made a slow but steady recovery; but for some weeks the curious alternations in sight continued. At the present time, she had entirely recovered the sight of both eyes. The cause of the attack was very obscure: there was no specific history, but one very curious fact was observed: the teeth were almost devoid of enamel, and an experienced dentist stated that eleven of the second teeth were uncut. A few months ago, the right eye again became dim, but the sight rapidly cleared when a painful tooth was extracted.—In reply to Mr. NUTTLESHIP, Mr. Critchett said that the left eye was not affected.—Dr. McKEOWN narrated a case bearing on the above, in which the ocular lesion rapidly improved after the wisdom-tooth had been cut. There was, in his opinion, no good reason why dental operation should not give rise to such a morbid condition of the orbit.

Intracapsular Injection of Water in Cataract-Extraction.—Dr. W. A. McKEOWN read a paper on the intracapsular injection of water in the extraction of cataract. His method consisted essentially in the substitution in the operation of extraction of a washing-out of the cortex for the pressing, rubbing, and scooping out. His method of operating was as follows. He made the small flap-section of the cornea above with puncture and counterpuncture in the sclero-corneal margin, and cut out about half a line from the corneal margin. He always performed iridectomy. After lacerating the capsule freely, and expelling the lens if any cortex were left behind, he introduced a perfectly clean "scoop-syringe" well within the capsule, and injected gently distilled water of the temperature of about 100° Fahr., making gentle motion at the same time with the scoop to facilitate removal. He had now used the scoop-syringe in all thirty-nine times. In one case only was there irido-choroiditis, with complete closure of the pupil; good perception of light was retained. In another case, there was most insidious iritis, beginning after the patient's discharge from the hospital; it went on to closure of the pupil, but there was a good prospect from iridectomy. In the case of a syphilitic subject, there was a severe iritis arrested by artificial leeching and mercurial inunction. In no case was there suppuration of the eye or of the cornea, and in no instance was there escape of vitreous humour from the use of the syringe. Even in two cases of traumatic cataract, the syringe was used with advantage, notwithstanding the previous escape of vitreous humour. In a few cases, some iritic adhesions formed, as commonly occurred in ordinary cataract-operations, but caused no pain or diminution of vision. In twelve cases, the cataracts were unripe, and in several the cortex was very sticky. In the last thirty cases, he had had only one inflammation, and that was in the case of the syphilitic subject above referred to. There were two cautions to observe; first, after iridectomy, to get the blood out of the anterior chamber as quickly as possible; secondly, to be careful to introduce the scoop within the capsule. He did not believe in operating against time, but there could be no doubt that the quicker the work could be done and the eye bandaged, the better. He timed the duration of the last eleven operations from the introduction of the speculum to the application of the bandage. It varied from six to fifteen minutes, the average being about nine minutes. The operations were all done without chloroform, and some of the patients were restless. The conclusions which he thought he might draw from his own experience were: (1) that the judicious injection of water within the capsule of the lens was innocuous; (2) that it was not liable to cause loss of vitreous humour; (3) that it was advantageous both in ripe and unripe cataracts; (4) that it shortened the average duration of cataract-operations; and (5) that it was a most efficient means of clearing the wound.—Mr. McHARDY said that the method might be used for ripening immature cataract, and to facilitate the removal of cortex at the time of extraction. The method of trituration as advocated by Förster, the

extraction being preceded by preliminary iridectomy, had been, in his hands, followed by no disagreeable results. He had, however, noticed a loss of vitreous, which he was not accustomed to see in lenses that had spontaneously matured. Posterior synechiae could be broken down at the time of operation. There might be danger and difficulty in getting the nozzle of the syringe within the capsule. The capacity of water in removing the cortex was well known, and if he had to deal with a "sticky" cortex, he usually took the speculum out, closed the lids, and allowed the aqueous humour to be secreted into the open capsule; then, manipulating with the spoon, it was not at all difficult to remove the cortex after the aqueous humour had acted on it.—Mr. MACKINLAY inquired whether Dr. McKeown used cocaine. He thought the nozzle of the syringe rough, and that it might be improved.—Mr. CRITCHETT mentioned that M. Panas, of Paris, irrigated the anterior chamber in cataract-extractions, but the stream was produced by an assistant.—Mr. ADAMS FROST asked whether the method could be employed for lamellar cataract. It seemed to him to be a sound surgical procedure, and preferable to the use of the scoop or manipulation.—Dr. McKEOWN, in reply, said that he did not employ the method in simple cases. He had not had any trouble with the instrument. The operator should get the instrument in behind some of the cortex of the lens. He did not see why it should not be employed in lamellar cataract. He now always employed cocaine.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 19TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

Presidential Address.—The PRESIDENT delivered an address on the opening of the new session. It is published at page 782.—Dr. BROADBENT, in moving a vote of thanks to the President for his address, spoke in terms of very warm praise of the theory which had been advanced. It afforded, in his opinion, a solution of the great difficulty which was constantly recurring when the phenomena of fever were investigated.—Dr. C. J. HARE seconded the motion, which was subsequently carried by acclamation.

Cases Illustrating Syphilitic Disease of the Nervous Centres.—Dr. BROADBENT read a paper illustrating various points in the pathology of syphilitic disease of the nervous centres. He first related the sequel of a case of Jacksonian epilepsy in a woman, aged 30, with hemiplegia; and the sequel of a case of hemiplegia without loss of consciousness, but accompanied by transient blindness, and followed by dementia. He related the case of a man, aged 28, who presented symptoms closely simulating those of the early stage of general paralysis, who completely recovered under the use of iodide of potassium, combined with prolonged rest and a sea-voyage. He also related a case of hemiplegia with tonic spasm of the lower limb, and jactitation of the upper limb in walking; paraplegia subsequently developed, but quickly disappeared; he observed that this association pointed to cortical lesion. He then commented on the value as aids to diagnosis of the occurrence of paralysis of cranial nerves, and related the case of a lady who consulted him on account of anginal attacks, combined with so-called rheumatic pains. Cross-examination elicited a history of squint and double vision. Under iodide of potassium, the rheumatic pains and anginal attacks disappeared. During a recurrence of the anginal pains, there was well marked paralysis of the external rectus. He remarked that, occasionally, paralysis of the third nerve was brought about by syphilitic lesion occurring at the sphenoidal fissure; the ophthalmic vein might be obstructed by the same lesion, and he quoted a case in which paralysis of the third nerve was accompanied by proptosis.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, OCTOBER 15TH, 1885.

T. MORTON, M.D., President, in the Chair.

Iodic Purpura.—Mr. A. Q. SILCOCK related the case of a woman who was admitted into St. Mary's Hospital on account of proptosis. Although no history of syphilis could be obtained, iodide of potassium was prescribed in ten-grain doses three times a day. After the lapse of thirteen days, the dose was increased to fifteen grains; seven days later, a purpuric eruption appeared, most marked on the legs. Arsenic was then prescribed, in combination with the iodide, the rash disappearing after three days. The arsenic having been discontinued, the spots recurred in an aggravated form. Five minims of liquor arsenicalis were again added, and this was followed, in six or seven days, by a disappearance of the eruption and by general improvement. Arsenic was omitted; the rash again returning after ten days, accompanied with malaise and some catarrh. After this, the patient lost courage, and ceased to take her medicine regularly. A few months

later, the iodide was again prescribed, and once more slight purpuric spots appeared after a few days, when the drug was finally omitted, the case being regarded as one of exostosis or of ossifying chondroma. In his remarks, Mr. Silcock rejected the view that the effect was due to increased diapedesis, such as is said to follow the intravenous injection of salines. Arsenic was prescribed in the hope that it might possess the same specific influence which attaches to its administration in bromide-eruptions. He believed that it was frequently prescribed conjointly with iodide of potassium, especially at the Lock Hospital.—Dr. CHARLES RENNER expressed doubts as to any antagonism between the drugs, and suggested that the case was one of idiosyncrasy.—Mr. MALCOLM MORRIS alluded to the rarity of recorded cases of iodic purpura. The exceptional case published by Dr. Mackenzie deserved mention, the child having died from purpura after a single dose of two and a half grains. Even in the rash of bromide, arsenic after a time lost its beneficial effect. The paper was of great value as demonstrating that purpura was not a disease, but a symptom.—Dr. LEES considered the case one of idiosyncrasy; in cases of meningitis, he had administered to children large doses of iodide of potassium (three grains every three hours), for weeks and months, without any toxic effects. Children were more liable to the rash of bromide, adults to that of iodide of potassium.

A Specimen of Pyosalpinx was exhibited by Mr. A. Q. SILCOCK. The patient was supposed to have caught cold during menstruation. The symptoms were indeterminate, consisting of pain in the abdomen and discharge of pus from the rectum.—The PRESIDENT, Dr. J. PHILLIPS, and Dr. LEES referred to cases from their experience.—Dr. M. HANDFIELD JONES remarked on the occasional absence of all symptoms. Vaginal examination could seldom avail, for the physical signs would naturally vary with the amount of distension and matting. Prolapse of the ovaries, complicated by retro-uterine peritonitis, might simulate disease of the tubes. He had treated a case of fifteen months' standing, in which, beyond some abdominal distension, pyosalpinx had occasioned no discomfort.

The Treatment of Chorea.—Dr. W. B. CHEADLE, after referring to the failure of innumerable specifics, and to the scepticism too widely engendered therefrom, declared his own belief in the value of medicinal treatment. Speaking from the careful notes of 160 cases observed during a period of eight years, he stated that the average duration of the disease, under treatment, had been five weeks (the extremes being ten weeks and four days); whereas cases without treatment might extend from eleven to fifty-two weeks, or indefinitely. The author had tried various methods, including rest and expectancy, with results sometimes beneficial, but never completely successful. In arsenic, he had at last found an agent which did succeed. Todd, as long as forty years ago, had recognised its power; so had Babington and Begbie; but dread of the poison had checked their use of the remedy. Dr. Chedale proceeded to narrate some striking cases of rapid improvement under the influence of ordinary doses of liquor arsenicalis, with small doses of tincture of perchloride of iron. A comparison of long series of cases treated without arsenic and with arsenic, respectively, gave for the former an average duration of forty days; for the latter, twenty-nine days; and this difference was increased when the last fifty-eight cases were compared with fifty-eight consecutive cases in the former series, the average duration under arsenic being only twenty-four days. Arsenic was in every case well borne, excepting a remarkable result repeatedly observed by the author, but not hitherto described by others; namely, a bronzing of the skin analogous to that observed in Addison's disease. The staining was most marked in the flexures, did not affect the face, and ultimately disappeared. In one case, however, it had become permanent, but would probably vanish in time. The pigment deposited was not metallic, as in discoloration by silver, but resembled the pigmentation due to chronic congestion. In conclusion, whilst advocating arsenic in chorea, the author did not wish to depreciate the value of other therapeutic agents, which should be employed concurrently.—Dr. CLEVELAND called attention to the fact that iron in small doses had had a share in the results obtained by Dr. Chedale.—Mr. MALCOLM MORRIS inquired whether the pigmentation described might not have been the result of the disease, rather than of the remedy. Dermatologists were, however, beginning to think that the discoloration observed after the cure of patches of psoriasis might have been caused by the prolonged use of arsenic.—Dr. CULVER JAMES had found arsenic of little value in mild cases, although decidedly beneficial in severe attacks.—Dr. EWART and Dr. DE WAITEVILLE had administered large doses of arsenic in the chorea of children, without any toxic effects. The latter had combined with the drug large doses of bismuth.—Dr. LEES was in favour of arsenic, and had assured himself of its value by watching the effect of its interruption.

OBSTETRICAL SOCIETY OF LONDON.

THURSDAY, OCTOBER 8TH, 1885.

J. B. POTTER, M.D., F.R.C.P., President, in the Chair.

Specimens.—The following specimens were shown.

Mr. DORAN: Diseased Ovary, illustrating "Missed Abortion."

Mr. GRUN: Fetus and Placenta from a case of Extra-uterine Gestation.

Hypertrophy of Lupus of the Female Generative Organs.—Dr. MATTHEWS DUNCAN read a paper on this subject. He said that hypertrophy was not an essential part of lupus. Extensive ulceration might occur without any hypertrophy. Hypertrophy rarely occurred without some ulceration; ulceration and hypertrophy were to be regarded rather as alternative conditions than as concomitants. The hypertrophies might be minute, or might approach those of elephantiasis. The destruction by ulceration in severe cases was greater than the growth by hypertrophy in severe cases. The hypertrophy affected the skin, the mucous membrane, the connective tissue, or the clitoris. The hypertrophy tended to be an outgrowth not to grow deeply like a cancer. Hypertrophies were generally morbid in form and appearance, but might resemble healthy natural parts. The hypertrophy might affect the thigh and hip. A hypertrophied part might be ulcerated, and the ulceration might heal without the hypertrophy being destroyed. Hypertrophies were generally not sensitive unless inflamed; but some small hypertrophies, especially urethral caruncles, were often excessively sensitive and painful to touch. Hypertrophies might vary in degree of induration; they were liable to inflammation. Hypertrophied parts might have polypous hypertrophies growing from them. The colour might be red, brown, purple, or white. —Mr. HUTCHINSON said that he rose in response to the President's invitation, although he had come rather to listen than to speak. He considered Dr. Matthews Duncan's paper a very valuable contribution to the clinical knowledge of a disease in which he had himself taken much interest. The narratives were clear and full, and the coloured drawings which illustrated the cases made them so complete as to give the members of the Society almost the advantage of having seen the patients. He might as well at once avow that a careful perusal of Dr. Duncan's paper (before the meeting), and an examination of the portraits, had led him to form an opinion somewhat different from that which the author had expressed. He felt it to be almost an impertinence to differ from one of Dr. Matthews Duncan's well known clinical acumen, especially since he alone had actually examined the patients. He felt bound, however, in the interests of clinical accuracy, to question the diagnosis, and he did so with the more freedom because he well knew that there was no one more willing than Dr. Matthews Duncan to court the investigation of his facts. In the first place, he felt tolerably confident that all dermatologists would repudiate the name lupus as inapplicable to the disease described; and in the next, he could not help a very strong suspicion that, in all the six patients whose cases had been just narrated, the disease was remotely connected with syphilis. He expressed some surprise that Dr. Duncan had not attempted in any of the cases to show that syphilis was probably absent, and that he had indeed left it for the most part unmentioned. Having stated of the whole set of drawings that, so far as they went, he (Mr. Hutchinson) should have assumed that they were all representations of tertiary syphilis, unless that belief were entirely confuted by the case-narratives, he next proceeded to examine the latter, and he took each case *seriatim*, and showed that Dr. Duncan had recorded facts concerning all the women which were very suspicious. Thus, in one, it was acknowledged that there was a suspicion of syphilis; another had sores, discharge, and a bubo a few years before; and so on; all were married women, and all were hospital-patients of a class in which syphilis was very common. It must be remembered that the female genitals, when affected in tertiary syphilis, were liable to display some peculiar forms of morbid action. Chronic gonorrhoea very often complicated syphilis in women; and, as a consequence of the long continued irritation of discharges, the clitoris, nymphæ, and labia often became first edematous and then hypertrophied. These were the conditions which Dr. Duncan's portraits showed. Although they were not all alike, most of them exhibited a combination of elephantoid hypertrophy, with ulceration and the formation of scars. There was, perhaps, nothing that deserved the name of elephantiasis, but there was an approach to it; and, for his part, he (Mr. Hutchinson) believed that the difference was only a matter of degree. In reference to lupus, Mr. Hutchinson stated that he did not believe he had more than once or twice seen true lupus—that was, such lupus as all were familiar with on the face—on the vulva; and he thought it would be a great pity if these cases were placed on permanent record under that name. Not only

did their local features differ widely from common lupus, but in not one of them was it recorded that lupus was coincidentally present on other parts of the body. In Dr. Duncan's former paper, he believed that one case had been recorded in which common lupus occurred on the patient's nose, and this was held to be important proof as to the nature of the disease of the vulva. In this instance, however, the narrative mentioned that there was perforation of the palate, a condition known to be infinitely rare in lupus, but very common in syphilis. He should be very much interested in what Dr. Duncan could say as to the exclusion of syphilis in his patients. Whether, for instance, he had met with the disease under circumstances in which it was highly improbable that syphilis existed. Such improbability had not been made out, and he thought it had not even been attempted in the paper to which they had listened. As regarded measures of treatment, he was entirely at one with Dr. Duncan, and warmly congratulated him on the success which had attended excision and free cauterisation of parts. He could not help suspecting that a source of fallacy had existed there as regarded syphilis, and that it had been assumed that diseases which were more successfully treated by local measures than internal specifics were probably not syphilitic. He had, however, if he might be permitted to express a personal opinion, long held that not a few of the tertiary manifestations of syphilis yielded much more readily to local cauterisation than they did to mercury or iodide of potassium. He felt compelled, therefore, to believe, at any rate until further negative evidence was produced, that Dr. Duncan's patients were the subjects of remote syphilitic taint, and that their local disease was partly due to it, and in part to local irritation. If the term "lupus" was to be used in connection with them at all, it ought certainly, he thought, to be used with the prefix "syphilitic." —Dr. PLAYFAIR said that he had been in the habit of describing cases like those figured by Dr. Duncan as elephantiasis. He had seen many cases in India, and some of these were very like Dr. Duncan's cases. For his own cases, he had used free incision. In his opinion, Dr. Duncan had only given a new, and questionable, name to an old disease. —Dr. GALABIN asked as to the histology of the disease, especially in its relation to new growths. In a case of perforation of the body of the uterus by an ulceration, shown by Dr. Duncan some time ago, he had found some tendency to the characters of a new growth in the fact that, in some parts, the cells were joined by tailed processes. He had also regarded lupus of the vulva as a very rare disease. In cases similar to those shown by Dr. Duncan, he had generally found some evidence of syphilis; they did not yield to antisypylitic remedies alone, but yielded to excision followed by such remedies. —Dr. THIN had found the microscopical appearances the same in all Dr. Duncan's cases. There was, in all the cases, more or less small-cell infiltration beneath the epithelium, and a number of blood-vessels ran straight to this part. There were no marked inflammatory changes in the fibrous tissue, which was found in all stages of development. The changes found in lupus vulgaris were absent, but so were also those of syphilitic gumma, as well as of cancer and elephantiasis. The appearances suggested a persistent form of irritation, acting peripherally. M. Vidal, of Paris, informed him that in about 150 cases of women affected with lupus vulgaris the region of the vulva had not been affected once. Professor Kaposi, of Vienna, bore the same witness. He believed that Dr. Duncan's cases formed a separate disease, separate, that was, from syphilis, lupus vulgaris, cancer, and elephantiasis. He did not agree with Mr. Hutchinson, because, apart from the absence of syphilitic history, the appearances themselves differed from syphilis, compared with which the hypertrophy was out of all proportion to the ulceration, and the ulceration was not typically syphilitic in appearance. Still less could he agree with Dr. Playfair as to the cases being elephantiasis, which was well known to be due to obstruction of lymphatic vessels by *filaria sanguinis hominis*. —Dr. WEST believed that he was the first in this country to describe the disease; it was described twenty-five years ago in his lectures on the Diseases of Women. In none of his cases could either he or Sir James Paget discover any evidence of syphilis. Iodide of potassium in large doses produced no effect. For these reasons he differed from Mr. Hutchinson. —Dr. W. DUNCAN mentioned the case of a large growth in the vulva, which he removed two years ago, exhibited at this Society, when Dr. Matthews Duncan said he considered it a case of lupus. The patient had well marked tertiary syphilis, and eighteen months after the operation a recurrence of the growth took place, which disappeared under large doses of iodide of potassium and perchloride of mercury. —Dr. HORROCKS asked whether the author, in using the word lupus, meant lupus vulgaris, or syphilitic lupus, or a different disease. He mentioned a case in which he had removed a large growth from the vulva which had resisted anti-

syphilitic treatment. The wound had rapidly healed, and this seemed to him to be against its lupoid nature.—Dr. GANDY asked Dr. Matthews Duncan as to the presence or absence of secondary syphilitic symptoms in any of his cases.—Dr. GERVIS asked Mr. Hutchinson whether he thought hereditary syphilis could account for any of the lesions.—Dr. MATTHEWS DUNCAN had observed this disease for more than twenty years, and had always done his best to exclude syphilis. Mr. Hutchinson relied on the general appearances, the frequency of childbearing, and vaginal discharges as evidences of syphilis. Now, every one at first held the same view; but many syphilologists and dermatologists, and others there and elsewhere—among whom Paget, West, Thin, Kaposi, and Vidal had been mentioned that evening—had satisfied themselves that the disease was not of syphilitic origin. The disease was not new, though little understood. There was a great literature of the subject. He could not himself entertain the notion of the syphilitic origin of a disease occurring in children, in virgins, in all classes of society, confined to the genital organs, and destitute of any evidence of primary, secondary, or tertiary syphilis. The disease had an appearance and history quite distinct from that of tertiary syphilis. He could not allow that outward appearance, childbearing, and vaginal discharges were evidence of syphilis. Dr. Playfair had said that it was elephantiasis, but it bore no resemblance to that disease in outward characters, nor history, nor histology. Mr. Hutchinson had said that it was not lupus, and yet he held that it was a kind of syphilitic lupus. Dr. Duncan had taken care, in a former paper, and elsewhere, to point out that the disease, however much it resembled lupus in some points, was not lupus vulgaris, a disease which neither he, nor others more experienced in dermatology, had ever seen on the vulva. He called the disease lupus, because it had been called so before, and it was a much easier name than “*esthiomène*.” He would soon lay a paper before the Society, on the inflammations of this disease, and of its histology. He would only say now that the histology of Huguier, Paget, and Thin, lent no support to the theory of syphilis.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, OCTOBER 1ST, 1885.

T. S. BYASS, M.D., President, in the Chair.

Alopecia.—Dr. MACKAY brought forward a man, aged 30, with general alopecia, which had been complete over the whole body, but down was now beginning to grow in some places. There was no history or evidence of syphilis or serious illness; but the man had come from America in August last year, and worked in close rooms here. The hair began to fall in September, and grew partly again in November; then, after shaving the scalp, it did not appear again till lately. He was a nervous weakly subject, but attributed much improvement in health to the extract of *jaborandi*, which he was taking internally, and the same remedy only was being applied locally.—Dr. TAAFFE mentioned that he had known petroleum rubbed into the scalp to markedly promote growth of hair.

Hydronephrosis and Pyonephritis.—Dr. J. H. ROSS read notes of a case of hydronephrosis of the right kidney and pyonephritis of the left, occurring in a man, aged 29, of delicate constitution. He applied for advice in November, 1881, complaining of hourly calls to urinate day and night; there was tenderness over the bladder, no pain in the back, or rise of temperature. There was pus in the urine; no stone in the bladder. Warm baths and morphine-suppositories were prescribed, but the latter were not tolerated. Under general treatment, his health improved, but pus remained always in the urine. In June, 1885, he went to sleep on grass in a cold wind, and got rigors the same evening, with pyrexia. On examination, a tumour could be detected in the right hypochondrium, about the size and shape of a cocoa-nut, soft and fluctuating. It seemed to come from behind the liver. Its exact relation with that organ could not be made out, but a distended gall-bladder seemed a possible diagnosis. From this time, the temperature continued febrile, and rigors occurred about every twenty-four hours. The tumour increased till it occupied the whole of the right side of the abdomen, sometimes being more tense than others. On August 12th, after consultation with Dr. Rutter and Mr. Couling, the tumour was aspirated, and forty-two ounces of apparently normal urine drawn off, acid in reaction, and of specific gravity 1006. The patient slept better that night than for many months, and passed no urine, nor felt need for doing so; but he passed a quantity of purulent fluid, tinged with blood, at one evacuation from the bladder. Next morning, the cyst was as large and tense as before the operation; there was no tenderness over the left kidney. From this time, he passed much pus, mixed with urine. Vomiting set in, and he died on August

19th. *Post mortem*, the large sac on the right was crossed by the transverse colon. It was full of fluid, as above described, and contained upwards of thirty calculi; one, of trefoil-shape, weighed fifty grains, and was suspended in the ureter; they were of oxalate of lime, coated with phosphates. The sac seemed only a membrane, with a little renal substance in its upper part. The left kidney was enlarged to three times its normal size, and contained much creamy pus, and was broken down in parts. There was no stone in it, or in the ureters or bladder, the mucous coats of which were thickened. Dr. ROSS considered it probable that the calculus of the right kidney had existed several years, but the main trouble was in the left, when chronic scrofulous inflammation had been led to take an acute form by the chill in June. The explanation of no urine passing for twenty-four hours was probably that the cyst had to be filled before any passed into the bladder, and the stone blocked the passage. The absence of lumbar pain and of uremia was remarkable.—Dr. UTHOFF thought that aspiration had rather hastened the fatal termination by interfering with the one kidney which was working.—Mr. VERRALL suggested that draining the sac might have been advantageous.—Dr. MACKAY referred to the difficulty of diagnosis of renal cysts, and also to the value of small doses of cantharides in pyelitis, as evidenced in his cases recorded in the BRITISH MEDICAL JOURNAL of 1869, etc.

Foreign Bodies in the Ear and Throat.—Mr. CRESSWELL BABER reported several instances of foreign bodies in the ear. In one, a locust-bean had been introduced four years before, but had only caused pain for eleven days. Syringing failed to remove it; but after sedative treatment to relieve inflammation and swelling of the meatus, the bean, after some time, fell out. A polypus behind it was removed, and hearing was restored. It was necessary to watch such cases carefully, because more rapid removal might be necessary in view of more serious symptoms. In another case, a boy had put in his right ear a pea eight months before. The meatus was full of discharging granulations, which had to be “snared,” and the pea was removed by hook and syringing. Mr. Baber showed also a sharp piece of bone, one inch long, removed from the throat of a lady by the sponge-probang.—Dr. TAAFFE remarked on the duration of sensation of a foreign body in the throat after its real removal; also on the value of soft solid food.—Dr. UTHOFF related the case of a man who had, unknown to himself, put the ivory end of a ball-room pencil in each ear.

REVIEWS AND NOTICES.

ANNUAL SANITARY REPORT FOR BOMBAY. 1884.

THIS report is the first that has appeared without the usual sections on meteorology, the European and Native armies of the Presidency, and jails. These sections are omitted in compliance with a resolution of the Government of India, dated June 27th, 1878, which, so far as our knowledge extends, has come into operation for the first time in the report for 1884. We presume the object is to avoid repetition and the cost of printing the same matter twice over. Henceforth, military vital statistics will be dealt with, once and for all, in the report of the central military medical authority, or by the Sanitary Commissioner with the Government of India, and those of jails by the prison-authorities.

On July 1st, 1884, the compilation of the vital statistics of the Presidency was, for the first time, entrusted solely to the deputy sanitary commissioners. It is noted that the new arrangement has worked admirably, as the statistics are now received from the villages with much greater regularity than formerly.

The mean number of births registered in the Presidency of Bombay, including Sind, for the ten years from 1874 to 1883, was 193,339. For 1884, it amounted to 278,986, being 32,922 in excess of the previous year, exceeding the mean of the preceding ten years by 166,165. It is a strange fact, and one very discreditable to the municipal authorities of the city of Bombay, that the registration of births in the city is extremely defective. Without accuracy in details in registration, vital statistics become not only misleading, but mischievous in a high degree.

The death-rate among the civil population in the town, rural and cantonment circles of the Presidency, amounts to 214,376 males, and 194,033 females, a total of 408,409. Excluding the famine years, 1877-78, the recorded deaths in 1883 and 1884 were more than in any year of the previous ten.

The mortality amongst infants under one year, and children above one but under five years, is noted as “terribly high. The causes of

death are thus distributed. Cholera, 13,804; small-pox, 14,488; fevers, 276,989; bowel-complaints, 35,988; injuries, 5,570; other causes, 61,625. Here, as always, it will be seen that "fevers" destroy more people than all other causes put together.

It will be a matter of satisfaction all over Europe that the government of Bombay is alive to the necessity of greater strictness of procedure in the matter of medical inspection of vessels and bills of health. A health-officer of the port has been appointed, whose whole time is given up to his important and responsible duties. A medical board has also been appointed for the express purpose of determining whether or not cholera is epidemic in the city, and the collection of customs is guided by the report of the Board on this point. The Sanitary Commissioner, however, notes with regret that the orders of Government confine the duties of the health-officer of the port entirely to the medical inspection of the officers, crews, and passengers of outgoing vessels; we are quite at one with the Sanitary Commissioner in his expressed opinion that "the sanitary condition of ships is quite as important" as that of medical inspection of crew and passengers. The Sanitary Commissioner quotes Dr. Southwood Smith, and other sanitary authorities, in support of his contention.

We note another appointment which has given great satisfaction to the Sanitary Commissioner, namely, of Colonel Ducat, R.E., as sanitary engineer. This officer has made sanitary engineering on a large scale the subject of careful study and practice, and the Commissioner records the admirable work done by his able colleague, particularly in correcting the plans for the drainage of the new buildings at Elphinstone College, at the European General Hospital, and in the Marine Lines. It would greatly advance the progress of sanitation in India generally if similar appointments were made in Madras and Bengal, and the Central Provinces.

There is one other point to which we must refer before we dismiss Deputy Surgeon-General Hewlett's report. The Municipal Commissioner selected a site for a cholera-hospital for natives in the immediate vicinity of the European General Hospital. This was strongly objected to by Surgeon-General Beatty, as a project fraught with danger, and likely to lead to calamitous results. It may be allowed that Dr. Beattie may have overestimated the danger of cholera being propagated in the General Hospital in the way he feared. As he pointed out on a previous occasion, when this controversy was under notice, the danger would be much or little, according to the good or bad administration of the proposed hospital. The evidence derived from the experience of Indian medical officers certainly goes to prove that cholera is rarely propagated from person to person in hospitals, and that fresh cholera dejections are innocuous. All this is much insisted on by the Sanitary Commissioner, who, as a devoted admirer and follower of Dr. Cunningham, the late Sanitary Commissioner with the Government of India, denies that cholera is ever propagated by human intercourse, a doctrine which finds little acceptance with the best sanitary authorities in this country.

On one point all will agree with Mr. Hewlett, namely, "that one of the chief factors in producing cholera is filth in and around inhabited areas." We are glad to see that the Sanitary Commissioner is urgent on the necessity of early treatment of the premonitory diarrhoea; and, from a larger experience, we think he is right in insisting on the use of dilute sulphuric acid, not only in the treatment of the disease, but as a prophylactic of great value.

THE ENTRIES AT THE MEDICAL SCHOOLS.

THE returns from some of the London hospitals are, we understand, not yet completed. At present, the total entries (excluding students attending classes for the preliminary scientific examination at London University) are as follows: St. Bartholomew's Hospital, 148; Charing Cross, 63; Guy's, 76; King's College, 61; London, 108; Middlesex, 30; St. Mary's, 81; St. Thomas's, 113; University College, 67; Westminster, 35; London School of Medicine for Women, 20; National Dental Hospital, 14. Among the Provincial Schools, Bristol has received 31 new students; University of Cambridge, 104; the Owens College, 72; and the Yorkshire College, Leeds, 41.

BEQUESTS AND DONATIONS.—The Duke of Bedford has given £50 to the Building Fund of the New Great Northern Central Hospital.—JAMES CAMPBELL WHITE has given £200, Mr. James Campbell £100, Sir once of £50, and Dr. Cameron, M.P., £50, to the Western Lin with on the 1st of Nov.—Mr. C. J. Thornley bequeathed £100 to the Bath if these cases wd. and £100 to the Bath Mineral Water Hospital.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 24th, 1885.

THE COMING MEETING AT THE ROYAL COLLEGE OF SURGEONS.

AT 3 o'clock next Thursday afternoon, the Council of the College of Surgeons will meet all such Fellows and Members as choose to be present, in order to discuss certain important questions concerning the relations between the executive of the corporation and those who hold its diplomas. At the last quarterly meeting of the Council, it was directed that a special report should be prepared for distribution amongst the Fellows and Members. This report, which may be obtained on application to the Secretary, consists of a record of the transactions of the Council during the collegiate year from July, 1884, to July, 1885, the returns of the results of the several College examinations, and a statement of the College receipts and expenditure during the same period. Without denying that thanks are due to the Council, as now constituted, for the preparation and circulation of this report, it must be remembered that this excellent innovation is the fruit of long agitation on the part of licentiates of the College for their just dues. A recapitulation of the portions of the report which most concern the objects of the coming meeting may prove of interest to those of our readers who, through pressure of public and private business, may dread the study of any form of publication of this class.

On November 19th, 1884, an extraordinary meeting of the Council was held to consider certain propositions made by Mr. Christopher Heath in reference to the offices of Vice-President and President. Mr. Heath moved, first, that the office of Vice-President be, for the future, held for one year only by the same person; and, secondly, that the President be elected annually by the Council from among its members, and that no President hold office for more than five consecutive years.

The first motion was negatived, by fourteen votes against it to six in its favour; and the second having been withdrawn, it was resolved that the subject of the election of President be referred to the Committee on Charters and by-laws, for report to the Council. The same Committee was further entrusted to report on the several recommendations for alterations in the charters and by-laws of the College proposed by the Association of Fellows. Before these reports had been considered and received, a letter was read, at the ordinary meeting of the Council in December, from the President of the Association of Members of the College, enclosing a resolution concerning the election of members of Council by the Fellows and Members of the College

unitedly. In accordance with a wish expressed in this letter, the Council resolved that the President and Vice-presidents should receive a deputation from the Association of Members, which, accordingly was done.

On December 19th, the Council, at an extraordinary meeting, received the report of the Committee on Charters and By-laws. That Committee reported that, having considered the subject of the election of the President, it was moved that it be recommended to the Council that the President be elected annually by the Fellows of the College, in a manner hereafter to be agreed on by the Council. This motion was negatived by a majority of six to three. The minority moved an amendment, embodying their reasons for disapproving of the report of the Committee respecting the election of President. In this amendment, it was urged that the office would become more dignified if it were held for a term of years, subject to control by annual re-election; and that the Council, as at present constituted, was so used to the old routine-system of election by seniority, that the new system could hardly be carried out by them, whilst the Fellows were the proper persons to elect annually the President, after previous nomination by the Council of three of its past or present members, including the present President, unless he had served his term, or desired to retire. Any elected President, who had been a past member of the Council, should once more be a member *ex officio*. This amendment was lost, and the original motion, deciding that the election should be conducted by the Fellows, "in a manner hereafter to be agreed on by the Council," was put and carried. What "manner," and when the Council were to agree upon it, was not expressed, and was left to the domain of theory and anticipation.

The remainder of the report of the Committee on Charters and By-laws was then approved and adopted, together with the above alterations on the President question. The other portions of the report referred to certain recommendations for alteration in the charters and by-laws contained in a letter from the Association of Fellows. The Committee reported favourably on only a few of these recommendations. They were in favour of the abolition of the fee of twenty guineas required of each member of Council on his first admission, and agreed to the appointment of two scrutineers to act during the annual election of members of Council. These scrutineers were to be Fellows, outside the ranks of the Council or of officials at the College, and were to be appointed by the President. The Committee favoured, with certain modifications, a proposal relating to the appointment of Treasurer from amongst the members of Council, and they agreed to the exhibition of the published minutes of each meeting of Council; to the eligibility of Fellows of ten or Members of twenty years' standing for election to the Council; to a regulation framed to prevent too frequent absence of individual members from Council meetings; to the admission of members of the College as examiners in Anatomy and Physiology under the conjoint scheme; and to the annual general meeting of Fellows and Members. On the other hand, the report of the Committee on Charters rejected, as did the Council which adopted the report, the annual nomination of two honorary Fellows; the proposals that not more than one-half of the members of the Court of Examiners, and not more than two members of the Board, should have seats on the Council, and that an examiner should vacate his office if elected into the Council; the self-nomination of a candidate for Council; the appointment of "substitute members" on the death or premature retirement of members of Council; the

annual instead of triennial vacation of office of the six members of Council who have served longest without re-election; the annual election of members of the Council; and lastly, a regulation whereby the consent of Fellows and Members, officially granted at a special or annual meeting, should be required before any new College law or by-law could be passed. The abolition of compulsory personal voting had already been conceded.

At the quarterly meeting in January, 1885, the recommendations of the Association of Members were read, and referred to the Committee on Charters. These recommendations favoured triennial general elections of the Council, previous members of Council not to be eligible for re-election for one further term till they had been three years out of office; they suggested that the Council should consist of twenty-five members, including the President, who should be elected by the Council, whilst the Fellows should elect thirteen, and the Members twelve; and they further urged that the election for the Council should be conducted by personal voting at the College, and also by voting papers, which should be sent to every Fellow and Member of the College on the *Register*, resident in the United Kingdom. At the same meeting, a letter was read from the Secretary of the Association of Fellows, enclosing resolutions of that Association, expressing regret at the rejection of so many of their recommendations by the Committee of Charters, and requesting that no steps should be taken to obtain a new charter till the proposals of the Council and of the Association of Fellows had been submitted to a general meeting of Fellows and Members. The Council agreed that the President should discuss these questions with delegates from the Association.

At the April quarterly meeting, yet another report of the Committee on Charters was approved and adopted. This report referred to the propositions of the Association of Members, and to the resolutions contained in Mr. Morgan's letter. The Committee agreed to the principle of general meetings for the discussion of affairs of the College in presence of the Council, and accordingly the President conferred with delegates from the Fellows' Association, as had previously been done with respect to the Members' Association. The Committee rejected the three proposals of the latter Association, and expressed in a more concise manner than in their previous report the questions wherein they were in accord or at variance with the Association of Fellows, with delegates from which the President had recently conferred. The Committee further urged that the alterations in the charters should be presented as soon as possible to the proper authorities. On the adoption of this report, the Council agreed to entrust the Committee with the duty of attending to the legalisation of the alteration in the charters, and it was directed that copies of the report of the Committee be sent to the two Associations.

It will be seen, on perusal of the above official transactions, on the part of the Council in relation to the Associations, that, after a great amount of labour and discussion, very few of the requests of the latter were granted. Some of these requests were put aside, it must be admitted, on account of legal difficulties; but the rejection of the remainder appeared to be based on trivial arguments. The Association of Fellows employed the expression, "extreme disappointment," in their resolutions forwarded in Mr. Morgan's letter; and the Members' Association were, we believe, more deeply irritated by the rejection of their claims. The elections to the Council last July excited great interest, partly because several candidates in favour of reform contested for the vacancies, but also because there were very divided opinions

concerning a distinguished but somewhat reactionary member, who sought re-election. The result was, under the circumstances, satisfactory. Two ardent reformers were elected, one a noted provincial surgeon; whilst the hundred and eighty-two votes which brought in Mr. Savory at the head of the poll, showed that the Fellows were ready to honour a distinguished surgeon, even if he disagreed from them in opinion. The next act in this drama is the coming meeting, at which, we are informed, neither of the Associations intends to abate its claims. It is possible that the consummation most devoutly to be wished, and most likely to be obtained, after prolonged negotiations between the College and its licentiates, would be an arrangement like that so long in force at the College of Physicians, where the meetings are regular and frequent, and the Fellows have a real voice in the College legislation. The Members of the College might then be allowed votes for the Council elections. That a satisfactory manner of electing the President is needed, nobody can deny. Lastly, as we have repeatedly urged, the Fellows and Members must act in accord, and not delight the reactionary members of the Council by a series of disputes in their very presence. The Fellows must remember that the Members decline to be mere licentiates, and nothing more. In a letter which we publish this week, it is most justly observed that, in the course of his daily duties, every Member is accustomed to face questions as grave, and to bear responsibilities as heavy, as any connected with college-politics. It is absurd, therefore, to assert that a Member is unfit for a voice in college-affairs. The Members must, nevertheless, bear in mind that the Fellows gained their diploma at a great cost of time during a critical stage in their career, and have ever been the motive agents in every reform that has already been effected.

THE HARVEIAN ORATION.

DR. QUAIN, in the excellent Harveian Oration which he delivered last Monday, could not help being moved to deal with large topics by reflection on the character of the great pioneer of experimental method, whose portrait in the Royal College of Physicians hung before him in all its courteous dignity. Harvey was, in his day, not only a great discoverer, but a great gentleman, living in the full stream of the knowledge and chivalry of the age of the Renaissance, and held in honour by courts as well as by universities. His career has been so often laid before the world, in all detail, by successive orators, that it may be considered to have been established as far as the resources of history permit, even in that most often debated point of his relation to his Italian contemporaries. It was well that Dr. Quain did not spend his time upon this well worn track, and was bold enough to take up a subject which Harvey's position and career very legitimately suggest. Dr. Quain has too wide and accurate a knowledge of many sides of the modern world to overestimate the present or the past position and status of the medical profession. "Why is it," he began by asking, "that among a vast number of persons, alike in ancient and modern times, medicine has not enjoyed that high estimate of its value as an art and as a science to which it is justly entitled?" Why is it, in fact, that, in modern England, among the learned professions at any rate, the medical holds the lowest place, below the clerical, below the legal, and that not only in the artificial ritual of court-precedence, but in actual social reputation and honour and reward? This is not the place to discuss the position of the Church. So long as there is faith in things spiritual,

they must rank above things temporal. But with regard to the comparison between Law and Medicine, there is an obvious point on which medicine has to confess itself the less important. To the English people, the methods and processes of government have always been most interesting; they have done a great part of it themselves, and are anxious to do more. The practical power has never been quite out of the reach of the people since the Commonwealth, and, in the last half century, has fallen into their hands more rapidly than they expected. With the processes of government the legal profession has had much to do; the medical, nothing, or next to nothing. There is no medical presidency in any way comparable to the Lord Chancellorship; a medical man in practice has been almost as exceptional a figure in Parliament as the artisan. In this way he is unimportant. Political power is the greatest of social successes, and it is not at present to be reached by medicine, although it may be more nearly attained in the new Parliament.

But it may be objected that the physician or the surgeon has, at any rate, the more important practical matter in his hands, for he has the lives and health of his fellow men, and life and health are, after all, worth more than political power; there are not many people who would care to die for their party, or be ill all their lives for their caucus, and the medical man who can cure them should be higher in their esteem than any politician. But, can the medical man cure them? That has been the undercurrent of doubt throughout many generations, not loudly expressed but deeply felt. Since Harvey's time, system has succeeded system, and one infallible cure has replaced another so often, that the shrewd observer could readily draw his own conclusion that the medical man's pretensions have been only too often beyond his powers; and if he found a man of scanty education and narrow ideas deciding, by a stroke of the pen, on points where the wisest would give no answer, he naturally rated him low in his esteem. The doctor's task of healing has, in fact, only in small part as yet come within his powers, and he is only slowly losing the reputation which some of a former generation brought upon him, of being a dogmatist, and sometimes a most obstinate dogmatist, on many points on which he had better have said less and thought more. He has it is true, a very substantial counterplea, that sickness will not wait till it is understood; something had to be said, and something had to be done, and he was probably doing the best that could be managed if he followed the Brunonian theory, or emulated the practice of Broussais, who boasted that he had used 100,000 leeches. Now, more recognition of the limits of knowledge, and more exact methods of pursuing it, have brought more accuracy, with more modesty, and will bring more esteem.

To trace the gradual and steady progress of medicine during these later years is always a pleasant task, and Dr. Quain seemed thoroughly to enjoy it. He chose most irreproachable instances of modern improvement: the accurate recognition of contagion, and the practical means that are competent to prevent it, which, amongst other things, have saved us from cholera during this last European epidemic; the practical freedom of Ireland and of Prussia, the best vaccinated countries in the world, from the curse of small-pox; the improvements in medicines during the last forty years by the addition of bromides, salicylates, anesthetics, antipyretics, and antiseptics; and that great statistical fact, which is not to be passed by as a meaningless result of the manipulation of figures, namely, the steady diminution of our death-rate during the last forty-six years from 23.3 to 19.6, the lowest

death-rate of any great country in the world. That is not all due directly to the medical man, but in part to Public Health Acts and sanitary measures which the medical man has forced the public to believe in and to carry out.

There are still a few, perhaps, who are sceptical about any substantial progress in modern medicine; partly, perhaps, because it is not very easy to realise vividly the absurdities and enormities of a previous century. Let them turn for a moment to India; there they will see medicine for the most part in its earliest or theological stage, side by side with the medical rationalism of modern Europe, and nowhere can a better proof be offered of the practical advantages of the one over the other. We are afraid that precedent would forbid any second Oration from Dr. Quain, but we hope that his successor may be tempted to give us, with the same vigour of thought and language, a sketch of the points where progress is still in abeyance, and a further glimpse into the methods of advance.

THE HOUSING OF THE POOR.

AN announcement has just been made which, if promulgated in times less preoccupied than the present, would probably have led to a renewal of much animated controversy of a socio-political and profoundly unsatisfying kind. It is stated, apparently on authority, that active steps are being taken to "clear out" the House of Detention at Clerkenwell and Coldbath Fields Prison; and that both buildings will be ready to come down soon after Christmas. We may take this, therefore, as the first outward and visible sign of the working of the Housing of the Poor Act of last session. It will be remembered that round the clause of the original Bill that gave power for the sale of the sites of Millbank, Pentonville, and Coldbath Fields Prisons to the Metropolitan Board of Works, at such price as would enable the Board, "without incurring serious loss," to appropriate the sites for artisans' dwellings, was concentrated the fiercest opposition manifested to the Bill by economical purists and others. Eventually, the Government expunged what Lord Salisbury described, in his remarkable memorandum appended to the report of the Royal Commission, as "the surrender of an increase which has become unexpectedly disposable," and compelled the Metropolitan Board of Works, if the sites should be for sale, to give "a fair market price" for them.

We do not propose now to re-argue the question whether the giving up of these sites on the terms originally proposed was properly to be described as "State Socialism" or not; but it may reasonably be questioned whether the Metropolitan Board of Works, with its purchase of central sites at a fair market-price, will be able to construct dwellings thereon, and to let them at such a figure as the poor can afford to pay. Herein lies the real *crux* of the situation. Better houses for the poor—meaning thereby the lower class of artisans, in fitful and uncertain employment—are admitted on all hands to be needed. The large Dwellings Companies of the Peabody Trust give accommodation that is far beyond the means of such as these. It has been found by painful experience that it is impossible to provide, at an expense which they can afford to pay, shelter for the vagrant and degraded poor on the commercial principles of getting a dividend out of the capital sunk in the transaction. There seems but one way out of the difficulty: help from the municipality in the housing of its poorest citizens, in order to keep them well, on the same (or rather wiser) principles as it affords them help when they are stricken down

by sickness. Whether the State, which has made such inroads into the available breathing-space of the metropolis for its own ends, and has thereby forced up the price of land in localities where alone artisans find it possible to live, should be called upon to forego some of its "unearned increment," or whether the Metropolitan Board of Works should, after paying the full price for sites, find it necessary, in order to make existence possible for its tenants in the houses which it erects thereon, to let the rooms at unremunerative prices, is a question which we need not now discuss. On one or other horn of the dilemma our administrators must be impaled, and they will find either of them very sharp and unpleasant.

We may perhaps take this opportunity of remarking upon the readiness with which the public anxiety about the proper housing of the poor has been assuaged by the passing of an Act of Parliament; as though Acts of Parliament worked themselves, and the mere existence of them put an effectual and permanent end to the evils with which they were designed to cope. Just at this time two years ago, England was ringing from one end to the other with the bitter cry of the outcast poor. To-day, no single echo of this cry is to be heard; not certainly because the state of affairs is any better now than it was then, but because the public conscience, seared by the revelations then made, has long ago been healed under the soothing influence of a Royal Commission presenting many Blue-books, and an Act of Parliament. We have watched with some pertinacity for evidence of preparations for putting the Act of last session into force throughout the country, and have found none. The Local Government Board have not even thought it worth while as yet to direct the attention of sanitary authorities to its provisions, though the Act has been passed more than two months. In none of the minutes of proceedings of local bodies or of the weekly, fortnightly, monthly, and other reports of medical officers of health that reach us in such embarrassing profusion, have we discovered the smallest signs of activity in taking advantage of the powers given by the new Act. Everyone seems satisfied that the question of the housing of the poor was happily solved when Her Majesty affixed her royal sign-manual to the measure; and orators no longer attempt to secure easy applause by sympathetic references to the subject.

We desire, therefore, once more plainly to say that the housing of the poor is a matter not to be solved by empirical or slap-dash methods. It is by no means an attractive sphere of labour, and brings but little honour or glory to those engaged in it. It has to be grappled with in detail, with patience, perseverance, and long suffering. Merely to pass an Act of Parliament is vain if the local authorities, charged with the execution of it, do not loyally endeavour to endue its dry bones with life. Every authority, urban and general, may now provide lodging houses for the labouring classes, and fit-up, furnish, and supply them with the requisite furniture-fittings and conveniences.

Sir Richard Cross's Acts now extend to every urban sanitary district, whatever its size. Every authority can now make by-laws as to tenement-houses under Section 90 of the Public Health Act, without the necessity of previously asking the Local Government Board to give them the powers of that section. These enactments are all in the direction of simplification and of freeing local authorities from restrictions that had proved burdensome, and, therefore, antagonistic to the better housing of the poor. We should be glad if we could

see anxiety on the part of those who have the practical working of the Act in their hands, to carry out its objects energetically and without delay.

THE day of meeting of the General Medical Council has been altered from Tuesday, November 24th, originally appointed, to Tuesday, November 17th, at 2 o'clock.

THE Metropolitan Asylums Board have submitted the evidence taken at the late inquiry into the alleged maladministration of the Eastern Asylum to counsel, with a view of obtaining advice as to the course the managers can follow in dealing with those who are alleged to have maladministered the asylum.

THE Bowman Lecture will be delivered at the Ophthalmological Society of the United Kingdom, at 9 p.m. on Friday, November 13th, by Dr. Hughlings Jackson, F.R.S. The subject will be Ophthalmology and Diseases of the Nervous System.

A CONSIDERABLE portion of the new building of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen Square, Bloomsbury, recently opened by the Prince of Wales, is now in occupation. In addition to more wards for free patients, others for persons able to contribute a guinea weekly will be made available at the end of the present month.

At the Young Men's Christian Association, Exeter Hall, a course of medical lectures will be given on Tuesday evenings. The chair will be taken each evening at 8 o'clock. The following is the programme of lectures. October 27th, Life in London Hygienically Considered, by Mr. James Cantlie. November 3rd, Food and Appetite, by Sir J. Risdon Bennett, M.D. November 10th, Rest and Sleep, by Sir Henry A. Pitman, M.D. November 17th, How and Why the Blood is Circulated, by Mr. F. Le Gros Clark. November 24th, The Rational Principles of Medicine, by Dr. Alfred Carpenter.

MEDICAL INSPECTOR OF SCHOOLS.

ACCORDING to a recent royal decree, all Spanish towns of more than 100,000 persons are to appoint medical inspectors of schools. The town councils are to fix the salary in each case.

RESERVE MEN AND SANITARY PRECAUTIONS.

IN order to prevent the introduction of syphilis into their homes, the reserve men of the Russian army, before being dismissed, are to be examined, and, if necessary, detained in hospital until it is safe to allow them to return home.

MEDICAL SOCIETY OF UNIVERSITY COLLEGE, LONDON.

A PAPER by Dr. J. E. Squire, entitled "With the Field-Force at Suakin," will be read on Wednesday, October 28th, at this Society. Dr. Squire went out with the National Aid Society, and his paper will undoubtedly contain matters of great interest. The chair will be taken by Mr. R. J. Godlee, at 7 p.m.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

At the opening meeting of the above Society, held on Friday, October 16th, Mr. Joseph White, the President, being in the chair, an address on Certain Surgical Canons of Recent Establishment was delivered by Mr. Jonathan Hutchinson. The meeting was largely attended by the medical profession resident in the town and neighbourhood. A vote of thanks to Mr. Hutchinson, proposed by Dr. Ransom and seconded by Mr. Beddard, was unanimously accorded.

MANCHESTER PATHOLOGICAL SOCIETY.

THE following officers were elected, October 14th, 1885, to act for the ensuing year. *President:* H. Ashby, M.D. *Vice-Presidents:* J.

Dreschfeld, M.D.; A. W. Stocks. *Treasurer:* Judson S. Bury, M.D. *Secretary:* A. H. Young, M.B. *Committee:* J. Dixon Mann, M.D.; J. Broadbent; A. H. Griffith, M.B.; H. R. Hutton, M.D.; H. G. Brooke, M.B.; T. C. Railton, M.D. *Auditors:* T. W. Rhodes, M.D.; T. Harris, M.D.

THE INTERNATIONAL SANITARY CONFERENCE.

PUBLIC opinion, both at home and abroad, appears to agree in thinking that the International Sanitary Conference that was "adjourned" last June, is never likely to reassemble. Last week the *Popolo Romano*, referring to the fact that the 16th of next month is the date fixed for the reassembling, stated that it was not certain if the event would take place, inasmuch as several of the States, which were represented when the Conference met in May last, had not sent in their adhesion to the proposal for its reconconvocation.

CREMATION.

On the 19th instant, at the crematory of St. John's, Woking, belonging to the Cremation Society of England, the rite of cremation was performed upon the body of Charles William Carpenter, Esq., of St. Mary's Road, Harlesden, N.W. There were satisfactory medical certificates, duly signed by registered medical practitioners. The cremation was conducted by trained servants of the Society, acting under orders of the engineer, and was most satisfactorily performed in every respect. The age of the deceased gentleman was 57.

REMOVAL OF THE LARYNX.

At the meeting of the Surgical Section of the Canadian Medical Association, on September 3rd, Dr. Park, of Buffalo, gave an account of a case in which he had removed the larynx for epithelioma of the vocal cords. The patient was an elderly medical man, who had suffered for some years from laryngeal trouble. The operation was performed on January 28th. The parts healed up rapidly; Gussenbauer's tubes were afterwards inserted; and, at the time of the report, the patient could speak easily and distinctly.

THE CANADIAN MEDICAL ASSOCIATION.

THE eighteenth annual meeting of the Dominion Medical Association was held in Chatham, on September 2nd and 3rd, under the presidency of Dr. W. Osler. In his address, Dr. Osler urged the importance of elevating the standard of medical education in Canada. The matriculation examination should be made more stringent; there should be uniformity in the curricula of the different schools; and the members of the profession should have complete control of the licensing power. There should be one portal through which every candidate should pass. The example of Ontario, in having one medical board before which each candidate for practice must appear, might well be followed in the other provinces. Several interesting papers were read in the Medical and Surgical Sections. The Association is to meet next year in Quebec, and Dr. Holmes, of Chatham, will preside on the occasion.

SCIENTIFIC TRAINING AN EDUCATIONAL NECESSITY.

"THE old order changeth, giving place unto the new." Sir Lyon Playfair, speaking at Burnley a few days ago, followed up the tenour of his recent utterances before the British Association. The worker, whether he labours with head alone, or with head and hands, uses the head in any case. It is no longer correct to speak of him as a "hand," if it ever were. Now that mechanical ingenuity has multiplied refinements of machinery in all manufactures, he is less an instrument, more a director of the action of forces, something of a master in his own domain, and must, if he is to work successfully and to "pay," be skilled in the why and the wherefore of his art. If no better and intrinsic power of reason were sufficient to teach this lesson, the sense of competition is enough to impress it, for the doctrine of work founded on rational technical instruction is potent in every

sphere of the world's activity. Let the seeds of the knowledge of national laws be sown, however lightly, even in primary schools, and let there be some means of fostering their after-development in night classes, institutes, or colleges, intended to supply to young men the necessary insight into the plan of their particular callings. These propositions, while they apply equally to the teaching of every science and art, must appear to our readers particularly suited to the place, time, and circumstances in which they were brought forward.

POISONING BY ADULTERATED WINE.

OUR correspondent in Valencia writes: In a little village near this, Cuarte de Poblet, thirty-six persons have been poisoned by drinking adulterated wine from one tavern. They had violent colic, vomiting, and diarrhoea, which caused great alarm here. The Government analyst has reported that the wine was adulterated with colouring matter and acetate of mercury (?). As yet, no deaths have occurred.

DENTISTRY IN RUSSIA.

A SET of rules has been published by the Russian Government on the education and qualification of dentists. As evidence of a sufficient preliminary education, they must have passed through six out of the eight classes of a classical or real gymnasium. Their professional studies may be carried out either in universities, where arrangements will be made for the foundation of special odontological chairs, laboratories, and out-patient departments, or in private institutions, approved for the purpose by university authorities. At the end of the period of studentship, the length of which does not appear to be defined in the present regulations, a practical and theoretical examination must be passed, and a diploma obtained.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

ON Wednesday, October 14th, a quarterly court of the directors of the above Society was held; the President, Sir James Paget, Bart., in the chair. Two new members were elected. Sixty-four widows, nine orphans, and three orphans on the Copeland Fund, sent in applications for relief, and it was resolved that a sum of £1,371 be recommended for distribution at the next court. The death of one widow was reported, who had been receiving grants since March, 1864; and the marriage of another was announced. For the last ten years or more, the directors have been able to make a Christmas present to the widows and orphans on the funds; last year the gift was £5 to each widow, and £2 to each orphan; this year the funds in hand would not allow so large a sum to be expended, and it was resolved that the gift this year should be £2 10s. to each widow, and £1 to each orphan. A framed notice of the objects of the Society was shown at the meeting, and it was determined that a copy should be sent to all the large hospitals and medical societies within the limits of the Society, with a request that the notice should be hung in some conspicuous place.

TYPHOID FEVER IN DARENTH ASYLUM.

AN outbreak of this dangerous fever has occurred in the Darenth Asylum for imbecile children. There have been, during September, thirty-six cases among the patients, and one nurse has been attacked, and seven deaths have resulted. The water supplied to the asylum by the Kent Water Company has been under suspicion; but Dr. Tidy, who has analysed several samples, has failed to find any evidence of the water being polluted. Dr. Fletcher Beach, the medical superintendent, however, recollects that, just previously to the attack breaking out, one tank of water smelt very badly, and he concludes that the supply was drawn from a well sunk near some houses at Dartford, at which there is a cesspool, and in the houses, some time ago, cases of typhoid fever occurred; since the attack, this water had been pumped into a brook. Dr. McKellar, of the Stockwell Fever Asylum, concurs with Dr. Fletcher Beach in thinking that the water-supply is

the cause of the outbreak. There are still twenty-nine patients under treatment, and the institution is one built with all the latest sanitary improvements, is in a most healthy spot, and the patients, who are weak-minded children, are under the skilled care of a resident physician and trained nurses.

CLOACA THAMESIS.

IN nothing is the helplessness of London as with regard to their municipal affairs more strikingly or painfully shown, than in the manner in which the question of stopping the scandalously unsanitary state of the Thames has been allowed to drag on, and be bandied about from one so-called "authority" to another, without any other result than the expenditure of the ratepayers' money. We had, first of all, two of these authorities, the City Corporation and the Metropolitan Board of Works, in fierce conflict as to the existence of a nuisance at all, the Corporation condemning the state of the river, the Board of Works defending it, both with much vehemence and much outlay of cash. We had next a Royal Commission, which described the foulness of Father Thames in language unmistakable, and next a letter from the Home Secretary of the period to the Board of Works, fortified with the strongest adjectives that the Home Office vocabulary admits. So far as can be ascertained, however, nothing effectual has been done or decided upon except some fatuous "disinfection" of the sewage by permanganate of potash at an expense which in summer-time was reckoned in thousands per week. At last, the City Fathers have been roused. As Mr. Deputy Fry pertinently observed at the Court of Common Council, on the 15th instant, are they, after spending £25,000 in establishing beyond doubt that the Thames is polluted, going to rest without demanding that the recommendations of Lord Bramwell's Commission shall be carried out? Accordingly, it has been referred to the Port of London Sanitary Committee to urge upon the Home Secretary the necessity of those recommendations being forthwith carried into effect, with a view to the permanent removal of the nuisance. More letter-writing will now go on between the City, the Home Secretary, and the Board of Works, and we shall very likely have next summer upon us before anything is settled. Meanwhile, a promise of help in the matter has come from a quite unexpected quarter. Mr. J. O. Phillips, the clever and astute secretary of the Gas Light and Coke Company, sees a chance of relieving Londoners of their sewage, and of making a profit out of his empty colliers returning to Newcastle at one and the same time. The scheme is ingenious, and really seems workable. Shortly, it is this: the Gas Company's works at Beckton immediately adjoin the Barking sewage-outfall. Mr. Phillips suggests that, on land which the Metropolitan Board of Works have at hand, they should construct precipitating beds and pressing apparatus for their sewage, which would reduce the bulk to be dealt with to about 1,200 tons a day of pressed and dried sewage-slabs. With the fleet of screw-colliers at his disposal, which now have to make their journey back to the coal-fields empty, Mr. Phillips makes light of being able to take away this daily amount of sewage-sludge, and of discharging it in mid-ocean, never to return to vex the hearts and noses of Londoners. "A highly practical mechanical engineer has devised an engine by which the cargo of dry sewage can be discharged in mid-ocean without danger; and he asserts, and is ready to demonstrate, that his plan is perfectly feasible, and his machinery as economical as it is simple." The Canvey Island scheme, which the Board of Works is reported to be hatching, cannot, Mr. Phillips thinks—and his view as the manager of a huge commercial undertaking is entitled to some weight—be completed for another five years at least, and is estimated to cost five millions of money. Moreover, the sewage will even then be removed to a spot still within the estuary of the Thames, and within a short distance only from Southend. Mr. Phillips's scheme "will not cost a tithe of that sum, requires no Parliamentary sanction (as the other scheme does), and can be brought into operation in a twelvemonth." There seems no *prima facie* reason why the plan should not work excel-

lently; and the Metropolitan Board of Works ought at least, in duty bound, to give it a trial.

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CENTRAL MEDICAL SOCIETY OF MANCHESTER.

A CORRESPONDENT writes: The first general meeting was held at the rooms of the Society in the Victoria Hotel, Victoria Street, Manchester, on October 13th, when the rules prepared by the committee were submitted to the members, and, with a few comparatively unimportant alterations, were adopted. The number—exceeding ninety—of medical men who have now expressed their desire to become members of this society shows that the want which it is meant to fill was a real one. The previously existing Medical Society (which, it should be clearly understood, the Central Medical Society is not in any way intended to supplant or oppose), had been felt for a long time by medical men residing in and around Manchester to be insufficient to meet the requirements of the times. Many, resident in towns situated within a radius of fifteen miles from Manchester, or in certain districts of Manchester itself, were unable to avail themselves of its advantages, seeing that its reading-room and library were established, and until recently the whole of the meetings were held, at the Owens College, the buildings of which are situated at a considerable distance from the centre of the town and the various stations. The new society, placed in the very centre of Manchester, with its reading-room in sight of two of the principal stations, and within a few minutes' walk of all the others, will provide a medium for the easy intercommunication of both town and country members. A comfortable reading-room has been secured in the most central hotel of Manchester, and ample provision has been made for the holding of monthly meetings during the winter session. Only secondary to that of the advancement of the various branches of medical knowledge is the object of making the Society a means of promoting an amiable and social union amongst its members. At the next ordinary meeting, November 17th, an inaugural address will be delivered by the President, Mr. F. H. Walmsley.

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THE ROYAL COLLEGE OF PHYSICIANS.

A LARGE and appreciative audience assembled at the College on Monday afternoon to hear the Harveian Oration, which was delivered by Dr. Quain. Amongst those present were the President, Sir W. Jenner, Bart., the Vice-Presidents, Lord Crewe, Sir G. Burrows, Sir J. Paget, Sir A. Clark, Sir Spencer Wells, Sir H. Pitman, Sir J. R. Bennett, Sir E. Saunders, Professor Tyndall, the President of the Royal College of Surgeons, Mr. W. S. Savory, Professor Plumtre, Prebendary Humphry, Professor Frankland, Dr. G. Paget, Dr. Duckworth, Colonel Haygarth, Mr. T. Woolner, R.A., and Dr. W. B. Carpenter, C.B. Of the oration, published elsewhere in our columns to-day, we need not state more than to remark that it will be found well worthy of perusal, and that Dr. Quain discovered almost an *embarras de richesses* to illustrate the point which he had in view. After the delivery of the oration, the President announced that the Baly Gold Medal, founded to commemorate the late very eminent Dr. Baly, would be awarded. He prefaced his remarks by stating that the medal was given every alternate year, on the recommendation of the President and Council, to the person who should be deemed to have most distinguished himself in the science of physiology, especially during the two years immediately preceding the award. He also stated that the following distinguished men had already become Baly medallists since the founding of the memorial in 1866, namely, Richard Owen, Lionel Beale, William Sharpey, Claude Bernard, Carl Ludwig, Charles Darwin, John Burdon Sanderson, and Charles Edward Brown-Séquard; that it was an honour of the highest kind to be associated with such distinguished men of science, and that the College authorities had on this occasion awarded the distinction to Mr. William Kitchen Parker, of the quality of whose scientific work, particularly in investigating the morphology of the skull in various classes of animals, all who could

appreciate it spoke in the highest terms of commendation. Sir W. Jenner said also that he felt a particular pleasure in handing the medal to Mr. Parker, because, this being the last occasion on which he, as President of the College, would be called upon to make the award, he was about to present it to a general practitioner, and it was as a general practitioner that he himself had commenced his professional career. Mr. Parker then received the medal, amidst the plaudits of the audience, which shortly afterwards separated.

SCOTLAND.

STAFF OF EDINBURGH ROYAL INFIRMARY.

SOME changes have recently been made in the staff of Edinburgh Royal Infirmary. An addition to the staff of physicians, previously three, now four, has been made by the appointment of Dr. Affleck, recently Senior Assistant Physician. The vacancy in the assistant-physicianship was filled up at a meeting of the managers, held on Monday, by the appointment of Dr. Byrom Bramwell; there were other four candidates, Drs. Ritchie, Murdoch Brown, Graham Brown, and Gibson. The post of Pathologist to the Infirmary, previously held by Dr. Byrom Bramwell, is thus vacant, and for the appointment there are three candidates, Drs. Woodhead, Alexander Bruce, and Russell.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

At the annual meeting of this College, held on October 21st, the following office-bearers were elected for the ensuing year. *President*: D. Argyll Robertson, M.D. *Vice-President*: John Smith, M.D., LL.D. *President's Council*: James D. Gillespie, M.D.; Henry D. Littlejohn, M.D.; P. Heron Watson, M.D., LL.D.; Francis B. Imlach; Thomas Annandale; John Duncan, M.D.; *Ex-officio*: John Smith, M.D., LL.D.; Joseph Bell. *Secretary and Treasurer*: Joseph Bell. *Librarian*: Archibald Dickson, M.D. *Examiners*: James D. Gillespie, M.D.; Henry D. Littlejohn, M.D.; Patrick H. Watson, M.D., LL.D.; David Wilson, M.D.; John Smith, M.D., LL.D.; Joseph Bell; John Duncan, M.D.; Robert J. Blair Cunynghame, M.D.; Alexander G. Miller; Peter H. Maclaren, M.D.; John Symington, M.B.; Francis Cadell; James Dunsmore, Junr., M.D.; William Craig, M.D.; Charles E. Underhill. *Dental Examiners*: Patrick H. Watson, M.D., LL.D.; Henry D. Littlejohn, M.D.; David Wilson, M.D.; John Smith, M.D., LL.D.; Andrew Wilson, L.D.S.; George W. Watson, L.D.S. *Assessors to Examiners*: William Brown; Archibald Inglis, M.D.; James Dunsmore, M.D.; Francis B. Imlach. *Conservator of Museum*: Robert J. Blair Cunynghame, M.D. *Clerk*: James Robertson, Solicitor. *Officer*: Colin Mackenzie. *Assistant to Conservator*: George Reid.

ABERDEEN ROYAL INFIRMARY.

THE working of this hospital has not been in so satisfactory a condition as could have been desired. The managers appointed a Special Inquiry Committee, with Professor Struthers as convener, to inquire and report on the state of the institution. This committee subdivided itself into several subcommittees, who went thoroughly into the working, management, and construction of the hospital. Dr. Russell, of Glasgow, and Dr. Simpson, medical officer of health in Aberdeen, were asked to examine and report on the sanitary state of the building. The Special Inquiry Committee have drawn up a report on the hospital, and this report will be presented to the managers on an early day. Amongst other things, they recommend that a medical superintendent should be appointed, so that the "dual control" will cease to exist. There can be no doubt that the time has come to consider the question, and, we think, to adopt and carry out the proposal of building a new hospital adequate in every respect, worthy of Aberdeen itself, and of its flourishing and important medical school.

A site can easily be found, but with this must come certain changes in the medical arrangements; and so important an institution should be put upon a proper footing.

UNIVERSITY OF ABERDEEN.

THE medical preliminary examinations were held in Marischal College on Monday and Tuesday. There was an unusually large number of candidates for compulsory and optional subjects, in fact, more than in any previous year. The medical classes were opened for the session on Wednesday, the 21st. We reserve an account of the introductory lectures until next week.

IRELAND.

MEDICAL students, by a recent regulation of the Cork Guardians, will for the future be permitted to visit and receive clinical instruction in the Cork workhouse hospitals.

HOUSE OF INDUSTRY HOSPITALS.

MR. JOSEPH O'CARROLL, of the Royal University of Ireland, and Demonstrator of Anatomy in the Catholic University School of Medicine, has been elected by the governors of the hospital to the post of assistant-physician. We referred last week to the vacancy, and are happy to say that no animadversions as to the election have been made on the occasion.

PRESENTATION TO WM. R. MOORHEAD, A.M., M.D.

RECENTLY, a meeting was held in Benburb Parochial School, to present this gentleman with an illuminated address, a silver epergne, a tea and coffee service, and a set of fish-cutlery, on his resigning the post of dispensary medical officer of the district. The address, which was beautifully illuminated, stated, among other things, that Dr. Moorhead came to Benburb about fifteen years since as a stranger, recommended chiefly by a distinguished collegiate career, but that now he was regarded in numerous households as a friend and benefactor.

THE USE OF ETHER AS AN INTOXICANT.

ONE of the members of the Diocesan Synod of Armagh, at its recent meeting, made reference, in discussing the report submitted on temperance, to a practice which exists in various parts of the North of Ireland—namely, the consumption of ether instead of whisky. A large traffic exists in ether, more especially as it is a cheaper intoxicant than whisky. Several cases of insanity are stated to have occurred from the excessive use of ether, some at present being in the Omagh and other lunatic asylums. The following resolution was adopted by the Synod: "That the Temperance Committee be requested to endeavour to obtain legislation which will prevent the unrestricted traffic in ether, and other noxious drugs, prevalent in certain parts of the diocese."

DR. WILLIAM MOORE.

HER MAJESTY has been pleased to appoint this gentleman to be one of her Physicians in Ordinary in Ireland, in the place of the late Dr. McDowell. Dr. Moore occupies a most honourable position in the profession in Ireland. He filled the office of President of the College of Physicians with marked dignity and efficiency during the years 1882-84, and previously he was King's Professor of Practice of Medicine in the School of Physic, University of Dublin, for fourteen years, in virtue of which office he was also Clinical Physician to Sir Patrick Dun's Hospital. Before his election to the King's Professorship, Dr. Moore was Physician to Mercer's Hospital. He has contributed numerous papers on clinical subjects to the different Irish medical societies and periodicals, and we congratulate him heartily on this official recognition of his merits as a physician.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

At the annual stated meeting of the College, held on October 19th, 1885 (St. Luke's Day being on Sunday), the following officers were elected for the ensuing year: *President*: Francis Richard Cruise, M.D. *Vice-President*: J. Magee Finny, M.D. *Censors*: J. Magee Finny, M.D.; J. Hawtrey Benson, M.D.; Francis J. B. Quinlan, M.D.; J. Rutherford Kirkpatrick, M.D. *Additional Examiners*: George F. Duffley, M.D.; Stephen MacSwiney, M.D.; Joseph M. Redmond; Arthur Wynne Foot, M.D.; John M. Purser, M.D.; Walter G. Smith, M.D. *Registrar*: John William Moore, M.D. *Treasurer*: Aquilla Smith, M.D. *Examiners in Midwifery*: Andrew John Horne; W. J. Smyly, M.D. *Eastern Examiners for Diploma in Sanitary Science*: Mr. George R. Price, in Sanitary Law; and Mr. Kaye Parry, C.E., in Sanitary Engineering. *Professor of Medical Jurisprudence*: Robert Travers, M.D. *Representative on the General Medical Council*: Aquilla Smith, M.D. The usual annual dinner of the Fellows, with the President as their guest, took place in the evening in the College Hall. Dr. Aquilla Smith, senior Fellow present, was in the chair. Among the private guests present were the Hon. Dr. Alan Herbert, of Paris, who is in Dublin on a visit to his brother, His Excellency the Lord-Lieutenant; Sir Charles Cameron, President of the Royal College of Surgeons in Ireland, and Mr. Stokes, Vice-President; and Mr. Luther Holden and Dr. Leishman, visitors of the medical examinations at the Royal University.

MR. E. C. THOMPSON, M.B.

HIS Excellency the Lord-Lieutenant presented the Albert Medal (Second class) which Her Majesty the Queen awarded Mr. Thompson for his heroism in sucking out, with his mouth, from a tracheotomy-tube, some diphtheritic membrane blocking it, to that gentleman on Friday October 16th. The presentation took place in the Throne-Room of Dublin Castle, and Lord Carnarvon was attended by the Right Hon. Sir William Hart Dyke, Chief Secretary for Ireland; the Right Hon. the Attorney-General, Sir William Kaye, Assistant Under-Secretary; Colonel Caulfeild, Comptroller to the Household; Dr. Banks, Physician in Ordinary to the Queen in Ireland; Dr. William Moore, Physician in Ordinary to the Queen in Ireland; and Captain Ross, of Bladensburg, A.D.C. in waiting. Mr. Thompson, who is surgeon to the Tyrone County Infirmary, and an ex-president of the North of Ireland Branch, having been presented, his Excellency briefly referred to the institution by the Queen of the Victoria Cross, and of the Albert Medal, as orders of merit for deeds of gallantry on the battle-field, at sea, and on land. "Courage," he said, "assumes many forms. It is not to be measured by mere bulk, to be weighed out by the consideration of physical daring, or stature, or strength, or anything of that kind. It may live in the weakest as well as in the strongest; and certainly the highest forms of courage are those in which the moral qualities mingle with the physical." His Excellency proceeded to remark that Mr. Thompson belonged to a very noble profession, in which every year thousands of illustrations of self-denial, self-sacrifice, and sympathy with human suffering in its most terrible forms are exhibited, and not less courage in its best and in its highest sense. It was, then, his most satisfactory duty, in the name of his Sovereign, to mark Mr. Thompson out as one of those who have signally distinguished themselves in that respect. The Lord-Lieutenant then handed the medal to Mr. Thompson, who, in returning his thanks for the honour conferred upon him, observed that he felt the duty performed by him hardly deserved so great a recognition. He also added that he valued the distinction not only personally but, far and away beyond that, as a compliment to the profession to which he had the honour to belong.

DR. RICHARD A. PRICHARD, of Conway, has been placed on the commission of the peace for the county of Carnarvon.

OWENS COLLEGE, VICTORIA UNIVERSITY, MANCHESTER. — The Dauntsey Scholarship, of the value of about £100, tenable for one year, has been awarded to Mr. John Dunlop.

CHOLERA.

THE CHOLERA IN SPAIN.

OUR correspondent in Valencia writes, under date October 15th, 1885:—Although the city and province of Valencia are now completely free from cholera, still there are several centres where it is making havoc, namely, Barcelona, Jaen, and some of the towns near Malaga, and in Logrono, in the north; but the city that heads the list of attacks and deaths is Albacete, into which the disease seems to have leaped in the last three days, attacking eighty-one, and killing forty-two. It lies on the line of rail between this and Madrid, and on the confines of the provinces of La Mancha and Murcia. Fortunately, all these three provinces are sparsely populated, and the towns and villages very far apart; so that I think there is little danger of its spreading much from the above centre. A few days ago, twenty-six labourers started on foot in a band from Alameda, province of Malaga, to look for work at the mines of Rio Tinto. They walked as far as Rodo, but were not allowed to enter it. They passed on to Gariotelas de Franco, where five or six were seized with cholera. When the authorities came out with relief, they found three dead. The rest all fled, and passed on to Pedrera, where others shared the same fate; and, still further on, others died also. Out of the twenty-six, four or five escaped. In the little town of Barraix, 113 cases occurred in one day, and twenty-eight deaths (this town is in the province of Albacete).

I forgot to mention in my last about the malignancy of the attack on the wretched and all but abandoned lunatic asylum of Bandilio de Llobregat, near Barcelona, with its 700 inmates. I send you a relation of the state of affairs as given by the *Suplemento* of Barcelona. When cholera first broke out there on October 2nd, "the building was almost entirely abandoned by the whole staff, although containing nearly 700 patients. The rooms set apart for a cholera-hospital are most unsuitable; all are exposed to the open air while the patients are seriously ill; all the lunatic inmates are in direct and immediate communication with the infected; the result being, that a large proportion are down with the epidemic. The mortuary is a stable, and there, amidst old timber, ladders, and masons' tools and straw, are found five or six corpses, one on the top of another. The dormitories are quite inadequate, without water-closets, the only substitute being a kind of dish for general use; the pharmacy is utterly destitute of all remedies; the director has fled; and although the manager begged for help of any and every kind, not even a stove for disinfection was sent, nor any resolution taken for the much needed aid. After careful examinations of the rooms and offices, nothing was found in keeping with the progress of science."

The Sanitary Board of this city has very wisely decreed that a circular order be sent to every city, town, and village of the province, strictly forbidding the entry of any one to the cemeteries on "All Souls" day, in consequence of the vast numbers of bodies interred in them since cholera broke out, and where contagion is still in its highest state of concentration. In view of the excellent state of public health here, the service-carriages and different apparatus for conveying the sick and dead are done away with, as also the various stations for medical help and succour, and the hospital of San Jose closed. To crown all, and prove to the whole world that we are well, happy, and luxuriously prosperous, the *Te Deum* will be chanted in the Cathedral with great pomp next Sunday, and a great military high mass performed in the Alameda, with four days' "fiestas" of all kinds, processions of the "Virgin of the Destitute."

We have just gone through a scathing "poniente" gale from the west, which is a land-wind most trying and depressing. It began on the 8th, and ended on the 13th instant. The temperature was, maximum, 74°; minimum, 68°; wet bulb, 11° of evaporation, which is very high for this otherwise moist quarter. To-day, with wind E. by N., temperature, maximum, 62°, minimum, 56°, evaporation, 5°, delightfully bracing, and coldish but clear.

In my last letter, I sent you a summary of the last commission on the Ferran question. I now send you in full the conclusions of the Commission, as published in all the papers. They are as follows. 1. The so-called prophylactic inoculation against cholera morbus cannot be considered as harmless to the individual, judging from the general and local effects produced in by far the greater number of the inoculated. 2. There exists no proof demonstrating that the liquid used for inoculation is a culture of the comma-bacillus attenuated. 3. There is no criterion regulating the practice of inoculation, either in the choice of liquids to be used for establishing the relation which ought to exist between quantity and quality on the one side, or in individual considerations of the subject inoculated; the only governing

rule being the most absolute variety in the richness of the cultivations in the broths used. 4. If the principle of Dr. Ferran's method, based on the doctrine asserting the comma-bacillus to be the effectual cause of cholera be accepted, he must also admit that the person inoculated can transmit it to others by constantly carrying about in his clothes and person the above-named micro-organism, thanks to the defects of his procedure in inoculation. 5. The conjoint symptoms presented by the inoculated cannot be regarded as characteristic of experimental cholera. 6. The person inoculated, during the first few days after the operations, is very liable to contract any malady, but especially cholera, when there is an epidemic; because inoculation destroys, more or less, the physiological equilibrium necessary to be maintained during periods of epidemics. 7. As regards the effects of inoculation, and the experiments practised by the Commission, there is no proof that Ferran's method can produce immunity from cholera, neither is it possible to obtain any conclusion, in this sense, from the figures of the statistics drawn up, as no general law should be deduced from isolated so-called facts.

Of course the Ferranist papers are wild with indignation at the above result. The *Epoca* of Madrid demands statistics. The simple answer is, that they will be published in *La Gaceta*, and I think the *Epoca* and all the Ferranist papers, with their supporters, will be much surprised and chagrined when the now searching figures do appear. The *Provincias* says that the report ought not to be accepted, in so far as the prophylactic power and the innocuity of the inoculation are concerned, as statistics prove the reverse, and that the first commission was composed of more capable men, etc.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE quarterly meeting of the Committee of this Society was held on Wednesday, October 14th, at 38, Wimpole Street, W., the following being present; Mr. Ernest Hart (in the chair), Mr. Major Greenwood, jun., Mr. E. Bartlett, Mr. F. Wallace, Mr. R. Lord, Mr. Vincent Jackson (Wolverhampton), Dr. J. Pickett, Dr. G. Fletcher (Highgate), Dr. G. W. Crowe (Worcester), Mr. T. E. Parsons (Wimbledon), and Mr. S. W. Sibley.

The report for the quarter stated that during the term 22 new members had joined, three having left by non-payment, and one withdrawn. The total number of entrants to September 30th was 702. The income for the quarter (£1,741 12s. 10d.) was nearly £100 in advance of the previous quarter, while the expenditure (£491 18s. 3d.) was £37 less. There had been a net increase of reserves of £1,249 14s. 7d. on the quarter, and the total capital was now £7,682 15s. 5d. This was appropriated as follows. Sickness-fund reserve, £3,317 11s. 4d., annuity-fund reserve, £2,698 0s. 2d.; life-assurance fund reserve, £913 17s. 6d.; management-fund balance, £670 18s. 8d.; interest, £32 7s. 9d.

A letter from Mr. J. Bain Sincock on investments, suggesting that a building society should be formed for the purpose of securing a good rate of interest on reserves, was read and discussed. It was pointed out that the Society had already power under its rules to lend on mortgages of freehold or leasehold property, but there was a general opinion that, though this might be done with great advantage later on, it was not advisable to enter into such business at present.

The working of the annuity-fund was next considered, some members of the committee stating that several intending members were of opinion that the limit fixed was a late age for the annuity to commence, and that it was not likely to be long enjoyed by those who reached that age; and further, that some dissatisfaction existed at the entire loss of all moneys paid in for annuities where the age 65 was not reached. It was stated, in reply, that the probability of receiving the annuity was far greater than was generally anticipated, as half of a given number of members at the age 33 were shown, by the mortality tables, to survive at the age 65; while the average expectation of life of those reaching that age was over 10 years, thus making the annuity equal in value, to each member reaching the age, to £400. With regard to the other point, it was stated to be the intention to devote the surplus on the annuity-fund (which was considered certain to arise) to the formation of a fund for the payment of sums, on the death of members not surviving to the annuity age.

It was decided to take special means to bring the Society to the notice of the younger members of the profession, with a view to extend its usefulness. Copies of the annual report (to June 30th) and all information, may be obtained from the Secretary (Mr. C. J. Radley), 26, Wynne Road, Brixton, S.W.

ROYAL COLLEGE OF PHYSICIANS.

A LARGELY attended meeting of the Fellows of this College was held on Thursday, the 15th instant, to discuss the report of the delegates appointed to consider whether it is desirable that the Royal College of Physicians of London and the Royal College of Surgeons of England should endeavour to obtain power to confer a degree in medicine and surgery upon persons found by them, after a conjoint examination, to be duly qualified. The delegates had reported that it is desirable that the Colleges should have power to give such a degree, and that the examinations at present held by the two Colleges are equal in stringency to some at least of those which confer an university degree.

On the question of the adoption of this report, an interesting and animated debate took place, amongst the speakers being Professor Paget of Cambridge, Professor Greenfield of Edinburgh, Dr. Wilson Fox, Dr. West, and others; and finally, on the motion of Sir Andrew Clark, an adjournment for a week was adopted.

The adjourned debate took place on Thursday, the 22nd instant, and the attendance of Fellows was again very large. Sir A. Clark, in a powerful speech, supported the delegates' report. The discussion was continued by Drs. Moore, Duncan, Bristowe, and Moxon, Sir Risdon Bennett, Sir Henry Pitman, and the President. Finally, an amendment was moved by Dr. Wilks and seconded by Dr. Broadbent, with a view to make it clear that it was not the intention of the Colleges to confer the degree of M.D. upon those who had simply passed the conjoint examinations, but that some further requirement would be made. It was to the effect that it is desirable that persons examined by the Royal College of Physicians of London and the Royal College of Surgeons of England conjointly, and found duly qualified, either by the ordinary or by an additional examination, should have a degree in medicine and surgery conferred upon them. This amendment was carried by a large majority, and adopted as the formal resolution. It was referred to the Council for consideration of the steps to be taken to give it effect.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The twelfth annual general meeting of this Branch will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, October 29th, 1885, at three o'clock in the afternoon. An address will be delivered by the President-elect, Mr. J. T. Hartill (Willenhall).—VINCENT JACKSON, General Secretary.—Wolverhampton, September 11th, 1885.

OXFORD AND DISTRICT BRANCH.—A meeting of this Branch will be held, in Oxford, on Wednesday, November 4th. Members who wish to communicate papers are requested to inform one of the secretaries (W. L. MORGAN, Esq., 42, Broad Street; Dr. DARBISHIRE, 60, High Street, Oxford), on or before October 19th.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next meeting of this Branch will be held at Tredegar, on Thursday, October 29th. Members wishing to read papers, etc., should send titles to Dr. Sheen by October 19th, in order that the same may be inserted in the circulars.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, October 5th, 1885.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this Branch will be held at the Surrey County Hospital, Guildford, on Thursday, October 29th, 1885, at 3.30 P.M.; Dr. Morton, of Guildford, in the chair. Dinner will be provided at 6 P.M., at the White Lion Hotel; charges, 7s., exclusive of wine. Agenda:—Mr. Henry Hugh Clutton: The Treatment of Cystic Bronchocele. Dr. J. Herbert Stowers: The Skin-diseases of Childhood, their Nature and Treatment. Dr. Morton will exhibit a case of Excision of the Hip-joint. Mr. Sells will exhibit a case of Excision of the Knee.

GLOUCESTERSHIRE BRANCH.—The annual meeting will be held, under the presidency of Dr. Needham, at 6.30 P.M., on Tuesday, November 17th, 1885, in the board-room of the General Hospital, Cheltenham. The supper will be at the Queen's Hotel at 8.30 P.M., tickets 3s. 6d., not including wine. Agenda:—1. Scrutiny of the voting papers, and declaration of the result. 2. Presentation of the balance-sheet. 3. Exhibition of a Case of Hæmoglobinuria accompanied with Symmetrical Gangrene, with Notes and Remarks, by Dr. Wilson (Cheltenham). 4. Exhibition and Description of an Apparatus for Dry Antiseptic Vapour-Treatment of Wounds, and for Producing a Constant Antiseptic Air in Rooms, by T. S. Ellis, Esq. (Gloucester). 5. Some Remarks on the Frequent Non-Recognition of Glaucoma, by E. D. Bower, Esq. (Gloucester). 6. A New and Simple Form of Splint for Use After Tenotomy in Talipes, by G. Arthur Cardew, Esq. (Cheltenham).

BATH AND BRISTOL BRANCH.—The first ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, October 29th, at half-past seven o'clock, E. C. Board, M.R.C.S. Eng., President. Communications:—1. Notes of a Case of Crossed-Legged Progression Relieved by Operation: Mr. F. K. Green. 2. A Case of Strangulated Hernia: Dr. Kerr. 3. Some Surgical Affections of the Kidney, including Three Cases of Nephrotomy: Mr. N. C. Dobson. 4. A Case of Traumatic Aneurysm of the Brachial Artery Treated by the Operation of "Antyllus": Mr. R. J. H. Scott.—R. J. H. SCOTT and E. MARKHAM SKERRITT, Honorary Secretaries.

YORKSHIRE BRANCH.—The autumn meeting of the Branch will be held at the Crown Hotel, Esplanade, Scarborough, on Wednesday, November 4th, at 4 P.M. Members intending to read papers are requested to communicate at once with the secretary. Tickets for dinner (exclusive of wine), 6s. For bed, breakfast, and dinner (exclusive of wine), 12s. 6d.—ARTHUR JACKSON, Wilkinson Street, Sheffield.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH:
ORDINARY MEETING.

AN ordinary meeting of this Branch was held on October 8th; Dr. SAWYER, President, in the chair.

Papers.—The following were read.

1. Mr. Gamgee: The Treatment of Wounds.
2. Mr. Bennett May: Three cases of Nephrotomy and Nephrolithotomy.

The late Dr. Russell.—On the motion of the PRESIDENT, the following resolution of condolence and sympathy with Mrs. Russell, and the members of her family, on the lamented death of Dr. Russell, was passed unanimously.

"That the members of the Birmingham and Midland Counties Branch of the British Medical Association record their sense of the great loss the medical profession has sustained in the lamented death of Dr. Russell; and that they desire to express their sincere sympathy with Mrs. Russell and her family in their bereavement."

BEQUESTS AND DONATIONS.—The Charing Cross Hospital has received £211 from the Lady Mayoress and the Ladies' Committee, the proceeds of a ball on February 10th, in aid of the Extension Fund.—Mr. William Overend, Q.C., has bequeathed £100 to the Sheffield General Infirmary.—The Trustees of Prison Charities have given £52 10s. to the Invalid Asylum at Stoke Newington, and £21 to the North-Eastern Hospital for Children.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Recent Researches on Pulmonary Tuberculosis.—Bilharzia Hematobia.—A Method for Detecting Biliary Gravel.—The Treatment of Obesity.—Researches on Dysentery.—General News.

M. THAON, of Nice, at a recent meeting of the Paris Biological Society, read a paper on the initial lesions of pulmonary tuberculosis. The author has examined a considerable number of pathological specimens taken from different animals, also the lungs of animals which had died from experimental subacute pulmonary tuberculosis, or chronic tuberculosis, according to the will of the experimenter. Guinea-pigs fed morning and evening on tuberculous sputa, powdered and mixed with sterilised water, invariably died on the twelfth or fourteenth day. The lungs were a solid compact mass of a reddish brown colour, covered with yellow spots. On making a histological examination, the tissues presented small separated areas of lobular pneumonia, measuring about one-third of a millimetre; treated with picric acid, they were coloured a deep red. They consisted of closely packed cells undergoing proliferation, free from degeneration, and were lodged in the beginnings of branching bronchial tubes. Similar lesions were observed in the pulmonary alveoli; similar miliary masses were also grouped round the pulmonary vessels, resulting from the infiltration from the lymphatic vessels. Bacilli were present in considerable numbers in the areas of miliary pneumonia; in those of catarrhal pneumonia, they were less abundant. Bacilli could be observed migrating from the bronchi into the alveoli; there they provoked proliferation of the pulmonary epithelium and its subsequent degeneration. Giant-cells, the zones of epithelial cells, which formerly were recognised as the characteristics of tuberculous granulations, also the various fibrous transformations special to pulmonary phthisis, were only observed in organs far advanced in tuberculosis. The bacillus, M. Thaon says, is the agent which produces all these changes. It is seen in the centre of the cellular elements in the giant-cells, and does not disappear until the caseous masses become one uniform vitreous mass.

Bilharzia hematobia is rarely observed in Europe. M. Gautrelet, a chemist at Vichy, describes the following case, which has been brought under his notice. The patient, twenty years ago, lived in Egypt during two years. She suffered from constant hæmorrhage, which was attributed to a miscarriage; since that time, the ovaries were very painful; the medical men consulted ascertained that there was a swelling in the region of the ovaries, which subsequently disappeared. Five years ago, nodosities appeared on the sphincter ani. Fissure of the anus followed expulsion of a fecal mass. The patient was operated on, and the nodosities were removed; they consisted principally of carbonate of lime; afterwards, the stools always contained small white seed-like bodies resembling semolina, or scrapings of intestinal mucous membrane. The patient complained of feeling a "bar" across her in the region of the transverse colon. The pain in the ovaries increased, and suggested ovariitis a little later. Severe pain in the intestines set in, and peritonitis seemed imminent; however, treatment removed the danger, and relieved the pain. A few months subsequently, the patient was seized with violent hepatic pains; and calomel in small doses was administered. The patient asserted that she felt something separated from her liver, and move in her intestines. She immediately passed a greenish-black mass, easily cut, but not friable. Interiorly, it was areolar and yellow. On examination, it proved to be a spongy alveolated mass; it weighed 0.174 gramme, and consisted of hepatic tissue infected with the eggs of *Bilharzia hematobia*. It was impregnated with biliary pigments encrusted with carbonate of lime, and covered with urobiline.

Dr. Merle, of Vichy, in a communication to the Académie de Médecine, describes what he terms biliary coniasis, or biliary gravel. Pain in the hepatic region is the most important symptom. In order to detect the presence of biliary gravel, M. Merle recommends pouring hot water on the stools; the gravel falls to the bottom; when poured into a clean receptacle and washed, it is easily recognised.

M. Germain Sée, in a communication to the Académie de Médecine, on the treatment of obesity, condemned the practice of bleeding, which does not diminish the quantity of adipose tissue, but, on the contrary, is favourable to its development. M. de Chambre, at a subsequent meeting of the Academy, referred to M. Sée's communication, and mentioned facts obtained by experiments made by M. Vulpian and himself, which confirmed the truth of M. Sée's statements. A quan-

tity of blood was removed from a dog, equal to one-fifth of its normal weight. The animal, before the experiment, weighed 9 kilogrammes; but, in fifteen days, the weight increased to 13½ kilogrammes. In another experiment, a dog was, in fifteen days, deprived of a quantity of blood, equal to one-ninth of its original weight, that is, 5 kilogrammes; it weighed 6 kilogrammes and 800 grammes after the experiment.

Dr. Normand, in a note to the Académie des Sciences, states that the mucus of dysentery always contains a specific microbe, which has been observed by others, but hitherto not considered to be of any importance. Dr. Normand believes this organism to be an important agent in the etiology of dysentery.

A rather serious incident has occurred in connection with the annual competitive examination of the *internes* (house-surgeons), who will next January replace those now acting. From forty to forty-two are annually elected. On the first day (Wednesday), there was a written examination. The examination passed off without any unusual incident, except a faint protest against the admission of lady students. The next morning, some of the candidates sent a statement to the director of the Assistance Publique, to the effect that Dr. Gougenheim, attached to the Bichat Hospital, and also one of the examiners, had divulged the examination subject before it was given out. The whole body of examiners met, and forwarded a written assurance to the director that, on their honour, the accusation was unfounded. Before the examinations were resumed, M. Pozzi read this document to the candidates, who observed an unbroken silence until the name of Dr. Gougenheim was read out among those who signed, when all present demanded his resignation. The disturbance increased, and the meeting was broken up. The examinations were, by order of the director of the Assistance Publique, postponed. In consequence of a letter appearing in the daily papers from Dr. Gougenheim's hospital-pupils, asserting that the accusation brought against their chief was false, and proved to be so by the fact that two of Dr. Gougenheim's *externes* (clinical clerks or dressers) had withdrawn when the subject of examination was officially declared. It appears that the two who withdrew from competition were temporary dressers, who had no right to take part in the examination. This protest roused suspicion, and the director of the Assistance Publique, with the concurrence of Dr. Nieaise, Dr. Moutard-Martin of the Conseil de Surveillance de l'Assistance Publique, and M. Pozzi, president of the examination jury, instituted an inquiry into all the circumstances of the accusation. This resulted in obtaining proof that the *interne* (house surgeon) of M. Gougenheim had stated in the wards, what was the subject for examination. M. Gougenheim had not told him the subject, but he had guessed it by making suggestions. M. Gougenheim has written to the daily papers, saying he is calumniated. The Council of the Assistance Publique is convened to deliberate on this unhappy occurrence.

M. Roullière, navy-surgeon, sends a report to the Académie de Médecine, on the results obtained by the transfusion of serum in cholera, at the Saint Mandria hospital at Toulon. Among fifty-five patients in the last stage of collapse, thirty-seven died, eighteen recovered. The quantity of serum transfused, varied from 1.5 to 2 grammes. This treatment, in some cases, effected temporary improvement, but in the majority of cases failed to cure.

M. Bochefontaine writes to the Académie des Sciences, that he is willing to accede to M. Trécul's desire that he should repeat his operation of swallowing cholera-dejecta before the members of the Academy, also to have an hypodermic injection of cholera-bacilli. The President observed that the Academy cannot take the responsibility of such experiments; but, every one can make what experiments he pleases at his own risk. M. Trécul insists that, as M. Bochefontaine is determined to repeat his experiments, he should do so in the presence of the academicians. The proposal is submitted to the consideration of the section of medicine.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Introductory Addresses.—The Western Infirmary Appeal.—Sanitary Inspectorship.—Vital Statistics of Glasgow.—The Purification of Sewage.—Health of the City.—Prevention of Cruelty to Children.—Important Decision under Public Health Act.

TUESDAY, the 27th instant, is the day for the introductory addresses which formally mark the opening of the winter medical session. That at the University is to be given by Professor Bower, while at Anderson's College and the Royal Infirmary School of Medicine, Drs.

Morton and J. Wallace Anderson respectively have been chosen for this duty. The classes of the Western Medical School are to be resumed as usual this winter, but, as far as I can learn, without any special preliminary address.

I am glad to be able to state that the response to the special appeal for the funds of the Western Infirmary has been very liberally met, and the first published list of subscriptions contains contributions to the amount of nearly £4,000, so that it is hoped that, at the general meeting of the charity on the 31st of this month, the directors will be able to announce that the deficit on the year's expenses has been cleared off.

In noticing recently the death of our sanitary inspector, Mr. Macleod, I said that it was not unlikely that the appointment of his successor would be made the opportunity of so rearranging matters, that the Sanitary Department would be brought more under the direct control of the medical officer of health than it has been in the past. There has been for some time a feeling that the divided responsibility that has heretofore existed was harmful, and not in the interest of the health of the city, and the Health Committee, in the terms of their report on the appointment of the new inspector, advised that he should be placed under the medical officer of health. It is a matter of regret that at the last meeting of the Town Council this proposal should not have been at once acquiesced in, but an opposite course decided on. As head of the health department of a city like Glasgow, Dr. Russell should have supreme control of all the departments, seeing that the responsibility lies with him. I have no doubt that many influences, not apparent on the surface, have been brought to bear on the decision come to, but it seems as if an excellent opportunity for improving the working of our sanitary department has been lost.

The valuable nature of the work done in large towns, by the health authorities, is seen in the report made public this week by our city chamberlain, on the Vital, Social, and Economic Statistics of Glasgow for the last four years. The largely reduced death-rate tells of an improved sanitary condition of the city, especially as regards fevers, the total deaths from which last year were only 279 against 1,256 in 1869, and an average of 478 in the eighteen years 1867-1884. An analysis of these figures brings out the interesting fact that, of the different fevers, typhoid has been least affected by general sanitary supervision, for the average annual deaths from this disease in the eighteen years 1867-1884 were 202, while the total deaths last year were 199. In the years 1867 and 1874, they were 202. One explanation offered of this circumstance is that it is a disease that may from time to time be imported into our midst from without, no matter how perfect the internal sanitary arrangements may be. The present volume on the social progress and condition of Glasgow during recent years is replete with interesting information.

Some experiments were made here this week, in presence of Dr. Wallace, the City Analyst, Dr. Fergus, and others, with a new sewage-cleansing apparatus, the invention of Mr. Hartland, of Glasgow. It would require a lengthy description to explain the working of the tanks and filters by which the purification of the sewage is accomplished, and yet it cannot be said to be of a complicated character, and very favourable comments were made by those present on the working of the machine. The dirty slimy water taken from an offensive burn near Maryhill Barracks was the subject of the experiments, and came out in a very satisfactory condition of brightness and purity. The quantity of liquid which will pass through the apparatus per hour is four times that filtered by ordinary filter-beds, and 110 times the quantity of water filtered by ordinary irrigation or downward filtration. Hopes are entertained by its inventor that its use, both for house-sewage and in public works, may help to solve somewhat the vexed question of river-pollution.

The health of the city continues good; and, owing to the absence of infectious disease in the epidemic form, the death-rate is comparatively low. For the fortnight ending October 10th, it was 19 per 1,000, which is fully 6 per 1,000 less than the corresponding period of last year. Small-pox has not been quite stamped out, another case having been registered and removed to hospital.

The Society for the Prevention of Cruelty to Children, which was established in Glasgow some ten months ago, has already shown itself to be a powerful instrument for social good; and though, at first, fears were entertained as to the difficulties to be met with in its operations, these have been very successfully overcome, and it has worked most cordially with the police, the School Board, and the clergy of all denominations. Since it came into existence, 506 cases of neglect and cruelty to children have come under notice, involving the welfare of 1,035 children.

An important decision under the Public Health (Scotland) Act was given in our local courts last week, when it was ruled that a burn or

stream which has become a public nuisance, owing to the offensive nature of its contents, must be covered in or purified at the expense of the proprietors through whose ground it passes. It is not the duty of the local authority to remedy the nuisance at the expense of the ratepayers, as was contended in the present instance.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The Bootle Dispensary for Diseases of Women.—*The Newton Brook.*

—*Improvements at the North End.*—*Lunacy Law.*—*Proposed New*

Curriculum in University College.

It would appear that there is considerable divergence of opinion as to the necessity for the establishment in Bootle of the Maternity Charity and Dispensary for Diseases of Women and Children, to which I referred in my letter in the JOURNAL of October 10th. The statement therein made, that "it had become evident that this supplied a public want," is consequently not strictly accurate, more especially as many prominent local members of the profession, who certainly may be expected to know what are the requirements of their town in this respect, regard the plan with disfavour. From copies of the *Bootle Times* which have reached me, I learn that the honorary secretary of the Bootle Borough Hospital contradicts many of the assertions made by the speakers at the meeting in aid of the dispensary held on September 8th. He points out that the medical staff of the hospital, seven in number, regularly treat the diseases of women and children; and that, when the proposed extension of the present building is completed, there will be a great increase in the accommodation provided for such cases.

For some time past, alarm has been felt in the district of Newton at the foul condition of Newton Brook. This receives the sewage from Newton, Wargrave, and East Earlestown, and is now nothing better than a large open drain. Further evidence that this constitutes a real and serious danger is supplied by the quarterly report of the medical officer, Dr. J. W. Watkins. In this report, which was read at a meeting, a fortnight ago, of the Newton Improvement Commissioners, it was stated that five deaths had resulted from zymotic diseases; that sickness of a febrile type was becoming endemic in the Liverpool Farm Reformatory School; and that, during the last two or three hours, there had been a remarkable increase of general sickness in the institution, the superintendent of which had been suffering for three months from a form of blood-poisoning.

The recent improvements at the north end of the city are of such magnitude that there is now some reason for believing that our death-rate may, in process of time, be sensibly affected for the better. The widening of existing thoroughfares, and the construction of new ones, is completely altering the aspect of some of the worst parts of Liverpool. The corporation is doing a great deal in the directions mentioned; and the Lancashire and Yorkshire Railway Company is also giving valuable assistance by the enormous changes rendered necessary by the erection of their new Exchange Station, and the taking of more land for purposes of railway-extension. In place of the many "rookeries" that have been destroyed, exceptionally good accommodation for the labouring classes has been provided in the magnificent pile of buildings on the Nash Grove site. Farther north, the Stanley Hospital, with its extensive recent additions, opened on the 6th of this month by Lord Derby, affords greatly needed hospital-accommodation in the immediate neighbourhood of the new north docks. The population is increasing very rapidly in the township of Kirkdale; but, should a further extension of this hospital prove necessary, Lord Derby's munificent gift of 10,000 yards of land affords ample provision for increasing the size of the building.

The twelfth annual provincial congress of the Incorporated Law Society was held here last week. Of the many papers read, one dealing with Lunacy Law contained some suggestions worthy of consideration by medical men. Perhaps the most practical of these suggestions were: 1, that medical men possessing some special knowledge of the subject should be appointed in different parts of the country to whom application could be made for the requisite certificates; 2, that, except in urgent cases, one at least of the medical men signing the certificates should be well acquainted with the subject of lunacy; and 3, that neither of the medical men should be, either directly or indirectly, connected with, or interested in, any asylum or licensed house; and they should sign a declaration to that effect.

At the autumn session of the Court of Governors of University College last Saturday, a scheme for the establishment of a special curriculum for students who are looking forward to a business-life, was under consideration. It was suggested that this curriculum should

extend over two years, should be a modification of the lines laid down for the Victoria University degree course, and should be of two kinds, one mainly consisting of arts, the other mainly of science subjects, each branch offering various alternatives; and English History and Composition, one foreign language, and mathematics, being made compulsory subjects of both. The scheme was unanimously approved, and it was decided to communicate with the leading firms in order to ascertain the possibility of giving definite weight to the proposed College certificates.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Sessional Work at Owens College.—New Entries.—Professorship of Physiology.—The Medical Society.—The Pathological Society.—The Hospital for Consumption.

THE sessional work at the Owens College was inaugurated on October 6th by the delivery of an address by Dr. Cullingworth, and the reading of the Principal's report, in which the results of the various examinations were referred to, as also the changes in the staff necessitated by the resignation of Dr. Gamgee, and the loss by death of Drs. Thorburn and Watson. Dr. Cullingworth chose for the subject of his address "The Criminal Responsibility of the Insane," in which he powerfully pleaded for a change in the present mode of procedure of trying those of unsound mind when charged with crime. All the lectures at the College have now commenced, and the dissecting-room presents an appearance of busy work. Fortunately, the supply of subjects is practically unlimited, so that all first and second year's men are fully employed on the subjects, fourteen in number, now in the dissecting-room. The dissections are superintended by the Professor of Anatomy, Mr. A. H. Young, assisted by the demonstrators, Drs. Patterson and Robinson. The classes and demonstrations on physiology are being conducted by Mr. W. H. Waters, the Assistant Professor, and Dr. Haslam. The classes for clinical instruction at the Royal Infirmary, St. Mary's, the Eye and Children's Hospital, are also being organised, and, in some cases, the clinical lectures given in the winter session have commenced.

It is, perhaps, too early to gauge the exact number of entries, but in reckoning up the number of students entered for the various classes, the total number, namely, 261, is slightly in excess of that of last year. The new entries are, I believe, 54, this number not including 22 entered for the preliminary scientific subjects, 13 for special classes, and 5 dental students.

Among the candidates spoken of for the vacant Professorship of Physiology are Mr. W. H. Waters, at present Assistant-Professor, Dr. McGregor Robertson of Glasgow, Dr. Hayercraft of Birmingham, and Dr. De Burgh Birch of Leeds. As the time for sending in applications for the appointment does not expire till November 9th, there will doubtless be several others. Apart from the question of remuneration—which, by-the-by, will amount to somewhat more than that received by the late Professor—the post offers many inducements, among which may be mentioned a suite of laboratories, entirely new and well fitted for original research, or for class-demonstrations. No one doubts that the Council are exceedingly anxious to secure the best man, but it seems a pity that they have not seen their way to offering a salary at least as large as that, for instance, given by the University of Aberdeen.

There was a large attendance at the meeting of the Medical Society which was held on October 7th at the Literary and Philosophical Society's rooms in George Street, instead of as heretofore at Owens College, the more central position of the former making it more convenient for many members. The paper of the evening was read by Dr. C. J. Renshaw of Sale, who gave a summary of some experiments he had made in inoculating various animals with purulent matters, and membrane taken from cases of scarlet fever, diphtheria, and croup; the experiments, be it said, were performed before the advent of the recent antivivisection legislation. It has, I believe, been suggested to hold some of the Society's meetings in the afternoon instead of in the evening, in the hopes of suiting the convenience of many of those who find it impossible to leave their professional work in the evening.

The annual meeting of the Pathological Society was held on the 14th instant. The business included the election of officers, and various specimens were shown, which were followed by interesting debates. There is, I believe, a probability of the exchange of invitations to meetings taking place between our own Society and the Pathological Section of the Liverpool Medical Society. The idea seems an excellent one; for not only would it add to the interest and im-

portance of the meetings, but the intercourse, both pathological and social, which it would bring about between the members of both Societies, could not fail to benefit both.

The new out-patient department of the Hospital for Consumption and Diseases of the Throat is about to be commenced, a convenient site having been secured in Byrom Street. These buildings will replace the present out-patient department, which is located in somewhat inconvenient quarters in St. John Street. The hospital, which has been established in the clearer atmosphere of Bowden, is shortly to be extended by the addition of another wing. The advertisement which appears in the JOURNAL of the 10th instant, for an honorary physician, is to fill up a recent vacancy. The successful candidate will be associated with Drs. Hodgkinson and Ransome in the work of the charity.

CORRESPONDENCE.

REFORM AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—Permit us, on the part of the Association of Members of the Royal College of Surgeons, to tender you our warmest thanks for the eloquent terms in which, in your leading article, entitled "The Coming Change," you have advocated the rights of the members of this ancient and honoured College to a share in the election of the members of its Council and in its general control. We urgently desire to take this opportunity of calling the attention of the members of the College to the fact that the annual meeting will be held at the College in Lincoln's Inn Fields, on Thursday next, the 29th instant, at 3 P.M., when the Council of the College will present its report. We would, therefore, beg most earnestly all members to be present at the meeting, and to support resolutions which have been drawn up by the Committee of the Association of Members of the Royal College of Surgeons, and which will be submitted on this occasion.—We have the honour to remain, sir, your obedient servants,

ROBERT COLLUM, President of the Association.

WARWICK C. STEELE, } Joint Hon. Secs.
WM. ASHTON ELLIS, }

ANOTHER "VOICE FROM THE SHADES."

SIR,—It is now as nearly as may be two years, since my good friend Sir Henry Halford addressed to you, what I shall here venture to style a somewhat injudicious letter (how unjust it may have been let the composition and the reported doings of the Mansion House "Secret Investigation Committee" testify!)—a letter in which he was guilty of sadly misrepresenting me.

He spoke of me as one who was habitually, "as of old, poking fun" (the expression is his, not mine) "at the Doctors." I would not, for an instant, have it to be understood that I believe the misrepresentation of which I complain to have been intentional. No one who knows Sir Henry Halford in the spirit, no one who knew him in the flesh, would credit him with wilful perversion of the truth; he has simply misunderstood me.

I will not yield to any man, living or dead, the possession of a higher respect and admiration than is mine, for the noble, unselfish workers in perhaps the most beneficent and most disinterested of any profession. There are charlatans in all; and some of these I have heartily endeavoured to rounce.

Sir Henry puts into my mouth (I do not remember to have spoken it) a quotation from my own creation Sganarelle in the *Médecin malgré lui*—"Mais nous avons changé tout cela, et nous faisons maintenant la Médecine d'une méthode toute nouvelle"—as an instance, I suppose, of my raillery at the expense of the doctors. But, with all deference, I would submit that, in this connection, the character was ill chosen, and the quotation singularly unhappy.

Sganarelle was not a doctor, although he had "servi six ans un fameux Médecin," but a *farceur*, who, having had "greatness thrust upon him," played his part in the best way he could; and, by the way, merely suggested a transposition of viscera in his lady-patient, a suggestion which, after all, may have been correct, although the sequel would seem clearly to show that the damsel's heart, at any rate, was "in the right place."

And is it likely that I should have quoted Sganarelle's "méthode toute nouvelle" as being applicable to the present state of medicine? Why, surely this is an age of "revivals," and very useful revivals, too: temperature-taking, begun by Sanctorius (still living when I was a boy) more than 250 years ago, and developed later by De Haen and others: cold affusion, practised by Wright and Currie in the last century; "massage," well understood at Brighton in Sir H. Halford's time under the simple name of "rubbing," or as the older oriental shampooing, and once daily indulged in by the western ancients in their baths. The bold Brunonians found again, about thirty years ago, an energetic advocate of their doctrine of stimulation; and, although it would appear that the pendulum of practice has swung to the opposite extreme of "intemperate abstinence," there are still those with whom overpowering draughts of brandy would seem to be the favoured remedy.

A very worthy good fellow, and a cultured, who joined us a few years since, said to me the other day, "Oh! the doctors have made no advance since the days of Falstaff. Every ailment now-a-days, according to these gentlemen, is traceable either to syphilis or gout. As 'the fat man' had it long ago, 'pox of this gout!' or a gout of this pox, say I; for the one or the other is playing the rogue with my great toe." He went on, moreover, to intimate that the "water-doctors" of Shakspeare's time knew nearly as much about the indications derivable from an examination of the urine as do the physicians of the present day; quoting him again on the opinion given by one of the craft, that Falstaff's water was "a very good, healthy water; but, for the party who owed it, he might have more diseases than he knew of." The friend to whom I allude was, I need hardly say, not a doctor, but he had consorted much with them; and he wound up his conversation with me by boldly asserting that, had it not been for what he was pleased to speak of as "old Linacre's obstructionist proceedings" (according to Malone) with regard to urinoscopy, a much earlier knowledge of albuminuria would have been available.

But now to the special object of my letter. Poor Sir Henry has been, for some time past, sorely exercised by the news which has come down to us, that his old and favourite College is about to be "revolutionised." He tells me that, not content with a very liberally wide and wise extension of the Fellowship; not content with according to the Members a participation in the enjoyment of the building, with its treasures, etc., the governing body took upon themselves, some years back, the examining and licensing of such General Practitioners as chose to present themselves for qualification. Of all this, Sir Henry has expressed his entire approval, as being in accordance with the prevailing moderate Liberalism of the day, and as being likely (the last named step especially) to work advantageously for the benefit of the Public, of the Profession, and of the College.

But to the "revolutionary" proposition now before the College, to dub with the degree of Doctor every individual member of the newly constituted body of Licentiates, he does as entirely object; and he expresses himself very strongly to that effect. I have urged him to put his objections into the form of another letter to you, being moved to press this course upon him the rather, because I cannot appreciate (nor, indeed, hardly approve) all the arguments he adduces against the step proposed, sufficiently to reproduce them myself; and, moreover, because he is becoming (with all deference I say it) somewhat of a bore upon the subject. To this suggestion, however, he turns a deaf ear; declares that never more will he write to or read a medical paper (so that he will not see this), and contents himself with mournful mutterings of Ichabod! Ichabod!

Of the main objections which he has been constantly putting forward, I make very light. He says that the College has no power to grant degrees, in the first place; and if the power existed, he asks what degree could it confer on the Licentiates without doing an injustice to some of the Fellows and Members, and to all the numerous Licentiates already created who have no degree? Now, have I not shown at the end of *Le Malade Imaginaire*, *Troisième Intermède*, how easy a matter it was to create a Doctor of Medicine in my time; and surely the College of Physicians might do well to adopt the course pursued in the case of Monsieur Argan; it would be but another "revival."

And for the solution of Sir Henry's second difficulty, as to what degree could be conferred without doing an injustice to the existing Fellows, Members, and Licentiates, I would propose that any new candidate, having passed "examinations equal to those required by the Universities for Degrees in Medicine and Surgery" (the now proposed), and having heard the judgment,

"Bene, bene, bene, bene responderé,
Dignus, dignus est intrare
In nostro docto corpore,"

might be styled, for example, John Smith, I.A.M.M.D., that is, *In Arte Medicâ Mediocriter Doctus* (after the fashion of the Fellows of All Souls, Oxford, *In Arte Musicâ*), a qualification which he himself would, of course, be able to read John Smith, I am M.D.—Yours faithfully,
MOLIÈRE.

P.S.—I have just now been told, by a sporting acquaintance, that my proposition is ridiculous! The "discerning public," he says, would assuredly exalt the more largely lettered man; and "the betting" (to use his own language) "would be exactly 5 to 2 upon John Smith for the Popularis Aura Stakes." How difficult it is to please everyone!

MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—The annual meeting of the Council, Members, and Fellows of the Royal College of Surgeons is drawing near, and momentous are the issues at stake; it is, therefore, full time that all members of our College should review their position, past and present, and buckle on their armour for the fight. It is no imaginary evil of which they complain, for they have long been left out in the cold; their only privilege being the permission to use, at hours inconvenient to busy men, their own library and museum, when not used for other purposes. It is almost inconceivable that so large a body of men should so long have patiently put up with this treatment; but there are now signs of an awakening, and, as a member of the Association of Members of the Royal College of Surgeons, I may state that letters from all parts of the kingdom are pouring in upon us, expressing the determination of the Members to assert their equitable rights; aye, and to get them.

The demand of enfranchisement has been stigmatised, by some of those interested in its refusal, as *democratic*; but the allegation will not for one moment hold water, as the appeal is that of men who have a distinct stake in the government of the corporation. To be truly classed as democratic, it would have to be extended to the general body of medical students, or, at any rate, to those who have just so far identified themselves with the College as is implied by the passing of the primary examination. This no rational being would dream of asking, and this has not been asked. What we Members demand is, the recognition of our right to share with the Fellows in the election of members of the Council. This is pressed in no spirit of opposition to, or jealousy of, the Fellows, large numbers of whom have admitted the justice of our claims. But there are questions, prominent among which is that of the professional education of the medical practitioner, which bear far more intimately upon the interests of the Members than they do upon those of that *corps d'élite*, the Fellows; and upon these questions it is only just that the Members should, by the mouths of their representatives, have an opportunity of expressing their views.

To presuppose that the Members would be hasty and unintelligent in the choice of their mouthpiece is an unwarrantable hypothesis. Look at them in their ordinary business-life; they have their own way to make in the world, and at every step in their daily path are beset with problems quite as difficult to solve as those presented to the distinguished Fellow whose hospital-appointments will always cast sufficient lustre upon his name for his less prominent brethren, the Members, to send him a never-ceasing stream of clients, each armed with the golden tokens of esteem so sparingly and uncertainly doled out to the family-doctor. A few mistakes in diagnosis are easily overlooked by the generosity and charity of the general practitioner, who judges the consultant by the rule, and not by the exception. Not so with the average Member; he has no brilliant reputation behind which to shelter himself; and often one blunder on his part will, in the eyes of his unreasoning and unstable body of patients, undermine the structure of a practice it has taken him years to rear. For this reason, we say that the Member of the College is a man whose very position as the familiar adviser requires the employment of a vast amount of judgment and discretion; and what he is in the habit of exercising all day long, there is little danger of his discarding when the business on hand is that of electing a Member to represent him on the Council of that College whose name he holds it an honour to bear, even though she conducts herself as though ashamed of her offspring.

Only by the voice of the members and licentiates of the English Colleges being heard in their Councils, can true medical reform be attained, the social relations of the profession with the laity advanced, and the abuses of these close corporations swept away. Therefore, let all who, with their diplomas, have earned the right to bear the significant title of "Members," muster in force upon the 29th instant, and show the Council that they are in earnest.

One word more, and that for the ear of the Council; it is not even yet too late for it, uncompelled, to grant the inevitable. Let it graciously acquit itself of the task, and the names of those who now form its august body will stand forth as beacons of enlightenment to future generations of the followers of Æsculapius.—Your obedient servant,
A MEMBER.

NAVAL AND MILITARY MEDICAL SERVICES.

THE EGYPTIAN CAMPAIGN.

SIR,—With reference to the letter from "Soudan" in your issue of October 10th, permit me to correct some of the remarks of your correspondent.

Surgeon-General O'Nial, C.B., would not, "in the ordinary course of events, have become entitled in a few months" to his promotion to surgeon-general. As a matter of fact (which a reference to the *Army List* will prove), in the ordinary course of events, Surgeon-General O'Nial would never have attained the rank of surgeon-general, as he would have been 60 years of age before a vacancy occurred. The promotion in question gives Surgeon-General O'Nial fifteen shillings a day, plus allowances as a major-general, for two years; and, on retirement, £100 a year extra pension for the rest of his life, rather a more substantial reward than being made a K.C.B.

It is quite well understood that the late Surgeon-General Barnett would have merely received a C.B. for the Suakin campaign had he lived; but, when he died, the Director-General, with his usual kindness, induced the authorities to give posthumous promotion, thus benefiting the lamented officer's widow by about £60 a year extra pension.

"Soudan" draws comparisons between Sir James Hanbury and Surgeon-General O'Nial, saying the latter "gets nothing," the fact being that he will receive nearly £1,000 in pay and allowances during the two years he remains on full pay, and £100 extra pension for life. If "Soudan" had brought to notice the treatment the executive officers of the medical staff of the Suakin expedition had received at the hands of the authorities in such matters, he would have indulged in a fairer theme, as not only have their claims been totally ignored, but several of them have, in addition, suffered severely by the promotion of some of their juniors over their heads. The work at Suakin was infinitely harder and more dangerous than that of many who went up the Nile, in addition to which the climate was admittedly the worst in which the British army has served for many years.—I am, etc.,
SUAKIN.

. According to the War Office *Army List*, Surgeon-General O'Nial will not attain the age necessitating retirement until June 14th, 1887. His promotion to surgeon-general's rank bears date June 18th, 1885, and at that time there were two deputy surgeons-general only above him in the list of the medical staff. When the uncertainty which attends all matters of the kind is considered, there are evidently no sufficient grounds for asserting that Dr. O'Nial, if he had not been promoted for special service in Egypt, either would, or would not, have attained surgeon-general's rank in the course of the two years prior to the date when his enforced retirement from the service, on account of the official limit of age, will arrive.

REWARDS IN THE SOUDAN CAMPAIGN.

SIR,—I see in the *JOURNAL* of October 3rd a short article on the distribution of rewards to the medical officers in the late campaign. Might I ask you to say a few words for the naval surgeons employed in the Soudan?

At Suakin, with the marine and naval brigade, two staff-surgeons and four surgeons were employed, some of them for considerably over twelve months. One surgeon was seriously wounded at McNeal's zereba. On the Nile there were three surgeons employed for over a year, and serving two summers in the Soudan. One of them was present in Lord Charles Beresford's steamer action. Notwithstanding the fact that more than one name was submitted to the authorities in the official despatches, not a single reward, or even word of recognition, is given to one of these officers.—Yours, etc.,
SURGEON, R.N.

P.S.—In the executive line, for the same services, the following honours and promotions have been made: two captains made C.B., two commanders promoted to captain, seven lieutenants promoted to commander, all the sub-lieutenants promoted to lieutenant, one boatswain made chief boatswain, and one chief engineer made an inspector of machinery.

NAVAL MEDICAL SERVICE.

SIR,—I would thank any of the readers of your *JOURNAL* to answer the following questions.

First, what is the nature of instruction received in Haslar Hospital by probationers, and how does it compare with the army training in Netley?

Secondly, is it a fact that, on one or two occasions, the newly passed surgeons have been sent direct to gunnery-ships instead of proceeding first to Haslar?

Thirdly, does the Admiralty allow the same amount for expenses of teaching, etc., per man when at Haslar, as the War Department allows for army surgeons when in Netley?

Fourthly, how does the rank of army and navy surgeons compare upon entering?

Fifthly, why is the navy so unpopular as compared with the sister service? By publishing this list of questions you will greatly oblige
A MEMBER.

THE NAVY.

The following appointments have been made at the Admiralty during the past week: JEREMIAH SUGRUE, M.D., Surgeon, to the *Raleigh*; F. H. JULYAN, Surgeon, to the *Watchful*; HUGH WALLIS, to be Surgeon and Agent at Cuckmere and Crowlink.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR JOSEPH FLEMING, M.D., has retired on temporary half-pay. He entered the service as an Assistant-Surgeon, March 31st, 1864; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. Dr. Fleming (says Hart's

Army List) served on board the hospital-ship *Victor Emanuel*, and on shore at Cape Coast Castle, during the Ashanti war of 1873-74, and was appointed pathologist to the expedition (medal). Served in the Afghan war of 1878-80, first with the Kooram field-force, and afterwards with the Northern Afghanistan field-force (medal).

Mr. T. D. PLAYFAIR, M.B., has been appointed Acting-Surgeon to the 2nd Volunteer Battalion of the Queen's Own Royal West Kent Regiment (formerly the 3rd Kent Volunteers); and Mr. S. H. TAYLOR, M.B., to the 5th (West) Middlesex Volunteers, in the same capacity.

Acting-Surgeon H. B. HEWITSON has resigned his appointment in the 7th West Riding of York Volunteers, which he joined February 4th, 1882.

The Rev. R. A. WESTHOPE has been appointed Acting Chaplain to the Volunteer Medical Staff Corps.

The undermentioned officers of the Medical Staff, serving in the Madras Command, will, on completion of a tour of foreign service, proceed to England during the trooping season of 1885-86, and will be detailed by the Surgeon-General, Her Majesty's Forces, Bengal, for duty with troops embarking in the several troopships of the season: Brigade-Surgeon J. H. HUNT; Surgeons-Major M. L. WHITE (on leave in England), G. J. GIBSON, M.D. (in exchange with Surgeon-Major McEwen), W. C. GRANT, M.B., A. L. BROWNE, M.D.; and Surgeons A. E. J. CROLY, R. O. CUSACK, E. F. SMITH, W. D. A. COWEN, F. M. BAKER, M.B., P. M. CARLETON, M.D., F. B. MACLEAN, J. P. CARMODY, M.D. (on leave to England), W. J. MACNAMARA, M.D., and M. W. KERIN.

The undermentioned officers, serving in the Bombay Presidency, whose tour of foreign service will expire during the season of 1885-86, will proceed to England during the ensuing trooping season, doing duty with troops during the voyage: Brigade-Surgeon H. M. MACBETH; Surgeons-Major T. MURTAGH, R. W. HARE, M.B., R. HARMAN, M.B. (at present on leave in England), and R. H. ROBINSON; Surgeons H. MARTIN, M.B., S. J. FLOOD, A. HEWETT, D. FRANKLIN (in exchange with Surgeon G. H. K. M. O'CALLAGHAN, M.D.), P. H. FOX, and D. O'SULLIVAN.

SURGEON J. HEATH, M.B., in medical charge of the station-hospital at Malapuram, Madras Presidency, is directed to do duty at the station-hospital at Secunderabad.

Surgeon R. O. CUSACK, doing duty at the station-hospital at Cannanore, Madras Presidency, is ordered to take medical charge of the station-hospital at Malapuram.

Surgeon R. F. CUMMING died at Richmond Barracks, Dublin, on October 16th, in his thirty-first year. Mr. Cumming entered the service March 6th, 1880, and was appointed Surgeon to the 2nd Battalion of the Scots Guards, January 12th, 1881. In the summer of 1882, he was transferred to the 1st Battalion, and remained with it up to the time of his decease. The *Army Lists* do not assign him any war service, although, we believe, he accompanied his battalion to Egypt in 1882.

INDIAN MEDICAL SERVICE.

SURGEON J. C. FULLERTON, Bengal Establishment, officiating Medical Officer of the Beloochistan Agency, is confirmed in that appointment, *vice* Surgeon-Major O. T. DUKE, M.B., who has resigned.

The services of Dr. R. M. MEKLEJOHN, an uncovenanted Medical Officer in the Central Provinces, are dispensed with from the date of the receipt, by him, of these orders.

The services of Surgeon-Major O. T. DUKE, M.B., Bengal Establishment, officiating Joint Medical Officer at Simla, are, at his own request, placed at the disposal of the Military Department.

The services of Surgeon W. A. QUAYLE, M.D., Madras Establishment, are permanently placed at the disposal of the Chief Commissioner of the Central Provinces.

Surgeon G. F. A. HARRIS, Bengal Establishment, is directed to officiate as Joint Medical Officer at Simla, in succession to Surgeon-Major O. T. Duke, during the absence, on furlough, of Surgeon-Major R. Power, or till further orders.

In modification of the orders of July 9th, Surgeon-Major J. E. P. M'CONNELL, M.B., Bengal Establishment, officiating Professor of Materia Medica at the Medical College, Calcutta, is appointed to act as Medical Inspector of emigrants (Inland Emigration).

The services of Brigade-Surgeon C. ROBERTSON, M.D., and W. H. ROBERTS, M.D., and Surgeons A. T. L. PATER, M.B., and E. R. DA COSTA, all of the Madras Establishment, are placed at the disposal of the Provincial Commander-in-Chief.

Surgeon-Major J. SMITH, Madras Establishment, in joint medical charge at Ootacamund, is appointed to the medical charge of the army headquarters and establishment, in addition to his other duties.

Surgeon J. P. GREANY, M.D., Bombay Establishment, has been permitted by the Secretary of State for India to return to duty.

Surgeon-Major H. B. PURVES, Bengal Establishment, Civil Surgeon of the 24th Pergunnahs, is appointed to act as Medical Inspector of Emigrants (Colonial Emigration).

Surgeon-Major G. R. DAPHTARY, Bengal Establishment, on return from furlough, is posted as Civil Surgeon to the Betul District.

MEDICO-LEGAL AND MEDICO-ETHICAL.

VACCINATION.

SIR,—A vaccinates a child in three places; only one takes. A. wishes to re-vaccinate the infant from the vesicle in two other places; the friends refuse to allow him to do it. A. declines giving a certificate of successful vaccination. Can A. legally refuse to sign the certificate? Does the revaccination from the original vesicle make the child more secure? The parents have been informed it does not, and that the baby would be subjected to unnecessary pain.—I am, etc.,
G. H. D.

. A. cannot legally refuse to sign. The vaccination, though medically an imperfect one, is, legally, a completed operation. Successful vaccination in two more places, whether by lymph taken from the first vesicle, or by other lymph, would unquestionably have given to the child greater security against small-pox, and success would have been made more likely if the operation had been carried out as A. proposed. Under the circumstances, it would now be better to leave any further attempt at securing a more protective vaccination until the child is five years old, unless, indeed, it should be specially exposed to small-pox before that date.

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE THIRD QUARTER OF 1885.

The vital and mortal statistics of the twenty-eight towns dealt with by the Registrar-General in his Weekly Returns are summarised in the accompanying table. During the three months ending September last, 72,016 births were registered in the twenty-eight large English towns, equal to an annual rate of 32.4 per 1,000 of their aggregate population, estimated at nearly 9,000,000 of persons. In the corresponding quarters of the three preceding years 1882-3-4, the birth-rate in these towns was 34.7, 33.6, and 33.9 per 1,000 respectively. The birth-rate last quarter in London did not exceed 31.5 per 1,000, while it averaged 33.2 in the twenty-seven provincial towns, among which the birth-rate ranged from 24.5 in Brighton, 28.4 in Bradford, and 28.5 in Halifax, to 36.9 in Sunderland, 37.7 in Blackburn, 38.1 in Preston, and 43.6 in Cardiff.

The 41,753 deaths registered in the twenty-eight towns during the third quarter of this year were equal to an annual rate of 18.8 per 1,000, against 20.6, 19.9, and 22.8, in the corresponding quarters of the three preceding years. In London, the rate of mortality did not exceed 18.2 per 1,000, while in the twenty-seven provincial towns it averaged 19.4 per 1,000. The lowest rates in these towns were 14.8 in Hull, 15.6 in Bradford, 15.6 in Bolton, and 16.1 in Brighton; in the other towns, they ranged upwards to 22.7 in Cardiff, 24.1 in Manchester, 24.2 in Newcastle-upon-Tyne, and 25.5 in Preston. During the quarter under notice, 8,128 deaths were referred to the principal zymotic diseases, equal to an annual rate of 3.66 per 1,000. The lowest zymotic death-rates among the twenty-eight towns were 0.88 in Halifax, 1.44 in Hull, 1.56 in Huddersfield, and 1.72 in Norwich; while they ranged upwards to 4.68 in Liverpool, 5.80 in Salford, 6.84 in Leicester, and 7.72 in Preston. The 8,128 deaths from the principal zymotic diseases included 4,443 which resulted from diarrhoea, 1,170 from measles, 1,086 from whooping-cough, 506 from

"fever" (including typhus, enteric fever, simple and ill-defined forms of continued fever), 501 from scarlet fever, 327 from diphtheria, and 95 from small-pox. The 4,443 deaths from diarrhoea registered last quarter in these towns were equal to an annual rate of 2.0 per 1,000, against 2.4, 2.1, and 3.9 in the corresponding period of the three preceding years 1883-3-4; the diarrhoea-rate in London was 2.0 per 1,000, and corresponded with the average of the twenty-seven provincial towns, among which the rates of mortality from this disease ranged upwards to 2.6 in Portsmouth, 3.8 in Salford, 4.8 in Leicester, and 6.0 in Preston. The death-rate from measles, which had been 0.6 and 1.1 per 1,000 in the first two quarters of the year, declined last quarter to 0.5; this disease was somewhat more prevalent in London than in the aggregate of the provincial towns, among which measles was proportionally most fatal in Liverpool, Manchester, Salford, and Newcastle-upon-Tyne. The rates of mortality from whooping-cough, which had been 0.68 and 0.71 per 1,000 in the two previous quarters, declined to 0.49 during the three months now under notice, which exactly corresponded with the rate recorded in the same period of last year; in London, the death-rate from whooping-cough was equal to 0.53 per 1,000, while in the twenty-seven provincial towns it averaged 0.45, and caused the highest rates in Derby, Cardiff, and Blackburn. The death-rate from "fever," which had been 0.21 per 1,000 in each of the first two quarters of the year, was 0.23 during last quarter; in London, the rate of mortality from this disease did not exceed 0.18 per 1,000, while it averaged 0.27 in the provincial towns, among which it showed the highest proportional fatality in Cardiff, Norwich, Leicester, and Portsmouth. The death-rate from scarlet fever, which had been 0.26 and 0.19 per 1,000 in the two preceding quarters, rose again last quarter to 0.23; this disease was considerably less prevalent in London than in the aggregate of the twenty-seven provincial towns, among which the highest scarlet fever death-rates were recorded in Preston, Sunderland, and Leicester. The rate of mortality from diphtheria was equal to 0.15 per 1,000, and showed a further decline from the rates recorded in the first two quarters of the year, which had been 0.18 and 0.16 per 1,000 respectively; this disease was proportionally more than three times as prevalent in London as in the provincial towns, among which the diphtheria death-rate was somewhat excessive in Liverpool and Cardiff. Of the 99 deaths from small-pox registered in the twenty-eight towns last quarter, 84 occurred in London (excluding 72 of London residents registered in the Metropolitan Asylum District

Public Health Statistics relating to Twenty-eight Large English Towns, for the Third Quarter of 1885.

Towns.	Estimated Population middle of 1885.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Rate per cent. of Uncertified Deaths.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.										
28 Towns	8,966,446	72,016	41,753	32.5	18.8	3.7	8,128	95	1,170	501	327	1,086	506	4,443	2.1	185
27 Provincial Towns	8,822,618	39,942	23,281	33.2	19.4	3.5	4,239	11	559	315	89	545	320	2,400	3.2	184
London	4,088,928	32,074	18,472	31.5	18.2	3.8	3,889	84	611	186	238	541	186	2,043	0.9	187
Brighton	114,672	699	460	24.5	16.1	2.3	66	—	8	2	4	15	4	83	1.3	185
Portsmouth	134,659	1,169	640	34.8	19.1	4.1	138	—	—	—	3	109	39	87	0.5	155
Norwich	91,215	723	385	31.8	16.9	1.7	39	—	—	1	—	22	12	21	0.5	136
Plymouth	76,045	565	379	29.0	20.0	2.6	50	—	2	—	—	16	2	28	0.8	188
Bristol	218,169	1,630	884	30.0	16.3	2.4	129	8	33	3	3	10	6	71	2.0	143
Wolverhampton	79,185	667	330	32.8	16.7	2.4	48	—	—	10	1	4	2	31	2.1	142
Birmingham	427,769	3,556	1,848	33.4	17.3	3.2	338	—	38	8	10	7	15	238	1.5	179
Leicester	136,147	1,104	755	32.6	22.3	6.8	232	1	36	1	—	10	19	168	1.6	307
Nottingham	211,424	1,878	873	35.7	16.6	3.1	161	—	12	6	8	10	10	107	1.4	161
Derby	88,691	699	387	31.3	17.3	3.0	68	—	8	4	—	24	1	31	0.8	180
Birkenhead	93,093	733	440	33.8	19.0	3.3	76	—	18	7	2	20	7	22	5.0	170
Liverpool	579,724	4,705	3,263	32.6	22.5	4.7	676	2	151	46	31	101	59	286	4.0	308
Bolton	110,085	941	429	34.3	15.6	2.3	63	—	2	3	1	4	4	49	3.5	135
Manchester	387,842	2,851	2,034	33.9	24.1	4.0	340	1	103	10	1	4	12	169	2.7	201
Salford	204,075	1,675	1,116	32.9	21.9	5.8	297	—	63	11	2	10	8	191	3.2	260
Oldham	126,390	1,093	528	34.8	16.8	1.7	55	—	18	5	1	007	6	18	8.1	184
Blackburn	112,574	1,067	504	37.7	18.0	3.5	97	—	—	2	1	42	3	49	4.2	161
Preston	100,406	932	630	38.1	25.5	7.7	190	—	1	16	2	10	11	160	2.7	279
Huddersfield	87,327	637	371	29.3	17.1	1.6	34	—	3	6	—	10	3	12	5.1	143
Halifax	77,378	550	327	28.5	17.0	0.8	92	—	1	1	—	1	3	11	9.2	136
Bradford	214,431	1,617	836	28.4	15.6	1.7	92	—	1	8	2	17	8	56	2.3	144
Leeds	333,189	2,840	1,549	34.2	18.7	3.6	300	—	107	46	4	26	20	137	2.5	195
Sheffield	305,716	2,533	1,526	33.3	20.0	3.8	290	1	35	26	1	46	15	166	6.4	211
Hull	180,292	1,511	689	32.6	14.8	1.4	67	—	—	8	—	5	15	35	4.9	107
Sunderland	125,327	1,153	638	36.9	20.4	3.3	104	—	4	27	—	5	11	55	4.1	167
Newcastle-upon-Tyne	153,299	1,399	923	36.6	24.2	4.2	162	—	55	15	3	1008	14	67	2.5	184
Cardiff	97,034	1,053	548	43.6	22.7	4.5	108	—	1	7	8	27	11	54	1.5	190

Hospitals situated outside Registration London), 3 in Bristol, 2 in Liverpool, 2 in Hull, 2 in Sunderland, 1 in Manchester, and 1 in Sheffield. The number of small-pox patients in the Metropolitan Asylum Hospitals, which was 859 at the beginning of the quarter under notice, steadily declined to 131 at the end of September. The number of new cases admitted weekly to these hospitals averaged 90 in July, 43 in August, and 34 in September.

The rate of infant mortality in the twenty-eight towns last quarter, measured by the proportion of deaths of children under one year of age to registered births, was equal to 185 per 1,000, against 185 and 242 in the corresponding periods of 1883 and 1884. While the rate in London was equal to 187 per 1,000, it averaged 184 per 1,000 in the twenty-seven provincial towns, and ranged from 134 in Oldham, 135 in Bolton, and 136 in Norwich, to 260 in Salford, 279 in Preston, and 307 in Leicester.

The causes of 897, or 2.1 per cent., of the 41,753 deaths registered in the twenty-eight towns during last quarter were not certified, either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0.9 per cent., while in the provincial towns it averaged 3.2, and ranged from 0.5 in Portsmouth and in Norwich, and 0.1 in Plymouth, to 6.4 in Sheffield, 8.1 in Oldham, and 9.2 in Halifax.

OBITUARY.

WILLIAM MICHELL CLARKE, M.R.C.S., L.S.A.,

CONSULTING SURGEON TO THE BRISTOL HOSPITAL.

By the sudden and unexpected death of this gentleman, which took place on October 2nd, Clifton has lost one of its best known and most widely esteemed medical practitioners. Mr. Clarke, who, at the time of his decease, was fifty-six years of age, was born at Bodmin, and was one of a numerous family. He was at an early age apprenticed to a surgeon in the district in which his parents lived; and, after passing two or three years in the country, he entered at St. Bartholomew's Hospital, where he was known throughout his student's career as a hard-working and earnest pupil. He held none but the ordinary appointments, and was never house-surgeon. Immediately on passing the College of Surgeons, he obtained the office of house-surgeon to the General Hospital in Bristol; this was in the early days of the hospital, and Mr. Clarke, who worked eagerly and well, had very considerable difficulties to contend with, in consequence of the poor accommodation at that time possessed by the hospital. Some years later, when a magnificent and thoroughly equipped building had been provided, Mr. Clarke was elected one of the surgeons. This office he held for ten years, when, in consequence of the rapid increase in his practice, and the necessity he felt for providing for his large family of children, he was reluctantly compelled to resign the active duties of surgeon, and was by the governors appointed to the office of consulting surgeon. He never ceased to regret his early resignation as surgeon, and looked upon it as one of the mistakes of his life.

As a surgeon, he was careful and discriminating, a good operator, and had performed most of the great operations of surgery, including ovariectomy, which, at that time, was a comparatively rare operation. At the time of the reintroduction of excision of the knee-joint, Mr. Clarke performed that operation on three or four occasions, and wrote an elaborate article on the subject in the *BRITISH MEDICAL JOURNAL* of 1863, on account of which the late Sir William Fergusson wrote a highly complimentary letter to Mr. Clarke, though they were otherwise entirely unknown to each other; it was therefore the more gratifying to him that the opinions he then expressed met with the approval of so high an authority as Sir William Fergusson.

As consulting-surgeon, Mr. Clarke was most regular in his attendance on operation-days, and kept to the last a keen interest in all matters surgical.

Mr. Clarke was for some years lecturer on medical jurisprudence at the Bristol Medical School; but it was, perhaps, in private practice that he was most widely known; and at the time of his death he had one of the largest and best practices in Clifton and Bristol, and his loss is deeply felt by a large number of patients and friends. He won his success without extraneous aid, and solely by his own patient industry and thoroughly conscientious work. He was too busy to enter much into general society, but he was a constant attendant at the local medical meetings; and being a fluent speaker and a man of ripe experience and sound judgment, his remarks were always listened to with interest.

Few men were more unselfish with regard to acquiring patients;

in all his dealings, whether with them, or with the members of his own profession, he was honest, honourable, and straightforward. He was consequently held in the highest possible esteem by all his professional brethren. He was President of both the local medical societies at one time or another, namely, of the Bath and Bristol Branch of the British Medical Association ten years ago, and a few years later of the Bristol Medico-Chirurgical Society. He possessed the gift of charity in its widest sense, but in the more ordinary acceptance of the word, he was truly charitable, and gave away a considerable sum, in proportion to his income, in an unostentatious and quiet way.

MEDICAL NEWS.

ROYAL UNIVERSITY OF IRELAND.—*Autumn Examinations.*—The following candidates have passed the unmentioned examinations respectively.

Degree of M.B.: Upper Pass Division.—R. Abraham, Belfast; aJ. Barry, Cork; aW. G. Bigger, Belfast, and St. Thomas's Hospital, London; aA. Buchanan, Belfast; aH. A. Clarke, Liverpool School of Medicine; aH. A. Cummins, Cork; aW. A. Fogarty, Cork; aJ. F. Haines, Cork; J. S. Lyttle, Belfast; aD. M'Donnell, Catholic University School of Medicine; aR. B. Mahon, Galway; W. R. Orr, Belfast; aJ. J. Redfern, Belfast; aB. Sumner, Liverpool. [Those marked thus (a) will be admitted to the Examination for Honours.] *Passed.* A. Atcock, Galway, and Carmichael College; W. S. H. Briand, Cork; J. Browne, Belfast; A. T. Drake, Carmichael College; M. P. Dunlea, Cork; J. F. Eagleton, Galway; J. Flynn, Catholic University School; B. Forde, Catholic University School; C. J. Humphries, Belfast; F. J. Keyes, Catholic University School; D. T. Lane, Cork; H. A. Logan, Belfast; C. J. Macdonald, Cork; D. J. McKinney, Belfast; J. Menary, Belfast; M. J. Moran, Catholic University School; S. Moore, Belfast; W. H. Munro, Galway and Belfast; J. W. Oliver, Belfast; W. R. Scott, Belfast; F. H. Sinclair, Belfast, and Trinity College, Dublin; T. D. Smyth, Belfast, and University of Edinburgh; E. A. Spiller, Belfast; A. S. Thompson, Belfast; H. Walter, Trinity College; W. A. Whitelegge, Cork.

Degree of Magister Artis Obstetricia.—W. H. S. Briand, Cork; A. Buchanan, Belfast; H. A. Cummins, Cork; M. H. M. D. Curtin, Cork; W. A. Fogarty, Cork; J. F. Haines, Cork; J. S. Lyttle, Belfast; D. M'Donnell, Catholic University School of Medicine; J. Menary, Belfast; J. J. Redfern, Belfast; W. R. Scott, Belfast; A. S. Thompson, Belfast; W. A. Whitelegge, Cork.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 15th, 1885.

Gillet, John Alexander, Brooke, Norwich.
Jones, Arthur Meyrick, M.R.C.S., Wellow Vicarage, Romsey, Hants.
Nottingham, William Arthur John, 2, St. Avordale Road, Drayton Park, Southsea.
Southern, John Acton, M.R.C.S., 57, Darnley Road, E.
Webb, Albert William, M.R.C.S., 11, Pyram Road, Canonbury, N.

On the same day, the following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise.

Finucane, Morgan Ignatius, Wilton House, Shaftesbury Road.
Girling, John, Wyvenhoe Lodge, Colchester.

MEDICAL VACANCIES.

The following vacancies are announced.

ANCOATS HOSPITAL AND DISPENSARY, Manchester.—Senior House-Surgeon. Salary, £80 per annum. Applications by October 31st.
ANCOATS HOSPITAL AND DISPENSARY, Manchester.—Junior Resident House-Surgeon. Salary, £50 per annum. Applications by October 31st.
CHILDREN'S HOSPITAL, Paddington Green, W.—House-Surgeon. Salary, £80 per annum. Applications by October 28th.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Surgeon. Applications to T. Storror-Smith, Secretary, 24, Finsbury Circus, E.C., by November 11th.
EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical Attendant. Salary, £100 per annum, with furnished apartments in the asylum, board, and washing. Applications by November 7th.
GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Physician. Applications by November 9th.
GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Chloroformist. Applications by November 9th.
HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £100 per annum. Applications by November 17th.
HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, 70 guineas per annum. Applications by October 31st.
JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill, near Birmingham.—Resident Medical Officer. Salary, £150 per annum. Applications by November 2nd.
MANCHESTER HOSPITAL FOR CONSUMPTION.—Honorary Physician. Application by October 31st.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—House-Physician. Applications by November 5th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Resident Medical Officer. Salary, together with board and rooms in the Hospital, £40 per annum. Applications by October 29th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.

QUEEN'S COLLEGE, Galway.—Professorship of Natural Philosophy. Applications by October 28th.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Salary, £100 per annum. Applications to F. D. Wise.

ST. ASAPH UNION.—Medical Officer. Applications by October 28th.

TONGUE AND FARR PARISHES, Sutherland.—Medical Officer. Salary, £250 per annum. Applications to J. Box, House of Tongue, Sutherland, N.B., by October 31st.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Honorary Surgeon-Oculist. Applications by November 7th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £150, with board, lodging and attendance. Applications by October 26th.

MEDICAL APPOINTMENTS.

BLAKER, T. Frederick J., M.R.C.S., L.S.A., appointed Honorary Surgeon to the Northumberland Branch of the Brighton, Hove, and Preston Dispensary.

BROWNE, Edgar A., M.R.C.S. Eng., appointed Lecturer on Ophthalmology in University College, Liverpool, *vice* T. Shadford Walker, M.R.C.S. Eng., deceased.

COLEMAN, H. W., L.R.C.P.E., M.R.C.S. Eng., Armley Lodge, Leeds, appointed Medical Officer of the Great Northern Railway Company's Sick Fund, *vice* James Braithwaite, M.D., resigned.

FETTERSTONHAUGH, Robert T., L.R.C.P. Lond., M.R.C.S. Eng., appointed House-Physician to the Hospital for Women, Soho Square, W., *vice* C. Couper Cripps, M.B., M.S., Durham, resigned.

HANDFIELD-JONES, Montagu, M.B. Lond., M.R.C.P., appointed Physician-Accoucheur in Charge of Out-patients to St. Mary's Hospital.

MASON, David James, M.B., C.M. Edin., L.R.C.P. and S.E., appointed Resident Medical Officer to the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

EVANS.—On October 18th, at 21, Westbourne Villas, Harrow Road, W., the wife of William Thomas Evans, M.B., C.M. Edin., of a son.

MARRIAGES.

BOXER—JAY.—October 13th, at New Buckenham, Norfolk, William Monsell Boxer, Lieutenant 3rd Brigade Southern Division Royal Artillery, only surviving son of Major-General E. M. Boxer, R.A., F.R.S., of Upton, near Ryde, Isle of Wight, to Rosa, only daughter of Frederick Fitzherbert Jay, M.D., of Leamington, Warwickshire.

CHITTENDEN—LAKE.—At Tongue Church, near Sittingbourne, on October 14th, by the Rev. W. Fenn, Rector of Tankersley, Yorkshire, assisted by the Rev. J. H. Hodges, of Tongue, T. Hillier Chittenden, of Whitwell, Herts, third son of Andrew Chittenden, Esq., of Thorndean, Dover, and Detling, Maidstone, to Helen Mary, eldest daughter of the late Thomas Lake, Esq., of Chekes Court, Tongue, Kent.

DEATHS.

CUMMING.—October 16th, at Richmond Barracks, Dublin, Robert Frederick Cumming, Surgeon Scots Guards, aged 30.

HUGHES.—October 10th, aged 40 years, Margaret Susan, the beloved wife of E. T. Hughes, M.R.C.S.E., Holyhead, and elder surviving daughter of Mr. H. G. Hughes, Market Street, Holyhead.

SIR ANDREW BARCLAY WALKER has been elected President, and Sir Henry Wilmot, M.P., Vice-President, of the Derbyshire Children's Hospital for the ensuing year.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 p.m. Dr. J. Milner Fothergill: On a Presumptive Diagnosis of Gout. Dr. Isambard Owen: A Case of Asymmetry.

TUESDAY.—Royal Medical and Chirurgical Society. Mr. Morratt Baker and Mr. A. A. Bowlby: Diffuse Lipoma. Mr. Walter Rivington: A Case of Ligature of the Left Common Carotid Artery, wounded by a Fish-Bone which had penetrated the Pharynx.

WEDNESDAY.—Hunterian Society. Mr. Clement Lucas: On Inversion with Inflation in the Cure of Infusception, with a Successful Case. Dr. Stowers will exhibit a Case of Rare Disease of Nails, and one of Erythema-tous Lupus. Mr. Cotman will exhibit Cases of "Dead" Fingers.—British Gynecological Society, 8.30 p.m. Specimens will be shown. Dr. Heywood Smith and Mr. Lawson Tait: Hernia of Ovary. Dr. Imlach: Treatment of Prolapsed Ovaries by Oophorraphy.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 p.m.—Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopaedic, 2 p.m.—Hospital for Women, 2 p.m.

TUESDAY.....St. Bartholomew's, 1.30 p.m.—Guy's, 1.30 p.m.—Westminster 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 2.30 p.m.—St. Mark's, 2 p.m.—St. Thomas's (Ophthalmic Department), 4 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

WEDNESDAY..St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—London, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Great Northern Central, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2.30 p.m.—National Orthopaedic, 10 a.m.—King's College, 3 to 4 p.m.

THURSDAY....St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.—North-west London, 2.30 p.m.—Chelsea Hospital for Women, 2 p.m.

FRIDAY.....King's College, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—West London 2.30 p.m.—East London Hospital for Children, 2 p.m.

SATURDAY...St. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.—Cancer Hospital, Brompton, 2.30 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., 1; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE BRADLEY FUND.

Sir,—Kindly acknowledge the following contributions in the next issue of your JOURNAL. At the same time, I would again remind those of your readers who are anxious to subscribe, and have not already given me their names, that the subscription-list closes on Monday next, October 20th.—I remain, yours faithfully,
RICHARD JEFFREYS.
Eastwood House, Chesterfield.

Mr. B. H. Addenbrooke, Kidderminster £ s. d.
John C. Creswell, Billericay 1 1 0
.. .. 0 10 6

DYSIDROSIS OF FEET.

The following replies to "A Medical Man's" question at page 773 have been received.

Dr. K. N. MACDONALD (Cupar Fife) thinks that borie or boracic acid will be found to be a remedy both suitable and effectual. It is mentioned in Dr. Lauder Brunton's text-book of *Pharmacology and Therapeutics*, page 508, as being "useful in checking the factor of perspiration"; and Dr. Whittle, in his *Manual of Pharmacy, Materia Medica, and Therapeutics*, page 415, is still more emphatic; "he recommends it as an "effectual remedy by dipping the stockings in a strong solution of the acid, and allowing them to dry before being applied."

Mr. ARTHUR H. W. AYLING recommends washing the feet in tepid water every night and morning, and then dusting them freely with powdered oxide of zinc.

F.R.C.S. writes that our correspondent should impress upon his patient the fact that the perspiration is not fetid when secreted. The foul smell comes from that which has soaked into the socks and shoes, and has become decomposed. All treatment will be useless unless the patient changes his shoes and socks frequently, especially after walking, and he should burn, or otherwise dispose of his present stock of boots and shoes. As local remedies, a lotion of carbolic acid (1 to 30 or 40 of water), followed by the application of oxide of zinc powder, will be found very efficacious. F.R.C.S. also recommends "A Medical Man" to consult Dr. Neale's *Medical Digest*, where he will find references to a number of good remedies.

MORPHINE INJECTIONS DURING SUCKLING.

M.D. asks: Is there any one of the readers of the BRITISH MEDICAL JOURNAL who has seen any bad effects from suckling very young babies, the mother having at the same time injections of morphine of the usual strength made, perhaps eight in number? Are such cases mentioned in medical literature? I suppose these cases are rare, and a fatal result still rarer. Any member knowing of a case of death will oblige by communicating it.

HOME FOR AN HYSTERICAL CASE.

Sir,—If "Hysteria" will write to Miss Seller, Netherfield, North Nibley, Gloucestershire, he will get the required information. Netherfield is not large, but compact and comfortable. It is situated on the side of the Cotswold Hills, having a western aspect. It is sheltered from the north and east winds. Its drainage is good; its water pure; its air salubrious; its views extensive; its scenery charming; its locality hilly; its surroundings wooded. It is a comfortable home, with good society and pleasant company.—I am, etc.,
OXONIAN.

Sir,—Following up the suggestion contained in the letter of "G. P." in the JOURNAL of September 26th, will you kindly inform us what would be the actual cost to the Council of presenting a copy of the above to each registered practitioner in this country?—I am, etc.,
ARMIGER.

s. Probably between two and three thousand pounds.

THE "MEDICAL DIRECTORY" AND THE ARMY AND NAVY MEDICAL SERVICE.

Sir,—I beg to suggest to the publishers of the annual *Medical Directory* that a seniority-list of the army and navy medical services, transcribed from the December *Army and Navy List* of each year, might be published in each annual *Directory*. Further, a seniority-list of the volunteer surgeons would be very interesting. A few pages would suffice for this list.—Yours, etc.,
G. J. H. EVATT, M.D., Surgeon-Major.

MR. G. O. 080. J. M. T. TRICYCLES AND BICYCLES.

Sir,—I shall be glad if some of your readers can give me, from experience, an opinion with respect to the comparative safety of the tricycle over the bicycle, or vice versa, especially with regard to the severity of the injuries occurring in the use of both.—Yours faithfully,
THOMAS GODFREY.

Mr. W. L. H. BLENKARNE.—Dr. Lauder Brunton's Lectures on Disorders of Digestion (with additional matter) are announced by Messrs. Macmillan and Co. as being "in the press." See advertisement in last week's JOURNAL.

FACIAL SPASMS.

Sir,—A married woman, aged 35, has suffered for about eighteen months from spasms of the muscles of expression of the left side of the face. She is slightly nervous, but otherwise her general health is good. She has been taking tonics, such as iron and strychnine, and has had liniments, blisters, and electricity applied locally, without the least improvement.

I shall be very thankful for information as to the most successful mode of treating the case.—Yours, etc.,
R. PRICE, L.R.C.P.E., Bala.

MEMBER OF THE BRITISH MEDICAL ASSOCIATION.—According to the scale, two guineas per diem and travelling expenses is all you can claim. You may, however, be able to make a better bargain if you stipulate beforehand for what is to be allowed. If you do, you had better insist on the money being paid in advance.

COMMUNICATIONS, LETTERS, etc., have been received from:

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Sheffield; Dr. F. P. Atkinson, Surbiton; Mr. W. Tobin, London; Mr. C. McKerron, Workington; Dr. Douglas, Perth; Mr. G. Eastes, London; Mr. D. Norris, London; Mr. H. Fox, Birmingham; Dr. A. Rabagliati, Bradford; Mr. W. G. Black, London; Messrs. Sampson Low, Marston, and Co., London; Dr. Huggard, Geneva; Mr. T. Ryan, London; Dr. Grimshaw, Carrickfergus; Dr. W. F. Gibb, Paisley; Dr. A. H. Carter, Birmingham; Mr. H. Thompson, Sevenoaks; The Secretary of the Ophthalmological Society, London; Mr. J. Lowe, London; Dr. Hughes Bennett, London; Mr. S. R. Lidiard, Hull; Mr. J. R. Clayton, London; Dr. Morton, Glasgow; Dr. E. Klein, London; Mr. F. Dodgson, Cockermouth; Dr. J. Thompson, London; Mr. J. B. Mackenzie, Longsight, Manchester; Our Valencia Correspondent; Dr. Suckling, Birmingham; Mr. Simeon Snell, Sheffield; Dr. B. Rake, Trinidad; Dr. G. W. Potter, London; Mr. A. H. W. Ayling, London; Dr. Arlidge, Stoke-on-Trent; Dr. Mackey, Brighton; Dr. Lindsay, Belfast; Dr. H. Snow, London; Mr. H. P. Dunn, London; Dr. Mickle, London; Mr. J. Brindley James, London; Dr. W. Withers Moore, Brighton; Dr. T. Maxwell, Woolwich; Mr. H. Charlesworth, Gibraltar; Member; Surgeon-Major Evans, Woolwich; Mr. T. M. Watt, Lougham; Dr. Champneys, London; Dr. W. Webb, Derby; Dr. A. Routh, London; Dr. Ewart, London; Mr. T. Rhodes, Preston; Mr. T. D. Pryce, Nottingham; Mr. P. W. McDonald, Dorchester; Mr. J. R. Irwin, Whitehaven; Mr. H. Meymott, Ludlow; Dr. C. Charles, Streatham; Dr. D. McAlister, Cambridge; Mr. G. P. Field, London; Messrs. Morris, Little, and Son, Doncaster; Mr. H. E. Roberts, Conway; Dr. Wilks, London; Mr. F. Dodgson, Cockermouth; Mr. Robinson, Dublin; Mr. G. B. Wall, London; Mr. H. W. Coleman, Arndley; Dr. Styrup, Shrewsbury; Mr. Price, Bala; Mr. A. H. Leach, Woolpit; Our Edinburgh Correspondent; Our Liverpool Correspondent; Our Aberdeen Correspondent; Dr. A. Hill Hassall, San Remo; Dr. J. W. Moore, Dublin; Our Dublin Correspondent; Mr. R. Jeffreys, Chesterfield; Mr. Burrows, Witheridge; Mr. F. H. Thompson, Glebury Mortimer; Dr. W. Anderson, Glasgow; The Secretary of the Pathological Society; Dr. E. Brown, Liverpool; Mr. Blaker, Brighton; Our Glasgow Correspondent; Our Paris Correspondent; Dr. Willoughby, London; Mr. Dartnall, Liverpool; Dr. S. D. Darbishire, Oxford; Mr. H. N. Draper, Dublin; The Secretary of the North-West London Hospital; Dr. Fraser, Edinburgh; Mr. A. M. Robson, Leeds; Mr. J. E. Crisp, Sherborne; Dr. A. M. Cash, Torquay; Mr. L. Beckett, Forest Gate; Mr. L'Heureux Blenkarne, Buckingham; Mr. A. Hodgson, Manchester; Mr. T. Lambert Hall, Leominster; Mr. B. B. Rawlings, London; Mr. J. T. McMahon, Dartford; Dr. J. Aikman, Guernsey; Mr. G. Mundie, Hampton; Dr. J. Curnow, London; Dr. W. L. Cleland, Adelaide; Dr. Prosser James, London; Mr. B. Jones, Leigh; Mr. M. Handfield Jones, London; Mr. Bosanquet, Cork; Mr. Blackett, London; Mr. R. C. Wrighton, London; Our Manchester Correspondent; House-Surgeon; Mr. F. S. Watson, St. Helena; Dr. Charlton, Leeds; Mr. Symonds, London; Mr. J. G. Shea, Chesterfield; Mr. C. E. Cassal, London; Mr. W. Bessie, London; Mr. Scott, Bath; Mr. W. A. Ellis, London; Mr. M. Churchill, Bishop's Waltham; Mr. Roger Williams, London, etc.

BOOKS, ETC., RECEIVED.

The Owens College Course of Elementary Biology. Part I. The Frog: an Introduction to Anatomy and Histology. By A. Milnes Marshall, M.D. Second Edition, Revised and Illustrated. Manchester: J. E. Cornish. London: Smith, Elder, and Co. 1885.

The Insane in the United States and Canada. By D. Hack Tuke, M.D., LL.D. London: H. K. Lewis. 1885.

Milk Analysis and Infant-Feeding. By Arthur V. Meigs. Philadelphia: Blakiston, Son and Co. 1885.

Handbook of Diseases of the Skin. Edited by H. V. Ziemssen, M.D. New York: William Wood and Co. London: Sampson Low, Marston and Co. 1885.

Transactions of the Willan Society of London. Edited by James Martin. Vol. I. London: Printed for the Society by Harrison and Sons, St. Martin's Lane, W.C. 1885.

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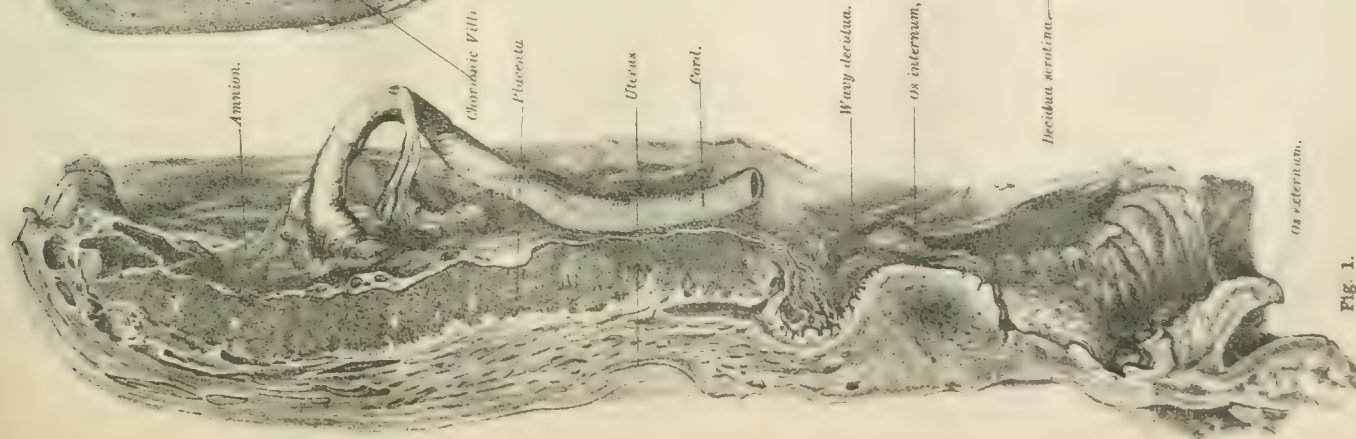


Fig. 1.

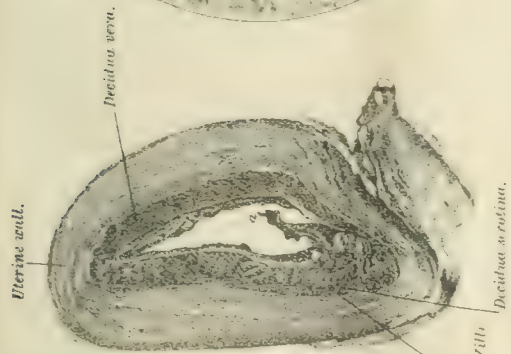


Fig. 2.

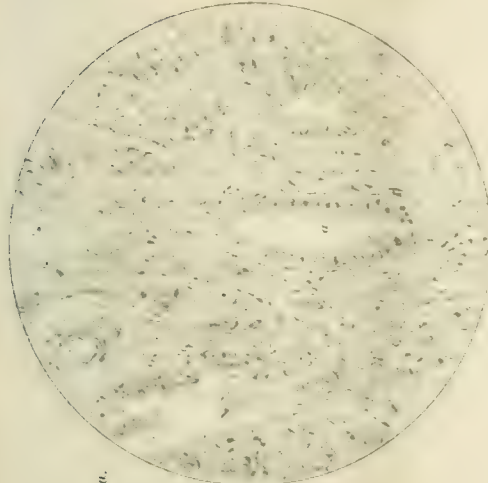


Fig. 5. (a)

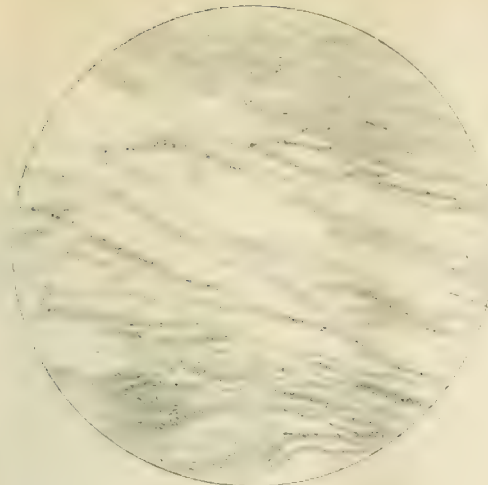


Fig. 8. (80)

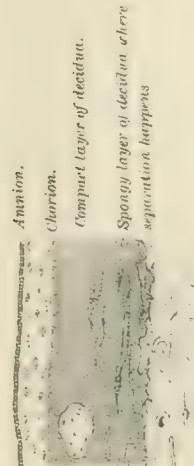


Fig. 6.

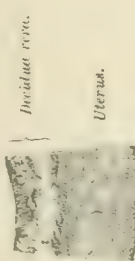


Fig. 3. (1)

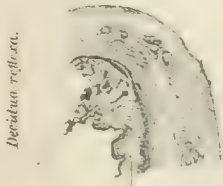


Fig. 4. (1)



Fig. 9. (90)

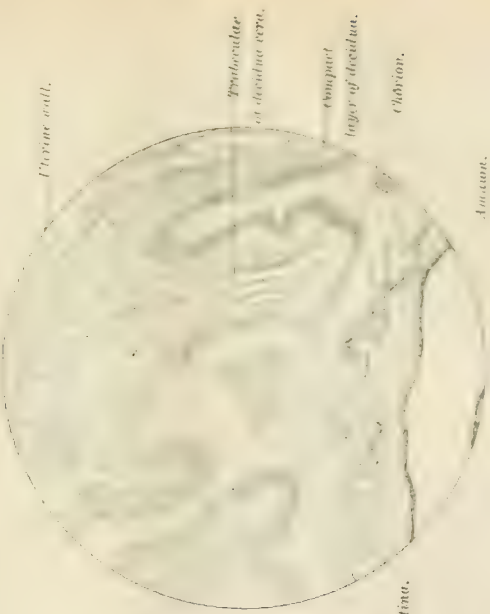


Fig. 9. (90)

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON INTRAPULMONARY INJECTIONS.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By R. SHINGLETON SMITH, M.D., F.R.C.P., B.Sc.,
Physician to the Bristol Royal Infirmary.

THE literature of phthisis, its etiology and its treatment, bids fair to become voluminous. Much good work has been done, and much written, since the discovery by Professor Koch of the tubercular bacillus; but no such results as regards the treatment of the disease are yet forthcoming as might be expected to arise from so important a discovery.

At the meeting of the International Congress in Copenhagen in 1884, it was asserted by Dr. Jaccoud, in elegant and forcible language, that the discovery of the bacillus had been absolutely sterile in its effects upon the treatment of phthisis, and that the discovery was of no value in a therapeutic sense. But, although no startling results have yet been arrived at, much work of a tentative character has been accomplished. Jaccoud's work on *The Curability and Treatment of Pulmonary Phthisis*, and that of Germain Sée on *Bacillary Phthisis*, are likely to encourage a more hopeful tone, and to lead to further investigation for improved treatment. However unsatisfactory treatment may be amongst our out-patients, to the more fortunate patients who can afford to carry out the details of climatic, dietetic, and medicinal methods, such as are inculcated by the latest authorities, the prospect of cure is by no means discouraging. The use of an improved dietary, perhaps the practice of superalimentation, advocated by Weir Mitchell in cases of neurasthenia (and applied by Debove to cases of phthisis), the administration of milk and of cod-liver oil in larger doses than are usually employed, the use of antiseptic inhalations, and of various forms of antiseptic medication, may be expected to give more satisfactory results than have as yet been obtained.

One method—treatment by iodoform—has not yet received the measure of attention which the results of some who have tried it appear to justify. It may be said that all these methods are unsatisfactory, and that, in the majority of cases, the disease progresses in spite of all; or, if arrested, it is so only for a time, when it starts again on a new career of progress. All must admit that this is too often the case, and hence the necessity for further inquiry as to the possibilities of a more active antiseptic medicinal treatment, or by methods of inhalation or injection which have not yet been fully worked out in detail.

Injections into the lung, or into intrathoracic cavities, have frequently been performed; the history of the practice has been well described in an interesting and suggestive paper by Dr. Beverley Robinson of New York, in the *New York Medical Record* for January 10th, 1885. He there alludes to the exhaustive work on this subject by Professor Pepper, of Pennsylvania, "who, as far back as 1867, was led, by the recognition of the importance which a low grade of inflammation had in the development and progress of certain phthisical conditions, to consider the best means of modifying it. Reasoning by analogy with what is known to be true of inflammatory lesions in external tissues, he ultimately concluded that the injection of the affected pulmonary structures, by means of a small cannulated needle, pushed through the intercostal spaces, and charged with some suitable modifying fluid, offered the best guarantee of successful results."

Attention was further drawn to the subject by Dr. Wilhelm Koch, and by Mosler. An analysis of what has been done in the surgical treatment of lung-cavities has been given by Wunderlich, of Brooklyn, in the *New York Medical Journal* of January 10th, 1885; but Pepper's proceeding, advocated by Robinson, is of a different character from that of Koch, Mosler, and others, who introduce a cannula into a cavity in the lung, and then periodically disinfect the

cavity by washing it out with various detergent fluids. The method adopted by Pepper was as follows. A small steel cannulated needle, three inches long, attached to a syringe containing twenty-five minims, was employed. Dilute solutions of liquor iodini compositus, at first in the proportion of one part to fifteen, later of one part to five, were used. The quantity of fluid injected varied from four to twenty-five minims, and the injections were made once a week.

In this way 291 injections were made in seventeen distinct cases, and the results were considered to be satisfactory. It was thought that, "in diffuse consolidation of a large portion of one lung, such intrapulmonary injections are of no value, but whenever the consolidation is limited to one apex, and yet shows no tendency to disappear under the usual methods of treatment, but rather to become extensive, intrapulmonary injections should be carefully tried."

Fraenkel made injections of various substances; carbolic acid (1 to 5 per cent.); watery solution of boracic acid, 4 per cent.; iodoform in olive oil, 5 per cent., and 2 to 5 per cent. solutions of acetate of alumina (*London Medical Record*, July 15th, 1882).

Beverley Robinson's cases, twenty-nine injections in eighteen patients, corroborate Pepper's testimony that intrapulmonary injections in phthisis, when properly made are not dangerous. "They also show: that in many cases we may fairly hope that they will relieve symptoms. Among those which have been sensibly ameliorated are cough, dyspnoea, the quantity and character of the sputa. Still, there are probably certain cases in which no relief will be obtained. Further injections may occasion slight accidents, none of them grave fortunately. These are slight hæmoptysis, syncope, choking sensations in the throat, localised pain, limited pleuritis, emphysema, rise of temperature. Some of these last but a few days, and afterwards disappear entirely; others are mere temporary occurrences, only last a very short time, and do not return."

My own experience of injections into the lung-substance has been limited to one substance, iodoform, which was selected for the following reasons. Its high germicide value, and its non-irritating qualities when injected subcutaneously, give it superior advantages over many other antiseptic substances; further, the demonstration of the utility of the drug, when given medicinally, established by Dreschfeld and others, has been abundantly confirmed in my own experience. In a series of my cases, published in the *Transactions of the International Medical Congress* of 1884, it was found that 29 of the 46 cases showed an absolute gain in body-weight, amounting, in one case, to 32 lbs. in 99 days; in another case, to 33 lbs. in 110 days; of the remaining 17 cases, the loss of weight was small, and in many of them, the wasting, which had previously been rapid, was more or less completely arrested.

It might fairly be expected that, if the drug could be brought into contact with the principal focus of the disease, and in a more concentrated form than when diffused throughout the blood, more decided results might arise from its use. Observations on the germicide value of iodine have been made by Sternberg (*American Journal of Medical Sciences*, April 1883), who finds that the quantity of iodine required to prevent the development of test-organisms is 1 part in 4,000. The quantity of iodine required to prevent the development of the septic micrococcus in the blood of an adult man weighing 160 pounds, would be thirty-five grains. Now, I have in one case administered six-grain doses of iodoform five times daily, and no toxic symptoms were witnessed till after one month's continuous administration of thirty grains daily. Inasmuch as iodoform contains 96 per cent. of nascent iodine, so loosely combined that it is set free within the body, it follows that iodine in this form may be introduced within the body in quantity almost equal to the amount shown by Sternberg to be necessary for the disinfection of the whole mass of circulating blood. Probably the limit of administration in most subjects will be much below this quantity; but I have frequently given twenty-five grains daily without producing any toxic or deleterious results. Whether it be possible to introduce medicinally, by the usual methods, such quantity of iodine as will prevent the germination and growth of the tubercle-bacillus throughout the body, may still be considered *sub judice*. This limit is clearly not far beyond our reach, with the means now at our disposal; but, although this consummation may be possible in some cases, individual idiosyncrasy will frequently prevent its attainment; and in most cases it will be undesirable, if local treatment can be made to accomplish the end in view.

Treatment by injection into the lung-tissue appears to be an easily performed, safe, and theoretically useful method by which local developments of tubercle may be reached by local treatment, and so the risk of toxic effects of iodoform, when introduced into the blood in quantity, may be avoided. It remains to be proved whether actual

experience will justify the expectations which theoretical considerations afford.

Since my attention was first directed to the subject, I have met with only five cases in which I have thought it necessary to carry out the practice of injection into the lung of an iodoform-solution. The results have not been great; but, such as they are, I now report them.

The first case was one of gangrene of the lung, occurring in a man, aged 44, who had suffered from exposure, want of food, and intemperate habits. The patient was very prostrate, with marked hectic, and profuse fetid expectoration, with evidences of consolidation and excavation in the lower lobe of the left lung. As antiseptic inhalations, and the administration of iodoform in pill, two grains every four hours, failed to diminish the excessive fetor of the breath and the sputum, it was thought that this was a case in which local treatment by iodoform-injection was more than justifiable. Accordingly, a solution of iodoform in olive-oil was injected into the substance of the lung in the centre of the area of dullness at the left base; fifteen minims, containing one grain and a half of iodoform, were injected with the ordinary hypodermic syringe. The injection had no immediate effect on the patient, it did not give rise to cough, and there was no evidence of pain or any other discomfort. A similar injection was repeated daily for four successive days; no cough, no hæmoptysis, no pain, were observed as a result of the injections, but on one occasion, the patient stated that he noticed the taste of the iodoform in his mouth for some hours. Afterwards an ethereal solution of two grains in ten minims was used, instead of the oily solution; slight cough ensued immediately after the first use of the ethereal fluid, but, on subsequent occasions, the patient made no complaint, and did not appear to have any discomfort. On one occasion, a few streaks of blood were expectorated. For thirteen successive days, the ethereal solution was injected into various parts of the left lower lobe, and with apparent benefit; the temperature fell to normal, expectoration diminished in quantity to about one-half, and was less offensive, and there was less cough. The improvement was not long maintained; in consequence of increasing weakness, the injections were discontinued, and on the second day after, it was observed that the fetor of the breath had much increased, the dyspnoea and prostration increased, and death took place four weeks after his first admission to hospital. After death, a gangrenous cavity, with much surrounding grey hepatisation, was found in the left lower lobe; the cavity did not contain either fluid or slough, and no traces of the injected iodoform could be seen either within or around it.

The next case was one of chronic pneumonia. William S. D., aged 40, of good family history, but of intemperate habits, came under observation in December, 1884, and gave an account of failing health since the previous January. There had been two attacks of blood-spitting, and profuse expectoration, amounting to half a pint or more, of pure pus daily, which did not contain tubercle-bacilli or lung-tissue. There was flattening at the right apex, and contraction at the right base; the left supraspinous fossa was dull on percussion, and there was coarse bubbling crepitation at both bases. Liver-dullness was normal. There was no albumen. The pulse was 96, small and weak. On January 23rd, 1885, a large patch of dullness, and cavernous sounds, were found at the base of the right lung; there was also coarse crepitation over the left lower lobe. Sputum amounted to one pint daily, pure pus, with no tubercle-bacilli. The cavity in the right lower lobe was aspirated by Mr. Greig Smith, and on January 25th a drainage-tube was introduced, but without giving exit to more than a few drops of pus, although air passed in and out freely. The tube was removed after four days, and the wound closed at once.

February 4th. An ethereal solution of iodoform (two grains in ten minims) was injected into the position of the cavity in the base of the right lung; the injection immediately set up violent coughing, and the patient tasted the ether, but the sputum did not become blood-tinged.

February 19th. Two grains of iodoform in ten minims of ether had been injected on five occasions in fifteen days. The taste of the ether had been mentioned, but little cough was usually excited; on two occasions there had been momentary faintness immediately after the injection. The sputum had diminished to half a pint, and the injections had given rise to no toxic symptoms. The patient felt better, and went away to the seaside; the injections were accordingly discontinued.

They did not, however, effect any permanent improvement; the patient was of opinion that they diminished the expectoration, but this was only for a time; the process of disintegration of lung-tissue steadily progressed, and ultimately involved nearly the whole of the

right lower lobe; at the same time the condensation in the left lower lobe steadily progressed, and ultimately there were evidences of cavities on both sides, cavernous sounds and coarse gurgling, with pectoriloquy, being audible from below the spine of the scapula on the right side, and the angle of the scapula on the left side, downwards to the base of the lung. The sputum was examined on numerous occasions, but neither tubercle-bacilli nor shreds of lung-tissue could be discovered. The patient died in June, whilst away from home, and I did not learn the details of his later history.

The third case was one of chronic tubercular pleuritis in a woman, aged 22, with a history of three months' cough, wasting, and vomiting. There was much dullness at the right base, from the fifth dorsal vertebra downwards, also at the right supraspinous and infraclavicular regions, and the sputum was found to be crowded with tubercle-bacilli. Nine injections of ether-solution, one grain in five minims on the first day, two grains in ten minims subsequently, were injected into the dull area at the base on nine successive days. The injections gave rise to no pain or cough, and there was no hæmoptysis; on one occasion, the patient remarked that she could smell something unusual immediately after the injection.

There was steady gain in weight, from 114 pounds to 140, in two months; the temperature became normal; cough and expectoration ceased; the dullness of the right lung had much diminished, and the patient considered herself to be quite well.

The fourth case was one of advanced phthisis, in a woman, aged 25, with a tuberculous history, and symptoms of twelve months' duration. On admission, there was considerable anæmia, œdema of legs, and albuminuria to the amount of one-fourth. Hepatic and splenic dullness were in excess. There was much dullness and loose crepitation at the left apex, both front and back. Temperature was subnormal. There was little expectoration, but sufficient to show the presence of tubercle-bacilli. Injections were made into the left upper lobe, at the infraclavicular and superior axillary regions, on six occasions, in nine days; two grains of iodoform in ten minims of ether were introduced on each occasion, and did not give rise to cough, nor did the patient taste the ether; there was no hæmoptysis, but there was complaint of pain round the left chest after the later injections. There was no change in the physical signs, and the patient's weight remained stationary. She did not think it necessary to remain longer under treatment.

The fifth case was one of chronic phthisis, which had been under treatment for eighteen months as an out-patient, from December, 1883, to July, 1885, and had taken iodoform in pill, or dissolved in cod-liver oil, during nearly the whole of this period; the weight had increased from 8 st. 2 lbs. in December, 1883, to 8 st. 9 lbs. in September, 1884; after which time, it remained stationary till May, 1885, when he began to lose weight, partly in consequence of a sore-throat, which gave rise to some dysphonia, but which did not cause any laryngeal ulceration. Five injections were made, from July 12th to the 22nd; the fluid was injected into the consolidated upper lobe of the left lung, at the supraclavicular, infraclavicular, and superior axillary regions. The first injection of ten minims of the ethereal solution gave rise to cough, with momentary faintness and pallor; the following injections were limited to five minims, but some pain and a localised pleuritic friction were observed after the third. The fifth was followed by neuralgic pain in the shoulder and up the neck. The temperature continued to be subnormal, and the weight stationary.

In all, the injections have been given forty-two times in five cases. The ethereal solution of iodoform has been used excepting in the first four injections, when the drug was dissolved in olive-oil; the ether readily dissolves one grain in five minims, but will not take up more than this; accordingly, the quantity of iodoform capable of being injected is limited by the anæsthetic effect of the ether. I have been unwilling to use any other substance for injection; the bichloride of mercury, although a far more powerful germicide, is so irritating when injected subcutaneously, that its use is not likely to be devoid of danger if injected into the lung-tissue.

It is of interest to notice that injections of ether-iodoform have more recently been made by Professor Verneuil (*Revue de Chirurgie*, May, 1885) in the treatment of cold abscesses; he injects 100 grammes of a five per cent. solution, and so leaves several grammes of iodoform in a large purulent cavity. If this treatment should prove to be effectual, it will afford strong corroborative evidence of the efficacy of injection of smaller quantities of the solution into localised patches of lung-tissue, and will further be a valuable means of preventing the dissemination of tubercle-bacilli throughout the body, as has been so commonly the case when acute disseminated tuberculosis has been the final result of a localised tubercular abscess.

The general result of my experience of these injections may be summarised as follows.

1. No harm has arisen in any one case; there has been no hæmoptysis, no evidence of pneumonia or general pleuritis set up by the injections; no evidence of any irritation or damage to the lung-tissue, or to the cellular tissue at the seat of puncture. The ether has given rise to a feeling of faintness and giddiness; but these have been only of momentary duration, and have left no ill effects afterwards. Cough has frequently been present during the injection, but has ceased almost immediately. Pain around the side has been present in one case; and in another, pain has been felt extending down from the shoulder, along the arm, in attempting to inject above the scapula behind. Pleuritic pain and friction have been present in two cases; but of a very evanescent character, and not accompanied by any rise of temperature.

2. The positive results obtained have been as follows. In Case I, of lung-gangrene, there was diminution of the fever, and general alleviation of the symptoms. In Case II, of chronic pleuropneumonia, with basic cavities, there was diminution of expectoration, and some improvement in general condition. In Case III, of chronic tubercular plenrisy, there was very marked improvement under treatment. In Case IV, there was some little improvement whilst under treatment, but nothing definite as a result of the injections. In Case V, no definite result has yet been observed. Case III was the only one in which improvement could reasonably be expected; in the other cases, the treatment was adopted with no great expectations as to the result.

These cases do not, therefore, go far to establish the utility of intrapulmonary injections in phthisis and other diseases of the lungs; but they do show that the practice may be looked upon as a safe one, and that it is likely to be of benefit in suitable cases.

I have been unwilling to adopt this method in cases where steady improvement has been induced by other methods of treatment; and, further, when the lungs have been in a hopeless state of excavation, I have also not cared to carry out a practice which could only be looked upon as useless interference; hence the number of cases so treated has been of necessity small; but the results have been encouraging, and I have little doubt that intrapulmonary injection will become a familiar, an efficient, and a useful addition to our methods of treatment of chronic diseases of the lungs.

MEDICAL STATISTICS IN AUSTRIA.—From a recently published report on the medical and sanitary statistics of the Austrian empire, for the year 1882, we learn that the number of hospitals was 537. The largest number of hospital-patients were to be found in Trieste, Lower Austria, Salzburg, Styria, Tyrol, Carinthia, Vorarlberg, and Upper Austria; whereas there were very few in the Bukowina and in Istria. The total number of hospital-patients during the year was 250,589, of whom 9.68 per cent. were syphilitic, and 6.18 per cent. phthisical. The number of lunatic asylums was 26, of which 5 were private. The total number of insane patients in the asylums was 10,393, being an increase of 6.8 per cent. over the numbers of the previous year. In addition to those in asylums, there were 19,646 persons of unsound mind. The total deaths for the year were 686,951. Of these, 21,154 died of small-pox, 9,573 of measles, 16,905 of scarlatina, and 84,329 of pulmonary phthisis, being in the proportion of 384 to every 100,000 inhabitants. This proportion varied in the different provinces, from 225 in Dalmatia to 539 in Lower Austria. The number of doctors of medicine was 4,857, and of surgeons 2,498, both of which classes have increased during the last ten years by about 25 per cent. There was one medical man to 3,011 inhabitants. This proportion varied from 1 in 7,188 in Galicia to 1 in 619 in Vienna.

THE CHEMISTRY OF MILK.—It has been stated that sulphuretted hydrogen is evolved when milk is boiled; but, according to M. Eugling, who has made some recent researches on milk, this is not the case; for, though the amount of sulphur varies in different samples, there is no diminution after boiling. What does happen, according to him, is that part of the phosphates combine with the casein-compounds, an alkaline albuminate being formed; consequently, the milk has an alkaline reaction. In this condition, rennet has no action on it; but, if an acid be added, then rennet will again act. Soxhlet thinks that the separation of casein is accompanied by the formation of lactic acid. Eugling has been unable to find lactic acid in whey, but he finds several albuminoids. If milk contain lactic acid in the proportion of 1 to 1,000, the action of rennet is more rapid; but the casein produced yields a smaller amount of ash than usual, and it has a bitter taste; if the proportion of lactic acid be as much as $1\frac{1}{2}$ to 1,000, the cheese is uneatable.

TWO HUNDRED CONSECUTIVE CASES OF LATERAL CURVATURE OF THE SPINE TREATED WITHOUT MECHANICAL SUPPORTS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By BERNARD ROTH, F.R.C.S. Eng.

ACCOMPANYING my first paper on the treatment of lateral curvature of the spine was an appendix of 50 cases which had been under my care, but which was omitted when the paper was published in the *BRITISH MEDICAL JOURNAL* of May 13th, 1882. Several medical men have written to me since, inquiring about this appendix; and I decided to publish a series of 200 cases, subsequent to the 50, all of which had been treated on the plan advocated in the paper referred to.

I have included in this series every consecutive case of lateral curvature that was under my treatment from March 4th, 1882, to April 4th, 1885, with the exception of one, a girl, aged 17, with severe osseous deformity, who was taken ill with acute peritonitis, after a few days' treatment, and died within four days.¹

I have elsewhere described in detail the method of examination invariably employed in cases of lateral curvature. Briefly, it is as follows. The patient stands without shoes, with the feet close together and knees well extended, the pelvis being symmetrically placed in front of the surgeon. She is requested to hold the trunk in her habitual comfortable position, while the posterior spinous process of each vertebra, from the seventh cervical to the first sacral, is marked with a soft copying pencil. The patient is then inspected laterally and in front while in the same position. She is then told to flex the trunk thoroughly, still keeping the knees extended and the feet together, the arms hanging freely, with the scapular muscles relaxed, so as to uncover the ribs posteriorly as much as possible, when any inequality of the loins and ribs posteriorly is looked for. If there be any undue prominence of one loin, or of the ribs posteriorly on one side, I take a tracing, with a malleable strip of metal, of the loins opposite the third lumbar vertebra, and another of the ribs on a level with the lower angles of the scapulae, while the patient's trunk is still kept flexed.

I have here several such tracings, taken from cases included in my series. This is a photograph of Case 157, and this a tracing of the ribs posteriorly when she first saw me; the tracing of the loins shows scarcely any inequality, the left erector spine being only a trace too prominent.

Here I have an outline-sketch of the back of Case 177, a boy, aged 17, with extreme deformity, which is well shown by the tracings of the loins and ribs posteriorly.

Subsequently, the patient is placed in the best possible position, as shown in another photograph of Case 157, and which I call the "key-note" position during treatment. After this explanation, the headings of the different columns of the tables of cases will be readily understood. It is interesting to note that only 10 per cent. of the patients were males.

The length of time the deformity had been noticed is given in the sixth column, any ascertainable predisposing or exciting causes in the seventh. The most frequent cause is "rapid growth," which occurs in 36 cases.

In the eighth column, a short description of the curvature is given. When only a single curve is present, it is described as "whole spine convex to the left;" when there is the usual double curvature, as "dorsal (upper) convex to the right," implying that there is a lumbar (lower) curvature convex to the left. In the next column, the iliac crest which is most prominent laterally is specified; as a rule, in patients with "dorsal (upper) convex to the right," the right iliac crest is the most prominent, but not unfrequently it is the left, as in Cases 39, 48, 50, 61, etc. Next, the degree of exaggeration of the normal antero-posterior curves of the spine is given as slight, exaggerated, and much exaggerated.

The next two columns (11 and 12) are, in my opinion, the most important of the data which should be given when describing lateral curvature of the spine for clinical purposes. Leading orthopaedic surgeons generally speak of a given case of lateral curvature being cured after one, two, or more years' treatment, without a word being said as to whether there was any permanent osseous deformity present when the patient commenced treatment, and, if mentioned, little or

¹ In consequence of want of space 100 cases are omitted from the tables.

No.	Date.	Patient.	Sex.	Age.	Duration of Disease.	Causes.	Description of Lateral Curvature.	Which Thru Cross?	Antero-Posterior Curves.	O-scur Deformity.		Pain.	Flat Feet.	Previous Treatment.	Duration of Author's Treatment.	Result of Author's Treatment.	Sent to Author by
										Protrudes Spine.	Ribs Posteriorly.						
1	1882. Mar. 4	M. W.	F.	18	4 years	Long walks	Whole spine convex to left	Right	Much exaggerated	Left a trace	Symmetrical	Severe	—	Lying 1 year, then 2 years' steel support	About 4 months	Very much improved (shown at Clin. Soc. of London)	—
4	April 19	B. M.	F.	14	2 years	Rapid growth	Whole spine convex to left	Right	Slightly exaggerated	Left a trace	Left a trace	—	—	—	60 visits	Much improved	Dr. T. Massey (Birmingham)
5	" 20	H.	F.	16	3 years	Brain fever	Dorsal-lumbar convex to right	Left	"	Left moderately	Right severely	Moderate.	—	—	46 "	Improved	Dr. W. Hood
7	" 22	G.	F.	21	Many years.	—	Whole spine convex to left	Right	Moderately exaggerated	Symmetrical	Symmetrical	Severe	—	—	17 "	Improved	Dr. D. Madheson
9	" 28	E. F.	F.	29	17 years	—	Dorsal (upper) convex to right	Left	Much exaggerated	Left severe	Right very severe.	Severe	Slight	Steel support 16 yrs.	91 "	Much improved	—
11	May 3	S. B.	F.	11	4 years	—	Whole spine slight convex to left	—	—	Symmetrical	Symmetrical	—	Severe	Caplin's stays 3 years	41 "	"	Dr. Roxburgh (Walsby-Mare)
12	June 5	C. B.	F.	22	5 years	Always delicate; sprained knee	"	Left	—	Left a trace	Left	Severe	—	Phone couch several hours daily	49 "	"	Dr. Smart (Tunbridge Wells)
18	Sept. 11	F. H.	F.	12	1 year	Rapid growth	Dorsal (upper) convex to right	Right	—	Left a trace	Right a trace	Slight	Trace genu valgum	—	68 "	"	Dr. Jagielski
19	" 11	A. G.	F.	20	7 years	—	"	Left	—	Symmetrical	Right extreme deformity	Severe	Trace	Steel support 4 years	32 "	Improved	—
20	" 15	Mrs. A.	F.	28	40 years	—	"	Right	Slightly exaggerated	Left moderately	Right moderately	"	Trace	—	27 "	Much improved	Dr. Jas. Sawyer (Birmingham)
21	" 21	V. B.	F.	11	2 years	Pituitary on both sides	"	Right	Much exaggerated	Symmetrical	Symmetrical	Trace	Trace	Shoulder-straps.	151 "	"	Dr. W. Outley
22	" 23	Mrs. R.	F.	57	43 years	—	"	Right	Exaggerated	"	R. extreme deformity	Severe	—	Caplin's stays.	3 "	Slightly improved	Dr. A. Carpenter (Croydon)
23	Oct. 12	S. H.	M.	11	—	Right leg; left in shortening	Whole spine convex to left	Right	Slightly exaggerated	Right a trace	Right a trace	—	—	—	37 "	Much improved	Dr. Barlow and Mr. Godlee
27	Nov. 8	S. G.	F.	12	1 year	Wesley (twice)	Dorsal (upper) convex to right	—	Much exaggerated	Left a trace	Right a trace	—	—	—	28 "	Much improved	Sir A. Clark, Bart.
28	" 10	K. N.	F.	15	2 years	Rapid growth, menorrhagia	Whole spine convex to left	Right	Exaggerated	Right a trace	"	—	Trace	—	33 "	Much improved (inf. paralysis Sydenham)	Dr. C. B. Sewell
32	Dec. 1	A. O.	F.	16	3 years	? Paraplegia from convulsions	Dorsal (upper) convex to right	—	Exaggerated	Left a trace	Right moderately	—	Extreme	Steel support 7 years	110 "	"	Dr. Wiltshire
34	" 11	M. K.	F.	19	7 years	—	Dorsal (upper) convex to right	Right	Slightly exaggerated	Left severely	Right severely	Severe	Trace	Steel support 5 years	33 "	"	Dr. Robson-Rose (Brighton)
38	1882. Jan. 26	D. C.	F.	9	—	Always stooped	Whole spine convex to left	—	Much exaggerated	Symmetrical	Left a trace	—	Trace	—	78 "	Much improved	Mr. Canoy and Dr. T. Barlow
39	Feb. 1	L. T.	M.	17	—	—	Dorsal (upper) convex to right	Left	"	Left a trace	Right extreme deformity	—	—	—	72 "	shown (clinical case, May 11, 1883)	Dr. Morgan (Bristol)
41	" 10	E. D.	F.	20	10 years	Typhoid fever	Whole spine convex to left	Right	"	Symmetrical	Symmetrical	Extreme.	Moderate	—	72 "	Very much improved (shown at Clin. Soc. of London, May 11, 1883)	Dr. A. Carpenter
44	" 28	V. W.	F.	8	Always delicate	Paternal grandfather severe scrofula	Whole spine convex to left	—	Much exaggerated	Symmetrical	Symmetrical	—	Trace	—	33 "	Much improved	Dr. D. Madheson
45	Mar. 1	L. S.	F.	15	4 mths.	Always delicate	Dorsal (upper) convex to right	Left	Exaggerated	"	"	Severe	"	—	21 "	Improved	Mr. O. B. Cullett (Worthing)
47	April 19	E. C.	F.	14	1 year	Rapid growth, right leg 1 inch shorter	Whole spine convex to left	—	Much exaggerated	Left moderately	Right moderately	—	"	—	57 "	Much improved	Dr. J. Kidd
48	" 23	H. B.	F.	26	14 years	—	Dorsal (upper) convex to right	Left	"	Left a trace	Right extreme deformity	—	"	Steel support 5 years	51 "	"	—
49	May 7	K. W.	F.	11	2 years	—	Whole spine convex to right	"	Exaggerated	Left a trace	Symmetrical	Mod.	"	—	24 "	"	Sir A. Clark, Bart.
50	" 9	W.	F.	17	4 years	Rapid growth	Dorsal (upper) convex to right	"	Slight exaggeration	Left moderately	Right severely	—	—	Steel support 3 years; paraffin plaster 1 year	78 "	"	Mr. F. Morell Mackenzie
59	June 12	E. J. W.	F.	14	2 years	Left pleurisy	Whole spine convex to right	Left	Much exaggerated	Left a trace	Right moderately	Slight	—	Steel supports 2 years	69 "	Much improved	Sir A. Clark, Bart.
61	" 23	E. F.	F.	12	2 years	Rapid growth	Dorsal (upper) convex to right	Left	Exaggerated	"	Right a trace	Severe	Trace	Steel support 8 mths.; paraffin plaster 18 months	109 "	"	Sir A. Clark, Bart.
64	" 28	I. O.	F.	23	4 years	—	Dorsal (upper) convex to right	Right	Exaggerated	Left a trace	Right moderately	"	Moderate	Plaster of Paris and paraffin support 3 years	72 "	Much improved	Dr. Collins (Sydenham)

1883.	Sept. 1	G. B.	F. 15	6 years	Always delicate	Dorsal (upper) convex to right	Left	Exaggerated	Left a trace	Symmetrical	Slight	Moderate	25 visits	Very much improved	Dr. D. Brown
60	Sept. 1	G. B.	F. 15	6 years	Always delicate	Dorsal (upper) convex to right	Left	Exaggerated	Left a trace	Symmetrical	Slight	Moderate	—	Very much improved	Dr. D. Brown
71	" 4	F. M.	F. 14	6 months.	—	Dorsal (upper) convex to right	Right	Much exaggerated	Left extreme deformity	Right severely deformed	Severe	Severe	Lying down all day	Much improved	Mr. H. Oudling (Brighton)
73	" 14	Mrs. P.	F. 39	10 years	—	Whole spine convex to left	"	"	Left extreme deformity	Left severely deformed	Severe	—	Steel support 8 years	"	Dr. Moore (Liverpool)
79	Oct. 8	G. C.	F. 12	6 months.	Rapid growth	Dorsal (upper) convex to right	Left	Exaggerated	Left mod.	Right mod.	Mod.	Trace	Steel support ordered by W. Adams	Very much improved	Dr. D. Brown.
81	" 12	G.	F. 25	10 years	—	Whole spine convex to left	—	Slightly exaggerated	Symmetrical	Left a trace	Severe	Severe	—	"	—
82	" 22	M. S. N.	F. 16	4 years	Rapid growth	"	Right	Exaggerated	Left a trace	Symmetrical	Mod.	—	Five hours' daily lying (15 months)	Much improved	—
86	" 23	W. D.	F. 6	—	Born in India; always delicate	Dorsal (upper) convex to right	—	Much exaggerated	"	Right a trace	—	Severe	Three hours' lying daily	Very much improved	Dr. D. Brown.
88	" 26	L. C.	F. 20	—	Severe throat affections	Whole spine convex to right	—	Exaggerated	Right a trace	Right a trace	Severe	Trace	Three hours' lying daily	Very much improved	Dr. Sawyer (Birmingham).
89	" 27	L. W.	F. 12	2 years	—	Dorsal (upper) convex to right	Right	Much exaggerated	Left a trace	"	Mod.	Severe	Steel support 3 months	"	Steel support would not meet for 5 ins. when placed in best possible position
90	" 31	T. W.	F. 22	4 years	Pneumonia	"	Left	"	Left severely	"	Severe	Trace	Lying down 4 hours daily (4 years)	"	Dr. E. Stanley Smith.
92	Nov. 9	P. N. B.	F. 9	1 year	Always delicate; rapid growth	Whole spine convex to left	Right	Exaggerated	Left a trace	Symmetrical	—	"	Lying 2 hours daily	"	Dr. J. Kidd.
93	" 10	A. C. J.	F. 14	1 year	Rheumatic fever	Dorsal (upper) convex to right	Left	"	Left mod.	Right mod.	Slight	Severe	—	Much improved	Sir A. Clark, Bart.
94	Dec. 29	K. P.	F. 17	2 years	—	"	Right	Much exaggerated	"	Symmetrical	Severe	Trace	Half an hour's daily rubbing with bay-salt	Very much improved	—
95	1884.	G.	F. 17	3 years	—	"	Left	"	Symmetrical	Right severely	Mod.	"	Hanging in tripod 15 minutes daily	"	—
96	" 2	C. T.	F. 13	—	Diphtheria	Whole spine convex to left	—	"	Symmetrical	Right mod.	—	Severe	—	Improved	Mr. Athol Johnstone (Brighton).
98	" 4	E. S.	F. 14	1 1/2 years	Pneumonia	"	Right	Exaggerated	Left mod.	Symmetrical	Mod.	Trace	Steel support and under treatment 14 years ago; well up to 6 months ago after nursing a relative	Very much improved	Sir A. Clark, Bart.
99	" 4	I. B.	F. 21	7 years	—	Dorsal (upper) convex to right	"	Slightly exaggerated	Right severe	Left (below mod.; right above mod.)	—	"	—	Much improved	Dr. Clifton (Leicester).
103	Feb. 2	I. J.	F. 12	2 years	Born in India; rapid growth	Whole spine convex to right	Right	Much exaggerated	Symmetrical	Symmetrical	—	—	—	Much improved	Dr. Mackey (Brighton).
107	" 14	A. E.	F. 16	6 months.	Menorrhagia; delicate lungs	Whole spine convex to left	"	Exaggerated	Left a trace	Left a trace	—	Moderate	Dumb-bells arm; lying 1 hour daily	Very much improved	Dr. Stephen Mackenzie.
108	" 19	F. B.	F. 24	11 years	—	"	—	Much exaggerated	"	Symmetrical	Severe	Trace	Shoulder-straps	"	Dr. Uthoff (Brighton).
110	" 22	A. C.	F. 15	3 years	—	Dorsal (upper) convex to right	Right	Exaggerated	Left a trace	Right mod.	"	—	—	"	Dr. Stephen Mackenzie.
113	Mar. 12	S. B.	F. 16	3 months	Rapid growth	"	"	"	Symmetrical	Right (above a trace)	—	—	Ordinary gymnastics for years	Very much improved	Sir A. Clark, Bart.
115	" 17	B. D.	F. 16	2 years	Rapid growth	Dorsal (upper) convex to right	Right	"	Left moderately	Right moderately	Severe	—	Poroplastic jacket 6 months; the elastic bands	"	Dr. A. Wilson, (Leytonstone)
118	" 25	K. T.	F. 27	17 years	Always delicate	Dorsal (upper) convex to left	"	Slightly exaggerated	Right a trace	Left	Severe	—	Sayre's jacket, and poroplastic 14 year	Improved	Miss A. Clark, M.D.
120	April 9	M. M.	F. 13	4 years	Always delicate	Dorsal (upper) convex to right	Left	Exaggerated	Left a trace	Right severely	Severe	Trace	—	Much improved	Dr. Neahy (Hampstead)
121	" 15	S. H.	F. 24	—	Rapid growth	Dorsal (upper) convex to right	"	"	Symmetrical	Left a trace	"	Moderate	—	Improved	Dr. Day (shown at Clin. Soc. May 16)
122	" 21	G. D.	F. 14	4 years	Feverish attack	Cervico-dorsal (upper) convex to left	"	"	Right a trace	Left extreme deformity	—	—	Zander institution, 1 year; poroplastic jacket, elastic bands 1 year	"	—
123	" 22	E. D.	F. 8	1 year	Niece of 99	Dorsal (upper) convex to right	—	"	Left a trace	Symmetrical	—	Trace	—	Very much improved	Dr. Clifton (Leicester)
125	" 39	E. T.	F. 51	34 years	—	Dorsal (upper) convex to right	—	Slightly exaggerated	Symmetrical	Right severely	Severe	Trace	Steel support 12 yrs. Tamplin; last 6 yrs. Elastic bands, etc., 16 months.	Much improved	Sir A. Clark, Bart.
126	May 5	C. B.	F. 12	3 years	—	"	Right	Exaggerated	Left severely	"	Mod.	—	—	Improved.	Dr. Sheppard (Worcester)
127	" 15	B.	M. 7	—	Always delicate	Whole spine convex to right	—	Much exaggerated	Right a trace	Right a trace	—	—	exercises 18 months Ordinary gymnastic (mod. pigeon-bust.)	Very much improved	Mr. F. Morell-Mackenzie and Mr. T. Holmes
128	" 16	C.	F. 19	1 year	Fall from horse	Dorsal (upper) convex to right	Right	Exaggerated	Left a trace	"	Severe	Trace	—	"	Dr. E. Mackey (Brighton)

No.	Date.	Patient.	Sex.	Age.	Duration of Deformity.	Causes.	Description of Lateral Curvature.	Which Line Present?	Antero-posterior curves.	Osseous Deformity.	Pain.	Flat Feet.	Previous Treatment.	Duration of Author's Treatment.	Result of Author's Treatment.	Sent to Author by
130	1884, June 12	J. R.	F.	17½ years	—	—	Whole spine convex to right	Left	Much exaggerated	Symmetrical	Severe	—	Lying down; poroplastic jacket; steel support	73 visits	Improved	Mr. Athol Johnstone (Brighton)
131	" 13	J. B.	F.	9 years	Always delicate	—	Dorsal (upper) convex to right	Right	"	Left moderately	—	Trace	Poroplastic jacket, 15 months; also lying down 6 to 9 hours daily	72 "	Very much improved	—
132	" 10	F. H.	F.	16½ years	Rapid growth	—	"	"	"	Symmetrical	Slight	—	Ordinary gymnastics	21 "	Much improved	Dr. Stephen Mackenzie
134	June 27	A. B.	F.	8 "	Always delicate	—	Dorsal (upper) convex to right	—	Much exaggerated	Left trace	—	Moderate	—	12 "	Improved	Sir A. Clark, Bart.
137	July 1	M. F.	F.	15 years	Measles	—	Dorsal (upper) convex to left	Left	Exaggerated	Right	Slight	—	1 hrs. daily lying and exercise	72 "	Much improved	Mr. John Tweedy
139	" 11	E. H.	F.	15½ years	—	—	Dorsal (upper) convex to right	Right	Much exaggerated	Left trace	—	—	Shoulder straps 1 year	24 "	"	Sir A. Clark, Bart.
140	" 23	A. D.	F.	40 years	—	—	Whole spine convex to right	Left	"	Right trace	Severe	—	Lying on back 1 year	6 "	Improved	Dr. A. Carpenter, (Groydon)
141	Aug. 28	E. V.	F.	18 "	—	—	Whole spine convex to left	Right	"	Left trace	—	—	—	24 "	Much improved	Dr. D. Brown
143	Sept. 2	P. O.	M.	17½ years	—	—	Dorsal (upper) convex to right	Left	Much exaggerated	Left trace	Severe	—	1 hour's daily lying (2 months)	24 "	Improved	—
145	" 4	M. L.	F.	12 years	—	—	Whole spine convex to right	Right	"	Left trace	—	—	Poroplastic jacket 2 years	78 "	Very much improved	Dr. Swanwick (W. Hantswood)
147	" 5	E. B.	F.	7½ years	Scarlet fever	—	Dorsal (upper) convex to left	"	Exaggerated	Left extreme	—	—	Steel support 2 years	26 "	Improved	Mr. T. Hobbes
151	" 25	K. D.	F.	15 years	Rapid growth	—	"	Left	Much exaggerated	Left moderately	Severe	Trace	Lying 4 to 6 hours daily	92 visits	Much improved (relapse of pain 4 months after)	Dr. Trend (Southampton)
152	" 25	E. D.	F.	14 years	Rapid growth	—	"	Right	"	Left trace	"	—	—	83 "	Very much improved	Mr. H. Harris
153	" 26	E. G.	F.	13½ years	—	—	"	Left	"	"	"	Severe	—	3 months	Much improved	Mr. Christopher Heath
155	" 20	A. M.	F.	20 years	Always delicate	—	Whole spine convex to left	Right	Extremely exaggerated	Left trace	Severe	Trace	Steel support 2 years (broadhurst); ditto 2 yrs. (Chance) poroplastic jacket (Bryant)	108 visits	Much improved	Mr. Athol Johnstone
157	Oct. 8	M. T.	F.	7 years	—	—	Dorsal (upper) convex to right	Left	Much exaggerated	Left trace	—	—	—	56 "	Much improved	Mr. Christopher Heath
158	" 9	M. R.	F.	11½ years	—	—	"	—	Slightly exaggerated	"	—	—	—	6 "	Improved	Dr. Clifton, (Leicester)
160	" 14	A. H.	F.	8 years	Inf. paralysis, 6 years	—	Whole spine convex to left	Right	Much exaggerated	Left severe	—	Right severe	Poroplastic jacket 12 months	99 "	Much improved	Dr. A. Campbell (Dundee)
165	" 27	E. H.	F.	8½ years	—	—	Dorsal (upper) convex to right	Left	"	Left trace	—	Trace	Trapezoid lying down 1 hr. daily	24 "	Much improved	—
166	" 31	C. S.	F.	40 years	Always delicate	—	"	"	Slightly exaggerated	"	Severe	Trace	Steel support 2 yrs.; last 10 years steel support	74 "	"	—
167	Nov. 5	E. E.	F.	15 "	? congenital dislocation left hip	—	Whole spine convex to left	Right	Slightly exaggerated	Left trace	—	Moderate	—	21 "	Much improved	Dr. J. Kidd
173	Dec. 10	A. B.	F.	17½ years	Rapid growth	—	Dorsal (upper) convex to right	Left	Exaggerated	Left trace	Mod.	—	24 hrs. daily lying for 1 yr.	72 "	Very much improved	—
174	" 15	C. M.	M.	15 years	Delicate, rapid growth	—	Whole spine convex to left	Right	Much exaggerated	Left moderately	"	—	—	8 "	Improved	Dr. D. Brown
175	" 31	M. L.	F.	12 months	—	—	Dorsal (upper) convex to right	"	Slightly exaggerated	Left trace	"	Trace	Rubbing 3 months	72 "	Very much improved	Dr. Stanley Smith
176	Jan. 2	M. B.	F.	10½ years	—	—	Whole spine convex to left	"	Much exaggerated	Left moderately	—	"	Poroplastic jacket ordered by Mr. A. E. Durham	72 "	"	Mr. Athol Johnstone
177	" 9	W. P.	M.	17 "	—	—	Dorsal (upper) convex to right	"	"	Left extreme deformity	Slight	"	—	14 "	Improved	Dr. D. Brown
178	" 13	D. E.	F.	83 years	Rapid growth	—	Whole spine convex to left	"	"	Left trace	"	"	—	72 "	Very much improved	Dr. A. Wilson (Laytonstone)
179	" 14	H.	F.	22 years	—	—	"	"	"	Left moderately	Severe	"	—	87 "	Much improved	Dr. Peart (N. Shields)

No.	Jan. 21	C. E.	F.	13	6 mths.	Rapid growth	Dorsal (upper) convex to right	Symmetrical	Much exaggerated	Symmetrical	Rt. (above) a trace	—	—	49 visits	much improved	Dr. Clifton (Northampton)
154	Feb. 6	C. F.	F.	13	8 years	Dorsal (upper) convex to left	Dorsal (upper) convex to right	Symmetrical	Exaggerated	Right moderately	Left moderately	Normal	Zander 13 mos.	3 months	Much improved	—
157	" 11	M. F.	F.	12	2 years	Dorsal (upper) convex to right	Dorsal (upper) convex to right	Symmetrical	Exaggerated	Right moderately	Left moderately	Nil	—	92 visits	Very much improved	Mr. John Couper
158	" 16	M. H.	F.	16½	4½ years	"	"	Left	Extremely exaggerated	Left severe	Rt. extreme deformity	Severe	Tight stays	84 "	Much improved	Dr. Withers (force Smith)
159	" 23	Mrs. H.	F.	25	15 years	"	"	Right	Exaggerated	"	Right severe	Mod.	Steel support 12 yrs. ago	72 "	Very much improved	Dr. A. Wilson (Leighton)
90	" 27	K. G.	F.	12½	4 years	Whole spine convex to left	Whole spine convex to right	"	Much exaggerated	"	Left a trace	"	Lying 1 hour daily 2 years	64 "	"	Dr. J. Kidd
193	Mar. 23	E. S.	F.	19	6 years	Dorsal (upper) convex to right	Dorsal (upper) convex to right	Left	Much exaggerated	Left a trace	Rt. (above) severe; left (below) a trace	Slight	—	24 "	Much improved	Dr. R. Hughes (Brighton)
194	" 24	A. J.	F.	16	2 years	"	"	"	"	Rt. (above) a trace; Left (below) a trace	Right severe	Nil	Ordinary gymnastics lying 2-4 hrs. daily	36 "	"	Dr. Clifton (Leicester)
197	" 27	P. E.	F.	25	1 year	Phthisical tendency	Whole spine convex to left	Right	Exaggerated	Symmetrical	Symmetrical	Severe	—	72 "	Very much improved	Dr. Stephen Mackenzie
198	April 1	M. C.	F.	11	3 years	Scarlet fever	Dorsal (upper) convex to right	"	Much exaggerated	Left a trace	"	Nil	1 hour daily in extension-bed (4 mos.)	72 "	"	Dr. Clifton (Leicester)
200	" 4	G. B.	F.	17	5 years	Rapid growth	Dorsal (upper) convex to right	Symmetrical	Exaggerated	Symmetrical	Right severe	"	Steel support 1 wk.	72 "	Very much improved	Mr. Christopher Heath

nothing is said about its amount. Much is said about the number of vertebrae implicated in each curve, and about the greater or lesser size of the curve; whereas, to obtain a perfectly true record of a patient suffering from lateral curvature, she should be examined, not only in her habitual position, but also in the best possible position, as shown in this series of six photographs of Case 1. Apparently severe curvatures can frequently be much diminished by a momentary great muscular effort on the part of the patient; and careful measurements in inches of the degree of deviation from a vertical plumbline dropped from the seventh cervical vertebra are perfectly useless, unless taken twice over, first in the patient's habitual position, and again when she has been placed as erect as possible.

In my tables, when there is no difference in the two sides of the loins and of the ribs posteriorly, they are described as symmetrical; when there is some difference, but not sufficiently marked to be recorded by the pliable metal tape, it is noted as "a trace;" when the inequality is easily shown by the tracing, it is termed "moderate," while a marked difference is given as "severe," and the worst cases as "extreme," as in Case 177, of which I have shown the tracings.

The thirteenth and fourteenth columns record the presence or absence of pain, and of flat-foot, which last is so frequently associated with lateral curvature.

In the column headed "Previous Treatment," it is interesting to note that many of the cases have been under instrumental treatment for years. Thus, No. 9 wore a steel support 16 years; No. 19, a steel support four years, during which period it was screwed up about 195 times by the surgeon; No. 2 had a steel support seven years; No. 73, a steel support eight years; No. 125, a steel support 18 years; No. 155, a steel support six years, and a poroplastic jacket for a year or two longer; and No. 166, a steel support 12 years. From all these cases I removed the spinal support at once, and so strengthened the spinal muscles that the patients were able to hold themselves permanently in a much better position than when wearing the supports; in all cases, with much benefit to the general health.

In the sixteenth column, the duration of the treatment under my care is stated, in most cases, by the number of visits patients paid to my house. Patients undergo daily treatment from three-quarters of an hour to an hour with "medical gymnastics," and attention to good positions, as detailed in the paper above mentioned.

Mr. Walsham has given a good name to the treatment I employ by calling it "treatment by posture and exercise." He gives a table of 72 cases treated by this method in *St. Bartholomew's Hospital Reports*, vol. xx; but the details given are too meagre to

be of much use in identifying the amount of deformity in each case, and nothing is said as to duration of treatment.

I still adhere to what I stated about the prognosis with regard to treatment in my former paper—that "more or less decided improvement is nearly always obtained within a month's daily treatment. Cases without osseous deformity are sometimes even quite restored in this time; but every care must be taken to avoid injurious positions, and prescribed exercises must be practised at home for some months afterwards, to prevent relapse. In cases with a moderate amount of osseous deformity, about three months' daily treatment will, on an average, give a satisfactory result; but complete cure is here impossible."

In the last column but one, the result of my treatment is given as "improved," "much improved," "very much improved." I have not ventured to put down "cured" in any case, although "very much improved" is almost synonymous, because I have ever maintained that any case of lateral curvature of the spine, with even a trace of osseous deformity, due to rotation of the lumbar, dorsal, and cervical vertebrae, is to that extent incurable; while, on the other hand, some surgeons deny that lateral curvature is present unless there is some permanent rotation of the vertebrae visible externally.

Only three cases are noted as "not improved," which was due to deficient energy on the part of the patients, and neglect to carry out my directions.

Finally, in the last column, when patient has been sent to me direct by a medical man, which occurred in 85 cases, I have given the name of the sender, according to the advice of several professional friends I consulted on the subject.

Mr. W. ADAMS (London) observed that the tabulated series of cases referred to by Mr. Roth proved the great advantage to be derived from a well regulated system of gymnastic exercises, especially when followed out under his own superintendence. Mr. Adams had always advocated gymnastics, combined with recumbency in physiological curves; but, in confirmed curvatures with structural changes, a light special instrument, to act as a passive support, would be found an useful addition, but not to be used as a curative means; confirmed curvature, whether slight or severe, being an incurable affection. Arrest of curvature would be promoted by a combination of systems, and not by any one system alone; and the extent to which gymnastics, recumbency, and mechanical support might be used, would vary with each individual case. The diagnosis between the physiological and structural curvatures was made by placing the patient in a stooping position; and if the ribs bulged on one side and were depressed on the other, rotation of the bodies of the vertebra with structural changes had taken place; so also in the lumbar region, if a similar deviation oc-

¹ The history of this case is given in full, with lithographic copies of the photographs, in the *Transactions of the Clinical Society of London*, vol. xvi.

occurred in the transverse processes. If, on the contrary, the ribs and the transverse processes were symmetrical, the case was purely physiological and amenable to treatment, or this combined with partial recumbency.

CARIES OF THE CERVICAL VERTEBRÆ.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By EDMUND OWEN, F.R.C.S.Eng.,

Surgeon to the Hospital for Sick Children, Great Ormond Street.

CHAS. H., a healthy looking boy, aged 4 years, was brought for stiffness of the neck and for pains about the head. There was no history of injury, but for some weeks it had been noticed that he held his head down to the right shoulder, turning his face towards the opposite side. He became easily tired; and, after running about, was glad to lie down, and so he would be easier. He would scream when the pains came on. When at meals, he would sit with his elbows on the table, supporting his head in his hands, but even then he would soon feel discomfort, and wish to lie down. His expression showed that he was constantly in pain. He cried out when gentle downward pressure was made upon the top of the head. When asked where it hurt him, he would point behind the right mastoid process. There was no definite contraction of the sterno-mastoid, but the head was thrown well back, and securely held against shock, by the contraction of the trapezii, which stood out in high relief in the length of the hollowed neck. Such rigidity of the trapezii, when associated with stiff neck, is almost pathognomic of inflammation in the cervical spine; it is necessarily accompanied by a backward sinking of the occiput.

The boy was fitted with a moulded leather splint, and made a complete recovery.

At a meeting of the Société Anatomique of Paris, February 9th, 1883, M. Poupinel described a very similar case, but the disease had been of longer duration, and the pain more intense; the pains had lasted six months; the head and face were inclined, as in the case of Chas. H. There was no prominence to be detected; the child died suddenly in bed without cry or effort. At the *post mortem* examination, the odontoid process was found compressing the spinal cord. There was extensive disease of the left occipital condyle, and some little of the right, and there was much secondary disease of all the neighbouring ligaments.

It is well that the possibility of there being disease of the spine in these cases of stiff neck and "neuralgic headaches" be borne in mind. Children are not clever at describing their symptoms, and a headache "somewhere here" may mean pressure on the suboccipital nerve, or on the second or third cervical nerve as it leaves the carious segment of the spine.

Disease of the high cervical spine urgently demands early diagnosis and prompt treatment: unfortunately, the first symptoms of the mischief are not unequivocal, and are apt to be interpreted as of "rheumatic" origin.

A few years since, I was closely associated with a case of this nature, in the person of a schoolboy about 12 years of age. He was fond of all boyish sports, and had possibly, though there was no history to show it, injured his neck at leapfrog or some such game. He began by complaining of pains in his neck, and of "headache," for which the medical man attending his school was consulted, and, detecting no definite pathological condition, suggested that the boy was suffering from rheumatism. The neck was stiff. As no progress was made, the boy rather growing worse, he was taken home, and a physician practising in the town in which he lived was asked to examine him; this gentleman also gave, as his opinion, that the cause of the stiffness and the pain was rheumatism. Eventually a surgeon saw the patient, who by this time was much worse, and he ascribed the pains which radiated over the head and neck to pressure upon the trunks of the spinal nerves, and the stiffness of the neck to the contraction of the muscles which were stealing the parts against jars. The boy was forthwith put flat upon his back upon a firm mattress, no pillow being allowed, and his head was steadied with large sand-bags. This change of treatment was followed immediately by relief, but it did not prevent the supervention of a total paraplegia. The boy was rubbed daily with cod-liver oil, and received every care. He was able to use his hands freely, though he could not stir from the position in which he was placed. One morning, the nurse, who slept in his room, found him dead. No *post mortem* examination was allowed, but it was evident that the ligaments and bones, softened by

disease, had given way. This boy was so bad, when the nature of his disease was discovered, that he was not suited for the treatment which is described in the following report.

H. M., an anxious-looking boy aged 4½ years, was sent to me for suspected cervical caries, with these remarks: "For a month, he has constantly complained of being tired; there is a stiffness of the muscles at the back of the neck." The occiput was thrown back towards the shoulders, and there fixed by the contracted trapezii, and perhaps by the complexi, so that these muscles formed a prominent cord-like mass along the arched neck. In this way the neck was steadied against shock. He could not bend forwards his head, nor turn his face, without rotating his trunk. Pressure on the head gave rise to pain all around the neck; he complained of frequent pains in the shoulders and in each elbow. (Symmetrical distribution of the pains denotes a central source of trouble.) He had much "head-ache," and he could not hold up his head, or bear his neck to be washed.

Eight months before he began to be ill, he had fallen downstairs; and I have little doubt that all his trouble was due to the injury which his neck then received.

I had him fitted with a "cervical collar," and kept him at rest as much as possible. As soon as he began to wear the collar, he lost his pains, and began to grow happy and fat; he liked wearing it, and would begin to cry if one threatened to take it off. Possibly there was never any definite ulceration of the bodies of the vertebræ in this case, but there was certainly cervical osteitis—potential caries. After he had had five months of rest, and of wearing the collar, he could



A A' Breast-plate and chin-piece. B B' Dorsal plate and head-piece.

shake and nod his head, but it was still a little thrown back; he looked well, and he asked if he might go to school.

This is one of many similar reports of cases of cervical caries which have been treated with the cervical collar.

The jury-mast treatment of Professor Sayre has received an honest, extensive, and, I trust, an intelligent trial at my hands, and I have now entirely discarded it. The jury-mast is heavy and cumbersome, and offers no advantage over the rigid collar which bears up the chin and occiput from below. The rotatory movement which its construction allows is a real disadvantage, for I regard rest, and always rest, as the indication for the treatment in all these cases.

That the cervical collar gives relief by insuring this rest, rather than by lifting the superimposed weight, may be inferred from the fact that the collar is equally useful when the diseased segment of the column is in the high dorsal region.

To recapitulate, then, when the disease is in the cervical region there may be pains, possibly called "headache," over the area of the greater and lesser occipital nerves, both of which come from the second cervical nerve; or in that of the great auricular from the second and third; the third nerve joins in the formation of the transverse superficial cervical nerve, which supplies the skin over the front of the neck. The pains will be worse after play or exercise, and the child

will not bear pressure on the top of, nor will it shake or turn the head. Little children are not clever at describing symptoms, and a headache "somewhere here" is apt to be the result of irritation of high cervical nerves.

If the disease be lower in the neck, pain may be referred to the pectoral or deltoid regions, where the supraclavicular branches are distributed.

If the lowest cervical vertebrae be inflamed, the trunks of nerve which enter into the brachial plexus will be liable to compression, pain being referred to the shoulders, elbows, or even to the fingers. For pains in each shoulder, or each arm, the cervical spine should straightway be examined. And even if obscure pains be not symmetrical, but confined to one side, attention should be directed to the spine.

This collar is made by Spratt, of New Bond Street; it is moulded on after the leather has been soaked in a pail of hot water; the hardened case is afterwards lined with chamois leather, and the front and back halves are made to overlap on the shoulders, and are fixed together by straps and buckles. The material is cow-hide, which has not been "dressed," that is, impregnated with oil.

Amongst the advantages of the collar are its lightness, its durability, its easy fit, and the security which it affords; which last is so great that it is not necessary to keep the child always in the horizontal position, though, of course, he must be kept in comparative rest and quiet. I would again remark that I lay no claim to the invention of this collar. It was evolved in Mr. Spratt's establishment, and the mechanic who is chiefly concerned in its production informs me that he got the idea from the common leather hat-box. The pattern is first shaped out in brown paper. The supports have long been used at the Great Ormond Street Hospital, and probably at other places.

Mr. BERNARD ROTH (London) had also given up employing Sayre's jury-mast in cases of cervical caries. He had seen several methods of efficient fixation of the neck, in addition to the useful leather splints shown by Mr. E. Owen, as the poroplastic splints shown by Mr. Walsham, a short time ago, at a meeting of the Medical Society of London, and Dr. Fleming's India-rubber bags. The latter he employed with much success in a girl, aged 6 years, with caries of the upper three or four cervical vertebrae, whose symptoms were so obscure at first that the local medical man considered it to be a case of rheumatism, which was treated with some lotion.

Dr. WARD COUSINS (Southsea) thought that the sudden and painful results in cervical caries, occurred in cases in which the disease was confined to the vertebral bodies. Tenderness, pain, and muscular spasm, together with fixation of the head, always occurred when the vertebral processes were involved. He thought the collar exhibited by Mr. Owen was the best instrument of the kind he had seen. It did not pretend to suspend the head, but only to fix it; but he thought its use ought to be combined with rest, so long as any urgent symptoms remained. He related a case of cervical pain and spasm in a young woman, in which these symptoms had lasted nearly two years, confining her to bed with the head flexed upon the chest. She was immediately cured by stretching and extension under chloroform.

Mr. NOBLE SMITH (London) urged the importance of recognising the early symptoms of caries of the cervical vertebrae, and referred to several cases in his own practice, and also to specimens in Guy's and other hospital museums, where the disease had proceeded unrecognised until death had occurred. He referred to the case of Dean Buckland, whose cervical vertebrae were in the Museum of the College of Surgeons, in whom no symptoms, except those of melancholia, appeared before death, and yet the atlas and axis were considerably diseased. Mr. Noble Smith agreed with Mr. Owen as to the great importance of absolute rest, and thought that surgeons were too much inclined to allow movement when any fixation-apparatus had been applied. He was also glad to find that Mr. Owen discarded plaster-of-Paris and jury-mast in these cases, as it was doubtless a very inefficient fixation-apparatus, although better than no apparatus at all. He considered there was much room for improvement in the treatment of this disease as usually carried out.

Mr. R. N. PUGHE (Liverpool) had treated a very considerable number of cases with Sayre's jacket and jury-mast, and the results he had obtained had been very satisfactory. He thought that, on the whole, it still was one of the most satisfactory appliances for these cases. Its great drawback was the fact, that it allowed too great rotatory motion, which militated against perfect rest. He had found poroplastic collars, somewhat after the pattern Mr. Owen had shown, very efficient; but they were generally beyond the means of hospital-patients. In these cases he had for some time used a collar made of soft leather filled with sawdust. This was very cheap, and answered the purpose

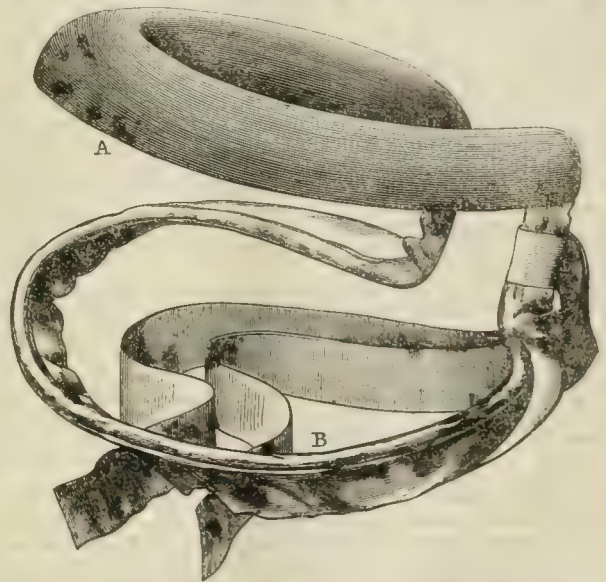
of extending the cervical spine, and keeping in a state of comparative rest. He had found it to answer extremely well. Occasionally, in severe cases, he had superadded it to a plaster jacket (without jury-mast, of course), with very good results.

A NEW APPARATUS FOR SUPPORTING THE HEAD IN DISEASE OF THE CERVICAL VERTEBRÆ.

By HENRY E. CLARK, F.F.P.S., M.R.C.S.,

Surgeon to the Glasgow Royal Infirmary.

WHILE it is universally admitted that the support of the head is one of the most essential points in the treatment of disease of the upper cervical vertebrae, and especially of atlanto-axial and occipito-atlantal disease, the appliances hitherto devised to attain this end have only imperfectly succeeded. The mode of treatment of acute and subacute cases of occipito-atlantal disease which is found to give the best results, consists in keeping the patient in bed in the supine position, the head being fixed by means of a large collar round the neck, to which are attached weights running over large pulleys, and counter-extension being secured by inclining the bed from the head downwards. This arrangement I first saw carried out in the wards of Professor Ogston at Aberdeen, though I cannot say if he originated it. In the chronic form of the disease, and in the early and late stages of the acute form when recovery takes place, it is not desirable that the patient should be kept in bed; and some apparatus is required which will support the head, and take off its weight from the spine, while it will admit of the patient going about. The apparatus which has been most employed, in recent years, for this purpose is Sayre's "jury-mast," undoubtedly an ingenious and in some respects admirable appliance, but having many defects which seriously limit its use.



Of these, the most important is that, from the length and elasticity of the bent bar carrying the bridle, the supporting power is very small; so that, in order to make the appliance of any value at all, the straps have to be pulled up very tight. To put the matter briefly, if the support be effective, it is not comfortable, and, if comfortable, it is not effective. My conviction is that it is never really effective; and most surgeons who have used the "jury-mast" have noticed that the patient still rests his chin upon his hands—a sure proof that the weight is not removed.

My colleague, Dr. Fleming, has recently endeavoured to accomplish the end aimed at, by means of an inflating air-bag, forming a collar which rests on the shoulders, or on a poroplastic mould supported by the latter (*Glasgow Med. Jour.*, May, 1884). This is very comfortable to the patient, and, when first applied, appears considerably to relieve his symptoms; but, unfortunately, air is so compressible that the supporting power of such bags is small, even if they remain air-tight, and few that I have tried have held the air for more than two or three hours.

A few months ago, I had under my care a young girl suffering from disease of the fifth and sixth cervical vertebrae, for whom we used a plaster-of-Paris jacket; notwithstanding that the bandage was carried over the shoulders and well up into the neck, she still found it necessary to support her head upon her hands, and we therefore added a Fleming's bag, which she wore for a week or two. This gave a little additional support, but not much, and she constantly had recourse to her old plan of relief, namely, by resting her chin on her hands, and her elbows on her knees. Perceiving this, her father, who is a blacksmith and a man of some ingenuity, set to work to devise something which would support the head, and produced the apparatus here shown.

It consists of two incomplete rings, A and B—the upper for supporting the head, and the lower to rest on the shoulders. Being formed of one piece of steel, the two rings are continuous at the back; and the upright portions, passing from the lower to the upper, support the latter, and, when in use, support the head also. The lower ring is formed of round steel; but it is flattened for the upper, the flattening commencing about the middle of the vertical supports. The upper ring, being formed of the ends of the bar, is incomplete in front; but the extremities are joined by means of wire, or are loosely clamped, their ends being turned down to form flanges, so as to facilitate this connection. It is found that this arrangement allows the easy application of the apparatus, and makes the pad fit more comfortably to the chin and lower jaw than if the upper ring were rigid. On the upper ring is placed a broad piece of millboard, and this serves to support a pad sufficiently broad and thick to form a comfortable rest. The lower ring in the sample here figured is covered with leather, and the upper with velvet; at the back, there is a tie to keep the apparatus in place when in use. It is, in many cases, found to be best to use a poroplastic collar, to give a firm resting surface for the shoulder-ring; or sometimes it may be desirable to employ a Sayre's jacket, carrying it over the shoulders, and placing the apparatus on this. In the case of the blacksmith's little girl, in whom the disease was in the lower cervical vertebrae, both the jacket and apparatus were used, with excellent effect. As the support entirely depends on the uprights at the back, there is considerable elasticity; but the amount of this will vary with the thickness of the steel and the extent to which the bar is flattened, so that modifications may require to be made to suit individual cases. I am informed that, for a case under the care of Dr. Donald, of Paisley, adjustable bars have been added, connecting the two rings about the middle of each lateral aspect; and that these have been found to answer well. Dr. Donald has also used the collar in several other cases, and has a high opinion of its value. I hope that he will be persuaded to publish the result of his observations.

The apparatus is very simple and inexpensive. The inventor is willing to make similar ones at the reasonable price of 5s. each, and even suggests that, finished in a cheaper style, he might supply them for less. His name is Mr. John Moore, 11, Napier Street, Linwood, near Paisley. They can also be obtained from Messrs. W. B. Hilliard and Son, Renfield Street, Glasgow. Sayre's "jury-mast" costs from £1 5s. to £1 10s., and cannot be applied without the plaster jacket, involving a further outlay of ten or fifteen shillings. Fleming's bags cost £1 1s. each. This apparatus is more effective than either of these, and does not cost a fourth of the price.

As to the originality of Mr. Moore's support: there are several appliances, chiefly intended for the treatment of wry-neck, which have a general resemblance to the apparatus herein described; but I am satisfied that the differences are so important and vital as to constitute it essentially a new means of treatment; and I am quite sure that Mr. Moore received no aid from any knowledge of other supports. I may say, however, that the mechanical arrangement which comes nearest to it is an "elastic spring head-rest for torticollis," devised by Dr. J. R. Wood, of New York, and figured in the illustrated catalogue of Messrs. Tiemann, of New York.

THE LATE DR. STEPHEN MONCKTON.—A very influential meeting was held at The Star Hotel, Maidstone, on Friday, October 9th, at which it was decided to hang a portrait of the deceased in the West Kent General Hospital, and to establish a Nurses' Home to be attached to, or affiliated with, the hospital, as permanent memorials of his useful and distinguished career, and a committee was appointed to carry out the proposal. In the course of the discussion, it was suggested that the portrait should be hung in the Town Hall instead of the hospital; but, as the feeling was very strong in favour of having it at the hospital, it was proposed that two portraits should be painted, one for the hospital and one for the Town Hall, and this will, in all probability, be carried out.

ON THE TREATMENT OF ANGULAR CURVATURE OF THE SPINE IN THE UPPER DORSAL AND LOWER CERVICAL REGIONS, BY A COMBINATION OF JACKET AND COLLAR OF POROPLASTIC FELT.

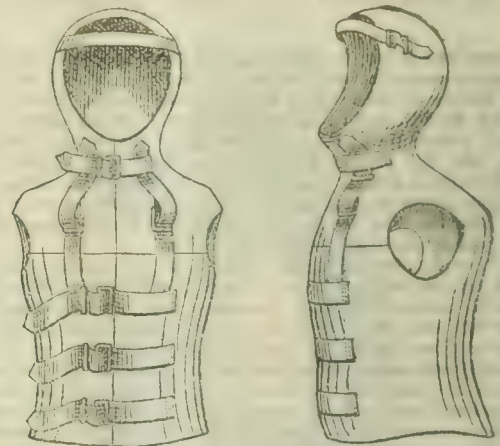
Read at the Medical Society of London.

By W. J. WALSHAM, F.R.C.S.,

Assistant-Surgeon to, and Surgeon in Charge of the Orthopaedic Department at, St. Bartholomew's Hospital.

THIS combination of collar and jacket, which I show this evening, has been used by me extensively for the last twelve months in the Orthopaedic Department of St. Bartholomew's Hospital, in the treatment of caries of the spine in the upper dorsal and lower cervical regions. The apparatus was made, at my suggestion, by Mr. Cocking, on account of the difficulty I had found of treating such cases satisfactorily with Professor Sayre's jury-mast; and, as Mr. Cocking tells me that he has not at present supplied the apparatus to other surgeons, and as its use has been attended with considerable success in my hands, I thought it might be worth showing to the Fellows of the Society.

The apparatus, which is made out of one piece of felt, consists, as will be seen, of an ordinary poroplastic felt jacket, together with an accurately fitting collar and helmet-piece. The jacket and collar are continuous posteriorly; the collar-portion is carried upwards over the occiput, and, after encircling the neck, is bent downwards over the shoulders and upper part of the front of the chest, where it over-



laps the jacket-portion, and is there secured in position by straps and buckles. In ordering the apparatus, measurements in ordinary cases will suffice; but, where there is much deformity, a plaster cast of the part must first be made, and on this the jacket moulded. It is, of course, fitted on like the ordinary jacket, by thoroughly softening the felt in the steam-oven, and then accurately moulding it to the figure whilst in its plastic state. The cases for which it is especially adapted are those where the caries is situated too high in the spine to be benefited by a common felt or plaster jacket, and too low to be treated by the various collars in use for cervical caries; in short, for cases in which the jury-mast is now frequently used. I have employed the latter contrivance—that is, the jury-mast—in a considerable number of cases, in combination with both plaster-of-Paris and with felt; and I must confess that it has not answered very well—at least, in hospital patients—in my hands; my experience being similar to that of Mr. Marsh, my predecessor in the department, who found in the greater number of patients, on their subsequent visits, the cross-bar simply resting on the head. This condition of things is in some instances, no doubt, due, as pointed out by Professor Sayre, to time not having been allowed for the plaster to set before the patient was permitted to resume the upright position. But, in children under the age of 9 or 10, the failure of the jury-mast is caused by the slipping downwards of the plaster or felt jacket, in consequence of the pelvis being in them as yet undeveloped, and their thorax forming, with the pelvis, a cone, with the narrow end downwards. Indeed, Professor Sayre himself admits that for this reason, in young children, the jury-mast is of no service; and for such he merely advises the recumbent position, combined with a plaster case, to allow them to be moved

with as little disturbance as possible of the diseased spine. It is in this class of cases—that is, in children under 9 or 10 years of age—that the apparatus I now show appears to be especially suitable; as, embracing as it does the shoulders, neck, and head, any slipping of the jacket downwards is effectually prevented. But, at first sight, it might appear that, in consequence of thus resting on the shoulders, and having no base of support in the pelvis, the jacket does not remove pressure from the diseased vertebrae, but only adds its own weight to that of the head, neck, and arms, which the diseased parts had already to bear. This, however, does not appear to me to be the case. Now, I think I am right in saying that it has generally been assumed that the ordinary jacket, whether made of plaster, felt, or other material, removes the pressure from the diseased spine by transmitting the weight of the parts above the disease through the substance of the jacket to the pelvis on which it rests below. From this, it has been argued that in children under 10, and in adult males in whom the pelvis offers no basis of support, the jacket is of no service in removing the pressure from the diseased spine. In considering this question, an important point appears often to have been lost sight of; namely, that, to remove pressure from the diseased vertebral bodies, it is not necessary that the weight of the parts above should be diverted from the spine and transmitted through the jacket, but only that it should not be transmitted through the diseased bodies. A glance at this spine, from which I have removed the bodies of two of the vertebrae, will show that the posterior part of the column—namely, the articular process, arches, etc.—is capable of transmitting any reasonable weight that can be put upon it; and that none of this weight is transmitted through the bodies of the vertebrae, if the spine be held sufficiently straight to prevent the bodies above and below from coming into contact. It is hardly necessary to say that, if this spine were enclosed in a tube, although the tube fitted quite loosely, the antero-superior support which the spine above and below receives from the tube would prevent the bodies from coming into apposition, and determine the transmission of the weight through the posterior part of the column. Now, I take it that the action of a jacket is similar to that of such a tube, and, therefore, that it is not necessary for it to rest on an expanded base, and to transmit through its substance the weight of the parts above the disease to the pelvis; but only that it should fairly closely embrace the pelvis and thorax, so as to prevent the spine from falling forwards, and the vertebral bodies from being pressed together. This, I believe, is accomplished when the jacket is properly moulded to the trunk, during very moderate extension, or with the patient in the recumbent posture, and when prevented from slipping downwards in the way here suggested by this apparatus. But, in whatever way the jacket may act, the results I have obtained by it have been very encouraging. Several of the children, who could not stand before it was applied, were able to walk a few weeks afterwards. The gravest objection to which it appears open, to my mind, is, that it is likely to embarrass thoracic breathing; but this is an evil incidental to all forms of jacket, although by Professor Sayre it is hardly regarded as such, as he believes the controlling action of the jacket on the movements of the ribs gives further rest to the diseased vertebrae. But, although thoracic breathing is undoubtedly interfered with, I do not think that this interference is greater than that which occurs when the ordinary felt or plastic jacket is used; and in these I do not think that the movements of the ribs are as much impeded as Professor Sayre would have us believe. Indeed, in all the cases I have seen, the fingers could be passed between the jacket and the thorax; and, in the apparatus I show to-night, distinct movements of the ribs can be felt on placing the hand in front of it. The advantages of this combined jacket and collar over the jury-mast, further than that it does not slip down in young children and males, are: that the parts are held more steady; that the rotatory and lateral movements of the neck in cervical caries are controlled; that there are no straps to stretch, or to be in different states of tension, according to the varying positions of the head; and that the patient can lie down with greater comfort.

And here I should say that, although I advocate moderate exercise for the purpose of sustaining the general health, I am sure that this ought to be combined with long daily periods of recumbency.

Before concluding, I should like to say a word or two in favour of felt as a material for jackets generally, *versus* plaster-of-Paris. By some, felt is regarded as a mere makeshift for plaster, and, as we all know, is thought by Professor Sayre to be very inferior to it. At the meeting of the British Medical Association at Belfast, he raised many objections to its use, which, as far as I know, have gone forth to the profession, in the published accounts of the proceedings of the Association, hitherto unanswered.

In the first place, Dr. Sayre, to quote his words from the BRITISH

MEDICAL JOURNAL, says, that porous felt fails to retain its shape, owing to the perspiration causing it to soften. To this it may be answered, that the resin which gives the necessary rigidity is insoluble in water, and only becomes softened and plastic at a temperature of 150° Fahr.

In the second place, he says that, being formed over a plaster model, accuracy of fit is not so perfect as in the original jacket from which the model was made. Now, this would hold good were the felt jacket thus modelled placed on the patient in its rigid state; but it is applied with the felt thoroughly softened, and made plastic by steam, and then takes, I maintain, as accurate a shape of the parts as plaster-of-Paris.

Thirdly, he contends that the porous felt, so-called, is not porous, but absolutely impervious to air, on account of the resinous gum in it; and, therefore, has frequently to be punched in holes before it becomes porous. This so weakens the corset, that it has to be fortified with strips of steel, which, of course, prevent its accuracy of adjustment to the various irregularities of the figure. But (says Professor Sayre), let a plaster-jacket be made over a tumbler or cup, and, when removed, its open extremities covered with plaster bandages, thus making an air-tight box; if, now, you cut a hole in the plaster and insert a cigar or pipe, and fill it with smoke, remove the pipe and insert a tight-fitting cork into the hole, you will observe that the smoke is seen to emerge from all portions of the plaster casing. This proves its porosity (said Professor Sayre), and makes it infinitely superior to felt, or to any of the various substitutes that have been suggested to take its place.

But this experiment did not prove the non-porosity of felt. To have made his argument conclusive, he ought, in like manner, to have filled a box of porous felt with smoke, and shown that, through it, the smoke would not issue. Mr. Cocking has made me such a box, which I now produce; and, having filled it with smoke, I leave it to you to say in what way the porosity of plaster is superior to that of the felt. But such an experiment is not necessary, as it must be well known to all who have used felt that, if it is placed before the mouth, it can be breathed through, and the flame of a candle be visibly affected. Further, Mr. Cocking tells me that the porous felt is now being used as a material for respirators.

But, as the felt is porous, it is not necessary to cut holes in it to render it so, and then to have to strengthen it by steel ribs. Indeed, I have used hundreds of jackets, and have never had occasion to do either.

In conclusion, as I maintain that the felt is as porous, and can be made to fit as accurately, as plaster-of-Paris; its comparative lightness, greater cleanliness (both in application and in subsequent use), together with the great saving of the surgeon's time, render it, in my opinion, not a mere makeshift for plaster-of-Paris, but in every way superior to it.

ON THE APPLICATION OF A JURY-MAST, OF A MODIFIED FORM, IN CASES OF DISEASE OF THE UPPER DORSAL VERTEBRÆ (WITH ILLUSTRATIONS).

Read before the East Sussex District of the South-Eastern Branch.

By WALTER PYE, F.R.C.S. Eng.,

Surgeon to St. Mary's Hospital, and the Victoria Hospital for Children.

AFTER a preliminary statement of the writer's position with regard to the value of the various modifications of the jacket treatment of spinal disease, he continued: Plaster cases, or felt jackets, or jackets of any kind, cannot be applied in the ordinary way, so as to give efficient support, when the disease is situated in the second, third, or fourth dorsal vertebrae; nor is there any relief afforded by slinging up the head by the common over-head jury-mast of Dr. Sayre. In the majority of these cases, the amount of the angular deformity is greater than is found in caries anywhere else in the spine; this I believe to be largely due to the absence of what takes place, to a greater or smaller degree, in many other forms of spinal caries—namely, the development in the vertebral column, below the seat of the disease, of a compensatory lordosis. We are apt to think of compensatory curves as being only found in the cyphosis and scoliosis of ordinary spinal curvature; but there is no doubt that the peculiar gait and carriage of those humpbacks who are able to get about pretty well, is due partly to the primary angular deformity, and partly to an acquired lordosis, situated chiefly in the lumbar region. But no such curve is developed when the disease attacks the vertebrae we are now considering; in

deed, if the deformity be allowed to go unchecked, the reverse will happen, as shown in Fig. 1, which is taken from a photograph of such a patient. It will here be seen that, in addition to the primary angle, the lower and healthier part of the spine, instead of acquiring any forward lordosis, has become slightly bowed backwards. It thus happens



Fig. 1.

that, in disease of the upper dorsal vertebræ, after the acute stage has passed, when, in cases of disease elsewhere, consolidation may be looked for, a steady, quiet, and progressive dropping forwards of the head



Fig. 2.

and shoulders will take place, until the hands rest habitually on the knees (Fig. 2), and, in most cases, until the power of locomotion and the movements of respiration are so much interfered with, that the

partial recovery, which might otherwise have been looked for, cannot take place.

On consideration of the nature of this deformity, it will appear that no ordinary jacket is applicable, and that attempts at giving support by means of an "instrument" of any kind must almost certainly fail. Such mechanical contrivances are designed to transfer the weight of the parts above the seat of disease to the pelvis, instead of allowing it to press upon the diseased vertebræ. But these are not the requirements which have to be fulfilled in the present case; the great point to be tried for now is to correct the general forward bending of the parts both above and below the seat of the disease; and it is obvious that, if the healthy dorsal and the lumbar vertebræ can be made to support the dropping neck and shoulder-girdle, in such a manner that a tendency to compensatory lordosis is set up, this end will be gained without putting any unusual strain upon the pelvic girdle.

With this object I have now, in three cases, adopted a modification of the jury-mast system of Dr. Sayre; and I have, I believe, obtained an improvement of attitude, such as I could not have got in any other way. The accompanying woodcuts, Figs. 1 and 2 (taken directly from photographs), are representations of one case at the time of the first application.

In two cases, I have employed plaster-of-Paris throughout; in another, first the plaster, and then poroplastic-felt; but in either case the principle is the same—namely, that of slinging up the dropping chest and shoulders to the cross-bars of a jury-mast, which itself springs from, and is attached to, the lumbar and last eight dorsal vertebræ.

This mast is shaped to a pattern taken by laying a flexible metal rod along the spine (a piece of flattened lead gas-piping does well). The curve from the sacrum up to the angle (that is, up to the seat of the disease) must be accurately that taken by the lower and healthy part of the vertebral column when the patient is standing, held up by an assistant, in the most upright position he can assume. The angle itself must be somewhat more obtuse than that of the spine, so that the free part of the mast above that point comes slightly further and further away from the upper stooping part of the spine. There must also be screws for altering the length, etc., as may be required. The lower part must be forked, as in other jury-masts, so as to avoid pressure on the spinous processes; and the angle must come in the shoulders of the fork, the two "prongs" being provided, as usual, with flexible tin strips, with rough perforations, when plaster-of-Paris is used.

The upper part, which overhangs all the spine above the angle, stops just short of the head, where one crossbar is attached by a central pivot, round which it can move. A second similar crossbar is placed one inch in front of the angle.

The jury-mast thus made is now applied to the patient, the lower part and the tin strips being worked into a light well fitting plaster-case, having a good grip of the pelvis, and binding the mast firmly to the spine up to the seat of disease.

If a felt-jacket be used, it must first be fitted in the ordinary fashion, and then the mast must be rivetted to it. When this has been done, or when in the former case the plaster has set, a broad piece of webbing is taken and fastened to the front and sides of the jacket, just below the ensiform cartilage, in the middle line, and opposite the bases of the scapula, at the sides. For the plaster-case, a convenient way is to sew short tin strips (see dotted lines in Fig. 2) to the webbing, where it will lie over these points, and then to attach them with one or two turns of a plaster-of-Paris roller. In the case of the poroplastic-jacket, they must be sewn on to the felt; a couple of well padded axillary bands must then be adjusted beneath the arm-pits.

These preparations made, the appearance will be as in Fig. 1, and it only remains to attach the ends of the webbing-straps to the respective ends of the lower of the two cross-pieces, and the ends of the axillary bands to the ends of the upper one, giving only such support at first as the patient feels to be comfortable; afterwards, by gradually shortening up the bands, so that the head and shoulders are slung up more and more closely to the upright position, it will be found that the lower dorsal and lumbar vertebræ are encouraged to assume a more decided forward curvature, or lordosis.

So far as my present experience goes, the apparatus is found to be very comfortable; the patients have prized greatly the relief from the weariness of the stooping position, and have improved in their general health. It seems to be improbable that this form of support will be applicable except to the small class of patients in whom disease of the three or four upper dorsal vertebræ has produced that general inclination forwards which I have endeavoured to describe.

FIFTY CASES OF OVARIOTOMY.

By SKENE KEITH, M.B., F.R.C.S., Edinburgh.

IN the following table is given a short description of my first fifty cases of ovariectomy. Without some account of the nature and amount of adhesion, number of times tapped, etc., it is impossible for anyone to form an idea of the severity of the operation for removal of abdominal tumours. In 36 per cent. of the cases, there were no adhesions—4 per cent. less than Sir Spencer Wells met with in his 1,000 operations. Sixteen of the tumours had been tapped from one to five times; and, if what we have heard lately about tapping under the carbolic spray be true, it is a wonder that some, at least, of these sixteen patients did not die from septicæmia, originating at the time of these non-Listerian tappings.

There is little to say about the mode of operating. As a general rule, the cautery was used for the pedicles. This is the only perfect method; for, by using it, all risk of after-bleeding is avoided; and the contrary is the experience of almost all who have used ligatures extensively. It is difficult to say why no one will use it. A little time is, perhaps, lost when narrow thin pedicles are dealt with; but this is not the case when the attachment of the tumour consists of the whole uncontracted breadth of the broad ligament.

That my deaths have been few, I attribute mainly to the fact that I have had the assistance and advice of Dr. Keith in the cases; also to the experience I gained by assisting him for the last nine years, and to what I saw in America, and while I was assistant-surgeon to the Samaritan Hospital, London. The mortality—two deaths out of fifty operations, or four per cent.—demonstrates that an almost special education is required for abdominal surgery. This is more clearly brought out when I add to my cases those reported in the BRITISH MEDICAL JOURNAL of August 9th, 1884, by Mr. Meredith, of the Samaritan Hospital. We then have 100 cases of ovariectomy, performed by two surgeons whose experience was probably greater than that of anyone who has opened the abdomen for the first time. The mortality is six in the 100. It is not likely that any general surgeon or obstetrician will obtain such an amount of success, who has to gain his experience on his own patients.

To make the list of abdominal sections complete, I have to add seven cases; one a fatal case of hysterectomy, where the tumour weighed ten pounds and a half; and six cases of removal of diseased Fallopian tubes and ovaries; these all recovered. Two cases of cyst of the broad ligament, cured by tapping, might also be added, as they would have had the abdomen opened elsewhere. I have not yet "explored" the abdomen.

The greatest care was taken to make everything connected with the operations thoroughly clean—that is, aseptic; but the Listerian details were not carried out. To prove that there is not a great amount of fever following Listerian ovariectomy, Mr. Meredith, in the paper already mentioned, tells us that, in eight of his fifty cases, the temperature rose above 102°; and that the average highest temperature of the remaining forty-two was 100.8°. The average highest temperature of all my fifty was 100.6°. Ether was always used. There was no sickness.

The first fatal case was that of a delicate woman, aged 40. In her youth she had frequently suffered from suppurating glands in the neck, and numerous cicatrices were to be seen. The tumour was multilocular, and was firmly attached far back into the left loin, the adhesion extending upwards behind the ribs. The omentum, and a large amount of very vascular mesentery, had also to be separated, before the tumour could be got out. The incision had to be a long one, to allow the bleeding vessels near the diaphragm to be reached. At first things did not go very well, but on the fourth morning the patient was decidedly better; pulse 104; temperature 99° Fahr.; flatus was passing freely, and all danger seemed to be over. On the fifth day, however, without the slightest warning, fecal vomiting began, and continued until she died, on the seventh day after operation. Even before death the temperature did not rise above 101° Fahr. The second case was really one of incomplete operation, and would probably be placed in a table by itself by most operators. It was a case of cancer of the peritoneum, with a small ovarian cyst. Five and a half years before this operation, Dr. Keith had removed a very large malignant tumour of the left ovary, surrounded by ascitic fluid, which fluid had been drawn off nine times. The patient's health was excellent for five years; but for some months the abdomen had slowly enlarged, and her health had rapidly broken down. When the patient came to town, there was a quantity of free fluid in the abdomen, and the right ovary was felt to be the size of the fist. Careful examination of the fluid showed nothing suspicious, and, as the first operation had

proved so successful, it was hoped that a second would be equally so. On opening the abdomen, it was seen that the peritoneum was the seat of malignant deposit. One growth, near the line of incision, was removed, and also the enlarged burst cyst connected with the right ovary. The pelvis was full of cancerous deposit. She came out of the ether with a quick feeble pulse, and died next day. The carbolic spray would not have helped those two women; the other forty-eight got better without it.

Table of Cases.

No.	Date.	Sent by.	Age.	Adhesions, etc.	Weight.
1	1881 June	Dr. Strang, Newcastle	38	General parietal, omental, intestinal, twisted pedicle, pregnant, drained.	8 lbs.
2	July	Dr. M'Lauchlan, Carnoustie	55	Uterine.	40 "
3	Aug.	Dr. Murray, Newcastle	46	Omental, tapped once.	46 "
4	"	Dr. Crichton, Arbroath	48	Parietal, tapped five times.	16 "
5	"	Dr. Hodgson, Aspatia	50	None.	40½ "
6	1882 Aug.	Dr. Marshall, Greenock	31	None, dermoid.	6 "
7	"	Dr. Macdonald, Inverness	50	Omental.	38 "
8	Oct.	Dr. M'Bain, Newcastle	50	None.	27½ "
9	Dec.	Dr. Blaikie	24	Parietal, tapped once.	9 "
10	"	Dr. Home, Jedburgh	27	None.	11 "
11	1883 Jan.	Dr. Urquhart, Montrose	34	None, both ovaries, tapped once	6 "
12	"	Dr. Laurence, Montrose	40	Parietal, tapped twice.	21 "
13	"	Dr. Walker, Woolah	26	Vascular, parietal, and omental, tapped once.	27 "
14	Feb.	Dr. Keith	45	None, tapped three times.	20 "
15	"	Dr. Hogg, Falkland	52	Extensive parietal, and omental.	17½ "
16	"	Dr. Naismith, Cowdenbeath	22	Parietal.	10½ "
17	Mar.	Dr. Bruce, Kirkwall	24	Omental, pedicle twisted off, tapped once.	8½ "
18	"	Dr. Peard, Newcastle	40	Parietal, omental and mesenteric, tapped once.	27½ "
19	1884 Mar.	Dr. Dewar, Arbroath	46	None. Papilloma.	15 "
20	Apr.	Dr. Joseph, St. Leonards	28	To colon, both ovaries.	17½ "
21	"	Miss Fairish	23	Parietal.	35 "
22	"	Dr. Dicks, Newton Stewart	22	None. Both ovaries.	30 "
23	May	Dr. Zeigler	32	None. Both ovaries.	15 "
24	"	Dr. Fraser, Grahamston	61	Parietal, omental, mesenteric, and intestinal. Malignant tumour.	9 "
25	"	Dr. Somerville, Galashiels	42	None.	30 "
26	June	Dr. Keith	48	Slight parietal, omental, and intestinal. Sarcoma.	16 "
27	"	Dr. Black, Greenock	26	To intestine, ureter, uterus. Broad ligament opened up.	10 "
28	July	Dr. Welford, Sunderland	32	None. Both ovaries.	32 "
29	"	Dr. Stewart, Kirkwall	68	None.	18 "
30	Aug.	Dr. Mackenzie, Inverness	22	None.	30 "
31	Sept.	Dr. Cowan, Wishaw	37	None. Sarcoma.	14 "
32	"	Dr. Brighton, Hawick	44	None.	7½ "
33	Oct.	Dr. Crease, South Shields	24	To colon. Both ovaries, tapped once.	34 "
34	Nov.	Dr. Philip	43	Extensive parietal, and omental. Twisted pedicle. Both ovaries.	20 "
35	Dec.	Dr. Keith	68	Parietal, omental, intestinal, tapped once.	14 "
36	"	Dr. Zeigler	50	None, ruptured cyst. Tapped once.	89½ "
37	1885	Dr. Deverill	28	Omental, ruptured cyst, twisted pedicle.	14½ "
38	Jan.	Dr. Miller, Wakeworth	29	Parietal, omental, intestinal, to bladder, twisted pedicle, dermoid, drained.	5½ "
39	"	Dr. Keith	59	Uterine.	22 "
40	Mar.	Dr. Crole, Leven	50	Uterine. Both ovaries.	40 "
41	"	Dr. Black, Jedburgh	39	Parietal.	15½ "
42	Apr.	Dr. Cameron, Innerleithen	23	Parietal, omental, intestinal, and in pelvis. Both ovaries drained.	20 "
43	"	Dr. Adams, Glasgow	41	Parietal and in pelvis. Both ovaries.	20½ "
44	May	Dr. Kennedy, Kirkcaldy	50	None, ruptured cyst, tapped once.	10 "
45	"	Dr. Keith	46	Very extensive, enucleation, dermoid, drained.	23 "
46	"	Dr. Keith	21	Extensive, parietal, omental, to bowel and appendix, tapped twice, drained.	34 "
47	June	Dr. Wilson	55	Parietal, omental, to bladder, tapped twice. Both ovaries.	42 "
48	July	Dr. Urquhart, Montrose	37	Posterior intestinal.	2 "
49	Aug.	Dr. Savers, Seott	22	Vascular, parietal, and omental, twisted pedicle. Both ovaries, tapped once.	10 "
50	Sept.	Dr. Kirkland, Airdrie			

* * All the above cases recovered, with the exception of Nos. 18 and 45, who died.

LONDON HOSPITAL MEDICAL SCHOOL.—The Buxton Scholarship, of the value of £30, has been awarded to Mr. Thomas Jones, and that of the value of £20 to Mr. Yarnold H. Mills.

SURGICAL MEMORANDA.

APPLICATION OF PLASTER-OF-PARIS JACKETS.

In applying plaster-of-Paris jackets for spinal curvature in girls with well developed hips, I have found the following method to answer well. In addition to the usual "crinoline" bandages impregnated with plaster-of-Paris, I cut out three shaped pieces for the pelvic region, of the same material, and roughly resembling the broad linen collars formerly much worn by little boys. The concavity of each of these fits into the hollow of the loins, while the convexity comes over the hips and upper part of the sacrum, and the somewhat less curved ends are crossed in front above the pubes. Two crescent-shaped pieces are also useful, being applied with concavity downwards over each hip; and two nearly straight strips, cut rather broader than the ordinary bandage, are convenient for placing at the top of the jacket. By using pieces thus shaped, a very few turns of bandage are sufficient to make a splint amply strong enough for the required purpose, and especially strong where the ordinary jacket is most prone to give way. Should the jacket be made too weak in any part, it can be strengthened by the addition of other pieces with paste or gelatine-glue, after the plaster has hardened. Where the jacket is intended to be worn for some time, and no disease of bone is present, I usually cut up the front and make it to lace; and this can be nicely done by removing a strip of the jacket, and replacing it by leather lacing pieces. The edges may be rendered quite smooth by means of glass-paper, and then guarded with part of the jersey brought over and covered with strips of chamois leather. In this way, a very elegant and serviceable support may be made, firmer and lighter than a poroplastic felt jacket, and less likely to give way with the heat of the body.

F. R. WALTERS, M.D., F.R.C.S., Moorgate Street.

PERINEORRAPHY.

For the last fifteen years I have been constantly performing the above operation; moreover, I do not remember ever having a single failure. I have not considered my method of operating in any way original, and I have always thought that perineorrhaphy was "such an oft told tale" that everybody at all interested in the subject would scarcely consider a record of cases worth the paper it was written on. I may say that there is scarcely a week passes that I do not perform this operation at the Samaritan Free Hospital or elsewhere, and the only wonder to me is where all the torn perinae come from.

When an operation is recorded as belonging specially to Mr. Lawson Tait, the essential feature of which appears to me to be nothing but an imitation of Langenbeck of Berlin, as described in 1854 by Baker Brown (*Surgical Diseases of Women*, 2nd edition, pp. 14, 15, 16), and reintroduced by Teale of Leeds in 1873, and performed by others since, including myself, it is time that a word should be said against the re-adoption of old methods as original; otherwise I might as well claim priority, instead of considering myself a humble but successful imitator of Langenbeck.

PERCY BOUTON, M.D.,
Physician to the Samaritan Free Hospital.

CLINICAL MEMORANDA.

ON THE ASSOCIATION OF OPHTHALMIA NEONATORUM WITH JOINT-DISEASE.

IN reference to the communication of Mr. R. Clement Lucas on the above subject in the *BRITISH MEDICAL JOURNAL* of October 10th, 1885, I have a case under treatment in which, to my mind, the evidence is absolutely clear that gonorrhoeal rheumatism does occur in infants as the result of purulent ophthalmia.

In my case, the father has had a gleet for eighteen months, and the mother a discharge, from which she had been suffering for several months previously to her confinement. These facts were not elicited until after the child became ill. I attended her in three former confinements, and the children are all healthy and robust.

The father has never had syphilis. The ophthalmia commenced on the third day after birth, and ran a rather severe course, but eventually was cured by the usual astringent treatment, combined with scrupulous cleanliness.

During the third week I was sent for to see a swelling in the child's knee, and found, upon examination, the left knee-joint full of fluid, semiflexed, slightly hot to the hand, with pain on movement. The treatment adopted was purely local, warm fomentations, etc., and, latterly, the application of liniment of iodide of potassium and soap.

The knee is now rapidly improving; pain has subsided, the swelling much less, and the child is beginning to use the limb with freedom, and will, I think, make a good recovery.

R. GEORGE FENDICK, Clifton.

HERPETIC FEVER.

I HAVE at present under my care four patients in the same house suffering from facial herpes and fever, with extreme prostration in one case. In none are there symptoms of any other disease, except that one girl, aged 5, has also broncho-pneumonia. I take this opportunity of recording that I pointed out to several well known men in Manchester the probable existence of a herpetic fever, which might or might not take the shape of pneumonia, five or six years ago, before the subject came prominently under discussion.

Newton Heath, Manchester.

A. WALKER, M.D.

MOLLUSCUM FIBROSUM SEU FIBROMA.

MR. MOORE's note on a case of this disease in the *JOURNAL* for October 17th reminds me of one I casually saw a short time ago on the operating-table, in which the trunk of an elderly woman was covered by numerous small growths of fibroma; while, chiefly on the thorax, were others of the white cystic appearance, with central aperture, characteristic of molluscum contagiosum. The former, to all appearance, were merely an advanced stage of the latter; and the case strongly suggested to my mind that molluscum fibrosum might arise from molluscum contagiosum by an atrophic process.

It may be not amiss to point out that two very different diseases commonly pass under the designation of molluscum fibrosum. One is characterised by a flaccid pendulous tumour, about the size of, and much resembling, a small shrivelled grape, variously dotted about the trunk; this is a very harmless complaint, and is the true form. In the other, numerous soft elastic tubercular-looking growths, varying in size from a pin's head to that of an orange, cover the skin of a more or less localised area. In one instance, I have seen the abdomen of a young healthy-looking man thus affected; in another, the scalp of an old one. These tumours in time ulcerate, the ulcer presenting an epitheliomatous appearance; and they are prone to recur after excision. Although the general health may remain unimpaired for years, the disease is really malignant, proving, under the microscope, to be spindle-celled sarcoma. It has been described (if I am not mistaken, by Mr. Hutchinson) under the name "fibroma fungoides," and has certainly no title to be confounded with the innocent molluscum fibrosum.

HERBERT SNOW.

THERAPEUTIC MEMORANDA.

HAMAMELIS VIRGINICA IN THE TREATMENT OF PROSTATIC DISEASE, AND OF BUCCAL CANCER.

Two cases that have recently come under my care seem to me interesting in connection with the use of hamamelis virginica.

One is a case of enlarged prostate requiring the use of the catheter, in which periodical hæmorrhages have occurred simultaneously from the urinary passages and the rectum, no doubt from a congested condition of the veins of both parts. In this case, washing out the bladder with a solution containing one drachm of tincture of hamamelis, and one half-drachm of carbolic acid, in about twenty-five ounces of warm water, has had an excellent effect in arresting the bleeding, and also in allaying the irritability of the parts. Since the use of the injection, the urine has been passed without the catheter; but that is probably due to relief of congestion by the bleeding. The other means found most useful have been leeches to the perinaeum, and saline purgatives.

The other case is one of cancer beginning in a rare seat—the right tonsil, and subsequently involving the tongue. In the diagnosis of this case, I had the assistance of Dr. Hodgkinson, of Manchester. A short time ago, a smart hæmorrhage occurred, and tincture of hamamelis in ordinary medicinal doses was prescribed. The bleeding was arrested; but the medicine was found to have such an excellent effect in preventing the formation of sticky secretion on the ulcerated surface, and in adding to the comfort of the patient, that it was adopted as a permanent mode of treatment.

The above are comparatively simple cases, and the effects of treatment can only be palliative; but it seems to me that an account of them, as a contribution to the knowledge of the therapeutics of a new drug, may be of some use.

DUNCAN J. MACKENZIE, M.D.,

Glossop, near Manchester.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.WOLVERHAMPTON AND STAFFORDSHIRE GENERAL
HOSPITAL.COMPOUND COMMINUTED DEPRESSED FRACTURE OF FRONTAL BONE:
TREPHINING: RECOVERY.

(Under the care of Mr. KOUGH.)

[From notes by Mr. J. W. BATTERHAM, House-Surgeon.]

WILLIAM F., aged 25, a miner, was admitted on March 11th, 1885, at 2 P.M. Three hours before admission, while working in a coal-mine, he had received a blow on the head from a truck which had broken loose and run down an incline. There was a lacerated wound of the forehead, exposing a depressed comminuted fracture of the frontal bone. The depression was elliptical in outline, one inch and a half long, three-quarters of an inch wide, and about half an inch deep. Its direction was from the right frontal eminence towards the right external angular process of the frontal bone. There were two other scalp-wounds near the vertex. There was no bleeding from the ears, nose, or mouth, nor was there any conjunctival ecchymosis. The patient was conscious; his pupils were equal, and responded equally to light. On being put to bed, he immediately "curled up" on his left side, and shut his eyes, complaining loudly if disturbed.

The fore and upper part of the scalp having been shaved and washed with turpentine, ether was administered, and the operation of trephining performed under the spray by Mr. F. E. Manby, in the absence of Mr. Kough. The crown of the trephine was applied so as to overlap the upper and inner end of the depression. On the removal of the disc of bone, the dura mater was found to be punctured by a depressed spicule of bone, and a small meningeal artery spurted vigorously. This having been secured with a catgut ligature, the depressed fragments were raised and removed. As there was free oozing from the cut edges of the bone, a carbolised sponge was placed in the wound, covered with layers of carbolie gauze, and kept in position by bandages of the same material. A hypodermic injection of morphine (one-fourth of a grain) was given during the evening, and the patient passed a good night, sleeping for five hours continuously. Twenty hours after the operation, the wound was examined under the spray. All bleeding having ceased, the sponge was removed, the flap of skin was laid down and secured in position by antiseptic plaster, and Listerian dressings were applied. The further treatment of the case consisted of moderate purgation and low diet. For the first two or three days, a pint of milk was given during the twenty-four hours, in quantities of one ounce at a time, thirst being allayed by sucking small pieces of ice. The amount of nourishment was gradually increased, until, at the end of the first week, milk, two pints, broth, one pint, and bread, were allowed. At the end of ten days, fish was allowed.

The patient's recovery was uninterrupted. The wound healed by first intention throughout the greater part of its length, and was cicatrised by the twelfth day, with the exception of the lower angle, where a small button of granulation was present. During these twelve days, the wound was dressed five times, antiseptically. Sickness occurred twice during the first forty-eight hours after the operation; the second occurrence followed the administration of a purgative. Headache on the right side was constant for the first two or three days; intermittent and confined to the neighbourhood of the wound for the next week. After the twelfth day, it entirely disappeared. The highest temperature, 100.8° Fahr., was attained on the day following the operation. The highest points reached on the next two days were 99.8° Fahr. and 99.2° Fahr. respectively. The temperature continued normal from the third day.

The patient was exhibited, in perfect health and spirits, to the Wolverhampton Medical Society on April 2nd, and was discharged from the hospital (at his own request) on April 4th. The cerebral pulsations were still visible, but the edge of the gap in the bone was no longer clearly definable by the finger.

PRESENTATION.—The inhabitants of West Haddon and adjoining villages have presented Mr. W. G. Nash with a silver salver on his leaving that district to take up a larger area of work at Welford. The inscription runs to the effect that the salver is "presented by a few friends as a token of their appreciation and esteem."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 27TH, 1885.

BERKELEY HILL, F.R.C.S. Eng., Vice-President, in the Chair.

Diffuse Lipoma. By W. MORRANT BAKER, F.R.C.S., and ANTHONY A. BOWLBY, F.R.C.S.—The term diffuse lipoma was applied by the authors to certain cases in which there was a great increase of the subcutaneous fat, without any distinct boundary or capsule, such as was usual in the more common forms of lipoma. These growths were usually symmetrical, and were most common behind the ears, over the mastoid processes (not extending above the superior curved line of the occipital bone in the nape of the neck), and in the submaxillary regions. The same tendency to the development of fat was in many of the cases observed also in the arms and forearms, the scrotum, and the abdominal wall. The authors had observed and recorded thirteen cases, and referred to others already published. A point to which attention was directed was the fact that these fatty masses were prone to develop in the regions occupied by lymphatic glands. Whether these latter were ever involved in the growth, the writers were not in a position to state. All the cases hitherto observed had been males, the ages varying from 29 to 63 years, the majority of the patients being from 35 to 45 years of age at the time the tumour began to grow. None of the patients had been exceptionally stout men. Some of them had been healthy and strong; others had suffered from phthisis, albuminuria, and other wasting diseases. All the swellings observed appeared to have a similar structure, being composed simply of adipose tissue. With regard to the anatomical position of the swellings, the writers gave reason for believing that they were situated in the subcutaneous cellular tissue. The manner in which the growths were limited in the various regions in which they were found was discussed. The development of these tumours was somewhat rapid. The rate of growth, however, varied much in individual cases. Another noticeable fact was that, in some instances, the swelling varied in size from time to time. Of this fact, several of the patients were very certain, and in some cases the authors were able to verify this statement. Whether the tumours ever entirely disappeared, in the absence of any wasting disease, could not certainly be affirmed. The only circumstance which seemed to give any clue to a cause was (so far as the writers had been able to observe) the fact that, with one or two possible exceptions, the patients had been hard drinkers. Beyond the discomfort produced by the deformity, no symptoms specially referable to the fatty tumours had been observed. Internal remedies had apparently little or no effect. In one or two cases, however, the administration of arsenic with steel seemed slightly beneficial. In accordance with Brodie's suggestion, the writers had tried the effect of liquor potassæ, but had not hitherto found it beneficial in reducing the size of the growths. They had administered the above-mentioned drugs, as well as iodide of potassium and mercury, in several cases for some months.—Dr. C. CREIGHTON observed that he had been reminded by the cases brought before the Society, of a case of diffuse infiltration which Mr. Henry Morris had shown him, where there was a mass, of almost scirrhus hardness, extending under the chin from ear to ear. The indications of cancer were not well marked, and it occurred to him that it might possibly be a sclerosed lipoma. Messrs. Baker and Bowlby had mentioned in their paper some cases in which the base of the tumour was hardened, and it might possibly be found that such a process was more extensive.—Mr. HENRY MORRIS said that the case to which Dr. Creighton referred differed widely in its general character from the cases that had been described in the paper, and fell under the head, he thought, of diffuse cancer; but in three other patients he had seen lipomatous tumours which were closely analogous. One was a large diffuse lipoma of the neck, which came on in a patient who already had some primary cancer of the tongue and secondary cancer in the lower parts of the neck. The second was a large diffuse lipoma, hanging from the lower part of the abdomen, which became much inflamed, and suppurated very freely. Enormous quantities of a most offensive discharge came away from it. The third, which had only recently been under his treatment, was interesting on account of its situation; it was on the scalp, and not in any subcutaneous tissue, but below the aponeurosis. It was very inconvenient, interfering with the wearing of the hat; and the patient was anxious that it should be operated upon. Mr. Morris consequently removed it, and the patient made a good recovery.—Mr. BUTLIN, noticing that the authors of the paper had not found any cases except in males, briefly related the case of a woman between 20 and 30, who had been under

his treatment at the West London Hospital with a diffuse lipoma extending from the parotid region far down into the neck. She was treated for some time with liquor potasse; and the tumour, during the treatment, grew much smaller. He knew nothing for certain about her habits of drink.—Mr. DAVIES-COLLEY remarked that he had operated on a case of this kind, in which he had found no history of drink. The tumour was in a woman, and lay immediately below the skin over the trapezius. In another case that he had seen, there was too much inflammation to allow any operation. So far as his memory served him, the cases which Sir B. Brodie had described were rather disseminated than diffuse lipomata.—Mr. JESSITT thought that, as alcohol had been referred to as an almost universal concomitant of these tumours, it would be worth while that he should mention a case in which there was as large a diffuse lipoma as any that had been shown that evening in a man who throughout his life had been very temperate, and for many years had been a complete abstainer.—Mr. HOWARD MARSH, referring to Mr. Davies-Colley's observations, read a short passage from Sir B. Brodie's description of his case, in which he described the fatty tumours as indefinite and unencapsuled.—Mr. HENRY MORRIS rose again to remark that, in these cases, operation had been found very difficult. In one under his charge, an attempt had been made at removal by Mr. Cock about thirty years ago, but abandoned as too hazardous.—Mr. MORRANT BAKER, in replying, said that, as to hardening in these tumours, such as he had felt was of the base, and could not be distinguished from the growth of bone. Common fatty tumours, of course, hardened in a different manner. He had been very glad to hear of the cases in women which had been brought forward, as he had not been able to imagine any *a priori* reason against them. Brodie's description of the footman with the great loose tumour in the neck seemed to him to correspond completely with the cases that Mr. Bowlby and he had collected.

A Case of Ligature of the Left Common Carotid Artery, Wounded by a Fish-Bone which had Penetrated the Pharynx. By WALTER RIVINGTON, M.S. Lond.—R. B., aged 9, was admitted into the London Hospital, under the care of Dr. Sutton, on November 14th, 1882. Six days before, he had swallowed a plaice-bone. At the hospital, a probang was passed, and he was sent home; not being relieved, he came back to the hospital, and was taken in. His symptoms were pyrexia, stiffness of the neck, œdema of the upper eyelids, profuse salivation, and a small tender lump on the left side, opposite the cricoid cartilage. Pulse 120, temperature 101.3°, respirations 22. He could not swallow solid food, and was very drowsy. He had two attacks of hæmorrhage from the mouth on the 17th, and profuse hæmorrhage on the 19th. Mr. Rivington was sent for, and, diagnosing wound of the left carotid from penetration of the fish-bone, cut down and tied the artery above and below the seat of injury. The operation was difficult, owing especially to inflammatory adhesions and uniform staining of all structures, including nerves and blood-vessels, with effused blood. The pneumogastric nerve was adherent to the artery for about two inches, and, being in front of the artery and undistinguishable, was necessarily included in the ligature. The fish-bone was found in the centre of a clot. The patient lived ten days after the operation, dying from abscess of the brain on the left side, which had probably begun to form before the operation. Remarks were made on the salient features of the case, and the mischief which was often wrought by the incautious passage of bougies and probangs in these cases. In an appendix, the author had arranged an abstract of 44 cases of wounds of blood-vessels by foreign bodies introduced through the mouth. These included wounds of the following vessels: thoracic aorta, 22; carotids, 12; abnormal right subclavian, 1; pulmonary artery, 1; azygos vein, 1; heart and right coronary vein, 1; vena cava, 3; inferior thyroid, 3. Comparison of these cases with one another, and with the author's case, necessarily suggested a variety of considerations, the most important being those which bore upon diagnosis and treatment. For diagnosis, there were: the history of a foreign body having been swallowed; persistence of pain referred to one spot; dysphagia, especially inability to swallow solids; ptialism; failure of the foreign body to pass *per anum* or from the mouth; recurring expectorations or vomitings of blood; passage of blood by stool, and fainting fits. In the neck, there would be local evidences of inflammation, swelling, and tenderness. For treatment, he advised improved illumination of the pharynx and œsophagus, and extraction of the foreign body with forceps; regulation of diet, administration of demulcents, and cautious use of the expanding probang. In some cases, the question of œsophagotomy must be considered, and, in all cases, as life was soon endangered by the occurrence of hæmorrhage, prompt surgical assistance was imperative.—Mr. BERKELEY HILL desired to thank Mr. Rivington for a paper so rich in its collection of clinical facts, and congratu-

lated him on what he had been able to do, even though the circumstances of the case had not allowed him to operate in time.—Mr. MORRANT BAKER wished to call Mr. Rivington's attention to a class of cases which he had not heard mentioned, namely, those in which the back of the mouth or throat was wounded by a tobacco-pipe being forced back upon it; cases to which Mr. Hilton had referred as normally occurring, when one person was hurriedly leaving, and another hurriedly entering, a public house. He remembered one such, where the patient complained of tonsillitis, attaching no importance at all to the accident, and indeed not even mentioning it at first. The tonsil had been incised, to relieve its swelling; and, after some information as to the history had been obtained, Mr. Baker had put his finger into the wound in the tonsil, and found the end of the tobacco-pipe embedded there.—Mr. BLACK mentioned the case of a soldier, who had swallowed a fish-bone, and who could not get rid of the feeling of obstruction in the throat, although a probang was frequently used on him during several months. Before allowing him to be dismissed as an invalid, Mr. Black made a final examination with a sponge probang, and at last a ragged piece of bone was brought up, and complete relief afforded. In this case, at least, the probang had done good service.—Mr. BOWLEY noticed another case, of a man who had come to St. Bartholomew's Hospital, complaining of a fish-bone in his throat. The probang had been passed, but had brought nothing away, and had aggravated his discomfort; he died two days later, from perforation of the transverse arch of the aorta, by the bone, which had probably been pushed through the mucous membrane by the probang.—Mr. RIVINGTON, in reply, said he did not find any objections to answer; he thanked Mr. Baker and Mr. Bowlby for the sketch of their cases; they would find that both of them were already incorporated in his appendix.

MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 26TH, 1885.

W. M. ORD, M.D., President, in the Chair.

A Case of Asymmetry.—Dr. ISAMBARD OWEN showed a young woman, in whom the two sides of the body were unequally developed. There was an obvious enlargement of the left malar bone, an obvious dropping of the left inferior maxilla, and a distinct enlargement of the arm, which was a quarter of an inch longer than on the opposite side. The clavicles were equal; the left hand and the left foot were larger, the latter measuring five eighths of an inch more than the right foot. The left lower extremity was an inch and one-eighth longer than the right. The median line of the skull was not displaced. The cranium was very little distorted, but there was a slight bulging at the point where the left parietal bone articulated with the temporal. The left ear was longer than the right. The chest was irregularly distorted, the left side being smallest above and largest below. The veins were varicose in both legs, but more so on the left. The malformation was, the patient stated, congenital. Neither the family nor the personal history was of any importance. The case was an example of a rare deformity; he was only acquainted with one exactly parallel case, reported by Professor Humphry in the *Journal of Anatomy and Physiology*.—The PRESIDENT inquired whether there was any difference between the arteries of the two sides, or in the temperature.—Dr. ROUTH said that, in his opinion, asymmetry was not at all uncommon, but was overlooked unless the face were involved.—Mr. MORGAN said that he had half-a-dozen cases of lameness in children due to a want of symmetry in the two lower limbs; in some of the cases, the symmetry affected other parts of the body. In one case, he had been able to trace a gradual increase in the extent of the deformity in other parts of the body. Mr. HARRISON, in *St. Thomas's Hospital Reports*, had divided the cases into two classes, true and false hypertrophy, the latter being due to derangement of the lymphatics. He thought the case shown was probably an example of false hypertrophy due to lymphangiectasis.—Mr. NOBLE SMITH thought the case was an example of hypertrophy of the larger side, and not of atrophy of the smaller. Dr. GARSON, in an investigation conducted at the College of Surgeons, had found that, in thirteen out of seventy cases, one leg was longer than the other; this condition necessarily produced curvature of the spine; it was also of importance in connection with cases in which charges of malapexis might be brought after fracture.—Dr. SEYMOUR TAYLOR recalled the fact that the case was an example of asymmetry involving not a limb, but one side of the body.—Dr. ISAMBARD OWEN, in reply, admitted that the history of the case, so far as concerned the exact state at birth, was incomplete. He thought so extreme a degree of malformation could not escape atten-

tion, as suggested by Dr. Routh. There was no difference in the temperature of the two sides. He thought there was, without doubt, an excess of development of the left side, and not atrophy of the right.

A Presumptive Diagnosis of Gout.—Dr. MILNER FOTHERGILL read a paper on a presumptive diagnosis of gout. He commenced by observing that, when kidneys first appeared in the animal kingdom, the form of urinary excretion was uric acid. Urates pertained to animals with a three-chambered heart and a solid urine—the primitive form of urine. When the mammalia were developed, they had a four-chambered heart and a fluid urine, the form of urinary excretion being the soluble body urea. When a human liver became depraved or degraded, it manifested a tendency to form uric acid in excess. To the question, “What is gout?” the answer he would give was, “Gout is hepatic reversion—the formative of primitive urine-products by a mammalian liver.” Such might be said to be a scientific definition of gout. He then described the typical gouty man of good osseous development, firm muscles, high complexion, large heart, and tense artery—the typical country squire. He then described a smaller, lighter man, of well vaulted skull, light bones, small muscles, but with a well developed nervous system. He said the first might be said to be of the “Norseman” type, while the latter was of the “Arab” type. The gouty “Norseman” was liable to joint-gout, cardiac disease, and bronchitis, with eczema of the lower extremities. The gouty “Arab” rather developed indigestion, with acidity, skin-affections, and neurotic disorders, very commonly of the heart. Alkalies were well borne by the first, but rarely agreed with the latter. The signs of gout, in order of frequency, were, first, a certain irritability at times, contrasting with the normal mood. Then came a tense full red ear-lobe in gouty persons of high complexion. The teeth were massive, worn down, and blunt. Several casts of such teeth were exhibited. The nails were also affected, and became reedy and brittle. Photographs were shown of a reedy nail, and of the influence of an anti-gout treatment in restoring the nail to its original smoothness. He expressed the opinion that, by grouping these semeia, it was possible to feel sure of having gout to deal with, even when articular changes were not present; or, in other words, establishing a presumptive diagnosis of gout.—Dr. E. SYMES THOMPSON observed that he had pointed out, in a paper previously read before the Society, that patients suffering from gout, which did not show itself by articular gout, gave a large mortality at an early age in insurance-practice. The reedy nail, the large lobed ear, and an intermittent pulse, were valuable indications. An extra rating of 25 per cent. was necessary. These remarks applied to the type called “Arab” by Dr. Fothergill.—Dr. ISAMBARD OWEN referred to a certain doughiness, especially of the forehead, causing the wrinkles to have thick curved edges; and to a glistening conjunctiva, with a darkness around the eye.—Mr. NOBLE SMITH asked Dr. Fothergill whether he thought Dupuytren’s contraction of the fingers was gouty. It occurred sometimes in gouty people, but he thought it was not due to gout.—The PRESIDENT thought Dr. Fothergill’s classification sound, and agreed with Dr. Symes Thompson’s remarks. He had found that men of the “Norse” type were very subject to migraine, neuralgia of the viscera, and naso-pharyngeal catarrh.—Dr. C. J. HARE observed that the nails often gave valuable hints in making a diagnosis in other conditions, and he was quite ready to believe that the “reedy nail” might become of considerable importance. He thought that the term gout was sometimes used at the present time too widely and too vaguely. Increased secretion of uric acid was the test of gouty tendency.—Dr. FOTHERGILL said, in reply, that he had wished by his paper to show that the two types had gout each in its own way, and to suggest certain points to help to a presumptive diagnosis; corroboration must be sought elsewhere, as in the urine.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 23RD, 1885.

W. MORRANT BAKER, F.R.C.S., Vice-President, in the Chair.

Two Successful Cases of Cholecystotomy, with Remarks.—Mr. A. W. MAYO ROBSON, who read this paper, said that, after the interesting paper by Mr. Lawson Tait on the Surgical Treatment of Gall-Stones, in the *Lancet* of August 29th and September 5th, 1885, with the reports of his cases previously published, and after the paper by Musser and Keen in the *American Journal of Medical Science*, in which thirty-five cases of cholecystotomy were reported (of which ten were fatal), the record of his two successful cases would seem to be almost unnecessary if the subject were not still *sub judice*, and did not present many interesting physiological and pathological questions not yet settled, and which every case fully reported might do something to elucidate.

But his apology must be a paragraph taken from Sir Spencer Wells’ work, *Uterine and other Abdominal Tumours*, 1885, p. 203, where he said: “What we need is further experience and an accurate record of all cases.” In the first case, Mr. Robson was consulted in June, 1884, by Mrs. B., aged 33, on account of a tumour of the size of a hen’s egg; it caused dragging pain and uneasiness, but there had never been any jaundice. It was then diagnosed as a distended gall-bladder, but consent to operate was not obtained until June 21st, 1885, when, the tumour having greatly increased in size, with augmentation of the discomfort, cholecystotomy was performed, and eight faceted gall-stones were removed from the cystic duct. They varied from the size of a pea to that of a large bean, and were of a dark brown colour. The gall-bladder contained nearly half a pint of clear watery fluid, which was removed by an aspirator before the cyst was opened. Peritoneum was then sutured to peritoneum, and mucous membrane to skin, and the rest of the wound was closed by catgut-sutures, a drainage-tube being inserted into the gall-bladder. Recovery was uninterrupted, union occurring by first intention, and the patient being able to go for a drive on the seventeenth day. A minute fistula remained in September, just capable of admitting a small probe. It discharged a little thin mucus, but gave no inconvenience. The patient was feeling well in every respect, having gained in strength and weight. The second case was that of a German governess, aged 22, who was admitted into the Leeds Infirmary, under the care of Dr. Churton, in February, 1885. There were vomiting after all food, a history of prolonged constipation, and a tumour in the position of the hepatic flexure of the colon, the size of which was unaffected by many large enemata; the vomiting continued. It being then suspected that the tumour was a distended gall-bladder, the patient was transferred to Mr. Robson, who performed cholecystotomy, removing numerous small white calculi, and eight ounces of clear fluid. The steps of the operation were exactly the same as in the first case, and in both the finger was passed inside the peritoneum, along the cystic duct, in order to be sure that no calculi were left to cause a block in the passage. After the operation, the vomiting absolutely ceased, and recovery was uninterrupted, the pulse and temperature being normal throughout, and the wound healing by first intention. The fistula discharged a clear mucous fluid for a time, but on September 15th had completely closed. It, however, re-opened in October, and again discharged the same kind of fluid, the patient experiencing no discomfort or pain, and feeling absolutely well in every respect. Mr. Robson remarked that the cases resembled one another in being both examples of multiple gall-stones causing, or else simply co-existing with, a persistent block in the cystic duct; and in neither case was there any existing jaundice, or previous history of such; but, whilst the diagnosis in one was perfectly clear, in the other, although the nature of the disease was suspected, a distinct diagnosis was not made until the abdomen was opened. Whilst in Mrs. B.’s case the symptoms were chiefly dragging pains and loss of flesh, in the other, persistent vomiting and constipation were principally complained of. In the operations, which were performed antiseptically, pains were taken to stitch peritoneum to peritoneum, and mucous membrane to skin, great care being exercised in protecting the peritoneal cavity from the intrusion of any of the contents of the tumour. In the after-progress, the discharge of clear fluid free from bile, and the length of time elapsing in the second case before the fistula closed, soon, however, to reopen (the fistula in the first case never having closed), indicated that the cystic duct remained blocked in both; but, there being no jaundice and no illness, the common ducts were evidently patent; moreover, since the finger introduced into the peritoneum and passed along the cystic duct failed to discover any perceptible enlargement, and a probe passed as far as it would go failed to feel any hard body, the only conclusion to which he could come was that in these cases there was organic stricture of the ductus cysticus. He raised the question, was there organic stricture of the cystic duct in both cases, or was the obstruction due to other concretions which careful probing and intraperitoneal digital exploration failed to discover? If he thought there were calculi causing obstruction, he would not hesitate to advise laparotomy as a preliminary to cholelithotripsy; but if there were stricture, which he believed, then he would hesitate to advise another operation; since, if the stricture were dilated, contraction would be likely to recur, again giving rise to a tumour requiring further treatment. Another question arose: would cholelithectomy have been in these cases a better operation? Sir Spencer Wells seemed rather to incline to this extreme measure in preference to cholecystotomy, but in the record of published cases the mortality was so great that, unless he saw a better way of doing it, he should certainly hesitate to recommend it. However, if he

ever had to perform cholelithectomy, he should, if possible, completely draw out the gall-bladder, bringing the duct into the wound, just as Mr. Thornton did the ureter in abdominal nephrectomy; this being more likely to prevent the entrance of foreign matter into the peritoneum. If he had thought that dilatation would have done any good, he would have passed in bougies from the outside through the fistula; but this, he felt, would have been attended with risk, as it would be very easy to push a bougie through the thin wall of the duct, and such a proceeding would, he feared, lead to fatal results. He had put the case plainly to his patients, who were both well, and felt very little inconvenience from the slight discharge; they preferred it to running any risk. Mr. Robson remarked on the clinical importance of the fluid, which, he thought, might possibly be mistaken for hydatid fluid in an exploratory puncture. He thought that the secretion had some antiseptic property, since the apertures of the fistulae were always clean, and a dressing of cotton-wool saturated with the fluid, and remaining in contact with the body for a week, remained sweet and odourless; this had been confirmed by his colleague, Professor de Burgh Birch, who had also found it to contain a milk-curdling ferment, and another ferment having a marked diastatic action on starch; further experiments were, however, being made in order to verify these observations. He remarked that, in the *Lancet* for September 5th, 1885, page 424, Mr. Tait said: "In cases where patients suffer from numerous gall-stones, the gall-bladder is never distended"; and, again, on the same page, "When we operate, therefore, in cases of small numerous gall-stones, we find them lying in bile, the gall-bladder, to a large extent, contriving to perform its functions." The cases he had just reported must, therefore, come under an entirely distinct category, as they apparently differed from any of Mr. Tait's, for the gall-bladders were distended, and were evidently not performing their functions, and there were numerous small calculi which were not bathed in bile. He had another case at present under observation, in a middle-aged gentleman of temperate habits, which he thought resembled the cases referred to in the paragraph quoted, in whom, after repeated attacks and "spasms," usually coming on in the night, and unaccompanied by jaundice, he found in the right lumbar region a tumour, about the size of a swan's egg, which persisted for several weeks, and then disappeared after an attack of pain lasting about three hours. He reported himself to Mr. Robson about a month ago, when there was no trace of the tumour, and there had been no repetition of the pain. He had no doubt that this patient was the subject of multiple small gall-stones, which, in passing, occasionally obstructed the cystic duct. He had explained the nature of his case to him; and, should the duct again become obstructed, or the pain recur, he would advise cholecystotomy, as he felt sure that it was a perfectly safe operation if carefully performed; which, whilst offering the probability of a radical cure, saved an immense amount of suffering and no little danger. He believed that there were many cases of frequently recurring biliary colic without the presence of a tumour, where cholecystotomy would in future be adopted as a relief to suffering, and as a preventative of the many dangers of exhaustion, biliary toxæmia, rupture, suppuration, and ulceration into neighbouring cavities. In conclusion, he could not help feeling that the surgical treatment of gall-stones opened up a comparatively new field in abdominal surgery, which, unlike many surgical triumphs, was at the same time safe and efficient.—Mr. CHARTERS SYMONDS considered that the presence of a small fistula was but a small evil to be set against the advantage of being assured against the risk of leaving any stones unremoved; and, as this proceeding did away with the necessity for cholecystectomy, it seemed to argue in favour of the less severe operation. Complete extirpation of the gall-bladder added an extra risk; it was impossible to say that every stone had been removed, as there might be still one left below the ligature. Speaking of cases of recurring colic, without enlargement of the gall-bladder, he said that he was himself consulted some time ago in a case of the kind, and refused to operate because he was unable to feel the gall-bladder, and felt that it would be a difficult matter to suture it to the abdominal wall unless in a distended condition. He would like to know Mr. Robson's opinion as to the possibility of this, and also what course he would recommend in cases where a small gall-bladder was blocked by stones. Would he excise, or close by sutures? Ought aspiration to be resorted to as an exploratory measure, and the bladder probed through the cannula? Aspiration alone sometimes caused peritonitis. Mr. Robson's cases were simplified by absence of jaundice, and of hæmorrhage. He thought it open to question whether it might not be wise in some cases to open the abdomen at once, and would like to know what experience other surgeons had had after aspiration, in the way of bleeding, peritonitis, etc.—Dr. O'CONNOR

asked if any digestive derangements, or any change in the feces, followed the operation in either case.—Mr. M. BAKER congratulated Mr. Robson on his successful results, and expressed the interest with which he had listened to the account of the original physiological observations given in the paper respecting the secretion from the gall-bladder.—Mr. ROBSON observed, in reply, that no difficulty ought to occur in finding the gall-bladder by aid of the anatomical landmarks to it, or in stitching it to the abdominal parietes when exposed. The results obtained after suturing the viscus and returning it to the abdomen were not favourable. In one case, bile was found *post mortem* in the cavity; and, as this secretion seemed to possess a special solvent power, its injurious effects could be estimated. He regarded aspiration and probing as attended with greater risks than followed laparotomy and digital exploration in these cases. He had witnessed one operation in which the gall-bladder of a jaundiced patient was cut down upon, and death occurred from hæmorrhage. Jaundice, however, did not absolutely contraindicate cholecystotomy, for at least one such case had succeeded. In reply to Dr. O'Connor, he stated that digestion in both his patients was perfectly performed, and one patient had gained a stone in weight since the operation.

Characteristic Symptoms of a Febrile Epidemic Illness at a School.
—Dr. EDWARD SEATON made this communication. He commenced by explaining that it was through the kindness of his friend, Dr. Bridges, of Her Majesty's Local Government Board, that he had lately had the opportunity of clinically studying an epidemic illness, which had occurred this summer at a Roman Catholic school or orphanage, in the country near London. The disease had been strictly confined to the school, there having been no illness in the few cottages and houses in the immediate vicinity. The disease had commenced, in an epidemic form, in June, and since then there had been 157 cases, and seven deaths. The cases were more severe during the earlier part of the epidemic, and there had been distinct second attacks, not relapses, in at least five cases. In one of these the interval between the attacks had been as long as sixty-six days. The group of symptoms characteristic of illness was as follows: suddenness of attack without any premonitory symptoms; attack commencing with rigors and severe frontal headache, followed in a few hours by pyrexia, vomiting (often very severe) without diarrhoea, the acute stage being further marked by scantiness of urine, and almost complete absence of chlorides; rapid development of the crisis, the fatal cases terminating in twenty-four hours, and, in the uncomplicated cases, defervescence occurring in two or three days in slight cases, and in four or five days in severe cases; a sudden fall of temperature, the fall being generally simultaneous with the appearance of an herpetic eruption on the upper lip, and perspiration, but no marked sweating; earache, frequently occurring towards the end of the fever, and sometimes being followed by otorrhœa; absence of any other local pains, except those due to the straining of the muscles of vomiting; duration of illness short, not exceeding four or five days, unless complicated with pneumonia. It was the grouping of these symptoms which chiefly claimed attention; for although, out of the whole number of attacks, 26 per cent. were, judged by the height of the fever, comparatively slight, there was observed in all of them a striking uniformity in the main features of the disease. Dr. Seaton then proceeded to discuss the symptoms in detail, first describing the following typical cases from his own notes and those of Mr. Joseph Williams, of Brentford, who had the medical charge of the cases. "M. R., aged 13, brought to infirmary at 2.45 p.m., September 3rd. He had been observed joining in a boisterous game in the playground at 11 o'clock in the morning. On admission, his face was pallid, aspect distressed, respirations 40 in the minute; he shivered violently, held his hand to his forehead, and moaned with pain. On being put to bed, his temperature was found to be 103.4°; at 5 p.m., it was 104.0°; and at 10 p.m., 105.2°. Rigors continued during the night, but not so severe; he vomited frequently, and was delirious. September 4th, 10 a.m.: his face was flushed; the conjunctivæ were suffused, breath heavy and offensive, but not ammoniacal; tongue dry, and coated with yellow fur; temperature 104.2°; pulse 120. There was tenderness over the epigastric region from straining of the muscles. The skin was moist; headache continuous, though less severe. September 4th, 5 p.m.: the symptoms were about the same; temperature 104.0°; urine of previous twenty-four hours measured and examined; quantity, seven ounces, highly coloured, deposited lithates; the chlorides were as low as 17 per cent. September 5th and 6th: pyrexia and other symptoms continued. On the morning of September 7th, the crisis was found to have taken place. In the morning, the boy woke up with a very moist skin; temperature 98°. An herpetic eruption had appeared the day before on the upper lip, and was spreading round the left corner of the mouth. He

complained of earache, but otherwise was free from discomfort. Next day, he was out of bed, and in the course of two or three more days, a week from the commencement of illness, was well enough to go into the convalescent room." The above was an account of a typical non-fatal case. He would supplement it by giving a fatal case, which he took from Mr. Williams's notes. "W. M., aged 13, was brought to the infirmary on July 2nd, at 9 A.M., with severe rigors and pain in the head, and with temperature 101°. Throughout the day the rigors were very severe, and vomiting of bilious matters incessant. Towards evening, the recorded symptoms were: temperature 106°, respirations 60; pulse imperceptible; feet blue and cold; skin congested and purple; much pain in the head and stomach. He gradually became comatose, and died at 9 P.M., just twelve hours after the onset. *Sudden onset.*—In many instances, boys were seized with the headache, vomiting, etc., whilst at play, or out for a walk with the master. In some cases, they got up quite well in the morning, and were seized whilst at morning chapel. *Frontal headache.*—In all cases this was a prominent symptom. This symptom, as well as delirium, was, generally speaking, proportionate to the height of the fever. *Pyrexia.*—Remarkably rapid rise of temperature was a constant feature. He had classified the cases according to temperature into "slight" (highest recorded temperature 101° or under), "severe" (highest recorded temperature up to 103°), "very severe" (highest recorded temperature from 103° to 106°). The slight cases were 27 per cent., the severe 21 per cent., and the very severe 52 per cent. of the whole number. In the vast majority of cases, the fall of temperature was as marked and sudden as the rise, but in a few pneumonia supervened, and caused comparatively long illness. *Diminution of chlorides in the urine.*—The amount of chlorides had been estimated in fourteen cases by Mr. Otto Hohner and himself, and the proportions per cent. were as follows: (1).256, (2).274, (3).043, (4).338, (5).466, (6).278, (7).466, (8).366, (9).592, (10).170, (11).190, (12).354, (13).190, (14).310. In no case was the proportion as much as .6 per cent. In No. 3 it was as low as 0.43 per cent. This was in the case of a boy, aged 10, who suffered with a moderately severe typical attack. The amount of urine secreted during the summit of the fever, when the chlorides were estimated, was as much as twenty-five ounces. Very soon after defervescence, they reappeared in normal proportion. *Herpetic eruption.*—This was present in almost all cases classified as "severe" or "very severe." Of twenty-eight cases occurring in September, he had a note of this symptom more or less marked in twenty, that is, 71 per cent. Of the remaining eight, three were slight ephemeral cases, in which the illness lasted only twenty-four or forty-eight hours, and in which the highest recorded temperature was under 101°. The eruption was generally thrown out under the ala of the nose, in some cases, not always the most severe, subsequently extending round the corners of the mouth. Occasionally, it appeared first at the corner of the mouth. It usually appeared on the third or fourth day of illness. *Norrhæa.*—In a considerable proportion of the cases classed as severe and very severe, there was earache, more or less intense, which was sometimes followed by a mucopurulent discharge from the ear, and subsequently by a lichenous eruption about the lobe of the ear, due to irritation. In none of the cases was complaint made of sore-throat, but, in many cases, there was noted an inflammatory condition of the nasal passages, accompanied by an acrid secretion. Dr. Urban Pritchard, who had kindly examined one of the cases in which deafness followed otorrhœa, thought that the earache was due to extension of the inflammatory condition of the nasopharyngeal passages along the Eustachian tube, leading, in some cases, to pus-formation in the middle ear, the intense pain which occurred being suddenly relieved by rupture of the tympanum and escape of matter. *The Duration of Illness: Occurrence of Pneumonia.*—The classification of illness by the terms slight, severe, and very severe, taken from the temperature-charts, was borne out by the duration of illness, which, speaking generally, was short or long in proportion to the height of the pyrexia. Thus, excluding the severe fatal cases (six of which proved fatal within twenty-four hours of the onset), the temperature rarely exceeded 101° in cases where the illness lasted only two or three days. In the cases which lasted four or five days, the temperature ranged from 101° to 105°. The short attacks (two or three days) were in the proportion of 40 per cent. of the whole number; the attacks of four or five days' induration were in the proportion of 49 per cent.; in the fatal cases, in the proportion of 4.5 per cent.; and, in addition, there were ten cases of long illness, which, in proportion to the whole, were 6.4 per cent. Of the long illness, one was due to peritonitis, six were due to pneumonia, and, in the remaining three, no complication was recorded, though in these the lungs might have been affected; indeed, Dr. Bridges was of opinion that many of the short illnesses were accompanied by an abortive

attack of pneumonia, and this view was borne out by the condition of the lungs observed in the fatal case in which a *post mortem* was made. In the cases where the symptoms of pneumonia were observed, the prolonged illness with pyrexia was accompanied by dulness of one or both bases, tubular breathing, quickened respirations, but no rusty expectoration. The average duration of illness in these prolonged cases was fifteen days, the limits being eleven and twenty-six days. *Post Mortem Appearances.*—In only one of the six fatal cases was a *post mortem* examination made. In this case, Dr. Bridges noted distinct and marked congestion of the lower third of each lung, and patches of congestion in that part of the small intestine which alone was examined (the four or five feet next the cæcum), and also small patches of a similar kind in the gastric mucous membrane. Dr. Seaton then proceeded to discuss points in the etiology of the disease which it was impossible to consider apart from its clinical characters. He formulated then three questions:—Was the disease specific? Was it contagious? What was its incubation-period? 1. As to its being specific, he thought there could be no doubt that it was so. Murchison, in his classical work on the continued fevers of Great Britain, quoted Tweedie, who said that "all cases of febricula were mild cases of typhus, or relapsing fever, and did not think that a new nosological term should be introduced merely to accommodate such cases." "But," added Murchison, "I am satisfied that short cases of fever, independent of any specific poison, are occasionally met with in this country. It was difficult to understand the meaning of this passage, and it would be interesting to know whether Murchison would have classed ague among the diseases independent of any specific poison. 2. As to the question of contagiousness, he desired to speak with caution, but the evidence, as far as it went, tended to show that it was not contagious. He explained the various reasons which led Dr. Bridges and himself to that conclusion. 3. As to the question of incubation-period, he had been singularly unfortunate in his endeavours to obtain evidence on this point, though he had made careful inquiries among new arrivals and departures. There was as yet only one case which threw any light on the question. It was that of a boy who left the school for a week, and who was taken ill about twenty-four hours after his return. The entire absence of premonitory symptoms, and the suddenness of attack, made it probable that the period was short. He concluded the paper with some important facts as to age-incidence, which he showed by means of a table of statistics. None of the adults, including masters, nurses, and attendants, about twenty in number, had been attacked, though if they had suffered equally with the rest of the school population, at least four would have succumbed to the disease. The table showed that the incidence was much heavier on the elder than the younger boys, that is, the boys over ten years of age suffered much more than the boys under ten. The incidence was heaviest of all on boys between thirteen and fourteen years old; forty-six boys out of eighty-three at this age, or fifty-five per cent., being attacked.—Dr. BRIDGES confirmed the accuracy of Dr. Seaton's clinical notes, and had but few facts to add to those communicated in the paper as to the symptoms, except that he himself attached greater importance than did Dr. Seaton to the pneumonia. In one case, at the *post mortem* examination, made twelve hours after death, the illness having lasted only thirty hours, the lower parts of the lungs were found in a state of incipient congestion, and he (Dr. Bridges) was of opinion that this condition was a much more common accompaniment of the cases than was indicated. In May last, he noticed that many admissions for pneumonia took place in the infirmary of the school, and in June of catarrhal cases, so that he was inclined to associate some slight degree of lung-congestion with the outbreak. He described the school as a very unhygienic institution. The land attached was only six acres in extent, and the disposal of the large amount of sewage formed was always a difficulty, the earth-closet system having to be adopted. This had been in use for twenty years; and as all the refuse had to be distributed over the small area of land available—at most, an acre and a half—the ground was necessarily overcharged with faecal matter. Four years ago, two or three cases of a similar nature to the recent outbreak occurred, and one death. Poisoning was suspected, and ascribed to the unwholesome surroundings. An improvement in the closets then ensued, and the health of the school improved also, so that, until the present epidemic, but one suspicious case had been observed; this, occurring last year, was attributed to sunstroke. The water-supply of the school was very unwholesome and impure, and it was of course suggested that the epidemic was one of typhoid. Its characters, however, were quite unlike those presented by an outbreak of this disease, an instance of which had come under his (Dr. Bridges's) observation at a place seven miles away from the school, and very similarly surrounded. He attributed the affection to ex-

halations from the sewage-sodden land, on which the older boys were put to work, and to which the younger ones would not be required to go, thus explaining the remarkable immunity enjoyed by the latter, as shown by Dr. Seaton. In this connection, also, the escape of the boys confined to the infirmary was significant. The disease was possibly not contagious from child to child. The disease occurred principally from the end of June to the middle of September, during which time only a fourth part of the normal rainfall had been recorded. This circumstance might have influenced the outbreak.—Dr. STEPHEN MACKENZIE communicated a letter from Dr. Stevenson, who was unable to attend the meeting, to the effect that he, the writer, had examined the contents of the stomach of the boy who died during the slight outbreak which took place at the school in 1879, and referred to by Dr. Bridges. He found no poison, and Mr. Bond, by whom the *post mortem* examination was made, concluded that death was caused by asthenia due to sewer-gas.—Dr. O'CONNOR mentioned an outbreak of disease in a ladies' school, caused by the vapours from a stagnant pool of sewage, situated 500 yards to the east of the school, and from which an easterly wind might have infected the children. Labial herpes was noticed in four cases.—Mr. R. W. PARKER regretted that no detailed *post mortem* reports of the fatal cases were made, as it would have been interesting to know if anything constant had been found to agree with the clinical symptoms. He inquired if any improvement on the earth-closet system had been made, and whether there had been any cases of typhoid fever or diphtheria in the infirmary, and whether their excreta had been included in those thrown out on the land.—Dr. SEATON pointed out that he had communicated the result of one *post mortem* examination made by Mr. Williams, in which marked congestion of the lower lung was observed, and also of four or five feet of small intestine. There was no evidence to show that any contaminated sewage had been distributed over the school-land from which infection could have arisen.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, OCTOBER 14TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

New Fellows.—The President, in welcoming the Fellows of the Society back from their holidays to the work of a new session, stated that there were no fewer than twenty-eight new Fellows for election, bringing the numbers of the Society up to 365 Fellows; this, together with the demand for a second edition of their journal, afforded gratifying proof of the increasing success and popularity of the Society.

Specimens.—Dr. FANCOURT BARNES showed a large condyloma removed from the right nymphæ.—Dr. EDIS showed a myoma he had removed, and which had been mistaken for cancer.—Dr. HEYWOOD SMITH exhibited the ovaries he had removed from a patient suffering from profuse menorrhagia.—Dr. BANTOCK showed a ruptured papillomatous cyst of the right ovary, which he had removed from a patient aged 36.

A New Operation for Ruptured Perineum.—Dr. JAMIESON, of Shanghai, read a paper on a case in which he performed a new operation. The lesion in the case described had existed for seventeen years, involving the lowest portion of the anterior wall of the rectum. The borders of the laceration had long since been completely absorbed, leaving no salient edges to be denuded and approximated. The patient was rendered unfit for society by total lack of control over the escape of flatus. There was partial incontinence of urine and feces. Rectocele existed to a slight extent, and during a recent labour, danger had arisen from a temporary cystocele. The operation proved completely successful in removing all the inconveniences enumerated, abstraction being made of what might possibly present itself should pregnancy again occur. It consisted in lifting the altered vaginal mucous membrane, along with the skin of the upper and inner surface of the thigh corresponding to the sides of the vulvar opening, from the subjacent tissues; forming with them a new posterior vaginal wall; and raising cutaneous flaps from the ischio-rectal region, which were folded outwards on themselves, and their denuded surfaces subcutaneously united in the middle line.—Dr. FANCOURT BARNES thought the proceeding described by Dr. Jamieson consisted essentially in the splitting of the recto-vaginal septum, which was the main factor in Lawson Tait's operation. Since last May, he had done Lawson Tait's operation nine times, and preferred it to the old operation of dissecting off mucous membrane. It was an improvement in every respect.—Dr. IMLACH (Liverpool) said there were many ways of performing perineorrhaphy. The point in placing the sutures was to avoid tension. The perineal body as a pelvic support was useless, and therefore the operation was not necessary in all cases, unless the sphincter were

torn.—Dr. BANTOCK agreed that the use of powerful sutures for the deep stitches was unnecessary. The operation, as practised by him, was not a painful one. He could not accept Dr. Imlach's view as to the non-existence of a perineal body.—Mr. LAWSON TAIT acknowledged the remarks made by Dr. Fancourt Barnes on his operation. By his operation, no tissue was removed, and the patient had a much larger, more solid, and better sustained perineum than could be obtained in any other way. Further, as the operation merely placed the parts in the condition in which they were at the time of the tear, repair necessarily took the most natural form, by the simple process of slitting the septum in the direction of the original cicatrix. He differed from the views of Dr. Imlach from beginning to end.—Dr. EDIS also bore testimony to the advantage of Mr. Lawson Tait's method of operating. He had performed the operation.—Dr. HEYWOOD SMITH agreed as to the rapidity and success of the new operation. He invariably operated by that method.—Dr. ROBERT BARNES wished to remind the Society that Charles Brooke was one of the first to perfect a successful proceeding. He prepared the surfaces by denudation, and brought them together by silk sutures, and kept them so by his beads. The design of the beads was to secure adaptation of the deep or middle part of the wound. To secure the edges, he sometimes put superficial sutures on the skin and to the mucous membrane in the vagina. Mr. Brooke had also worked out a successful treatment of vesico-vaginal fistula, having designed and made his own instruments, by one of which he could tie a knot at the fundus of the vagina, at a distance of several inches from his fingers, without the use of a speculum.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, OCTOBER 8TH, 1885.

R. J. PYE-SMITH, F.R.C.S. Eng., President, in the Chair.

Hernia.—The PRESIDENT read a paper on hernia. He stated that, in England, one death in every 500 was due to hernia; that, of cases of strangulation, one in every five was fatal; and that, in operations for strangulated hernia in hospitals, there was a mortality of about 43 per cent. With regard to the varieties of hernia, it was shown that inguinal furnished over four-fifths of all cases; femoral, one-eighth; and umbilical, one-twentieth. As to sex, inguinal was in the male twenty times as common as femoral hernia, whilst in the female femoral was slightly more common than inguinal; and, in respect of age, it was shown that, relatively to the number of persons living at the respective ages, inguinal hernia made its appearance ten times more frequently during the first year of life than during any subsequent year, whilst femoral hernia commenced most frequently between the ages of 20 and 50. In reference to etiology, he dwelt on the peculiarities of sex, and the various anatomical conditions leading to congenital inguinal hernia in the male, and attached special importance to phimosis as an exciting cause of rupture. He asked what was the reason that both inguinal and femoral forms of hernia were twice as common on the right as on the left side of the body. He compared the commoner varieties of hernia, and showed that, in the congenital forms of inguinal hernia in the male (which formed nearly half the inguinal cases), strangulation usually occurred at the first descent of the tumour, the symptoms were urgent, and the chance of reduction without operation small; that, in the acquired form of inguinal hernia, strangulation was rare till the hernia had existed many years, the symptoms were less severe, and there was a good prospect of effecting reduction without resorting to a cutting operation; and that, if an inguinal hernia were left long unreduced, ulceration of the bowel at the constricting neck was liable to occur. In femoral cases, on the other hand, strangulation sometimes took place at the first descent of the hernia, when reduction by taxis could occasionally be effected, and sometimes was deferred till the hernia was of several years' duration, in which case reduction without operation was rare; and that, in all cases of femoral hernia, gangrene of the constricted bowel was apt to occur after some days' or even hours' strangulation. In umbilical cases, strangulation rarely occurred till the case was of old standing, and was often accompanied by early ulceration of the constricted bowel. In the treatment of strangulation, the point of first importance was to release the constricted bowel from the grip of the parts through which it had passed, before it became damaged past the prospect of perfect recovery. Having satisfied himself of the diagnosis, and of the herniated bowel being in a condition suitable to be returned without being seen, the surgeon should apply very gentle taxis, but should desist if not successful in a couple of minutes, and apply an ice-bag, or, failing that, hot fomentations; at the same time usually administering a full dose of opium, and perhaps trying the effect of strong coffee. In two or three hours, taxis should again be gently applied

for a couple of minutes, and, if again unsuccessful, the patient should be put under the influence of an anæsthetic, taxis again tried in a similarly short and gentle manner, and, on its failure, herniotomy should at once be proceeded with. He advised the minor operation, of not opening the peritoneal sac, to be attempted in all cases in which taxis was considered applicable; but, in cases in which the hernia had been down long, or on which violent taxis had been employed, the sac should be opened, and taxis should not be attempted. He advocated removal of herniated omentum, even if healthy and non-adherent; the employment of laparotomy, as a means of drawing out the herniated bowel, in cases where it could not be pushed back after division of the constriction; and the tying of the sac and suturing of the inguinal canal or crural ring, as a means of effecting a radical cure. As to the treatment of gangrenous bowel, he inclined to the plan of excising the dead portion, together with a corresponding triangle of mesentery, and establishing a temporary artificial anus, to be closed by operation at a subsequent date. In conclusion, he expressed confidence that the study of hernia afforded the best introduction to the more difficult problems and obscure conditions of internal abdominal obstruction. —Remarks were made by Mr. GARROD, Dr. MARTIN, Mr. KNIGHT, and Mr. JACKSON.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THURSDAY, OCTOBER 8TH, 1885.

JAMES SAWYER, M.D., President, in the Chair.

Treatment of Wounds.—Mr. GAMGEE read a paper on the treatment of wounds; the object of which was to demonstrate that the principles of rest, position, and pressure, as applied to it, were based on sound physiological facts, and on practical surgical experience.

Nephrotomy and Nephrolithotomy.—Mr. BENNETT MAY brought forward the notes of three cases of nephrotomy and nephrolithotomy, of which the following is a short abstract. Case I. Youth, aged 20; symptoms well marked; duration, fourteen years; incision made into kidney; calculi removed; free hæmorrhage, which stopped only on firm plugging; subsequent perinephric suppurative; thrombosis; death from pyæmia in three weeks. Case II. Male, aged 35; symptoms of ten years' duration; small stone detected in kidney by acupuncture; operation; stone removed through very small incision; another larger stone afterwards removed; rapid recovery; now able to do hard work; patient shown. Case III. Female, aged 23; symptoms well marked; eighteen months' duration; six weeks before, passed mulberry calculus *per urethram*; relief; subsequent relapse; operation; failure of palpation and acupuncture to discover stone; no stone found; rapid recovery, with relief of symptoms.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, OCTOBER 7TH, 1885.

WALTER WHITEHEAD, F.R.C.S., President, in the Chair.

Fibroid Polypus of the Uterus.—Dr. LLOYD ROBERTS showed two specimens of fibroid polypus of the uterus.

Preservation of Recent Pathological Specimens.—Mr. LUND explained a method of preserving recent pathological specimens, by placing them in an air-tight vessel filled with the vapour of sulphuric ether, chloroform, or ether and creasote, previously mixed with alcohol. Several thick folds of lint, saturated with one of these solutions, were put at the bottom of the vessel, and the specimens were arranged in trays over it, so that the vapour could have free access to each specimen. In this way, the specimens were always ready for examination, without being softened and decolorised by immersion in weak spirit and water, or other preservative fluids. The cover of the vessel could be made air-tight by a vulcanised India-rubber ring, on which the edge of the lid was firmly pressed, or by allowing it to dip into a groove around the top of the vessel, which could be filled with vaseline, or, still better, with liquid mercury, if the vessel were not to be much removed about from place to place. It must be admitted that valuable pathological specimens were often lost, or rendered useless, by not having at hand some proper means of keeping them as little changed as possible; and such a hermetically sealed preserving chamber would be found very convenient for the purpose.

A Case of Hæmorrhage into the Spinal Cord.—Dr. DRESCHFELD showed a patient, a man, aged 23, who, whilst in a state of intoxication, jumped into the canal, but was immediately after taken out of the water, and found to be completely paralysed. Two days afterwards he was brought to the Manchester Infirmary, and it was then found that there was total paralysis of the left lower and left upper extremity, and almost total paralysis of the right extremities; the lumbar and dorsal muscles were also paralysed, and the intercostals, the diaphragm

acted freely. There was also complete anæsthesia of the right lower and upper extremity, and left half of the abdomen and thorax, and the anæsthetic part was bounded above by a line of hyperæsthesia on the right side, to which a line of anæsthesia on the left side corresponded. The anæsthetic right side showed also analgesia, loss of the muscular sense, and of the sense for temperatures. The left half of the body showed some amount of anæsthesia. The pupils were equal, and contracted to light and accommodation; there was no diminution of the left palpebral fissure, and no difference of the temperature on the two sides of the face. The bladder and rectum showed already signs of paralysis. The deep reflexes were absent, likewise the superficial ones, with the exception of the plantar reflex. A few days after admission the bladder became quite paralysed, and the urine alkaline; bed-sores formed, and the left pupil showed some slight diminution when compared with the right. A fortnight after admission, however, the patient began to improve, and had now made a rapid progress towards recovery. The right half of the body had recovered power, and the anæsthesia was now limited to the right leg and thigh; the left leg had also recovered much of its power, so that the patient could walk, etc.; the left upper extremity showed still marked paralysis and atrophy, not only in the muscles of the shoulder, but also in those of the arm, forearm, and hand. The left pupil was still smaller than the right, and the intercostals of the right side still showed signs of paralysis. The anæsthesia had disappeared from the left side, with the exception of a small strip over the radial side of the forearm. The tendon-reflexes of both upper and lower extremities were now markedly exaggerated, showing descending sclerosis. The bladder and rectum had regained their power. The onset, the localisation of the peculiar symptoms, and the progress of the case showed it to be one of hæmatomyelia, the lesion affecting both the anterior and the posterior grey matter, and occupying the lower portion of the cervical region of the spinal cord, corresponding to the fifth, sixth, seventh, and probably eighth cervical nerves; some of the symptoms were due to the accompanying myelitic changes, whilst the condition of the lower extremities showed descending sclerosis on both sides.

A Case of Hysteria in a Girl aged 13.—Dr. Dreschfeld described this case. The patient had suffered from marked hystero-epileptic attacks, and showed complete left anæsthesia, with loss of all the other sensibilities, and the hearing and taste were also affected on both sides, and there was an extreme contraction of the field of vision on both sides. The right half of the body was found anæsthetic, but not so much as the left. Under treatment, all these symptoms rapidly improved; but occasionally there was a sudden return of the anæsthesia with implication of the special sense-organs.

Anthrax.—Mr. JONES mentioned a case of anthrax successfully treated by excision.

Left Hemianæsthesia.—Dr. GRIFFITH showed a case of left-sided hemianæsthesia in a girl aged 8. There were total achromatopsia, peripheral contraction of the field, and vision = $\frac{1}{4}$ in the left eye; the sight of the other eye and other special senses were normal.

Diphtheria and Croup.—Dr. CHARLES J. RENSHAW read a paper on the cause of diphtheria, and its comparison with scarlet fever and membranous croup, as shown by experiments on animals. After comparing the objective symptoms, as they appeared to the writer, the chief differences on which he depended were the results of experiments. From a diphtheritic patient some of the liquor sanguinis was taken, and injected into the neck of a rabbit into the areolar tissue, causing death in seventeen hours from congestion of the lungs; the same experiment on a frog caused death in twenty-four hours; whereas several experiments from the liquor sanguinis of scarlet fever patients only caused a sort of fever in some of the animals operated on, showing symptoms strongly resembling scarlet fever in the human being. A series of experiments were given, where the greyish-white membrane, taken from the throat of patients suffering from diphtheria, having been administered to animals, the typical disease of diphtheria was induced, with results as in human beings. A series also of experiments with the yellowish-white membrane had been made, but no result was obtained pointing to the difference in the poisons. Also it was shown that hypochlorous acid and permanganate of potassium, when applied to the diphtheritic membrane, rendered it innocuous. Exposure to sunlight and fresh air had a similar effect. Cases were given also showing that diphtheria required the decomposition of both animal and vegetable decompositions or ferments to produce it, either in sewers or elsewhere; that neither would produce it singly; that it was not possible to cause membranous croup in animals, as it was to cause diphtheria; that scarlet fever, or a disease closely resembling it, could be caused in animals by the administration of the epithelium from scarlet fever to them, but that in no case did any of the diseases produce the other.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, OCTOBER 7TH, 1885.

H. R. KER, F.R.C.S.Ed., in the Chair.

Pseudo-Hypertrophic Paralysis.—Dr. SUCKLING showed a woman, aged 35, suffering from this disease. No family-history of nervous affection could be obtained; but the patient had a little boy who was weak in the legs, had large calves, and a waddling gait. Eleven years ago, she noticed weakness and pain in the back, the weakness being the chief trouble. This gradually became worse, and extended to the arms and legs. The muscles of the calves, buttocks, and forearms were much enlarged, the deltoid and infraspinatus muscles especially so. There was marked atrophy of the biceps and costo-sternal portions of the pectoralis major on the right side; marked lordosis in the erect position; waddling gait; and the characteristic mode of rising from the sitting and recumbent position. The knee-jerk was lost on the right (the most affected) side. The diagnosis was confirmed by examination of a portion of muscle removed with Leech's trocar.—Dr. SIMON showed two cases of pseudo-hypertrophic paralysis, occurring in the same family. The elder of the two children, a girl, aged 15, was unable to walk or stand. The calf-muscles were hypertrophied, but those of the upper extremity atrophied. By resting her elbows on a table, she was able to use her fingers and forearms, as in knitting, etc.; but she could not raise the arms, owing to the extensive atrophy of the shoulder-muscles. Her younger brother, aged 9, was showing the same symptoms which characterised the onset of his sister's illness. He could rise from the ground only by resting his hands on his knees. There was no history of nervous disease in the family.

Mulberry Calculus.—Mr. CHAVASSE showed a large mulberry calculus, of dumb-bell shape, and weighing one ounce, which he had successfully removed by lateral lithotomy.

Nephrolithotomy.—Mr. LLOYD showed a calculus which he had removed eight days before from the kidney of a man, aged 20, through a lumbar incision. Symptoms had been present for four years, and had quite incapacitated the man from work. The patient had so far recovered as to be out of all danger. The urine was acid, normal in quantity, and contained only a few pus- and blood-corpuscles.

The Treatment of Fistula in Ano, Hemorrhoids, and Urethral Stricture.—Mr. GAMGEE read a paper on this subject. He illustrated the causal and contributory relations of the conditions named; the preventive and curative influence of constitutional and local treatment without operative interference; and the preference to be given to certain operative procedures.

REVIEWS AND NOTICES.

THE ORGANISATION OF THE VOLUNTEER MEDICAL SERVICE.
Woolwich: W. J. Cattermole.

SURGEON-MAJOR EVATT sends us a pamphlet which he has published on this subject. The following is a summary of his proposals.

1. A general list of volunteer-surgeons. He proposes that the whole of the existing volunteer-surgeons should be grouped in one general list in the *Army List*, and placed with the Army Medical Staff in the *Army List*. All regimental surgeons of volunteers to be also shown in their regimental lists, as the Guards surgeons are now borne in two places.
2. Volunteer medical staff. Such a number of volunteer-surgeons to be commissioned in the volunteer medical staff as are needed to officer the bearer-companies and field-hospitals of the Volunteer Medical Staff Corps.
3. Unit of administration. Two companies of Volunteer Medical Staff Corps to be organised in each regimental military district (that is, the average county) to form a bearer-company and a field-hospital for the district brigade. All the companies to be grouped into a battalion for the divisional military district.
4. Brigade-surgeons of volunteers. A brigade-surgeon of volunteers to be commissioned in each military division to command the whole of the medical volunteers of the district, under the principal medical officer of the regular forces in the district.
5. An honorary deputy surgeon-general of volunteers to be allowed to each district, to be the honorary head of the medical volunteers of the district, and to correspond with the honorary colonel of a volunteer-battalion.
6. Quartermasters of the volunteer medical staff to be commissioned.
7. Sergeant-instructors, from the regular medical staff corps, to be allowed.
8. Capitation-grant to be allowed, as to ordinary volunteers.
9. Honorary Surgeons to the Queen: a certain number of volunteer-surgeons to receive this high honour.
10. Retirement by age at 55 years.
11. Honorary promotion on retirement.
12. Rank to be duly

- defined.
13. Mounted officers: all volunteer-surgeons to be mounted on the march.
14. Courses of instruction: volunteer-surgeons to be eligible for a course of instruction at Aldershot, with pay and allowances as for artillery volunteers attending Woolwich courses.
- 15, 16, 17, 18, and 19, deal with questions of efficiency.
20. Uniform: the uniform to be identical with the regular Medical Service, except the letter V to be worn on the shoulder-strap.
21. Free opportunity for war-service with the regular forces to be given to the officers and men of the Volunteer Medical Corps.
22. Honorary commissions in the volunteer-service, as consulting surgeons, to be given to specially selected civil surgeons, for war-services rendered to the State.
23. Medical cadet-companies in the civil schools to be fostered and aided by grants.
24. Volunteer-surgeons to be freely employed in war, by granting commissions in volunteer medical staff, with pay, medals, and promotion in volunteer-service.
25. Quartermasters, rank and file, and female nurses, to be freely employed on the same lines.

There is no doubt that much needs to be done to render the Volunteer Medical Service efficient, and every contribution to this subject should be welcomed.

NOTES ON BOOKS.

The Asylum Journal of the Lunatic Asylum for British Guiana, at Berbice. September, 1885.—The number before us consists partly of trivial details as to the changes in the asylum inmates and staff, and work done by inmates at the asylum, during the preceding month. But there is one item of some interest; a paper on febricula, low fever, or masked intermittent, as occurring in malarious countries. Of the two groups of symptoms observed by the writer of the paper (Mr. A. D. Williams), one, consisting of irregularly recurring ephemeral febrile symptoms, does not appear to be connected with the malarial virus; the other, consisting of more or less regular paroxysmal attacks resembling the prodromata to specific fever, appears, in many cases, not to have been based on malaria, and to have been removable by the administration of a stimulant or soluble food. We have seen cases, among the insane who had suffered from malarial disease or had been exposed to malaria in India, in which irregularly, or more or less regularly and paroxysmally, recurring nervous and vaso-motor symptoms were obviously of malarial origin, and were not removable by the simple administration of a stimulant, but more or less under the control of quinine.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A HANDY CASE.

SIR,—I wish to draw your attention to the following "handy-case," which I venture to think will be found a most useful pocket-companion. It contains six small glass-stoppered bottles, each holding about two drachms of fluid for external application, such as liquor ferri perchloridi, linimentum iodi, dilute carbolic acid, glycerine, liquor epispastici, liquid collodion styptic (a most useful application in some cases of fissured nipple, so constantly occurring in puerperal women), or such other preparations as may be required. There is space in it, as well, for two or three camel-hair brushes and holder. It is six inches in length, by about four in width, and a little over one in depth, and has been made for me by Hills, of Newcomen Street, Borough.—I remain, your obedient servant,
W. T. D. CALDWELL, M.D.
284, Kennington Park Road, S.E.

AURAL SYRINGES.

THE "New Aural Syringe" described by Dr. Ward Cousins in a recent number of the *JOURNAL*, embodies at least one principle of the "Ear-Irrigator" which Messrs. Arnold and Sons made for me a few years since. The instrument was described and figured in your columns at the time, and was exhibited at the following meeting of the Association. An ordinary enema-syringe, a handball, an Arnold's "Simplex" syringe, or simple siphonage can be employed as the motive power, according to the opportunities and convenience of the operator. A cup, for receiving the outflowing liquid, embraces the lower part of the ear, and is clipped in position by the usual head-spring. To the hollow stem of this cup is attached a length of rubber tubing, which conducts the effluent liquid to a suitable vessel placed upon the floor, or on the table near the patient. The stem of this cup also bears a flexible arm, which carries the adjustable nozzle, tipped with a hollow cone of celluloid, for injection. There is, consequently, no need to keep the head inclined; and the patient may, indeed, assume almost any position he pleases, or change it from time to time as he likes. One hand only is thus required; and, when the operation is at all prolonged, the use of a simplex syringe is less fatiguing even than that of a hand-ball: while siphonage—as from a vessel of water placed on a shelf above the patient's head—requires no manipulation at all. The instrument is also adapted for self-application.
C. E. SHELLEY, Hertford.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 31st, 1885. of London

OUR OUTPOST DEFENCES AGAINST CHOLERA.

SOME credit is taken in the recently published annual report of the Local Government Board for the survey made by its medical department of the sanitary condition of the coast-districts of England, in view of the possibility of cholera obtaining an entrance into the country through one of our ports. The results of this survey have not yet been published; but there have not been wanting vague generalisations, on the part of those in authority, which have tended to reassure the public mind as to the danger of cholera obtaining a foothold amongst us. We are by no means anxious to appear in the character of alarmists; but we are bound to say that, if the state of affairs which has recently been disclosed as existing at two of our sea-ports has any counterpart at the others, our outpost-defences against cholera are very weak indeed.

Gravesend, as all the world knows, is a place of the very first importance in connection with the port of London; and it is more than likely that, if cholera invaded England by way of the estuary of the Thames, Gravesend would be the first place to suffer from it. Now, so far back as 1877, it became necessary for the Local Government Board to overhaul the sanitary administration of the place, and the account which the late Mr. Netten Radcliffe then gave of it was the reverse of reassuring. The action of the local authority has since been so unsatisfactory, that the Whitehall Board recently sent down Mr. Shirley Murphy to inspect the place again. Mr. Murphy finds that, since Mr. Radcliffe's visit, some wooden huts have been put up which masquerade as the town "sanatorium"; that the water-company's supply has been extended, and many contaminated wells closed; and that some paving of courts and alleys has been accomplished. But he still finds a grievous amount of sanitary arrears, which the town council do not appear to be at all anxious to make good.

Amongst other unsanitary conditions still existing, he cites the following; *a*, a system of storing vast accumulations of excremental filth in cesspools in proximity to inhabited dwelling-houses; *b*, the pollution of the foreshore by certain house-drains and sewers, giving rise to nuisance; *c*, an unsatisfactory method of water-supply to many courts and alleys, by reason of which these localities are without sufficient water-supply; *d*, ill ventilated, badly constructed, and badly arranged dwelling-houses, especially in the lower part of the town.

As long ago as 1849, the Registrar-General, writing of the epidemic prevalence of cholera, said, with regard to the condition of Gravesend at that time, "there are no available common sewers, and the sanitary state of the town must be inevitably bad; the whole of the sur-

face and underground drainage falls into rudely constructed cess-pools." With slight modification, these remarks are now equally applicable, and that too of a place where there is special need of vigorous and sustained sanitary action.

From Gravesend we turn to Newhaven, a place of a very different character, but still possessing an important interest for the nation at large, in view of its large steamboat-traffic to the continent. Now it is easily conceivable that a case of cholera imported from abroad might reach Newhaven on board one of the steamers that are constantly plying to and fro. Supposing the case to be at first unrecognised, and to be deposited in the town, how is Newhaven prepared to meet it? Lord Sheffield's letter in the *Times* of October 12th supplies the answer. The drainage of the town has been again and again reported, by Mr. John Spear of the Local Government Board, by Sir John Coode and others, as most defective and dangerous. Many of the older drains are of brickwork, the mortar being of very inferior quality, and their sectional form extremely bad. Where good pipes have been used, they have sometimes not been jointed. The drainage has been constructed without regard to any definite system. There are no fewer than seventeen different outfalls, the levels of which vary from about six feet to sixteen feet above low water of ordinary spring tides. Many of them have no tide-flaps, and therefore discharge continually between flood and ebb. There is an entire absence of any provision for flushing and ventilating the sewers; and much more to the same effect, which we have no space to quote. The local board are not ignorant of all this. Their own officers have told them much the same thing. Last August their surveyor reported of one hundred houses that he had examined to date, that "the majority are faulty as regards sanitary arrangements. The drains are foul and the traps ineffectual to prevent the emission of sewer-gas. Some of these are filled up with flannel rags, and others with earth, and in many cases the traps are broken." Yet the view of the local board, on these undeniable facts, is that "this is an inopportune time to commence an extensive system of drainage;" and they request the Local Government Board, who had peremptorily ordered them to proceed, without delay, to construct a proper system of sewerage, to "postpone the matter, awaiting a more prosperous condition of the town."

In view of the enormous national interests which are bound up in our being able to keep cholera at bay, it is difficult to write in language of moderation concerning stupidity so great, and short sightedness so painful, as that manifested by Gravesend and Newhaven. It makes one almost despair of local self-government in small towns, and apprehensive of the results of weakening the hold of the Local Government Board upon recalcitrant sanitary authorities. Lord Sheffield, with an indignation that is quite excusable, and even commendable, calls upon the Local Government Board to ignore the very existence of the Newhaven Local Board, and to order at once the construction of the necessary works. He is no doubt unaware of the disastrous results which attended the one solitary experiment made by the Whitehall authorities, in carrying out local works of drainage over the head of the constituted authority. There is, however, still the power left to the Local Government Board, by Section 299 of the Public Health Act, of applying for a writ of *mandamus* to enforce its Order; and probably none of our legislators, who are now eloquent upon the subject of local government and decentralisation, would wish to deprive it of a power such as this of coercing authorities that are

hopelessly indolent or wrongheaded. No one will accuse John Stuart Mill of being a bureaucrat; and yet he saw clearly the necessity of a central authority "as an adviser and critic, an enforcer of the laws, and a denouncer of conduct which it deems condemnable." So long, at any rate, as sanitary authorities can so misuse their opportunities and belie their name as the Local Board of Newhaven, it will be necessary to have some superior power, which can compel them to do their duty, and to cease endangering the well-being of a whole nation by their ignorance and stupidity.

THE MEDICAL STAFF IN EGYPT AND THE SOUDAN.

WE have received a large number of letters from medical officers who have served in Egypt during the late military operations in that country, especially from some of those who were on duty with the troops in the Soudan and at Suakin, complaining of the small recognition their services have met with. While honours and distinctions have been bestowed in a large and liberal spirit, it may be said with profusion, among the officers of the general staff and regimental officers of the army, the medical staff as a body have been neglected, and their claims to similar distinctions ignored. It is very difficult to deal with complaints of this nature. The military authorities claim for themselves the right of deciding what services deserve special acknowledgment, what distinctions shall be awarded, and who shall be the recipients of them. It is only consistent with human nature that, in estimating the value of service rendered in a campaign, and in dispensing the rewards at their disposal for it, the military authorities should see with the eyes of their own calling. There is no difficulty in understanding how it happens that the numerous titles and decorations which are announced in gazettes while military operations in the field are in progress, or shortly after their conclusion, are almost exclusively bestowed among staff and regimental officers, when the relations between those who bestow and those who receive are remembered. But, as a matter of policy, it is surely a very short-sighted one when these distinctions are so appropriated that an important body of educated and deserving officers are rendered angry and discontented by it. It can hardly be a matter of wonder that, under circumstances of the kind, discontent should exist; all the more deep, perhaps, because it cannot, from the rules of military service, be officially manifested. During the recent military operations in Egypt, both along the Nile and in the Soudan, all the reports which reached England told the same tale—that the medical officers were exposed equally with all the troops to the shot and spears of the Arabs; and that, notwithstanding the imminent personal risks by which they were surrounded, they performed their professional duties among the troops with the utmost zeal and devotion. But it was not merely in the engagements with the enemy that the courage of the medical officers was tried; there was a still more deadly foe against which they were daily and hourly contending, the pestilential climate of Egypt. The authorities who are the distributors of honours and decorations probably have but a faint notion of the bodily and mental strain with which this part of the duties that devolve on medical officers in such a climate as that of the Soudan is attended, of the personal risk as regards health, and even life, with which the discharge of it is accompanied, or of the high qualities which are essential for its proper performance. To the fact that these responsibilities were adequately met by the medical

officers, there has been a no less general testimony than there was regarding their courage and admirable conduct on the occasions of the various engagements with the Arabs.

Administrative medical officers can alone be judges of the value of professional service done by the executive medical officers in the field-hospitals; and if, as we are given to understand, the recommendations which some of them made concerning the medical officers who were acting under them have met with no results, in many instances, as regards a share in the honours which have been since distributed, the proceeding, in our opinion, is as unwise as it is unjust.

With what feelings can medical officers who have been so treated enter upon duties of a similar nature in the future, if they should be ordered to undertake them? Even to persons who realise the small intrinsic value that belongs to such distinction as orders and decorations confer, the contrast between merit acknowledged and conscious merit ignored, must always be more or less galling; but in military life, unless some tangible memorial of special desert be obtained, past services are notoriously apt to be forgotten, while the claims for advancement of competitors more favoured at the moment often receive attention.

Complaints such as those on which we have been commenting have been so frequently repeated with regard to the medical parts of the army and navy, that we fail to see any probability of the grievances on which they are based being rectified in the future, without a thorough change in the principles on which distinguished merit in the public services receives recognition. The system which shall secure a just and impartial distribution of rewards for service rendered to the nation, is one which is still to be discovered.

THE OCEAN AS A HEALTH-RESTORER.

A MEMBER of the profession, writing in the current number of *Chambers's Journal*, discusses the advantages of long sea-voyages in the cure or alleviation of disease. As the subject is one of much interest, and the writer speaks from considerable personal experience, we will summarise his conclusions for the benefit of our readers. He recommends the Australian voyage on the grounds of "its length and variety, the average warmth, and calm weather which prevail, and the ample provision made for the traveller's comfort on the best ships." A sailing vessel is preferable to a steamer on a variety of grounds. "The invalid does not desire to make 'the quickest run on record'; he has come to sea in order to enjoy, as long as possible, sea-air, sea-life, and sea-leisure. The longer the voyage, provided it fall short of producing intolerable *ennui*, the greater the gain to health. Again, in the comparatively slow moving sailing-ship, the changes of temperature are gradual, while the fast steamship, going at a uniform rate of fourteen or fifteen knots per hour, flies through degrees of latitude like a steeplechaser over his fences, and the invalid is hurried too quickly from the fogs and cold of Britain to the heat of the tropics; and again with equally undue rapidity from the burning equator to the icebergs of the southern ocean." The first advantage of life at sea is the perfect rest and quiet which can be enjoyed. "There is no morning newspaper, no postman's knock, no telegrams, no daily confinement in close offices, courts, or consulting-rooms, no daily duties calling for energy which is so often lacking. The passenger has only to eat, sleep, and live. The strain of life is withdrawn. The wheels of existence move easily, and with lessened

friction. The incessant emulation, the keen anxieties, the worrying cares which beset modern commercial and professional life, are as things that never have been." The next important point is the pure atmosphere and the long hours of uninterrupted enjoyment of sunshine and fresh air. In the warm latitudes, the passengers live on deck, going below only to eat and sleep, and frequently spend fifteen hours daily in the open air. This is an advantage of the first magnitude. Half the diseases of modern life, and more than half the minor ailments which embitter existence, are due to contamination of the air we breathe. Not the least terrible discovery of modern science is the revelation that this liquid ether, apparently so pure and spotless, which surrounds us on every side, is, in reality, swarming with invisible forms of life, capable of becoming the ministers of disease and the harbingers of death. But "the air that sweeps the surface of the oceans bears no trace of contamination or impurity. Hence, in a large measure, is explained the immense advantage of the long sea-voyage to the consumptive, to whom pure air is, in the most literal sense, the very breath of life." The equability of the ocean-climate is another important point. "The variations of temperature at sea, from day to day, are trifling, and steadily progressive with the latitude, sudden changes being almost unknown. The winds are all sea-breezes, all laden with moisture, and usually blow from the same point of the compass for many days together. Chill—that word of fearful import on land—has no existence at sea. Sailors rarely suffer from ordinary catarrhs or cold, and even sleep with impunity upon the bare deck. The changes of temperature at sea are gradual, and can be reckoned on, and proper preparation made." The saline particles in sea-air, and the abundance of ozone, are also alluded to as favourably influencing the course of disease. The high average range of the barometer at sea is mentioned as a fact worth weighing. If we had the materials, it would be very interesting to compare the effect upon respiratory disease of a barometer averaging over 30 inches as at sea, and one standing at 24 inches or 25 inches at Davos.

The disadvantages of sea-voyages are discussed. These are mainly the monotony of life, the paucity of amusement and distraction, and the occasional discomforts of severe weather; the last, however, being comparatively rare in the Australian voyage. No allusion is made to any difficulties as regards variety of food; hence we presume the dietary supplied by the good ships is liberal in quantity, and sufficiently varied to suit the tastes and idiosyncracies of invalids. The writer recommends sea-voyages mainly to two classes, namely, sufferers from affections of the respiratory organs, and those who are simply overworked and in need of rest and change. He concludes his article by pointing out that there are some who should not tempt the sea. "Those far advanced in disease, from whatever cause, those threatened with melancholia or other form of insanity, should avoid a long sea-journey."

The views expressed and well stated in the article to which we refer, coincide, in the main, with those which underlie the practice and the philosophy of the Holidays at Sea, of which Mr. Ernest Hart has, from year to year, furnished reports to our columns. In addition to the Australian route, he adds his tribute to the ease, happiness, and health derivable from journeys, in the winter and early spring, to Port Said for Egypt, to Malta and Gibraltar, and to the Mediterranean parts of Italy; and to that delightful short sea-journey of a few days to the Island of Madeira, with which may be combined the

romantic tour of that most lovely of islands in a perfect climate, and the return to England within three weeks, or, of course, a longer sojourn if desired. The ocean is unequalled as a health-resort to all but those who are martyrs to sea-sickness.

DR. W. S. PLAYFAIR has been elected an Honorary Fellow of the American Gynecological Society.

SUNDAY last, October 25th, was the third Hospital Sunday in Brighton. Appeals were made in more than sixty places of worship in Brighton, Hove, and Preston, on behalf of the local medical charities.

THE Middlesex magistrates have granted a licence for receiving ten male patients, under the Habitual Drunkards Act, to Mr. Harrison Branthwaite, of High Shot House, Twickenham.

THE first meeting of the newly formed Branch of the British Medical Association for Oxford and the neighbouring district, will be held at the Radcliffe Infirmary on Wednesday next, November 4th, at 3 P.M. An address will be delivered by the President, Sir Henry W. Acland, K.C.B.

MEDICAL SOCIETY OF LONDON.

DR. W. R. GOWERS will open a discussion, at the Medical Society of London, on the "Clinical Value of the Deep Reflexes," on Monday, November 2nd. It is hoped that Dr. Hughlings Jackson, Dr. Broadbent, Dr. Buzzard, and Dr. Angel Money, will take part in the discussion.

A CASE OF RHINOLITH.

AT a recent meeting of the Imperial and Royal Medical Society of Vienna, Dr. Ottokar Chiari showed a nasal concretion, which he had removed from a young lady. For more than ten years she had been unable to breathe through the nose, and had had an abundant purulent discharge. The mucous membrane of one nostril was much swollen, and a rough hard body could be felt with the sound. Dr. Chiari broke off portions of the substance with forceps, and then removed the rest. The whole consisted of phosphate and carbonate of lime, and contained in the centre a metal button, concerning the introduction of which into the nose the lady could give no information. The extraction of the rhinolith produced slight hæmorrhage, which was easily arrested. Dr. Chiari said that forty cases of rhinolith were recorded in medical literature. The case is interesting, in connection with that described by Mr. Cresswell Baber in the JOURNAL of October 17th.

DEATH OR COMA.

THE close similarity which is occasionally seen to connect the appearance of death with that of exhaustion following disease, was lately illustrated in a somewhat striking manner. An infant, seized with convulsions, was supposed to have died about three weeks ago at Stamford Hill. After five days' interval, preparations were being made for its interment, when, at the grave's mouth, a cry was heard to come from the coffin. The lid was taken off, and the child was found to be alive, was taken home, and is recovering. Such is the published account of the latest recorded case of suspended animation. We need not now attempt a dissertation on the physical meaning of coma. It is well known that this condition may last for considerable periods, and may at times, even to the practised eye, wear very much the same aspect as death. In the present instance, its association with some degree of convulsion may easily have been mistaken by relatives, dreading the worst, for the rigid stillness of rigor mortis. This is the more likely, since the latter state is apt to be a transient one in infants, though it is said to be unusually well marked in death from convulsions. One cannot, however, help thinking that the presence of the various signs of death was not, in this case, very carefully inquired

into. It is hardly possible that, had the other proofs as well as that of stiffening been sought for, they would have been missed. It is true that hardly any one sign short of putrefaction can be relied upon as infallible. In actual death, however, one may confidently reckon on the co-existence of more than one of these. After a period of five days, not one should have been wanting. Besides rigor mortis, the total absence of which, even in forms of death which are said not to show it, we take leave to doubt, the *post mortem* lividity of dependent parts affords sure proof, as its absence suggests a doubt, of death. Then there is the eye, sunken, with glairy surface, flaccid cornea, and dilated insensitive pupil. Most practitioners, probably, are accustomed to rely upon stethoscopic evidence of heart-action or respiration. These alone, indeed, are almost always sufficient to decide the question of vitality, if they be watched for during one or two minutes. There is no information as to whether the child so nearly buried alive was seen by a medical man. It is difficult to believe that, if it had been, some sign of life would not have been observed. Still, the case is a teaching one, even for medical men, and warns us to look for a combination of known tests where any doubt exists as to the fact of death.

THE MEDITERRANEAN HEALTH-RESORTS.

The prevalence of cholera in the South of Europe has, not unnaturally, excited some apprehension as to the advisability of visiting the well known health-resorts of the Mediterranean coast. We have received an abundant crop of letters from local medical men resident in the various localities, and we are obliged to extract from them, for it is impossible to find space for them all. We are glad to be able to publish some trustworthy and reassuring information. As to Cannes, a letter from Dr. de Valcourt, which appears in another page, shows a remarkably clean bill of health. Regarding San Remo, the British Vice-Consul, Mr. John Congreve, who has resided in the town during the whole summer, wrote to us on October 19th, that, "to the best of his belief, there has not been a single case, or even suspected case, of cholera, either here or in the immediate neighbourhood. The health of the district is, in all respects, quite up to the average. An excellent water-supply, conveyed in pipes from the mountains, is now generally laid on, both to the town, the hotels, and villas. The greater part of the old town has been repaved, during the summer, with cement, thus adding greatly to the cleanliness of the poorer quarters, which have also been thoroughly inspected and well whitewashed, inside and out, by order of the Town Council." Dr. A. H. Hassall writes from San Remo, on the same day: "During the whole period of the prevalence of the epidemic, there has not been a single case of cholera in San Remo, while the general health of the town has been exceptionally good, due, doubtless, in part, to the new and abundant supply of excellent water." Dr. Hassall further writes that there were no restrictions whatever on entering Italy from Switzerland, and only a slight formality at the frontier-town of Ventimiglia, on the French side; and even this, he was informed, would be discontinued in a few days. Dr. William Thomson writes, regarding Algiers, that "not only has there not been a single case of cholera in the whole of Algeria this year, but that the sanitary condition of the town and suburbs has been particularly good lately."

CEREBRAL EFFUSION DUE TO INTESTINAL WORMS.

It is well known that intestinal worms in children frequently produce convulsions and other cerebral symptoms. Vogel, in his work on *Children's Diseases*, mentions that, in a case where a child died with symptoms of acute hydrocephalus, no lesion of any kind could be discovered in the brain, death having been really caused by a mass of a hundred round worms, which had produced dilation and reddening of the intestine. A somewhat similar case is now reported in the German medical press. Two little boys in a family, under the care of Dr. Eichberg, were seized with what was supposed to be an infectious disease with gastro-intestinal symptoms. No satisfactory

diagnosis was made, and one of the children died. At the necropsy, hydrocephalous effusion was found in both lateral ventricles. In the right hypogastric region, a piece of intestine was seen, half a metre in length, of a deep red colour. When this was opened, an immense conglomeration of round worms was found, which completely stopped up the intestine. There must have been a hundred of them, and, in addition, several more were found in different parts of the gut. There was no trace of peritoneal inflammation. The other child was now treated with calomel, jalap, and santonine, which brought away some twenty worms, and soon resulted in a cure. As an additional precaution, the whole family was dosed with santonine, with satisfactory results.

ADULTERATION OF FOOD AND DRUGS.

We wish we could believe that the percentages of adulteration of food and drugs, which the Local Government Board industriously calculate and publish in their Annual Reports, represent anything like the true proportion of articles of food and drink which are not what they ought to be. The Sale of Food and Drugs Acts were passed, nominally at all events, in the interests of the poor, whose food-supplies are often most disgracefully sophisticated. The number of samples examined by the public analysts, which were sent for analysis by officials, was 22,705, whilst those sent by the public only numbered 236. Thus the number of privately sent samples is very small. This is to be regretted, for there are many obvious reasons why an officer of the local authority, not seldom in uniform and nearly always known to the shopkeeper, should not be served with a fair sample of the article vended. Moreover, the Acts are very partially enforced in the great majority of places, even by the officials whose duty it is to collect samples. The Local Government Board themselves confess that, "in most of the small boroughs and in many of the rural districts, the Acts are practically inoperative." Such figures as can be given are of a fairly satisfactory kind. The percentage of articles examined and found to be adulterated was, in 1884, 14.4, against 15.0 in 1883, and an average of 16.2 in 1877-81. Of the 22,951 samples, 10,009 were of milk, and of these 1,761, or rather more than one-sixth, were condemned. Retailers, more than farmers, appear to be responsible for the dilution with water, which is practically the only adulterant reported. Of 50 samples of milk, taken in course of delivery from farmers to retailers at Portsmouth, every one was found to be genuine. Of 51 samples purchased from retailers, 18, or more than a third, were adulterated. The sale of imitations of butter is apparently on the increase, and there is no doubt that they are generally purchased as the genuine article. About one-fifth of the samples of coffee were adulterated, mostly with chicory. It appears to be considered no longer worth while to adulterate sugar. Some "Fine Old Port" and "Fine Old Sherry," purchased at Salford, were found to be quite innocent of the juice of the grape. Only 2 per cent. of the samples of beer were reported against, mostly on the ground of the addition of salt. Spirits give, as might be expected, notwithstanding the statutory definition in the Act of 1879 of the difference between spirits and spirits and water, a higher proportion of adulteration than anything else (23.2 per cent.). Fortunately, water has been the only adulterant recognised.

THE OPENING MEETINGS OF THE LONDON SOCIETIES.

THE new session of the Medical Society of London was inaugurated by a highly successful meeting on October 19th, under the presidency of Dr. W. Miller Ord. A large audience assembled to hear the President's address, which dealt with the ever interesting, because ever important, subject of fever. Its argument is well worthy of attention, and the whole address, which was published in the *JOURNAL* of October 24th, will well repay perusal; the experiments on the disappearance of heat during the process of ascending metabolism were especially novel and suggestive. The President was able to announce that the new volume of the *Transactions* of the Society had been

passed through the press, and would be delivered to Fellows in a few weeks. The opening meeting of the Pathological Society on October 20th was also well attended, and several papers of considerable interest were read. The President was able to present a copy of the new volume of the *Transactions*, and reminded the Society that the Council had arranged for an exhibition of specimens of intracranial tumours, and a discussion of that subject, early in the coming year. The first meeting of the Ophthalmological Society was held on October 15th, under the presidency of Mr. Sympton, of Lincoln, who also was able to present a copy of the new volume of *Transactions*. Mr. Anderson Critchett related a case of orbital cellulitis, in which there was a curious alternation of amaurosis in the two eyes. Mr. Mackinlay showed a patient who presented a novel morbid state; the corneæ and conjunctivæ had become dyed a dark colour by aniline dyes, which the patient used in his trade. The case suggests a method of histological investigation already foreshadowed by the experiments on growing bones with madder, and by those of Chrzonszczewsky on the kidney and liver, and destined, perhaps, to attain a fuller development in the future.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

A GENERAL meeting of the above Association, which now numbers nearly 300 members, was held on Saturday, October 24th, at 49, Berners Street, London; the President, Dr. Macnaughton Jones, in the chair. There was a large attendance of members. The new constitution, adopted at the annual meeting last July, was confirmed on the motion of Sir Thomas Crawford, K.C.B. The Council reported that neither the Membership of the King and Queen's College of Physicians, nor the M.A.O. degree of the Royal University, could yet be registered. A committee was appointed to act in the matter as circumstances might suggest. The October dinner took place the same evening, at the Holborn Restaurant. Fifty-three members and guests sat down. The chair was occupied by the President, who was supported by Sir John Watt Reid, K.C.B. (Director-General of the Naval Medical Department); Professor Aitken, F.R.S. (Army Medical School, Netley); Sir W. Guyer Hunter, K.C.M.G., and other guests of the Association. Among the members present were Sir William Mac Cormac (Vice-President); Sir Thomas Crawford, K.C.B. (Director-General Army Medical Department); Deputy Inspectors-General Mortimer and Lloyd, R.N.; Deputy Surgeon-General Ffolliott; Brigade-Surgeon W. Alexander; Dr. J. Thompson (Honorary Treasurer); and Dr. J. Stewart (Honorary Secretary). The usual loyal toasts were duly honoured. Professor Aitken proposed the toast of the evening. The Chairman, in responding, stated that, since the beginning of the present year, nearly 150 new members had been enrolled. The new name that had been given to the Association was both comprehensive and suggestive. It would serve to remind them of such men as Harrison and Graves, Stokes and Corrigan, Robert Smith and others, whose teaching made Irish medical schools famous all over the world. An Irish university (as some present knew too well) might vanish beneath the magic wand of a prime minister; but neither minister nor government, no matter how powerful, could obliterate the Irish medical schools, or dim the lustre of their historic traditions. The proceedings were enlivened by several songs, and the gathering was altogether of a most enjoyable character.

THE MEDICAL SUPERINTENDENTSHIP OF IMBECILE ASYLUMS.

A REMARKABLE discussion has taken place at the October meetings of the Metropolitan Asylums Board, regarding the salaries of the medical superintendents of the large asylums for imbeciles at Caterham, Leavesden, and Darenth. The Committee of the Caterham Asylum, through Mr. Robins, proposed that the salary of Dr. G. S. Elliot, the able medical superintendent of that asylum, should be increased from £500 *per annum* to £550, and next year to £600. Mr. Robins stated that Dr. Elliot had had cast upon him the superintendence of

much lay work, which used to be discharged, under the old orders of the Local Government Board, by the steward. There had been a change of stewards, and Dr. Elliot had thrown himself heartily into the work of conducting the asylum upon economical and efficient principles; so much so that the Committee calculated that, under the superintendence of Dr. Elliot, no less than £10,000 had been saved, as compared with the expenditure of bygone times. The proposal was seconded by Admiral Robertson, a well known economical member of the board, and was opposed by the Rev. Mr. Henderson and other members, on the ground that this was not the time to make additions to salaries; that, if the salary of Dr. Elliot were raised, the board must raise all other salaries; that, if Dr. Elliot gave his attention to lay matters, he must neglect medical superintendence; that there should be delay to consider the whole subject; that a medical man was well paid at the salary which Dr. Elliot received. Mr. Strong, another economical member, speaking with the experience of a visiting justice, stated that the salaries of the medical officers of lunatic asylums were much higher than those paid by the Asylum Board. Ultimately, by thirty-two to seven, the motion was carried. The discussion occupied a part of two meetings of the Board.

THE DECLINE OF SMALL-POX IN LONDON.

It is very satisfactory to hear, on the authority of the Asylums Board, that the epidemic of small-pox, which has so long prevailed in the metropolis, appears to be dying out. During the last fortnight, only thirty-six cases were received, against seventy-five in the previous fortnight. Of these, five were received in the South-Eastern Asylum, and thirty-one on the hospital-ships at Long Reach. It is remarkable, as showing the change which has come over the methods of isolation for small-pox in the metropolis, that, of 130 cases under treatment when the returns were made up, all but one were on the hospital-ships. Ship-isolation appears, indeed, to be so successful, that the managers are striving to get the Local Government Board's consent to shutting up, at all events for the present, the small-pox wards at the North-Western, South-Western, and Western Hospitals. As Sir Edmund Currie pointed out, the managers have kept up such wards in two of the asylums, the Eastern and the South-Eastern; and, while no cases had been received in the former, during the last fortnight only six had been received in the latter. The receptions in all during the fortnight only amounted to half the number which used to be received daily. Under these circumstances it is evidently quite unnecessary, especially in view of the completeness of the arrangements for taking the patients down to the ships, to keep up staffs at the several asylums in London. The managers have therefore told the Local Government Board that it is not their desire, in non-epidemic times, to incur the very considerable expense which would necessarily follow the retention of a staff of officers for the reception and treatment, in the five metropolitan fever-hospitals, of the comparatively few cases of small-pox which experience has shown will probably have to be treated, when the patients could all be more economically and quite as satisfactorily treated under one administration in the hospital-ships at Long Reach; and that the managers have every reason to anticipate, from the return of the number of patients remaining under treatment in the hospitals of the Board, and from the very few cases which are at present being removed daily to hospitals, that the present epidemic is virtually at an end. They urge the Local Government Board to no longer withhold their sanction to the temporary closing of the small-pox isolation-wards at the North-Western, South-Western, and Western Hospitals, keeping open those at the South-Eastern and Eastern Hospitals. This appeal is now under consideration at Whitehall.

MEDICAL STUDENTS IN CAMBRIDGE.

MR. E. S. ROBERTS, in his address to the Senate on resigning the office of Senior Proctor, makes the following remarks: "It has been my lot to hold the office of proctor a second time, after an interval of

some years. It is inevitable that this circumstance should suggest some sort of a comparison. I do not wish to deceive myself with any illusory notions that all beneath the surface is as perfect as we know it is not, and as we do not despair that it may be. But I desire to put it on record, as a matter of common observation, and I do so without fear of contradiction, that, during the interval covered by the past eight years, the gain to order, decency, and morality, in every sense of the word, has been immense." It is significant that this period of eight years, which Mr. Roberts's experience covers, is that in which the medical school has grown from comparative insignificance to its present strength and influence. His testimony is corroborated by many experienced college tutors, and effectually dispels the forebodings of some who saw in an increased efflux of medical students to the University a source of danger to tone, and bearing, and morality. It is admitted now that the hard-working purposeful medical student has added a needful element of steadiness and energy to the body of undergraduates.

THE MEDICAL DEFENCE ASSOCIATION.

A MEETING of the Council of the Medical Defence Association was held at the offices of the Association, 60, Chandos Street, Covent Garden, October 23rd; Dr. Richardson, F.R.S., in the chair. Several new members were nominated and duly elected. Complaints were received as to unqualified practice from Leicester, Landport, and other places, and the solicitors were instructed to investigate the cases, with a view to prosecution. A letter was read from Dr. David R. Pearson, of Kensington, suggesting that the usefulness of the Association might be considerably extended by affording assistance to medical men who are threatened with litigation, or against whom charges of malpractice or other grave accusations have been made for the purpose of extortion. The President said it had struck him recently that the Association might do a vast amount of good in the direction suggested by Dr. Pearson; medical men often submitted to gross imposition and extortion from fear, and the conviction of their inability to get the best legal assistance, except at a ruinous cost, when they would, if supported by their professional brethren, be encouraged to face their difficulties, and come out of the trial satisfactorily. The *Edwardes*, *Haffenden*, and *Bradley* cases, showed the necessity for such assistance. These cases might have had less unhappy terminations, had sound advice and kindly sympathy and help been within reach in the hour of trial. The Honorary Secretary, Mr. George Brown, pointed out that the suggested extension of the operations could only be carried out by altering the by-laws of the Association, which must be done at a general meeting of the members; and it was resolved to convene a special general meeting, at an early date, for the purpose of altering the by-laws so as to extend the powers of the Council.

LUMBAR NEPHRECTOMY.

MR. CLEMENT LUCAS operated in Guy's Hospital, on October 20th, for a large hydronephrosis occurring in a woman, aged 35, who had been tapped, with temporary relief, in the spring. The tumour was exposed by the oblique crucial incision practised by Mr. Lucas, and removed without injury to the peritoneum. The patient suffered little from shock, and has had no subsequent pyrexia. A week after the operation she was far advanced towards recovery, having had no symptom to cause anxiety.

THE CASE OF DR. CROSSKEY.

A LARGELY attended meeting was held at the County Hall, Lewes, on the evening of the 23rd instant, under the presidency of the ex-mayor, Mr. Alderman Kemp, for the purpose of making a public presentation to Dr. Crosskey, the defendant in a recent lunacy case. It will be remembered that the result of the trial was to exonerate Dr. Crosskey, and that his fellow-townsmen thereon determined to raise a subscription for the purpose of showing their sympathy with him, and their appreciation of his conduct. The number of subscribers to the

fund amounted to 597, and, at the meeting last week, Dr. Crosskey was presented with an ebony box, having on the top a silver plate, with the following inscription: "Presented to Alderman W. F. Crosskey, M.D., with £450, contributed by 597 of his fellow-townsmen and friends, as an expression of their sympathy with him in the action "*Hillman v. Crosskey*," Lewes Summer Assizes, 1885, and of their satisfaction with the verdict. The box contained a newspaper report of the trial, a copy of the requisition to the mayor, and an account of the meeting held in consequence, a list of the contributors to the fund, and a cheque for £450. A gold bracelet, with an inscription, was also presented to Mrs. Crosskey. In acknowledging with profound gratitude the kindly action of his fellow-townsmen, Dr. Crosskey said that the cheque would amply defray all the expenses to which he had been put.

ANOTHER FILTH-DISEASE.

At the last meeting of the Clinical Society, as is reported at another page of to-day's BRITISH MEDICAL JOURNAL, Dr. Seaton communicated particulars respecting an outbreak of epidemic illness which he witnessed in a school or orphanage containing about 600 children, near London, during the past summer. The disease occurred in 157 cases; it was confined to the inmates of the school, and did not spread to houses or cottages close by; it began in June, and proved fatal in seven cases. The earlier cases were generally more severe than the later ones; and there were second attacks in at least five instances, in one of which the interval was sixty-six days. No adults, of whom there were about twenty at the establishment, were attacked. The onset of the illness was sudden, without any premonitory symptoms. The first symptoms were rigors and severe frontal headache, followed in a few hours by pyrexia, vomiting (often very severe), without diarrhoea, scantiness of urine, and almost complete absence of the chlorides therefrom. The crisis rapidly developed; fatal cases terminating within twenty-four hours, and in uncomplicated cases defervescence occurring, in two or three days in slight cases, and in four or five days in severe cases, by a sudden fall of temperature, which was generally simultaneous with the appearance of a herpetic eruption on the upper lip, and with perspiration, but no marked sweating. Earache, occasionally followed by otorrhoea, was a late symptom of the fever in some cases. There was absence of any other local pains, except those due to the straining of the muscles of vomiting. The illness rarely extended beyond four or five days, unless complicated with pneumonia. The pyrexia was variable, the highest temperature extending from about 101° Fahr. in slight cases to 106° Fahr. in very severe cases, and more than half the cases were of this latter type. The fall of temperature was as sudden as its rise, unless pneumonia supervened. The ear-mischief appeared to be due to extension of inflammation from the naso-pharyngeal passages up the Eustachian tube to the middle ear. In the only fatal case examined *post mortem* there was pneumonia of the base in each lung, and patches of congestion of the ileum for some four or five feet above the caecum. Dr. Seaton thought the disease was specific, that it was probably not contagious, and that its period of incubation was short. Dr. Bridges further gave some interesting facts respecting the etiology of the affection. He described the school as very unhygienic; the land attached to it was only six acres in extent, and the earth-closet system had been adopted for the last twenty years. All the refuse from the earth-closets had to be distributed over the small area of land available—at most an acre and a half—so that this land was quite overcharged with fecal matter. There had also been, in previous years, cases of sudden illness, and even death, which were ascribed to the unsanitary surroundings. The disease was quite unlike enteric fever. Dr. Bridges thought it was caused by the exhalations from the sewage-sodden land on which the elder boys were put to work, and to which the younger ones who ran in the playground were not required to go; thus was explained the much greater incidence of the illness upon the bigger boys, as well as the escape of those boys who were confined to the infirmary. It must not be forgotten,

also, that the rainfall from June to September was only one-fourth of the usual amount; this fact may have partly influenced the outbreak. It is well that these facts should be known far and wide, because the extensive use now made of earth-closets in districts where there is difficulty in disposing of fecal accumulations must be placing many localities in a condition similar to that of this orphanage; and if this kind of epidemic illness has any relationship to such surroundings, there will probably not be long to wait for proof thereof. But, until such proof is forthcoming, it may be wiser to withhold one's judgment. At any rate, sanitarians are indebted to Dr. E. Seaton and to Dr. Bridges for calling attention to this outbreak of illness, and for the suggestion as to its origin which Dr. Bridges has made. Now that notice of it has been published, it will be interesting to learn if other outbreaks of the kind have been observed.

SCOTLAND.

MEETING OF THE BRITISH ASSOCIATION IN ABERDEEN.

THE local expenses connected with the meeting of the British Association in Aberdeen, amounted to £1,840, so that the amount to be called up from each guarantor will be 13s. 4d.

UNIVERSITY OF ABERDEEN.

THE medical session opened on Wednesday, October 21st; and, although the actual number of students in attendance has not been definitely ascertained, it seems evident from the number of "beginners," that it will be as large as, if it do not exceed, that of any previous year. Most of the professors gave introductory addresses. Professor Struthers referred to the recent visit of the British Association, and seemed greatly delighted with the success of the meeting. Professor Stephenson spoke of hospital and university extension, pointing out that the one is the complement of the other. The present hospital, built forty-three years ago, is coincident in its original with the laying of the foundation-stone of the present Marischal College; and now, when extension of the latter is required to meet the steadily growing needs and requirements of the medical school, the former is also in the way of being improved. Professor Stirling, in the class of physiology, gave an address on Time as a Physiological Factor, illustrated by experiments. He referred to the necessity for accuracy in all physical measurements, the graphic method as formed by Thomas Young, and extended by Ludwig, Helmholtz, Marey, etc. The phenomena of the pulse-wave, the contraction of muscle, the rate of nerve-impulses, reflex action, were all studied in their true relations, but perhaps the most interesting part of the address was that dealing with time in mental processes. The reaction-times of the various sense-organs under different conditions being specially examined. A very interesting account was given of time in dreams, including the remarkable effects of our sense of space and time as influenced by opium, such as are so graphically described by De Quincey. Time in drowning was referred to, including the thrilling account of Rear-Admiral Sir F. Beaufort, on the feeling accompanying death by drowning. Some of the delusions as to time in the insane were also mentioned. In conclusion, he urged his hearers to maintain the reputation of the school as a "working-school," and to work now, the appointed time. Professor Hamilton gave a special address on Fermentation in Relation to Disease, illustrated by the growth of micro-organisms.

ABERDEEN ROYAL INFIRMARY.

At a special meeting of the Court of Managers of this institution, held on October 27th, an *interim* report of the special committee of inquiry was submitted. The court so far approved of the report, that they resolved to appoint a lady-superintendent, who should have charge of the internal management. They did not recommend that a medical superintendent should in addition be appointed.

PROPOSED VOLUNTEER MEDICAL STAFF CORPS IN ABERDEEN.

AFTER the return of Professor Ogston from the Soudan, some talk took place about the formation of such a corps. Some of the senior students put themselves in communication with the head-quarters of the corps in London, and a reply has been received from Dr. Cantlie, the Surgeon-Commandant, and it has been resolved to hold a mass-meeting of the students to consider the advisability of proceeding further in the matter.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

At the annual meeting of the Royal College of Surgeons, Edinburgh, held last week, Dr. Douglas Argyll Robertson, lecturer on Diseases of the Eye, was unanimously elected President.

PRINCIPALSHIPS OF ST. ANDREW'S UNIVERSITY.

It is understood that all the professors of the United College St. Andrew's, with one exception, have memorialised the new Secretary of State for Scotland, the Duke of Richmond and Gordon, not to fill up the office of the principalship of the College, as the abolition of the double principalship had been recommended by the late Universities Commission; and as a provision to this effect was part of the University Scotland Bill, introduced last session of Parliament by the late Government, and virtually accepted by the present administration.

WINTER SESSION, EDINBURGH.

THE winter session in the medical school in Edinburgh has fairly commenced. A number of classes in the Extramural School began work on Tuesday, and the same day Sir William Muir, LL.D., D.C.L., etc., Principal of Edinburgh University, inaugurated publicly his Principalship and the University session, by an address in the United Presbyterian Synod Hall. The senators, academicians, some local magnates, and a large number of students were present. The address, which is to be issued in pamphlet-form, was attentively listened to and well received. In the evening, several hundreds of students held a torchlight procession, under the management of the Students' Representative Council, and this exhibition of good feeling to the new Principal was a success. The other classes held in the University met on Wednesday, while clinical surgery and clinical medicine classes, held in the Infirmary, met on Thursday and Friday respectively.

DUNOON COTTAGE HOSPITAL.

THE new Cottage Hospital, which has been recently erected at Dunoon, mainly through the exertions of Dr. Dennistoun of that town, was formally opened last week. It is for the treatment of those non-infectious cases among the poorer classes, which cannot be so well managed at their own homes. It has accommodation for six patients. A very suitable locality behind the town has been chosen for the site of the hospital, which is a neat and plain building, and admirably adapted for the objects it has in view. The sum of £600, for the erection and furnishing of the building, has been already raised, and the institution starts free of debt.

NORTH OF SCOTLAND MEDICAL ASSOCIATION.

THE annual meeting of this Association was held at Ellon on Saturday last, under the presidency of Professor Struthers, who made some remarks on the utility of such local societies; this society being, in fact, a federation of several local societies, the first meeting having taken place in 1865, under the presidency of the late Dr. Kilgour. The meeting usually is held earlier, but the meeting of the British Association in Aberdeen prevented this.

TWENTY YEARS OF SANITARY WORK.

WE have perused, with interest and great satisfaction, the recently published figures embodying the results of twenty years of sanitary work in Greenock, as they bring out facts of which any town might be

proud, and also furnish unanswerable proof of the value of the sanitary work that is being carried on, year by year, by medical officers of health, often in the face of considerable local opposition. From being unhealthy, dirty, and unwholesome, thanks to intelligent and energetic action on the part of the authorities, Greenock has become well-drained and healthy, with a death-rate that will bear comparison with any of the other Scotch towns. No doubt this has been attained at the outlay of considerable sums of money; but the present condition of the town, as compared with what it was before any reforms were instituted, and when it was the hot-bed of contagious diseases, amply justifies the expenditure incurred in the new water-supply of the town and in the clearances effected under the Artisans' Dwellings Act. We offer our congratulations to all those who have laboured in attaining this encouraging result, which should prove an incentive to other towns to follow the example shown them.

IRELAND.

At a meeting of the Rathkeale Dispensary Committee, held last week, Dr. Thomas Magner was unanimously elected medical officer for No. 2 district, in the vacancy caused by the decease of Dr. Hedderman.

DUBLIN CORONER'S SALARY.

THE Corporation of Dublin, after a very heated debate, has increased the salary of their coroner, Dr. Whyte, by a sum of £100, to £600 *per annum*. It is to be understood, it appears, that this increase is for the payment of a clerk, and is to be regarded as final.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At a special meeting of the Council on the 22nd instant, Dr. John Barton, of the Trinity College School of Physic, was elected Examiner in Anatomy, *vice* the late Dr. McDowell.

THE DUBLIN INTRODUCTORIES.

THESE quondam honoured observances are gradually falling into desuetude in Dublin, and that, too, without much regret. Professor E. Hamilton delivered the introductory address in the medical school of the Royal College of Surgeons on Monday last, and, like all his utterances, it was well thought out and practical. On Tuesday, Dr. Cox, one of the physicians of St. Vincent's Hospital, formally opened the session in that institution. On Thursday, Mr. Thornley Stoker delivered the introductory address at the Richmond Hospital; and, on Monday next, the 2nd instant, Dr. Arthur Wynne Foot will inaugurate the session at the Meath Hospital. The same evening, the annual dinner of the old students of the hospital will take place, Dr. Foot in the chair. We hope to give an abstract of the addresses next week.

THE DUBLIN HOSPITALS COMMISSION.

THE Commission appointed by the late Lord Lieutenant to inquire into the working of the Dublin hospitals, held its first public sitting last Monday, Sir Rowland Blennerhasset, Bart., M.P., in the chair. Witnesses connected with the House of Industry Hospitals were first examined. At the conclusion of the inquiry we propose to lay an analysis of the evidence before our readers.

THE ACADEMY OF MEDICINE IN IRELAND.

THE third annual general meeting was to be held yesterday, Friday, October 30th, at the King and Queen's College of Physicians. The General Council reports the continued success of the Academy. There is an increase in the number of the Fellows, Members, and Student Associates as compared with last year. With the close of this session, the period of three years, for which term the President holds office, expired. The Council, in their report, express the feelings of the

Academy when they say it was honoured during the first three years of its existence by the Presidency of so distinguished and popular a physician as Dr. Banks. Dr. Robert McDonnell, F.R.S., succeeds, without opposition, to the Presidency; and Dr. Duffey assumes the office of General Treasurer, previously held by Dr. McDonnell. Mr. William Thomson remains the efficient General Secretary. The following are the presidents and secretaries of the sections for the ensuing year. Medical Section: *President*, the President of the King and Queen's College of Physicians, *ex officio*; *Secretary*, A. N. Montgomery. Surgical Section: the President of the Royal College of Surgeons in Ireland, *ex officio*; *Secretary*, W. Stokes. Obstetrical Section: *President*, T. More Madden; *Secretary*, W. Cox Neville. Pathological Section: *President*, Thomas E. Little; *Secretary*, J. B. Story.

ROYAL UNIVERSITY OF IRELAND.

THE annual meeting of the University for the Conferring of Degrees was held on Tuesday last, October 27th, in the University Buildings. The Vice-Chancellor, Lord Emly, presided in the absence, through illness, of the Chancellor, the Duke of Abercorn, and delivered an address. His Excellency the Lord Lieutenant attended the ceremony, and also made a speech. The honorary degree of M.D. was conferred upon R. D. Lyons, M.P. for Dublin; Robert O. Cunningham, Charles Coppinger, John Campbell, C. J. Nixon, and Patrick J. Hayes; and the honorary degree of M.Ch. upon Charles Coppinger, Anthony Corley, and P. G. Hayes.

TRAINING OF MEDICAL STUDENTS IN AMBULANCE-DRILL.

SURGEON-MAJOR EVATT, who has taken a great interest in this subject, has recently written to the Belfast and Cork papers, drawing the attention of the medical students there to the system of training in military ambulance-drill now going on in the London schools. He points out that the students are being regularly drilled and disciplined, and dressed as military Medical Staff Corps men, and taught all the routine of military medical training. He urges the students to join, remarking that it will teach them much useful knowledge, and fit them for Red Cross or military or volunteer work, and which, quite apart from all this, instructs them in the principles of systematic hospital administration. The company could be worked by the students and junior members of the profession, say four doctors and sixty students, or one bearer-company. The stretchers and equipment are not very expensive, and subscriptions might be invited from the public to purchase them; while the instruction-drill could be given by any sergeant of the regular medical staff-corps.

PRESENTATION TO DR. PARSONS BERRY, OF MALLOW.

THIS gentleman being about to leave Mallow, where he has resided for the past forty years, to live in Dublin, was presented last week with an address, accompanied by a purse of sovereigns, and a handsome silver salver. The address, which was beautifully illuminated, stated that his many friends could not allow the occasion to pass—the close of a long professional career, honourable and successful—without expressing their high estimation of his work, and their unfeigned sorrow at his removal from among them.

THE DRAINAGE AND SEWERAGE OF BELFAST.

THE drainage and sewage-system of Belfast has, for a considerable period, been complained of. Indeed, for the past twenty years, the matter has been under the notice of the Corporation. The disagreeable odours from the Lagan, however, still continue, and it is a subject of regret that the scheme of the late surveyor, and the supplementary one from Sir Joseph Bazalgette, have not yet been adopted. Too much blame, however, must not be cast on the Town Council, as they have carried out sections of the scheme by degrees, so as to avoid an excessive taxation of the ratepayers, and about £60,000 has already

been expended on certain districts. A correspondent to one of the newspapers makes the suggestion that the Corporation ought to sewer the Falls district, and put intercepting sewers on the banks of the Lagan and quays. It is believed that, if this were done, it would at once cure the offensive smells so generally complained of by the citizens.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Fellows and Members of the Royal College of Surgeons of England was held, as announced, in the Theatre of the College on Thursday last, at 3 P.M. The chair was taken by Mr. Savory, President of the College; and there was a large attendance. The first resolution, proposed by Mr. Sampson Gamgee, was: "That, the Council of the Royal College of Surgeons, not having accepted the principle that Members as well as Fellows should take part in the election of the Council, in the opinion of this meeting, steps should be at once taken to memorialise Parliament and the Crown, so as to secure, in the interests of the public and of the profession, the right to representation in the administration of the College for its 16,500 legally qualified Members." The motion was seconded by Dr. Collum, and supported by Dr. Joseph Rogers, Messrs. K. Cornish, G. Brown, Wallis Mason, Jabez Hogg, and R. Gooding, and was carried by a large majority.

Mr. Nelson Hardy moved a resolution with reference to the multiplicity of medical schools; which, after some discussion, he withdrew. After some further discussion, Mr. W. P. Swain moved "That, in the opinion of this meeting, no alteration in the constitution or in the relations of the College, or in any of its by-laws or ordinances, should be effected without the consent of the Fellows and Members convened to discuss the same." This was seconded by Dr. Danford Thomas. Dr. Ward Cousins also spoke; and the resolution was carried *nem. con.* Mr. Parker Young moved an adjournment until November 19th; that is, after the next meeting of the Council. After discussion, the President stated that a day would be fixed for an early meeting. A full report of the proceedings will be given in next week's JOURNAL.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary meeting of the Fellows was held on Thursday, October 29th; Sir William Jenner presiding.

The following gentlemen were admitted Members of the College: R. Boxall, M.D. Brussels; M. C. Collins, M.D. Queen's University; A. E. Garrod, M.B. Oxford; S. H. Habershon, M.B. Cambridge; J. Mitra, of India (*in absentia*); L. E. Shaw, M.D. London; J. H. Vinrace, M.B. London; Dawson Williams, M.D. London.

Licences to practise were granted to fifty-four gentlemen who had passed the required examinations.

The President announced that he had nominated Dr. Burkett and Dr. J. W. Ogle as Vice-Presidents for the ensuing year; also that the Gulstonian Lectures of 1886 would be delivered by Dr. Sharkey, the Croonian by Dr. P. W. Latham, and the Lumleian by Dr. Stone.

An application from Queen's College, Birmingham, that the Borough Lunatic Asylum of that town should be recognised as an institution for clinical study, was referred to the Managing Committee.

Thanks were given to the donors of books to the College during the year. The Treasurer read his annual report, which showed the finances of the College to be in a very satisfactory condition.

A report was received from the Committee of Management of the Conjoint Examinations; and the outgoing representative of the College on this committee, Dr. N. Moore, was unanimously re-elected.

It being necessary to appoint an additional Examiner in Midwifery, and also in Surgery, Dr. Priestley and Mr. Marrant Baker were appointed to these offices.

Dr. C. West moved: "That it be referred to the Council to consider the possibility and expediency of this College taking a more active share than heretofore in the guidance of medical education, and in furthering every measure calculated to promote the interests of the profession and the public weal." The means suggested by Dr. West for the accomplishment of these ends was the appointment of Standing Committees, elected annually, to deal with (1) education; (2) professional interests; (3) public interests. The question was referred to the Council for consideration.

A motion, by Dr. Wilson Fox, to reduce the number of Examinations for the Membership from four to two annually, was lost on a division.

INTRODUCTORY ADDRESSES AT MEDICAL SCHOOLS IN SCOTLAND.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL.

THE Introductory Address was delivered on October 27th, by Dr. WALLACE ANDERSON, Physician to the Hospital.

Dr. Anderson referred to the attention that had been given of late to the germ-theory of disease. As he had himself discussed the question some months ago from a medical standpoint, he was led to think that the opposing force might form a suitable subject of inquiry on the present occasion. This force was the *vis medicatrix Naturæ*. The simple practical views of Hippocrates and Sydenham on this subject were contrasted with the animistic opinions of Aristotle and Stahl. Cullen had a general belief in this power, yet, as a leader in the more active practice of his time, he once gave his opinion that, whenever the *vis medicatrix Naturæ* was admitted, it threw an obscurity upon our system; and it was only where the importance of our art was very manifest and considerable that we ought to admit it in practice. Dr. Anderson added, "So far as Cullen's idea of it being tenable, this power, call it by any name you like, must be, must exist, or we, as physicians or anything else, are nowhere. It may be thwarted, or arrested, or crushed by disease; but, if hopelessly crushed, hope itself is gone. That is the view I would have you take, and shall now give you some examples of the manner in which this force acts. A man gets a thorn into his hand quite under the skin. It is not extracted, but it cannot be allowed to remain there. What happens? Inflammation is set up, suppuration takes place around it; the skin over it dies, gives way, and the thorn is floated out along with all the mess it has made. In fact, it created a disturbance, and was turned out. No doubt, it smashed a few things in the process, but that is willingly and quickly put right at the expense of the proprietor. This, you see, is a very effectual summary ejectionment on the part of the *vis medicatrix Naturæ*. The formation of a clot in the sac of an aneurysm, the adhesive inflammation which anticipates and prevents perforation of the pleura, peritoneum, etc., are other examples. Then there are examples of a more general character, such as the ejection of indigestible food, the diarrhoea of dropsy, and, as I believe, the sweating of acute rheumatism. To the skin first, and possibly, but a long way second, to mucous surfaces, nature carries the poison of disease in the hope of getting rid of it altogether; the skin particularly is the kind of dustbin of the poisoned economy. Hence the eruptions we see. Pain itself is a *vis medicatrix Naturæ*. It enforces the repose that may be the one thing needful for the recovery of the diseased part, or, to give a particular example, it may prevent the child with rickets from walking, when to do so would certainly increase the deformity of the legs. Loss of consciousness is, too, I believe, in many cases. It may often be an evil in itself, but it is the indication of what was intended for good. An epileptic attack would be a very painful thing, and, therefore, all the more exhausting, were it not for the loss of consciousness. But the *vis medicatrix Naturæ* is not always equal to the occasion, even in the heyday of one's life. Take one more example from surgery, one that I think Lister gave us in his lectures. An ulcer, for some reason or other, forms upon the leg. Granulations are thrown out, and over this, as a pabulum, the ulcer will heal line by line from the edges. But, under certain conditions, these granulations may become too exuberant, they rise above the general surface, and over them the epithelial cells will not form. Here Nature, we say, has overreached herself. Once more, through some diseased condition of the system, the arterial circulation is, to a certain degree, impeded, and the normal impetus of the heart becomes inefficient to overcome the obstruction. 'More power to you,' says the system, and the heart, of course, cordially responds. Its muscular walls begin to hypertrophy; but this, if long continued, will in turn be its own destruction, or the very increased impetus may prove disastrous to the already weakened arterial walls. The sweating of acute rheumatism is a well directed attempt at getting rid of the poison; that of acute tuberculosis is a misdirected one. It is well that the poison of a fever should escape by the skin, but the eruption of small-pox may of itself be a terrible aggravation. It may be that, in some original forms of disease, these and other phenomena have been purely and manifestly salutary, but have become, in the variations from the original type, either ineffective or prejudicial. I am far from insisting on the term *vis medicatrix Naturæ*. Call the principle by any name you like, or by no name at all; but observe, and study, and think, about such phenomena as those we have been considering." Dr. Anderson then observed that, if this power or force in Nature were the one thing needed, where did medical art come in? This art was inherent to man, and to him

alone, because he alone needed it. No one would seriously ask the question, did the medical art ever come in to advantage? It came in as an aid or guide to Nature. It must go on the same lines. As Hufeland said, "the physician must not be the *magister*, but the *minister, Nature*." Cicatrisation would not proceed where granulations were exuberant, but we could aid Nature by touching the granulations with blue-stone; they yielded, and cicatrisation then advanced. We know the conditions which favour coagulation in an aneurysmal sac, and so we endeavour to obtain them, so as to aid Nature, but she did the work. No one who took this view of his position would think lightly of it, nor blame himself if taunted with following a mere expectant treatment.

Variations or modifications in disease might obscure the original intention of Nature's method, or frustrate her action as a wholesome process. Thus sweating in fevers, as a class, was unquestionably Nature's method of attempting a cure; but in some species or varieties of fever, and in many particular instances, it was a serious aggravation of the disease.

After other illustrations of this principle, Dr. Anderson remarked that we met, in treatment, with difficulties dependent upon the fact that the normal condition of the human system, at least, was unstable. In conditions of our body which were normal, we might have symptoms often supposed to be those of disease. One thing that Dr. Anderson had learned from his experience in the out-door department of the hospital was, that many complaints were but variations in our condition of body within the normal range of what was substantially the healthy state. The human system, like other systems, came and went. The body, like the year, had its seasons. Were we bilious or "seedy," as it was elegantly termed, it was merely our rainy season. A child was pale, and thin and peevish: "now is the winter of its discontent." Time would suffice to bring round the spring again, and the clouds that oppressed us would roll by. The distinction of such a complaint from a real malady required great diagnostic skill. While recognising, then, the *vis medicatrix Nature*, we must not think lightly of the medical art. To the study of this art, the lecturer, in the name of his colleagues and for himself, welcomed his audience.

Dr. Anderson then addressed words of advice and encouragement to old and new students, and said, in conclusion: "Gentlemen,—Had we lived a hundred years ago, I probably should have been expected to address you in Latin. It is fortunate we live in the nineteenth century. But I shall leave you with the good wish that Captain Conder, R.E., tells us is inscribed on the wall of a little chapel in an ancient Crusader's castle in Syria:

'SIT TIBI COPIA,
SIT SAPIENTIA,
FORMAQUE DETUR;
INQUINAT OMNIA
SOLA SUPERBIA
SI COMITETUR.'

ANDERSON'S COLLEGE, GLASGOW.

On October 27th, the introductory address was given by Dr. Morton, Lecturer on *Materia Medica*, in the College. After a few remarks in allusion to the various views which have been taken of introductions, and the expression of a desire that he might arrive at the ideas which enter the mind of a student during his approach to the profession, the lecturer gave some account of the state of matters at the time when he was himself a student, referred to the advances which had been made in all departments since then, and dealt more pointedly with those particular fields over which, he thought, some obscurity still hovered, and where much remained still to be accomplished. In this way, he endeavoured to impress his hearers with the belief that there still was scope for the full exercise of all their talents; in fact, that there was still room for them and to spare, that the profession much needed advancement, and that now the aids were so much more numerous as to afford enhanced encouragement to continued effort. The address formed an exception to the common run of introductions, in that it contained none of the advices usually showered upon students.

UNIVERSITY OF GLASGOW.

PROFESSOR BOWER, in addressing the Medical Faculty in the University of Glasgow at the opening of the session, on Tuesday, October 27th, said that he was strongly impressed by his experience of his first session among Scotch students, by their earnestness in their work. The minds of the students who came under his hands were made up; the definite object of qualifying at the University for medical practice

was before them, and they took the class in botany as a means to that end. While the definition of their aims at an early stage in their college course was usually an advantage to the individual, it had a narrowing influence upon the study of pure science in the University, since few students were found to delay their medical studies by passing any special subject beyond the passing mark. Still it was hardly possible as yet to see what effect the encouragement of a science-degree, together with more extended teaching, might produce. He then proceeded to point out the chief difference between the old style of teaching of botany and the new practical method introduced into Glasgow by Professor Bayley Balfour. It was not sufficient at the present day that students should be taught only classification and external morphology of the higher plants; they must now become acquainted with both histology and physiology, not only of the higher, but also of the lower, forms, and follow these branches of the science, to some extent, at least, in the laboratory. And it was in this union of practical laboratory-work with theoretical teaching, rather than in the latter alone, that botany found its true place in the medical course. By work in the botanical laboratory, the student became familiar with the use of the microscope and common methods; he acquired skill in cutting sections, and interpreting what he saw; and, for these first essays, vegetable tissues were admitted to be better suited than animal tissues, by reason of their more definite characters. But, beyond this, a very important duty of teachers of botany in medical schools was undoubtedly to teach students the constitution and nature of the constituents of the common vegetable foods, a branch of the subject which had been hitherto sadly neglected. Knowledge on these points was of direct value to the medical man, and could only be appreciated after the rudiments of vegetable physiology had been mastered. A considerable part of Professor Bower's address was devoted to the discussion of the prospects of the Botanic Garden of Glasgow, which is in some danger of being broken up. He pointed out how important its maintenance is to the successful teaching of botany, and appealed to those who had influence in the matter to bear in mind that other and perhaps weightier interests were involved than the mere existence or non-existence of a public pleasure-ground.

CONVOCAION OF THE UNIVERSITY OF LONDON.

NOTICE has been given that, in accordance with the resolutions passed at the extraordinary meeting of Convocation held on July 28th, 1885, an adjourned extraordinary meeting will be held on Tuesday next, November 3rd, in the University Building, at 5 o'clock p.m., when the business pending before such extraordinary meeting will be proceeded with. This will include an adjourned debate on Lord Justice Fry's proposition, which was seconded by Mr. W. S. Savory, "That the report of the special committee, and the scheme therein comprised, be received and adopted." An amendment was proposed by Mr. J. W. Bone, and seconded by Mr. Magnus, "That all the words in the motion after the word 'received' be omitted."

The debate on this amendment will be resumed, and, in connection therewith, Mr. Magnus has forwarded a circular to members of Convocation, requesting them to support Mr. Bone's amendment, to receive the report submitted by Lord Justice Fry, without adopting it *en bloc*.

The circular then goes on to state that "should this amendment be carried, the following resolutions, expressing what is believed to be the feeling of the majority of the graduates, will be moved: 'That Convocation, whilst affirming the general principles of the desirableness of bringing the teachers and the examiners of the University into closer relationship with one another and with the Senate, and of modifying the constitution of the Senate in accordance with the previous recommendations of convocation, and without giving to the teachers an undue share of representation on the governing body of the University, refers back the scheme to the special committee for further consideration. That the number of members on the special committee be increased by one half.'" Among the reasons that induced the meeting to recommend this course are the following.

First, It is contrary to the precedents of Convocation to include in the same motion the proposals both to receive and to adopt a complex report such as that submitted by Lord Justice Fry. The usual practice in presenting a scheme to Convocation has been, first, to move the reception of the report, and then to propose, one by one, the adoption of its several clauses.

Secondly, The scheme itself is open to the following among other objections.

1. It proposes to transfer to a number of new and untried bodies not necessarily consisting of graduates of the University, the functions hitherto exercised by Convocation.

2 The bodies proposed to be constituted include teachers of institutions which differ widely in their objects, and some of which have no reasonable claim to University rank.

3. In the proposed constitution of the Senate, the representation of Convocation (instead of being increased in accordance with the repeatedly affirmed wishes of Convocation), would be diminished from one in four as now, to one in five.

4. On the other hand, the proposed representation of the faculties on the Senate would give an undue and preponderating influence to teachers, which, considering the views held by certain representative teachers, would tend to the lowering of the standard of the examinations.

5. The arbitrary restriction of the area of the University would exclude from participation in its work the London graduate teachers of such provincial Colleges as are now associated with the University by their curriculum of studies.

6. Except as regards the establishment of boards of studies, the scheme contains no indication of the means of effecting other University reforms, the importance of which the graduates in Convocation have already affirmed.

As regards the grievance of the teachers of the London schools of medicine, many of whom have been induced to support the proposed scheme, it may be here noted that the Royal College of Surgeons and the Royal College of Physicians are now actively engaged in considering a proposal to confer on those who obtain their diplomas the title of doctor, and it is expected that this action will help to check the progressive decrease in the number of London medical students.

Finally, it is thought that, without revolutionising the present government of the University, changes may be introduced into its organisation, by which the more important objects of the association for promoting a teaching university for London may be attained, and that the main purpose of such changes should be (1) to bring into closer relationship the teachers, the examiners, and the Senate; (2) to deepen, without narrowing, the influence of the University upon the higher education of the country; and (3) to strengthen the corporate feeling among the graduates which gives to the University its unity and force.

M. PASTEUR ON HYDROPHOBIA.

PROFESSOR PASTEUR read on Monday evening to the Academy of Sciences a statement, of which the following is the substance.

M. Pasteur some time ago succeeded in rendering proof against rabies some sixteen out of every twenty dogs experimented upon; but to ascertain that immunity had really been given, he had to wait four months after the inoculation had taken effect. He, therefore, set himself to obtain virus of different degrees of strength, with the object of obtaining prompter and more certain results. This was effected by the following means.

A rabbit was inoculated with a fragment of tissue taken from the spine of a rabid dog. The incubation of the poison occupied fifteen days. As soon as the rabbit was dead, a portion of its spinal marrow was in turn inoculated into a second rabbit, and so on until sixty rabbits had been inoculated. At each successive inoculation the virus became of increased potency, and the last period was not more than seven days. Having ascertained that exposure to dried air diminishes the virus, and consequently reduces its force, M. Pasteur supplied himself with a series of bottles containing dried air. In these bottles were placed portions of the inoculated spinal marrow of successive dates, the oldest being the least virulent, and the latest the most so. For an operation, M. Pasteur begins by inoculating his subject with the oldest tissue, and finishes by injecting a piece dating from two days only, whose period of incubation would not exceed one week. The subject is then found to be absolutely proof against the disease.

At the beginning of July a young Alsatian, named Joseph Meister, who had been severely bitten in several places by an undoubtedly rabid dog, presented himself at the laboratory. His case, left to itself, being considered hopeless by M. Pasteur, Professor Vulpian, and other high authorities, the patient was submitted to the same series of inoculations that had been so successful on dogs. As a proof, a series of rabbits were simultaneously subjected to the identical processes. In ten days thirteen inoculations were made with pieces of spinal marrow containing virus of constantly-increasing strength, the last being from the spine of a rabbit which had died only the day before. The youth thus operated upon by the successive administrations of weaker virus was made proof against the virus of the intensest strength. It is now one hundred days since he underwent the last inoculation, and he is in perfect health. Those rabbits, on the contrary, which were at once inoculated with the strong virus, without first being rendered fit

to receive it, became affected within the proper incubation period, and died with the usual symptoms. The first inoculation practised upon Meister was sixty hours after he had been bitten. M. Pasteur has, at the present moment, another human patient under treatment who was bitten a few days ago by a mad dog.

M. Pasteur said it would now be necessary to provide an establishment where rabbits might always be kept inoculated with the disease. In this way there would constantly be a supply of spinal tissues, of both old and recent inoculation, ready for use. Before the sitting was adjourned M. Pasteur received an enthusiastic ovation from both the Academy and the public present.

THE ENTRIES AT THE MEDICAL SCHOOLS.

By the courtesy of the Deans, Subdeans, Wardens, and Secretaries of the various medical schools in London and in the provinces, we are enabled to publish the following authoritative list, which contains a summary of the number of students who have entered at the several schools this session.

Schools.	A.	B.	C.	D.	E.
St. Bartholomew's Hospital	132	16	0	0	148
Charing Cross Hospital	37	10	16	0	63
St. George's Hospital	30	7	0	0	37
Guy's Hospital	59	17	0	15	76
King's College	47	14	0	0	61
London Hospital	77	31	0	0	108
Middlesex Hospital	30	5	5	0	40
St. Mary's Hospital	52	17	0	12	69
St. Thomas's Hospital	89	0	0	28	89
University College	67	0	0	69	67
Westminster Hospital	27	8	0	0	35
London School of Medicine for Women	19	1	0	0	20

Cambridge University	104†	0	0	0	104
Bristol Medical School	30	1	0	0	31
Owens College, Manchester	54	13	5	27	72
Queen's College, Birmingham	17	11	1	7	29
Yorkshire College, Leeds	37	4	0	1	41

The School of Dental Surgery	0	0	22	0	22
National Dental Hospital	0	0	14	0	14

A. Number of students who have entered for the full curriculum.

B. Number of students who have joined for special courses.

C. Number of dental students.

D. Number of students who have joined classes for preliminary scientific instruction.

E. Total, excluding students attending classes for preliminary scientific instruction.

* In compliance with the regulations of the University of London, students attending these classes are not counted as medical students.

† After the "Previous Examination" list is published, some others will probably be added.

‡ Students for these classes enter the "Science and Art Department."

It will be seen that, according to these returns, 647 students have entered this year for the full curriculum at the metropolitan medical schools. This is the largest number since 1881, the number of entries for the full curriculum during the five years 1881-1885 has been:

1881	732
1882	622
1883	605
1884	587
1885	647

The influence of the new school-buildings recently erected at St. Mary's Hospital and at the Westminster Hospital will be noted in the increased numbers entering at these schools. The number of entries at St. Bartholomew's shows a considerable decline since the first year of the quinquenniad, while at University College the number has sunk to very little more than half what it then was. The number of students entering at St. Bartholomew's in 1881 was doubtless abnormally large. University College has suffered from the operation of two causes. In the first place, a large number of the class of students who were formerly attracted there by the special facilities for instruction in biology and physiology, now go to the University of Cambridge (where, it will be noted, the number entering is larger than at any school in the country except St. Bartholomew's; and, in the second place, the small size and imperfect construction of the hospital, always a drawback, has doubtless had greater weight with parents and guardians under the circumstances above indicated. The large number of students attending classes for instruction in the preliminary sciences is a further proof, if proof be needed, of the truth of this observation. Excluding these two schools, the number of entries at the metropolitan medical schools this year does not fall far below that for 1881.

DR. WARD COUSINS'S SOUND-DEADENER.

AT one of the meetings of the Section of Ophthalmology and Otology of the British Medical Association in Cardiff, the subject of the prize offered for a sound-deadener, and circumstances connected therewith, formed the topic of a discussion. It appears that a prize for the invention of a sound-deadener was offered by Mr. Bartleet, in 1883, to the British Medical Association. The Council of the Association referred the award of the prize to the Section of Otology. The Section, in June, 1884, awarded it to Dr. Ward Cousins; but the prize had not been given, and Mr. Bartleet declined to give it. The following resolution was therefore proposed.

"That, in lieu of the prize offered by Mr. Bartleet, for a sound-deadener, and which was awarded by the Section of Otology, at Liverpool, in 1883, to Dr. J. Ward Cousins, the Section beg to recommend that a certificate of honour of the Association be granted to Dr. Cousins." To this, the following was proposed as an amendment.

"That the Section regrets very much that Mr. Bartleet has not seen fit to give Dr. Ward Cousins the prize for a sound-deadener, but feels that a dangerous precedent might be made by granting by the Section the certificate of honour suggested."

The amendment was carried.

CHOLERA.

DR. FERRAN'S INOCULATIONS AT AN ASYLUM IN VALENCIA.

DR. FERRAN's great supporter in the Spanish medical press, *La Independencia Medica*, of Barcelona, is wroth with the BRITISH MEDICAL JOURNAL about some "inexact" statements concerning the asylum of the "Little Sisters of the Poor" in Valencia, in our issue of July 18th (affirming that forty out of seventy "little sisters" inoculated by Dr. Ferran were suffering with cholera, some having died of it, while none of those not inoculated were attacked). This letter, it seems, was copied into a French periodical, which has inserted a reply from Dr. Sereñana of the *Independencia*, protesting against the accuracy of our correspondent's statements. The *Independencia* does not think it necessary to insert this protest in its own columns, but contents itself by referring its readers to a long speech it publishes, by Dr. Gimeno, which, however, was made on July 10th, and which, while professing unbounded confidence in Dr. Ferran and his system, and complaining generally of the false statements of Ferran's opponents, does not mention direct facts, or give any statistics which in any way throw doubt on our correspondent's information.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HÆMOGLOBINURIA. ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. RETURNS ON ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PURPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

GLoucestershire BRANCH.—The annual meeting will be held, under the presidency of Dr. Needham, at 6.30 P.M., on Tuesday, November 17th, 1885, in the board-room of the General Hospital, Cheltenham. The supper will be at the Queen's Hotel at 8.30 P.M., tickets 3s. 6d., not including wine. Agenda.—1. Scrutiny of the voting papers, and declaration of the result. 2. Presentation of the balance-sheet. 3. Exhibition of a Case of Hæmoglobinuria accompanied with Symmetrical Gangrene, with Notes and Remarks, by Dr. Wilson (Cheltenham). 4. Exhibition and Description of an Apparatus for Dry Antiseptic Vapour-Treatment of Wounds, and for Producing a Constant Antiseptic Air in Rooms, by T. S. Ellis, Esq. (Gloucester). 5. Some Remarks on the Frequent Non-Recognition of Glaucoma, by E. D. Bower, Esq. (Gloucester). 6. A New and Simple Form of Splint for Use after Tenotomy in Talipes, by G. Arthur Cardew, Esq. (Cheltenham).

YORKSHIRE BRANCH.—The autumn meeting of the Branch will be held at the Crown Hotel, Esplanade, Scarborough, on Wednesday, November 4th, at 4 P.M. Members intending to read papers are requested to communicate at once with the secretary. Tickets for dinner (exclusive of wine), 6s. For bed, breakfast, and dinner (exclusive of wine), 12s. 6d.—ARTHUR JACKSON, Wilkinson Street, Sheffield.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above Branch will be held at the Bear Hotel, Lewes, on Wednesday, November 25th. Dr. Crosskey will preside. The Honorary Secretary will be glad to receive early intimation of intended contributions; short papers and cases of interest being especially welcome.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.—October 25th, 1885.

OXFORD AND DISTRICT BRANCH.—A meeting of this Branch will be held at the Radcliffe Infirmary, Oxford, on Wednesday, November 4th, at 3 P.M. The President, Sir Henry Acland, will deliver an address.—W. L. MORGAN, S.D. DARRISHIRE, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.
—The next meeting will be held at Brooke House Asylum, opposite Clapton Station, on Thursday, November 19th, at 8.30. The chair will be taken by J. S. Bristowe, M.D., F.R.S. A demonstration of patients suffering from nervous diseases will be given by Walter B. Hadden, M.D.—J. W. HUNT, Honorary Secretary.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—The ordinary meeting will be held at the Royal Isle of Wight Infirmary, Ryde, on Tuesday, November 3rd, at 3 P.M.; Dr. Daniel Beaton, President, in the chair. Agenda: 1. General business. 2. A discussion on the Treatment of Hectic Fever, opened by Dr. Robert Robertson. 3. Dr. J. Ward Cousins: New Aural Inflator, Evacuator, etc. Gentlemen desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner by invitation at "Southlands" at 5 P.M. Members to send in names before Saturday, the 31st instant.—W. E. GREEN, Honorary Secretary.

DORSET AND WEST HANTS BRANCH: AUTUMN MEETING.
The autumn meeting of this Branch was held at the Town Hall, Bridport, on Wednesday, October 21st; SAMUEL S. DYER, M.D., President, in the chair. There were also present twenty-two members and visitors.

Election of Officers.—Dr. William Vicary Snow, of Bournemouth, was elected President, and Dr. Allan McLean, of Portland, and Mr. H. T. H. Mead, of Christchurch, Vice-Presidents, for 1886. Dr. William Vawdrey Lush, of Weymouth, and Mr. C. H. Watts Parkinson, of Wimborne, were re-elected joint Honorary Secretaries and Treasurers.

Next Meeting.—It was resolved that the May meeting be held at Christchurch.

Communications.—The following were read.

1. Dr. Batterbury: Two cases of Intrathoracic Tumour.
2. Dr. Dyer: Two cases of Inversio Uteri.
3. Dr. Griffin: Case of Severe Wound of the Knee-joint treated with Glycerine and Carbolic Acid.

4. Dr. Griffin: Treatment of Placenta Prævia.

Specimen.—The following was shown.

Dr. Lush: Lead Pipe eroded by Sewer-Gas.

One of Hodge's Patent Trusses was exhibited by Mr. Parkinson.

Habitual Constipation.—A discussion on the subject of habitual constipation and its treatment was opened by the President, and taken part in by Dr. Batterbury, Dr. Simpson, Mr. Philpots, Mr. Parkinson, Dr. Griffin, Mr. Carter, and Mr. Kerbey.

Grant to the British Medical Benevolent Fund.—On the motion of the Honorary Secretaries, a donation of five guineas was granted.

Vote of Thanks.—A vote of thanks was unanimously accorded to the Mayor of Bridport for his kindness in allowing the use of the Town Hall.

Dinner.—The members and visitors dined together at the Bull Hotel.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING was held on Thursday, October 8th, at the White Hart Hotel, Reigate; Dr. HOLMAN, of Reigate, in the chair.

Next Meeting.—The minutes of the previous meeting having been read and confirmed, it was unanimously resolved, upon the proposition of Dr. T. RUTHERFORD ADAMS, of Croydon, seconded by Dr. P. T. DUNCAN, that the next meeting be held at Norwood, on the second Thursday in March, 1886.

Cases.—Mr. Matthey read notes of a case of Cystic Disease of Kidney in a woman aged 60; also of a case of Fractured Trochanter, with dislocation on to pubes, in a boy aged 13, caused by crushing between the buffers of two railway-carriages. A patient (female) was also exhibited, suffering from an extensive Tertiary Tubercular Dermatopathy.

Dr. Holman exhibited a specimen of the Vegetable Fungus "Geaster Forficatus;" and also several unusually large Calculi passed *per urethram*.

Dr. H. S. Stone read notes of a case of death resulting from Clot in the Coronary Artery.

Mr. F. B. Hallows narrated a case of Gall-Stones occurring in a woman who passed twenty-two stones on one occasion. The calculi were exhibited.

The Chairman (Dr. Holman) read notes of a case of Cystinuria.

In the unavoidable absence of Dr. Milner Fothergill, the Secretary read a paper contributed by him, entitled "Our Means of Affecting Arterial Tension."

Calculi undetected by the Sound.—Mr. Hutchinson related two cases in which symptoms of vesical calculi had been present, although examination with a sound did not confirm their presence in the bladder, owing to their unusual position. At the *post mortem* examinations, calculi were found—three in one case, and one in the other—com-

pletely hidden under an enlarged prostate gland, over which the sound had passed without striking.

The Chairman, Mr. Hutchinson (London), Dr. Bagshawe (St. Leonards), Mr. Hodgson (Brighton), Dr. Coles (Croydon), Dr. Parsons (Dover), Mr. Albert Napper (Guildford), Mr. F. B. Hallows (Redhill), Dr. H. G. Thompson (Croydon), Dr. Walters (Reigate), Dr. Stone (Reigate), Mr. Berridge (Redhill), and Dr. Matthey (Croydon), took part in the animated discussions which followed the reading of the several papers, etc.

Dinner.—Upwards of twenty members and visitors remained to dinner, including the Rev. the Head Master of Epsom College. The Chairman, in proposing the toast of "Prosperity to the South-Eastern Branch," made special reference to the annual meeting of the Association to be held at Brighton in 1886, and warmly invited every member to assist in securing for it a complete success, not only by his personal efforts, but also by a liberal contribution to the fund to be raised to meet the necessarily large expenses which will be incurred by the same. Mr. Hodgson, of Brighton, Dr. Parsons, Honorary Secretary to the Branch, and Dr. Stowers, Honorary District Secretary, replied. Mr. Albert Napper in cordial terms proposed the health of the Chairman, after which the company separated.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council, held in the Council Room, Exeter Hall, on Wednesday, October 14th, 1885, present,

Dr. BALTHAZAR FOSTER, President of the Council, in the chair,	
Dr. W. Withers Moore, President-elect, Brighton	Dr. Bruce Giff, Bothwell
Mr. C. Macnamara, Treasurer, London	Dr. W. C. Grigg, London
Dr. B. Annington, Cambridge	Mr. G. F. Hodgson, London
Mr. J. Wright Baker, Derby	Dr. C. Holman, Reigate
Dr. H. Barnes, Carlisle	Professor G. M. Humphry, Cambridge
Mr. B. Barrow, Ryde	Mr. T. Vincent Jackson, Wolverhampton
Dr. T. Bridgwater, Harrow-on-the-Hill	Mr. T. R. Jessop, Leeds
Mr. H. T. Butlin, London	Mr. H. R. Ker, Halesowen
Dr. A. Carpenter, Croydon	Dr. W. G. V. Lush, Weymouth
Dr. A. H. Carter, Birmingham	Mr. F. Mason, Bath
Dr. C. Chadwick, Tunbridge Wells	Mr. W. Jones Morris, Portmadoc
Surgeon-General Cornish, Madras	Dr. C. Parsons, Dover
Dr. J. Ward Cousins, Southsea	Dr. A. Sheen, Cardiff
Mr. T. W. Crosse, Norwich	Mr. S. W. Sibley, London
Dr. G. W. Crowe, Worcester	Dr. E. M. Skerritt, Bristol
Dr. A. Davidson, Liverpool	Mr. T. Simpson, Lincoln
Mr. P. M. Deas, Exeter	Mr. J. Taylor, Chester
Mr. John Dix, Hull	Dr. T. W. Trend, Southampton
Dr. W. A. Elliston, Norwich	Mr. F. Wallace, London
Dr. C. E. Glascott, Manchester	Dr. E. Waters, Chester
	Mr. C. G. Wheelhouse, Leeds

The minutes of the last meeting, held on July 30th, in the Town Hall, Cardiff, having been printed and circulated amongst the members of the Council, the President of the Council asked if any member had any objection to the minutes being signed, and, no objection having been raised, the minutes were signed as correct.

The President of the Council reported that he had written, as desired by the last annual meeting, to Sir William Gull, thanking him for going to Copenhagen and giving an address on behalf of the Association on Collective Investigation. The President of Council read a reply thanking the Association for the vote of thanks.

Read resolution of annual meeting, of which the following is a copy, namely:

That this meeting requests the Council to take such steps as may effectually influence the legislature to enact a permanent and improved measure for the care and cure of habitual drunkards.

Resolved: That the resolution be referred to the Habitual Drunkards Committee, in order that they may give the Council the information as to what course of procedure the Committee wish the Council to adopt.

The General Secretary reported that he had received the nomination of Mr. Balding, in the place of Mr. Stear, as representative of the Cambridge Branch, on the Parliamentary Bills Committee, since the appointment of the committee at the annual meeting; and the nomination of Dr. Philipson, as representative of the North of England Branch.

Resolved: That Mr. Balding and Dr. Philipson be added to the Parliamentary Bills Committee.

The President of the Council called upon Dr. Bridgwater, as chair-

man of the committee, for the report upon the connection that the Collective Investigation Committee held in relation to the Council.

Dr. Bridgwater stated that the report had been printed and circulated amongst members of the Council, as directed by the meeting of the Council held at Cardiff.

Resolved: That the report be received and entered upon the minutes.

The President of the Council reported that, at the annual meeting, held at Cardiff, a resolution had been passed to alter Articles 13 and 15 to make it necessary, in future, that 100 members should sign a requisition for calling a special general meeting, instead of 50 as heretofore, and that this resolution had been confirmed, by 34 votes to 4, at a second general meeting held for that purpose; that Mr. Nelson Hardy had objected, at the second meeting, to the informality of the notice in the JOURNAL of the first meeting at Cardiff. This objection had been put into writing by Mr. Nelson Hardy, at the request of the President of the Council, and had been submitted to the opinion of the solicitor of the Association, who had also taken counsel's opinion upon the subject.

Copy of Solicitor's Opinion.

14, Austin Friars, London, E.C., August 27th, 1885. Dear Sir,—I have given the questions raised by Mr. Nelson Hardy my careful consideration, and am of opinion (in which I am confirmed by counsel, before whom all the facts were laid), that the special resolutions have been duly and properly passed; and I shall therefore proceed to register same forthwith.—Yours faithfully, JAMES R. UPTON.—F. POWCE, Esq.

Resolved: That the application of four of the candidates for election as members be referred to the Council of the Branches in whose districts they reside, with instructions that no homœopath is to be admitted to the Association.

Resolved: That the remaining sixty-six of the seventy gentlemen, whose names appear on the circular convening the meeting, be and they are hereby elected members of the Association.

Resolved: That the Minutes of the Journal and Finance Committee of to-day's date, together with minutes of Subcommittee appointed to consider the proposal of the Collective Investigation Committee to publish their reports in the JOURNAL in future, also of to-day's date, be approved, and the recommendation carried into effect.

The Minutes of the Journal and Finance Committee contain report upon examination of accounts for quarter ending 30th September last, amounting to £4,445 15s. 7d.; the auditor's report for the quarter, and recommendation that the Collective Investigation Committee's reports be published in the JOURNAL in future, the Collective Investigation Committee to pay the expense of such additional pages out of annual grant.

Resolved: That the Minutes of the Premises Committee of the 17th instant, together with those of the 30th July last, be approved.

The Minutes of the Premises Subcommittee contain a report upon the sites for the offices of the Association.

Resolved: That the Minutes of the Scientific Grants Committee of the 30th July last, and of the 13th instant, be approved, and the recommendations carried into effect.

The Minutes of the Scientific Grants Committee contain a report upon applications for further grants, amounting to £185.

Resolved: That the Minutes of the Trust Funds Committee of the 13th instant be approved, and the recommendations carried into effect.

The Trust Funds Committee recommend that the Middlemore Prize of fifty guineas be advertised, and recommend that certain gentlemen be asked to act as adjudicators for the Middlemore prize, and Stewart prize, also of fifty guineas.

Resolved: That Messrs. Price, Waterhouse, and Co. be appointed public auditors for the ensuing year, in accordance with By-law 33.

Resolved: That the gentlemen, whose names are as follows, be appointed the Collective Investigation Committee for the ensuing year.

The President and the President-elect; Dr. B. Foster, *President of Council*; Mr. C. Macnamara, *Treasurer, ex officio*; Professor Humphry, F.R.S., *Chairman*; Dr. R. L. Bowles; Dr. T. Bridgwater; Dr. A. Carpenter; Dr. Dyce Duckworth; Dr. G. F. Duffey; Mr. W. P. Herringham; Mr. T. R. Jessop; Mr. A. Jackson; Dr. D. J. Leech; Dr. R. Saundby; Dr. A. Sheen; and Mr. Butlin.

Read Minutes of the Arrangement Committee.

Resolved: That the Minutes of the Arrangement Committee of the 13th instant be received.

Resolved: That the recommendation of the Arrangement Committee, that the Annual Meeting of 1886 be held upon the 10th, 11th, 12th, and 13th August next, be approved, and adopted.

Resolved: That the recommendation of the Arrangement Committee, that the Scientific business of the meeting be carried on in nine sections, be approved.

The various sections as proposed by the Arrangement Committee were then considered, as follows—namely: Medicine and Pathology,

Surgery, Obstetric Medicine, Public Medicine, Psychology, Therapeutics and Pharmacology, Diseases of Children, Ophthalmology, and Otology.

It was moved and seconded that Pathology be constituted a distinct section from Medicine.

The motion having been put from the chair, the same was declared to be carried.

The Sections were constituted by resolution as follows, namely, Medicine, Surgery, Obstetric Medicine, Public Medicine, Pathology, Psychology, Ophthalmology, Otology, Therapeutics and Pharmacology.

Resolved: That the remaining recommendations of the Arrangement Committee be approved and adopted.

Resolved: That there be three addresses; namely, in Medicine, in Surgery, and in Public Medicine.

Resolved: That a subcommittee be appointed to consider and report upon the constitution of the various Committees, and on the mode of election of the members of the same; and also to suggest in what manner the reports should be brought before the annual meeting of the Association.

Resolved: That the subcommittee consist of the gentlemen whose names are as follows: The President of the Council, the Treasurer, Dr. Alfred Carpenter, Dr. Grigg, Dr. Holman, Dr. Edward Waters, and Mr. Sibley.

Dr. Ward Cousins brought before the Council the question of the refusal of Mr. Bartleet to give the prize of £20 for his sound-deafener, after the prize had been awarded to Dr. Cousins by the Otological Section, at Liverpool.

Resolved: That the Council learn with regret the action of Mr. Bartleet with respect to the prize offered by him for the award of the Council. To avoid in future any disagreement, it is resolved that all gentlemen or persons offering prizes, whether in money or otherwise, shall deposit the same with the Treasurer or the Trustees at the time when the offer is accepted; and that the Council be empowered to make the presentation, or not, as they think fit.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

A New Method of Cultivating the Bacillus Tuberculosis.—Locomotion in Patients Suffering from Nervous Diseases compared with that of Healthy People.—General News.

At a recent meeting of the Paris Biological Society, Professor Nocard, of Alfort, stated that he had succeeded in cultivating the bacillus tuberculosis. On pursuing Koch's method, he arrived at negative results. He therefore modified the cultivation medium, by adding 1 per cent. of peptone to horse serum, 0.25 of sugar candy to a hundred parts of serum, and the same proportion of sodium chloride. These additions were made before gelatinisation was effected. The first three cultivations were made according to this method; the fourth was effected in pure serum of horse's blood, but the process was slower. According to M. Nocard, all domesticated birds are liable to tuberculosis: the bacillus found in them is identical with that of tuberculous mammals. In 1884, Johne (*Zeitschrift für Microscopie und Fleischhand*) published some facts concerning a poultry-yard, which was infected with tuberculosis on the arrival of a phthisical person, whose sputa were poured on to the dung-heap in the poultry-yard. M. Nocard has published, in the *Recueil de Médecine Vétérinaire*, three instances similar to that described by Herr Johne. Careful investigation demonstrated that the birds succumbed to tuberculosis, after tuberculous sputa were mixed with their food. M. Nocard's data furnish proof that tuberculosis can be communicated to birds by animals. At Nevers, there is a tripe-shop attached to the slaughter-house. The proprietor of the shop has a small poultry-yard; most of the birds in it die from tuberculosis. They are fed on diseased parts of the animals which are unfit for sale; especially lungs, liver, spleen, and tuberculous glands. By inoculating with tuberculous matter from animals, or mixing it with the food, M. Nocard has killed four fowls, six pigeons, and a turkey. These all died in a space of time varying from six weeks to four months. In three instances they were fed on chopped-up lungs and tuberculous glands, removed from a horse and two cows, all of which were phthisical. M. Vignal, at the meeting of the Paris Biological Society, pointed out that the addition of sugar, sodium chloride, and peptone to serum, indicated a completely new medium of cultivation.

MM. Gilles de la Tourette and A. Londe, in order to determine the

difference between the manner of walking characteristic of healthy people and that of those suffering from nervous diseases, have adopted the following method. A large sheet of wall-paper is laid on the floor, and a longitudinal line is marked in the middle. The feet of the person experimented on are rubbed with rouge. After the necessary calculations, the impressions are reduced in size, and photographed. Before studying locomotion in its pathological aspect, the experimenters ascertained the character of progression in a normal state. In each case, the length of the foot was taken, and the impression left by it. The width between the feet during the act of walking was also taken; the measurement of the angle formed by the opening of the feet, and its relation to the axial line, traced on the paper. The following conclusions were drawn from the study of patients with bilateral and unilateral lesions, from the onset of the affection until the end. The pathological step is more regular than that of a subject in a normal condition, both in length and the lateral separation of the feet; also the angle formed by the opening out of the feet. The tracings taken by MM. Gilles de la Tourette and Londe will be published, with the memoir, in the *Archives de Neurologie*.

M. Corleyn, librarian at the Paris Medical Faculty, has just published a volume consisting of a series of articles by him which had previously appeared in a medical journal. The present volume is entitled, *Les Médecins Grecs depuis la Mort de Galien jusqu'à la Chute de la Empire d'Orient*.

Recently there have been a great many good inaugural theses written on well chosen subjects. That of Dr. Lance Briand, entitled *Influences reciproques du Cancer de l'Utérus sur la Grossesse et de la Grossesse sur le Cancer Utérin*, contains a number of interesting clinical notes; it also may be considered as a dictionary of reference to literature on this subject. Cancer, says Dr. Lance Briand, has a very unfavourable influence on pregnancy; it produces abortion, cachexia, and death. Pregnancy hastens the course of cancer. During delivery, all injury, either surgical or normal, intensifies the condition of the tumour. Dr. Petiau, in his thesis *Sur la Phthisie dans ses Rapports avec l'Accouchement, la Grossesse, la Lactation*, writes that pregnancy is favourable to the development of tubercle. After delivery, there is not any important amelioration. Nursing greatly weakens phthisical women. M. Edouard Doré, in a thesis which has for its subject *Recherches expérimentales sur l'influence de la Température des Femelles en Gestation, sur la Vitalité du Fœtus et la Marche de la Grossesse*, states that, after making a number of experiments, he arrives at the conclusion that a temperature of 41.5° Cent. (106.7° Fahr.) to 42° Cent. (108° Fahr.), obtained in a surrounding atmosphere heated to 32° Cent. (89.6° Fahr.), does not produce in the animals experimented on any serious morbid phenomena, nor does it provoke the death of the fetus. A temperature of 43° Cent. (109.4° Fahr.), obtained by slow and gradual heating, but not maintained for any time, in order to prevent a further increase of temperature, was also harmless. High temperatures, 50° Cent. (122° Fahr.), quickly obtained, and maintained for some time, kill quickly both the mother and the fetus.

The result of the deliberation of the Council of the Assistance Publique, regarding the occurrence mentioned in our last letter, has been to elect a new body of examiners, and order a fresh examination.

CORRESPONDENCE.

THE CONJOINT BOARD EXAMINATIONS.

SIR,—The new primary examination, consisting of anatomy, physiology, chemistry, physics, materia medica, and botany, became compulsory, under the regulations of the conjoint board of the Royal Colleges of Physicians and Surgeons, for all students who entered upon their studies in October, 1884.

The results of this examination are well known, and its effect upon the attendance of second year students in the dissecting-room is only too evident. Many of the students who ought to be dissecting are cramming up the subjects of this first examination, in the hope that they may pass in October; for, if they fail then, they cannot go up at the end of the second winter for the Anatomy and Physiology (which answers to the old first College examination), as a clear six months must elapse between passing the new primary and this examination. I have made some inquiries, and I find that the same difficulty with which we have to contend at St. Bartholomew's Hospital is being experienced in other schools.

Unable to pass the Anatomy and Physiology (second examination) at the end of his second winter, the student will be placed in the di-

lemma either of trying to pass this examination in his second July or October, when he will have had but little opportunity for dissection, or of prolonging his work at anatomy and physiology till his third winter. For this state of things, there is but one remedy: less work, or, what is virtually the same thing, more time.

At present, the student who enters in October is advised by his teachers to take the new primary examination in Anatomy and Physiology at the end of his first winter; and, to judge by the examination last April, he ought, if reasonably diligent, to pass it. This leaves him the summer session for Physics, Chemistry, Materia Medica, and Botany; and it is here that the greatest percentage of failure has taken place, amounting in the whole body of students who presented themselves from various places to about 70 or 80 per cent. What is to be done?

The Materia Medica, with the small modicum of Botany that is tacked on to it, might well be dispensed with. In their present form, these subjects are absolutely useless, and have been declared to be so by many able authorities on medical education. That they are useless is openly stated by many teachers, and thoroughly believed by most students.

It is only the blighting influences of the recommendations of the Medical Council that has caused them to be inserted in the ordinary student's examination curriculum, from which till lately they were providentially absent; and their presence only serves to draw away his attention from therapeutics and pharmacy, and other important parts of his medical studies.

With materia medica and botany omitted in the first year, and replaced by therapeutics and pharmacy in the third or fourth, the average student would find his chemistry and physics fully sufficient to engage his attention during his first summer; but, under these circumstances, he ought to be ready for his second examination in anatomy and physiology at the end of his second winter, which, under the present system, he will rarely attempt.

Rumours are abroad that the standard is to be reduced, and that the failures in July will be converted into successes in October. It may be so; but will the knowledge have increased much during the intervening summer vacation, and will the student who passes the examination really have reached such a standard that he will understand one whit better the phenomena of atmospheric pressure, electrical resistance, or the passage of a ray of light through a lens? I doubt it.

With materia medica and botany cut out, there might be some chance for physics and chemistry; but they will never be learnt properly till they are learnt before the student begins his medical curriculum proper.

Apologising, sir, for the length of my letter, I remain, yours obediently,

W. BRUCE CLARKE, M.A., M.B.Oxon., F.R.C.S.,
Assistant-Surgeon and Senior Demonstrator of Anatomy
and Operative Surgery at St. Bartholomew's
Hospital, etc.

A HEALTH EPIDEMIC AT CANNES.

SIR,—It has become a yearly custom to proclaim far and wide, at the approach of winter, that the shores of the Mediterranean are visited by some dire and terrible epidemic. Even where the sanitary condition is perfect, such rumours find easy credence in the minds of invalids, naturally on the watch for what may affect their wellbeing.

Last year the cholera-epidemic, and this year the slight appearance of it at Marseilles and Toulon, gave scope for the retailers of bad news. Their croakings have given rise to a prejudice against all the winter stations on the Riviera, even where there has been complete immunity from illness.

I now desire to remark a new and different phenomenon, at least as far as Cannes is concerned, and that is what may be called a Health-Epidemic. I annex a table of the hospital inmates, taken yesterday (October 21st); also at the corresponding date of the last four years.

Date.	Men.	Women.	Children.	Total.
1881	26	6	6	38
1882	18	11	1	30
1883	24	7	2	33
1884	11	4	0	15
1885	13	0	1	14

The greater number of cases at present under treatment are surgical, the remaining patients suffering from chronic disorders.

To judge of the sanitary condition of a town, there is no better criterion than the statistics of the hospitals. It is there that sickness is concentrated, or, at all events, it is there that the worst cases are brought to public notice. The hospital at Cannes, clean and well

kept, contains 88 beds. It possesses, besides, a separate building, with 10 beds, especially adapted for patients suffering from contagious diseases. This additional building was used this year, during January and February, for a few cases of measles; since then, it has remained entirely closed.

There is not a single case of typhoid fever at Cannes, or, in fact, any other contagious disease; and, even when the epidemic of cholera was at its worst, there was not even a suspicious case.

The deaths in the whole population of Cannes, from October 15th to the 22nd, were two, and eleven births were registered.

The streets are washed daily with an abundance of water, and the greatest attention is paid to the drainage, etc., the town being in a state of perfect cleanliness; and, what is of still greater importance, is the plentiful supply of water from the Siagne, which has its source forty kilometres away in the mountains, and is remarkably pure. It is to cleanliness and pure water that I attribute the present healthy state of Cannes.—I am, etc.,

TH. DE VALCOURT, M.D., M.R.C.P. Lond.,
Physician to the Cannes Hospital.

STUDENTS, EXAMINERS, AND REGULATIONS.

SIR,—There are two letters in the JOURNAL of October 17th on which I should be glad to say a word. "Verus Amicus" has, no doubt, pointed out a defect in the regulations of the conjoint board, which has been a source of anxiety to both students and teachers. As it evidently arises from an oversight, it may be assumed that the Colleges will be ready so far to alter their regulations as not to compel students to work throughout the long vacation.

Dr. Quinlan says much that has my cordial assent; but I cannot accept his dictum that every student ought to be "able to recognise any pharmaceutical specimen capable of recognition by the unaided senses." Why should he? I hope Dr. Quinlan would not defend the examiner who demanded this recognition of dulcamara and elm-bark, both of which are excluded from the new B.P. Surely, he would not reject a man who could not be sure of unguentum chrysarobini—a "pharmaceutical specimen," which one first-class pharmacy turns out of a light lemon-colour, and another almost slaty-grey, both believing they are furnishing the new B.P. preparation!

Dr. Quinlan further requires students to be familiar with the tests for other medicines, "and the method of manufacturing all chemical remedies." This requirement admits of the utmost abuse, as when men were rejected because they could not remember, in the examination-room, details with which no laboratory-superintendent would be foolish enough to charge his memory. Let principles be acquired, by all means, and a general knowledge of the "method of manufacture;" but the physician, surgeon, or general practitioner is not to compete with the chemical manufacturer, or with the wholesale druggist. Dr. Quinlan almost recognises this in his aspiration for the separation of medicine and pharmacy. Therefore, I hope he will not object to my pointing out the danger of demanding too much, and hanging on his letter one more protest on behalf of the overburdened student.—I am, etc.,

PROSSER JAMES.

MEDICO-LEGAL AND MEDICO-ETHICAL.

VISITS OF NEW TO OLD PRACTITIONERS.

SIR,—A. commences practice in a town having three resident practitioners—B., C., and D.—and a fourth, E., who has a surgery where he attends on one or two days in the week for a few hours at a time, his proper practice and residence being in another town some miles distant. In accordance with medical etiquette, is it necessary A. should call on E.? or may the formality be dispensed with without breach of the ethical code?—I am, etc.,

ETIQUETTE.

* Unless E., the non-resident practitioner specially alluded to by our querist, lives within a reasonable walking distance (say, from two to three miles) of the small town in which A. has commenced practice, he may, in our opinion, dispense with the formality of calling upon him, without committing a breach of medical etiquette. The prospect, however, of kindly social intercourse with him, as a neighbouring practitioner, may probably be an inducement to extend the above limited visiting radius of a professional call.

W. E. WATTS.—It is impossible to say definitely whether the members can dispute your right to give certificates, without knowledge of what their rules say in reference to such matters. There is nothing in the Friendly Societies Acts to prevent you from certifying, and most of the great societies merely stipulate that certificates shall be signed by "a registered medical practitioner."

J. L. H.—The only remaining alternative seems to be recourse to the advice of a solicitor of high standing.

FIDES.—Liability to pay for medical attendance is a matter of contract. The person who sends for a medical man is primarily liable, and the patient who accepts the attendance is so also. If the landlord's wife called in a medical man for her servant, she would probably be held to have been her husband's agent in so doing, and the husband would therefore be liable. If the sum claimed is large, it would be well to consult a solicitor before commencing proceedings.

B.—Upon the basis of the statement made, as B. was the partner of A. at the time of the decease of Mr. X., there cannot, we think, be a doubt that A. is justly entitled to such proportionate share of the fee as he could have legally claimed as a member of the then existing firm of practitioners.

C. E. G.—A guinea would be a fair fee under the circumstances.

X. Y. Z.—We cannot approve of any advertising notices, however veiled, placed in shop-windows.

NAVAL AND MILITARY MEDICAL SERVICES.

MILITARY AND NAVAL HOSPITALS.

SIR,—Will you allow me to call the attention of the medical authorities to the desirability of separating the consumptive patients from the rest by keeping them in the most cheerful wards in the hospital, as it is often thought to be more or less an infectious complaint, especially to those who may be at all liable to consumption. I have even known anterior fever cases frequently placed in the same ward as the other patients, which certainly would not improve the state of the atmosphere, and patients with venereal diseases have been mixed with surgical cases generally, which, to say the least of it, is disgusting. Would it not be better to classify the patients? It seems time that more attention should be given to this important point, which is a mere matter of the simplest possible arrangement.—I am, etc.,

M. C.

* We can hardly believe that the faulty disposal of the sick, to which "M. C." calls attention in the foregoing letter, can be prevalent either in naval or in military hospitals. As regards the latter, the regulations provide that each medical officer in charge of a hospital has the power to arrange the patients as he deems professionally advisable, and is held responsible for their proper distribution. See Army Medical Regulations, Section 5, Par. 477: "The medical officer in charge will, at his own discretion, appropriate wards for the treatment of infectious or contagious diseases, ophthalmic, and all other special cases." The subject is, therefore, not left unattended to in the authorised hospital regulations.

INDIVIDUAL.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Examinations for Medical and Surgical Degrees.—The following preliminary notice has been issued. For the degree of bachelor of medicine, the first examination will begin on Thursday, December 3rd; the second on Thursday, December 3rd; the third, Part I, on Tuesday, December 8th; and Part II on Wednesday, December 9th. For the degree of bachelor of surgery, the examination will be held on Saturday, December 12th. For the degree of master of surgery, the examination will be held on Friday and Saturday, December 11th and 12th. The names of candidates for the third examination, and for the examinations in surgery, must be sent to the registry of the University (through the prolectors of their respective colleges) on or before Monday, November 30th; those for the first or second examinations, on or before Monday, November 23rd. The certificates of candidates, accompanied by their postal addresses, should be sent to the registry not less than seven days before the beginning of the examination for which they are entered. The fees for the examination must be paid to the registry of the University when the certificates are sent in.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DEVONSHIRE HOSPITAL, BUXTON.

THE report for the third quarter of the year is always the most interesting for this institution, inasmuch as by far the larger proportion of patients are sent there during the summer months, to enjoy the fine mountain-air of Buxton, as well as to take the thermal baths. During the three months ended the 30th of September last, 1,175 cases of rheumatic or gouty character were received. Of these, 840 were cases of pure rheumatism; 180 were of arthritic character; 12 were in an acute, and 15 in a subacute condition; 5 were of specific character; and there were 8 cases of rheumatic gout, 8 cases of gout, 89 cases of sciatica, 14 cases of lumbago, and 4 cases of rheumatic synovitis. Of diseases of the nervous system, there were 64 cases, including 2 cases

of chorea, 12 of hemiplegia, 6 of locomotor ataxy, 2 of lateral sclerosis, 10 of neuralgia, 9 of paralysis, and 4 of paraplegia. Of the cases of rheumatism, 155 were complicated with heart-disease.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MR. WILLIAM SKINNER AND THE SHEFFIELD BOARD OF GUARDIANS.

ON June 29th last, an application was made to Mr. William Skinner that he should visit a poor woman with a fractured leg resident in the west district of the Sheffield Union, of which district this gentleman is the medical officer. The messenger informed him that a neighbour had gone to the relieving officer for an official order, but that that functionary was not at home. Mr. Skinner promptly attended, set the fracture, and continued his care. At this first visit, he was informed that the husband of the woman was out of work, in consequence of being in ill health, and was at that time being attended to by the medical officer of a provident dispensary. No order having been sent, application was again (on the next day) made to the relieving officer, but that official refused to grant one, alleging, as his reason for so doing, that the husband had told him that when in health he could earn 20s. per week; but as he was not in health, and was earning nothing, such explanation of this relieving officer's refusal was in the highest degree unsatisfactory, improper, and censurable.

The illness of the husband continuing, on the 3rd of September last Mr. Skinner received an order to attend him, and on the 7th of the same month a similar order was granted for attendance on the wife. On sending in a claim for an extra fee for attending the wife with the fractured leg, we learn that the guardians repudiated their liability, alleging, as their reason, that Mr. Skinner had not been authorised by their relieving officer to attend the case; but as this Board has since recognised the claim of both husband and wife to Poor-Law medical attendance from their district medical officer, since the refusal in June last, and as it was clearly the duty of the relieving officer (having regard to the accident to the wife and the disability of the husband, from sickness) to have granted such order in June, we would advise Mr. Skinner to again apply to the Board for payment; and, in the event of their refusal to recognise the moral, and as we believe their legal, liability to grant this fee, that he should lay the facts before the President of the Local Government Board, and ask his personal interference.

HEALTH OF ENGLISH TOWNS.

IN the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,724 births and 3,025 deaths were registered during the week ending Saturday, October 17th. The annual rate of mortality, which had been 17.6 per 1,000 in each of the two preceding weeks, rose to 17.7. The rates in the several towns, ranged in order from the lowest, were as follow: Huddersfield, 9.0; Leicester, 11.1; Hull, 14.0; Nottingham, 14.3; Bradford, 14.8; Bristol, 15.5; Sheffield, 16.7; Newcastle-upon-Tyne, 16.7; Derby, 16.9; Birmingham, 17.1; London, 17.2; Portsmouth, 17.4; Blackburn, 17.6; Brighton, 18.2; Bolton, 18.5; Sunderland, 18.7; Leeds, 18.8; Norwich, 18.9; Halifax, 18.9; Birkenhead, 19.1; Oldham, 19.8; Liverpool, 19.9; Plymouth, 20.6; Salford, 20.7; Wolverhampton, 21.7; Cardiff, 23.1; Manchester, 24.0; and, the highest rate during the week, 27.0 in Preston. In the twenty-seven provincial towns the death-rate averaged 18.2 per 1,000, against 17.2 in London. The 3,025 deaths registered during the week in the twenty-eight towns included 78 which were referred to diarrhoea, 66 to measles, 59 to whooping-cough, 58 to scarlet fever, 39 to diphtheria, 38 to "fever" (principally enteric), and 2 to small-pox; in all, 340 deaths resulted from these principal zymotic diseases, against 365 and 303 in the two preceding weeks. The zymotic death-rate was equal to 2.0 per 1,000. In London the zymotic rate was 1.8, while it averaged 2.2 per 1,000 in the twenty-seven provincial towns, and ranged from 0.5 and 0.6 in Bradford and Derby, to 3.9 in Portsmouth, 4.0 in Wolverhampton, and 5.0 in Birkenhead. The fatal cases of diarrhoea, which had steadily declined from 628 to 97 in the ten preceding weeks further fell to 78, and caused the largest proportional fatality in Hull, Portsmouth and Wolverhampton. The deaths referred to measles, which had been 46 and 88 in the two previous weeks, rose to 66, and caused the highest death-rates in Salford, Newcastle-upon-Tyne, and Brighton. The fatal cases of whooping cough, which had declined in the three preceding weeks from 59 to 51, rose again to 59, and showed the largest proportional fatality in Birkenhead and Cardiff. The 58 deaths from scarlet fever showed an increase of 9 upon the number in the previous week, and caused the highest death-rates in Preston, Birkenhead and Wolverhampton. The fatal cases of "fever," which had been 41 and 42 in the two preceding weeks, declined to 38, and showed the largest proportional fatality in Norwich, Portsmouth, and Plymouth. The 39 deaths referred to diphtheria in the twenty-eight towns exceeded those recorded in any week since the beginning of the year: 23 occurred in London, 5 in Liverpool, 2 in Manchester, 2 in Sunderland, and 2 in Birkenhead. Of the 2 fatal cases of small-pox, 1 was recorded in Nottingham, and 1 in Manchester. No deaths from this disease occurred during the week either in London or the Metropolitan Asylum Hospitals situated outside Registration London. The number of small-

pox patients in the Metropolitan Asylum Hospitals, which had declined in the nineteen preceding weeks from 1,380 to 122, had further fallen to 111 on Saturday, October 17th; the admissions, which had been 27, 18, and 15 in the three preceding weeks, were 16 during the week. The death-rate from diseases of the respiratory organs in London was equal to 3.8 per 1,000, and exceeded the average. The causes of 75, or 2.5 per cent., of the 3,025 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, October 17th, 865 births and 465 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 16.4 per 1,000 in each of the two preceding weeks, rose during the week to 19.1, and exceeded by 1.1 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 10.6 in Leith, 17.2 in Edinburgh, 18.7 in Dundee, 18.8 in Aberdeen, 20.0 in Glasgow, 24.0 in Greenock, and 24.6 in Paisley. The 465 deaths registered during the week in these towns included 59 which were referred to the principal zymotic diseases, against 41 and 49 in the two preceding weeks; of these, 21 resulted from diarrhoea, 11 from whooping-cough, 9 from scarlet fever, 8 from "fever" (principally enteric), 5 from diphtheria, 4 from measles, and 1 from small-pox. These 59 deaths were equal to an annual rate of 2.4 per 1,000, which exceeded by 0.4 the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates during the week in these Scotch towns were recorded in Greenock, Dundee, and Paisley. The deaths from diarrhoea, which had been 13 and 18 in the two previous weeks, further rose to 21, but were 11 below the number recorded in the corresponding week of last year; 7 occurred in Dundee, and 4 in Aberdeen. The 11 fatal cases whooping-cough exceeded by 3 the number in the preceding week, and included 6 in Glasgow, 2 in Edinburgh, and 2 in Paisley. The deaths from scarlet fever, which had been 6 and 12 in the two previous weeks, declined to 9, of which 8 occurred in Glasgow. The 3 fatal cases of "fever" exceeded by 4 the number in the preceding week, and included 4 in Glasgow, and 3 in Edinburgh. Of the 5 deaths from diphtheria, 3 were returned in Glasgow. The fatal case of small-pox was recorded in Paisley. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 3.8 per 1,000, and corresponded with the rate in London. The causes of 74, or 15.9 per cent. of the 465 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

IN the week ending October 17th, the number of deaths in the sixteen principal town-districts of Ireland was 323. The average annual death-rate represented by the deaths registered during the week was 19.5 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 18.5; Belfast, 19.6; Cork, 14.9; Drogheda, 53.8; Dublin, 20.8; Dundalk, 18.1; Galway, 20.2; Kilkenny, 16.9; Limerick, 17.5; Lisburn, 19.3; Londonderry, 25.0; Lurgan, 25.7; Newry, 17.6; Sligo, 4.8; Waterford, 18.5; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 1.6 per 1,000, the rates varying from 0.0 in eleven of the districts to 9.7 in Lisburn; the 4 deaths from all causes registered in that district comprising 1 more from measles and 1 from diarrhoea. The 82 deaths from all causes in Belfast comprised 1 from measles, 1 from whooping-cough, and 5 from diarrhoea. In the Dublin Registration District, the deaths registered during the week amounted to 145. Twenty-two deaths from zymotic diseases were registered; they comprised 3 from whooping-cough, 1 from diphtheria, 7 from enteric fever, 3 from diarrhoea, etc. Thirty-five deaths from diseases of the respiratory system were registered; they comprised 18 from bronchitis, 8 from pneumonia, and 2 from croup. The deaths of 6 children under 5 years of age (including 5 infants under 1 year old) were ascribed to convulsions. Nine deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 10 by diseases of the circulatory system. Phthisis caused 15 deaths, and cancer 5. Four accidental deaths were registered. In 19 instances, there was "no medical attendance" during the last illness.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—*Double Qualification.*—During the recent sittings of the Examiners, the following gentlemen passed their first professional examination.

F. A. Douglas, Donaghadee; R. Drinkwater, Llangollen; J. J. Moynihan, Cork; and D. H. Tweedie, Newry.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh.

J. G. Brown, Cork; A. V. Browne, Belfast; T. C. Aveltoom, Calcutta; J. Cromie, Co. Down; J. H. Dudgeon, London; R. M. Forde, Cloyne; E. J. Hawkes, Brighton; R. Kelly, Co. Longford; J. C. Hasler, Blackburn; T. Patterson, Co. Donegal; R. P. Rankin, Australia; E. J. Nuttall, Rochdale; J. J. Mason, Bollington; C. O. Stanwell, Rochdale; J. S. Smith, Sierra Leone; D. L. Thomson, Hampshire; W. Valentine, Lancashire; H. H. Wilde, Weston-super-Mare; and J. T. Woodside, Cultra, Belfast.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—During the recent sittings of the Examiners, the following gentlemen passed the final examination, and were admitted Licentiates of the College.

C. E. Glascoff, Constantinople; and F. C. Osborne, Bognor.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The examinations for the triple qualification of these bodies in Edinburgh were held in October, with the following results. Passed First Examination.

A. Bronté, Co. Down; J. S. Bryars, Co. Armagh; J. W. Brooks, Bombay; J. J. Bell, West Bromwich; E. Armitage, Cape of Good Hope; A. B. Cochran, Dudley; T. J. Barr, Dublin; F. W. Kane, Mallow; P. Callaghan, Co. Donegal; P. W. Griffiths, Merthyr Tydfil; D. Horan, Kerry; W. M. Gabriel, Kendal; P. S. Fairbridge, South Africa; J. Dunne, Co. Cork; T. Kennedy, Co. Kerry; J. T. Kennedy, Co. Kerry; L. Kay, Renfrewshire; J. S. Ledgerwood, Co. Down; J. R. Lownds, Walker-on-Tyne; H. C. C. McNeill, Folkestone; J. W. Parry, Pwllheli; P. H. Noott, Dudley; T. C. Patterson, Co. Donegal; T. J. Prendiville, Co. Kerry; W. B. Rotherae, Co. Cork; C. D. Roe, Co. Mayo; A. W. Pairman, Biggar; W. Smith, Jamaica; C. E. Salmon, Edinburgh; A. Wilson, Glenarm; R. Steele, Stewarton; W. K. Walker, Follokshaws; and E. Wakelain, Willenhall.

Passed Second Examination.

F. L. Keisler, Mauritius; E. Wakelain, Willenhall; W. E. Bennett, Otley; W. Foreman, Wigan; S. B. Penn, Yatton; B. B. Grayfoot, Barbadoes; J. Lyon, Glasgow; M. J. Petty, Buenos Ayres; E. Armitage, Cape of Good Hope; A. J. Rollinson, Kerton-in-Lindsey; A. H. Whittell, Plymouth; J. C. Figg, Boness; T. C. Jones, Liverpool; H. Buxton, Liverpool; J. S. Bryars, Co. Armagh; T. A. Davidson, Co. Down; W. D. Eldowes, Stamford; J. Howie, Dundee; H. O. Hughes, Merionethshire; C. Hicks, Bedfordshire; T. J. Henry, Sydney; J. S. Macpherson, Sutherland; P. W. O'Gorman, Delhi, India; A. W. Marwood, Melbourne; J. C. Reid, Edinburgh; J. C. Scotchburn, Driffield, East Yorkshire; J. C. Steedman, Stirling; and R. C. Richards, Wales.

Passed Third Examination, and admitted L.R.C.P. Edinburgh, L.R.C.S. Edinburgh, and L.F.P. & S. Glasgow.

W. Macanish, New South Wales; S. L. Anthonisz, Ceylon; W. Beecham, Wigan; S. de Candia, Waterford; T. S. Davies, Monmouth; J. B. Drieberg, Ceylon; B. B. Grayfoot, Barbadoes; J. C. Figg, Boness; W. Foreman, Wigan; H. G. Hilbers, Brighton; F. L. Keisler, Mauritius; M. C. Hannan, Limerick; W. H. Klock, Quebec; M. G. Davies, Carnarvon; H. H. Marshall, New South Wales; J. Macgregor, Tralee; J. Macky, Londonderry; F. C. Pereira, Bangalore; M. J. Petty, Buenos Ayres; T. K. Robinson, Melbourne; W. J. H. Macgilvray, Glasgow; R. D. Shiels, Dunbar; P. B. T. Stubbs, South Africa; J. Sutherland, Glasgow; J. R. Talbot, Ballina; and G. T. Woods, Birmingham.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 22nd, 1885.

Buksh, Raheem, M.R.C.S., Poplar Hospital.
Green, Albert, M.R.C.S., Guy's Hospital.
Haig, Francis Murray, M.R.C.S., North Street, Westminster.
Melhuish, John, 5, Crossfield Road, Belsize Park.
Powne, Leslie, Granville House, Swindon.

At the recent examinations for the Prizes in Materia Medica and Pharmaceutical Chemistry, prizes were awarded to the following gentlemen.

1. Skyrme, Henry Edward, student of the London Hospital (the Gold Medal).
2. Green, Frederic William Edridge, student of St. Bartholomew's Hospital (the Silver Medal and Books).

MEDICAL VACANCIES.

The following vacancies are announced.

ALNWICK INFIRMARY.—Surgeon. Salary, £120 per annum. Applications by November 17th.

ANCOATS HOSPITAL AND DISPENSARY, Manchester.—Senior House-Surgeon. Salary, £80 per annum. Applications by October 31st.

ANCOATS HOSPITAL AND DISPENSARY, Manchester.—Junior Resident House-Surgeon. Salary, £50 per annum. Applications by October 31st.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by November 8th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Surgeon. Applications to T. Storrar-Smith, Secretary, 24, Finsbury Circus, E.C., by November 11th.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Assistant-Surgeon. Salary, £160 per annum. Applications to Mr. J. Bullivant, 58, Abbey Street, Derby, by November 11th.

DISPENSARY FOR FOREIGNERS, 9, Oxford Mansions, W.—Physician. Applications by November 4th.

EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical Attendant. Salary, £100 per annum, with furnished apartments in the asylum, board, and washing. Applications by November 7th.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Physician. Applications by November 9th.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Chloroformist. Applications by November 9th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £100 per annum. Applications by November 17th.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, 70 guineas per annum. Applications by October 31st.

JAFFRAY SUBURBAN BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill, near Birmingham.—Resident Medical Officer. Salary, £150 per annum. Applications by November 2nd.

MANCHESTER HOSPITAL FOR CONSUMPTION.—Honorary Physician. Application by October 31st.

MUTUAL LIFE-ASSURANCE SOCIETY.—Surgeon. Particulars of the Actuary.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—House-Physician. Applications by November 5th.

NEW HOSPITAL FOR WOMEN, 222, Marylebone Road, N.W.—Secretary and Superintendent. Salary, £20 per annum. Applications to Miss Vincent by November 4th.

NORFOLK AND NORWICH HOSPITAL.—Secretary and House Steward. Salary £100 per annum. Applications by November 14th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.

PADDINGTON WORKHOUSE INFIRMARY.—Resident Medical Superintendent. Salary, £250 per annum. Applications by November 6th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Blomfield Street, Moorfields, E.C.—Surgeon. Salary, £50 per annum. Applications by November 9th.

TONGUE AND FARR PARISHES, Sutherland.—Medical Officer. Salary, £250 per annum. Applications to J. Box, House of Tongue, Sutherland, N.B., by October 31st.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Honorary Surgeon-Oculist. Applications by November 7th.

MEDICAL APPOINTMENTS.

HEGTON, Francis T., M.D., M.Ch., F.R.C.S.I., Lecturer on Anatomy and Registrar of the Carmichael College of Medicine, Dublin, appointed Visiting Surgeon to the Adelaide Hospital.

KEIR, W. Ingram, F.R.C.S.E., reappointed Resident Medical Officer of Health to the Melkham Rural Sanitary Authority for three years.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

ADENEY—HOBBS.—On October 28th, at Reigate Congregational Church, by the Rev. G. J. Adeney, assisted by the Rev. W. F. Adeney, M.A., of Acton, and the Rev. A. F. Muir, M.A., of London, Edwin Leonard Adeney, M.D. Lond., of Tunbridge Wells, to Florence Mary, eldest daughter of S. B. Hobbs, Esq., of Antwerp Lodge, Reigate.

UNIVERSITY COLLEGE, LONDON.—The following awards have been made. Medical Entrance Exhibitions: £100, Mr. T. L. Pennell; £60, Mr. S. B. Mitra; £40, Mr. J. J. Macnamara. Andrews Entrance Prizes of £20 each: for Science, Mr. C. F. T. Blyth; for English and other Languages, Mr. Arthur Vaughan.

KING'S COLLEGE.—The Warneford Scholarship at King's College, London, of the value of £75, has been gained by Daniel L. Soutter. The prizeman is a son of Dr. Soutter, of Finsbury Park.

ST. GEORGE'S HOSPITAL.—The Entrance Scholarship of £125, open to the sons of medical men, has been awarded to Mr. James McEnery, son of Dr. McEnery, of Sherborne. There were no candidates for the two open scholarships of £50 each.

MR. CHARLES ISAAC ELTON, M.P., has been appointed President of the Taunton and Somerset Hospital for the ensuing year.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 p.m. Dr. Gowers will introduce a Discussion on the Clinical Value of the Deep Reflexes.—Odontological Society of Great Britain, 8 p.m. Mr. J. H. Balkwill (Plymouth): On a Method of Mounting Porcelain Crowns on Pulpless Molar Stumps. Mr. W. H. Hurn: On a Method of Treatment of Pulpless Teeth. Casual communications by Messrs. S. J. Hutchinson, C. W. Dunn, Storer Bennett, A. S. Underwood; and exhibition of Ward's Non Thermal Lamp.

TUESDAY.—Pathological Society of London, 8.30 p.m. Dr. Sainsbury: Tumour from the Base of the Brain containing Skin. Mr. Sheild: Cancer of the Bladder. Mr. Barker: Epidermal Cyst of Finger. Mr. MacCarthy: 1. Carcinoma of the Kidney; 2. Necrosis of the Patella (card); Dr. Norman Moore: Chronic Endocarditis. Mr. E. H. Fenwick: Extraperitoneal Rupture of Bladder. Dr. Percy Kidd: Obstruction of the Coronary Arteries. Dr. Lediard: Black Tongue (card). Dr. Savill: Heart from a Case of Chorea (card). Dr. Post: A Case of Leprosy (living specimen). Sir W. Mac Cormac: Epithelioma of the Clitoris (card). Mr. Larder: Cancer of Oesophagus (card). Mr. Davies-Colley: 1. Tendinous Slough from the Abdominal Muscles (card); 2. Annular Slough of Mucous Membrane of Rectum (card). Dr. Goodhart for Mr. Anderson: Large Aneurysm of Internal Carotid within the Skull. Dr. Hale White: Tubercle of Dura Mater and Vertebrae.

WEDNESDAY.—Obstetrical Society of London, 8 p.m. Specimens will be shown Dr. Herman; On the Suppuration of Pelvic Dermoid Cysts. Mr. S. D. Hime: Case of Obstructed Labour, in which Spontaneous Version followed an Unsuccessful Attempt to Deliver with the Crotchet after Craniotomy.

THURSDAY.—Harveian Society of London, 8.30 p.m. Clinical Evening.—The Willan Society of London, 8 p.m. President's Address. Dr. Harries: Cases of Lupus, under Treatment by Parasticides. A Case of Diffuse Scleroderma, by Mr. Startin, will be shown.

FRIDAY.—West London Medico-Chirurgical Society, 8 p.m. Mr. H. Percy Dunn: A Collection of Specimens of Sarcoma and Carcinoma from Patients who have died in the West London Hospital during the last Fifteen Months. Dr. Savill: Microscopic Specimens of Cancer. Dr. C. Wells: Cancer of the Colon. Mr. C. B. Kectley: A Case of Gritti's Amputation. Papers by Dr. Alderson, On the Etiology of Cancer, chiefly as to Local and Mental Causes; and Mr. H. Percy Dunn, On the Theory of Cancerous Inheritance.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London 2.30 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.,; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th. 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., , o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE REGISTRATION OF DEATHS.

SIR,—I had last week a death from croup in which tracheotomy had been performed. I gave a certificate, in which I mentioned the fact of the operation, as advised in the Suggestions to Practitioners appended to the death-certificate forms. I was surprised to learn that the registrar would not issue the usual burial-certificate to the friends until he had sent mine to the coroner to inquire if an inquest should be held. I reported this to the chairman of the board of guardians, and have been informed that new regulations on the subject have been recently issued to the registrars of deaths, and that they are now bound to report to the coroner all cases in which a death has followed on a surgical operation. I see, in the JOURNAL for September 5th, that registrars are instructed to report deaths of certain descriptions to the coroner, but my case certainly does not come under either of the five headings given.—M. A. yours faithfully,

A. MIDGLEY CASH, M.D.

Penton Villa, Torquay.

*. The new regulations, recently issued to registrars of births and deaths, practically make no alterations in their instructions bearing upon what deaths should be reported to the coroner previously to their registration. The instruction is as follows. "Whenever it appears that the death was caused directly or indirectly by violence, or was attended by suspicious circumstances, and whenever the cause of death is stated to be unknown, the registrar must, before registering the death, himself report the case to the coroner, in order that he may decide whether an inquest be necessary. This instruction applies to all cases, whether certified by a registered practitioner or not; and whenever the death is stated to have been sudden, and no certificate from a registered practitioner is produced, the registrar must, before registering such death, report the case to the coroner." We have no hesitation in saying that the above instruction does not contemplate deaths occurring after a surgical operation being classed as violent deaths, and we have no doubt that, if the case referred to by our correspondent were reported to the Registrar-General, the registrar would at once be informed that he had exceeded his instructions in reporting to the coroner the death from croup in which tracheotomy had been performed.

ON LEFT-HANDEDNESS.

SIR,—The following instance of acute observation may probably assist your correspondent, "F.R.C.S.," as to the *radicale* of left-handedness. Many years ago, I took a patient for consultation to the late Dr. Malden, of Worcester. The first question asked was, "Are you a left-handed man?" The answer was in the affirmative. After the consultation was over, the doctor told me that his reason for asking the question was, that he observed a fuller development of brain on the left side than on the right. He then drew the inference that there would be a greater power of the motor nerves of the left side, which would account for the left-handedness. If this reasoning be correct, the only apparent remedy for resulting inconvenience is the early education of the right hand. I believe that the late Mr. Lynn, of the Westminster Hospital, used to operate alternately with the right and the left hand.—I am, etc.,

HENRY MEYMOOT.

BOROGLYCERIDE.

INQUIRENS (Leeds).—Letters patent were granted, in 1881, to F. S. Barff, for a preparation, called by the inventor "boroglyceride," for preserving organic substances. The application for a patent was made on March 25th, 1881. A copy of the specification may be obtained from H. Reader Lack, Esq., Comptroller-General of Patents, 25, Southampton Buildings, Chancery Lane, London, W.C., by quoting its number and date (1332, 1881), and forwarding threepence for cost and postage. Inquirers may, we believe, examine this and all other publications of the Patent Office, free of charge, at the Public Library, Infirmary Buildings, Leeds.

RANCID BUTTER.

SIR,—Might I ask, through the BRITISH MEDICAL JOURNAL, if there be any method known for destroying rancidity in butter, so as to render rancid butter again fit for food?—Your obedient servant,

ECONOMY.

SCRAP-ALBUMS FOR SICK CHILDREN.

SIR,—If any of the readers of the BRITISH MEDICAL JOURNAL, or their friends, have any old Christmas cards which they do not want, they would be performing a charitable action in sending them post paid to "M. P., 1, Anchorage, Portsea, for the purpose of making scrap-albums for sick children in hospitals.—Your obedient servant,

ARS MEDIATRIX.

COHNHEIM MEMORIAL FUND.

SIR,—The following is the list of subscriptions for the above fund which have been received up to the present time. They have been sent to Professor His, of Leipzig, who is honorary secretary to the committee, which was formed to institute a memorial to the late Professor Cohnheim. I hope to receive from Professor His a statement of the nature which the memorial will take, and which will appear in an early number of this JOURNAL. Subscriptions by members of the Physiological Society: Dr. T. L. Brunton, Mr. W. W. Cheyne, Dr. J. C. Ewart, Dr. D. Ferrier, Dr. M. Foster, Mr. W. H. Gaskell, Mr. F. Gotch, Mr. V. A. H. Horsley, Mr. J. N. Langley, Mr. A. S. Lea, each £1 1s.; Dr. D. Macalister, Mr. W. McWilliam, each 10s. 6d.; Mr. J. McCarthy, £1; Mr. J. Marshall, Mr. F. J. M. Page, Dr. F. W. Payr, Dr. C. D. F. Phillips, each £1 1s.; Mr. E. B. Poulton, £1; Mr. D'Arcy Power, 11s. 6d.; Mr. H. Power, £1 1s.; Dr. B. W. Richardson, £1 2s.; Dr. S. Ringer, £1 1s.; Dr. C. S. Roy, £10 10s.; Dr. W. Rutherford, £1 1s.; Dr. J. Burdon Sanderson, £2 2s.; Mr. E. A. Schafer, Dr. P. H. Pye-Smith, Dr. G. F. Yeo, each £1 1s.; Dr. A. Waller, 10s. 6d.; Mr. L. C. Woodbridge, £1; Total, £39 17s. This sum was collected by Dr. W. H. Gaskell, Treasurer of the Physiological Society. The following subscriptions were sent to me: Dr. Robert Roxburgh, £3 3s.; Dr. Ransome, Dr. Humphry, each £1 1s.; Sir W. Gull, Bart., Dr. Matthews Duncan, each £2 2s.; Dr. Murdoch Brown, Mr. D. Bower, Dr. Dyce Duckworth, Dr. Wilson Fox, each £1 1s.; Sir W. Bowman, Bart., £5; Dr. John Harley, Dr. V. Harris, Mr. Jonathan Hutchinson, Dr. George Harley, Dr. W. M. Ord, each £1 1s.; Sir Joseph Lister, Bart., £5 5s.; Sir James Paget, Bart., £2 2s.; Dr. R. Quain, Mr. Bowyer (?), Sir W. Mac Cormac, Dr. Thomas Fraser, Mr. Main, each £1 1s.; Total, £36 10s.; add amount from Physiological Society, £39 17s.; Total, £76 7s.—I am, etc.,

CHARLES S. ROY.

A. J. asks where he can obtain the best description of the mode of applying electricity for the removal of superfluous growth of hair.

THE BRADLEY FUND.

SIR,—I feel I should be very remiss, in forwarding what I believe will be the last list of subscriptions, without at the same time thanking you for your kindness in having assisted in so good and popular a movement, not only by throwing open your columns, but also by your able advocacy. Several friends who have taken a keen interest in the matter think there should be a public presentation; and as Sheffield is the nearest large town to the village of Brimlington, where Dr. Bradley practised his profession, that it should take place there; consequently, it has been decided that the money subscribed, together with an address, shall be given publicly. Every subscriber will receive intimation of the date and place of presentation. Also, if you would kindly allow me to publish it in the pages of the BRITISH MEDICAL JOURNAL, you would add very materially to the aid you have already given.—I remain, yours faithfully,

Eastwood House, Chesterfield.

RICHARD JEFFREYS.

	£	s.	d.
Dr. Ewing Whittle, Liverpool	3 3 0
Medicus, Manchester	1 0 0
Dr. C. R. Illingworth, Clayton-le-Moors	0 10 6
Dr. John Ringwood, Kells	0 10 6

BONE-SETTERS AND CLUB-DOCTORS.

SIR,—Will you kindly advise me in the following case? A member of a friendly society, under which I hold a medical appointment, came to me the other day, asking me to give him a certificate of sickness for his club. He was suffering from fractured clavicle, which had been set by an unqualified bone-setter at a distance, and I understood that a certificate from this man had admitted him to the benefit of sick relief. I declined to grant him the certificate, referring him to the bone-setter for it.

The next day I received a note from the secretary officially, requiring me to make a professional examination of the patient. My reply was that I would, as medical officer of the society, examine the patient and report his condition to the secretary, but I distinctly declined to give him the ordinary sick-certificates required periodically during his disablement. I would like to know your opinion of my conduct through the pages of the JOURNAL.—Yours sincerely,

RUSTICS.

. The course adopted seems to be reasonable if the unqualified bone-setter continued to have the member under his care. If, however, he were not being attended, perhaps a refusal to give him any advice or certificate might place our correspondent in a difficult and unpleasant position with the society. The matter is one requiring careful consideration, and may be largely dependent on local circumstances.

INFLUENCE OF FUCHSINE ON ORDINARY TESTS.

SIR,—I should be much obliged if you, or any of your readers, would kindly give me some information as to the influence of fuchsine on the ordinary tests for sugar, albumen, urea, etc., in urine excreted by a patient who is taking it for albuminuria, the urine being slightly coloured by it. I know of no book or periodical in which the subject is mentioned.—I am, sir, yours obediently,

X. Y. Z.

. It may be said that the ordinary tests for albumen, sugar, and urea in urine are only affected to a very slight degree by the administration of small doses of pure fuchsine. The urine of a dog, to whom fuchsine was given for three days, showed no marked alteration, except of colour, although some new aromatic bodies made their appearance. As traces of aniline and arsenic may be present as impurities in the fuchsine, care should be taken to guard against this. Reference is made to the subject by Schmiedeberg, *Archiv für Exper. Pathol.*, band viii, s. 2.

CONSTIPATION IN INFANTS.

SIR,—I should feel obliged if some of your correspondents would kindly favour me with their experience as to the best remedy for this.

I have under my care an infant, aged 5 months, who, from two months after birth, has been troubled by the most persistent constipation. I have done everything that I can think of, and have examined most of the text-books without being successful in hitting on a cure. I use the word *advisedly*. Of course, I have found temporary benefit from many things. Books on children's diseases appear all to dismiss this complaint with a very few words, and a few impracticable suggestions. The child is otherwise in excellent health. Will some of your readers kindly let me know of something that has succeeded in their own practice?—Yours faithfully,

M.D.

"WORMING" DOGS FOR HYDROPHOBIA.

Our correspondent from Bedale writes again on this subject. There is no possible reason why removing any of the structures which help to form the floor of the mouth should prevent a dog from having hydrophobia. It might prevent him from biting so easily as before the operation, but a muzzle would effect this object without the trouble of performing a cruel and useless operation. The disease, whatever its precise nature may be, is clearly introduced into the system through a wound made by the animal's teeth, or through a haug nail, or abrasion, wetted by the dog's saliva. The dog himself contracts the disease either from a wound made by another animal, or from certain obscure constitutional disturbances, but certainly not through having a "worm" in his tongue.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. James Erskine, Berlin; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. Rugby, Welford; Mr. C. Stacpool, London; Mr. J. Tatham, Salford; Mr. C. E. Shelly, Hertford; Dr. Norman Kerr, London; Mr. J. Whitehouse, Sunderland; Mr. G. A. Raverty, Liverpool; Mr. J. Stuart Nairne, Glasgow; Mr. W. H. Allen, Barmby; Mr. T. C. Pocock, Bournemouth; Dr. T. R. Walters, London; Surgeon-Major Evatt, London; Mr. T. Jenner Verrall, Brighton; Mr. T. F. J. Blaker, Brighton; Mr. S. Culley, Norwich; Mr. S. Snell, Sheffield; Dr. R. Sandby, Birmingham; Our Aberdeen Correspondent; Dr. A. Johnston, Glasgow; Mr. C. W. Beresford, Dunstable; Mr. G. Eastes, London; Mr. E. Thompson, Omagh; Dr. Joseph Rogers, London; Mr. J. Robinson, Dunscar;

Mr. Power, Portsea; Mr. D. Hepburn, London; Mr. J. E. Lane, London; Dr. Maxwell, Woolwich; The President of the Institute of Chemistry of Great Britain and Ireland, London; Dr. D. Dyce Brown, London; Dr. F. Bond, Gloucester; Mr. E. Davies, Edinburgh; Dr. H. Handford, Nottingham; Mrs. Spark, Sydney, New South Wales; Dr. Hutchinson, Scarborough; Mr. G. F. Aldous, Petersfield, Hants; Mr. P. Birch, London; Miss Katharine Ellis Cameron, London; Dr. Wilks, London; Our Manchester Correspondent; Dr. E. T. Wilson, Cheltenham; Dr. D. P. Gausson, Dunmurry; Dr. Danford Thomas, London; Mr. T. C. Johnston, Edinburgh; Mr. W. T. F. Churchouse, Rugby; Messrs. Puggard and Galschiot, London; Dr. Lush, Weymouth; Dr. P. Boulton, London; Mr. W. W. Barker, Littlehampton; Mr. T. Ely, London; Mr. J. Martin, Netley; Mr. W. R. Thomas, London; Miss Hunt, London; Mr. H. C. Lawrence, London; Mr. G. de G. Griffith, London; Mr. M. E. Bourke, Sheffield; Mr. Lockwood, London; Dr. C. S. Roy, Cambridge; Mr. P. C. Little, Dublin; Messrs. Lloyd, Altrec, and Smith, London; Dr. P. J. Cremen, Cork; Mr. H. S. Newill, Bishop's Castle; Our Edinburgh Correspondent; Mr. J. Holt, Castleford; The Secretary of the Pathological Society, London; Dr. J. W. Hunt, Dalston; Our Dublin Correspondent; Dr. Willoughby, London; Mr. H. A. Fotherby, London; Dr. E. Paget Thurstan, Southborough; Mr. H. Watts, London; Mr. R. W. Clarke, London; Dr. Mulos, Bowden; Mr. J. Walshe, Oldcastle, Meath; Mr. C. E. Goddard, Harrow; Dr. Robertson, Edinburgh; Mr. Jeffreys, Chesterfield; Dr. F. T. Houston, Dublin; Mr. S. Robinson, Sunderland; Mr. E. Owen, London; Mr. H. R. Laard, Cambridge; Dr. F. Wills, London; Mr. G. M. Dartnell, Liverpool; Mr. B. G. Morison, London; Dr. W. Webb, Wipsworth; Mr. C. B. Kestley, London; Mr. R. O. Jones, Bala; Mr. M. C. Soutter, London; Dr. J. H. Stowers, London; Mr. James Startin, London; Mr. P. B. Woodbridge, London; Dr. J. Crawford Renton, Glasgow; Dr. Hale White, London; Dr. Willoughby, London; Mr. Joseph Unsworth, Liverpool; Dr. E. J. Edwards, London; Mr. H. G. Myles, Abbeyshrule, co. Longford; Messrs. Burgoyne, Burdidges, and Co., London; Dr. Greenway, Belyedera; Our Glasgow Correspondent; Dr. W. S. Playfair, London; Dr. W. Ogle, London; Dr. Kelly, London; Mr. G. Brown, London; Mr. F. W. Gordon, London; Dr. R. Wade Savage, London; Mr. J. Bellamy, London; Dr. Mackey, Brighton; Dr. F. C. Coley, Newcastle-on-Tyne; Mr. C. H. Stanley-Stevens, Algiers; Mr. R. Clement Lucas, London; Mr. H. Norris, South Petherton; Mr. T. G. Alderton, London; Mr. J. Pedlow, Portsmouth; The Secretary of the Chelsea Hospital for Women, London; Dr. T. B. Bradshaw, Liverpool; Dr. A. Hess, London; Dr. D. Ferrier, London; The Secretary of University College, London; Our Paris Correspondent; Our Berlin Correspondent, etc.

BOOKS, etc., RECEIVED.

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- A Physician's Pharmacopoeia, Containing Formulae of Unofficial Preparations. By J. Bailey, Pharmacist. London: J. and A. Churchill.
- The Ocean; a Treatise on Ocean-Currents and Tides, and their Causes, Demonstrating the System of the World. By William Leighton Jordan, F.R.C.S. Second Edition. London: Longmans, Green, and Co. 1885.
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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

OBSERVATIONS ON THE SO-CALLED CONGENITAL DISLOCATION OF THE HIP-JOINT.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By WILLIAM ADAMS, F.R.C.S. Eng.,

Surgeon to the Great Northern Hospital, and to the National Hospital for the Paralysed and Epileptic; Consulting Surgeon to the National Orthopaedic Hospital, etc.

I HAVE been induced to offer a few remarks on the so-called congenital dislocation of the hip-joint for the consideration of the members of the Surgical Section of our Association, chiefly by the fortunate occurrence of our president, Professor Bennett, being able to exhibit to the meeting a recent dissection, made by himself, of a case of congenital dislocation of both hips, which occurred in a girl, aged 6. Hitherto I have had, as all surgeons must have had, a fair share of clinical experience of these cases; but this is the first occasion on which I have had the opportunity of seeing a dissection of a case with a reliable history, such as we have in the specimen Professor Bennett has kindly brought with him from Dublin.

My attention has, however, always been directed to this affection since it was first pointed out to me in the year 1845 by Dr. Carnochan, of New York, who was then visiting England, having recently come from Paris, where he had carefully studied this affection from the specimens in Dupuytren's museum, also from his published works.

Dr. Carnochan brought a case of so-called congenital dislocation of both hips, in a boy, aged 18, to St. Thomas's Hospital, when I was curator of the museum, for the purpose of demonstrating this affection, and probably this was the first case noticed in England. The external characters of the dislocation, and its effects in altering the conformation of the chest and abdomen, in consequence of the tilting forwards of the pelvis, and the production of lordosis to an extreme degree in the lumbar region, were so strikingly illustrated in this case that, under the direction of Mr. South, an entire model of the boy was made by Mr. Kierney, and is now in the museum of the hospital. From this model three drawings in different positions were taken, and form the subject of plates Nos. 1, 2, and 4 in Carnochan's *Treatise on Congenital Dislocations of the Head of the Femur* (New York, 1850).

With a view of determining some points to be presently alluded to, I have carefully looked through my note-books, and find that, since 1859, when the first case was recorded (a period of twenty-five years), I have preserved notes of 60 cases, and have brought with me a tabulated arrangement of these cases. From this Table I find that, out of 60 cases, 13 occurred in males, and 47 in females. In 19 cases, both hip-joints were affected, and, in 41, only one hip-joint; and, of these, the right hip-joint was affected in 15 cases, and the left in 26 cases. The labour, whether natural or otherwise, is noted in 45 cases, in 23 of which the labour is said to have been easy and natural, and, in these cases, we may fairly assume that the head-presentation occurred. In two of these cases, the child was born before the accoucheur arrived. In four cases head-presentation is stated to have occurred, and, in one case, a foot-presentation. Breech-presentation, or cross-birth—probably meant to be the same—is stated to have occurred in 7 cases; and prolonged labour—in some cases of which, 7 in number, either manipulation was employed, or instruments used—occurred in 22 cases, and in 15 of these also head-presentation probably occurred. The total number in which the labour and presentation are noted amount to 45. The number of cases which occurred in first children is stated to be 15, whilst many occurred in the third, fourth, sixth, and, in one case, in the eighth child; the total number in which this is noted is also 38 cases. Hereditary predisposition is stated to have occurred in only one instance, and, in that case, a girl, aged 6½ years. The father and the father's sister are both said to have had dislocation of one hip-joint from the birth. With regard to age, nearly all the cases that have come under my notice have been between the ages of 2, and 6, or 8 years. I have seen two adults—one at 20, and the other at 34 years—both in consequence of pain, which is apt occasionally to occur in these cases.

With regard to the general history and symptoms of this affection, it is well known that there are no symptoms whatever to direct the

attention of the accoucheur to the condition of the hip-joint at the period of birth; no malposition of the limb, or immobility; on the contrary, the movements are free in all directions. As a rule, no attention is drawn to the hip-joint until after the period of walking, which is sometimes a little later than in other children, especially when both hip-joints are affected: then, if one hip-joint be affected, the child walks with a limp, and a suspicion of hip-joint disease is naturally raised, and, in several instances, I have known these cases treated for hip-joint disease. When both hip-joints are affected, the child walks with an awkward waddling gait, which, it is thought, it will grow out of; but as these conditions do not disappear, other opinions are taken, and consultations held.

The diagnosis, it must be admitted, is often difficult in fat children, say of the age of 1½ or 2 years; the shortening is slight, not more than half an inch, and all measurements are difficult from the abundance of fat and small size of the bones; but at 2½ or 3 years of age the diagnosis is easily made. 1. We are able to decide that the shortening of the limb is above, and not below, the knee; 2, from the absence of symptoms of hip-joint disease, and free mobility of the joint without pain, congenital dislocation may be assumed to be the cause of the shortening; 3, the crucial test of measurement by the ilio-femoral triangle of Bryant, and also by Nélaton's line, can now be more readily made, and the top of the great trochanter will always be found to be on a level, or nearly so, with the anterior superior spinous process of the ilium, when the patient is standing; that is, a line drawn horizontally backwards from the anterior superior spinous process will touch the top of the great trochanter, or nearly so; so that the base of the ilio-femoral triangle is nearly, if not quite, obliterated. The top of the great trochanter will also be found to be from half an inch to an inch above Nélaton's line. These measurements, together with the other symptoms, will at once decide the case. When the child is a little older, 4 or 5 years of age, the consecutive deformities, especially conspicuous when both hip-joints are affected, still further aid the diagnosis. It has been stated that the head of the femur can be felt on the dorsum ilii rolling under the fingers when pressure is made, but this is not so according to my experience, especially in young children, when I have frequently failed to feel any movement of the head of the femur. But a little later—from 5 to 10 years of age—it can generally be felt; yet very indistinctly as compared with a traumatic dislocation, or a spontaneous dislocation, such as occasionally occurs during the progress of fever. When we remember that, in the congenital form, the head of the femur is still retained within the capsular ligament, which gradually becomes extremely thickened and dense in structure, and also that the head of the bone is always diminished in size and somewhat altered in shape, we should not expect to detect any rolling movement of the head of the bone when the limb is rotated, at all corresponding to that felt in the other forms of dislocation mentioned.

A certain amount of approximation of the knees, and obliquity of the thigh-bones inwards, has been mentioned amongst the diagnostic symptoms, but I have never observed this in any case that has fallen under my observation.

As age advances—say, from 10 to 20—all the diagnostic symptoms become exaggerated, and, as the result of walking with the natural equilibrium of the body so much disturbed by the malposition of the hip-joints, especially in a case of so-called double dislocation, the trochanters rise higher above the level of the anterior superior spinous process; the pelvis is thrown forwards, causing excessive lordosis in the lumbar region, and prominence of the stomach in front, the spinal muscles being thrown into strong action in the effort to maintain the equilibrium of the body. The alterations in the general proportions of the body, especially the comparative shortness of the legs, as compared with the trunk, also become conspicuous. When one hip-joint only is affected, tilting of the pelvis and lateral curvature of the spine are certain to result from the inequality in the length of the legs.

With regard to the nature of this affection, and the pathological conditions met with on dissection, as shown by the specimens before us (brought by Professor Bennett), and the photographs and drawings I exhibit from the specimens in the museums of St. Bartholomew's and St. Thomas's Hospitals, I will ask you, after examining them carefully, to express an opinion whether you consider this affection should be regarded as "a true dislocation, or as a malformation of the acetabulum with displacement of the head of the femur."

The term dislocation I assume to mean a displacement of a bone from its natural socket; and, in the case of the hip-joint, we must, therefore, have sufficient proof, or reasonable evidence to believe from existing traces, that a natural socket or acetabulum has existed.

The specimens which I have examined (supposed to be examples of

the so-called congenital dislocation of the hip, but not authenticated), such as those in St. Bartholomew's and St. Thomas's Museums (No. 1050 in St. Bartholomew's, and Nos. D 42 and D 43 in St. Thomas's) agree in exhibiting the complete absence of the acetabulum, and of all traces of its ever having existed. A little below the situation of the acetabulum is an irregularly flattened and triangular depression, the base of which extends at the lower part to the upper border of the thyroid foramen, and its apex above would correspond to a spot which should be about the centre of the acetabulum.

Normally, I find that the upper border of the acetabulum corresponds to a horizontal line drawn backwards from the anterior inferior spinous process of the ilium; but the apex of this triangular depression is fully half an inch below this point in the specimen at St. Thomas's; and it seems to be so generally in the others.

The faulty position and shape of this triangular depression leads me to the conclusion that the acetabulum has never been perfectly formed in intra-uterine life, and that some arrest of development in the formation of the acetabulum has occurred, and therefore that the head of the femur has never been in a natural acetabulum; so that I cannot regard this so-called dislocation otherwise than as a displacement of the head of the femur, resulting from malformation of the acetabulum.

As a result of the absence of the acetabulum, great alterations are observed in the size, shape, and attachments of the capsular ligament, the base of which is greatly elongated in the direction upwards and downwards. These are well shown in one of the dissections represented in Carnochan's book (see Plates 6 and 7), which I have copied; and also in the St. Thomas's specimen D 43, put up as a wet preparation, from which I exhibit a drawing. The specimen from the opposite hip-joint of the same subject, D 42, has been macerated, and put up dry. Of this also I exhibit a drawing, both made by Mr. Shattock, the present curator of the museum. In the wet preparation, D 43, the pelvic attachment of the capsular ligament is seen to extend from near the upper border of the thyroid foramen below, up to the inferior curved line on the ilium above—that is, midway between the anterior superior and the anterior inferior spinous processes of the ilium. Transversely, the capsular ligament extends backwards to a little below the upper border of the ischiatic notch. The elongated and misshapen capsular ligament is greatly thickened, and dense in structure, as described by Professor Bennett in the dissection from the girl aged 6; and, when laid open anteriorly, which Mr. Shattock did at my suggestion, the cavity of this enlarged capsular ligament measured two inches and a half in its longitudinal diameter, and in its transverse diameter—not so easily measured—about an inch and a half. The attachments of the capsular ligament at the base of the neck of the femur appeared to be natural. Within the capsular ligament, at its upper part, was the head of the femur, much diminished in size, flattened, and irregular in shape, but covered imperfectly with articular cartilage.

The theory of arrest of development, or malformation, as the cause of the congenital displacement, has been held by many surgeons, chiefly by Dupuytren, who described it as early as in the year 1826.

The next theory of importance with regard to the cause of this affection is that suggested by M. Jules Guérin, who considers that this displacement of the femur is due to *spasmodic muscular action in utero*, ending in permanent muscular retraction, with shortening, such as we can have but little doubt occurs in the production of club-foot—at least, in the ordinary form of congenital club-foot, talipes varus. But, in these cases, the foot remains in its deformed position after birth, and can only be gradually restored to its normal position either by mechanical means or tenotomy. In this so-called dislocation of the femur, the limb is not drawn into any abnormal position at the period of birth, but, on the contrary, all its movements are free, and the position natural. I cannot, therefore, admit any analogy between this hip-joint displacement and club-foot, much as I respect any opinion held by M. Guérin, the able exponent of the law of subcutaneous surgery, and the advocate of the extension of tenotomy and myotomy to the treatment of deformities of all kinds.

The third and last theory to which I propose to refer is one which Professor Bennett has opposed—I am sure rightly opposed; and I am glad to add any confirmatory testimony to the views he has expounded. This theory is, that the so-called dislocation of the hip-joint is of traumatic origin, and the result of injury inflicted by the accoucheur in a case of difficult or preternatural labour; generally, if not always, a case of breech-presentation, in which manipulations or instruments are employed. This theory has so little to support it, and is so much opposed to clinical observation and pathological investigation, that the accoucheur ought to be defended by the patho-

logist against any such accusation, and its consequences, as the admission of such a theory might involve.

As clinical evidence against this theory, I would make the following statements.

1. There are no symptoms of dislocation at birth, the limb is not drawn into any abnormal position, and the movements at the hip-joint are free and natural.

2. Children are frequently born with this displacement, when the labour is described as having been easy and natural, and therefore presumably with head-presentation, and sometimes this is distinctly stated. At the meeting of the Royal Medical and Chirurgical Society (*Proceedings of the Royal Medical and Chirurgical Society of London*, New Series, October-December, 1883, Vol. ii, No. 2) of London, on November 27th, 1883, Mr. George Cowell exhibited "four cases of congenital dislocation of both femora, all occurring in girls from 6½ to 11 years of age. In three instances, the children were born after rapid and easy labours; in one, the presentation was breech and the labour difficult; in one instance, the pregnancy was twins, and the patient was the first born."

3. Children with this displacement are sometimes born without any assistance from the accoucheur, and even before he arrives, two examples of which are stated to have occurred in my tabulated account of sixty cases.

4. Hereditary predisposition has been distinctly traced in this affection. Although only one instance occurs in my Table, others have been recorded by Dupuytren, Carnochan, and other authorities.

Then there is a certain amount of pathological evidence against this theory of traumatic dislocation; and chiefly I would refer to the fact, demonstrated by the dissection, that the head of the femur is always found to be within the capsular ligament, which could not occur in traumatic dislocation. The ligamentum teres is sometimes present in an elongated and attenuated condition. The evidence adduced under these different heads will, I presume, be considered as sufficient to negativate the theory of traumatic dislocation.

Whatever view may be held as to the cause of this obscure affection, which leads to such important consequences in after-life, the pathological conditions of which have now been demonstrated by Professor Bennett, we must decide upon the principles of treatment to be adopted.

I have found in young children, and sometimes at later periods, that the head of the bone can be brought into what might be considered its natural position, by extension after the administration of ether, or gradually after the application of weight-extension. The great trochanter descends to its normal relations with the anterior superior spinous process, but the improvement gained is quickly lost, and no permanent good is attained.

Subcutaneous tenotomy has been proposed, and the division of the tendons of the muscles inserted into the great trochanter has been adopted: but a consideration of the pathological conditions, as demonstrated here to-day, as well as my own clinical experience, has led me to oppose any such operation.

Then, with regard to any advantage to be derived from mechanical supports, I have frequently seen children eased in steel, but have failed to observe any advantages derived therefrom. I have, therefore, abandoned all hope of producing any improvement in the actual condition of the parts at the hip-joint, and limit my endeavours to the diminution of the late consequences of this affection, more especially when one joint only is affected, to the prevention of tilting of the pelvis, and lateral curvature of the spine, which I have occasionally seen produced in a very severe form.

In these cases, I recommend the maintenance of the horizontal position, for at least half the day, during the period of active growth; and this should be combined with gymnastic exercises taken in the horizontal position, on the improved exercising plane, and also the use of the trapeze-bar. Any inequality in the length of the legs when this affection is limited to one hip-joint, must be compensated for by a raised foot. This, I believe, is all that can be done to prevent the consecutive deformities, and other consequences, which would certainly result if no preventive measures were employed.

The President of the Section (Dr. E. J. BENNETT) exhibited a recent dissection of congenital dislocation of both hip-joints from the body of a child, aged 6 years. He stated that he had brought the specimen with him, and exhibited it at the request of Mr. Adams. He mentioned this fact, as he had already shown the dissection at the Academy of Medicine in Ireland, and it would be fully described in its *Proceedings* for this year. The rarity of such a dissection had induced him to comply with Mr. Adams's request. During life, the child presented the characteristic features of the deformity; she walked with difficulty and ran with ease, as these patients do. Her limbs

Table of Sixty Cases of the so called Congenital Dislocation of the Hip-joint, which have occurred in Mr. Adams' practice during the last twenty-five years.

Date	Name.	Age.	Double.	Single.	Right.	Left.	First child, or not.	Breech-presentation, or cross-birth.	Prolonged labour; manipulation, or instruments used in some cases.	Head-presentation.	Labour easy and natural.	Hereditary Tendency.
1859	Miss C.	4 yrs.		Single		Left	Not					
1859	C. H.	5 yrs.		Single	Right							
1860	E. W.	6½ yrs.		Single		Left						
1861	Miss M.	10 yrs.		Single		Left						
1861	D. M.	5 yrs.	Double					Cross-birth	Turned with instruments			
1862	H. M.	6 yrs.	Double						Prolonged labour, no instruments used			
1862	A. D.	6 yrs.		Single		Left	First					
1863	Master F.	5 yrs.		Single	Right							
1863	Master B.	3 yrs.		Single		Left						
1864	S. S.	4 yrs.		Single		Left	First	Cross-birth	Not prolonged, but instruments were used		Easy and natural	
1866	Miss D.	7 yrs.	Double									
1866	Miss C.	2 yrs.		Single	Right							
1867	W. N.	4 yrs.		Single		Left	Second				Easy and natural	
1867	J. C.	5 yrs.	Double								Easy and natural	Father and sister had congenital dislocation, right hip.
1868	F. L.	6½ yrs.		Single		Left	First		Prolonged and difficult		Easy and natural	
1868	E. L.	3 yrs.		Single	Right		Sixth			Head-presentation		
1868	Miss T.	7 yrs.	Double				Third				Easy and natural	
1868	Miss A. C.	6 yrs.	Double				Second				Easy and natural, accouchment not present, mother had 5 children, this the quickest labour	
1869	S. S.	8 yrs.	Double				Fourth				Easy and natural	
1869	Miss G.	5 yrs.		Single		Left	Sixth				Easy and natural	
1869	Miss V.	10 yrs.		Single		Left						
1869	S. B.	6½ yrs.		Single		Left	Third		Prolonged and difficult labour, instruments used			
1869	Miss W.	9 yrs.		Single	Right		Second		Labour tedious, no instruments or force used			
1869	Miss H.	8 yrs.	Double				Fourth				Easy and natural	
1869	Miss G.	7½ yrs.		Single		Left	Third				Easy and natural	
1871	Miss T.	9 yrs.		Single	Right		Third		Prolonged, no instruments used	Head-presentation	Tedious, but natural	
1871	Master B.			Single		Left	Fourth				Easy and natural	
1872	Miss W.	9 yrs.	Double								Easy and natural	
1872	Miss P.	8 yrs.		Single	Right				Tedious		Natural	
1872	Miss W.			Single		Left	First		Difficult, no instruments used	Foot-presentation		
1872	Master F.	8½ yrs.		Single		Left			Tedious		Natural	
1873	Master S.	8 yrs.		Single	Right		First				Easy and natural	
1873	W. M.	6 yrs.		Single		Left	Third					
1873	Miss H.	12 yrs.		Single	Right				Difficult labour, no instruments used			
1873	Miss L.	4 yrs.		Single		Left	First					
1874	Mrs. St. J.	34 yrs.	Double				First					
1875	Miss N.	7 yrs.	Double									
1875	Miss L.	4 yrs.		Single		Left						
1875	Miss B.	12 yrs.		Single	Right		Fifth	Cross-birth	Difficult labour			
1877	Miss G.	3 yrs.		Single	Right		First		Prolonged labour, no instruments used			
1877	Miss W.	2½ yrs.	Double, left more displaced than right								Easy and natural	
1878	Miss H.	6 yrs.	Double				First	Breech-presentation	Difficult labour, had to be turned			
1880	Miss T.	4 yrs.		Single		Left	First				Easy and natural	
1880	Miss S.	20 yrs.		Single	Right		Sixth				Easy and natural	
1880	Miss S.	22 mths.		Single		Left	Tenth				Easy and natural	
1880	Miss O.	3 yrs.	Double				Eighth				Easy and natural	
1881	Master W.			Single		Left						
1882	Master B.	3 yrs.	Double				First	Breech-presentation	Turning required			
1883	Miss H.	6 yrs.		Single	Right							
1883	Miss N.	2½ yrs.		Single	Right		Not first	Breech-presentation	No instruments used			
1883	Miss S.	2 yrs.	Double				First		Difficult labour, instruments used	Head-presentation		
1883	Miss H.	20 yrs.		Single		Left						
1883	Miss R.	7 yrs.	Double				Eighth		Prolonged labour, no instruments used			
1883	Miss D.	2 yrs.		Single		Left	Sixth		Labour tedious, but no instruments used			
1883	Miss B.	1½ yrs.		Single		Left	First	Breech-presentation	Difficult labour, instruments used			
1884	L. M. S.	8½ yrs.		Single		Left	First		Labour tedious			
1884	Miss L.	5 yrs.	Double				First				Easy labour, child born before the doctor arrived	
1884	Miss H.	9 yrs.	Double				Third, one of twins		No instruments used	Head-presentation		
1884	Master E.	14 yrs.		Single	Right		Second				Easy and natural	
1885	Miss C.	19 yrs.		Single		Left						

were widely separated at the knees, and the buttocks were unduly prominent posteriorly, while the limbs were neither inverted nor everted. In the gluteal region, behind the trochanters, which were placed above the normal level, no tumours could be felt or be rendered prominent by inversion of the limbs, as in traumatic and pathological dislocations of the hip. Traction of the limbs, while the child lay on her back, did not alter their length, or cause the trochanters to descend from their abnormal level. The child had been born without any delay or abnormality in the labour, head foremost. The dissection exposed the gluteal muscles greatly wasted, particularly the maximus. The capsular ligaments were entire, and greatly thickened posteriorly, where they supported the heads of the femora, and separated them from the innominate bones. On the right side, the ligamentum teres was absent, its attachment to the head of the bone being represented by a flattened tuft of tissue. On the opposite side, the ligament was present, greatly elongated and reduced to a thin flat band, but still normal in its attachments. The anterior and inner parts of the capsular ligaments were stretched from their normal attachment to the pelvis across the sites of the acetabula, which were represented only by shallow depressions filled with red fatty tissue, similar to the Haversian bodies of joints in structure. The heads of the femora were small and deformed, but a section exposed the osseous centres of the epiphyses regularly developed. The axes of the necks and heads of the femora were directed forwards as it rotated through a full quarter of a circle beyond the normal bearing, hence the fact that the limbs were not inverted, and that no tumours projected in the gluteal regions behind the trochanters. The junction of the elements of the innominate bones in the site of the acetabula were normal, and the pelvis was regularly formed, except for such features as were present constantly in this deformity, the projection of the anterior spines of the ilia and of the tuberosities of the ischia, and the deep groovings for the psoas and iliac tendons, etc. Asked by a member to state his opinion on the etiology of the deformity, Dr. Bennett stated that he contented himself with an attempt to ascertain the facts rather than to formulate a theory. He considered that this specimen excluded the theories of arrest of development of the bones, and the injury of tedious or difficult labour, or breech-presentation during birth. He regretted that he had not been able to obtain the spinal cord, although probably a search there would have been negative.

Mr. KETLEY (London) had observed dislocation or displacement of the hip in cases of infantile paralysis, but they had appeared to him to present features rather contrasting with than resembling those of congenital dislocation.

Mr. MAYO ROBSON (Leeds) asked Mr. Adams if the spinal cord and electrical reaction of the muscles had been examined in any of his cases. He believed that such cases were due to anterior polio-myelitis either before or subsequent to birth, and that the dislocation was secondary; the wasting of the acetabulum being due to non-use. He mentioned a case of congenital dislocation of the humerus, in which he had been consulted lately, where there was paralysis of the deltoid, and a congenital dislocation of the hip where there was paralysis of the glutei. Treatment was best carried out by a high shoe to correct the tendency to lateral deformity, and by massage and galvanism to improve the muscles.

Mr. BERNARD ROTH (London) had seen several patients with all the symptoms of so-called congenital dislocation of the hip-joint, which occurred after some serious illness prolonged through many months, such as spinal meningitis, rheumatic fever and its sequelae, etc.; and yet these patients had no deformity at birth, and for the first few years of life.

Mr. NOBLE SMITH (London) considered that the interesting specimen exhibited by Professor Bennett supported the theory of the causation of congenital dislocation of the hip which Mr. Adams held in conjunction with the majority of other surgeons, the displaced acetabulum being covered with cartilage, and the capsule entire. He thought that the theory of congenital malformation was also supported by the cases of similar displacements in other joints, especially of those which had been recorded as occurring in the shoulder. The cases recorded by Mr. Robert Smith of Dublin were cases in point. Upon the other hand, the evidence with regard to breech-presentations was much against that theory, as Mr. Adams had shown. Mr. Noble Smith referred to a case of very slight displacement of the hip-joint in which the head of the femur was distinctly small, and the acetabulum apparently deficient. The left limb was alone affected, and every part of that limb was small, causing much shortening of the leg, which shortening had been attributed entirely to the displacement, whereas it was evidently dependent more upon congenital deficiency of the whole limb than upon the partial dislocation.

DOES KOCH'S COMMA-BACILLUS PRODUCE A PECULIAR POISON?

By JULES BERDEZ, of Lausanne.

NICATI and Rietsch, then Pouchet (*Bullet. de l'Acad.*, 1884 and 1885), have found poisonous substances in the liquids which had been used as nutrient media for pure cultures of Koch's comma-bacillus. At the request of Dr. Klein, we have repeated these experiments in the laboratory of the Brown Institution. Flasks of alkaline broth having been inoculated with comma-bacillus, were left in the incubator, some for four days, others for twenty days. During the first days, a live form of turbidity is produced in the flasks by the growth of the comma-bacilli, but afterwards the liquid becomes clear, and a white deposit appears on the bottom of the flask. Such broth does not smell offensively even after twenty days' cultivation; its reaction becomes slightly acid.

One part of the contents of each flask is then precipitated by basic acetate of lead, then the excess of lead eliminated by sulphuretted hydrogen. The liquid, in this way deprived of peptones and albumen, possesses toxic properties. Injected in the dorsal lymph-sac of a frog, it causes symptoms of paralysis after five minutes; the leaps of the animal become shorter and lower, and the animal soon creeps along enfeebled in all its limbs; the front legs place themselves in flexion, the back ones in extension; the reflexes are at first diminished, then disappear altogether, except in some groups of muscles. The respiration becomes slower in a few minutes, and, in about a quarter of an hour, it, as well as the movement of the heart, stops altogether. The faradisation of the spinal cord does not produce contraction of muscles, but the direct excitation of the nerves does. The effect of strychnine is considerably diminished during this intoxication. We were not able to note anything concerning the pupil.

Another part of the contents of the flasks was simply heated to a temperature approaching the ebullition of the fluid, then filtered and condensed to a small volume by evaporation. By means of a high temperature, the bacilli become matted together in the shape of small flakes, and can be then easily separated by filtration, they remaining on the filter without passing through it or obstructing its pores. The filtrate, treated in the same way as the first portion, that is, the unfiltered culture-broth, yields substances of the same toxic effect as described above.

In order to ascertain whether these properties are peculiar to broth in which Koch's comma-bacilli have been cultivated, we have inoculated alkaline-broth with pure cultures of an ordinary moving form of bacillus subtilis. These cultivations, treated in the same way as those of Koch's comma-bacillus, have also yielded toxic substances, which in frogs produce the same symptoms of central paralysis. The only difference that we could observe in these last experiments was that the broth, after some days' cultivation, remained alkaline, and smelt like glue.

The toxic principle is by no means easily dissolved in absolute alcohol. We have not succeeded in producing poisoning with alcoholic extracts. It seems, however, to be more or less soluble in chloroform.

The toxic principle seems to be produced in the cultures in very small quantities; we have not obtained enough to provoke certain symptoms of poisoning in rabbits and guinea-pigs, nor to isolate it in a pure state. In the same way as Koch's comma-bacillus and ordinary mobile bacillus subtilis, Finkler's comma-bacillus was also tested. Alkaline broth was inoculated from a pure cultivation of Finkler's comma-bacillus, and placed in the incubator for several days. The fluid was then subjected to evaporation, and when sufficiently concentrated, was tested on frogs. The symptoms of poisoning produced were the same as those produced in the two former instances. It follows, then, from these experiments, that the power to produce in alkaline broth substances which possess poisonous properties affecting the central nervous system is not peculiar to Koch's comma-bacillus, as is maintained by Nicati and Rietsch, and as is also implied by Kleis and Lauze (*Corresp.-Blatt für Schw. Aerzte*, No. 11. 1885), but that it shares this with a common septic bacillus subtilis, and also Finkler's comma-bacillus. It appears very probable that these toxic substances are identical with the ptomaines, isolated and investigated by Brieger (*Die Ptomaine*, Berlin, 1885), and obtained by putrefaction of proteid materials.

ON THE DISTRIBUTION OF CALCULOUS DISEASE IN NORFOLK.

By CHARLES B. PLOWRIGHT, M.R.C.S., F.L.S.,
Surgeon to the West Norfolk and Lynn Hospital.

THE data from which the following paper has been compiled, consist of 1,936 cases of stone, which have either been the subject of operation, or of *post mortem* examination, and of which the localities have been recorded. These have been derived from the following sources.

<i>Public Practice.</i>	
Norfolk and Norwich Hospital, 1772 to 1885...	1,503 cases.
West Norfolk and Lynn Hospital, 1835 to 1885	124 "
Yarmouth Hospital, 1839 to 1874	72 "
<i>Private Practice.</i>	
Dr. Lubbock, Mr. C. M. Gibson, Mr. R. E. Gibson, and Mr. Cadge, Norwich; Dr. John Lowe, Mr. G. B. Sweeting, and Mr. W. G. Walford, King's Lynn; and Mr. R. Marriott, Swaffham	237 "

Total ... 1,936

Of these, the localities of 1,760 Norfolk cases were placed on a map of the county; they were then transferred to an ordnance-map (one inch to the mile); the geological map, as far as this has, up to the present, been published, being employed. The distribution of the cases was finally again checked from the original list.¹

It happens that the ordnance-map of the county is divided from west to east, by the sheets in which it is published, into three nearly equal sections, of which the western section contains 677 square miles; the central, 705 square miles; and the eastern, 640 square miles. From the above materials we find that, taking the entire county, one case of stone occurs in every 1.1 square mile. The proportion, however, differs in each of the sections, the disease increasing in frequency from west to east. Thus

	Western Section.	Central Section.	Eastern Section.
One case in every ...	3.0	1.5	.6 square miles
Excluding towns of more than 10,000 inhabitants	3.7	1.5	1.09 "

In the towns of more than 10,000 population, 1 case occurs: in King's Lynn, .11; in Great Yarmouth, .04; in Norwich, 0.3; to each square mile.

Parallel to these arbitrary divisions, the Great Ouse runs northwards through nearly the centre of West Norfolk, emptying itself into the Wash on the west side of the town of King's Lynn. It has long been a matter of observation on the part of the surgeons of the Lynn Hospital that they seldom, if ever, have a stone case from Marshland, that is, west of the Ouse. Since 1865 (twenty years), 53 calculi have been added to the collection at this hospital; 50 of these came from the east side of the river, 3 only from the west. Of these 3, 1 was from Long Sutton, in Lincolnshire; 1 from Friday Bridge in Cambridgeshire; and 1 from Marshland, Terrington St. Clement's; this last was removed by myself, from a young child, whose parents had immigrated into Marshland, from High Norfolk, about a year before its birth. By taking the more extended data on the map, which include cases cut in Norwich in 1786, 1799 (probably two brothers), 1811, 1824, and 1825, and one which was crushed in Lynn Hospital in 1846, and cut in 1852, thus counting as two cases, we find that in High Norfolk, that is east of the Ouse, one case occurs in every 2.5 square miles; while in Marshland, that is west of the river, one case occurs in every 8.2 square miles. It must further be remembered that some years ago labour was much better paid in Marshland than in High Norfolk, so that immigrations into Marshland were constantly taking place from the last named district; and, moreover, prior to 1820, the Great Ouse, in the lower part of its course, ran considerably more to the westward than it does now. The limitation of the disease by the river in question, is a matter of great interest from an etiological point of view. Not only do the cases come quite up to the east bank of the river from Southery to Lynn, but they also come quite up to the coast from Lynn to Yarmouth. So much is this the case, that there is scarcely a village on the seaboard of the county in which one or more cases have not occurred; the comparatively important town of Hunstanton being one of the very few exceptions. On the southern boundary of the county the cases extend, with little if any diminution in frequency, into the adjoining one of Suffolk.

¹ At the meeting of the East Anglian Branch, held at Cambridge, in June last, this map was exhibited, for which occasion the present communication was prepared. It is obvious that the data given above do not show the actual number of stone cases which have occurred in Norfolk, but only their relative distribution as far as I have been able to arrive at it.

In East Norfolk, the cases tend to follow the course of certain of the rivers, namely, the Bure, the Waveney, the Tese, and the Ket. This is not observable with the rivers in other parts of the county.

The geological survey-maps for West Norfolk and for the district round East Dereham have not yet been published. The subjoined remarks, therefore, apply only to East Norfolk and Mid Norfolk, excepting the district round Dereham. Excluding the large towns, Norwich and Great Yarmouth, 801 cases occur upon the following formations as nearly as can be ascertained.

Postglacial	Aluvium	...	...	...	...
	River-gravel	...	...	...	1
	Sand and gravel	...	...	...	20
Glacial Drift	Gravel and sand	...	...	...	189
	Boulder-clay	...	...	...	155
	Loam and sandy loam	...	...	...	149
Norwich Crag	...	...	...	...	245
Upper Chalk	...	...	...	...	42

801

The extensive tract of chalk which occupies West Norfolk does not appear in the above summary, but it will be remembered that this division of Norfolk produces only one stone-case in every three square miles, against one to every three-fifths of a square mile of East Norfolk. The rivers which the cases follow are those whose course is outlined by the Norwich Crag. Certain towns and villages are specially subject to the disease; for example—

Population, 1881.		Number of Cases.
2,647	Aylsham	23
1,090	North Elmham	14
4,566	Wymondham	21
470	Binham	8
Others are exempt, or nearly so.		
1,500	Hunstanton	0
1,407	Watton	0
3,264	Downham	1
Adjoining villages sometimes vary considerably.		
1,127	Pulham, St. Mary Magdalen	2
822	Pulham, St. Mary the Virgin	8
The village of North Wootton, since 1865, has had 1 case of lithotripsy, 2 of lithotomy, 1 of urethral extraction, 1 of renal (uric acid), 3 of uric acid gravel = 8 cases.		
324	North Wootton	8
197	South Wootton	0
345	Castle Rising	0
195	Wolferton	1

The three last named parishes surround North Wootton on three sides, the sea bounding it on the fourth. Moreover, of the eight cases above named, seven occurred in one group of houses using the same water-supply.

Taking into consideration such facts as the above, together with the limitation of the disease by the Great Ouse and the riparian aggregation of the cases along the Bure, the Waveney, etc., and its absence from the other rivers, one cannot avoid the conclusion that continued observations on the distribution will eventually lead to some definite conclusions as to the cause of the frequency of the disease in Norfolk. In the present communication, however, this aspect of the subject is purposely avoided.

My best thanks are due to those gentlemen who have freely replied to my queries, and afforded me information, especially to Mr. Cadge. For the calculations respecting the distribution of the disease in the various areas, my thanks are due to Mr. E. G. Mawbey, the borough surveyor of King's Lynn.

SUGGESTED IMPROVEMENTS IN EXCISION OF THE KNEE-JOINT, AND IN THE LIGATURE OF LARGE ARTERIES.

By EDWARD THOMPSON, M.B., F.R.C.S.I.,
Surgeon to the Tyrone County Infirmary.

THERE are some points in the treatment of excision of the knee-joint, both at the time of operation and subsequently, which seem to me to deserve particular attention. I have had a good many of these cases under treatment from time to time in the Tyrone Infirmary; and the suggestions I have now to make, and which I desire shortly to detail, are the outcome of my experience.

In the first place, I always make the first incision nearly straight across the limb, and as small in extent as possible; with one sweep of the knife the ligamentum patellæ is cut through, and the joint opened.

The upper end of the ligament is then seized and dissected off the bone, and the patella removed. The subsequent steps of the operation require no comment. When the bleeding has ceased, the cut surfaces of bone are placed in close apposition, and the divided ends of the ligamentum patellæ are strongly stitched together with carbolised silk; the skin-flaps are brought together in the usual manner, and the wound closed, no drainage-tube being inserted. The limb is at once put up in plaster-of-Paris, with a back-splint of strong hoop-iron; another strong piece of iron is bent over the situation of the wound, so as to allow the application of the proper dressings; two side-splints of hoop-iron, about eighteen inches long, and slightly hollowed over the wound, are placed lengthways, across the site of the joint, and over the plaster-of-Paris, the whole being firmly secured by a bandage. A completely rigid and comfortable bed is thus secured for the injured limb. The upper and lower portions of the limb are padded with French wadding, and, close to the wound, with carbolic tow. If there be any discharge from the wound it will penetrate the tow, which can be readily removed and replaced without disturbing the limb.

I have heard a great many discussions, and read a great many elaborate articles, on the proper method of treating these cases; but, as yet, I have seen no apparatus which is so easy of application, or so reliable as the plaster case. I have attempted to describe, and which is coming into very general use.

The chief points which this short paper is intended to emphasise are—1, the small extent of the primary wound really necessary; 2, the preservation of the ligamentum patellæ, not by its non-division, but by the divided ends being stitched together; 3, the enormous anterior support afforded by the preservation of the ligament, and the lessened tendency to displacement; 4, the increased power given to the limb by preserving almost intact the insertion of the powerful crural muscles; 5, that stitching the patellar ligament seems quite as efficacious as the recommendation by some authors of its non-division; and that, while effecting subsequently the same purpose, it in no way hinders, or renders more difficult, excision of the joint.

In all my recent cases of amputation of the thigh, I have tied the femoral artery with a strong carbolised silk ligature, and cut off both ends short. The wound has healed, and remained healed, in every case. Thus a troublesome cause of irritation—one end of the ligature being left hanging from the flap—and a very great impediment to the healing of the flap-wound by first intention, has been effectually got rid of.

NOTE ON THE PREVENTION OF MAMMARY ABSCESS.

By ARTHUR W. EDIS, M.D., F.R.C.P.,

Obstetric Physician to the Middlesex Hospital; Physician to the Chelsea Hospital for Women.

Instances are not unfrequently met with where the function of lactation is either not considered advisable, as in cases of syphilitic taint, marked tendency to phthisis, epilepsy, etc.; or where, from the child being stillborn, or the nipples depressed, subject to cracks, fissures, or erosions, the function of lactation is unnecessary or unable to be persisted in. Apart from these conditions, there is unquestionably a growing tendency for mothers to avoid the responsibility of suckling their offspring. Milk is secreted, and, if it be not drawn off at appropriate intervals, the breasts become engorged, and not unfrequently inflamed, mammary abscess resulting. From whatever cause it may be, we are often obliged to take steps to prevent such a contingency.

For many years, the old-fashioned methods in general vogue, if not adrognated, were at least tacitly acquiesced in—such as rubbing the breasts with sweet oil; oil and extract of belladonna; glycerine and belladonna; belladonna plasters; evaporating lotions; strapping the breasts, and other like expedients.

It being believed that friction of any kind, in the large majority of cases, rather tended to produce than prevent mammary abscess, it was long since discarded. The application of a long strip of belladonna plaster, sixteen or eighteen inches long and six or eight inches deep, with round apertures, so as to leave the nipples free, or tightly across the chest, the breasts being brought well up towards the median line, for many years was the only resource adopted, beyond careful regulation of the diet, abstention from fluids, gentle purgation, etc. This method never failed, but it was often found that the smell of the belladonna produced so much nausea in delicate patients as to preclude the employment of it.

Thinking that, in all probability, the pressure exerted con-

tributed greatly to the advantage derived, I was induced to rely upon a few turns of a rib-bandage, or the application of a thin towel or diaper across the chest, the breasts being brought well towards the sternum. Since adopting this method, I have never known it fail. Not a single instance of mammary abscess has occurred in a long series of cases, extending over several years. The only precaution requisite is to apply the pressure on the second day following parturition, before the breasts begin to fill, and to see that the whole of the glands are included.

It is well to elevate the shoulders somewhat more than usual, and not to allow the bed-clothes to cover the upper part of the chest, the sheet alone sufficing to prevent any risk of chill. Restriction as to the amount of fluid, for the first few days, and attention to the bowels, are all that is requisite to ensure success. Some little inconvenience, a feeling of tightness, or burning pain, is often experienced; but, if the pressure be maintained, no harm results, and, within the course of a few days, the turgescence subsides, and the difficulty is at an end.

In order to keep the bandage or towel from slipping down, a shoulder strap from back to front, or merely pinning the bandage to the night-dress, suffices.

Where the secretion of milk seems to be unusually abundant, a mixture of bromide and iodide of potassium may be prescribed with benefit. In only a very few instances has it been found requisite to draw off a small quantity of milk, by means of a breast-pump or exhausted soda-water bottle, and this only once or twice.

I venture to think these remarks may prove of value to many, as I not unfrequently see instances of mammary abscess brought on, I verily believe, by the old-fashioned method of rubbing and irritating the breasts.

A CASE OF FATAL ANÆMIA.

By DAVID W. FINLAY, B.A., M.D., F.R.C.P.,

Physician to the Middlesex Hospital, and to the Royal Hospital for Diseases of the Chest.

EDWARD D., a coachbuilder, aged 47, was admitted into the Middlesex Hospital on December 24th, 1884. His family-history presented no point of particular interest, except that one sister had died of phthisis. He had himself always previously enjoyed good health, and had lived well. Five months before coming under observation he had begun to be troubled with pain in the region of the stomach, accompanied by sickness, the pain being worst after food, and this had continued more or less up to the time of admission. He had been able to continue at his work up to December 20th, and had been confined to bed for one day only before coming to the hospital.

On admission, he complained of great weakness, cough, shortness of breath, and loss of appetite. His pulse was 84, regular, but weak and compressible; respiration, 18; temperature, 102.2 Fahr.; tongue pale, coated, and tremulous. He was sparsely nourished, and the skin presented a well marked yellowish tint. The chest was of the barrel-shaped type, and was resonant over the præcordial area, and over-resonant elsewhere. The breath-sounds were accompanied by sonorous and sibilant sounds on both sides, front and back. The heart's sounds were normal but feeble; and there was a venous hum in both jugulars. The abdomen was soft and flaccid; the liver-dulness extended two inches below the costal margin in the nipple-line, and the spleen could be easily felt an inch and a half below the costal margin on the left side. There was well marked oedema of both ankles and legs. The urine had a specific gravity of 1025, and was acid, and free from albumen. The evening temperature was 103.4°. Next morning, December 25th, his temperature was 102.4°, and the report was that he had slept badly. The abdomen was tympanitic, the cough slight, and there was no expectoration; there was less oedema of the legs; temperature during the day averaged about 102°.

On the following morning, December 26th, the temperature was 101.6°. He had been delirious during the night; there was still less oedema, and the tongue was clean. The highest temperature recorded during the day was 102.2°, the lowest 101.6°.

Next day, December 27th, there was but little cough; the tongue was dry, and slightly furred; the pulse 104, and compressible; the bronchitic sounds were rather more intense than before.

On examination with the ophthalmoscope, flame-shaped retinal hæmorrhages were seen in the fundus of the right eye, but none were detected in the left. The blood was found to have a corpuscular richness of exactly fifty per cent., the colouring-matter reaching only twenty-five per cent.; the white corpuscles were about normal; the red discs were also normal in size and shape. The spleen was further increased in size, being felt two inches and a half below the costal

margin. During the day, the temperature ranged between 100.6° and 102°. He died at 5 A.M. of the 28th.

At the *post mortem* examination, which was made thirty-three hours after death, the body was noted to be of waxy pallor, the muscles on section being of a pale pink colour. The pericardium contained three ounces of clear serous fluid. The heart weighed eleven ounces and a half, the blood in its cavities being fluid, and light in colour. The valves were healthy, the muscular substance pale, but nowhere of fatty appearance. The lungs were emphysematous in front, congested posteriorly, and very oedematous; the bronchial mucous membrane was injected. The liver was large, weighing sixty-six ounces; its surface was granular, and dotted over with punctiform hæmorrhages, which were also scattered thickly through its substance. The spleen weighed nineteen ounces and a half, and was of deep purple colour and firm consistence. The kidneys were rather large, firm, and congested; the capsules not adherent. The stomach presented extensive submucous hæmorrhages, which were especially marked about the pylorus and greater curvature. In the small intestines, there were areas of aborescent congestion, with punctiform hæmorrhages, which in the ileum coalesced to form ecchymoses of greater size. The suprarenal bodies and pancreas appeared healthy. The brain-substance was firm, and seemed normal in every respect. The retina showed numerous hæmorrhages, those in the right being the larger and more numerous.

On microscopic examination, the muscular fibres of the heart appeared a little granular, but nothing more; the liver was normal, with the exception of the hæmorrhages before referred to; and the spleen presented no abnormal appearance.

REMARKS.—There can be no doubt that the foregoing case was an example of the mysterious disease first described by Addison under the name of idiopathic anæmia. This was sufficiently attested even during life, by the general pallor, the oedema of the feet and legs, the range of temperature, and the retinal hæmorrhages, together with the absence of discoverable organic disease. Other diseases associated with some of the symptoms and physical signs were excluded by the examination of the urine, and by the history and course of the case while under observation. Corroboration was also afforded by the *post mortem* examination, although it is noteworthy that one of the most pathognomonic of the changes found in such cases after death was conspicuously absent—I mean the fatty degeneration of the muscular tissue of the heart. I think that this can be best explained by the extremely rapid fatality, the man having been, to all appearance, seriously ill for little more than a week. The immediate cause of death was oedema of the lungs, which was probably helped by the bronchitis with which his case was complicated, although the latter was by no means of intense character.

Perhaps the most puzzling point in connection with this disease is that its morbid appearances, judging by the cases which have been reported from time to time, are very inconstant, and that even many of the most characteristic symptoms are often absent in individual cases. Of such are the pyrexia, which was well marked in this case, but is frequently not so; the retinal hæmorrhages, which are not only not invariable in this disease but are often present in other varieties of anæmia; and the heart-murmurs, which are generally reported, but were absent here. And it is also worthy of note that there seems to be no point of corpuscular poverty of the blood beyond which a fatal result is inevitable, nor within which a favourable termination is impossible.

One of the chief points of importance in connection with the morbid appearances of the present case is the very considerable enlargement of the spleen (which was, no doubt, in part due to the pyrexia); but the extreme variation in size of this organ, both in health and in disease, renders it difficult to draw any conclusion from the fact. Sixteen ounces is the highest weight which I have seen recorded in any previous case of anæmia, while it has been noted as reaching only four ounces in others, being often, also, described as normal.

As to etiology, there was nothing suggestive in the present case, excepting the fact of some months' dyspepsia; and this may possibly have been more a consequence than a cause of the anæmic condition.

It is a matter for regret that further observations on the blood could not be made, but these were precluded by the short time the case was under observation.

BEQUESTS AND DONATIONS.—Mr. and Mrs. J. T. Hirst have given 100 guineas, and "R.A." £100, to the North-Eastern Hospital for Children.—University College Hospital has received 100 guineas from the People's Contribution Fund.—The Mercers' Company have given 500 guineas to Queen Charlotte's Lying-in Hospital.

CLINICAL MEMORANDA.

HÆMATEMESIS AND MELÆNA IN NEW-BORN CHILDREN.

HAVING seen in the reports of the Clinical Society particulars of a case of hæmatemesis and melæna occurring soon after birth, I send a short note of a case which occurred in this city last month.

A male child, of usual size, was born on September 21st, after a fairly easy labour, and seemed to be doing well up to about five o'clock on the 22nd, when the patient's mother noticed blood on the child's clothes. She, thinking it arose from defective tying of the cord, sent for the midwife in attendance.

On her arrival, the cord was found to be quite secure, but the navel was saturated with blood. An action of the bowels indicated the source whence it came. The midwife sent for me without delay, and I saw the child about twenty hours after its birth, or three hours after the blood was first noticed.

I gave one grain of gallic acid, with four drops of tincture of catechu every two hours. The bleeding continued during the night, and part of the next day, but very much less in quantity. On the third day, it had entirely ceased.

The child is now doing well. Never having met a case of the kind before, I was greatly pleased at its happy termination, for which I had scarcely dared to hope.

There is a difference in the above case and that read by Dr. Sawtell, in the fact that there was no hæmatemesis, but only the hæmorrhage from the bowel. G. A. RAVERTY, Stanley Road, Liverpool.

INTERMITTENT PAINFUL AFFECTION OF THE HANDS AND FEET.

PERHAPS cases like the following may have occurred also to others. A girl, aged 13, in fair health, was taken suddenly with violent pains in both hands and both feet. Every one of them swelled up, and became intensely red. The pain did not allow any movement. After two hours, everything subsided, but she felt hot. During the following night, the temperature was 101° Fahr. The attack came on at 9 o'clock P.M. The following evenings, the attacks came always a quarter of an hour earlier each day; but becoming, by-and-bye, milder and shorter, immediately after the use of quinine and ergot, and disappearing completely after one week's treatment.

The attacks must have been of central origin, but I was unable to find any proof of it. Probably malaria was the cause. Several times I have found ergot a powerful help to quinine in cases of neuralgia, with accompanying vaso-motor symptoms.

AUGUSTUS HESS, M.D.

SURGICAL MEMORANDA.

ACCIDENTS WITH DENTAL SPRING-GAGS.

WHILE giving nitrous oxide gas for the extraction of a tooth, an accident recently happened which merits notice. The gag was of a somewhat new pattern, one of those containing a spiral spring, with a movable end to admit of adjustment. When the patient was under the influence of the gas, the gag slipped with an audible click; and on removing it from the mouth, the upper end, which is attached by solder instead of being in one piece with the movable cylinder, was found detached from the latter, and free in the mouth. Such an accident is by no means free from risk as regards the glottis, and points to the necessity of some method being devised to unite the cylinder and tooth-plate, which will absolutely prevent the possibility of such an occurrence. H. CRIPPS LAWRENCE, L.R.C.P. Lond., Oxford Terrace, Hyde Park.

THERAPEUTIC MEMORANDA.

ANTIPYRIN AS A SEDATIVE.

I HAVE found antipyrin useful to produce sleep in two cases of typhoid fever, and in several cases of pyrexia in young children.

In the two cases of typhoid fever, 15 grains were given at 9 P.M., 7½ grains at 10 P.M., and 7½ grains at 11 P.M. The result was reduction of temperature from 104° Fahr. to 105° Fahr. to about normal, and good refreshing sleep for five or six hours.

Newton Heath, Manchester.

A. WALKER, M.D.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HOSPITAL FOR WOMEN, LIVERPOOL.

A CASE OF SEROUS PERITONITIS.

(Under the care of Mr. J. E. BURTON, L.R.C.P., M.R.C.S.)

THE patient, M. E. C., aged 26, presented herself at the out-patient department on June 2nd, 1885. She had been married six years, had one child, and had had a miscarriage two years before admission; she had not been pregnant since. Menstruation was normal until ten days before admission. About the time of the commencement of her illness, she had been deserted by her husband. This affected her so deeply, that she attempted to commit suicide. On the attempt becoming known, she was taken into custody and to a hospital. At this time the menses were just ceasing. On being admitted into the hospital, she was put into a bath much against her will, and whilst in it a shaking fit came on, with pain in the abdomen. During the next twenty hours, she had other chills, but the following day she was considered well enough to be taken before the magistrate for the attempt on her life. Here she was discharged with "a caution." But from the time of the first shaking whilst in the bath, she had somewhat violent pain in the lower abdomen.

On vaginal examination, the uterus was found to be moderately fixed, with a large rounded swelling to the left and behind, very tender to the touch. The patient appeared to be very ill, and she was admitted the next day as an in-patient.

On June 3rd, the temperature in the evening was 99.4° Fahr.; the following morning, 98.6° Fahr. For the three following days, the range was between 99° and 98.4° Fahr., so that the pyrexia was now well marked. In the meantime, the swelling had increased in size, and fluctuation was fairly distinct. The swelling was aspirated on June 6th, the needle being passed into the softest part of the swelling to the left of the uterus, and a little posteriorly, by sight, having first ascertained and fixed the exact spot for the puncture by the finger, and then cleansed and disinfected it with carbolic solution. Six ounces of fluid were withdrawn of a very peculiar character. First came about two ounces of purulent fluid; the remainder was semi-transparent thickish serum, with, finally, some blood before the cannula was withdrawn. The temperature then fell to 97° Fahr. on June 7th, and again to 96.8° Fahr. on June 9th. The evening temperature rose to 99.2° Fahr. on June 13th, to 100° Fahr. on June 14th, and 100.6° Fahr. on June 15th.

Examination now revealed a second collection of fluid, but on the right side, at a point exactly corresponding to the original collection on the left. As soon as fluctuation was distinct, this was aspirated, and two ounces of serum, exactly similar to the bulk of that obtained by the first aspiration, were removed, pus and blood coming towards the close of the aspiration as on the first occasion. The temperature again fell, and on the morning of June 21st reached 96.8° Fahr. From this time it never rose above normal, and was usually below it. She was discharged on June 30th. The patient was examined again on September 15th. There was then a little remaining thickening on the right side; none on the left. There was no pain.

REMARKS BY MR. BURTON.—By a curious coincidence, my case was admitted into hospital on the very day on which the interesting discussion on the subject took place at the Obstetrical Society, on the occasion of the reading of Dr. John Williams's paper. As to the mode of origin of it, the striking resemblance in this point to hæmatocele cannot fail to be noticed. The menses were on the point of ceasing; the patient was put into a cold bath; whilst in it, she experienced sharp pain in the abdomen and some shock. Without discussing the opinions of others as to the mode of origin of these cases, as such a discussion would unduly lengthen these remarks, I shall, I hope, be excused if, for the sake of brevity, in giving expression to my own views, there be an appearance of dogmatism in my statements. The mode of onset suggests the possibility that the peritonitis may be caused by effusion of blood into the pelvic peritoneum. In pelvic hæmatocele the blood almost always, if not invariably, comes from the Fallopian tube. If there have previously been endometritis, extending along the tube, some of the peccant fluid secreted by the inflamed tube would escape into the peritoneal cavity along with the blood. It is known that the serum of peritonitis, like that of pleurisy,

and hydrocele, has naturally little or no tendency to coagulate, even on exposure to air, so long as it is pure; but blood added to it, even when defibrinated, supplies a material, called by Schmidt, its discoverer, fibrin-ferment, that rapidly brings about coagulation outside the body. Power, in his *Elements of Physiology*, has the following passage. "It is remarkable that serous fluids, poured forth in inflammatory affections of the pleura, pericardium, peritoneum, tunica vaginalis, and other serous membranes, exhibit little or no tendency to coagulate, but if a little blood . . . be added to either of them, coagulation at once occurs." The immediate occurrence of coagulation relates, of course, to the behaviour of these fluids outside the body and exposed to the air. Coagulation does take place, to some extent, in the body; the blood removed by aspiration from a hæmatocele is not as fluid as that drawn from a healthy artery or vein, and exactly the same degree of coagulation, it is noticed, has taken place in the serum of serous peritonitis. After it is drawn off, it coagulates, "sets," as Dr. M. Duncan expresses it, just as blood would under similar circumstances. We have thus an affection suggesting, by its mode of onset, the pouring of blood into the peritoneal cavity; we have serum effused differing, in almost all respects, from ordinary serum of inflammation, but presenting the characteristics physiology teaches us to expect in serum contaminated with blood, and behaving, on withdrawal, not like any other serum we know of, but exactly as serum does to which blood has been added; and, finally, in my case, blood was actually withdrawn, after the other contents had escaped, from both collections of serum, showing that, in this case, it must have been present, whatever part it played in producing the appearances observed.

If serous peritonitis is really hæmatocele plus pelvic peritonitis, as I believe it is, there is no reason for attributing a very irritating property to the something that excites the inflammation, for we get development of fibrin and gluing of intestines without it. My case, although a severe one, as was shown by the formation of pus, did not indicate the presence of anything very irritating. The temperature never rose above 100.6° Fahr., and this was only when the second collection was forming, and some days after the first had been evacuated.

As regards diagnosis, it would be difficult to distinguish simple hæmatocele from hæmatocele with peritonitis. The temperature-range would not materially assist, as shown in my case. The diagnosis would be made out by watching. In simple hæmatocele, the blood would be fluid at first, then it would become solid in part, and give a feeling of thickening to the walls of Douglas's pouch, whilst there would generally be some spot more prominent than the rest, and very soft, as if it were an abscess on the point of bursting. A few days would clear up all doubts, however, for the mass would begin to diminish in size, and the prominent spot would recede. In hæmatocele plus peritonitis, however, the swelling is more rounded, and fluctuation is felt over a larger area; moreover, the swelling increases in size, and this is just the opposite of what takes place in simple hæmatocele.

As regards treatment, I am perfectly satisfied with what I did. If aspiration be done under proper antiseptic precautions, the needle not being so large as to leave a gaping opening on withdrawal, it will be quite as satisfactory as incision and drainage, and less time will be taken up in the subsequent recovery.

COUNTY ANTRIM INFIRMARY, LISBURN.

EXCISION OF BOTH MAMMÆ AT SAME TIME.

(Under the care of Mr. GEORGE ST. GEORGE.)

[Reported by Mr. GEORGE WARING, Resident-Pupil.]

SARAH L., aged 62, married, was admitted on September 30th, 1884, suffering from malignant disease of both mammae.

About ten years before, she had observed a small tumour in her right breast, for which she consulted the late Dr. William Thompson, who excised the tumour in this infirmary. She made a very slow recovery, but was at last discharged cured. She remained in good health until about a year before re-admission, when she felt pain in a lump in her left breast, which gradually grew larger.

When admitted, she was a fresh healthy-looking woman. Her right breast had the mark of an old scar, where the tumour had been removed ten years previously, and in this breast there was now a hard nodulated tumour, about the size of a pigeon's egg. She said she had no pain on that side. There was one small gland affected in the axilla. The skin was adherent, and the gland seemed adherent to the pectoralis muscle. On the left side, there was also a hard tumour, about the same size as the other, with the nipple retracted. The

mamma was freely movable on the muscle beneath, and there were no glands enlarged in the axilla.

Mr. St. George removed both breasts the next morning (October 1st, 1884). Strict antiseptic precautions were used. The arteries were ligatured with carbolised catgut, cut short. The sutures were of the same material. The right breast was very adherent to the subjacent muscle. The gland was removed from the axilla, and a drainage-tube inserted. The wounds were dressed under the spray on the fifth day, and every third day afterwards. She made an uninterrupted recovery, except for a slight attack of intercostal rheumatism on the fourteenth day, which lasted three days. On account of the large quantity of skin removed in the right breast, healing took place by granulation.

The patient was discharged quite well, on November 6th, 1884, and has continued well.

REMARKS BY MR. ST. GEORGE.—Removal of both mammae at the same time is, of course, a very rare operation, as it is very seldom that a case presents itself in which it is needed, or can be performed. In this case, though the tumours, both on section and on microscopic examination, were found to be, as was diagnosed, true scirrhus, yet the health of the patient was so good, and the constitutional disturbance and implication so slight, that I think it was quite justifiable to give her a chance of some years of, at all events, immunity from the dread of disease. In all cases of excision of the breast, it is well to remove freely, even at the risk of taking away a large quantity of skin, so as to go well beyond the diseased structures. The shock of the double operation was very slight, the woman saying she felt better than she had done after the operation ten years before. This she laid to the credit of the spray.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 2ND, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

THE CLINICAL SIGNIFICANCE OF THE DEEP REFLEXES.

DR. GOWERS opened a discussion on this subject. He gave a brief outline of what he believed to be the mechanism by which the symptoms known as "tendon-reflex phenomena" were produced. It was only by understanding the mechanism of their production that their relation to other symptoms could be comprehended, and the phenomena used in the diagnosis of cases that did not conform to regular types. Tension on a muscle stimulated the afferent nerve-fibres (ending in the interstitial tissue); and this stimulation so influenced the centres in the spinal cord, as to induce in the muscular fibres a state of slight contraction, probably the same condition as physiological "tone." In this state, local mechanical stimulation caused a sudden brief contraction. A sudden increase of tension was one form of mechanical stimulation, and a tap on the tendon acted by suddenly increasing the tension. If increased tension were maintained, the muscle, relaxing from the first contraction, was excited to another, and so a clonus occurred. The contraction was local; the irritability was reflex, and, as it was excited by tension, it was convenient to speak of it as "myotatic irritability," or the irritability of extended muscle. The muscle-reflex centres overacted in consequence of a loss of the normal control, which was probably exerted by structures in the grey matter of the spinal cord at the same level, structures in which the lateral fibres ended. It was pointed out that this hypothesis enabled many conditions otherwise inexplicable to be understood, such as the condition of these phenomena in ether and in chloroform-narcosis, and after epileptic fits. The facts seemed to show that this hypothetical controlling structure was more susceptible to the action of poisons, than was the muscle-reflex centre itself. Dr. Gowers passed next to the questions in practical diagnosis that especially invited discussion. He first considered locomotor ataxy. Without denying that the knee-jerk might occasionally be absent in health, he believed that most alleged instances of such absence (including some he himself described several years ago) were due to imperfect observation, and that its absence was of great significance as an indication of commencing tabes, even though other symptoms were extremely slight. On the other hand, the presence of the knee-jerk did not exclude true tabes. He had watched its disappearance after other symptoms of the disease were distinct. A peculiar difficulty in determining the absence of the knee-jerk in this disease was next mentioned. When there was excess of superficial reflex action, a true reflex action might simulate the knee-jerk, although this was really lost; the distinction being that, while some attempts to

obtain it failed, others might cause a contraction now in the extensors, now in the flexors, now in the muscles of the other leg, and that a prick on the skin had precisely the same effect in these cases. The loss of the knee-jerk in diphtheritic paralysis was mentioned as of great significance, diagnostic and pathological; and the important observation of Bernhardt, that the loss might follow diphtheria when there was no paralysis, showed that the influence of this disease on the nervous system was more frequent than obtrusive palsy suggested. The loss might cause an erroneous diagnosis of tabes, if it coincided with inco-ordination. In pseudo-hypertrophic paralysis, the diminution and ultimate loss was probably due to the morbid process occupying the interstitial tissue in which the afferent nerves of muscle ended. It was of great diagnostic importance, as a distinction from the disease with which pseudo-hypertrophic paralysis was most likely to be confounded, slight congenital spastic paraplegia, in which the knee-jerk was always increased. After alluding to the conditions met with in intracranial disease, Dr. Gowers passed to the question of greatest difficulty, the state of these phenomena in functional diseases, especially in "hysterical paraplegia." Certain facts might, he said, be stated with confidence. 1. In many cases, the myotatic irritability was perfectly normal. 2. In others, there was distinct, though slight, excess, insufficient to give a true clonus. 3. In hysterical contracture, and depending on it, there might be a clonus like that which occurred in health in standing on "tiptoe." 4. A "spurious foot-clonus" was common, depending on a voluntary contraction in the calf-muscles, pressing down the foot, and varying in degree from time to time, the clonus varying with it. This was very characteristic, and was a most important diagnostic sign of hysterical paraplegia. While not denying the possibility, in hysterical paraplegia, of a true uniform clonus, such as occurred in spastic paraplegia, Dr. Gowers expressed the opinion that, to say the least, it was so rare that it did not materially lessen the value of this sign of organic disease. He believed, and cited cases in support of his opinion, that some of the cases from which the inference had been drawn, that a true clonus was frequent in hysterical palsy, were cases of organic disease. More than a mere diagnosis was required as evidence. It must not be forgotten that true spastic paraplegia might be recovered from. He did not assert this of lateral sclerosis; he believed that spastic paraplegia might depend on disease of the structures in the grey matter in which the lateral fibres ended, intermediate between the lateral fibres and the muscle-centres. If, as he assumed, these were controlling structures, the symptoms of their disease would be identical with those of disease of the lateral columns. A subject that arose out of the last topic, and had an important relation to the subject under discussion, was the wisdom of the current wide use of the term "functional disease." He maintained that in many cases and maladies so described, there must be a change, and a considerable change, in the nutrition of the nerve-elements, springing, it might be, out of functional derangement, but always maintaining and increasing that derangement. The changes in nutrition that the microscope could detect were simply colossal, considered as an alteration of molecular nutrition. Many, perhaps most, so-called functional diseases were far better thought of and spoken of as nutritional diseases. In cases of hysterical paraplegia, in which a persistent change in myotatic irritability, however slight in degree, was found, there must be a change in the nutrition of the spinal cord, on which so persistent an objective symptom depended. A case had been recorded by Charcot that seemed to prove, as clearly as a single case could prove, that a paraplegia, at first purely hysterical, might pass into a structural disease, lateral sclerosis. The transition must have been by changes in nutrition, such as Dr. Gowers believed were, in slight degree, common in these cases. While function depended on nutrition, nutrition equally depended on function. The question was, to what degree such secondary change in nutrition might go. The view that even structural disease often had this origin, had been urged a few years ago in a very thoughtful paper by Dr. Donkin. It was not suggested that there should be a departure from the present lines of practical diagnosis, but only that we should strive to gain more accurate conceptions of the conditions that underlie them. In conclusion, Dr. Gowers said that the explanation of these symptoms, and of their use in diagnosis, that he had given, might seem complex, but he was convinced that their nature was complex, and that the evidence they gave often required much care rightly to interpret. In the progress of science, first impressions of simplicity had often to give place to a conviction of complexity, and it was necessary to wait until fuller knowledge could reveal the alternate simplicity of order and of law.

DR. HUGHLINGS JACKSON thought the paper a masterly contribution to a very important subject, combining, in a manner to be envied, the practical and the scientific. He thought Dr. Gowers had no need to

apologise for the elaborate way in which he had dealt with a very complex subject; but, on the contrary, that he was to be congratulated on having dealt faithfully with the many different details of it, and their intricate relations. It was, Dr. Hughlings Jackson said, laziness which led to simplifying a really complex subject by the easy process of ignoring its complexity. Industry did not consist in doing something all day long, but in facing, as Dr. Gowers had done, the full complexity of problems taken up. He agreed with Dr. Gowers in thinking that there were cases of *tabes dorsalis* in which the knee-jerks were present. It was quite certain that a man might be perfectly paraplegic for many months, twelve for example, with extreme rigidity of the legs, and yet recover, at any rate with the qualification which Dr. Gowers had made; this remark did not apply to so-called *protopathic spastic paraplegia*. Dr. Hughlings Jackson had suggested that increased knee-jerk and foot-clonus, in cases of hemiplegia from destructive cerebral lesion, were owing to loss of cerebral control. Passing over some cases in which these superpositive phenomena were present for a while at the onset, the objection which had naturally been urged to his hypothesis was, that the superpositive symptoms mentioned came on late—"waited" for the establishment of lateral sclerosis. The current doctrine was that the "descending" process which destroyed the fibres, next, coming to the anterior horns, produced in their cells the diametrically opposite functional state of exaltation. Dr. Hughlings Jackson did not believe that the increased excitability of the anterior horns, or, to use Dr. Gowers's expression, muscle-centres, was owing to pathological change, but that it was the result of permitted hyperphysiological activity. By borrowing Dr. Gowers's hypothesis of local spinal inhibitory centres, he thought his view of "loss of control" was still tenable. Following Dr. Gowers, and thereby acknowledging great indebtedness for any value his modified hypothesis might have, he would say that the "descending" pathological process destroyed the local inhibitory centres, leaving the "muscle-centres" intact, but yet, from loss of control, in increased functional activity. The current hypothesis would not account for increased knee-jerk and foot-clonus in some cases of post-epileptiform paralysis. Dr. Hughlings Jackson mentioned some facts from a case he had recorded: a convulsion, beginning in the left foot, affecting the left leg chiefly, and followed by temporary paralysis, chiefly of the leg, with exaggerated knee-jerk and foot-clonus. In this case, following Todd and Robertson, he believed that the paralysis was owing to exhaustion, among other parts, of fibres of the lateral column. Dutil had adopted the same hypothesis in a very important contribution to our knowledge of post-epileptiform paralysis. Once more taking up Dr. Gowers's hypothesis, Dr. Hughlings Jackson thought that, not only were the fibres in the lateral column exhausted in the case mentioned, but also the local inhibitory centres; in consequence, the muscle centre was "let go." Westphal and Dr. Gowers had both pointed out that, after some epileptic fits, there was very transitory loss of the knee-jerk. In these cases, the presumption was that the exhaustion was greater in range, involving not only the local inhibitory centres, but the muscle centres also. Dr. Gowers suggested that, in his case of loss of the knee-jerk after an epileptic fit, the lumbar nuclei were exhausted. Dr. Hughlings Jackson referred in this connection to some valuable researches by Dr. Beevor, who had, in many cases, found ankle-clonus and increased knee-jerk after epileptic fits. The cortical discharges, both in epileptiform and in epileptic fits, varied greatly in degree, as the varying degree of the paroxysms produced by them showed; the after exhaustion would vary in range correspondingly. He thought the condition of the leap "reflexes" after epileptic fits a matter of very serious importance in the analysis of the wide symptomatology of epilepsy. Foot-clonus after epileptic fits was, he thought, an illustration of the principle of "loss of control" stated many years ago by the late Dr. Anstie. It was, he thought, a phenomenon of the same order as passage of feces after a slight fit of epilepsy, and of the same order as post-epileptic mania.

Dr. BUZZARD said that it was noteworthy that Dr. Gowers was disposed to consider the absence of knee-phenomena as being always a sign of pathological import. The speaker had long expressed a similar opinion. Cases now and then, however, occurred in which, owing to there being no concomitant symptoms, a doubt might exist as to whether the absence of the reflex was due to a pathological cause, or to some imperfection in the examination. That there was great danger of fallacy in this respect, was shown by the fact that the relative frequency of what might be called a "natural" or "physiological" absence of knee-reflex had been represented by different observers by figures varying from one-twenty-fifth to nearly five per cent. A method had been recently introduced by Dr. Ernst Jendrassik, of Buda-Pesth, by which it was hoped that the sources of fallacy might be largely diminished. His method, when the knee-reflex was very small, or

failed to be elicited in the ordinary way, was to direct the patient, seated on a table, with the bare legs dangling, to link the bent fingers of one hand into those of the other, and pull energetically, as though endeavouring to tear them asunder. Whilst this was being done, the ligamentum patellae was struck. By this method, 1,000 men of different ages and varying health (subjects of recognised nervous diseases being excluded) were tested, with the result that in only one instance the knee-reflex failed to be evoked; and that was in a case of diabetes mellitus, a disease in which the phenomenon was often absent. Dr. Buzzard had tried this method in several cases, in some of which the knee-reflex was small, and was convinced that the amount of action was considerably increased by it. If further observation should confirm the experience of Dr. Jendrassik, it would be impossible to entertain any reasonable doubt that every case in which the knee-reflex was absent had a pathological bearing. Five years ago, in a paper on tendon-reflex, published in the *Lancet*, Dr. Buzzard drew attention to a convenient method of examination, the efficacy of which probably depended upon the same principle as in Dr. Jendrassik's method—that is, a state of artificially increased muscular tension. The patient, who was seated, planted his foot firmly down at such a distance that the leg formed a little more than a right angle with the thigh. Whilst the observer rested the palm of his left hand upon the patient's thigh, he struck the ligamentum patellae about one-eighth of an inch below the knee-cap. The quadriceps muscle could be felt, and, if the skin were exposed, could be seen to contract more or less vigorously in response. Dr. Buzzard always employed this method in the first instance in females, as no disturbance of dress was required; the contraction of the muscle, where the response was normal, being plainly felt through it. But this method, like all others, was not absolutely infallible. In the great majority of cases, blows with a percussion-hammer were by far the best means of evoking the reflex; in a small minority, however, this process entirely failed, and the ulnar edge of the hand would be successful. He would only advert to a few points which were either, in his opinion, of supreme importance, or which were less definitely settled than some others. He had long been convinced that, unless there were some mechanical reason in the knee-joint against the presence of the knee-phenomenon, its absence was always of pathological significance. Absence of knee-reflex, occurring in the course of acute or subacute disease, would be due to anterior poliomyelitis, diffuse myelitis, neuritis, or spinal meningitis involving the anterior or posterior roots, or both. In reference to diagnosis, the abolition of the knee-jerk in these disorders was chiefly useful as distinguishing the condition from one dependent on encephalic lesion. As it might occur in each, it did not serve the purpose of distinguishing one from the other. It was very valuable in showing that a paralytic condition was of organic, and not functional, origin. He had never known the knee-phenomenon lost as a result of hysteria. It was very commonly absent in the form of multiple neuritis which was apt to follow diphtheria; and the symptom might appear not long after the onset of the disease, or be delayed for many weeks. The reflex often remained absent for a long while after the patient considered himself quite well. The symptom apparently bore no relation to the ataxic gait common in diphtheritic paralysis; for this often appeared long before the knee-reflex was lost, and disappeared long before the reflex was regained. This reflex was often lost for many hours in severe cases of cerebral hæmorrhage, and perhaps also in thrombosis. Dr. Buzzard was disposed to think that the occurrence of this symptom was an indication that the case was one of great gravity. From a prognostic point of view, the return of a lost knee-reflex in cases of poliomyelitis, diffuse myelitis, neuritis, and spinal meningitis was of the most favourable import. In the first disease especially, a considerable amount of, though not complete, recovery might take place, and the reflex yet remain permanently lost. The return of the reflex justified the expectation of a practically complete recovery. The knee-reflex lost in *tabes dorsalis*, according to Dr. Buzzard's experience, was not regained. Some cases of peripheral neuritis strongly simulated *tabes*. In these the reflex was lost, but there was reduced electrical reaction in the quadriceps. In these cases, if of acute or subacute character, the reflex usually returned after some months' absence. In *tabes*, as in diphtheritic paralysis, the absence of knee-reflex was quite unconnected with the ataxy, which was not found in large numbers of persons who had lost the knee-jerk. Bouchard found the knee-reflex absent in nineteen out of sixty-six cases of diabetes mellitus, and showed that it might return with the improvement of the patient's condition. Dr. Buzzard had found it absent in three cases. Of these, one was slight, another moderate, and a third, a case of extreme severity with a fatal issue. The question as to the nervous origin of diabetes was not, ac-

according to Bouchard, affected by the occurrence of this symptom. Excess of deep reflexes signified that the inhibitory influence of the higher centres was no longer being normally excited. In the speaker's experience the greatest excess was to be found in cases of compressive lesion of the cord. This was well seen in Pott's disease of the vertebrae. Great exaggeration of reflex and ankle-clonus were conspicuous phenomena in this condition, and their occurrence in a case of paraplegia should always suggest an examination of the spinal column. If, however, cases should involve the lower dorsal vertebrae, there would probably be a total absence of knee-jerk, instead of an excess, owing to disorganisation of the cord in the lumbar enlargement. The excess of reflex and ankle-clonus which occurred in the course of spastic paraplegia of apparently protopathic origin, was permanent, and the prognosis in such cases was extremely bad. But where ankle-clonus, excess of reflex, and spastic condition of muscles were secondary to a localised lesion in the cord, they might disappear after some months, and the power of the limbs return. The occurrence of ankle-clonus in a leg, which presented at the same time a total absence of knee-reflex, not unfrequently pointed to disseminated sclerosis. In Dr. Buzzard's experience the occurrence of true ankle-clonus, whilst it should always suggest the existence of organic disease, was not a proof of it. He had seen ankle-clonus completely indistinguishable from that characteristic of lateral sclerosis occur in many cases of hysterical paraplegia in which, on recovery, it ceased to be elicited. Some of these were patients whom Dr. Playfair had successfully submitted to the Weir Mitchell method. The presence of exaggerated supinator reflex a month or two after a hemiplegic seizure was of very bad prognosis as regarded recovery of power. Happening in the course of epileptiform seizures, it had by no means necessarily an equal importance. A case in private practice afforded a good illustration. A gentleman with syphilitic antecedents suffered, in June, 1880, from an attack of semi-unconsciousness, with vomiting, of cerebral character; on August 4th, he had passing numbness of the right index-finger; on August 31st, a queer sensation in the right arm and leg, and in the right side of the head. At the end of September an epileptiform attack, without loss of consciousness, occurred, in which the right half of the body was affected, and there was passing aphasia. The right forearm was most affected with a kind of painful cramp. On November 12th—that was after six weeks, without any intervening attack—there was marked increase of the supinator-reflex on the right side. On December 28th, he had a convulsive attack, which commenced on the right side. On January 10th, 1881, the supinator-reflex and knee-reflex were in marked excess on the right side. On February 4th, the reflexes were equal; and they had remained so since. The patient had now been quite well for some years. The symptoms in this case pointed to a gumma of the membranes on the cortex of the left hemisphere, which disappeared under specific treatment. The length of time which had elapsed—about two months—from the date of the attack to the time of the last observation of the increased reflex, suggested that mere exhaustion of nerve-centres was insufficient to explain the circumstance. It was more probable that the presence of the gumma mechanically interfered with the normal function of an inhibitory centre. If the conclusion were correct, it was in the cerebral cortex that such a centre must be sought.

Dr. ALTHAUS said that the subject of the deep reflexes, although recent, had already become so extensive, that it was impossible in the time allotted to the discussion to enter fully into all the questions connected with it. He would, therefore, confine his remarks to points which appeared particularly worth studying, and in some of which clinical observation had led him to results which he believed to be novel and practically useful. The absence of the light-reflex in tabes or locomotor ataxy, while vision was good, and the pupils still contracted when the eyes converged for near sight, was a frequent and important symptom of that disease, and was generally known as spinal myosis, Argyll-Robertson's symptom, or reflectory rigidity of the pupils. Dr. Althaus had noticed it in 60 per cent. of the cases of tabes which had come under his observation. When present at an early stage, in conjunction with loss of knee-jerk and with lightning-pains, it enabled one, not only to arrive at the diagnosis of tabes, but also to recognise the localisation of the morbid process with a degree of accuracy which would otherwise be impossible. As regarded the mode of production of this symptom, Argyll-Robertson attributed his symptom to disease of the spinal cord affecting the cilio-spinal region. This centre was discovered by Budge, who found it to be situated in the portion of the spinal cord extending from the seventh cervical to the sixth dorsal vertebra, and who noticed that faradisation of it caused the pupils to dilate. This dilatation of the pupils he explained by assuming transmission of stimulus to the cervical sympathetic nerve, which arose from that portion of the cord, and which

supplied, from its cavernous plexus, fibres coursing in the long root of the lenticular ganglion towards the iris. Myosis, however, on the one hand, and absence of light-reflex, combined with contraction or convergence, on the other hand, were two entirely different symptoms, although, indeed, frequently seen together in tabes. The speaker had, at the present time, two cases of tabes under his care, which might serve to illustrate these conditions. In one of them, the pupils were constricted to the size of a pin's head, did not react to light, but became smaller on convergence. In this case, there were no ophthalmoscopic changes in the optic nerve; vision was good; there was no colour-blindness. In the other case, there was complete amaurosis, owing to white atrophy of the optic nerve; the pupils did not react to light, but were of medium size, and became smaller on convergence. In these two cases, the localisation of the morbid process must be entirely different. The instrumentality by which the light-reflex was lost, as observed in both cases, was this. The stimulus of light travelled from the retina to the nucleus of the third nerve, on the floor of the fourth ventricle, by way of the optic tracts, the optic lobes, and some special fibres which Meynert had shown to directly connect the optic lobes with the nucleus of the third nerve. This latter had to be regarded as the reflectory centre for the circular fibres of the iris, because destruction of it, as well as division of the trunk of the third nerve, in animals had been shown to cause maximal dilatation of the corresponding pupil, and complete immobility of the same to direct or indirect stimulation by light. From the nucleus of the third nerve, the impulse travelled in the trunk of that nerve, and passed, through the short root of the lenticular ganglion and the nerve-cells of the latter, to the short ciliary nerves. Constriction of both pupils was caused even if light were only thrown on one retina; for the nuclei of both third nerves were, in the medulla oblongata, connected by commissural fibres. As, therefore, in the first of the two cases mentioned, vision was good, light-reflex absent, and the pupils contracted when the eyes converged for near sight, it might be concluded that the retina, the optic tracts and lobes, and the nuclei of both third nerves were sound, and that the fault lay in the path between the optic lobes and the nuclei of the third nerves, in Meynert's conducting fibres; showing that the disease was not confined to the posterior columns, but extended beyond the medulla oblongata. In this case, there was likewise myosis, which must be attributed to disease involving Budge's cilio-spinal centre in the dorsal portion of the cord, whereby the influence of the sympathetic nerve was prevented from reacting on the iris. In both cases, there was still action on convergence for near sight, and this showed that the connection between the central convolutions and the third nerve was uninterrupted, and more especially that the nucleus of the third nerve was sound. In the second case, the cause of the absence of the light-reflex must be traced to interruption of the reflex arc, not in Meynert's fibres, but in the optic nerves and tracts, degeneration of which prevented the transmission of the stimulus of light from the retina to the optic lobes. Hence in this case the disease extended much further to the front than in the former. In both of these cases the symptom of ataxy was only very slightly developed, and the patients might be said to be just entering on the second stage of tabes. Both had lost the knee-jerk, were liable to violent attacks of lightning-pains, and troubled with slight symptoms concerning the bladder, rectum, and sexual organs, while the walking power was comparatively good in one, and very good in the other. The pupillary symptoms in these two cases, therefore, showed that, even at such an early stage, locomotor ataxy was not simply a disease of the posterior columns of the spinal cord, but of a far more general and complex character. Dr. Althaus next directed attention to the exaggeration of the deep reflexes in tetany. This consisted of a succession of attacks of tonic spasm or rigidity invading certain groups of muscles, more especially the flexors of the hands and arms, followed by free intervals, and unaccompanied with loss of consciousness. It was different from tetanus, in which rigidity was continuous, and in which trismus was the first and most important symptom; and from epilepsy, the attacks of which were accompanied with loss of consciousness. It was probably owing to irritation of the large ganglionic cells in the anterior cornua of the spinal cord, a certain degree of which was present throughout, but which showed tendency towards paroxysmal increase through vascular irritation. The diagnosis of this disease was not always easy. In general, Trousseau's symptom was relied upon for rendering the diagnosis of tetany certain. Trousseau discovered that, as long as the patient was liable to attacks of this distemper, it might be produced at once, when he was apparently quite free from any spasm, by compressing the limbs, and more particularly the large arteries supplying the limbs. A much readier diagnostic test, however, was the behaviour of the deep reflexes more

especially of the portio dura. A slight tap with the percussion-hammer in the region of the stylo-mastoid foramen, caused all the facial muscles of that side suddenly to contract; and the same might be seen on other nerves. Dr. Althaus now came to an important point, which, as far as he knew, had not yet been noticed; namely, different types in the appearance of reflexes where these latter were exaggerated. For a number of years past, his attention had been directed to this point, and he had, in his work *On Sclerosis of the Spinal Cord*, given some account of his observations. Since then, he had become more and more convinced of the practical usefulness of those appearances for diagnostic purposes. The exaggerated response to the percussion of tendons, fasciæ, periosteum, muscles, and nerves, differed in appearance according to the nature, and more particularly to the seat, of the lesion by which it was produced; and he distinguished three different types of exaggerated reflexes, namely, the cerebral, the spinal, and the muscular. In the cerebral type, the response was moderately quick and very extensive, so that, taking the patellar reflex as an example, the leg was thrown forward a considerable way up, with a wide swinging motion, and gradually settled down again after some analogous oscillations. This cerebral type occurred in various lesions of the brain, more particularly softening and tumour. He had seen it in its most striking development in some cases of epilepsy with exceedingly slow pulse. In one of these cases, where the patient had habitually a pulse of 28 for several years, and who died, after having been for some time in a state of imbecility, he found a large patch of yellowing softening on the surface of the occipital lobes, but no change in the pons Varolii or medulla oblongata. The cerebral type was also well developed in the majority of cases of hemiplegia from hæmorrhage into the corpus striatum, or embolism of the middle cerebral artery. There was, however, a class of cases, in other respects closely similar to these, in which this type was not developed, and in which there was probably some difference in the localisation of the morbid process, which it was occasionally difficult or impossible to ascertain during life. The spinal type was distinguished by an exceedingly quick and jerky motion of the leg, not nearly so extensive as in the cerebral type, the excursion being occasionally only the fourth part in length of the latter. He had endeavoured to obtain graphic records of these differences, both with regard to time and extent, but had as yet not succeeded. Exaggerated reflexes of the spinal type were seen in some forms of spastic spinal paralysis, of insular sclerosis, and in certain combined system-diseases of the spinal cord. He had also seen them in persons injured in railway accidents, and where other symptoms pointed to a lesion of the cord. Some time ago, he was consulted in a case of syphilis, in which there had been previously various symptoms of brain-mischief, which had yielded to specific treatment. The patient complained only of considerable malaise and nervous prostration, and the only objective symptom which Dr. Althaus could discover was exaggerated reflexes of spinal type. He gave the opinion that some spinal mischief was impending; and, shortly afterwards, incontinence of urine, loss of sexual power, and numbness in the lower limbs, were noticed. The last point to which he would refer was the behaviour of the deep reflexes in syphilitic hemiplegia and monoplegia. Six months ago, he expressed the opinion that excessive exaggeration of the deep reflexes, more particularly when out of proportion to the degree of paralysis or muscular rigidity which might exist, would probably be found to be a pathognomonic symptom of syphilitic hemiplegia. Fournier had stated that there was not a single symptom whereby idiopathic could at once be distinguished from syphilitic hemiplegia, and that the diagnosis could only be rendered certain by the results of specific treatment. Dr. Althaus had pointed out that an excessive exaggeration of the deep reflexes in the palsied limbs in hemiplegia, with normal reflexes on the other side, pointed to a syphilitic origin of the affection. Some months ago, he was consulted by a gentleman who had such a slight monoplegia of the right arm that it could hardly be called paralysis, there being no actual loss of movements, but merely awkward and clumsy motion, which, however, had come on suddenly. Percussion showed an enormous exaggeration of the deep reflexes in the affected arm, which formed a striking contrast to the appearances which were elicited on percussing the healthy left arm. He therefore at once suspected the nature of the affection to be syphilitic, and this was confirmed by the history and other symptoms of the case.

A paper prepared by Dr. ANGEL MONEY was not read, owing to the lateness of the hour. The following is an abstract of it. He held, with Dr. Gowers, that absence of the knee-jerk was inconsistent with perfect health of the neuromuscular apparatus. Different degrees of muscular irritability were specified. In typhoid fever, he had observed increased

reflex actions, knee-jerks, and muscular irritability; sometimes also ankle-clonus; and occasionally a clonus of the quadriceps extensor had been noted. The electric reactions of the wasted and irritable muscles of typhoid fever had also been examined, and found to be altered. Faradic excitability was found to be rapidly exhausted, and there was some qualitative alteration to galvanism; but there was no "reaction of degeneration." Usually, the muscular and tendinous phenomena came on in the second week of typhoid fever, if the pyrexia had been considerable. The phenomena lasted for two or three weeks after the fever subsided. He had observed all the above mentioned phenomena of neuromuscular irritability in phthisis. The knee-jerk might be more readily obtained in the following way than by most other means; this consisted simply in placing the foot in the left hand, as in a stirrup, and adjusting the leg at the most convenient angle of flexion at the knee. The centre of the instep should be allowed to rest comfortably on the palmar aspect of the fingers and front part of the palm.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, OCTOBER 28TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Specimens.—Dr. BANTOCK showed, 1, the uterine appendages from a patient who had suffered from dysmenorrhœa and ovarian pain; 2, the appendages from a married woman, with pain and hæmorrhagic discharge; 3, the appendages removed from a single lady who had been ill for several years, in whom the uterus was pushed against the pubes, and Douglas's pouch occupied by what turned out to be a dermoid cyst; 4, two large parovarian cysts removed from a single woman, aged 45. All these patients had recovered.

Dr. FANCOURT BARNES showed the large white kidneys from a patient who had died from albuminuria of pregnancy. When admitted into the Chelsea Hospital for Women, the urine was almost solid with albumen, and there was œdema of the face. The patient was five months pregnant. The uterus was emptied without loss of time, but the patient died three days after.—Dr. GRIGG said that, in hospital-practice, these cases when met with had often been allowed to go so far that they nearly always proved fatal.—Dr. Bantock, Dr. Routh, Dr. Barnes, and Mr. Lawson Tait, made remarks.

Dr. J. E. BURTON showed the uterine appendages which he had removed from a patient in whom there was absence of uterus and vagina.—Dr. AVELING said in such cases there was often an absence of pubic hair.

Dr. CHALMERS showed an ovum in ovo. He also showed the uterus of a patient who had died from pyæmia.

Dr. IMLACH showed a papillomatous tumour of the left Fallopian tube, removed from a patient aged 42. He also exhibited a specimen of caries of the coccyx removed from a young woman who had a child about eight months old. Painful sitting had been the chief symptom. There was no ulceration of skin, thickening of tissues, or abscess.

Mr. LAWSON TAIT showed the following specimens: Four examples of ruptured Fallopian pregnancy; ovarian cystomata; hæmatosalpinx; double pyosalpinx; dermoid cystoma of left ovary; two specimens of double hydrosalpinx; a myoma removed by hysterectomy; and a dermoid cystoma of right ovary. All of the patients recovered.

Hernia of the Ovary.—Dr. HEYWOOD SMITH read a paper on a case of hernia of the ovary. The patient, aged 23, single, was admitted into the Hospital for Women, Soho. She had been in the Middlesex Hospital, where Mr. Hulke operated on the right groin. Mr. Hulke thought she had at that time double ovarian rupture, bicornute uterus, and imperforate vagina. On admission into the Hospital for Women, she was complaining of a considerable amount of pain in the left inguinal region. On February 16th, an incision was made, under carbolic spray, two inches long, half an inch above Poupart's ligament and parallel to it, and the tissues carefully dissected down till the sac of the peritoneum was opened, when a hardish red substance came into view, which proved to be the uterus. It and the ovary, together with the oviduct, were then drawn out of the wound. The finger was then passed into the abdomen, and across to the right side, where the other hernia was, and nothing was felt. The pedicle, including the broad ligament and rudimentary uterus, was then tied with soft silk in three sections, and the whole cut away. The uterus was about the size of a large marble; the rudimentary cervix, which was of the size of a No. 7 catheter, was cut through close to its extremity. The ovary was about two inches long by one inch broad. The patient made a good recovery, and left the hospital on March 16th.—Mr. LAWSON TAIT also

read notes of a case. A. S., aged 26, when six years of age, noticed a rupture, for which she wore a truss. Menstruation was regular, but, for the last three years, very painful. On September 14th, Mr. Tait removed the tumour; it contained a pint and a half of fluid, and several cysts. The walls of the cyst were clearly those of an ovarian tumour, and the end of the Fallopian tube protruded through the ring at the base of the tumour, and was removed with it. The patient made a good recovery.—Dr. Barnes, the President, Dr. Edis, Dr. Burton, Dr. Grigg, Dr. Bantock, and Dr. Fancourt Barnes made remarks.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 3RD, 1885.

J. S. BRISTOWE, M.D., President, in the Chair.

Tumour of the Base of the Brain Containing Skin.—Dr. HARRINGTON SAINSBURY showed a specimen from the museum of University College. No history was appended. The tumour resembled a pendulous fibroma of the surface of the body. Microscopically, the matrix was seen to be a fibro-cellular structure, and investing this, a structure typically resembling skin; a dermis, with its papillary layer; an epidermis, with rete Malpighii, and a horny layer; no hair-follicles nor sweat-glands were seen. The interest of the tumour lay in the presence and disposition of the epithelial elements. It might be described either as a teratoma, or as an organoid tumour. The difficulty in the way of accounting for the genesis of these tumours on the facts connected with the development of the anterior lobe of the pituitary body from a diverticulum of the pharynx, in the present case was the disposition of the epithelial elements externally. The anterior lobe of the pituitary body itself, and teratomata in connection with this, showed the epithelial elements enclosed within a fibrous matrix; and he found it difficult to conceive how, from a diverticulum of the alimentary tract which must show the epithelium central, any other arrangement could arise.—Mr. J. BLAND SUTTON observed that teratomata were tumours of considerable interest, inasmuch as they occurred with especial frequency in the neighbourhood of obsolete canals, particularly those which brought the three blastodermic layers, epiblast, hypoblast, and mesoblast, into direct communication in the embryonic condition of mammals. Thus, in the case of the canal which pierced the floor of the pituitary fossa, whereby in early fetal life the infundibulum, foregut, and buccal involution came into contact, there was a good example of the kind of passage referred to. At the caudal end of the notochord, the central canal of the spinal cord communicated with the alimentary canal by means of the neurenteric passage; in this way, the three layers came into direct relation. The postanal gut in its relation to sacral cystic tumours, supposed to be derived from degeneration of Luschka's gland, was also a case in point. The branchial clefts were also examples of obliterations of disused passages between hypoblast internally and epiblast externally. In this way, an explanation might be sought of the occurrence of teeth on the petrous portion of the temporal bone in cysts in horses, the tympanum being, in reality, a modified branchial arch. With regard to ovarian and testicular teratomata, it might be shown that there was good evidence that, during their development, they came into relation with regions where the germinal layers split, and where transformations occurred likely to produce similar events, such as might be demonstrated at the base of the skull, sacral region, branchial arches, and elsewhere.—Dr. HALE WHITE said that no doubt the origin of the neuro-muscular tumour shown by him last session might be accounted for on the principle suggested by Mr. Sutton.—Mr. BUTLIN said that Mr. Sutton's observation that the testicle was in part derived from the epiblast explained the occurrence of carcinomatous tumours in that organ.

Cancer of Bladder.—Mr. MARMADUKE SHEILD exhibited a bladder infiltrated by soft cancer, which formed irregular nodular projections covered with calcareous deposit; the ureters were obstructed by the growth, and much dilated and thinned. The patient, a man aged 58, under the care of Mr. Timothy Holmes, had undergone amputation of the penis for epithelioma in 1866. He remained well until 1883, when micturition became difficult. In August, 1884, the orifice, which had contracted, was dilated to relieve retention of urine. He, at that time, suffered also from vesical irritability and hæmorrhage, and, in October, was readmitted with extravasation of urine into the scrotum; the urine contained much pus, blood, and debris of new growth; there was marked cachexia; great pain, and œdema of the left leg. Death ensued in a few days. Secondary growth was found in the iliac, sacral, and lumbar glands, and in the liver; the pelvic growths were chiefly on the left side, and had compressed the left iliac vein. The pelves of the kidneys were dilated. In the left iliac

fossa was an abscess, which contained foul pus and disintegrating tissue; it reached as high as the kidney, and was in part bounded (in front) by the colon, and appeared to have originated in a sloughy mass of growths about the iliac glands. Under the microscope the growth presented a well marked stroma, containing large spheroidal multinucleated cells. Mr. Sheild remarked that it was rare to find the bladder the seat of primary cancer, and that nearly all the cases had occurred in the male. He referred to the absence of villous growths, and expressed the opinion that the affection of the penis, which had been amputated nearly eighteen years earlier, could have had no direct relation to the disease of the bladder, which he attributed to the irritation of the mucous membrane caused by changes in the urine, consequent upon difficulty of expulsion. In conclusion, he observed that the comparative frequency with which abscess formed in connection with malignant disease within the abdomen, might be accounted for by the rapidity of the growth leading to necrosis, and to the proximity of the intestine.—Mr. BRUCE CLARKE said that, in the case shown by him last year, there was suppuration, probably of a pyæmic character, due to catheterisation.—Mr. DAVIES-COLLEY observed that cancer of the bladder appeared to be frequently due to the habitual use of a catheter, which set up irritation. He quoted a case reported by Dr. Hilton Fagge which supported this view. Mr. Norton had reported an analogous case, and Mr. Davies-Colley had observed three cases in which cancer had developed, apparently as a consequence of a stone which had been removed many years before.—The PRESIDENT related a case of a gentleman who, for seventeen years, had suffered from hæmorrhage from the bladder due to villous growth. This apparently had its origin in a blow on the perinæum. The necropsy revealed sarcoma of the bladder, and secondary growth in the kidney; in this case, the catheter was frequently used.—Mr. SHEILD said that, in the case he exhibited, there were no signs of pyæmia and thrombosis of the veins. He believed that the catheter had not been habitually used.

Epidermal Cyst of Finger.—Mr. A. E. BARKER showed a tumour removed from the palmar aspect of the proximal phalanx of the index-finger. Such tumours commonly occurred on the palmar aspect; they were small, cystic, containing a sebaceous material, and lined by epidermis. A section of the cyst he exhibited showed a layer of fibrous tissue lined by cubical cells, upon which were superposed stratified cells, limited by a horny layer. There were no true papille, and no traces of follicles. The skin over the tumour was perfectly sound. In every case, the formation of the cyst appeared to be connected with injury. On the other hand, if this were the explanation of their occurrence, it was strange that they were so rare.

Carcinoma of the Kidney.—Mr. JONATHAN HUTCHINSON, junior, showed, for Mr. J. McCARTHY, a kidney affected by carcinoma. The patient was a man, aged 37, who, in August, 1884, began to suffer from pain in the left groin and the lumbar region, and hæmaturia. When admitted in March, 1885, there was a tumour connected with the left kidney. The urine contained albumen, blood, and fibrinous casts. The spermatic veins on the left side were varicose. The tumour was removed, and the patient made a good recovery. He died three months later. No necropsy could be obtained, but the cause of death was probably heart-failure. The growth had apparently arisen from the pelvis of the kidney.

Chronic Endocarditis.—Dr. NORMAN MOORE showed two specimens illustrating the subject of chronic changes in the endocardium, and their relation to similar changes in the aorta. 1. The heart of a man, aged 42, who died suddenly in the out-patient room of St. Bartholomew's Hospital. The heart weighed twenty-five ounces; it was hypertrophied in all its cavities; the valves were not thickened, and had no growths upon them; the aorta was highly atheromatous, and above the aortic valves showed a small aneurysmal bulging. Below them, on both walls of the left ventricle, there was complete opacity and great thickening of the endocardium. It presented an uniform white glistening surface, and microscopic sections showed that inflammatory tissue had been formed in the deeper layers of the endocardium. The most superficial layers were regularly stratified and normal. Beneath them was a zone of irregularly arranged connective tissue, with processes dipping here and there into the muscular substance. The nearest part of the muscular tissue showed some granular degeneration of the fibres. The valves were all normal, but in the right ventricle a similar thickening existed over a smaller area of endocardium. The endocardium of the auricles was normal. There was a slight general thickening of the pericardium. The kidneys were natural. The hypertrophy seemed due to the obstruction of cardiac movements caused by the thickened endocardium: a very rare cause. The endocardial thickening was certainly chronic. There was no history of rheumatic fever, nor were the appearances those of rheumatic endo-

carditis. The disease seemed due to the same cause, and contemporaneous with the disease of the aorta itself. There was a scar in the right groin, but no other scars or gummata. The condition probably had its origin in syphilis. No similar case seemed to have been described. 2. The heart of a man, aged 54, who died in St. Bartholomew's Hospital after many attacks of angina pectoris. The aortic arch showed much degeneration and many calcareous plates. The aortic valves were healthy, but below them was a thickened patch on the septum of the ventricle. This seemed to originate in a degeneration spreading from the attachment of the mitral valve, probably due to strain; this form of endocardial thickening might always be distinguished from the form first described by its being confined to the ventricular septum.—Dr. GOODHART had only in one case seen a degree of thickening of the pericardium as considerable as in the first case.—The PRESIDENT had seen a similar case.

Extraperitoneal Rupture of the Bladder.—Mr. E. H. FENWICK showed a specimen from the body of an intemperate cornet-player, who, while playing his instrument, suddenly felt something give way in the bottom of his belly. He suffered great pain, and passed much blood during the two following days. Subsequently, severe cystitis occurred; he slowly improved until the sudden onset of symptoms of general peritonitis, three weeks later, which caused his death. At the necropsy, the peritoneum was found to be detached from the bladder, and the cavity thus formed was full of pus and disintegrating tissue. The cavity communicated by a large aperture with the bladder, and by a smaller and more recent rent with the peritoneum. There were numerous intertrabecular pouches (tunicary herniæ) of the mucous membrane. He suggested that the rupture was due to venous thrombosis, which had extensively occurred.—Mr. MARMADUKE SHELDON thought that rupture probably occurred at one of the tunicary herniæ. He related the case of an old man, the subject of prostatic disease, who was suddenly seized with peritonitis. Rupture into the peritoneum had occurred in the manner indicated.—Mr. LANE had found that these tunicary herniæ generally occurred on the posterior and upper surface of the bladder; in that situation their coats contained no muscular tissue, and therefore gave way under a pressure not sufficient to cause rupture elsewhere.

Obstruction of the Coronary Arteries.—Dr. PERCY KIDD exhibited a specimen from the body of a man, aged 46. The symptoms during life were an extremely irregular and weak pulse, and great shortness of breath. Spasmodic attacks of dyspnoea occurred during the last fortnight of his life. Examination, after death, showed that the heart was much hypertrophied and dilated, the muscular tissue appeared quite healthy, and there was no disease of the valves, beyond slight thickening. The right coronary artery was completely blocked by recent adherent thrombus throughout its course. The left coronary artery was greatly obstructed at one point by calcareous atheromatous change, and one of its transverse branches was completely calcified. The openings of the coronary arteries in the aorta were quite free. The arch of the aorta was dilated, but only slightly atheromatous. The rest of the aorta and its branches were extremely atheromatous. The pulmonary artery was also somewhat atheromatous. The kidneys were granular, but not very small. The kidneys and spleen contained infarcts. The liver was in the condition known as nutmeg. The lungs were slightly emphysematous, and contained infarcts. The vessels of the brain were highly atheromatous; the brain itself was healthy.

Intracranial Aneurysm of Internal Carotid.—Dr. ANDERSON showed a large intracranial aneurysm. The patient was a man, aged 40, who had suffered at intervals from severe headaches for four years; in association, paroxysms of vertigo, followed by twitchings and loss of power on the right side, occurred, lasting for a few minutes. Slight right hemiplegia became permanent, and the right pupil was larger than the left. Death was preceded by vomiting, several fits, and coma. At the base of the brain was a tumour, almost globular, two inches in diameter. It was an aneurysm, in all probability connected with the left middle cerebral artery; it was almost completely filled with blood-clot.—The PRESIDENT said that the aneurysm was of most unusual size.—Dr. GOODHART said that one nearly as large had been presented to the Museum of the Royal College of Surgeons by Mr. J. Hutchinson, who had diagnosed the condition during life by detecting a *bruit* in the skull.

Tubercular Growth of Dura Mater.—Dr. HALE WHITE showed a specimen of tubercular growth, a yellow hard mass which lay outside the dura mater behind the bodies of the upper dorsal vertebrae. It was about three inches in length, about an inch in width, and half an inch in thickness; it was somewhat irregular on the surface, and grew out through one of the adjacent spinal foramina around the spinal nerve. There was no sign of any breaking down; the inner surface

of the dura mater was free. The spinal cord was considerably pressed upon. The vertebra immediately subjacent was normal in size, its outer surface was eroded from the presence of numerous little pits; on section, it was extremely white, as a whole, the bone was not softened, but in the centre there was a soft patch. Microscopic sections showed the growth to consist of a delicate reticulum crammed with small cells, and with many giant-cells here and there. In some parts, there were caseous masses scattered about in an irregular manner, the calibre of some of the vessels was considerably less than normal, but the majority were not pressed upon; there were none in the centre of the growth. The nerve that was pressed upon was not so much altered as might have been expected; its sheath of dura mater seemed to protect it; in fact, it was very remarkable how the growth had in no part penetrated the dura mater so as to affect either the cord or the nerve; the latter had, however, undergone some atrophy, and the former was considerably pressed upon. The intervertebral discs were slightly affected. The patient had had phthisis of both lungs, and died with paraplegic symptoms. No bacilli could be found in the growth, which was, however, very dense. Bearing in mind the presence of phthisis, and the microscopic appearances, the probability was that the growth and affection of the bone was tubercular, although there was a possibility of its being syphilitic.

Card Specimens.—Mr. LEDIARD: Black Tongue.—Dr. SAVILL: Heart from a Case of Chorea.—Mr. J. MACARTHY: Necrosis of Patella.—Sir WILLIAM MAC CORMAC: Epithelioma of Clitoris.—Mr. DAVIES-COLLEX: 1. Sloughing Muscle and Tendon; 2. Annular Slough of Mucous Membrane of Rectum. Mr. BRYANT: Mesenteric and Retro-peritoneal Myxosarcoma.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, OCTOBER 9TH, 1885.

T. R. JESSOP, F.R.C.S., President, in the Chair.

President's Address.—The PRESIDENT gave a short introductory address, in which he congratulated the Society on its satisfactory condition as regards numbers, and the general interest of the meetings. He urged the desirability of holding the latter more frequently, owing to the large amount of material in hand, and the frequent disappointments sustained by those who desired to read papers on a special night, and he invited more communications from the younger members of the Society.

Rectus Sternalis.—Dr. ALLAN exhibited a sternum, showing a rectus sternalis muscle on the right side.

Supernumerary Pelvic Bones.—Dr. ALLAN showed a male pelvis, showing two small bones, about an inch and a half long, situated symmetrically, articulated to the pubic bones on each side by amphiarthral joints, and giving attachment to the fascia lata, the adductors gracilis, longus, and brevis, and the pectineus on each side.

Atheromatous Aorta.—Dr. GRIFFITH showed an aorta, extensively atheromatous, in which the orifices of the coronary arteries admitted only a fine thread, though the arteries assumed their normal calibre shortly after. There was no marked alteration in the nutrition of the cardiac wall, but the patient had suffered considerably from anginal attacks, and died very suddenly.

Enlarged Spleen.—Dr. GRIFFITH showed a liver and spleen, the latter much enlarged, but with no other special features, from a young girl. The enlargement was the result of obstruction through the liver, which was small, and showed much interstitial growth, probably due to congenital syphilis.

A Cyrtometer.—Mr. WRIGHT showed a convenient form of cyrtometer, formed by a strip of Britannia metal, as used by Dr. Sagra and by Mr. Bernard Roth, of London. He had found it useful in recording various anatomical and pathological conditions, as the growth of tumours, contour of joints, etc. It could be used without oxidation in the carbolic spray, and remained clean and bright.

Rectal Disease.—Mr. J. W. TEALE read notes of two cases of rectal disease complicating other ailments. 1. A gentleman consulted him for cough, night-sweats, etc., with threatened phthisical mischief in the apex of the right lung. This was accompanied by obstinate constipation of long standing, which was found to depend on fissure of the anus and spasm of the sphincter. Under ether, the sphincter was stretched, and the constipation was relieved; the lung-symptoms at the same time disappeared, and the patient had remained for nearly two years in good health. 2. About the same time, Mr. Teale was consulted by a gentleman suffering from weakness and nervous prostration, with enlarged liver (with a history of alcoholic indulgence), and severe pains in the feet on walking. Defecation was very painful

and accompanied by a copious loss of blood. Under ether, an extremely tight sphincter ani was stretched, with the result that the pain and hæmorrhage entirely ceased, the hæmorrhoids shrivelling spontaneously; and, aided by baths and "muscle-rolling," the patient was entirely restored to health, able to do his work, and to walk ten miles a day. Mr. Teale urged that, when an operation of this sort was thought desirable, it should be done without delay, in place of waiting till the patient should improve; and he recommended the stretching of the sphincter by finger or thumb as the best mode of operation. —Mr. T. P. TEALE remarked that, for the last twenty years, he had only incised the sphincter once for fissure, having always found stretching a safe and efficient means of cure. For the treatment of bleeding piles, stretching the sphincter was often curative, without further operation. He thought this means of cure often neglected. —Mr. EDWARD ATKINSON and Dr. HUTCHINSON related two cases where paralysis of the sphincter followed the operation of stretching; in one case, it was somewhat relieved by galvanism. —Mr. HARTLEY and Dr. S. C. SMITH spoke in favour of the operation in cases of fissure and piles. —The PRESIDENT knew of two cases of death after incision, but had never known any permanent harm result from stretching; he had had a special broad-bladed dilator made for such cases, in order to carry out the operation more fully. In the few cases in which paralysis remained unduly long, the failure of the operation did not seem to bear any ratio to the extent to which the dilatation had been practised; in some of these, indeed, very little stretching had been done.

Strangulated Congenital Inguinal Hernia. — Mr. E. ATKINSON showed a child, about eight months old, in whom he had operated successfully for a strangulated congenital right inguinal hernia. On admission, the symptoms of strangulation had existed for forty-eight hours; the hernia was the size of a tennis-ball, and very tense. It was reduced without opening the sac, and the wound did well for three days, when the dressings became saturated with urine, and the temperature rose to 103°. There was some sloughing of the areolar tissue, and for some days a discharge from the opened wound. The child left the hospital well twenty-four days after the operation. The cicatrix, which was small, dense, and puckered, seemed to constitute a radical cure.

Hepatic Cyst with Abdominal Section and Aspiration of Cyst. — Mr. E. ATKINSON read notes of this case. A woman, aged 32, fat but healthy, was admitted into the infirmary with symptoms of intestinal obstruction. Four days before, after a hearty meal of meat and peas, cooked and uncooked, she was seized with violent colic and vomiting. Her bowels were opened by a senna-draught, but the pain continued, for which opium was given for three days. Pain still persisted, and was most severe in the right hypochondrium, where a rounded tumour could be felt. She was then seen by Dr. BARRS, and sent into the hospital, in case an operation might be needed. On admission, she was pale and anxious, suffering great pain, increased on movement; the bowels had not acted for three days, nor had flatus been passed. The tumour was apparently continuous with the hepatic dulness. There was no retching, hiccup, or jaundice. As the patient appeared to be sinking, an exploratory operation was made, which disclosed a tense thin-walled cyst projecting from the edge of the liver in the situation of the quadrate lobe. This was aspirated, and found to contain altered blood with granular debris, etc. The intestine was not seen, but the duodenum could be felt to be flaccid. The wound was closed, and treated antiseptically. The dressings were not disturbed for eight days, and the patient made an uninterrupted recovery. The history of the case was misleading, as pointing to some intestinal lesion where none existed. The second period of constipation seemed to be due to the opium, while the local pain and vomiting might be critical, and precursory of the impending rupture of the cyst. —Dr. BARRS said that, when he saw this case at the patient's house, she seemed to be suffering from an intraperitoneal catastrophe; and this, with a tumour to be distinctly felt, appeared to him to indicate an exploratory operation. He did not think the symptoms were in any way due to the presence of the hepatic cyst. —Dr. BRAITHWAITE urged the more frequent use of the exploratory syringe with fine needle in such cases.

Poisoning by Mercuric Sulpho-cyanide. — Mr. F. E. CAVE described this case. He was called to a woman suffering from intense epigastric pain, vomiting, and purging; the symptoms had followed the taking of two supposed aperient pills the day before. The case was treated with milk and a mixture of chalk, opium, and olive-oil. The aperient pills, which had been bought for the occasion, were found subsequently untouched; but a box of "Pharaoh's serpents" was discovered, two of which had been taken by mistake. They contained about three grains and a half apiece of mercuric sulpho-cyanide,

so that the symptoms were the result of a dose of about seven grains. Mr. Cave pointed out that these "eggs" were sold without a poison-label, infringing the rules of the Pharmacy Act, and were bought mostly by children.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, OCTOBER 22ND, 1885.

R. J. PYE-SMITH, F.R.C.S.E., President, in the Chair.

Blood-Clot from Ureter. — Dr. MARTIN showed a blood-clot which, when first passed by the urethra, measured ten inches in length, and was about the thickness of a drawing-pencil. It was very tough, and difficult to break; when broken, it presented internally the appearance of an old blood-clot. The notes of the case showed that this clot must have been passed from the ureter, and that it was not formed in the urethra.

Epulis. — Dr. KEELING showed a very large specimen of epulis, which he had removed from the upper jaw of a man. It was about the size of two large walnuts joined together. Several teeth were involved in the growth. During the operation for its removal, bleeding was profuse, and difficult to control. Dr. Keeling remarked that it was the largest specimen of the kind he had seen.

Aneurysm rupturing into Pulmonary Artery. — Dr. PORTER showed an aneurysm of the ascending aorta, rupturing into the pulmonary artery, and causing sudden death from asphyxia. Dr. Porter had exhibited the patient from whom the specimen was obtained before the Society in February last; the aneurysmal tumour was then felt to the left of the sternum, between the third and fourth costal cartilages. The chief symptoms were cough, some dyspnoea, with deficient respiratory murmur over the left lung, *râles* about the base, and some dulness. In commenting on the case, Dr. Porter concluded that it was a sacculated aneurysm springing from the concavity of the ascending arch.

Acute Pericarditis. — Dr. PORTER also showed a heart and pericardial sac, from a case of acute pericarditis. The patient, who had been suffering from incipient tubercle of the apices of the lung, suddenly developed double pleurisy and pericarditis. His pericardium became full of fluid, and he was enjoined on no account to attempt to move out of bed. In the absence of the nurse, he succeeded in getting up, and died at once of syncope.

Stricture of Sigmoid. — Dr. BARTOLOMÉ related this case. He first visited Miss —, aged 51, on September 29th, 1885. She complained of slight abdominal pains, and said the bowels had not acted since September 23rd, but that she was not alarmed, as that had frequently occurred even for a longer period, and had always become "all right" spontaneously. Pulse 90; temperature 98°; respiration 18, tranquil; which state still continued throughout the case, with the exception of a few hours. The abdomen was distended and tympanitic. Except for occasional vomiting, which afforded relief by emptying the stomach, the condition remained without change until October 5th, when there was one stercoraceous vomiting, which never recurred. She now stated that she had had an irreducible prolapsus ani for many years, which, on examination, was found covered with skin. All proposal for surgical interference was resolutely opposed, though persistently urged frequently in the course of treatment. Death occurred on October 11th, nineteen days and a half after the last natural action of the bowels. At the necropsy, a solid unyielding band of lymph was found, puckering the healthy rectum, and binding it to the promontory of the sacrum, probably produced by limited peritonitis in early life, the patient having been remarkably healthy ever since she could recollect. The specimens were exhibited.

Urinary Calculus. — Mr. PYE-SMITH showed a large calculus, recently removed, by lateral lithotomy, from the bladder of a man aged 61. It measured 2 inches, by 1½ inches, by 1 inch, and weighed, when dried, 1 ounce 6 drachms. On section, the nucleus was seen to be a fragment of uric acid stone, which had been crushed two years previously; this was surrounded by concentric laminae of nearly white colour, which gave the chemical reactions of triple phosphate of ammonia and magnesia, together with a little carbonate of lime.

Fragment of Steel in Sclerotic. — Mr. PYE-SMITH showed an eye with a small fragment of steel fixed in the sclerotic near the yellow spot. A chip from a chisel had flown in through the cornea. The electro-magnet had been used without finding the foreign body: and, sight being lost, the eye had been excised.

UNIVERSITY OF MOSCOW. — Several new special courses of instruction have just been opened in Moscow, in consequence of a recent university regulation which made various special hospitals available for clinical instruction.

REVIEWS AND NOTICES.

THE REMOVAL OF MICRO-ORGANISMS FROM WATER. By PERCY F. FRANKLAND, Ph.D., B.Sc. Proceedings of the Royal Society, No. 238. 1885.

DR. FRANKLAND, wishing to determine how far filters of different materials were capable of removing micro-organisms from water, instituted a series of experiments with waters fouled by the addition of small quantities of stale urine on similarly constructed filters, the materials having been reduced to a fine powder and effectually sterilised immediately before the observations were commenced. The number of micro-organisms in the water, before and after it had been passed through the filter, was determined by the well known bacterioscopic method of Koch: but, since the length of time during which any filter will retain its purifying powers is of the utmost importance, the observations were repeated after twelve days and at the end of the month. The results were interesting, and in some respects unexpected.

Animal charcoal, spongy iron, and common coke, completely sterilised water swarming with bacteria, not only on the first, but also on the twelfth day. After a month's continuous flow, the water that had passed the filter was found free in all. But, beyond that period, while that from the spongy iron was almost absolutely free, and that from the coke contained very few, the water from the animal charcoal exhibited nearly six times as many centres per cubic centimetre as it did before filtration.

Pure silver sand and powdered glass failed at the first trial to remove more than 90 per cent. of the micro-organisms, and the experiments were, therefore, not persevered with; and green sand, which is highly ferruginous, though at first perfectly successful, seemed soon to lose its power to a very great extent.

Since several of the above materials could not be supposed to exert any chemical action, Dr. Frankland, in a second series of experiments, endeavoured to determine the effect of simple agitation of the water with animal charcoal, spongy iron, coke, chalk, china-clay, and brick-dust, for about fifteen minutes. The chalk, charcoal, and iron subsided in five hours, the coke in forty-eight; but the clay remained suspended for a week. The coke alone completely removed all micro-organisms, though subjected to the severest test; spongy iron, animal charcoal, and chalk did so very imperfectly; while the clay failed entirely. Subsidence alone was found to have no power whatever on the numbers of centres in a cubic centimetre taken from the surface of the water, having increased fortyfold in forty-eight hours.

Clark's process for softening hard waters, as practised at the Colne Valley Water-Works, and in Gaillit's and Huet's modification, was tried on a small scale, and observations were also made on the water before and after treatment at the works at Bushey and at Mr. Duncan's wharf. In all cases, especially in those on the larger scale, the effects of the process in removing organisms were very satisfactory. Pasteur's filter completely sterilised ordinary Thames water, though the only chemical change consisted in the removal of a very small proportion of the total solids.

Dr. Frankland is now conducting observations on the number of centres in each cubic centimetre of the waters supplied by the metropolitan water-companies month by month; with a view to comparing the indications afforded by bacterioscopic and chemical examination.

COLD BANDAGING OF THE LEG IN INSOMNIA.—Dr. von Gellhorn has found the following plan very useful in inducing sleep in persons who suffer from insomnia. A piece of calico, about eighteen inches wide and two and three-quarter yards long, is rolled up like a bandage, and a third of it wrung out of cold water. The leg is then bandaged with this, the wet portions being carefully covered by several layers of the dry part, as well as by a layer of gutta-percha tissue, and a stocking drawn on over the whole. This causes dilatation of the vessels of the leg, thus diminishing the blood in the head and producing sleep. It has been found by Winteritz that the temperature in the external auditory meatus begins to fall a quarter of an hour after the application of the bandage; the decrease amounting to 0.4° Cent., and the normal not being again reached for from one and a half to two hours afterwards. The author has employed this means of procuring sleep for a couple of years, and finds it especially useful in cases where there is congestion of the cerebral vessels. Sometimes he has found it necessary to reapply the bandage every three or four hours, as it dried.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday, October 29th, a meeting of the Fellows and Members of the Royal College of Surgeons was held for the purpose of receiving a report from the Council of their transactions during the past collegiate year, the returns of the results of the College examinations, and the College receipt and expenditure. The chair was taken at three o'clock by Mr. WILLIAM S. SAVORY, the President. Twenty-two members of Council were present, namely, the President, the Vice-Presidents (Messrs. J. Wood and H. Power), and Sir James Paget, Sir Spencer Wells, Mr. J. Marshall, Mr. Lund, Mr. Jonathan Hutchinson, Sir Joseph Lister, Mr. Bryant, Mr. T. Smith, Mr. Hulke, Mr. Christopher Heath, Mr. Croft, Mr. Sydney Jones, Sir W. Mac Cormac, Mr. Allingham, Mr. Lawson, Mr. Berkeley Hill, Mr. Durham, Mr. Macnamara, and Mr. Pemberton. The hall-porter counted 296 Fellows and Members, and this estimate does not include over twenty gentlemen who arrived after the meeting had commenced.

The PRESIDENT, in opening the proceedings, said the report, which was in the hands of the Fellows and Members, contained a tolerably full summary of the work which had been done by the Council in the past year, and it was now open for them to offer any observations or express any opinions upon it that they might please. The most regular course would be to take the resolutions in the order in which they had reached the College, and he would therefore call upon Mr. Sampson Gamgee to move the first resolution.

MR. SAMPSON GAMGEE, in moving the resolution, spoke as follows. Mr. President and gentlemen, on behalf of the Association of Members of this Royal College of Surgeons, I have been desired to move: "That, the Council of the Royal College of Surgeons not having accepted the principle that Members as well as Fellows should take part in the election of the Council, in the opinion of this meeting, steps should at once be taken to memorialise Parliament and the Crown, so as to secure, in the interest of the public and of the profession, the rights of representation in the administration of the College for its 16,500 legally qualified Members." Before addressing myself to the terms of the resolution, I have a very agreeable duty to perform, in tendering thanks to you, Mr. President, and to your Council, for having called this meeting of Fellows and Members. Two classes nominally, we are, in fact, one body, with a complete solidarity of aspirations and interests. We may differ as to details, but we have a common objective, the honour and prosperity of this College.

As practical surgeons we know that, in the management of all difficult cases, personal and theoretical pre-occupations must yield to the teachings of experience.

We have no personal objects to plead, no revolutionary measures to propound. It is a constructive, not a destructive, work on which we are bent. If we look into the past, it is in no angry spirit of reprimand, but to deduce those lessons of experience which may most safely guide us in a matter exceeding professional bounds; for this College is a British possession, and the issues we raise are national ones.

Our resolution affirms the right of the Members of this College to the College franchise, in the interest of the public and of the profession. Other matters have been debated; the mode of election of the president, the retirement of councillors, and the appointment of examiners. But, without prejudice, I hold those points *sub judice*, and as only capable of settlement after taking evidence of past working, and examining records and precedents.

No such elaborate investigation is needed to settle the rights of the Members of this College to the College franchise. At the close of last year the Fellows were 1,166; Members, 16,509. Why should the small minority control and exclude the vast majority?

The bulk of the money for the College support is provided by the Members. Take the year ending last midsummer.

The Members contributed	£17,204	15	0
Fellows	1,275	15	0

Year's excess by Members	£15,929	0	0
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In the last ten years the aggregate payments were—

Members	£124,008	0	0
Fellows	8,456	0	0

Decennial excess by Members...	£115,552	0	0
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It is one of the fundamental principles of constitutional government that taxation and representation go together; in other words, that those who find the money for the support of an institution, should have a proportionate voice in administering it. We leave to those who have the power, to prove why this College should be an exception to that sound old English rule.

The matters which come before this Council are largely of business requiring worldly wisdom and ripe experience. It cannot for a moment be sustained that the young man who the other day passed his Fellowship, at the allowed minimum age of 26, became *ipso facto* qualified to administer this College; and if he did so, why should he exclude Members of twenty, thirty, or more years' standing, who have worked at scientific research, published large records of experience, been admitted into the highest British and foreign academies and societies, may be in the commission of the peace and raised to high rank, yet are barred from participation in the management of this their College, purely and simply because Members?

If the examination of Members was in remote years imperfect, on whom lies the blame? When Thomas Wakley lived—first and most fearless of British medico-political reformers—what College most persistently opposed his far-seeing labours for the improvement of medical education and examination? When to his aid rose the simple-minded and straight-going Charles Hastings, which of the medical corporations, blindly and selfishly retrograde as they almost all were, fought the united medical press with firmest determination? Let the archives of this College supply the answer.

It has required more than a quarter of a century after the passing of the Medical Act of 1858 for the Colleges of Physicians and Surgeons to take advantage of the enabling clause (xix) of that Act, and to combine in giving a double qualification in medicine and surgery. The scheme appears an excellent one, and reasonable hopes are entertained that it may realise the great desideratum of securing a medical degree for those who have passed the double examination. But are Members under that scheme, after being admitted into the profession through the portal of the palace to be erected on the Thames Embankment, still to be refused a voice in this College administration, because only Members?

If it be urged that the implied extension of the College franchise would swamp the existing one, we reply that extension of an educational franchise has never been proved to injure a College or an University. The extension of a franchise to responsible persons is a safeguard, not a peril, for the common good, and is no less equitably conservative in practice than it is progressively enlightened in principle.

It is as true socially as it is architecturally, that widening the basis strengthens the edifice. Let us glance at the electoral basis of this College. We are, happily, able to do so without fear of erring, because the figures have been supplied with the most prompt cordiality by Mr. Edward Trimmer, the College Secretary. The College had on its rolls in 1884, as already incidentally mentioned, 1,166 Fellows and 16,509 Members. Forty years ago, the numbers were: 440 Fellows, 7,992 Members; an increase of 726 Fellows, 8,517 Members. In the first decade of the period (1844 to 1854), the Fellows increased 498, the Members 7,861; but in the last decade, while the Members went on increasing by 4,437, the Fellows decreased by 129. This decline has been steady since 1864. Up to that date from 1844, the Fellows increased 750, but their numbers have fallen off by 134 from 1864 to 1884. Yet, with that vanishing constituency, it is in contemplation to petition the Crown to confirm and extend privileges to the exclusion of the Members, who have gone on pouring a swelling golden stream into the College coffers, and have grown in numbers in a ratio almost without a parallel amongst the higher educational institutions of the Empire.

But the wrong suffered by the great bulk of surgeons in civil practice is trifling, compared to that inflicted on the Members of this College who enter the public services. If you will turn to the forty-nine pages in Churchill's *Medical Directory*, in which are recorded the names of officers in the Naval, Military, and Indian Medical Services, and of the Mercantile Marine, you will there find the names of 819 men who have been sent out, under the authority of this College, to practise on Her Majesty's land and sea forces, and in sanitary charge of our merchant fleets throughout the world. Of that total of 819, only 41 are Fellows of this College, and 778 Members: in round numbers, the Members are 95 per cent. of the whole; and this immense proportion are denied the right of voting in the administration of the College.

Practically, this College disfranchises all those who, having obtained its diploma, devote themselves to the public service, however high their station, however spotless—nay, glorious—be their record.

In proof of the latter statement, let me trouble you with a few more figures. Of forty-seven military Companions of the Order of the Bath, and Companions of the Indian Empire in the profession, twenty-seven—more than three-fifths—belong to this College; but of the twenty-seven, only six—one-eighth of the whole—are Fellows; while seventeen, or nearly one-third, are disqualified, as Members, from taking part in the College administration. Yet amongst those Members, as such disfranchised, are K.C.B.'s, Honorary Physicians and Surgeons to Her Majesty, Inspectors-General of Hospitals and Fleets, and men who, to scientific attainments and consummate surgical skill, have added proof of heroes' mettle in the Victoria crosses on their breasts.

While we are discussing the affairs of this College under existing laws, let us not delude ourselves with the conceit that another medical Bill can be dispensed with. It is a great public need, and, as such, Parliament will pass it. What that Bill may be in its entirety, no one can predict; but one thing is certain, it will embody the principle of direct representation. I say certain, because the firm stand made for that principle by the British Medical Association has been ratified by the profession, and by the Royal Commission on the Medical Acts. It has been embodied in Bills which have passed the House of Lords, and the first and second readings in the Commons; and there is no instance of retrogression, once such a general principle has been so far ratified by the legislature. The final *imprimatur* may be delayed, but it will be affixed. Under that principle, every qualified member of the medical profession will have a right to vote in electing the General Medical Council of the nation. That granted, can those who are Members of this College be denied a voice in its concerns? Is it to be maintained that educated and responsible men may be entitled to, and competent for, the imperial, and not the municipal, franchise?

In the present state of things, what chances are there of a new charter being obtained for this College? If report be true, some friends of the Council, dazed by the opposition which they have already encountered, are for abandoning the attempt. But the mere fact that so many years have elapsed since the last charter was obtained, is a strong presumptive proof why a new one should be sought, to meet the much altered requirements of the time.

If the Council should persist on going to the Crown on the present lines, anxious as the Members are for friendly adjustment, one course only would be open to them. It would then be for them to approach Her Majesty in Council; and their representation would not improbably embody the facts I have placed before you, and more evidence of like kind, which is available in abundance. According to official custom, our representation would be remitted to the College Council for their reply. They would, doubtless, have at command, through their Treasurer, eminent legal aid; but they would lack the first essential of a successful defence—a just foundation. In such a contest, it is not doubtful with whom the victory would rest; but we ask to be spared the necessity of winning it. We believe in grafting, not in uprooting; in development, not in revolution. We are here, not as antagonists, but as professional brethren.

It only remains for me, Mr. President and gentlemen, to thank you for the hearing which it has pleased you to accord me. It would be doing injustice to you, and to the case which I have had the honour of submitting for the 16,500 legally qualified Members of this College, if I attempted any rhetorical elaboration of the facts in evidence. Nothing can add strength to them; and on the basis of those facts I claim the votes of the Fellows and Members in this professional brotherhood. Whatever the issue of the day, for which many of us have toiled and waited long and patient years, this meeting will be memorable. Happily, the near future is bright, and big with hope. The College must, and will, grow in honour and usefulness, on the just and lasting basis of an intelligent, responsible, and united constituency.

Dr. ROBERT COLLUM, in seconding the resolution, said that he attended the meeting held last year, and was astounded to be refused a vote. He had been in the public service all his life, and he was never more shocked than he had been at that occurrence; in fact, he could not believe that the Council were serious in refusing it. He stated on that occasion that, if he were alone in going to oppose the charter, he should do so; and the Chairman told him he was at liberty to do it. The result of that proceeding was, that two or three gentlemen who spoke at that meeting met together and convened the meeting, the result of which they saw that day. He had received telegrams ever since he entered the room—one telegram coming from Oxford, signed by the most eminent members of the profession; and another from Saffron Walden, from Mr. Stear, who said he was unable to attend the meeting, but the resolution to be proposed had his hearty support and sympathy. Other telegrams had been received from

Liverpool. Dr. Beardsley, from Guy's Hospital, telegraphed to say that he should have been glad to have been present to support the resolution. They had received hundreds of communications of the same kind. With regard to the report received from the Council, one-half of it, he said, was devoted to showing why they refused the just claims of both Fellows and Members, and the other half might be very easily disposed of. They had heard that there were 16,723 Members to 1,100 Fellows. Mr. Timothy Holmes and other Members of the Council were in favour of the resolution, and it was only a bare majority of the Council who refused the Members their just claims. Looking at the statement of accounts, they found that the fees paid to examiners during the past year amounted to £10,360 19s. The Council and Committee of Management received £323 8s. The salaries and wages amounted to £4,094, while fees and salaries took £14,779 5s. 3d. The income of the College was £25,866, of which there was a balance at the banker's of £3,464. The real expenditure was £22,402. The salaries in the Secretaries' office were £1,928, while the salaries for museum-purposes were £1,812, the difference between the two being £116. He had often been in the museum, but rarely saw more than one or two people going about; and clerks could be obtained for £100 a year. The next item was £467, devoted to the "burial of bodies, patients, and refreshments." He seconded the resolution, because it was approved of by Members all over the country; and he believed that the Council, by accepting it, would benefit themselves and the profession.

Dr. JOSEPH ROGERS said that, since he had paid his fee of twenty-one guineas, forty-three years ago, he had simply been utterly ignored by the Council and by the examining body of the College. They took his money, and they had spent it among themselves. They had continued from that date till the present moment to elect and re-elect each other, and had utterly ignored the great body of the Members from whom their income was derived. Forty-three years ago, in 1842, the Council had not their last charter, but they shortly afterwards obtained it by influencing Ministers of the Crown. The result was that they immediately elected 250 of their own personal friends as Fellows of the College, without payment, while he and every Member of the College then existent, if they came for the Fellowship, must pay ten guineas. If their Fellowship clothed him with golden raiment, he would not accept it on such degraded and insulting terms. They put upon him an indignity and a gross and abominable insult when they arbitrarily elected 250 men, and made them Fellows, whilst they rejected him and hundreds besides. He was going to show cause for what he said. He was known to the majority of those present to be the advocate of an amended system of medical relief to the poor. He held that the poor should receive the greatest possible consideration, but there were limits to that; and, therefore, when the Council, through their President, urged upon the Poor-law Commissioners, forty-four years ago, the absolute necessity that, in future, every medical officer who held a Poor-law appointment should have a double qualification, they should not have made that regulation retrospective. When he came up to that College, forty-three years ago, there were twenty-one men in the room who came up for examination, men of 45, 50, and 60 years of age, who had been dragged up to pass a nominal examination, and to be mulcted of twenty or twenty-one guineas, in order to swell the coffers of the College. That was the most wicked and abominable transaction that any body of gentlemen could ever have perpetrated upon the long suffering general practitioners of this country. He knew what a strain it was upon them to have spent that money; and, as regarded their examination, it was intended to be a farce, and the Council knew that it was a farce. They knew that those men who had never attended the surgical practice of a hospital, would not have the time to leave their practice and come up to London for that purpose; but they were allowed to come up and pass the examination, the Council being guided by one sole consideration, to mulct them of their money, that they might spend it among themselves. The present proceedings were a perpetuation of the same kind of thing, and he was ready to show the public that the College had abused its trust in the past, and, therefore, they had no confidence in it in the future.

Mr. KENNETH CORNISH said he thought it desirable that the petition to the Queen in Council, which had been prepared, and was now being signed by Members, should be read.

The PRESIDENT said such a proceeding would be more in order after the resolution had been dealt with.

Mr. GEORGE BROWN said that hitherto they had all been speaking on one side, and he should be exceedingly obliged if the Secretary would kindly let them know whether it was the intention of the Council to make any reply to the observations that had already passed. He was sure the President would say that it was scarcely treating that

large assemblage of Fellows and Members with the respect to which they were entitled to call them together, and to hear speeches such as they had heard, without making some sort of reply. He felt that there was a very great deal to be said for the Council in the matter.

The PRESIDENT said he could not represent the Council in the matter. He could only represent himself, and it was open to the Members of the Council, as it was to everyone in that theatre, to speak if they were in order.

Mr. BROWN said that, before making any remarks, he would give place to any Member of the Council who might think the observations which had been made worthy of a reply. After a pause, he said that he did not think there was anything to be gained by recrimination as to what had taken place at any previous period. The Members had come together, many of them from very long distances and at great inconvenience, to enter a protest against the Council going before the Privy Council to get a fresh charter, unless the rights of the Members of the College were properly recognised in that charter. It would be a great surprise to many people out-of-doors to know that, in this advanced age, there was a body of gentlemen who would stand up and endeavour to obstruct the exercise of the franchise by those who were justly entitled to it; and he felt confident that, if the Council asked the Government to grant them fresh privileges when the Government knew that what they asked was in opposition to the great body of the Members of the corporation, such a charter would not be granted. The Council, at the present moment, was not representative of the College of Surgeons, and it had not looked after the interests of the Members. The President and the Council recognised that, in times past, they had not done for the profession all that they should have done, and they were now attempting to remedy to some extent previous injustice, especially with regard to the single qualification which that Council had only conferred upon its Members in past times. That was an anomaly, because the general practitioners ought to have been able to receive from the College such a qualification as would have entitled them to have practised in every branch of medicine and surgery. Year after year the Council had allowed its qualification to be a partial one, and its Members had been driven from its doors, to go, it might be, to other corporations in England, Scotland, or Ireland, in order to complete their qualifications. The Council could easily have carried out such a resolution at any time during the last twenty years, either by itself or in conjunction with one of the other corporations, as would have enabled them to have conferred a complete qualification upon those who brought their money to it, and in not doing that they had neglected the interests of the Members. Another thing was, that they had not protected the legitimate rights and privileges of the Members, especially with regard to taking cognisance of the improper practices of those Members of the College who allied themselves with unqualified practitioners, by which means great injury had been done, not only to the hard-working members of the profession, but also to the general public. He himself, acting as the Secretary of the Medical Defence Association, had brought before the notice of the Council the conduct of Members of that College, in advertising themselves in connection with unqualified practitioners; and he thought that, if the Council had had a proper regard to its own honour, they would have prevented such alliances from taking place. If it were not in their power to take cognisance of such things, they might have obtained the necessary power from the Government. The Members were asking for nothing but that to which they were entitled, and they did not ask for it in antagonism to the Council. He doubted whether if they had the full franchise they could have elected a better body of gentlemen than those at present on the Council, for everyone of whom he had the greatest respect, but at the same time they would have better touch with each other. The Council would look after the interests of the Members, they would have the sympathy of the Members; and, that being so, he thought they would be doing themselves honour, they would be doing justice to the Members, and they would be advancing the interests of that great College, if they were to accept the resolution, and in any charter for which they might apply would seek for those powers which would enable them to confer upon the Members the privileges which they asked.

Mr. JOHN WALLIS MASON said he regretted that the wisdom of the Council up to that present moment in that assembly had not expressed itself otherwise than by silence. He should very much like, in common with the last speaker, to have heard something in justification of the course which they had taken in the embodiment of that report; but if they had not expressed their wisdom by speech that day, he presumed that they intended to say that it was represented in that report. There was one point to which he should like to call attention. The committee on the mode of election to the Council and other

matters, stated in the twelfth paragraph of their report: "The Committee beg to remind the Council that, on May 8th last, the Council adopted, *nem. con.*, a resolution, directing that an annual meeting of the Fellows and Members be called, to which a report from the Council should be presented, and that it is also provided that other meetings of Fellows and Members may be held either by direction of the President or Council, or on a requisition signed by thirty Fellows and Members, provided that the objects of such meeting be approved by the Council." He thought that the Members had been injured enough, and if that paragraph were allowed to pass without some comment, it would be simply adding insult to injury. They went on to say: "They are of opinion that these provisions of meetings of Fellows and Members are amply sufficient for the discussion of any matters affecting the interests of the College which are likely to arise. The Committee do not recommend the Council to adopt the proposals by which it is suggested that any alterations in the constitution, or in the by-laws, rules, regulations, or ordinances of the College should be subject to the approval of the Fellows and Members." Here again they asserted a wisdom which he did not suppose they possessed, and there was a spirit of irony in the paragraph of which, if they would permit him to say so, he thought they were rather ashamed; for, on turning to the conclusion of their report, they said that "in the paragraph respecting the meeting of Fellows and Members, they propose to substitute for the words, 'provided that the objects of such meeting be approved by,' the words 'with the consent of' the Council." They really felt ashamed of the fact that they must approve of the resolution which was proposed to be submitted to them, but they said that such resolution must be subject to their consent. That was watering it down very considerably, but he failed to see the distinction. It was a distinction without a difference; because, if they did not approve of the points that were to be brought before them, he did not suppose for a moment that they would grant a meeting. He thought this should not pass without a word or two of comment; and, after the very able address of Mr. Gamgee, and the observations that had been made by other speakers, he thought the Council could not gainsay the justice and the consistency of the right which they as Members had, and claimed, to representation on the Council. He stood there as a Member. He felt that his interest had not been cared for in the Council in times past, and that they were labouring under a sense of gross injustice in these times, when it was agreed that representation should go with taxation, and when it had been shown that the great bulk of the income of the College was furnished by the Members, and that £9,000 of that income went to the payment of examiners for the membership. They had come to the determination that they would bear with these wrongs no longer; and, if the Council did not yield, they must, in self-defence and in justice, not only to their own principles, but to the poor who were placed under their care, by some means, no matter what those means must be, go on advancing and advancing until they became a mighty force. They soon would attain that position, and the Council would then be constrained to yield to force, where they might now yield to consistency and to right. Possibly there were only a small minority of objectors on the Council. He honoured and respected every individual member of the Council, and he agreed that, if the Members had to re-elect the Council, they would very likely select the very men who were now upon it. He was not complaining of the men, but of the measures. He felt convinced that, if the members of the Council were to be canvassed in their individual capacity, they would most of them admit that the Members had justice on their side; but they knew that corporate bodies would do as corporations what they dare not do as individuals. He was speaking to a friend some months ago upon this subject, and telling him the relations that they bore to this question; and he replied, "Oh, the College take your money, and then they kick you out." He should not like to endorse that language, but they certainly took their money, and then barred them out. Hitherto, he had been silent upon this subject, but he intended to be silent no longer.

Mr. JABEZ HOGG asked whether, in discussing the report which had been placed in their hands, it was possible to alter any of the wording of the paragraphs, or whether they must take it as they found it without having the power to make any change or alteration.

The PRESIDENT said the report could not be altered, because it represented what had been done, but there ought to be, and he hoped there would be, the utmost freedom of discussion about it.

Dr. RALPH GOODING said he entirely agreed that this was not the time for reprimand. He wished to ask the Council, before that public assembly of Fellows and Members, who were the distinguished men who were disenfranchised. Had they not amongst them distinguished members of the profession, rising members of the Universities

of Oxford, Cambridge, and London, men who had distinguished themselves, not only in the army and navy and other public services, but who had rendered great service to the State and to the community at large? There were Members of the College who had taken First Classes without number, who had been laden with certificates of honour. But he would go beyond that, and ask, Had not many of those Members, distributed throughout every part of this great empire, done their work in good style, been of use to the community at large in every possible way, and in the end come to move in highest social circles? Dr. Rogers had said that, on a certain night forty-three years ago, he was on a perfect equality with the distinguished Council of that College; it seemed a sort of reflection upon members of the older universities and other distinguished Members of the College, that they should now be put on a lower footing. However, they did not want to dwell upon what had happened in the past, but only asked for their rights now; and he had sufficient confidence in the distinguished body of gentlemen now before them to believe that they would freely and voluntarily grant all that was asked.

Mr. GAMGEE, in reply, said it was not for him to cast any reflection or to pass any criticism on the speakers who followed him, but he must say that he had listened with some pain and regret to certain remarks that had been made, though no doubt such utterances were the natural outcome of assemblies which had suffered from a long and not very just repression. Many of the observations must have been made in a figurative sense; because, when gentlemen spoke of wrongs done by previous Councils, the illustrious men composing them had passed away, a large number of whom had left their acts for gratitude, while the majority had left noble traditions, which were personated in their distinguished successors. The remarks made with reference to expenses did not have his sympathy. As a profession, they thought that good service demanded good reward. When he thought of the men who composed the Council, and remembered the value of their time, and how long, like most of the Members, they had had to wait before their reputation had been recognised (because, even with the members of the Council of the College of Surgeons, fame often came before reward), he could not help feeling that those men deserved adequate remuneration. Such an institution as the College must employ able persons, and the payment must be good. He felt that, on this subject, the Members of the Association were with him, and he would repeat that they were not there to urge a destructive policy in whole or in part, but a constructive and improving policy. He was no politician, but as the air was now full of political talk, he might be excused a figure of speech. It had struck him that there were no such destructive Radicals as the *ci-devant* Conservative who did not repair, and there were no better Conservatives than the progressive men who said, "Hold fast to all that is good; repair as soon as you see the necessity." The question was, did they see the necessity? It had been said that the College ought to have made a reply. Well, to tell them the truth, he tendered, collectively and individually, his apologies to the distinguished members of the Council. They had his very sincere sympathy. They saw what was being prepared for them when they drew up that report, and it was a most ingenious document. It was called a report, but in reality it was minutes. He did not say that before, because he was for minimising difficulties. The Council had made no reply, but he had no doubt that, when the Council left the room (if he might venture to guess what was in the minds of such experienced Councilmen), they would all congratulate themselves upon how they had acted most skilfully that day. He was an inexperienced person, living and doing his work in a rather large provincial town; and he had not the experience of large affairs such as those gentlemen had; but, supposing that they had done him the honour of thinking for a moment that he had sufficient capacity to be at the council-table, and also that he might be capable of offering a suggestion as to what line of action they ought to take, supposing there were to be a large meeting, he should have said, "Gentlemen, let your President say what you say when you are in any difficulty. 'We are prepared to hear all you say,' but do not say a word." The meeting held a few months ago, he understood, was not a large one; but that could not be said of the present gathering. He confessed that he had been making one or two jocular remarks; for, if they did not have a joke, surgeons could not do their work; but now, in real earnest, he would say that they had before them a body of men of great experience. Let them look at that meeting. That meeting could not be stopped, for they had accepted a principle. The Council had called this a report; they had submitted it to the Fellows and Members. Between Fellows and Members there was no difference in principle whatever. Speaking for himself, he would willingly adopt the motto of the Frenchman, and be in favour of a lean arrangement rather than a fat decision. Com-

promise was the spirit of English life. If it were admitted that some day they must meet in consultation, by all means let them discover a *modus vivendi*—a *via media*—that should render possible a progression in friendship, but still recognise the principle which the Members sought to uphold.

The resolution was then put to the vote, and carried by a large majority, amid much enthusiasm.

Mr. NELSON HARDY said that he desired to move—

"That, in the opinion of this meeting, the multiplicity of medical schools in London, from which certificates are received, is an evil which demands the early consideration of the Council of this College."

Mr. GEORGE BROWN thought this was a matter for the General Medical Council.

The PRESIDENT said that, unless there were a decided expression of opinion to the contrary, he should be glad to hear Mr. Nelson Hardy upon the subject.

Mr. NELSON HARDY then observed that it was fifteen years since a very distinguished Member of the College, Professor Huxley, called attention, in an address on medical education, at University College, to the evil arising from having so many medical schools in London, and pointed out that, so long as there were eleven of such schools dividing the students between them, and so long as men who taught such subjects as anatomy and physiology took the chair solely as a stepping stone to something else, so long would it be an impossibility for physiology to be properly taught in those schools. Professor Huxley expressed the opinion that the maximum requisite number of such schools was three, and he seemed to have hoped that the reduction to that number might have taken place by the common consent of all concerned, without bringing to bear any pressure from above. Hardly a month ago, another distinguished member of the College, Professor Schäfer, had pointed out the impossibility under the present system, of a student learning his physiology in the same practical manner in which he learned his anatomy. Mr. Hardy then proceeded to quote Professor Schäfer on this subject, but was shortly assailed with cries of "Time, time," and ultimately withdrew his motion, on the President declaring that he was in some doubt as to whether he ought to admit it.

Mr. JABEZ HOGG said they were informed in the report that, at a Council meeting held on November 13th, 1884, it was resolved: "That the selection of candidates for the examinerships in Anatomy and Physiology under the scheme be no longer restricted to Fellows of the College, but be extended to Members." He asked whether any steps were taken to carry that resolution into effect, and what had been the result; because he observed, in reading over the names of those appointed very recently by the Council, that no Member had been so appointed. He should like to know whether any steps were taken to carry out that resolution of the Council.

The PRESIDENT: I do not quite catch the scope of your question. Do you ask whether any Members have yet been appointed by this College as Examiners in Anatomy and Physiology?

Mr. JABEZ HOGG: That is part of my question.

The PRESIDENT: Not yet; no Member has been appointed yet.

Mr. JABEZ HOGG: What steps have been taken to give effect to that resolution of the Council?

The PRESIDENT: Simply this; that these men are eligible now to become candidates, and their names are submitted on an equal footing with the names of Fellows, and those who are appointed to choose select those men whom they consider best qualified to be examiners.

Mr. JOSEPH SMITH, on behalf of the Association of Members of the Royal College of Surgeons, wished to ask what would be the effect of the almost unanimous vote that had just been taken, and when the Fellows and Members would hear from the Council with respect to it, and whether any reply would be sent to it, or any notice taken of the matter.

The PRESIDENT: I am sorry to say I am neither a prophet nor in the possession of the opinions of the Council, but the proceedings here to-day will be fully reported to the Council, and the Council will consider them.

Mr. SMITH said he was much obliged for that reply, but he should like to know if there was any probability that a reply of some sort, either for or against, would be forwarded to the Members.

The PRESIDENT: It will be considered at the next meeting of the Council, which is on the 12th of November; what the result of that consideration will be, I cannot tell you.

Mr. SMITH: But shall we receive a reply?

The PRESIDENT: I cannot tell you that.

Mr. PAUL SWAIN said he had wished to withdraw the resolution

of which he had given notice, but he had received a communication from Members and Fellows present desiring him to proceed with it. He therefore moved:

"That, in the opinion of this meeting, no alteration in the constitution or in the relations of the College, or in any of its by-laws or ordinances, shall be affected without the consent of the Fellows and Members convened to discuss the same."

The resolution which had been agreed to covered pretty nearly the whole ground, but he could quite conceive that there was a certain rightness in moving the resolution of which he had given notice. Under ordinary circumstances, and in an ordinary meeting, a report, when it was put before a meeting, was put for adoption or rejection, and it was a most extraordinary thing that they should be called together from all parts of England to receive a report, without having power to modify that in a single word. He did not mean that it was meant in any way as an insult, because the Council would not be guilty of that; but it appeared almost a childish thing to bring a report before a body of gentlemen such as those assembled, and to give them every opportunity to discuss it, and then not allow that report to be altered in a certain item. He wished to draw attention to two points; first of all, to what he considered the improper way in which the Council had made serious alterations in the constitution of the College without the consent of the Fellows and Members; and secondly, to the fact that they had refused to make certain alterations which the Members had unanimously, and he thought reasonably, recommended. In the first place, with regard to the alterations which had been suggested, the whole conjoint scheme of examination might be very good or very bad; he believed it was conceived in a panic, and it was very fortunate that it was conceived well and not badly. But that was not the question; the fact remained that the scheme, which materially affected the College and all its Members and Fellows, had been carried out without any reference to them whatever. And then what followed? Directly the conjoint scheme had been carried, there arose the question of where the examinations were to be conducted. It was stated in the report that a site had been obtained for ninety-nine years, at the large annual rental of £2,000, and that on that site there was to be a building which was to cost between £20,000 and £30,000. Was it right and proper and constitutional that the Council should be enabled to spend those large sums without reference to those who had provided the money? That was merely one instance of the changes which the Council had carried out without appealing to the Members in any way. As to the suggestions of the Members, he would only take one as an illustration, namely, a modification which was considered proper and reasonable in the mode of electing a Court of Examiners, a modification which the Council had entirely neglected. He found, in the calendar for 1884, that there were nine Members of the Court of Examiners on the Council, and one Member of the Board of Examiners. There were four gentlemen who had held the posts of examiners, and three, if not four, who had asked for the post of examiner. The Council had power to appoint a Court of Examiners, and the Court of Examiners had actually been in a majority on the Council; so, to all intents and purposes, the Court of Examiners had the power to elect and re-elect themselves, and that, in the face of a resolution, which, he believed, was moved by Mr. Quain, deprecating that arrangement, and asserting that not more than one half of the Court of Examiners should be on the Council at the same time. He had been told that one of the great reasons influencing the Council in their stubborn resistance to all their demands, was the feeling that there was nothing behind them, that the country had not been very much aroused, and that the profession was perfectly satisfied with the behaviour of the Council. He read it in another way. He believed that the action of the Council in times past, and down to the present time, had alienated the profession from the College. A man having received his diploma, walked out of the doors of the College with the sense of being very much injured, and of having suffered many things from many men inside, and he washed his hands of College affairs ever after. Their ignorance with regard to College affairs was extraordinary. If anyone asked the first ten medical men he met in a provincial town who was the President of the College, they would probably not be able to tell him. The common inquiry used to be "How is Stone?" and now the question asked was, "How is Trimmer?" Men seemed to have got it into their heads that Mr. Trimmer was the College, and that the College was Mr. Trimmer. Their instincts might be true, and it was certainly evidence of the popularity of Mr. Trimmer, and of the assiduous way in which he performed his duties.

Dr. DANFORD THOMAS briefly seconded the motion, and said he believed that it had the general support of the Members of the College.

Dr. WARD COUSINS said he did not think that the present President and members of the Council were in any way to blame for the existing state of things. The College was a very old organisation, and it had hardly ever undergone any central modification. He had the most unabated esteem for the present members of the Council individually, but there was no reason against carrying out a much needed modification in the organisation of the College. Individual qualities did not show themselves when men met together in organic corporations. The qualities of a corporation were not the sum-total of the qualities of the individuals. He was a strong believer in the development of institutions by crisis, and there was certainly a crisis at the present time in the development of the Royal College of Surgeons—a crisis when an organic change became necessary. The present state of things was not owing to any fault of the existing officers of the College, but it was the fault of the Members who had not brought their reactionary force to bear on the centre of the institution.

The resolution was then put and agreed to *nem. con.*

Mr. PARKER YOUNG moved—

"That the meeting be adjourned until November 19th." If the Members separated without any adjournment, they might not hear anything of the action that might be taken by the Council. It had been stated that the Council would discuss the subject on November 12th, and it would not be advisable to allow the matter to sleep after that time. If the Members met again on the 19th, a good deal of time and expense might be saved. Judging by the countenance of the members of the Council, he thought they were going to give the Members what they wanted. For his own part, he should be extremely sorry to see those gentlemen removed from the places they now occupied. If they would only listen to reason and to the force of public opinion, they would see that what the Members asked was justice and nothing more.

The PRESIDENT said he had no power to accept the resolution. The business for which the meeting had been convened had been disposed of, and no further meeting could be called without the assent of the Council, which was not in his power to give.

Dr. JOSEPH SMITH said it was in the power of a certain number of Members and Fellows to sign a requisition for the holding of another meeting, but an adjournment would save that trouble.

The PRESIDENT said he was governed by the laws of the College, and had no power to adjourn the meeting. He had that opinion from a legal authority.

Mr. G. BROWN said it was in the power of the meeting to requisition the President and Council to hold a meeting on November 19th, and he hoped that that course would be adopted, in order to meet the present difficulty.

Mr. YOUNG said he was quite willing to accept Mr. Brown's suggestion.

Mr. R. TWEEDY said that the by-law under which the present meeting was being held was framed to prevent Members and Fellows from meeting in that College; and, if it were now attempted to prevent an adjournment of the meeting under that old by-law, he for one would take steps to have it altered. It was framed many years ago, after the memorable contest with Mr. Wakley. He might be allowed to call attention to another matter, which was, that he had been informed that the library was closed that day to prevent Fellows and Members from holding a separate meeting. He wished to ask if that was the fact.

The PRESIDENT said they had better first dispose of the question before them.

Mr. TWEEDY said he did not see how it could be held that the meeting could not be adjourned.

The PRESIDENT said he thought the best way to meet the difficulty would be by means of another requisition, duly signed. The only other alternative would be by his taking upon himself the decision of the matter without consulting the Council, a course that he was loth to adopt. Personally, he had no objection; but he thought they would be more in order to have a requisition from the Fellows and Members.

A short consultation then took place between the President and the Members of the Council, after which

The PRESIDENT said it was the opinion of the Council that he might take the expression of opinion on the part of the meeting as a requisition. He would, therefore, ask the Members if they were of opinion that a further meeting should be held. [Nearly all hands were held up in the affirmative.] He would take that expression of opinion as a requisition for a further meeting. There might be some difficulty with regard to the exact date of the meeting, owing to the examinations and other business, but there should be no unreasonable delay in the matter.

Mr. CHARLES HAWKINS moved a vote of thanks to the President, and suggested that, if Members desired to know what had become of the funds received by the College, they might obtain the information they desired by walking round the museum and the library.

The motion was seconded by Dr. COLLUM, and unanimously adopted.

The PRESIDENT having acknowledged the vote of thanks, the proceedings were brought to a close.

COLLECTIVE INVESTIGATION COMMITTEE

A MEETING of the Collective Investigation Committee was held at the Holborn Restaurant on October 14th, at 5 P.M. The General Committee met at dinner at 6 o'clock, and proceeded to business at 7.30.

The Report of the Standing Subcommittee showed that a fair number of returns had been received during the past quarter, in spite of it being mainly vacation-time.

On the recommendation of the Standing Subcommittee, and with the sanction of the Council, it was resolved to proceed at once with the inquiries desired by the Collective Investigation Committee of the International Congress; and, in the first place, to issue a general paper of inquiry as to the geographical distribution of certain diathetic diseases, in order to open up the question of their etiology. Resolutions were taken having in view the closer union of the work of the Collective Investigation Committee with that of the annual meeting of the Association.

It was resolved to add to the Committee by co-optation, subject to the Council's approval: Dr. Barling, of Birmingham; Dr. Eddison, of Leeds; and Dr. Ward Cousins, of Southsea. Dr. Barr, of Liverpool; Dr. Dreschfeld, of Manchester; and Dr. Cavafy, were appointed extra members of the General Committee. Drs. Cavafy and Coupland, and Dr. Tyson, of Folkestone, were appointed to fill the vacancies in the Standing Subcommittee.

The Secretary reported that the representatives of the Therapeutic Section of the annual meeting had selected hamamelis and paraldehyde as subjects of investigation. The Committee suggested that the action of ergotin in arresting hæmorrhage might be added as a subject of inquiry.

LIST OF RETURNS RECEIVED DURING OCTOBER, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of October, 1885.

Border Counties Branch: X, J. R. Hamilton, M.D. (2).
 Cambridge and Huntingdon Branch: X, Professor Humphry, M.D., F.R.S.
 Lancashire and Cheshire Branch: Chester District: VII, T. Holmes, M.D. (6); X, F. P. Weaver, M.D.; C. Jordison.
 Metropolitan Counties Branch: IV, A. Ogier Ward; X, J. F. Briscoe (2); J. B. James; H. C. Fox (3); W. Burton; XIII, A. C. Fletcher; W. B. Kesteven, M.D., F.R.C.S.; W. Coode Adams, M.B.; J. Harper, M.D.; G. E. Yarrow, M.D. (2); W. L. Heath, M.B., F.R.C.S.; J. F. Briscoe (11); J. Chalmers, M.D.; A. F. Stevens, M.D.; H. Steel, M.D.; F. H. Daly, M.D.; G. Haddowe, M.B. (2).
 Midland Counties Branch: Nottingham District: II, H. Handford, M.D.
 North of England Branch: III, C. H. Milburn, M.B.
 North of Scotland Branch: X, J. Caldwell (2); H. McNicol, J.P.
 North-Eastern Branch: West Kent District: I, X (2), XIII (2), C. Boyce, M.B.
 East Sussex District: X, A. Johnstone, F.R.C.S.; S. Winter Fisher, M.D.
 Intemperance, E. Downes, M.D., F.R.C.S.
 South Midland Branch: X, T. S. Maguire.
 South-Western Branch: Isle of Wight District: III, W. E. Green.
 Shropshire and Mid-Wales Branch: X, T. L. Lloyd (2).
 Staffordshire Branch: XIII, W. H. T. Winter.
 Thames Valley Branch: X, T. W. Jeston, J.P.
 Worcester and Hereford Branch: X, E. Mathews.
 Yorkshire Branch: X, A. Maude.
 Channel Islands: Jersey: X, A. Godfrey, M.B. (2).
 Tasmania: Intemperance, C. S. Richardson.

MEDICAL MAGISTRATES.—Dr. Hutchinson, of Scarborough, has been placed on the Commission of the Peace for the North Riding of Yorkshire.—Mr. R. Arthur Prichard, of Conway, has been placed on the Commission of the Peace for the county of Carnarvon.

A CURIOUS MISTAKE.—The following anecdote is related as an actual occurrence in the American and Canadian journals. A young man, fresh from college, whence he came with honours and medals, was sent by his father, a practitioner of fifty years' standing, to attend a woman in labour. On making a digital examination, he found the os uteri undilated. After waiting an hour, there being no improvement, he applied belladonna ointment, and endeavoured to make forcible dilatation. At the end of another hour, there was still no dilatation; and, being alarmed, he went to his father for assistance; but, before they returned, the child was born. On examination, the father found that the child's anus was red and patulous, and was liberally besmeared with belladonna ointment. The young practitioner had met with a breech-presentation, and had mistaken the child's anus for an undilated os uteri.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 7th, 1885.

THE GENERAL MEETING AT THE COLLEGE OF SURGEONS.

THE result of the meeting held at the College on October 29th was undoubtedly far more satisfactory than many who were present had anticipated. It was expected that over an hour would be spent in vain talk, that the Fellows and Members would end by directing their eloquence against each other rather than against the decrees of the Council, and that, at the end of the sitting, nothing would have been obtained, and nothing would have been done. Instead of an expected failure of this kind, a distinct step has been gained, for no longer is the general meeting of Fellows and Members to be held on sufferance at long and uncertain intervals. It has been made an institution, and the right of adjournment, a most important privilege, was practically, though not technically, conceded by the Council at the meeting of Thursday week.

Mr. Sampson Gamgee moved a resolution to the effect that the 16,500 Members should obtain a legal right to representation in the administration of the College. His speech will be found fully reported in another column. Mr. Gamgee indicated how greatly the Members outnumbered the Fellows, and, consequently, how the former contributed towards the funds of the College to a far greater extent than the latter. Taxation, according to the ideas which prevail in Anglo-Saxon civilisation, should ever be associated with representation. The extension of the franchise to Members would do great good; they were responsible and intelligent persons, and, such being the case, under any circumstances, and in any institution, no harm could arise from the enlargement of the number of electors. Moreover, the new electors would be men accustomed to grave public and private responsibilities, scientists, magistrates, and even men discharging the often unappreciated duties attached to the public services, the public health, and the poor-law. Besides, since most Members had a vote in the affairs of their country, it was absurd to suppose that they were not fit to have a vote in the election of Members of the Council of their own College. In seconding Mr. Gamgee's resolution, Dr. Collum entered into details about the College expenditure. Several members then made observations on the resolution. Dr. Joseph Rogers, having, no doubt, in his mind's eye, several hard struggles for the rights of the class of medical men to which he belongs, combats where he was single-handed against a narrow-minded and oppressive corporate enemy, complained that the College had taken his money when he took his diploma, and had done nothing for him ever since. After Dr. Rogers had cited an instance where the Council had acted in combination with the Poor-law Com-

missioners and to the alleged inconvenience of the Members, Mr. George Brown referred to the shortcomings of the Council in their refusals to deal firmly with the black sheep of the surgical fold. Together with other speakers, he called upon the Council to speak for themselves.

Mr. Gamgee, before the resolution was put to the vote, observed that he had no complaint against the balance-sheets of the College. The expenditure was necessary, and not unreasonable; he only insisted that the Members, who contributed to the funds which met the expenditure, should have a voice in College affairs. The resolution was then carried by an overwhelming majority. After a second resolution, on the evils arising from the multiplicity of medical schools, had been withdrawn, as not being within the scope of the objects for which the meeting had assembled, Mr. Swain moved, that in future no alterations in College laws should be made without the consent of the Fellows and Members, expressed at a general meeting. He especially referred to the conduct of the Council in relation to the conjoint scheme, which they had kept back for years, and at length established under the hurry of a panic, without any consultation with those who held the College diploma. He denied that Fellows and Members were really lukewarm about the proposed reforms, and said it was only because they had hitherto been so much neglected, that they took so little interest in the great institution at Lincoln's Inn, and generally associated it with the names of two well known and very genial permanent officers, who, from the very nature of things, must have had no slight influence over the government of a corporation hitherto controlled by a limited body of men, seldom thoroughly understanding their duties. After Dr. Danford Thomas had seconded the resolution, and Dr. Ward Cousins had made some observations, it was put to the vote and carried unanimously.

The most important incident in the course of the meeting occurred, however, towards its conclusion. Mr. Parker Young, contending that the meeting would very naturally desire to know the decision of the Council to be expressed at their next meeting, and to reassemble and consult on that decision, moved an adjournment of the meeting till November 19th. The President contested the legality of such a proceeding, since the business for which the meeting had been called had been disposed of. Several Fellows and Members thereupon observed that surely the right of meeting implied the right of adjournment, and, after a slight discussion, it was arranged that a general meeting would be called shortly after the next meeting of the Council.

Throughout the meeting, the speakers were careful to keep in mind that it was the corporation, and not the distinguished members of the Council, that was attacked; indeed, more than one went so far as to say that, were the Council re-elected on the new lines, the Members would vote for the same men who now composed it. At the same time it would certainly have been better had some of the speakers avoided the use of injudicious and uncourteous expressions, tending to damage the very name of Member, and the just cause for which every Member fights. It is clear that the Members of the College are in a fair way to secure a most important right, which will be of the highest benefit both to the College and to the profession in the eyes of the public. The College will then be a truly representative body. The public believe in a material rather than an abstract centre for any profession, and the College will be more than an abstract idea when it becomes a true parliament of English surgeons, and not a mere corporation acting in the hospital-surgeon and consultant in-

terest, and upheld by the suffrages of a minority who have gained a diploma which implies academic and not administrative ability.

TENDON-REFLEX.

THE paper and discussion on the "Clinical Significance of the Deep Reflexes" attracted a large number of Fellows and visitors to the Medical Society last Monday. The interest which the profession is taking in neuropathological subjects is daily increasing, and few subjects have attracted more attention of late years than that which was set before the Society at their last meeting.

It is just ten years since Erb and Westphal simultaneously published their discovery—not of the existence, which was a popularly known fact, but of the clinical import—of the muscular contraction which follows a blow on the patellar tendon, now called the knee-jerk. It is a curious fact to observe that, whilst the divergence of opinion between these two great clinical observers as to the physiological explanation of the phenomenon still subsists, notwithstanding the elaborate and persevering endeavours of experimenters, their view as to the diagnostic importance of the sign has received the unanimous support of all subsequent observers.

Dr. Gowers opened the discussion with a statement of his own views concerning the theory of what are generally known as the "tendon-reflexes." In order to place the reader in a better position to judge of the whole question, let us ask ourselves what are the events occurring between a tap on the patellar or other tendon, and the muscular contraction which follows it. A sensory impression is produced on the skin and deep parts, the tendon and muscle are suddenly stretched, and ingoing currents are sent from these peripheric organs to spinal and other central masses of nerve-matter. Now, the whole question is, to which of these elements the contraction is due. Is it a skin-reflex? a tendon-reflex? a muscle-reflex? or, is it a direct result of the sudden stretching of the muscular fibres, as the wave so frequently seen running along the pectorals during percussion is due to the mechanical excitation of the impact?

Erb believed that an excitation of the sensory nerves of the tendon is conveyed to the spinal cord, and therein converted into a motor impulse; hence the unfortunate, though short and handy, name of "tendon-reflex," given by him to the contraction of the quadriceps extensor. Westphal, more philosophical perhaps, though holding the view of a direct excitation of the muscular fibre, did not crystallise his opinion into a special term, and was content to designate the fact as the "knee-phenomenon."

The possibility of the jerk being the last factor of a reflectory process, starting in a cutaneous excitation, was readily placed out of question by the simplest experiments. In animals, the substitution of a string for the tendon, and percussion on that string, showed also that the contraction following the tap is not the manifestation of a "tendon-reflex" process. Two alternatives were left, therefore, and between these physiological opinion is not yet settled.

Among those who, abroad, have contributed facts and arguments towards the solution of the problem, are Burckhardt, Tschiriew, Eulenburg, Brissaud, Prevost, Ter Meulen, and Jendrassik. It would lead us too far to speak in detail of their methods and results. The general tendency on the Continent is to adopt the view that the contraction which is provoked by a blow on the tendon, or a sudden extensile impulse given to it, is a "muscle-reflex;" in other words,

depends upon an excitation of the centripetal muscular nerves, and a consequent reflected discharge of certain spinal motor cells. Apart from the questionable element of the "short latency," we find an obvious difficulty in accepting this reflex theory in the fact that the spinal motor arrangements would lead us to expect a co-ordinated movement, rather than a discharge strictly limited to a single muscle.

The main argument of those who maintain that the knee-jerk and its congeners are a manifestation of the muscular irritability properly so-called, has hitherto been that the time which elapses between the percussion and the contraction is not sufficient to allow us to assume a complete reflex cycle of events. In England, this view is perhaps held by the majority of neurologists. Dr. Gowers was the first in this country to perform experiments tending to establish the exact interval between the tap and the contraction. His results were embodied in an elaborate paper presented to the Royal Medical and Chirurgical Society in 1879. Unfortunately, owing to certain fallacies which had not been eliminated from his investigations, the results he reached were ambiguous. For, whilst he obtained evidence of a very short time "latency" in the case of the tendo Achillis, his tracings showed a very protracted period as elapsing between a blow on the patellar tendon and the movement of the leg produced by the contraction of the quadriceps extensor. Hence, he concluded in favour of a process of reflected excitation in the latter case, of direct excitation in the former. In the second edition of his *Diseases of the Spinal Cord*, however, which appeared shortly after a paper in which Dr. Waller clearly established that the latencies of the two phenomena are identical, Dr. Gowers recognises his error, and shows himself a warm supporter of the "direct muscular theory." Further evidence in the same direction was afforded by the results of Dr. de Watteville, who also showed the possibility, in certain pathological cases, mistaking a true spinal reflex for the normal "tendon pseudo-reflex."

One difficulty had to be met by those who considered the knee-jerk as due to a direct muscular excitation. They had to reconcile their view with the undisputable fact that this excitation remains ineffectual when the *posterior* lumbar nerve-roots are divided or diseased. Waller appears to have been the first to give a definite explanation of the fact. Physiological tonus, he said, is a reflex process of muscular innervation. Unless tonus be present, a tap of the tendon will fail to excite the fibres by suddenly stretching them. Hence any break in the musculo-spinal reflex loop will abolish tonus and knee-jerk together.

Dr. Gowers's theory, which he once more brings forward with greater fulness in his recent address, is somewhat more elaborate. Instead of appealing simply to physiological tonus, he asserts that the moderate degree of tension which is necessary in order to obtain what he calls the "myotatic contraction"—in other words, the "tendon-reflex"—is in itself the source of a reflex tonic excitation of the muscular fibre, which then only becomes fit to respond to extensile impulses.

It will thus be observed that, from a practical point of view, the symptomatic value of the presence or absence of the knee-jerk remains the same, whatever theory we adopt as to the mechanism on which it depends. By striking a tendon, what we wish to ascertain is whether the musculo-spinal reflex loop is or is not active and pervious in all its elements. Whether we test this loop by a direct appeal to its functions, or whether we investigate a muscular condition which

we know varies with the normal discharge of these functions, we are equally entitled to draw our conclusions from the results.

Dr. Gowers's interesting speculations concerning the spinal mechanisms presiding over the reflected muscular tonus will no doubt prove suggestive to the physiologist and clinical observer alike. But we hasten to reach the second part of his address, where he treats of the symptomatic import of the abnormalities, excess or deficiency, often found in the tendon-reactions of patients suffering from many forms of nervous disease. As he rightly remarked, the first question relates to the uniform existence of the knee-jerk, which is the typical instance of these reactions in all healthy individuals. Former observers had concluded that it is absent in a certain percentage of cases. Now it is obvious that, if loss of knee-jerk is, as we generally believe, an early sign of neurotic trouble, it is a contradiction in terms to speak of those in whom it fails to be elicited as of healthy subjects. But this is not all. In an instructive paper read before the Neurological Society of Berlin, two years ago, Dr. Polizäus says that in the first examination of 2,403 boys he found the knee-jerk absent in six. One of these he discovered had had diphtheria some weeks previously, whilst another was unmanageable. He submitted these six boys to repeated investigations at various intervals, and eventually elicited the contraction in all except one, whose nutrition was very defective; but in whom no certain evidence of a neurotic diathesis could be obtained.

There were but trifling divergencies of opinion expressed in the discussion which followed the reading of Dr. Gowers's paper on the subject of the tendon-reactions in organic diseases of the cord and brain. Not so, however, with reference to true ankle-clonus, the possible presence of which in pure hysterical paraplegia is affirmed by Dr. Buzzard and others.

The question is a delicate one, and will no doubt be settled by a more stringent definition of terms, and by more extended series of clinical observations. In the meanwhile, we are in possession of facts which raise doubts as to the intimate connection of ankle-clonus with organic cerebro-spinal disease, and point to a greater independence between it and an exaggerated knee-jerk, than has hitherto been assumed to exist. Thus, Dr. de Fleury, under Professor Pitres' guidance, has published some cases in which simple rheumatism, fracture of the tibia, disease or injury of the tarsus, were accompanied with a lively ankle-clonus, without any corresponding increase of the knee-jerk. Again, in three cases of typhus, foot-trepidation coexisted with absence of patellar response. Experiments with Esmarch's bandage gave results in the same sense. These and many other facts will have to be considered and submitted to controlling investigations, before we can come to definite conclusions as to the physiological nature and clinical import of these complex neuro-muscular manifestations.

In the meanwhile, Dr. Gowers has done good service in bringing forward, in plain and forcible language, his facts and opinions on these interesting and important topics.

THE BRITISH MEDICAL ASSOCIATION AND ITS COLONIAL BRANCHES.

FROM its inconspicuous beginning as a provincial association, with limited and unambitious objects, we have, within comparatively few years, witnessed the evolution of an Association binding together the majority of the members of the medical profession in the United

Kingdom for the promotion of whatever can advance that profession in its scientific, social, and political aspects and relations; and still more recently have we seen this Association overleap the barriers of the old country, to plant itself in most of those mighty territories which British power or enterprise has won for itself in every quarter of the globe. Each year, as it passes, is marked by the multiplication, at home and in the colonies, of Branches which, in their sum-total, constitute the great edifice of the British Medical Association. In fact, the Association has become an Imperial institution, extending its ramifications to all parts of the empire, and linking together the members of the profession, wherever found, in one body, animated by a common purpose—the advancement of scientific medicine, and of the social well-being and dignity of its associates.

But this great purpose is immensely strengthened by the publication of its JOURNAL, the efficient medium for diffusing knowledge, gathered from all quarters, for the advocacy of the rights and privileges, and for the expression of the wants and aspirations, of all its constituents. Moreover, along with the advance in growth and strength of the Association, by the multiplication of Branches and members, the part to be played by the JOURNAL becomes one of ever increasing importance. As the recipient medium for registering improvements and discoveries in medical science, and for reporting discussions and projects relating to the interests of the profession, its value and influence must augment in proportion as it is used by an ever widening circle of supporters and contributors.

It is true that science can claim no country as its own; it has no territorial limits. Nevertheless, community of race produces community of feeling and of interest; and the scientific reputation of the colonies and of the mother-country is felt to be a common inheritance and a common stock, to which both may alike contribute. Our colonies, although known by different names, like so many distinct countries, are nevertheless bound together and to the old country, so that they cannot help feeling proud of whatever progress is made in science or art in the latter—a feeling which, again, is equally reciprocated. The advancement of medical science is the duty of all its followers individually; but to British colonists it is something more, for they have the reputation of the parent country as well as their own to maintain and to advance. This JOURNAL, their common property, supplies the apt instrument for the publication and discussion of whatever be the outcome of their investigations and observations; and it is within their power to render it a true representative record of the art and science of medicine as cultivated and practised in the wide area of the British dominions. It has not as yet attained this commanding position; for, although there are very many colonial associates, these hitherto have seldom been contributors. Yet it wants no argument to show that they might add considerably to the stock of medical knowledge. In the subject of pathology, we must look to them for information respecting those maladies more or less peculiar to the colonies, and likewise concerning the variations in the natural history of diseases as observed by them, whether referable to meteorological and climatic conditions or to modes of life and food—that is, to surroundings and circumstances differing from those of the mother-country. We have also to learn from them the climatology of our colonies, so that we of the old country may acquire some sure guide in recommending intending emigrants, especially those in search of health, what colony or part of a colony to select. And, to mention only one other matter of information they could conveni-

ently supply, we should be indebted to our colonists for researches into the therapeutic value of indigenous plants, and for notes on the medicinal agents employed by aborigines.

There is yet another department of knowledge of practical importance to the dwellers in the old country. That is, the knowledge of the status of the profession in our various colonies, of the provisions for medical education made by them, and of the laws regulating practice. There is a perpetual efflux of medical men, qualified and unqualified, to British colonies; and we apprehend that very many embark for their adopted home with very hazy notions of what are the conditions of practice, or the likelihood of success before them.

As to the apparatus for education to be found in the colonies, we are well aware of the munificence which has, in several of them, founded universities complete in every department, and, in others, colleges of admirable organisation. Still, we could well wish for more information on these points; and, consequently, for more contributions, such as that recently received from Mr. James T. Rudall, who this year delivered the annual address, as outgoing president of the Victorian Branch of the British Medical Association. In this address, Mr. Rudall noticed the great progress made in recent years in preventive medicine and in physiology; and, when speaking of the latter, urged the propriety of instructing the lay public in that science, with the view of rescuing them from the quackery to which they so readily surrender themselves. He evidently feels strongly on this subject of quackery, which, in Victoria, bears itself more insolently, and attracts to itself more patronage, than even in England. Another fact we gather is, that the importance of clinical teaching is not sufficiently recognised in the University of Melbourne; a circumstance, it would seem, largely due to unsatisfactory relations between the University medical school and the public hospital. "The last-named institution," he writes, "will certainly continue to stand in the way of most other reforms, until a radical change is made in the mode of election, and the tenure of office of the physicians and surgeons." He points out other defects in the organisation of the medical school, such as the want of teaching of ophthalmology; and in the hospital, of the appointment of medical and surgical registrars, of the publication of accurate statistics, and of improved nursing.

Lastly, among other things, he urges upon the colonial legislature the necessity for "some wholesome and judicious regulations regarding medical practitioners and others not possessing a British qualification," as some safeguard to the public against quacks and pretenders; and, further, for some measures to relieve practitioners from undue responsibility in connection with certificates of insanity, and others calculated to improve the condition of the insane, and of the medical officers of asylums.

The whole of Mr. Rudall's address indicates a correct appreciation of the tendencies of modern medicine, and of the direction in which we must look for its future advancement. It shows, also, that our colonial colleagues are exercised by similar difficulties with ourselves; that they seek for measures to repress quackery, and to protect themselves from the perils of the law in discharging their duties towards lunatics.

In conclusion, we must repeat the wish to know much more of our associates in the colonies; of the work they are doing to enlarge the boundaries of scientific medicine; of the social legislation they conceive to be most advantageous to themselves and the public; and of the schemes they adopt for perfecting medical education.

DURING the present week, application has been received at the office of the Association from twenty medical practitioners in Ceylon, who are desirous of forming a new Branch in that island.

At the last meeting of the Clinical Society, it was decided, by an overwhelming majority, to revert to the old custom of having tea and coffee served after the meeting, and not before, as has been the practice during the last year and a half.

THE Bowman Lecture will be delivered by Dr. Hughlings Jackson, at a special meeting of the Ophthalmological Society of the United Kingdom, at 9 o'clock on the evening of Friday, November 13th. The ordinary meeting of the same Society will be held, in due order, on the evening of November 12th.

As previously intimated, the *American Journal of the Medical Sciences* will be published every three months, simultaneously in London and the United States, under the title of the *International Journal of the Medical Sciences*, on and after January 1st, 1886, under the editorship of Dr. Minis Hays and Mr. Malcolm Morris. The January number will contain articles by Sir H. Acland, Sir James Paget, Sir Andrew Clark, Dr. Matthews Duncan, Dr. W. H. Broadbent, Dr. Walter Smith, and Mr. Jonathan Hutchinson.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

THE first meeting of the session 1885-86 will be held at 11, Chandos Street, on Wednesday, November 11th, at 8 P.M. The President, Dr. Walter Dickson, R.N., will deliver an inaugural address on Recent Epidemics at Home and Abroad.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE ordinary monthly meeting of the executive committee of the above Society will be held on Wednesday next, the 11th instant, at 38, Wimpole Street, W., at 4.30 P.M.

IMPORTATION OF RAGS FROM SPAIN.

THE order issued by the Local Government Board on June 23rd last, prohibiting the importation into this country of rags from Spain, expired on the 1st instant. Having regard, however, to the fact that cholera has not yet died out in Spain, and that, at all events, risk of infection by rags is by no means yet past, the Board have just issued a further order, extending the operation of their previous prohibitory order until January 1st, 1886.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE next quarterly meeting will be held at Bethlem Hospital, St. George's Road, S.E., on Tuesday, November 17th, at 4 P.M. Papers will be read by Dr. Conolly Norman, On Some Points in Irish Lunacy Law; Dr. Hack Tuke, On a Recent Visit to Gheel; Dr. Savage, On Some Hemorrhages in General Paralysis. The members of the Association will dine together at the Holborn Restaurant, High Holborn, at 7 P.M.

OBSTETRICAL SOCIETY OF LONDON.

At the meeting of this Society on the evening of Wednesday, November 4th, Dr. Lewers exhibited a specimen of malignant disease of the sigmoid flexure intimately connected with the back and upper part of the uterus, and an anatomical preparation showing an unusually large vein in the uterine tissue near the internal os, not apparently exhibiting any morbid condition. Dr. Walter Griffith showed a small broad ligament-cyst with septa on its inner wall; and Dr. Herman read notes of a case of chancre on the cervix, the morbid condition being the subject of a sketch which was handed round for inspection. Dr. Herman then read a paper on the suppuration of pelvic dermoid cysts. The question of the ovarian or non-ovarian

origin of such cysts, of the results following rupture of dermoid cysts into canals and cavities in their neighbourhood, and of the surgical treatment of such complications, formed the substance of Dr. Herman's communication, and gave rise to active discussion. The second paper consisted of some rather interesting notes by Mr. S. D. Hine, on a case of obstructed labour in which spontaneous version followed an unsuccessful attempt to deliver with the crotchet after craniotomy. This was a good and essentially obstetrical subject, involving some of the most important questions associated with obstructed labour. The relation of the spontaneous version to the craniotomy in the sense of cause and effect was discussed. As few questions can be of more interest to the large class of practitioners who have to conduct difficult obstetrical operations, far from aid or advice, than puzzling or untoward complications occurring after such operations have been performed, it may be added that the discussion was of a character particularly pertinent to the more essential objects of the Society. Monographs read by distinguished authorities are undoubtedly of high value, but it is equally certain that the intelligent practitioner should be encouraged to fearlessly record his experience, and even to seek advice from the collective wisdom of a Society composed of members who represent all the different conditions under which obstetric art and science are studied and practised. The value of our own "Obstetric Memoranda" has long been justified by the frequency with which our contributors make the best use of the column devoted to obstetrical annotations. Precisely the same system should be encouraged by any society devoted to obstetric medicine.

THE BOTANIC GARDEN AT CHELSEA.

THE Botanic Garden of the Society of Apothecaries at Chelsea continues to be useful, as it has been for the past 200 years (during most of which, indeed, it stood alone as an institution for the study of botany from the living plants) in affording the means of instruction for medical students. During the present year, the number of visitors, mostly students, who have been admitted is 2,784, of which number 1,200 were males, and 1,584 females; the former consisting chiefly of young men in training for the different branches of the medical profession, and the latter in great part of young women training as teachers in public schools. The Society gives annually a gold medal and also a silver medal, in both classes of students, to those who pass the most creditable examinations.

CHELSEA HOSPITAL FOR WOMEN.

AFTER being unoccupied for two years, the "Albert Edward" floor, so named by permission of His Royal Highness the Prince of Wales, containing twenty beds, has this week been opened for patients. Nothing but lack of funds caused these wards to be closed, but the board of management could no longer refuse admission to the number of poor and suffering women who were in need of immediate treatment. Although the existence of a £1,500 debt to their bankers, and the fact that the hospital has neither endowment nor invested property to rely on, scarcely justified the board in doing so, they undertook this responsibility, confident that the public would generously provide the necessary funds.

MEDICAL MISSIONARY STUDENTSHIPS.

THE Society for Promoting Christian Knowledge has made provision for offering studentships for the training of medical missionaries. The studentships will be tenable for periods not exceeding four years. The amount of them, which will not in any case exceed £150 a year, will be fixed by the Standing Committee of the Society. The Standing Committee will nominate to the studentships, and the following classes will be eligible for appointment to them, namely: 1, Medical men who, having completed their professional education, are willing to go through the training needful for ordination, and, after being ordained, to go out to exercise their medical skill and experience as

missionaries among the heathen; 2, Clergymen who are willing to go through the needful training for the medical profession, and, after obtaining their diploma, to go out as missionaries as those described under class No. 1; 3, Medical men who, having completed their medical training, desire to undertake lay mission-work among the heathen, and are willing to undergo at least one year's training with that object.

USE OF THE RECTAL LEVER AT WESTMINSTER HOSPITAL.

MR. RICHARD DAVY has demonstrated the practical value of rectal compression of the aorta and both common iliac arteries in three instances within the last ten days. The first case was one of compression of the right common iliac artery for removal of a recurrent growth involving the whole of Scarpa's triangle and the inguinal canal. The external iliac artery and vein were ligatured; so also were the superficial and deep femoral arteries and veins. The patient was a man aged 28, under Mr. R. Davy's care. Mr. Thomas Bond held the lever. In the second case, Mr. George Cowell amputated at the left hip-joint in a boy aged 12, for sarcoma of the femur. Mr. Davy controlled the left common iliac artery. The third case was one of excision of the cervix uteri and adjacent parts for epithelioma, by Dr. Potter, in a woman aged 29. Mr. Davy controlled the aorta for five or six minutes during Dr. Potter's manipulations. The total loss of blood during the three operations did not exceed seven ounces, and no rectal inconvenience has been experienced in either case.

NEPHROTOMY FOR TOTAL SUPPRESSION OF URINE.

MR. CLEMENT LUCAS performed a unique operation in Guy's Hospital on October 29th. A woman, from whom he had removed the right kidney for total destruction of its secreting structure by large calculi and hydronephrosis, about four months ago, and who had made a rapid and complete recovery, was suddenly seized with great pain in the left kidney, followed by vomiting, headache, and suppression of urine. She passed urine last on Sunday morning, October 25th, between 8 and 9 o'clock; and, from that time till the operation on Thursday afternoon, no urine passed, and vomiting was persistent. Her medical attendant, Mr. Atkins, of Sutton, correctly interpreting the meaning of her symptoms, placed himself in communication with Mr. Lucas, and the patient was brought to London on Wednesday, October 28th. It was thought that the effect of diuretics in flushing the kidney might yet be tried whilst the patient was watched. These proved of no avail, and on Thursday afternoon, the patient having become drowsy and much weaker, Mr. Lucas cut down on the remaining kidney, and removed from the pelvis a conical calculus, measuring seven-eighths of an inch by one half in its greater diameters. Total suppression had then lasted 102 hours. A free flow of urine took place at once through the wound, and the patient was relieved of her vomiting and drowsiness. Five days after the operation she was doing well and feeling comfortable. Mr. Lucas's case of nephrectomy performed on October 20th healed without suppuration or fever. The patient sat up for the first time on the eighth day, and is now convalescent.

THE MONT DORE ESTABLISHMENT, BOURNEMOUTH.

THE opening, last month, of this winter residence is an event that deserves to be chronicled. The building stands upon four acres of high ground, not far from the sea, and can accommodate 120 resident patients. It can be easily enlarged when its merits become better known, and further accommodation shall be required. Dr. Dobell suggested the enterprise, and has carefully supervised the construction; and Dr. Emond, the principal physician from Mont Dore, Auvergne, has been installed as Resident Medical Officer of the establishment, so that visitors may be sure that the "Mont Dore Cure" therein carried on will be similar to that pursued at its Gallic prototype. The building is fitted with every convenience and luxury, and has all the appliances requisite for the treatment of patients according

to the plan adopted at Auvergne, even to the use of water for inhalation, and all other internal purposes, imported from its springs. Besides the true Mont Dore water for drinking, there are halls for the inhalation of vapour and pulverised water, and for nasal and throat-irrigations, vapour-baths and douches, hot and temperate baths and douches, and an elaborate arrangement of baths for general and medical treatment, supplied with sea-water, including a luxurious Turkish bath, and various medicinal baths, the action of which was explained by Dr. Emond to a large audience at the opening ceremony. The pleasant climate and situation of Bournemouth will doubtless be still further appreciated in the future by a large body of visitors attracted by this new establishment; and certainly the maladies for which the Mont Dore treatment is said to be efficacious are so widespread, for they include the rheumatic, gouty, scrofulous, tuberculous, dartrous and many other states, asthma, consumption, bronchitis, emphysema, etc., that if only a very small percentage of those affected therewith should seek relief within its walls, the buildings promise to be nearly always full.

STATISTICS OF THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

A CORRESPONDENT writes: It appears that, in last July, 159 candidates from all parts of the United Kingdom passed this examination. The successful candidates from the various London institutions were as follows: University College, 52; St. Bartholomew's, 16; Guy's, 11; St. Thomas's, 11; King's, 11; London, 5; St. Mary's, 3; St. George's, 1; Middlesex, 1; Charing Cross, 1. The proportion of successes to failures has led the medical profession in London to entertain the opinion that the preliminary scientific examination is too severe or of too high a standard. It is undeniably a fact that, whilst 159 candidates passed in last July, an equal number were rejected. But it is maintained by many who have good reason to know what they assert, that the failures are due to the extremely defective teaching which the candidates have in most cases received. This seems to be proved by the fact that, in the case of University College, where by far the largest number of candidates are prepared, and where ample arrangements are made in the form of laboratories, and the teachers are men of long experience and first-rate scientific position (I allude to Professors Williamson, Carey Foster, Ray Lankester, and Oliver), the proportion of successful candidates to failures is such as to lead to the inference that the examination is an extremely easy one. Last July, sixty-three candidates entered themselves at Burlington House as having wholly or partly prepared for the preliminary scientific examination at University College. Of these, fifty-two passed; that is to say, less than one-fifth of the candidates failed. The moral is obvious: candidates should spend a year in the Faculty of Science at University College, and, after they have passed the preliminary scientific examination, they are at liberty to choose whatever hospital in London they may prefer for their distinctly medical studies.

LUNATICS IN WORKHOUSES.

It will be remembered that one of the recommendations of our Parliamentary Bills Committee for the amendment of Lord Chancellor Selborne's abortive Lunacy Bill of last session was, that a clause should be inserted giving power to a constable, relieving officer, or other similar parish official to apprehend and take to the workhouse any person wandering at large, and deemed to be a person of unsound mind. In the letter of the Chairman of the Committee to the Lord Chancellor, it was urged that "such patients in a few hours may accomplish a large amount of destruction, do much personal injury to themselves or to others, and create much public disturbance. In many of these cases, no justice of the peace or specially appointed justice could possibly be obtained for the purpose of signing an order of admission until, at least, the next day; and it seems to be extremely desirable to have some method of dealing with the imminent

dangers of various kinds, whether to the patient or to others, attending cases of the sort referred to." The Lord Chancellor so far appreciated the force of this argument, as to insert in his amended Bill a new clause (xii) providing for the emergency to which the Parliamentary Bills Committee drew his attention; and when the measure was withdrawn later on in the session, this particular point was deemed so important, that it was made the subject of a separate Bill, introduced by Mr. Balfour, as President of the Local Government Board, and passed into law with but little public attention, as the Lunacy Acts Amendment Act, 1885 (48 and 49 Vict., cap. 52). It appears from a circular letter from Whitehall, which has now been issued to boards of guardians in explanation of the effect of the measure, that it had been the practice in many unions and parishes for the relieving officer, when called upon under Section 67 or Section 68 of the Lunatic Asylums Act, 1853 (16 and 17 Vict., cap. 97), to deal with an alleged lunatic, to take him to the workhouse, and for the master of the workhouse to admit him upon the order of the relieving officer, and detain him until such time as he could be brought before a justice or justices for examination pursuant to the requirements of that Act. In consequence, however, of the recent decision in the case of "*Hicks v. Bedford and others*," doubts arose as to the legality of this practice, and considerable inconvenience was occasioned, as, in many cases, whilst it was necessary that the supposed lunatic should at once be placed under control, it was not possible immediately to bring him before a justice. With the view of remedying this inconvenience, and of making provision for the temporary care and control of persons whose state of mind appears to render them unfit to be at large, the Act of last session was passed. Section 2 in effect provides that, if the relieving officer, overseer, or constable, whose duty it is, under Section 67 or Section 68 of the Lunatic Asylums Act, 1853, to deal with such cases as are referred to in these sections, is satisfied that it is necessary for the public safety, or the welfare of an alleged lunatic, that, before the notice or information required by those sections to be given to, or laid before, a justice, can be so given or laid, or the alleged lunatic can be brought before a justice, he should be placed under care or control, the relieving officer, overseer, or constable may remove him to the workhouse of the union in which he is; and, unless there is no proper accommodation in the workhouse for the alleged lunatic, the master is to receive and relieve and detain him therein. A person so brought to the workhouse is not, however, to be detained therein for more than three days; and it is the duty of the officer bringing him to the workhouse, before the expiration of the three days, to give the notice, or lay the information, or bring the alleged lunatic before a justice, as required by the Act of 1853. Section 3, Subsection 1, of the same Act, deals with a class of cases in a subsequent stage. It enables the justice or justices by whom an order might be made under Section 67 or Section 68 of the Lunatic Asylums Act, 1853, for the removal of a lunatic to an asylum, hospital, or licensed house, instead of doing so, to make an order for taking the lunatic to, and receiving him in, the workhouse of the union in which the lunatic is, provided that there is proper accommodation for the lunatic in the workhouse. The operation of such an order is limited to a period not exceeding fourteen days from its date. After that period, the lunatic can only be detained under the conditions mentioned in Section 20 of the Lunacy Acts Amendment Act, 1862 (25 and 26 Vict., c. 111), that is, where the medical officer of the workhouse certifies in writing that the lunatic is a proper person to be kept in a workhouse, and where the accommodation in the workhouse is sufficient for his reception. It sometimes happens that an order made by a justice or justices for the removal of a lunatic to an asylum, etc., cannot be immediately executed by reason of the absence of accommodation for the lunatic in the asylum, or from some other cause. Subsection 3 of Section 3 enables the justice or justices in such a case to order the detention of the lunatic in the workhouse until he can be removed to the place selected, subject to the condition that the order shall not be deemed to authorise the detention of the

lunatic in the workhouse for more than fourteen days. An order either under Subsection 1 or under Subsection 3 may be made by any justice or justices having jurisdiction in the place where the lunatic is. It may be hoped that these provisions will afford a remedy for the inconveniences which have been experienced in dealing with alleged lunatics. It is to be observed that the Act is only applicable where there is proper accommodation in the workhouse for the lunatic proposed to be detained there. In order, therefore, that effect may be given to the Statute, it will devolve on boards of guardians to provide such accommodation as may be necessary for these cases, and to make such arrangements as will ensure that any lunatic detained in the workhouse, under the Act, shall receive proper care and attention whilst so detained.

ALLEGED FORGERY OF VACCINATION-CERTIFICATES.

At the meeting of the Islington Board of Guardians, on October 29th, a letter from the vaccination-officer was read, enclosing nine alleged certificates of vaccination, which he had received in the week between August 27th and September 3rd. He stated that, on entering the certificates in the usual way, he was struck with the signatures of those he forwarded, and determined to make inquiry into the matter. He had called at the addresses given in the copies of the birth-registers, but could find no traces of the persons. He had also seen the medical men whose signatures were appended to six of the certificates; they stated that the signatures were not theirs, and wrote to that effect on the forms. After discussion, it was decided that application should be made to the Local Government Board to institute an inquiry; and that, in the meantime, the clerk of the Board of Guardians should make further investigation.

THE BERLIN DISCUSSION ON CHOLERA.

THE official report of the Conference on Cholera, held at Berlin in May, has recently been issued. It contains a full account of the discussion, which was shortly reported in our columns at the time (see *BRITISH MEDICAL JOURNAL*, May 16th, page 1011, and May 23rd, page 1075) and will demand the most careful study at the hands of all persons to whom the prevention of the spread of the scourge is committed. It is pleasant to find Dr. Koch generally recognising the good work accomplished by his forerunners, and especially to read the high compliment to one well known writer and experimenter whose labours have received somewhat scanty recognition in official quarters. Dr. Koch said, "There is but one physician, now no longer in India, to whose researches into the etiology of cholera I will specially refer; I mean Macnamara. He is one of the best investigators of cholera, and to him our debt of gratitude is unusually great. Moreover, it is chiefly due to him that Calcutta has obtained an excellent water-supply; to its salutary influence I shall presently have occasion to refer."

THE EPIDEMIC OF RABIES.

It is announced that the Chief Commissioner of the Metropolitan Police has issued an order for the strict enforcement of the provisions of the Dogs Act of 1871, by which the police are empowered to take into their custody every stray dog that may be found in the public streets. This precautionary measure, the necessity of which we urged two months ago, has been taken in consequence of the alarming increase of deaths from hydrophobia in the metropolis. During the present year, no less than twenty deaths from this cause have been registered in London; of which number nearly two-thirds have occurred within the last four months. At an inquest held last week at Ealing, the coroner, Dr. Diplock, said that he had heard of more cases of hydrophobia since January last than during the whole of eighteen years previously, and that the experience of other coroners was similar to his. It is curious that this alarming epidemic should be coincident with the publication by M. Pasteur of the alleged triumph of his endeavours to combat the dread disease, the unsuccessful treatment of which has

hitherto been a stigma on medical science. On the experiments which M. Pasteur described to the Académie des Sciences, it is, of course, too soon to pronounce a verdict, although the reputation of the great bacteriologist for scientific accuracy affords of itself no little confidence in the correctness of his deductions. For the present, at all events, we must rest content with preventive measures, if not to extirpate rabies, at least to reduce it to its normal limits, and as a first step the action taken by Sir Edmund Henderson is satisfactory. Some further precaution appears, however, to be called for. Perhaps the most practicable and effectual, and certainly the most humane, of the many suggestions which have been put forward is that each dog should wear a tiny badge bearing the number of its licence, so that the ownership of stray or dangerous animals could be ascertained without difficulty, and unlicensed dogs taken into custody, by the police. The adoption of such a measure would probably make owners more watchful of their canine pets, and would also be a safeguard against theft, and a protection to the inland revenue authorities. The incipient symptoms of rabies should also, as was long since urged by Dr. George Fleming and Dr. Burdon Sanderson, be clearly printed for reference on every licence issued. The incubation-period of the disease is so long, and its warnings are so unmistakable, that, were this precaution taken, the most careless and ignorant of dog-fanciers or policemen could hardly fail to notice any dangerous symptoms, and to confine the suspected animal within safe limits until their nature was unquestionable. The muzzle is in most cases an unnecessary instrument of torture which can only be applied to dogs kept solely for "fancy" purposes; and a dog which is addicted to biting or snapping ought to be put out of the way, in the darkest sense of the term, before involving his owner in an action for damages. It is undesirable that public alarm should be excited any more than is necessary to ensure the exercise of caution and vigilance, and it may serve to allay anxiety if it is pointed out that only a dog which is actually rabid can transmit the disease; that in many cases of bite from undoubtedly rabid animals, as in Goldsmith's humorous "Elegy," it is the dog alone, and not the bitten man, that dies; and that the mortality from hydrophobia recorded in London during the past ten months, unprecedented though it be, represents an annual death-rate of about 1 in 170,000.

THE ANNUAL MEETING IN CARDIFF.

THE final meeting of the General Committee of Arrangements for the recent annual meeting of the Association was held in Cardiff on October 29th; Dr. W. T. Edwards in the chair. The statement of accounts, which was presented, showed that the receipts amounted to £878 1s. 10d., and the expenses of the meeting to £703 15s. 5d.; leaving a balance in hand of £174 6s. 5d. It was unanimously resolved: "That the sum of 50 guineas and an illuminated address be presented to Dr. Sheen, as some recognition of his services as honorary secretary, and of the time and labour spent by him in promoting the success of the recent annual meeting of the British Medical Association in Cardiff." It was further decided that the surplus of the balance should be presented to the British Medical Benevolent Fund. The Committee also passed a very cordial vote of thanks to the Honorary Secretaries, who had charge of the several departments of the arrangements. We heartily congratulate Dr. Sheen and his colleagues on the well-deserved recognition which their labours in promoting the success of the meeting at Cardiff has received.

NITROUS OXIDE AND OXYGEN AS AN ANÆSTHETIC IN LABOUR.

THE great advantages of nitrous oxide as an anæsthetic have induced various observers to endeavour to find a method of administering the gas continuously, so as to keep up the anæsthesia for a sufficient length of time for the performance of surgical operations. Paul Best, some years ago, made experiments with animals in a chamber of compressed air, a mixture of nitrous oxide and oxygen being inhaled. He found that anæsthesia could be safely kept up for a long period; and he

urged the construction of such chambers for operating on the human subject. Nothing of the kind, however, has, as far as we know, been attempted. In 1881, Dr. S. Klikovich, of Professor Botkin's clinic in St. Petersburg, made some experiments on himself, with a mixture of nitrous oxide and oxygen, in the proportion of 80 to 20, without any increase of atmospheric pressure, with a satisfactory result. He also used it for alleviating the pains of labour, and found it very successful and perfectly safe; the great objections to it being its expense, and the cumbersome nature of the required apparatus. Some months ago Professor Zweifel, of Erlangen, erected the necessary apparatus for the supply of the mixed gases to the accouchement-ward of his obstetric clinic. He finds it best to administer the gases continuously during the latter part of labour, when the pains are most severe, not, as was practised by Klikovich, merely giving the gases when signs of an approaching pain appeared. Though this treatment has been adopted in sixty cases, no retardation of the process was ever observed. The patients were generally semi-conscious; so that though they would answer if asked a question, they felt no pain, and were unaware when the child was born. In one case, where the woman screamed as a stitch was put in the perineum, she afterwards declared she had felt nothing. If this plan of administering nitrous oxide gas be really as satisfactory as Drs. Klikovich and Doederlein, in St. Petersburg and in Erlangen, have found it, surely there might be an apparatus constructed in some of our own lying-in hospitals. Probably, too, the mixed gases could be compressed in an iron bottle, and so made portable. If ever this plan should come into general use, the practitioner of the future, on being sent for to a midwifery case, will find himself obliged to carry, or get carried for him, very much more weighty impedimenta than the present pocket midwifery-case, or even than the most complete "obstetric bag." He will, however, have the satisfaction of knowing that he can really alleviate his patient's sufferings, instead of, as at present, having simply to look on, with folded hands, at agony which, being physiological, he can do nothing to relieve, at least, without running other risks, which, as a rule, he does not feel called upon to do.

MEDICAL SCHOOLS AND THEIR STUDENTS.

A RATHER novel question has lately arisen at the Westminster Medical School in reference to the powers of the Dean of the School with regard to the Students' Club, which was started under the auspices of the lecturing staff on the opening of the present school-buildings. One of the rules of the club is, that its affairs are to be managed by a "committee, on which the Dean and Treasurer sit *ex officio*." A short time since, the propriety of allowing spirits to be sold at the bar was discussed before the Club Committee, and was decided in the affirmative. Thereupon the Dean quashed the decision, alleging that all their proceedings were subject to the approval of the School Committee—an assumption which the members of the club promptly repudiated. The Dean threatens to repeat Cromwell's treatment of the Long Parliament, by dismissing the members of the committee elected from and by the students, and managing the club henceforward by himself. This step, however, may possibly give rise to some opposition.

SCOTLAND.

ROYAL INFIRMARY, EDINBURGH.

THE managers of the Edinburgh Royal Infirmary have resolved that there shall in future be two pathologists on active duty, and they will soon proceed to the election of two pathologists. The candidates at present are Drs. G. S. Woodhead, Alexander Bruce, and Russell. On Tuesday, the Countess of Rosebery, accompanied by the Marchioness of Ailesbury, visited several of the wards of the Royal Infirmary, and left presents of flowers for the patients.

ROYAL HOSPITAL FOR SICK CHILDREN.

THE managers of the Royal Hospital for Sick Children, Edinburgh, have appointed Mr. J. Hay Fergusson, M.B., C.M., and Mr. S. H. Puckle, M.B., C.M., house-physicians for the next six months. The number of patients treated in the hospital during the month of October was 109, of whom 46 were in the hospital at the beginning of the month, and 63 were admitted during it; 30 were discharged cured or recovered, and 5 were discharged relieved. The average daily number in the hospital was 55. In the out-patient department, 454 patients were treated as dispensary patients, and 18 children were vaccinated, giving a total of 472. Of 216 new cases, 154 were from this city, 55 from Leith, and 7 from the country. The total number treated during the month was 581. On Tuesday, the Countess of Rosebery, accompanied by the Marchioness of Ailesbury, visited the children in the wards, and made them happier by the gifts of toys and flowers.

IMPORTANT CASE AS TO POISONS.

AT the Glasgow Circuit Court, held last week, before Lord Adam, a chemist and druggist was charged with culpable homicide. It was stated in the indictment that, on August 22nd, he supplied to a man called George McLean, instead of liquorice-powder, a quantity of a powder known as nux vomica, which was partaken of by Jane Warden or McLean, widow, lately of West Burn Street, in consequence of which she soon thereafter died. Though the facts of the case were not disputed, evidence was adduced at considerable length, in the course of which it was elicited that the accused had kept nux vomica, a highly poisonous drug, along with other medicines. In his evidence, Dr. Littlejohn, of Edinburgh, stated that this manner of keeping poisonous drugs was most reprehensible; he also stated that the use of nux vomica was not so common in Edinburgh as in some other parts of Scotland. The Advocate-Depute, in addressing the jury, observed that, whatever was the result of the case, the sooner such a practice was put an end to the better; and this prosecution would not have been in vain if it made the chemists and druggists in Scotland adopt a safer system of keeping poisonous drugs. The jury, after being addressed by Lord Adam, unanimously found the prisoner not guilty, recommending chemists to put a more distinctive mark on all bottles containing deadly poisons. The issue of this case was very different from that of a celebrated case in England, which occurred many years ago, in which strychnine was given for James's powder, and in which the principals were heavily mulcted, and the assistant punished. The counsel for the Greenock chemist, in asking for a verdict of acquittal for the accused, said that the question raised was rather one of law than of facts, that law which was very plainly founded upon common sense and right feeling.

SUNNYSIDE ASYLUM, MONTROSE.

THE managers of Sunnyside Asylum, Montrose, have adopted the recommendations of the House Committee with regard to the erection of a separate hospital for sick and infirm patients which will accommodate 100 patients, equally apportioned as to the sexes, at a probable cost of £10,000, or about £100 per bed; and have, after discussion, instructed the House Committee to advertise for competitive plans. The reasons given by the convener of the House Committee in support of so large a scheme are well worthy of perusal. The report of the committee stated the advantages likely to be derived from having a separate hospital, and added that the recent prevalence of phthisis in the house had drawn more particular attention to the risk which might arise from overcrowding, and from the association of the sick and healthy patients within the same building. The wards at present used as an infirmary and for the treatment of the most urgent cases of sickness were to the extent of between twenty and thirty on each side; but, besides these, there were many feeble

and frail persons in the other wards who ought properly to be in the infirmary. It was impossible to adapt any of the existing accommodation to a proper hospital; and, as additional accommodation in the asylum would be required under the new agreement with the District Lunacy Board of Forfarshire, a detached hospital became almost a necessity.

ABERDEEN ROYAL INFIRMARY.

THE managers of this infirmary having, as was announced in the JOURNAL of October 31st, resolved to appoint a lady-superintendent with a salary of £150 *per annum*, with rooms and board in the house, Miss Rachel F. Lamsden—who, since its commencement, has managed the Sick Children's Hospital with such conspicuous success—has been asked by the Special Inquiry Committee to accept the post. The Special Inquiry Committee have received a report on the sanitary condition of the infirmary, from which it appears that it is not by any means in a satisfactory condition; so that forthwith this matter will be seen to, and at once rectified. From the vigorous way in which the whole matter has been taken up by the committee, it is evident that a thoroughly efficient and sanitary institution will soon be the result of their labours.

THE COPYRIGHT IN UNIVERSITY LECTURES.

SOME time ago, as our readers are aware, Professor Caird, of Glasgow University, raised the question in the Scotch courts as to how far lectures in an university class-room are public property, and as to whether a matriculated student, having paid the class-fee, had the right to publish the substance of the lectures without the concurrence of the lecturer himself. The inferior courts upheld the literary rights of the professor, and considered that a student was not entitled to publish notes of lectures that he attended at the university. So important was the matter thought, that the case was appealed to the higher courts; and, with a good deal of the proverbial slowness and uncertainty of the law, a judgment has just been delivered the very opposite of that previously given. It seems that, in the opinion of the majority of the judges, the Act passed in 1835 for the protection of lectures is inapplicable to university lectures, which are expressly excluded from its privileges, and that a professor's utterances on the subject he teaches are given forth not only to the students who pay to hear them, but to every one else, and that a professor discharges the duties of a public office not for his own benefit, but for the benefit of his students, and, through them, of the public. This decision is of considerable importance, looking to the high position of the court by which it has been given, and to the fact that the question has never been judicially determined before, either in England or in Scotland; and it is probable the matter may not finally rest here.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THIS Society held its first meeting on the evening of October 14th, in the Faculty Hall. Professor Leishman, honorary President, occupied the chair. The attendance was good. In his introductory remarks, Professor Leishman dwelt on the importance of studying obstetrics and gynæcology from the pathological standpoint, and he could not doubt but that in a Society like this, composed so largely of men in general practice, and who practised obstetrics as an ordinary branch of their calling, there would not be any lack of materials for pursuing this study profitably. Dr. Joseph Coats, as the oldest representative of pathology in the West of Scotland, welcomed the new Society, which he hoped would be a real working society. He exhibited the body of a malformed child, which had lived about a day. The malformation was limited, as far as inspection showed, to the eyes and ears. He recommended the study of malformations to the Society as a subject from which much was to be learned. Dr. W. L. Reid, President, read an elaborate paper on the "Recent Methods of Treatment of the Asphyxia of New-born Children, with Special Reference to the Method Pursued by Professor B. S. Schulze, of Jena." The method was illustrated on

the dead child. Drs. M. Cameron, Sloan, and Bell took part in the subsequent discussion. The names of twelve new candidates for admission into the Society were submitted, and the meeting separated.

IRELAND.

JERVIS STREET HOSPITAL.

A PUBLIC meeting, presided over by the Most Rev. Dr. Walsh, Roman Catholic Archbishop of Dublin, was held in this hospital on October 29th, in connection with its re-opening. A description of the new building has already been given in the JOURNAL. The Archbishop, in some introductory remarks, referred to the monopoly of the annual parliamentary grant in aid of the hospital work in Dublin by a few institutions. He looked with confidence to the issue of the Commission of Inquiry into the distribution of the Government grants among the hospitals of Dublin now sitting, though he appeared to doubt the *bona fides* of the object of its institution. He suggested that, after due inquiry, the public endowment should be distributed fairly among the Dublin hospitals in proportion to the number of beds maintained in each. The Archbishop then presented the prizes obtained by the students of the hospital at the examination held at the close of last session, namely, senior class, gold medal to Mr. Edward W. Gray; intermediate class, silver medal to Mr. Thomas Connellan; and junior class, silver medal to Mr. Charles R. Scott. Mr. Stapleton next submitted the annual report. It showed that, up to September 30th, 1885, £36,418 had been expended on buildings and purchase of premises, leaving a debt of £684 due to the bankers. A further sum of £16,000 is required to complete the buildings and furnish the wards. As so large a sum may not be immediately forthcoming, it is proposed to open only two wards at present for the reception of patients. To effect this, not less than £5,000 must be at once provided. It is now proposed to open a public subscription for this object, and the Managing Committee appeals to the public for aid.

THE TRADE IN DISEASED MEAT IN DUBLIN.

SIR CHARLES CAMERON's report, as medical officer of health, on the state of the public health in the city for the month of September, shows that a large business in this abominable traffic must still be carried on in Dublin. Thanks to the vigilance of the sanitary officers, 4,816 pounds of diseased or otherwise unsound meat was detected and condemned during the month. Curiously enough, an exactly similar weight (4,816 pounds), composed of seven carcasses of oxen and one carcass of sheep, was voluntarily surrendered, making a total amount of 9,632 pounds confiscated in one month. During the year 1884, 150,528 pounds of diseased meat were condemned in Dublin, but only two butchers were fined for having it in their possession, and offering for sale food unfit for human use.

THE HIGH LEVEL SEWERAGE-SCHEME FOR BELFAST.

A SPECIAL meeting of the Town Council was held last week to consider a report submitted by the borough surveyor on the proposed high-level intercepting and outfall sewers. The scheme, which is an elaborate one, is estimated to cost about £108,460, and it was resolved by the Council that it should be adopted, and that steps be taken to obtain parliamentary powers for carrying out the proposed high-level sewer.

STEWART INSTITUTION FOR IMBECILES, PALMERSTON.

A MEETING was held in Belfast recently for the purpose of supporting this valuable charity, and Dr. Kidd—the founder of the institution, as he may be called—accompanied by Lord James Butler, was present, and advocated its claims to support. Already over £30,000 has been obtained for the Stewart Institution, the only one of its kind in Ireland, but, at present, a debt of about £1,000 has

been incurred, which there is little doubt will be speedily obtained. There are at present sixty-five inmates, with room for many more, and it was for the providing of additional accommodation that efforts are now being made. As more than 11 per cent. of the inmates are from the neighbourhood of Belfast, and as there are forty children from the district at present seeking admission, a larger amount of support than what is obtained at present from Belfast is both equitable and just. Each child costs £36 *per annum*, while the contribution received from Belfast is only £25 a year.

PASTEUR'S PROPHYLACTIC METHOD AGAINST RABIES.

M. PASTEUR, at a recent meeting of the Académie des Sciences, gave a long and detailed description of his experiments in order to arrive at a method of inoculation for rabies. He began by saying that, after innumerable experiments, he had discovered a prophylactic method both prompt and practical. It has proved so effective, applied to dogs, as to warrant M. Pasteur in applying it to all animals, even to man. Inoculation of a healthy rabbit, by trephining underneath the dura mater, from a spinal cord removed from a rabid dog, always produced rabies after fifteen days' incubation, on an average. Inoculation of a second rabbit from the first, of a third from the second, and so on through a series of inoculations, provokes a form of rabies presenting in each successive inoculation a shorter term of incubation. After a series of from twenty to twenty-five inoculations, the term of incubation is reduced to eight days. After a further series of from twenty to twenty-five, the term is again reduced to seven, which remains stationary up to the ninetieth. M. Pasteur, in his successive series of inoculations, has arrived at the ninetieth, and there is a very slight tendency in the term of incubation to be less than seven days.

These experiments were commenced in 1882, and they have been continued without interruption. The only virus used was obtained from a successive series of rabbits which died from rabies; consequently, a perfectly pure virus was used in these experiments, and one always identical. This, says M. Pasteur, is the great secret of the method (*le secret pratique*). The spinal cord of these rabbits is rabid throughout. If a portion of a few centimètres in length be detached from these rabid cords, every cleanly precaution being carefully observed, and then suspended in dry air, their virulence slowly leaves them, and finally thoroughly disappears. The time required to destroy the virulence depends on the thickness of the fragment removed, and still more on the temperature of the surrounding atmosphere. The lower the temperature, the longer the virulence persists. If the rabid cord be removed from contact with air into carbonic acid gas, the virulence is maintained during several months, always provided no foreign microbes are allowed to attack it.

In order to render a dog refractory to rabies in a comparatively short time, M. Pasteur proceeds as follows. A portion of fresh rabid cord is suspended in a bottle containing dry air, fragments of potash being placed in it for this purpose. The period of incubation of the rabies is seven days. Every successive day, the dog is inoculated by passing under the skin the quantity of sterilised broth a Pravaz's syringe can hold, a small fragment from these desiccated cords having been previously mixed with the broth. The first inoculation is made with desiccated cord that has undergone some days' preparation, in order to be certain that it has entirely lost its virulence. The next inoculation is made with a fresher preparation, and so on until a virulent portion is used. Two days must be allowed to elapse before a fresh inoculation is made. The last inoculation is made from a portion of cord which has been dried one or two days previously. The dog thus treated is rendered exempt from rabies. Inoculation under the skin, or on the cerebral surface by trephining with the virus of rabies, fails to produce any symptoms of this disease. By this method, M. Pasteur rendered fifty dogs refractory to rabies without incurring one failure.

M. Pasteur had arrived at this period in his experiments, when three people who had been bitten by a mad dog arrived, on July 6th, at his laboratory, from Alsace. Theodore Vone, a wholesale grocer at Messengott, had been bitten on the arm on July 4th. Joseph Meister, aged 9, was also bitten on July 4th by the same mad dog; the child was bitten in several places on his hands, legs, and thighs; some of the wounds on the thigh were very deep, and caused him to walk with difficulty; the principal wounds were cauterised with carbolic acid at 8 o'clock in the evening. The third person was the mother of Joseph Meister, who had not been bitten. M. Vone had his arm very much bruised, but he assured M. Pasteur that the bite

had not passed his shirt. He was sent back to Alsace. On July 6th, sixty hours after the bite, Joseph Meister was inoculated. A Pravaz's syringe of cord removed from a rabbit dead from rabies was injected under the skin on the right side. The rabbit died on June 21st; the marrow had been preserved in dry air from that date, a period of fifteen days. The following days, fresh inoculations were made morning and evening at the commencement; each succeeding inoculation was made with cord more recently prepared; thirteen inoculations were made, covering a period of ten days.

M. Pasteur does not believe that the progressive attenuation of the rabid spinal cords enclosed in dry air is due to the action of the air. Facts that he will describe later on negative this interpretation. He considers the cause more probably to be explained by the microbes, the origin of rabies, producing, during their cultivation, a substance endowed with property hostile to their own development. Data already acquired concerning the *modus vivendi* of these organisms encourage the belief in this hypothesis. M. Pasteur will continue his researches on this subject, and publish the results.

Since October 20th, M. Pasteur has had under treatment for rabies a young shepherd, 15 years of age, who, on the 14th of the same month, had been badly bitten on both hands by a mad dog. The results of this further test of his prophylactic method against rabies will be made known to the Académie des Sciences.

CONVOCATION OF THE UNIVERSITY OF LONDON.

AN adjourned meeting of Convocation was held on Tuesday afternoon, at Burlington House, further to consider the proposed scheme for the establishment of a Teaching University for London.

Dr. F. J. Wood, Chairman of Convocation, who presided, stated that the question before the house was, that the report be received and adopted; to which an amendment had been proposed, to leave out all the words after "received." He understood that Lord Justice Fry, the mover of the above resolution, was willing to accept that amendment. The amendment was then put to the meeting, and carried unanimously.

Lord Justice Fry said the most proper and reasonable course to take would be to ask Convocation, by way of amendment to Mr. Bone's resolution, to add these words: "and that the house now consider what amendments, if any, ought to be made in the said scheme; and that such amendments, if any, be by way of instructions to a Committee of Revision." It would not be possible to revise the scheme in that room; it was a complicated document, and it should, therefore, be referred to a committee, with instructions as to the amendments. He was afraid Mr. Magnus wished the matter to go back an open one to the Committee of Revision. He asked the meeting not to adopt that course.

Mr. A. W. BENNETT seconded the amendment, and asked the house not to throw away the opportunity of discussing the scheme, which was one of great importance in the interests of higher education.

Mr. MAGNUS said he regretted that he could not accept the amendment of Lord Justice Fry, which, he could not help thinking, virtually asked them to accept the principle involved in the scheme—a principle to which he believed that most of the graduates of the University of London were opposed. He had received a large number of letters from graduates in the country, supporting certain proposals of which he had given notice. As to the amendments on which they were asked to give instructions, they were not in a position at the present moment to make those amendments. They must have a University (whether it consisted of affiliated colleges or one college), the professors of which were not dependent for their living upon the fees which they received at their colleges. A poor University could not exist.

Mr. A. M'DOWALL said there were certain points of detail on which the scheme could be amended; but, on the whole, he believed it carried out all the objects that the house desired last February to see put into effect.

Dr. JAMES WHITE opposed the amendment.

Professor MICHAEL FOSTER said one thing which had caused him to feel that he would not leave Cambridge to return to London University was, not because Cambridge was an old University, not because it was a rich University, but because its affairs were managed by those who did the University work. In the University of London that was not the case, and he gave his support to the scheme of Lord Justice Fry, because he thought it afforded the machinery for bringing that about, and that it was suited to the conditions existing in London.

Dr. Moxon thought they should take some wealthy institution in

London, and around that centre permit a gradual growth, until there arose from the earth, instead of coming from the air, a teaching university.

The discussion was continued by Mr. Savory, Mr. Silvanus Thompson, Mr. A. B. Hopkins, and Professor W. A. Tilden.

The house then divided, and the tellers reported 76 for the amendment, and 122 against.

The amendment was therefore negatived, and the motion before the House then was, "That the report of the Special Committee and the scheme therein comprised be received."

Mr. MAGNUS moved as an amendment to add,
"And that Convocation, whilst affirming the general principles of the desirableness of bringing the teachers and the examiners of the University into closer relationship with one another and with the Senate, and of modifying the constitution of the Senate in accordance with the previous recommendations of Convocation, and without giving to the teachers an undue share of representation on the governing body of the University, refers back the scheme to the Special Committee for further consideration."

The proposition having been seconded,
Lord Justice FRY suggested that, to avoid comparison between the reciting part of the proposition and the original reference to the Committee, Mr. Magnus should simply move that the subject be referred back.

Mr. MAGNUS agreed to that course, and moved, with the assent of the seconder:

"That Convocation refers back the scheme to a Special Committee, to consist of fifty, for further consideration."

The amendment was carried.
There being a difficulty (owing to the refusal of Lord Justice Fry and several other gentlemen to accept a position) in naming a committee of fifty, the Chairman ruled that the amendment failed, and again put the original question, that the report of the Special Committee be received. Eventually, after much contention, the debate was adjourned until Tuesday, December 8th, when it was suggested that Mr. Magnus would be ready with the names of fifty graduates willing to serve on the new Special Committee.

The house then adjourned.

** It is idle to conceal the fear that the resolution adopted by Convocation may have an exceedingly prejudicial effect on the relation of the existing University to the proposed Teaching University.

The scheme brought before Convocation by Lord Justice Fry's Committee was wide and elastic, and apparently contained within its compass proposals which adapted it to the conditions of higher education now existing in the metropolis. Many points of detail might doubtless have been modified after further consideration by the original committee, and to this course the Lord Justice, Mr. MacDowall, Mr. Savory, and other speakers, earnestly but ineffectually entreated Convocation to give its assent. However, there is still just the hope that another committee, with the experience of what Convocation wants, which two prolonged sittings of that body has now afforded, may be able to readjust the proposals of the report so as to render them agreeable to a majority of the graduates at some future meeting. If this should be done, though its coming to pass seems problematical, not much more damage than the retarding of the movement will have been caused by the hostile vote of Tuesday night.

THE ACADEMY OF MEDICINE IN IRELAND.

As reported last week, the third annual general meeting of the Academy was held on Friday, the 30th ultimo. The adoption of the report of the General Council, of which we have already given a summary, was moved by Dr. E. H. Bennett, and seconded by Dr. T. More Madden, and carried *nemine contradicente*. The following distinguished representative men, whom the General Council proposed as Honorary Fellows of the Academy, having been nominated individually to the meeting by the President, were all unanimously elected: Sir William Jenner, Bart., F.R.S., London; Professor Ludwig, Leipzig; Professor Emmett, New York; Mr. T. Simon, C.B., London; Mr. Jonathan Hutchinson, F.R.S., London; and Professor von Recklinghausen. The General Treasurer reported that the Academy had a balance in bank in its favour of £385, and the General Council was authorised to invest a portion of this sum in some approved security. On the motion of Dr. Robert M'Donnell, seconded by Dr. Quinlan, it was resolved: "That medical officers of the army and navy, and medical practitioners not residing within fifteen miles of Dublin, be eligible as Fellows of the Academy on payment of an entrance fee and an annual subscription of £1 1s." The scrutineers reported that Dr.

Robert M'Donnell, F.R.S., had been elected President for the ensuing three years. Dr. Banks then addressed the meeting, and left the chair, which he had held, in accordance with the rules, for three years. Dr. R. M'Donnell then took the chair amid loud applause, and expressed his thanks for the honour conferred on him. A vote of thanks to Dr. Banks was, on the proposal of the President, passed with cordial acclamation. In addition to the officers whose names we gave last week, the following were elected on the Council of the different sections. *Medical Section*: J. Hawtrey Benson, J. Magee Finny, Samuel Gordon, T. W. Grimshaw, Richard A. Hayes, Henry Kennedy, J. W. Moore, Wm. Moore, and H. C. Tweedy. *Surgical Section*: John K. Barton, Wm. Colles, C. Coppinger, H. G. Croly, Kendal Franks, Edward Hamilton, E. D. Mapother, E. S. O'Grady, W. Thornly Stoker. *Obstetrical Section*: Lombe Atthill, John A. Byrne, J. J. Cranny, Professor Dill (Belfast), A. J. Horne, G. H. Kidd, R. D. Purefoy, Wm. Roe, Wm. J. Smyly. *Pathological Section*: C. B. Ball, J. Wallace Beatty, E. H. Bennett, A. H. Benson, A. H. Corley, A. Wynne Foot, J. V. Lantaigne, J. M. Purser, Walter G. Smith.

THE MEDICAL SCHOOL OF TRINITY COLLEGE, DUBLIN.

THE new anatomical theatre, capable of accommodating 300 students, was opened in this school, on Monday last, by the delivery of an inaugural address by the Professor of Anatomy, Dr. DANIEL G. CUNNINGHAM. His Excellency the Lord-Lieutenant, the Provost and some of the Fellows of the University, and the Professors of the Medical School, attended the lecture, as well as a large gathering of students. But, although there was ample accommodation, we hear that few invitations to the lecture went to the medical graduates of the University practising in Dublin, especially to the Fellows of the King and Queen's College of Physicians, a corporation of which the School of Physic is part and parcel. The new anatomical theatre is the first section of a work which is to end in the entire renovation and enlargement of the medical school buildings of the University. The Professor referred, in his address, to the importance which medical schools were assuming throughout the country, not only as professional schools, but as foster-beds of science. He witnessed the palatial edifice which had recently been reared in Edinburgh, the contemplated rehabilitation of the Cambridge school, the splendid departments of Owens College, and even the dawn of a better day in Oxford. All this, however, was as nothing compared with what was being done on the Continent. In Würzburg, a Bavarian town, with a population little more than one-fifth of that of Dublin, the new Anatomical Institute, presided over by Professor Kölliker, was considerably larger than the Trinity College Library. Strasburg also, with a population much less than half that of Dublin, had recently had her University built by the German Government at a cost of £711,000.

Professor Cunningham then gave a historical account of what the University had done for the advance of medical science, a record which compared favourably with other universities.

In 1710, a course of lectures on anatomy were delivered by Dr. Hoyle in private rooms within the college bounds; and, in June of the same year, ground was assigned to the erection of an anatomical theatre. Three years before this (1707) a professorship of anatomy had been instituted in the University of Cambridge. In Edinburgh, formal instruction in this subject had been commenced at a somewhat earlier date. Allusion was then made by the lecturer to the labours and merits of his predecessors in the chair of anatomy. It was under the able direction of such men as Macartney, MacDowel, and Macalister that the school had reached such a state of popularity as had rendered the new buildings necessary. Within the last thirty-five years changes had been carried out which, he believed, should have the effect of giving the school a surer basis than it had had before. He also referred to the great services rendered by the Rev. Dr. Haughton, and concluded by calling upon the students to pursue the study of anatomy by storing their minds with facts which would be absolutely necessary to them in their after-career as a means, as medical men, of attaining the mental training absolutely necessary in the recognition of disease.

The Provost tendered the thanks of the audience to the lecturer for his admirable address, and said that the governing body of Trinity College was fully alive to the importance of their medical school, and was anxious to promote its welfare. He also thanked the Lord-Lieutenant for attending, and thus helping to give the new anatomical theatre "a good start."

HIS EXCELLENCY made a speech in reply, in the course of which he remarked that two things struck him prominently upon the occasion. The first was the great connection between the science of medicine

and the teachings of colleges and universities. Medicine, he said, owed an immense debt to the universities of former times. In the middle ages, no doubt, they might have mingled a certain portion of quaint philosophy with their teaching, but yet they gave such an impulse to medicine that medicine might honestly and faithfully look gratefully back to what was done then. Trinity College specially carried on this tradition, for she linked together the teaching of medicine with the teaching of arts, and was one of the few learned places in which these two subjects were so inseparably connected. It was no disparagement to either one or the other to say that they walked like sisters hand in hand, engaged in a far-reaching study where it would be invidious to separate the parts. The second suggestion that occurred was this, that everyone, however unscientific, must be struck with this fact, that modern medical and surgical treatment was enormously indebted to material aids and appliances in this day. Pliny said that the Romans got on very well without doctors for 600 years. But we should not be disposed to make this statement in the nineteenth century. Neither could the public dispense with the aid of physicians, nor could physicians dispense with these material appliances in the shape of buildings and such like. Nothing, he continued, struck him more than the manner in which medicine laid under contribution almost every branch of modern science, and, he might say, of modern art. His Excellency subsequently visited the various departments of the school.

THE ROYAL UNIVERSITY OF IRELAND.

A MEETING of Convocation of this University was held on October 29th, Lord Emly, Vice-Chancellor, presiding. The first business was the election, by ballot, of a representative on the Senate. There were two candidates, namely, Mr. Maguire, LL.D. and a Fellow of Trinity College, Dublin, and Dr. Charles F. Knight, Physician to Mercer's Hospital. The voting resulted in the election of Dr. Maguire, who obtained 227 votes against 135 for Dr. Knight. A motion, of which Dr. William Thomson had given notice, referring to alleged proceedings to secure the unopposed return of Dr. Knight at the previous abortive meeting of Convocation, and the part taken by one of the members of the Senate in connection therewith, was withdrawn by Dr. Thomson after an animated discussion; and upon the senator in question agreeing to discontinue an action for libel against Dr. Thomson that he had commenced, founded on the terms of the notice. An application, however, has been made for a visitation by the same gentleman. The Standing Committee of the Senate for the ensuing year is constituted of the Right Hon. John T. Bail, LL.D.; Sir Robert Kane, Right Rev. Monsignor Neville, Very Rev. Dr. Kavanagh, P.P.; Rev. Dr. Porter, Dr. Sullivan, Dr. Moffett, Dr. Allman, Rev. Dr. Stevenson, Dr. Banks, Mr. C. T. Redington, Dr. Curtis, Most Rev. Bishop Healy, Rev. Dr. William Delany.

The following resolutions have been adopted by the Senate.

1. That a special diploma be awarded to each candidate who may satisfy the examiners at the examination for the Stewart Scholarship for proficiency in the treatment of mental diseases.
2. That application be made to the Lord Lieutenant for approval of the following additions to the list of recognised medical institutions.—The Glasgow Royal Asylum for the Insane, Hanwell Lunatic Asylum, Birmingham Lunatic Asylum, the Cork Union Hospital.
3. That attendance at either theoretical or practical midwifery ought not to be commenced until after the passing of the second examination in medicine, and that no certificate of such attendance shall henceforth be received where the attendance may appear to have taken place subsequent to the close of the year 1885, but prior to the passing of the second examination in medicine.

It has also been decided that next year the First Examination in Medicine shall be held about the beginning of July, and not in the spring. A similar examination will be held also next autumn. The lamented death of his Grace the Duke of Abercorn leaves the Chancellorship of the University vacant.

DONATIONS AND BEQUESTS.—"A Grateful Friend" has given £1,000 to the Brompton Hospital for Consumption and Diseases of the Chest, "in memory of Henry Skinner, Esq., Solicitor," in order to name a memorial ward after him.—The Salop Infirmary, Shrewsbury, has received £300 under the will of Miss R. E. Hoggins, of Ludlow.—The Bristol Hospital for Sick Children and Women has received £129 8s. 6d. (per Mr. A. T. Philpot), collected at 172 schools in Bristol and the neighbourhood.—The City of Dublin Hospital has received £100 (per Mr. Robert J. Martin), the proceeds of an amateur performance at the Queen's Theatre; and 50 guineas from the Secretary of the Leinster Cricket Club, the proceeds of a match, Leinster v. Phoenix, played on September 10th, 11th, and 12th.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary, on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memo-randa on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HEMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 p.m. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

GLOUCESTERSHIRE BRANCH.—The annual meeting will be held, under the presidency of Dr. Needham, at 6.30 p.m., on Tuesday, November 17th, 1885, in the board-room of the General Hospital, Cheltenham. The supper will be at the Queen's Hotel at 8.30 p.m., tickets 3s. 6d., not including wine. *Agenda.*—1. Scrutiny of the voting papers, and declaration of the result. 2. Presentation of the balance-sheet. 3. Exhibition of a Case of Haemoglobinuria accompanied with Symmetrical Gangrene, with Notes and Remarks, by Dr. Wilson (Cheltenham). 4. Exhibition and Description of an Apparatus for Dry Antiseptic Vapour-Treatment of Wounds, and for Producing a Constant Antiseptic Air in Rooms, by T. S. Ellis, Esq. (Gloucester). 5. Some Remarks on the Frequent Non-Recognition of Glaucoma, by E. D. Bower, Esq. (Gloucester). 6. A New and Simple Form of Splint for Use after Tenotomy in Talipes, by G. Arthur Cardew, Esq. (Cheltenham).

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 26th. The President (J. H. Hartill, Esq.) will take the chair at half-past three o'clock.—VINCENT JACKSON, General Secretary, Wolverhampton, November 2nd, 1885.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above Branch will be held at the Bear Hotel, Lewes, on Wednesday, November 25th. Dr. Crosskey will preside. The Honorary Secretary will be glad to receive early intimation of intended contributions; short papers and cases of interest being especially welcome.—T. JENNIFR VERRALL, Honorary Secretary, 95, Western Road, Brighton.—October 25th, 1885.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting will be held at the Dolphin Hotel on November 26th, Dr. Tyacke in the chair. Gentlemen intending to read papers are requested to communicate with the Honorary Secretary, G. B. COLLET, 23, Grattwick Road, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Canterbury on Thursday, November 26th, at 3 p.m. Members intending to read papers are requested to communicate at once with the Honorary Secretary, W. J. TYSON, 10, Langhorne Gardens, Folkestone.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 p.m. Gentlemen who propose to read papers, etc., are requested to signify their intention to the Honorary Secretary, A. W. NANKIVELL, Esq., St. Bartholomew's Hospital, Chatham, not later than November 24th.—A. W. NANKIVELL, Honorary Secretary, November 2nd, 1885.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at Brooke House Asylum, opposite Clapton Station, on Thursday, November 19th, at 8.30. The chair will be taken by J. S. BRISTOWE, M.D., F.R.S. A demonstration of patients suffering from nervous diseases will be given by Walter B. Hadden, M.D.—J. W. HUNT, Honorary Secretary.

SOUTH AUSTRALIAN BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Adelaide Hospital on June 25th; present, Dr. C. Gosse, President, in the chair, and twenty members and a visitor.

Report of Council.—The Council reported that several questions affecting the profession had come under their consideration during the year. Among these were the causing of fuller information to be published quarterly by the Medical Board of the qualifications, etc., of registered practitioners; and the appointment of a Committee to consider the whole question of unqualified practice. The Council had also remonstrated with the civic authorities on the unjust treatment of the health-officer, Dr. Robertson. The Rev. Dr. Farr having made a charge against the medical men of South Australia of being often guilty of causing abortion, the President, Dr. Gosse, had pointed out to him the groundlessness thereof; and the charge had been publicly withdrawn. The professional services of the Branch had been tendered to the Government in the case of hostilities, and the offer had been duly acknowledged. In view of the establishment of a medical school in connection with the University of Adelaide, the pathological specimens belonging to the Branch had been handed over to Dr. A. Watson, Professor of Anatomy, and Pathologist to the Adelaide Hospital. The increased size of the volume of *Proceedings* pointed satisfactorily to the work done during the year. The evenings devoted to discussions had been much appreciated; and the Council asked for suggestions for extending the usefulness of the Branch to the members who could not often attend the monthly meetings. The Branch consisted of seventy-two members, of whom eight had joined during the year 1884-85.

President's Address.—The retiring President, Dr. C. Gosse, having briefly congratulated the Branch on the work done during the year, delivered an address on Recent Advances in Ophthalmology.

Communications.—The following communications were made.

1. Dr. Görger showed a patient on whom he had operated successfully for Cancer of the Rectum, by excision, in April last, and described the case, and also another of the same kind.

2. Dr. Görger showed a little girl, aged 3, on whom he had performed Subcutaneous Osteotomy of the Tibia. She had rickets, and it was the only case he had seen in the colony. The legs, which had been much bent, were now quite straight.

3. Dr. Görger showed a case of Ectopia Vesicæ Urinariæ.

4. Dr. Lendon exhibited an instance of Pseudo-hypertrophic Paralysis in a boy aged 8.

5. Dr. Gardner exhibited two cases of Cancer of the Tongue.

6. Dr. Gardner showed a case of primary resection of the humerus for compound comminuted fracture, treated by wiring of the ends of the bone. The musculo-spiral nerve had subsequently to be freed from the cicatrix. The patient recovered, with good use of the arm.

7. Dr. Gardner exhibited a case of Carden's Amputation for deformity of the leg after infantile paralysis. The result was recovery, with a painful stump.

8. Dr. Stirling showed a case of double Colles' Fracture, successfully treated.

Officers and Council.—The following were elected for the ensuing year: *President:* W. T. Hayward, Esq. *Vice-President:* J. C. Verco, M.D. *Treasurer:* T. W. Corbin, Esq. *Secretary:* W. L. Cleland, M.B. *Council:* H. E. Astles, M.D.; C. Gosse, M.D.; B. Poulton, M.D.

The preceding account is taken from the *Proceedings* of the Branch for the year 1884-85. The volume contains also reports of the monthly meetings held on July 31st, September 4th, October 30th, November 27th, 1884, and January 29th, February 26th, March 26th, April 30th, and May 28th, 1885. In addition to numerous abstracts of cases, etc., brought before the meetings, the volume contains the following articles: Hydatid Disease of the Lungs, by J. D. Thomas, M.D. (an elaborate article, occupying eighty-six pages, or more than one-third of the volume); A Case of Supravaginal Amputation of the Uterus, with Recovery, by E. C. Stirling, M.D., Surgeon to the Adelaide Hospital; Small-Pox at Border Town, by A. A. Lendon, M.D.; a Case of Pulsating Exophthalmos, by C. Gosse, M.D., Ophthalmic Surgeon to the Adelaide Hospital; a Case of Extraction of Calculi from the Right Loin, by J. T. Mitchell, M.B.; the Surgical Treatment of Kidney-Disease, by W. Gardner, M.D.; An Operation for Perineal Rupture, by J. C. Verco, M.D.; Carcinoma of the Uterus, by W. T. Hayward, Esq.; Operation (Johnson's) for Chronic Glaucoma, by C. Gosse, M.D.; Two Cases of Acute Necrosis of the Bones of the Face occurring in Connection with Acute Infections Disease, by J. C. Verco, M.D.; Remarks on some Specimens of Bones, by Professor A. Watson, M.D.; Cases of Compound Depressed Fracture of the Skull, by A. Lendon, M.D., and W. Gardner, M.D.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

The autumnal meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, October 22nd, at 5 p.m., under the presidency of J. BAIN SINCOCK, Esq.; the chair having been occupied at the commencement of the business by the President-elect, T. J. OLLERHEAD, Esq., until Mr. Sincock arrived. There were present fourteen members and two visitors.

Specimens of Clinical Figures and Charts, sent for exhibition by Messrs. Daniellson and Co., were laid before the meeting.

A Question of Fee.—A letter was read from Dr. Cordwint, raising the question as to the proper fee payable at a coroner's inquest—in the case of a witness possessing a medical qualification only, and giving surgical evidence: or, *vice versa*, in the case of a witness possessing a surgical qualification only, and giving medical evidence—whether he should be paid a fee of £1 ls., or only be paid as a non-professional witness.

The meeting was unanimously of opinion "That, if a registered medical man be summoned by order of a coroner to give evidence at an inquest, such medical man is entitled to the legal fee of one guinea."

The Treatment of Obstinate Constipation.—This subject was introduced by the PRESIDENT, who called upon Mr. Frederick Treves, Surgeon and Lecturer in Anatomy, London Hospital, who kindly attended for the purpose, to open the discussion.—Mr. TREVES, in the first place, after some introductory remarks, argued that moderate constipation was not so injurious as was almost universally supposed to be the case; and that the immense quantities of aperient mineral waters, pills, etc., which were taken as regularly as their meals by many persons, were for the most part unneeded, and often injurious; and might

be superseded by attention to proper diet, exercise, enemata, and other means. He then went on to show in what constipation really consisted, and pointed out that, in the main, it involved only the colon. Mr. Treves demonstrated the anatomical changes in the colon that attend chronic constipation, and described the consequences which ensued throughout the intestinal canal. Adverting to the ordinary treatment by purgatives, he argued that the administration of medicines of this class, under the circumstances described, was neither scientific or wise treatment. Attention to diet and to exercise, with the use of enemata, were remedies which should be rather looked to; but what appeared to be of greatest value was the use of massage—kneading the bowels with both hands, well oiled, for twenty minutes at a time. The treatment had been introduced by Kritiakia, and had met with substantial success. After Mr. Treves's address, the other gentlemen present offered remarks and criticisms, some amusing instances being quoted of patients, now over eighty and ninety years of age, still persisting in their daily favourite pill or pills, thousands and tens of thousands of which must have been taken in their long lives.—Mr. TREVES then replied. A written answer from Dr. Cordewent was read by the Secretary.

Vote of Thanks.—A cordial vote of thanks to Mr. Treves for the pleasure and instruction his address had afforded to the meeting, was carried by acclamation.

Collective Investigation.—The SECRETARY laid before the meeting communications he had received from Dr. Isambard Owen, relative to inquiries in progress by the Collective Investigation Committee, and drew attention to the notices which were to be found week by week in the JOURNAL, showing that forms would be supplied to any members applying for them.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The first ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday, October 29th; E. C. BOARD, M.R.C.S. Eng., President, in the chair. There were also present thirty-six members and one visitor.

The late Mr. W. M. Mitchell Clarke.—Mr. Mason proposed, and Dr. SWAYNE seconded, the resolution, which was unanimously carried:

"That the secretaries be requested to forward a letter to the family of the late Mr. W. M. Clarke, expressing the deep sympathy felt, and the loss sustained, by the Branch, by his sudden death."

Papers:—The following papers were read.

1. Notes of a case of Crosslegged Progression relieved by operation, by Mr. F. K. Green. This gave rise to observations from the President and Dr. Spender.

2. A case of Strangulated Hernia, by Dr. Kerr. The case was discussed by Dr. Greig Smith, Dr. Markham Skerritt, Mr. Prichard, Mr. Harsant, Mr. Hopkins, Mr. Collins, Mr. Pagan Lowe, Mr. Ransford, and Dr. Brabazon.

3. Some Surgical Affections of the Kidney, including three cases of Nephrotomy; by Mr. N. C. Dobson. Drs. Goodridge and Greig Smith made some observations on the paper.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Tuberculous Broncho-pneumonia.—Inoculability of Tuberculosis.—The Virulence of Tissues taken from Tuberculous Subjects.—Cysticerci and Generalised Tuberculosis.—Erysipelas Non-contagious.—Atrophic Bacteria.—General News.

ON October 24th, we gave a summary of M. Thaon's communication on tuberculous broncho-pneumonia. In another paper, he expresses his belief that the broncho-pneumonia of measles, and that of whooping-cough, are mistaken one for the other, because, until the present time, the histological difference between them and the points of distinction between their bacilli have been unknown. In diphtheritic broncho-pneumonia the capillary bronchi are filled with microbes. The pseudo-apoplectic nuclei found under the pleura of diphtheritic patients contain bacteria. The pulmonary lobules, believed formerly to present infarcts, have their alveoli filled with fibrine, red corpuscles, large leucocytes, and large pulmonary epithelium-cells in process of proliferation. By Gram's method, agglomerations of microbes are revealed, arranged in zoogloea, consisting of fine seed-like bodies, and chains composed of larger seed-like bodies. Near the bronchi, in the areas that have been attacked some time, the bacilli are arranged in tufts, and in round balls. They are from five to eight

micromillimètres thicker than the tubercle-bacillus. Immersion in nitric acid kills them. M. Thaon says that these are the elements that have been described by Loeffler in diphtheria; but he does not attribute any importance to the zoogloea and the round bacilli; he believes the bacilli to be the only pathogenic agent. According to Dr. Thaon, zoogloea and chains are always present in fresh lesions, and bacilli are only found in areas like the bronchi, which present lesions of longer standing. The broncho-pneumonia of measles and of whooping-cough is characterised, at the onset, by small isolated nodules as small as tubercular granulations. These nodules are coloured deep red by carmine, and are separated by a fine fibrinous network. The nodules run one into the other, and invade the lobules. After the fifth day, the inflamed parts are covered by branching yellow tracings. After the eighth day, purulent masses form; pus proceeds from them, also from the dilated bronchi; the pulmonary tissue near is injured or destroyed. If the nodules be examined, it is seen that the intra-alveolar cells are filled with round microbes at the diplococcus-stage, chains composed of three, five, or seven granules. These microbes are larger than those of diphtheritic zoogloea. M. Thaon finished his paper by insisting on the necessity of effecting a complete reform in children's hospitals, in order that the patients free from infectious diseases might not be exposed to the danger of contact with air impregnated with microbes. The high rate of mortality in the hospitals from measles and whooping-cough is a proof of the danger abiding in these establishments. These affections are comparatively harmless in their attacks on private patients, who, surrounded by a purer atmosphere, are not exposed to the dangers of catching infectious broncho-pneumonia. The isolated pavilions organised in 1882 are not sufficiently effective; the rate of mortality is still five in six. All the deaths result from infectious broncho-pneumonia.

M. Charrin, in a work presented to the Paris Biological Society, on the reinoculation of tuberculosis and farcy, states that his experiments on guinea-pigs lead him to believe that, in some instances, tuberculosis and farcy can be reinoculated, and are autoinoculable. In this respect, he contrasts them with syphilis.

In another work, on the virulence of tuberculosis, by MM. Charrin and Karth, the authors study the virulence of a certain number of normal and pathological tissues; also of bile, saliva, milk, blood, perspiration, urine, stools, nasal mucus, serous effusions, sputa, vaccine, pus, caseous matter, and exhaled air. They believe that in pulmonary tuberculosis, when the disease is not also localised in other organs, the secretions—milk, urine, blood, etc.—are rarely virulent. The bacillus is rarely present in the general circulation, and only in small numbers. Its presence in glands is also exceptional. When tuberculosis is not arrested in its course, its virulence increases with age; the bacilli become more numerous. On the contrary, syphilis becomes less virulent with age.

M. Troisier, at a recent meeting of the Société Médicale des Hôpitaux, reminded its members that last May he showed them a trichinous patient. The man has died from generalised tuberculosis. About 200 cysticerci were observed in the muscles and the brain. There were very few under the skin. They were principally found in the muscles. The vesicles contained fluid; and the cysticercus was in the middle, with its head and crown of hooks. None were found either in the heart, liver, tongue, or eye. They were present in the encephalon, adhering to the meningeal membranes. The patient had not exhibited any nervous symptoms. The intestines were free from tænia. M. Du Castel mentioned a similar case. The patient grew thin after an attack of typhoid fever, and the cysticerci became less abundant. As he gradually grew stronger and stouter, the cysticerci increased.

At a recent meeting of the Société de Chirurgie, M. Duprès said that the experiments demonstrating the contagious nature of erysipelas were not convincing. Clinical observation was more satisfactory. In his wards, he had operated on patients next to others with erysipelas, and they never contracted the disease. At present, the presence of the microbe of erysipelas is not proved; and should it, the question would still remain, whether it is the cause of the malady, or an incidental phenomenon.

According to the microbic statistics published by M. Miquel in *l'Annuaire du Bureau des Longitudes*, the bacteria dispersed in the atmosphere vary during the different seasons of the year. It is increased by north and east winds. At Montsouris, in a cubic metre of air, there are in winter, 260 bacteria; in spring, 495; in summer, 650; in autumn, 480; giving an annual average of 471. In January, there were 1,830; February, 1,700; March, 3,300; April, 4,330; May, 4,380; October, 3,910; November, 2,760; December, 1,800; throughout the twelvemonth, a monthly average of 3,480. In this part of Paris, the air is comparatively pure. A similar analysis of the atmo-

sphere in the Rue de Rivoli proved the monthly average throughout the year 1881 to be 6,295; in 1882, 3,435; in 1883, 2,345; in 1884, 1,836. Thus, during the last four years, the average has diminished. At the same time, the mortality from zymotic diseases has been less, although the population of Paris annually increases at the rate of 29 per 1,000. The deaths from typhoid fever, small-pox, scarlet fever, whooping-cough, diphtheria, dysentery, erysipelas, puerperal infection, and infantile enteritis, were, in 1880, 14,080; in 1881, 13,104; in 1882, 13,613; in 1883, 11,598; in 1884, 11,520; giving a decrease in mortality of 18 per 100. In thickly populated districts, the proportion of microbes in the air is much larger. Seaside towns, and those situated among mountains, are the freest from bacteria; a closely packed population aids to engender and develop these organisms. Berne, although the mountain-air constantly sweeps through its atmosphere, is by no means free from the presence of bacteria. According to Freudenreich's researches, the monthly average is 580, four times as pure as the air of Paris (2,020), but inferior to that of Montsouris (420). M. Miquel analysed the air of a room in an old house in the Rue Monge. The analysis was made in the morning, before any door or windows had been opened. In winter, a cubic metre of air contained 45,000 bacteria; in spring, 26,600. The increased proportion in winter is in consequence of not opening the windows so much as in summer. In the wards of the Hôpital de la Pitié, which are ventilated, there are 92,960 bacteria to a cubic metre in winter, and 54,110 in spring. In a new house in the Rue Monge, a cubic metre of air contained, in winter, 3,120 bacteria; in spring, 3,660; in summer, 4,560. The proportion varies according to the hours of day; from 12 to 1 o'clock, there are 62 bacteria per cubic metre; from 2 to 3 o'clock, 102; from 3 to 4, 130; from 4 to 5, 128; from 6 to 7, 148. The largest proportion occurs at sunset and sunrise. The following gives an idea of the relative purity of different atmospheres: ocean-air, 0.6 bacteria per cubic metre; mountain-heights, 1; the saloons of vessels, 60; the top of the Pantheon, 200; Park Montsouris (the average of five years), 480; at Berne, 580; Rue de Rivoli, Paris, 3,480; new houses at Paris, 4,500; Paris sewers, 6,000; the laboratory at Montsouris, 7,420; old houses, 36,000; the new Hôtel-Dieu, 40,000; the Hôpital de la Pitié, 79,000.

Last January, serious accidents happened at Asprières, in Aveyron, after vaccination from the calf. On an investigation being made, it was ascertained that a medical man at Montbazens received from Paris some tubes of calf-vaccine, and vaccinated several children with it. Eight days afterwards, 100 children were vaccinated from this first series; both the first and second series were successful, without presenting anything abnormal, two instances at Asprières excepted. These children were exceptionally strong. On the night following the vaccination, they were excessively feverish during twenty-four hours. Forty-two children were subsequently vaccinated from one of these children; six hours after the vaccination, all the children were seized with fever, vomited, and suffered intense thirst; fetid diarrhoea set in, and six died, twenty-four hours afterwards, from convulsions, accompanied with contracture and algidity. In one child, a rash appeared on the stomach. The child at Asprières, from which the forty-two were vaccinated, was taken to Montbazens, where small-pox was prevalent. The hypothesis that the child contracted small-pox whilst in the infected locality is suggested; and that both the virus of vaccine and that of small-pox were present in the vaccine, the use of which was followed by such fatal results.

A crematory, for incinerating the human remains of dissecting-rooms, has been tested at Pantin, and found satisfactory.

M. Gellé has presented to the Biological Society a new form of otoscope. It consists of an India-rubber tube, thirty or forty centimètres long. To this is fitted a glass tube, ten or twelve centimètres long. With this instrument, the disadvantage of external noises striking on the ear during auscultation is said to be removed.

Dr. Trastour, of Nantes, treats obstinate cough with glycerine-vapour. Five or six grammes of this liquid, in a porcelain capsule, are heated over a spirit-lamp. A quantity of vapour is given off, which, inhaled by phthisical patients, greatly relieves them.

The Baron Léon de Lenval, of Nice, has offered a prize of 3,000 francs (£120), to be awarded to the person who shall invent an instrument, easily portable, for improving the hearing of patients. The instruments destined to compete for the prize should be sent before December 31st, 1877, to one of the members of the jury. Only completed instruments will be received. The prize will be awarded in September 1888, during the International Congress of Otology at Brussels. The jury is composed of Professor Hagenbach-Bischhoff, of Bale; Dr. Gellé, of Paris; Dr. Benni, of Warsaw; Professor Burckhardt-Merian, of Bale; and Professor Politzer, of Vienna.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Pathological Society.—Glasgow Medical Mission.—Introductory Lectures.—University Council Meeting.—University Council Association.—Circuit Court Trials.—Health of Glasgow.

AMONG the specimens brought forward at the last meeting of our Pathological Society, was the heart from a case in which death took place under chloroform, as mentioned in a previous letter. Unlike the generality of these cases, the necropsy revealed extensive valvular mischief, the mitral valve being the seat of a well marked aneurysm. It will be recollected that the chloroform-anaesthesia was quite satisfactory until the operation was nearly completed, when the pulse failed, and respiration suddenly ceased. Some of the trophic changes that accompany locomotor ataxy were illustrated by two cases of that disease, in one of which there was a perforating ulcer of the foot, and in the other those rheumatoid affections of the joints to which Charcot first drew attention. One interesting feature about this latter case was, that the patient was struck by lightning twelve months ago, and since then the symptoms of locomotor ataxy and the changes in the joints have gradually developed.

A change has just taken place in the staff of the Glasgow Medical Mission. After ten years' service, Dr. Laidlaw has given up the post of superintendent, and his retirement from office was marked by a very well deserved presentation from those who have been associated with him in carrying on the now very extensive work that the mission has in hand. Dr. Laidlaw is succeeded by Dr. Connor, who has paid special attention to mission-work.

Our great field-day of introductory addresses has come and gone, and this week has seen work resumed for the winter session in all the various classes. Summaries of the addresses have already appeared in the columns of the JOURNAL, so that any lengthened reference to them is unnecessary. Dr. Bower's special pleading for his own department of science was, no doubt, meant primarily for the students before him; but, looking to the present uncertainty as to the future of our Botanic Gardens, it was equally meant to reach an audience outside the walls of the university, to whom next day's newspaper would convey a summary of his utterances. Dr. Anderson's thoughtful and cultured remarks on the too often neglected *vis medicatrix naturæ*, and Dr. Morton's modest history of the changes that have taken place in the school of medicine that he represents, were good and useful discourses.

Another event of last week was the half-yearly meeting of the Glasgow University Council. The attendance of members was not very large, and those who range themselves under the party pledged to work out the subject of university reform were able to carry their views on different points. By thirty-four votes to twenty-five, they carried their nominations for the three vacancies on the Business Committee, and a resolution was afterwards passed declaring the desirability of increasing the teaching staff of the University, and remitting to the Council to consider the subject along with that of extramural teaching.

The presence in Glasgow of Mr. J. A. Campbell, our University representative, was taken advantage of last week by the Glasgow University Council Association to lay before him their views on university reform. A deputation waited on him, and stated what it was that the Association desired to see altered in the teaching and management of the Scottish universities. It seems that, in its opinion, the curriculum is too restricted in some subjects, and that the teaching power of the universities should be increased by both intramural and extramural additions, while the control of these matters should pass out of the hands of the Senate, and be vested in the University Court. Mr. Campbell's replies were guarded, but he declared himself in sympathy with any movement whose aim is to increase the efficiency of our universities as national instructors; and there can be no doubt that there is a very general feeling in that direction. At the same time, I think there is an equally strong one against anything revolutionary that will tend to weaken a system of which all Scotchmen feel proud, and have long viewed with justifiable satisfaction.

At the recent Circuit Court trials here there was one case of medical interest, a Greenock chemist being tried for culpable homicide, owing to his having dispensed a quantity of nux vomica powder instead of the compound liquorice powder much used now as a laxative. The facts of the case were mentioned in the JOURNAL at the time of the occurrence, and it will be recollected that death followed very soon after the powder was taken. The medical evidence was quite conclusive that death resulted from poisoning by strychnine, but the accused was acquitted, the jury evidently being of opinion that

the mistake was excusable, and did not amount to culpable negligence. The whole facts of the case point to the necessity for the most scrupulous care in the separation of poisons from medicines in ordinary use, and proves that substances so much alike as powdered nuxvomica and liquorice-powder are by gaslight, should never by any chance be placed in the near proximity that they evidently formerly occupied in the shop of the accused. It came out in the course of the trial that the powder sold contained 120 grains, nearly all of which deceased took.

There has been another serious rise in the death-rate, which stands now at 27, compared with the 21, 20, 20, and 19 of the past four weeks. This increase is no doubt due to the wave of cold weather which has recently passed over the city, bringing up the deaths from pulmonary diseases. Scarlet fever has also become very prevalent of late, and just now, out of the 309 cases in hospital, 204 are sufferers from that disease. Small-pox has not yet been quite stamped out, and every week sees some fresh case registered. In fact, as Dr. Russell has pointed out in his last report, Glasgow is now in a most precarious position as to this disease, for it still prevails in the surrounding districts of Maryhill, Anniesland, Knightswood, Renfrew, and Busby; while the constant communication by steamer with Montreal, where there is an epidemic of it, brings in another element of danger, and one difficult to cope with.

CORRESPONDENCE.

REFORM AT THE COLLEGE OF SURGEONS.

SIR,—The crowded state of the meeting at the College of Surgeons on October 29th proves that at last the Members have shaken off their apathy, and are busying themselves with their prospective share in the administration of its affairs. Eighteen months ago, it seemed an impossibility to induce so large a number of medical men to care for their own professional interests; "*Mais nous avons changé tout cela.*" And we say "*nous*" advisedly, for it has been the daily work of this Association, from its foundation the day after the meeting in March, 1884, to convince the profession that it was only for want of a rallying point that the Members had so long suffered their wrongs in silence. The result is that, whereas the lecture-theatre of the College was thinly tenanted at the earlier meeting by about eighty medical men, it absolutely overflowed on the 29th ultimo, and numbers of men had reluctantly to turn their steps away from a hall which was too full to hold any more. That, at such a memorable meeting, there should have been a certain flavour of asperity in some of the speeches, is regretted by none more than by the Association of Members itself; but it cannot hold itself responsible for the individual utterances of irresponsible members. Let it neither be forgotten that the uncompromising refusal of the Council to accede to the demands of the Members, as embodied in its report, the withholding of all grounds for that course, and, finally, the closing of the Library on that very day, betrayed a distrust of the Members, which was in itself calculated to recall to those present the corporate shortcomings of the Council in days gone by. The Association would now wish to assure the Council that any words used by individuals on that day which were not quite in accordance with the rules of courtesy have pained it, and to beg that the excitement of a coming triumph may be held accountable for the same. It would also shelter itself under the precedent of Mr. Gladstone in the "*Hands off, Austria*" incident, who claimed the allowance due to a position of "*greater freedom and less responsibility.*" That meeting has, by entirely altering the aspect of affairs through its glorious assertion of the principle of enfranchisement within the walls of the College itself, placed the Members now in a position of great responsibility, not held by them before the vote, and they will show by their moderation their worthiness to maintain it. The brilliant address of Mr. Sampson Gamgee, who held the brief of the Association, should be taken as evidence that, while conscious of their strength, the Members have not forgotten that temperance is the true spirit in which to advance just claims.

We would still crave a fraction of space in which to recall to Members who have not yet joined the Association, the fact that its work cannot be properly carried on without the expenditure of a certain amount of money. Hitherto, extra demands, such as that contingent upon issuing circulars to advertise the College meeting, have fallen almost entirely upon the pockets of the Central Committee; but that body feels that it is now time to call upon the Members of the College to acknowledge the work done by joining the Association, and remitting to the honorary secretaries the trifling annual subscription of five shillings. Printers are long suffering creditors, but even they

like to see their names written across a penny stamp; and, when the minority has worked for the good of the majority, it has a not unnatural desire that it should not be too much out of pocket by the transaction.—We are, sir, your obedient servants,

WARWICK C. STEELE, WM. ASHTON ELLIS,
Hon. Secs., ASSN. M.R.C.S.

Western Dispensary, Westminster.

THE CONJOINT SCHEME.

SIR,—Now that an amalgamation has been effected between the Royal Colleges of Physicians and Surgeons for the purpose of granting a complete diploma, it would be well, I think, to see whether this union could not be made more serviceable by some scheme which would ensure to the student a thorough grounding in the preliminary subjects of his professional education. There can be no doubt that many, if not the majority of, students are absolutely unfitted when they first enter at a medical school to study such subjects as anatomy, physiology, and chemistry, for the simple reason that they have had no training whatever in scientific subjects, and their minds, consequently, are unprepared to assimilate the multitude of facts suddenly laid before them; the result of this is that, after struggling for a time, they first fall behind their more fortunate companions, and then often give up entirely any attempt at systematic work, only to acquire habits of indolence and indifference, which cling to them throughout their whole curriculum—on this account, a somewhat prolonged one. I think there can be no doubt that every student, before he enter at a medical school, should have some knowledge of chemistry, physics, botany, and zoology; but, at the present time, few of the examining bodies care what his knowledge is at the commencement of his career, so long as he comes up to their standard when presenting himself before them for examination; this strongly tends to produce, if it does not necessitate, a system of cramming.

In a paper I read on "*Medical Education*," before the Midland Medical Society, last December, I drew attention to this question, and ventured to suggest a remedy. We want, I think, a college, where a boy who intends to study medicine, and is unable to graduate at one of the older universities, may enter when he is about sixteen (by which time he should have passed one of the recognised preliminary examinations), and there acquire some knowledge of the above mentioned subjects, at the same time that he continues working at French and German; after a year or eighteen months, he could enter at a medical school, and at once commence the regular work there with the certainty of his being able to grasp and retain it in an intelligent way. Why should not the Colleges of Physicians and Surgeons found such a college? Their dignity would surely be enhanced by thus directing to a proper channel the energy which is often so unfortunately wasted or mis-spent at that most critical time of life; and, were they to do so, this would form a nucleus, around which a teaching institution, worthy of the name of an university, might be formed, —I am, yours obediently,

WILLIAM F. HASLAM, F.R.C.S.,
Assistant-Surgeon to the General Hospital, and Demonstrator
of Anatomy in Queen's College, Birmingham.

THE MEDICAL DEFENCE UNION.

SIR,—I have received a circular inviting me to join an association which has been formed under the above name for the purposes of defending, or assisting in defending, its members in cases where actions involving questions of principle to the profession, or cruel and groundless charges, are brought against them; of suppressing unauthorised practitioners, and of offering its assistance, as far as may be deemed judicious, in the promotion or modification of any bill or movement initiated for the benefit of the medical profession. These objects appear to me to be excellent, and the former two of them, at any rate, fulfil entirely the condition which alone justifies them being made the excuse for establishing a new association, namely, that they are, at the present time, a decided "*want.*" Indeed, I doubt whether there is any more crying need on the part of the members of the medical profession as a whole, than that of being protected, on the one hand, from unfounded and malicious accusations, to which every man is liable, but to which medical practitioners are especially exposed; and, on the other, from the competition of those who assume the responsibilities of medical practice without having given proper guarantees of their competence for doing so. These are matters which touch most nearly the interests of every member of the profession, for they affect the question of his self-preservation, which, in medicine, as in other cases, is Nature's first law.

But approving, as everyone must do, these objects of the new

association, I am led to ask why there should be any need for its foundation to meet them. We have in the British Medical Association a body which represents the whole profession, framed in a powerful organisation, and possessing large funds. Surely it is to such a body that the individual members of the profession should look for the protection, which no other association can so effectively give against the dangers to which I have referred.

I cannot but think that the funds at the disposal of the Council are ample to enable them to grapple effectively with these objects; and I have no hesitation in saying, for my own part, that if it be urged in reply that there are at present none available for the purpose, it would be far better to forego the expenditure which is now incurred on scientific research, and on some other matters, in order to provide adequate protection to the profession against the evils specified, than that it should be able to be said that a great and powerful profession like that of medicine has no corporate means of protecting itself against them. It is nothing less than a public scandal that such a state of things should exist; and I trust that some member of the Council will be moved to bring the matter under the consideration of that body, so that we may know what its opinion in regard to it is.

If it be decided that the protection of its members against calumny and illegitimate competition is no part of the work of the Association, and if this decision should meet with the approval of the members themselves, well and good. We shall know where we are, and I shall then have no difficulty about enrolling myself as a member of the Medical Defence Union. But until this is the case, I hesitate to support a movement which, however good in its objects, is, in my opinion, unnecessary, if the British Medical Association only do its duty.—Yours faithfully,
FRANCIS J. BOND, M.D.
Gloucester.

SIR,—Within the last few days my attention has been directed to a circular which is now being sent to the members of the profession—and which appears to have emanated from a solicitor's office in Bedford Row—inviting them to subscribe to a new society called the "Medical Defence Union," a name which is so nearly identical with that of the "Medical Defence Association" that the two societies will doubtless be confounded with each other. The Medical Defence Association has enjoyed the confidence of the profession for upwards of ten years, and as one of the founders, and its honorary secretary from the first, I would ask you to allow me to enter a protest against our title being so closely copied.

Whilst I have not a word to say against enterprising solicitors or others in these depressed times doing their best to push business, in this particular instance I cannot admire the action of the promoters in asking medical men to subscribe £25 for life membership, and at the same time to intimate that the members of the Council of the "Union" will not "be troubled to perform any duties," as is done in the circulars now before me.—I remain, yours, etc.,

60, Chandos Street, Covent Garden, GEO. BROWN,
November 3rd, 1885. Hon. Sec., Med. Def. Assoc.

DR. WARD COUSINS'S SOUND-DEADENER.

SIR,—May I ask you to state, in your next issue, that I am not the "Mr. Bartleet" who offered, and subsequently declined to give, a prize for a sound-deadener.—Yours faithfully, T. H. BARTLETT,
27, Newhall Street, Birmingham.

NAVAL AND MILITARY MEDICAL SERVICES.

UNSANITARY CONDITION OF SHOEBOURNESS.

SOME very grave charges have recently been put forward against the authorities at the War Office regarding the unsanitary condition in which some of the stations at which troops are quartered, and to which volunteers are occasionally sent, are permitted to remain. Attention has been called to the sanitary deficiencies of parts of the camp at Aldershot, and also to the neglects, in regard to health-requirements, around the quarters of the Royal Engineers at Chatham. Still more recently, it has drawn attention to the unsanitary state of Shoeburyness, not only as regards the water-supply, but also in respect to want of drainage and "the storage of filth under the very homes of soldiers and inhabitants." It is stated, in the article published by the *Volunteer Service Review* on the subject, that the water-supply of Shoeburyness is derived from surface-wells; that, during the last meeting of the National Artillery Association, it was very short; and

that, in the village, the water-supply and drainage are both so very bad that, "though the climate at that corner of our island is said to be, in healthfulness, equal to that of the most favoured health-resorts, fever is very rife, and the appearance of the place would lead one to think that, in all health-matters, the aborigines of Shoeburyness have not yet emerged from the dark ages. Even in the camp of the volunteers last August," it proceeds to say, "there were mysterious smells, and the secret of these odours was disclosed in the second week, when a heavy shower of rain fell after a long drought. This caused the cesspools to be clogged, and the opening caused sickening stenches to be spread throughout the quarters." Within the last few days, the report of Colonel Nairne, C.B., the Commandant of the School of Gunnery, regarding this very meeting of the National Artillery Association at Shoeburyness in August last, has appeared in the public press, and some remarks regarding the sanitary state of the volunteer force occurred in the course of it. The commandant observed that "the health of both officers and men was good throughout the meeting, and the sanitary condition of the camp was attended to by Surgeon-Major Bourns, who was in medical charge, and gave unremitting attention to all connected therewith." The *Volunteer Service Review*, in its article on the subject, has stated that no cases of serious illness occurred in the few days each division was encamped at the Ness, and that the health of the camp was good, but it has added, "the fact that the health of the camp was good goes for nothing, for the effect of the camp-living could not be told until many days after the volunteers had returned to their homes. The means of spreading enteric fever were in full bloom in the camp—the active life of typhoid was there, and its generation could not be known until days after the divisions had returned to their every-day duties, when the breaking out of disease in different towns would be attributed to other causes. There were existing in the camp indications that all things were not well, and the premonitory signs of the ill sanitary condition of the place were to be seen in cases of diarrhoea."

All these are very serious accusations against the administrative efficiency of the War Office, and they demand independent and searching investigation. If the evils described exist—and the testimony in this regard seems hardly capable of being doubted—it will be discreditable, now that attention has been so forcibly called to them, if they be permitted to continue. The supervision of a commandant, and the care of a sanitary medical officer, may be unremitting, but they cannot correct a bad water-supply, or replace cesspools by an efficient system of drainage. Such matters involve a considerable outlay of money, and this can only be obtained after the authorities at the War Office and Treasury have been convinced of the necessity of its expenditure. But surely there ought to be no difficulty in this respect, for it would be hard to imagine a stronger obligation on those in authority who select the sites where bodies of men are to be gathered together, and who make the arrangements for their reception, than the obligation of providing pure air and water for them, and of taking all the steps necessary for preventing the generation of disease among them, and its inevitable diffusion in other places after they have taken their departure and return to their homes.

THE NAVY.

THE following appointments have been made at the Admiralty during the past week: E. G. SWAN, Surgeon, to the *Duncan*; JOHN MOORE, M.D., C. J. MASSFIELD, M.B., ROBERT HICKSON, H. P. SHUTTLEWORTH, JOHN LOWSEY, G. D. T. ROPER, O. S. FISHER, and J. S. FOGERTY, M.D., Surgeons, to the *Duke of Wellington*, for Haslar Hospital; W. R. WHITE, M.D., Staff-Surgeon to the *Warrior*; ROBERT MELVOR, M.D., Surgeon, to the *Imperieuse* for the *Catopas*; W. E. HOME, M.B., to the *Asia*, additional; H. B. BRATY and P. E. MANTLAND, Surgeons, to the *Royal Adelaide*, additional; R. A. FITCH and WILLIAM SPRY, Surgeons, to the *Duke of Wellington*; G. H. E. SYMONDS, M.B., Surgeon, to the *Imperieuse*; W. J. WISSELER, Surgeon, to the *Cambrian*, additional; J. J. WALSH, M.B., Surgeon, to the *Revenge*, additional; E. R. D. FASKEEN, Surgeon, to the *Hecla*; J. W. FISHER, Fleet-Surgeon, to the *Audacious*, additional; N. T. CONNOLLY, Fleet-Surgeon, to the *Hercules*; JAMES ROBERTSON, Staff-Surgeon, to the *Constance*, additional; J. C. F. WITCHER, Surgeon, to the *Audacious*; E. E. BRAY, Surgeon, to the *Admiral*; J. H. WHITTON, Surgeon, to the *Lionel*, additional; A. H. MILLER, Surgeon, to the *Warrior*; THOMAS BROWN, M.D., and J. I. COLEMAN, Fleet-Surgeons, to Yarmouth Hospital; T. J. PRESTON, Staff-Surgeon, to the *Victor Emanuel*; E. H. WILLIAMS, Surgeon, to the *Constance*; A. G. WILSON, Surgeon, to the *Victor Emanuel*, additional; H. R. LOUTH, Surgeon, to the *Zealand*, additional; W. H. O'MEARA, and W. W. J. JACOB, Surgeons, to the *Royal Adelaide*, additional; A. F. HARPER, Surgeon, to the *Indus*; E. W. VON TUNZELMANN, Surgeon, to the *St. George*.

Dr. GEORGE MASON, Inspector-General of Hospitals and Fleets, died at Southsea on the 20th instant, at the age of 58. He entered the Royal Navy, January 27th, 1849; became Staff-Surgeon, November 19th, 1854; Fleet-Surgeon, July 8th, 1870; Deputy Inspector-General of Hospitals, August 20th, 1880; and Inspector-General, June 11th, 1884. Dr. Mason served in the Black Sea during the Russian war, and received the Crimean and Turkish medals, the clasp for Sebastopol, and the 5th Class of the Order of the Medjidie.

Staff-Surgeon A. V. SMYTH died at Boxley Heath, Kent, on the 13th instant, in the thirty-eighth year of his age. He entered the Navy as Surgeon, August 17th,

1860, and became Staff-Surgeon, August 17th, 1881. He was the second surviving son of the Rev. Henry Smyth, Rector of Cullen, in Tipperary.

Mr. W. L. GORDON, M.D., Inspector-General of Hospitals and Fleets, has been placed on the retired list of his rank. He entered the Navy as Surgeon on December 17th, 1846, became Staff-Surgeon, January 26th, 1855, Fleet-Surgeon, April 17th, 1860, Deputy Inspector-General of Hospitals and Fleets, July 10th, 1880; and Inspector-General, March 10th, 1884.

Mr. HENRY FEGAN, M.D., C.B., Deputy Inspector-General of Hospitals and Fleets, has been promoted to the rank of Inspector-General. His previous commissions are dated: Surgeon, June 6th, 1856; Staff-Surgeon, July 3rd, 1860; Fleet-Surgeon, March 28th, 1874; and Deputy Inspector-General, September 11th, 1880.

Dr. Fegan served at the Royal Naval Hospital at Hongkong in 1857-61 (China medal), was specially recommended for valuable services by the Commander-in-Chief; in 1868, in the *Rodney*, he had medical charge of the expedition to Yang-Chow (mentioned in despatches); in the Ashanti war he was Service Medical Officer in charge of the Naval Brigade (several times mentioned in despatches, nominated a C.B., was promoted, and received the medal with clasps); in 1875 he was Senior Medical Officer to the Congo expedition (mentioned in despatches); in 1882 for his very praiseworthy services during the epidemic of yellow fever, when Deputy Inspector-General of Jamaica Hospital, the Lords of the Admiralty "expressed their great satisfaction at the display of zeal and devotion to duty which he manifested."

Fleet-Surgeon DUNCAN HILTON, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets. His commission as Surgeon dates from May 19th, 1860; Staff-Surgeon, from November 18th, 1865; and Fleet-Surgeon from May 3rd, 1877. During the New Zealand War, in 1863, he landed with a party at the attack on the rebel redoubt near Rangiriri, was specially mentioned for his services to the wounded while under fire, was favourably noted at the Admiralty, and received the medal for the campaign.

Fleet-Surgeon HENRY RICHARDSON died at his residence, Castle Terrace, Berwick-on-Tweed, on October 25th, in his 60th year. He entered the Royal Navy July 30th, 1841; rose to Staff-Surgeon, May 22nd, 1851; and to Fleet-Surgeon, July 6th, 1863. He retired April 1st, 1870.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR WILLIAM ALEXANDER, M.D., has been granted retired pay, with the honorary rank of Brigadier-General. His commissions are dated: Assistant-Surgeon, October 2nd, 1865; Surgeon, March 1st, 1873; and Surgeon-Major, October 2nd, 1878. During the Egyptian war of 1882, he was attached to the 1st Battalion of the Royal West Kent Regiment, and has the medal and Egyptian bronze star for the campaign. He has since been engaged at Kinsale, in Ireland, and at Aldershot.

Surgeon P. G. IEVERS has retired with a gratuity. He joined the service on September 30th, 1875, and was last serving at Limerick. Mr. Ievers was engaged in the war in Afghanistan in 1878-79, first with the Peshawar Valley Field Force, including the expedition into the Bazar Valley, and afterwards with the Kuram Force, under Major-General Watson (medal).

Surgeon W. D. A. COWEN, recently serving in the Madras Presidency, was directed to proceed to England by the troopship leaving Bombay on October 17th, and to report his arrival to the Director-General of the Medical Staff.

Mr. SAMUEL ANDREWS has been appointed Surgeon to the Hampshire Yeomanry. Surgeon HENRY RESTON has resigned his commission in the 1st Manchester Volunteers, which he joined on the 10th of April of last year.

Mr. J. S. WILSON, M.D., has been appointed Acting-Surgeon to the 2nd Volunteer Battalion of the South Staffordshire Regiment (late the 3rd Stafford Volunteers).

Surgeon-Major G. J. GIBSON, M.D., and Surgeon-Major W. P. SMITH, serving in the Madras Presidency, have been permitted to exchange places on the Indian roster of service.

Surgeons R. JENNINGS and W. M. KERIN, also serving in Madras, have likewise been permitted to exchange places on the roster.

Surgeon G. R. MATHER, M.D., of the 1st Lanarkshire Artillery Volunteers, has been granted the honorary rank of Surgeon-Major.

The *London Gazette* of October 30th announces that the services of Acting-Surgeon E. L. T. SMITH, M.B., of the City of London Artillery Volunteers, have been dispensed with.

Acting-Surgeon E. A. SANDERS, of the 1st Pembroke Artillery Volunteers, has resigned his commission, which dates from May 18th, 1881.

Surgeon W. J. LE GRAND, M.D., has retired from the service, receiving a gratuity. Dr. Le Grand entered the Army September 30th, 1875. He served in the Afghan war in 1878-9, and was present at the occupation of the Lughman Valley, and with the expedition against the Khugianis; he was mentioned in despatches, and received the medal for the campaign.

Surgeon-Major R. V. ASH, M.B., and Surgeons E. J. E. RISK, J. McLAUGHLIN, M.D., and G. M. H. COLMAN, M.B., all of whom are at present serving in Bengal, have passed the examination for the lower standard in Hindustani.

Surgeons-Major R. BLOOD, M.D., and J. D. GUNNING have been permitted to exchange places on the Indian roster of service. The name of Mr. Gunning is therefore to be substituted for that of Dr. Blood to proceed to England during the ensuing troping season.

Surgeon-Major R. W. DAVIES, whose tour of service as Surgeon to the Commander-in-Chief in India will expire on November 27th, is directed to proceed to England, and report himself to the Director-General.

The *London Gazette* announces that the Queen has been graciously pleased to confer the decoration of the Royal Red Cross upon the undermentioned Nursing Sisters, under the provisions of Her Majesty's Warrant, dated April 23rd, 1883, namely, Miss M. C. Jerrard, Miss H. King, Miss S. Ireland, Miss J. M. C. Barker, Miss S. F. Hart, Miss M. C. F. Cole, Miss R. M. Burleigh, Miss L. Parsons, Miss A. Hind, Miss C. L. Byam, Miss R. Williams.

The Queen having been graciously pleased to confer the distinction of the Royal Red Cross on Miss R. M. BURLEIGH, one of the nursing sisters attached to the Military Hospital at Chatham, the presentation of the decoration was made at the General Hospital, Fort Pitt, on Wednesday last, by Major-General the Hon. R. Monck, commanding the division at Chatham. The ceremony took place in the presence of all the officials of the hospital, and a number of officers and ladies. General Monck congratulated Miss Burleigh on being the recipient of the distinction for her devotion to the sick and wounded during the recent Sudan campaign.

Dr. W. MOXON contributes an article on Faith Healing to the current number of the *Contemporary Review*.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

DURING the week ending Saturday, October 24th, 5,675 births and 3,157 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,146 persons. The annual rate of mortality, which had been equal to 17.6 and 17.7 per 1,000 in the two preceding weeks, further rose to 18.5. The rates in the several towns, ranged in order from the lowest, were as follow:—Norwich, 11.4; Bradford, 13.6; Huddersfield, 13.7; Hull, 14.0; Nottingham, 14.8; Leicester, 14.9; Derby, 15.1; Birmingham, 15.1; Sunderland, 15.1; Leeds, 17.4; Bristol, 17.5; Sheffield, 18.1; Halifax, 18.2; Wolverhampton, 18.4; London, 18.6; Oldham, 18.6; Salford, 19.2; Preston 19.8; Brighton, 20.5; Birkenhead, 20.7; Cardiff, 21.0; Plymouth, 21.3; Blackburn, 22.3; Liverpool, 22.4; Newcastle-upon-Tyne, 23.5; Manchester 22.7; and, the highest rate during the week, 23.2 in Bolton. The death-rate in the twenty-seven provincial towns averaged 18.4 per 1,000, and was slightly below the rate recorded in London, which, as before stated, was 18.6. The 3,157 deaths registered in the twenty-eight large towns included 299 which were referred to the principal zymotic diseases, against 303 and 340 in the two preceding weeks; of these, 62 resulted from measles, 57 from scarlet fever, 37 from whooping-cough, 52 from diarrhoea, 40 from "fever" (principally enteric), 27 from diphtheria, and 4 from small-pox. These 299 deaths were equal to an annual rate of 1.7 per 1,000. The zymotic death-rate in London was equal to 1.6, while in the twenty-seven provincial towns it averaged 1.8 per 1,000, among which it ranged from 0.0 in Huddersfield, and in Halifax, to 4.3 in Cardiff, 4.4 in Newcastle-upon-Tyne, and 4.7 in Preston. The deaths referred to measles, which had been 38 and 66 in the two preceding weeks, were last week 62, and showed the largest proportional fatality in Salford, Newcastle-upon-Tyne, and Brighton. The 57 fatal cases of scarlet fever were within one of the number returned in the previous week, and caused the highest death-rates in Cardiff and Leicester. The deaths from whooping-cough, which had been 51 and 59 in the two preceding weeks, were 57; this disease was proportionally most fatal in Cardiff. The 40 fatal cases of "fever," exceeded by 2 the number returned in the previous week, and caused the highest death-rates in Preston, Norwich, Derby and Portsmouth. The deaths referred to diphtheria, which had been 24 and 29 in the two preceding weeks, declined to 27, of which 18 occurred in London, 3 in Birmingham, and 2 in Liverpool. Of the 4 fatal cases of small-pox recorded in the twenty-eight towns last week, 3 occurred in Liverpool and 1 in Sunderland; no death from this disease was returned last week either in London or in the Metropolitan Asylum Hospitals situated outside Registration London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the twenty preceding weeks from 1,389 to 112, further fell during the week to 99; the admissions, which had been 15 and 16 in the two previous weeks, were 11. The death-rate from diseases of the respiratory organs in London during the week was equal to 4.6 per 1,000, and was below the average. The causes of 55, or 1.7 per cent., of the 3,157 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

IN the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 876 births and 438 deaths were registered during the week ending Saturday, October 24th. The annual rate of mortality, which had been 16.4 and 19.1 per 1,000 in the two preceding weeks, declined to 17.9 during the week, and was 0.6 per 1,000 below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 12.9 in Dundee, 14.8 in Greenock, 15.2 in Leith, 16.6 in Perth, 17.5 in Aberdeen, 17.6 in Edinburgh, 18.5 in Paisley, and 20.5 in Glasgow. The 438 deaths from all causes registered during the week in these Scotch towns included 12 which were referred to diarrhoea, 9 to whooping-cough, 8 to "fever," 7 to scarlet fever, 5 to diphtheria, 2 to measles, and not one to small-pox; in all, 43 deaths resulted from these principal zymotic diseases, against 49 and 59 in the two previous weeks. These 43 deaths were equal to an annual rate of 1.8 per 1,000, which slightly exceeded the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns during the week were recorded in Paisley, Leith, and Glasgow. The deaths from whooping-cough, which had been 5 and 11 in the two preceding weeks, declined to 9 during the week, all of which were returned in Glasgow. The 12 fatal cases of diarrhoea showed a decline of 9 from the number in the previous week, and were considerably below the number recorded in the corresponding week of last year; 4 occurred in Glasgow, 3 in Edinburgh, and 3 in Aberdeen. The deaths referred to "fever," which had been 4 and 8 in the two previous weeks, were again 8 during the week, of which 4 were recorded in Edinburgh, and 2 in Leith. The 7 fatal cases of scarlet fever showed a further decline from recent weekly numbers, and included 6 in Glasgow. The 5 deaths from diphtheria corresponded with the number returned in the preceding week, and included 4 in Glasgow. Of the 2 fatal cases of measles, 1 occurred in Glasgow, and 1 in Paisley. The death-rate from diseases of the respiratory organs during the week in these Scotch towns was equal to 3.9 per 1,000, against 4.6 in London. As many as 69, or 15.8 per cent., of the 438 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

IN the week ending October 24th, the number of deaths registered in the sixteen principal town-districts of Ireland was 341. The average annual death-rate represented by the deaths registered was 20.6 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 25.8; Belfast, 18.6; Cork, 28.6; Drogheda, 21.6; Dublin, 22.9; Dundalk, 8.7; Galway, 3.4; Kilkenny, 8.5; Limerick, 18.9; Lisburn, 19.3; Londonderry, 21.4; Lurgan, 20.5; Newry, 17.6; Sligo, 4.8; Waterford, 20.8; Wexford, 4.3. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 1.8 per 1,000, the rates varying from 0.0 in 12 of the districts to 3.9 in Cork; the 41 deaths from

all causes registered in that district comprising 3 from scarlatina, 1 from typhus, and 2 from diarrhoea. The 78 deaths from all causes in Belfast comprised 1 from measles, 3 from scarlatina, 1 from whooping-cough, 1 from diphtheria, 1 from enteric fever, and 3 from diarrhoea. In the Dublin registration-district, the deaths registered during the week amounted to 161. Seventeen deaths from zymotic diseases were registered in Dublin; they comprised 2 from scarlet fever (scarlatina), 4 from whooping-cough, 2 from cerebro-spinal fever, 3 from enteric fever, 2 from diarrhoea, 1 (that of a labourer, aged 18) from hydrophobia, etc. Twenty-eight deaths from diseases of the respiratory system were registered; they comprised 18 from bronchitis, 3 from pneumonia, and 2 from croup. The deaths of 23 children (including 15 infants under one year old) were ascribed to convulsions. Ten deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 8 by diseases of the circulatory system. Phthisis caused 17 deaths, and cancer 7. Three accidental deaths and one case of suicide were registered. In one instance, the cause of death was uncertified, and in 25 other cases there was "no medical attendant."

OBITUARY.

ADRIAN HEYNSIUS, M.D.

LATELY PROFESSOR OF PHYSIOLOGY IN LEYDEN.

DR. ADRIAN HEYNSIUS, who died at Amsterdam on October 4th, was for nearly twenty years Professor of Physiology at the University of Leyden. He entered as a student at Utrecht, where he distinguished himself by his diligence and ability, and obtained his degree of M.D. in 1854. He practised for a few years in Amsterdam, but the bent of his mind was chiefly towards physiological researches. For this purpose he formed a laboratory out of the most meagre materials. In 1856, he was named as director of a more satisfactory laboratory; and, in 1858, he was appointed Professor of Physiology in the Athenaeum. Here, in addition to his lectures to the students, he gave a physiological and historical course to a number of medical men. On the death of Halbertsma at Leyden, the professorship of anatomy and physiology was divided, and the chair of physiology was offered to Dr. Heynsius. He accepted the post, and, during the whole course of his career at Leyden, succeeded in interesting the students, and inspiring them with ardour. His eloquence, comprehensive grasp of the subject, and great power of work, formed him to be a leader and instructor.

He took an active part in all public enterprises, such as the Red Cross Union, the Leyden Building Society, Widows' Fund, etc. He contributed many thoughtful scientific articles to the *Tijdschrift*, under the title of Investigations in the Physiological Laboratory at Leyden, thereby earning fame both for himself and for the University. In the last two years of his life he returned to Amsterdam, where he continued his courses of instruction to the students up to the end, in spite of great physical weakness.

JOHN BURN, M.D., F.R.C.S.E.

ONE of the oldest and most respected practitioners in Edinburgh, Dr. John Burn, died at his residence in Lauriston Place, Edinburgh, on Monday, November 2nd. He was born in 1801, and was thus aged 84 years at his death. He became a Licentiate of the Royal College of Surgeons, Edinburgh, in 1829, and a Fellow in 1859, while he received the M.D. of St. Andrews in 1845. By his skill, courtesy, and kindness as a general practitioner, he secured for himself an extensive family practice, and was much beloved by his patients, while he was highly respected by his professional brethren. He was of a most benevolent disposition, and did much to help young persons of merit forward, as well as ministering to the wants of the poor; and his death will be mourned by many in comfortable positions in life, which they owe largely to him, as well as by those to whom his death is a serious and irreparable loss.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Members, October 29th, 1885.

R. Boxall, M.D. Brussels, 60, Gower Street, W.C.; M. C. Collins, M.D. Queen's University, Nottingham; A. E. Garrod, M.B. Oxford, 10, Harley Street, W.; S. H. Habershon, M.B. Cambridge, 70, Brook Street, W.; J. N. Mitra, India; L. E. Shaw, M.D. London, 3, Newton Grove, W.; J. H. Vignare, M.B. London, Birmingham; D. Williams, M.D. Lond., 4, Oxford and Cambridge Mansions, N.W.

Admitted Licentiates.

A. L. Achard, 33, Bonham Road, S.W.; C. K. Ackland, Bideford; G. F. Aldous, 2, Cromwell Villas, Barnes, S.W.; H. Bascom, Bloomfield, Lee, S.E.; L. B. burst, Arlington House, Herne Hill Road, S.E.; E. F. Bindloss, Potters Ba; J. A. Blair, 51A, Trinity Square, S.E.; J. A. Bratton, 6, St. Albans Ro 6, W.; I. Brown, 28, Chorley Old Road, Bolton, Lancashire; A. W.

Burrell, 30, Granville Square, W.C.; F. W. Burton, Weybridge; J. A. Cronin, 11, Powis Square, W.; I. R. Cory, 13, Clarendon Road, Kensington, W.; A. H. Davis, St. Bartholomew's Hospital, E.C.; R. S. O. Duffield, 8, Upper Phillimore Place, W.; F. W. E. E. R. 129, Stratford Road, Birmingham; C. Ewart, St. George's Hospital, S.W.; M. N. Ganevski, 9, Grendel Street, N.; H. W. Gardner, 2, Cromwell Villas, Barnes, S.W.; C. Gayford, 11, Koppel Street, W.C.; L. E. Gales, 10, Carlisle Road, Walthamstow; A. E. Goldrey, Northampton; R. P. Griffin, 37, Southview Street, W.; P. O. W. Hadley, Guy's Hospital, S.E.; R. Hodgson, 12, High Street, Lewisham, S.E.; J. D. Hughes, 47, Cheriton Road, Folkestone; S. Hurlbutt, 12, Chippendale Road, W.; F. J. Knowles, St. Helens, Lancashire; M. Koettlitz, 23, Gerrard Street, W.; J. P. Martin, County Asylum, Devizes; W. F. Moore, M.B. Durham, Egremont, Birkenhead; F. E. Nichol, St. Thomas's Hospital, S.E.; A. W. Ogle, 77, Welbeck Street, W.; F. A. T. O'Meara, West Dulwich, S.E.; R. J. Owen, 1, Clifford's Inn, E.C.; E. W. Phillips, Children's Hospital, Hackney, E.; G. R. M. Pollard, 1, Chelsham Road, S.W.; W. E. St. M. How, 16, Chessold Road, N.; H. A. Reed, 9, Malford Road, S.E.; L. P. Shadwell, St. Bartholomew's Hospital, E.C.; J. T. Smith, 25, Chorlton Road, Manchester; C. H. Taylor, Newport Pagnell; D. Thomas, 68, Arlington Street, N.; G. H. W. Thomas, 79, New North Road, N.; C. H. Wade, Beauchere House, Upper Norwood, S.E.; R. N. A. Wallinger, 30, Albany Villas, Brighton; W. G. Weaver, Westminster Hospital, S.W.; A. W. Webb, 11, Pyland Road, N.; F. C. E. d'E. Wheeler, 93, Camberwell Grove, S.E.; D. J. G. Wishart, M.D. McGill, 45, Torrington Square, W.C.; R. W. Wright, 148, Holland Road, W.; E. H. Young, 7, Lavaine Place, Newcastle-on-Tyne.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, October 29th, 1885.

Smith, Henry Ernest Hill, M.R.C.S., 82, Wimpole Street, W.

On the same day, the following gentlemen passed their Examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise.

Fountain, Edward Osborne, Hillingdon, near Uxbridge.
Oliver, Stuart, The Trellis, Bickley, Kent.

MEDICAL VACANCIES.

The following vacancies are announced.

ALNWICK INFIRMARY.—Surgeon. Salary, £120 per annum. Applications by November 17th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by November 8th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Surgeon. Applications to T. Storror-Smith, Secretary, 24, Finsbury Circus, E.C., by November 11th.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Assistant-Surgeon. Salary, £100 per annum. Applications to Mr. J. Bulhavant, 58, Abbey Street, Derby, by November 14th.

EASTERN COUNTIES' ASYLUM FOR IDIOTS, Colchester.—Resident Medical Attendant. Salary, £100 per annum, with furnished apartments in the asylum, board, and washing. Applications by November 7th.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Physician. Applications by November 9th.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent Square, Westminster.—Chloroformist. Applications by November 9th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £100 per annum. Applications by November 17th.

NORFOLK AND NORWICH HOSPITAL.—Secretary and House Steward. Salary, £100 per annum. Applications by November 14th.

OWENS COLLEGE, Manchester.—Professor of Physiology. Applications by November 9th.

PARISH OF ST. LEONARD, Shoreditch.—Resident Assistant Medical Officer. Salary, £100 per annum. Applications by November 10th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Blomfield Street, Moorfields, E.C.—Surgeon. Salary, £50 per annum. Applications by November 9th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Honorary Surgeon-Oculist. Applications by November 7th.

MEDICAL APPOINTMENTS.

ALDous, George F., M.R.C.S., L.R.C.P. Lond., appointed Resident Medical Officer at the County Asylum, Colney Hatch.

BASSETT, W., L.R.C.P. Lond., M.R.C.S., appointed House-Surgeon to the Newport (Mon.) Infirmary and Dispensary.

BRADSHAW, Thomas R., B.A., M.D. Univ. Dub., M.R.C.S. Eng., appointed House-Physician to the Liverpool Northern Hospital, vice F. Johnston, M.B., C.M., promoted.

CHURCHHOUSE, W. T. Franklin, L.R.C.P. Ed., L.F.P.S., L.S.A., appointed Medical Officer of Health for the Rural District of the Daventry Union.

EASTES, Frederick, M.D., M.R.C.S., appointed Honorary Medical Officer to the Folkestone Hospital and Dispensary, vice Allen Duke, M.D., deceased.

GERARD, John, M.A., M.B., C.M., appointed Pathologist and Chloroformist to the Children's Hospital, Farringdon.

HARPER, Alexander, M.B. Durm., M.R.C.S. Eng., appointed House-Physician to the West London Hospital, vice C. F. Bailey, M.B. Lond., M.R.C.S. Eng., resigned.

HEWKLEY, Frank, M.R.C.S.Eng., L.S.A.Lond., appointed Resident Medical Officer to the St. Paneras and Northern Dispensary, *vice* Arthur Rea Edwards, M.R.C.S.Eng., L.R.C.P.Lond., resigned.

JOHNSTONE, J. Carlyle, M.B.Glasgow, Senior Assistant Physician, Royal Edinburgh Asylum, appointed Interim Medical Superintendent of the Roxburgh, Berwick, and Selkirk District Asylum at Melrose.

PRIDEAUX, F. Helen, M.B., B.S., L.K.Q.C.P.I., appointed House-Surgeon to the Children's Hospital, Paddington.

SCOTT, John H., M.B., appointed Surgeon to the Adelaide Hospital, Dublin.

TAYLOR, Charles H., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the West London Hospital, *vice* Alexander Harper, M.B.Durh., M.R.C.S.Eng., promoted.

THOROWGOOD, John C., M.D., F.R.C.P., appointed Consulting Physician to the West London Hospital, Hammersmith.

WESTLAKE, Algernon, M.B. and C.M. Edin. Univ., appointed House-Surgeon to the Grimsby and District Hospital, *vice* J. L. Jackson, M.B. and C.M. Edin., resigned.

YOUNG, A. H., F.R.C.S., Professor of Anatomy at the Owens College, appointed Dean of the Medical School.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SCOTT.—October 28th, at 13, Bladud Buildings, Bath, the wife of Richard J. H. Scott, M.R.C.S.Eng., of a daughter.

DEATH.

BAYLIS.—October 17th, at 80, Windsor Road, Southport, in her 64th year, Elizabeth, the beloved wife of the late C. O. Baylis, M.D.

The Loughton Town Council have increased the salary of the Medical Officer of Health from £50 to £65 per annum.

PRESENTATION.—Mr. Thomas Buxton has been presented with a biscuit-canister, inscribed, "Presented to T. Buxton, Esq., M.R.C.S., by the Wilnecote Ambulance Corps, September, 1885."

The name of Dr. Robert McDonnell has been placed on the Royal Commission appointed to inquire into the condition of the blind.

The Worcester Guardians have increased the salary of Dr. Wellesley Coombs, medical officer for the No. 1 district, from £100 to £110 per annum.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The Houldsworth Entrance Scholarship of £40 per annum for two years has been awarded to Mr. F. B. Grove and Mr. S. P. Matthews (equal).

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Clinical Evening. Living Specimens at 8 P.M. Dr. T. D. Savill: Case of Myxædema in the Male. Mr. E. H. Fenwick: Case of Extensive Varicosity of Abdominal Veins. Mr. John H. Morgan: Case of Abdominal Tumour in a Boy. Dr. J. K. Fowler: Case of Bullet-Wound of Thorax.

TUESDAY.—Royal Medical and Chirurgical Society. Dr. Stevenson Thomson: Scarlatinal Albuminuria and the Pre-Albuminuric Stage studied by Frequent Testing. Mr. Arthur Barker: On some Points regarding the Distribution of the Bacillus Anthracis in the Human Skin in Malignant Pus-tule.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Mr. W. B. Turner: On some New and Rare Desmids. Dr. E. Giltay: On the Amplifying Power of a Lens or Objective. Mr. F. Crisp: Limits of Resolution in the Microscope. Dr. E. Crookshank: Microbiological Technique.—Hunterian Society. Mr. Fendick: The Treatment of Gonorrhœa.—British Gynecological Society, 8.30 P.M. Specimens by Mr. Lawson Tait and others. Dr. Inlach: Treatment of Prolapsed Ovaries by Oophorraphy. Dr. R. T. Smith: Fissure of the Cervix.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. (Living Specimens at 8 P.M.). Dr. Sharkey: A Case of Locomotor Ataxia, with Ophthalmoplegia Externa and Interna. Mr. Lang: Pemphigus of Conjunctiva. Mr. Snell: Foreign Bodies in the Back Part of the Eye, with Preservation of Sight. Mr. Jessop: On a Case exhibiting Definite Movements of the Pupils in Association with the Extrinsic Movements of the Eye. Mr. Nettleship: Note on Gelatine-Discs of Cuccine. Dr. Samuel West: A Case of Double Optic Neuritis after a Fall; Perfect Vision throughout; Recovery. Mr. Higgins: Neuro-paralytic Ophthalmia.

FRIDAY.—Clinical Society of London. Dr. Samuel West: A Case of Idiopathic Purulent Peritonitis in a Child of 10, with Necropsy. Mr. Rivington: Two Cases of Ligation of the External Iliac Artery for Femoral Aneurysm. Dr. Dyce Duckworth: A Case of Nitric Acid Poisoning. Mr. Barwell: A Case of Gastrostomy (living specimens). Dr. Kingston Fowler: A Case of Pseudo-Hypertrophic Paralysis in an Adult. Mr. Bernard Roth: A Case of Severe Lateral Curvature of the Spine. Dr. Crocker: A Case of General Discoloration. Dr. Colcott Fox: A Case of Pigmentary Disorder. Mr. John Morgan: 1. A Case of Gastrostomy; 2. An Unusual Form of Spina Bifida. Mr. Clutton: 1. Cervical Spina Bifida undergoing Spontaneous Cure; 2. Tubercular Ulceration of Palate. Mr. Walsham: A Case of Acute Spreading Obliterative Arteritis.—Ophthalmological Society of the United Kingdom, 9 P.M. Special Meeting. The Bowman Lecture, by Dr. Hugh-ings Jackson.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National, Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London 2.30 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY...St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.,; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th. 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE ENTRIES AT THE MEDICAL SCHOOLS.

We are requested to state that twenty-eight students have entered at St. Thomas's Hospital Medical School for special courses, including two who have entered for preliminary scientific classes only.

THE BRADLEY FUND.

SIR,—As the two following subscriptions arrived too late for insertion in your last week's issue, I hope you will kindly permit me to acknowledge them in your next.—I remain, yours faithfully,
Eastwood House, Chesterfield.

RICHARD JEFFREYS.

Dr. L. Nugent MacDermott, Foxford ..	£	s.	d.
Mr. J. Roche Lynch, S. Boyne Terrace, W.	..	1	0
	..	0	10

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

SIR,—Will you kindly give me an answer as to whether I can have the four quarterly premiums paid to the Medical Sickness, Annuity, and Life-Assurance Society for 1884 deducted from my income-tax? I sent the receipts to the surveyor of taxes, and he said that the name of the society does not appear on the list supplied to him from Somerset House, containing the names of societies in respect of whose policies an allowance of income-tax is authorised.—I am, yours truly,
F. H. THOMPSON.
Clebury Mortimer, near Dewdney.

* * * We are informed that, on an inquiry at Somerset House, an answer was given that amounts paid as premiums to the society, being a registered friendly society, were exempt from income-tax. Subsequently, however, the Board of Inland Revenue disputed this, and it was ultimately decided that, under the Acts of Parliament, payments for annuity or life-assurance are exempt, but those for sickness-assurance are not. Further, the officials have agreed to accept the certificate of the Secretary (Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W.) as evidence of the division of any premium. Any surveyor of taxes who refuses this exemption is exceeding his powers, and acting in contravention of the law.

HOME FOR AN HYSTERICAL CASE.

SIR,—If "Hysteria" will write to the Misses George, Fern Cottage, Malvern Link, Malvern, I think he can be well accommodated.—I am, sir, yours truly,
Worcester.
WILLIAM WOODWARD, M.D.

A REMEDY FOR RINGWORM OF SCALP.

SIR,—Will any brother practitioner kindly suggest a remedy for ringworm of the scalp? My rector's two little girls have suffered for six months from this troublesome complaint, and this notwithstanding my having tried all the well known remedies, iodine, mercury, sulphurous acid, etc.
A MEMBER.

DYSIDROSIS OF FEET.

DR. JAMES THOMPSON (West Kensington) advises a trial of a solution of Californian borax in water, every night or morning, and also that a fresh pair of socks be used daily.

G. B. W. thinks that the following paint, applied by a brush twice a week to the feet (accompanied, of course, by scrupulous cleanliness), would be found successful. R Hydrargyri iodidi rubri, gr. xx; liquoris plumbi acet. ʒiii.

MR. A. H. LEECH (Woolpit) suggests washing the feet in warm water, night and morning, and after each washing applying a little oxide of zinc in vaseline (one part to five). Clean socks should be worn every day. Mr. Leech has recently had a case, which was cured in three days by the above treatment.

DR. SHAPPEORTH MORTON (Croydon) recommends the following. R Spiritus vini methylati ʒij; liquoris hydrargyri perchlor. ʒj. Let the cork of the bottle be drilled with a quill, in the same way that itinerant oyster-vendors perforate their vinegar-bottles, and let the patient deluge the sole of the shoe or boot, just previously to putting it on, with about a teaspoonful of the mixture. This generally effects a cure in a fortnight. This plan has the advantage of saving trouble. Of course, extreme cleanliness should be advised, and the changing of socks daily; but this must not be forgotten that the sole of the boot becomes sodden with the fetid sweat. If "A Medical Man" can refer to the BRITISH MEDICAL JOURNAL of the latter half of 1880, he will find several useful and instructive notes on ill smelling feet.

MR. C. J. EVANS (Northampton) has found a solution of boracic acid very useful in checking the bad smell of the feet.

U.S.A. T. J. J. OF CONSTIPATION IN INFANTS.

SIR,—I would advise your correspondent, "M.D.", to have a teaspoonful of castor-oil rubbed into the abdomen every morning for a quarter of an hour with the palm of the hand, and persisted in for some time.
M.R.C.S.

ERRATUM.

IN THE JOURNAL for October 17th, page 773, column 1, in the first paragraph of Mr. W. E. Green's letter on Quinsy and Rheumatism, last line but two, for "That one does not meet" read "That one does meet."

SPASMODIC TABES.

DR. E. T. WILSON (Cheltenham) asks: Can any reader of the JOURNAL suggest a remedy for the spasm constantly occurring on awaking from sleep in a case of spasmodic tabes? Various drugs have been tried in vain; nepochine alone seems to alleviate.

MR. BOSANQUET (Cork).—We would not recommend any one to bring forward the comparison of the innominate bone to a propeller in an examination. The idea, however, is ingenious, and would find an appropriate place in a lecture or paper.

MATERNAL IMPRESSIONS AND CONGENITAL DEFORMITIES.

SIR,—Twenty-two years ago, I operated for hare-lip upon a young man, a mill-worker; and, when I was examining the lip a week after the operation, the wife of a gentleman in the neighbourhood came into the cottage where I was, and looked at it also. In a few days her husband called upon me, and said that his wife, who was three months advanced in pregnancy, had a nervous apprehension that the child to be born would have a cleft lip. I ridiculed the idea, and did everything I could to allay their fears, but without success. To my great surprise, however, a female child was born six months afterwards, having a hare-lip, in position and character corresponding very closely to the one seen by the mother.—I am, sir, yours faithfully,
Derby.
WILLIAM WEBB, M.D., F.R.C.S.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. W. F. Gibb, Paisley; Messrs. Blackwood, London; The Secretary of the Ophthalmological Society, London; Dr. S. Wilks, London; Dr. P. J. Cremen, Cork; Dr. Craig, Bishopstone, Bedford; Mr. S. Braithwaite, Egrement; Mr. Lennox Browne, London; Mr. J. B. Footner, Tunbridge Wells; Mr. W. H. E. Burke, Barnsley; Mr. J. Hodgkins, Oxford; Mr. G. Brown, London; Mr. S. Jebb Scott, Wood Green; Mr. A. Westlake, Grimsby; Mr. R. J. Pye-Smith, Sheffield; Mr. A. C. Miller, Baulf; Dr. J. Tatham, Salford; Mr. H. Belcher, Hove; Messrs. Allen and Hanburys, London; Mr. A. T. Assafrey, Glasgow; Mr. H. M. Baylis, Malmesbury, Wilts; Dr. D. Newman, Glasgow; Dr. A. T. Myers, London; Mr. W. A. Elliss, London; Mr. G. Collet, Worthing; Mr. R. Clement Lucas, London; Dr. Fly Smith, London; Mr. R. A. Newton, Birmingham; Dr. J. Macpherson, London; Mr. S. Hood, London; Mr. G. Birt, Stourbridge; Mr. J. West, London; B. and R.; Dr. T. Cranston Charles, Streatham; Dr. W. A. Duncan, London; Dr. F. Eastes, Folkestone; Dr. J. S. Holden, Sudbury; Dr. R. H. Hilliard, Aylesbury; Dr. Ward Cousins, Southsea; Mr. R. Davy, London; Mr. W. A. Garrard, Rotherham; Dr. Maxwell, Woolwich; Mr. W. Stewart, Barnsley; Mr. G. Barling, Birmingham; Dr. Evans, Brighton; Mr. E. Duke, Freshwater; Dr. J. Rogers, London; Mr. H. Goodwyn, Bovey Tracey; Dr. Willoughby, London; Mr. M. F. Bush, Bristol; Mr. A. W. Nankivell, Chatham; Dr. A. Macdonald, Liverpool; Senex; Mr. H. Taylor, Guildford; Dr. R. Aldridge, Yeovil; Mr. O. J. Davies, Pontypriid; Surgeon-Major S. Smith, Bristol; Messrs. Christie, London; Mr. R. D. Pedley, London; Mr. W. F. Haslam, Birmingham; Dr. W. E. Stevenson, London; Mr. V. Jackson, Wolverhampton; Mr. C. Palmaro, Mentone; Miss F. H. Prideaux, London; Dr. R. Rentoul, Liverpool; Mr. F. A. Pope, Dublin; Mr. T. H. Bartleet, Birmingham; Surgeon-Major Cullen, Cheltenham; Mr. A. W. M. Robson, Leeds; Mr. W. Dobie, Carlisle; Dr. Finlayson, Glasgow; Dr. W. Woodhead, Worcester; Dr. R. Newman, New York; M.R.C.S.: Our Aberdeen Correspondent; Dr. Huggard, Geneva; Professor Humphry, Cambridge; Mr. H. C. Rogers, Newport Pagnell; Dr. N. Kerr, London; Mr. T. Laurie Gentles, Derby; Dr. Lindsay, Belfast; Mr. Lawson Tait, Birmingham; Mrs. Passey, London; Dr. McKendrick, Glasgow; Messrs. R. Service and Co., Glasgow; Mr. C. E. Fleming, Bath; Mr. J. W. S. Cockburn, London; Mr. Gurner, London; Mr. Malcolm Morris, London; Dr. B. G. Morison, London; Mr. W. E. Franklin, Leamington; Messrs. Oppenheimer, Brothers, and Co., London; Mr. C. J. Lee, London; Mr. T. M. Watt, Hovingham, Yorkshire; Dr. Colcott-Fox, London; Mr. J. Chestnutt, Howden, East Yorkshire; Dr. W. A. Algie, Port Patrick; Mr. D. Burns, London; Our Paris Correspondent; Mr. W. Willett, Hove; Mr. L. Wainwright, London; Dr. W. R. Cossam, Cirencester; Mr. H. H. Franklyn, London; Dr. Sheen, Cardiff; Mr. Morgan Williams, Cardiff; Dr. Wilson, Lancaster; Mr. F. Hewkley, London; Mr. H. Barnett, Ealing; Mr. A. McGregor, Huddersfield; Sir Edmund Lechmere, London; Dr. James Milward, Cardiff; Mr. H. S. Nevill, Bishop's Castle; Our Berlin Correspondent; M.D.; Oxygen; Dr. J. Althaus, London; Mr. R. J. H. Scott, Bath; The Secretaries of the Epidemiological Society; Mr. H. R. Luard, Cambridge; Our Dublin Correspondent; Mr. Shirley Murphy, London; Dr. E. J. L. Blacker, Thrapstone; The Secretary of the Royal Medical and Chirurgical Society, London; Our Glasgow Correspondent; The Secretary of the Clinical Society, London; Mr. C. J. Symonds, London; Mr. Jeffreys, Chesterfield; Our Manchester Correspondent; Our Liverpool Correspondent; Mr. George Eastes, London, etc.

BOOKS, ETC., RECEIVED.

History of Homeopathy. By Wilhelm Amede, M.D. Translated by Alfred E. Drysdale, M.B. Edited by R. E. Dudgeon, M.D. London: E. Gould and Son. 1885.

Extra Pharmacopoeia. By W. Martindale and W. Wynn-Westcott, M.B. London: H. K. Lewis. 1885.

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Post-Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

INAUGURAL ADDRESS ON MEDICAL TREATMENT.

Delivered before the Midland Medical Society, November 11th, 1885.

By SAMUEL WILKS, M.D., LL.D., F.R.S.,
Consulting Physician to Guy's Hospital, etc.

Slow Progress of Disease.—Duty of the Medical Man as regards the Study of its Causes and its Prevention.—The Voice of the People as the Medical Man's Guide.—The Study of Disease and its Causes the true Foundation of Medical Practice.—Importance of Studying the Natural History of Disease.—Origin of Treatment by Drugs and other Agents.—Therapeutics as a Science.—Limitation of Value of Observations on Healthy Subjects.—Influence of Fashion on Modern Changes in Treatment.—Multiplicity of Medicines undesirable.—Specialism.—Increased Closeness of Relations between Medicine and Surgery.—Antiseptics.—Summary.

GENTLEMEN,—When I was requested by your President and Council to deliver an address before the Midland Medical Society, I felt myself too flattered to have the courage to refuse; but, since the time of acceptance, my boldness has alarmed me, for I awakened to the thought that, when the time arrived, I might have nothing to advance worthy of the attention of so distinguished an assembly. After much cogitation, and many flights of imagination into the realms of pathology and scientific medicine, in order to seek for some appropriate theme, I descended again to a lower sphere, and bethought myself it were wiser to take up some question of more universal interest. I propose, therefore, to address you on the well worn theme, the Treatment of Disease.

I adopt the expression as one most familiar to us, but use it in its very widest signification. The term can no longer be confined to the management of individual cases of illness, but must be extended to the whole of the medical art, including the prevention of disease, and a supervision of the general bodily welfare of our patients. The idea conveyed in these various functions of the medical man so widens out, that we are driven at last to ask the question, what is the relation of the medical man to the public at large? What is the origin of his existence, and what, in fact, is his *raison d'être*?

Slow Progress of Disease. Duty of the Medical Man as regards the Study of its Causes and its Prevention.—The position of the medical man and his relation to the public may bear two interpretations, very different in kind, but both supported by able men. One of these I upheld in this town many years ago, when delivering an address before the British Medical Association. The view I took was, no doubt, due to my own mental tendencies, to what I believed I had learned from studying pathology, and from analogies in other branches of science, assisted by the ardour of comparative youth, and not retarded by any latent desire to grow rich. I was endeavouring to get rid of much which I had gathered from lectures and books, implying that diseases were so many entities suddenly attaching themselves to healthy individuals, and throwing them into disorder, since I found, on the contrary, that most diseases were slow in their progress, arising under conditions constantly surrounding us; that it was just as impossible for a healthy man to die of ruptured heart, or of apoplexy, as for a gentleman of unblemished moral character to commit a murder, or pick a pocket.

I maintained at the very beginning of my career that if, on *post mortem* examination, we found a very thickened pleura, it was an assumption to say that this had resulted from a previous acute pleurisy, instead of taking the fact simply as presented to us as the effect of a slow growth. Pathological processes thus became, in my mind, closely similar to what is observed to be going on in the world at large, especially in the earth beneath us. As the changes in the globe were not sudden, nor the result of catastrophe, but due to the slow operations of conditions which are always present; and as, in the same manner, growth in the organic world goes slowly on, so did I perceive that the same law held good in all those processes which we call morbid.

I know great errors may be fallen into by drawing on supposed analogies, seeing that the resemblance assumed is the very thing to be proved; but, in the present instance, in the case of pathology, we are dealing with the same laws, namely, the various physical, chemical, and vital laws, which we see in operation in the inorganic, and in all departments of the organic world. The doctrine of evolution,

compared with the older belief as regards this globe and all that is on it, is expressed by the idea that the "world is being made," in distinction to the older doctrine that the "world is made." Now, that which is true of the world at large, is true of its component parts, is true not only of the building up of the body, but is true of its decay, and of the various morbid processes which take place therein. My early study of pathology showed how disease was slow in its progress, and that the affections called acute were but some accidental events occurring during its course, or at its close.

Peritonitis was not idiopathic, but the ending of some chronic disease of the abdominal viscera, just as meningitis was the termination of some anterior affection of the brain. This line of thought may be extended to a better solution of many pathological states. I have elsewhere during this year (address before the British Medical Association at Cardiff) alluded to the very complex process going on in various diseases, and selected cirrhosis of the liver in illustration. The explanation of this morbid change is by no means complete by saying it is a plastic inflammation of Glisson's capsule, for there is also a new formation of ducts and vessels, and an opening out of fresh channels for the blood.

We might take again the instance of stone in the bladder, of which a section is made, and the various layers pointed out as having been formed successively as deposits from the urine. Now, it is difficult to understand how the character of the urine should have been thus ever varying as regards its constituent salts, in order to allow their deposition. Therefore, might it not be more probable that the formation of the calculus was slow, and that, from its very centre to the circumference, changes had been going on up to the time of its removal, somewhat after the manner of the metamorphic rocks? In gazing at a glacier for the first time, we might exclaim, Here is a falling stream or cataract, which has become suddenly frozen; but we know that it never had any pre-existent state of the kind; and, in a somewhat similar manner, a friend, on looking at a patient's arm with the skin all red, contracted, and shrivelled, might say, Here is the result of a burn; but I answer, No; this cicatriciform-looking surface was formed slowly, just as you see it, and we give it the name of keloid.

Supposing, then, that pathological processes are slow in their progress, and that they are due to conditions always surrounding us in the food we eat, or the fluid we drink, or the air we breathe, ought not these causes to constitute one of the chief studies of the medical man? Why do we see one of our patients at middle age developing a consumption, or another finding an early grave from Bright's disease? Surely there were a number of circumstances acting combinedly which set these maladies in operation. These should be discovered, and when discovered removed. What higher function can be assigned to the medical man, than an attempt to elicit the different baneful influences which promote disease, and then endeavour to eradicate them? If one of his duties be the prevention of disease, he becomes the custodian of the public health, and his position is so exalted, and is placed on so firm a basis, that the importance of his status in society is at once fixed.

The Voice of the People as the Medical Man's Guide.—But there is quite another view of the medical man's function, which is this, that it should be made more directly applicable to modern life, and be altogether subservient to the will and wishes of the public. It is said that the first theory which I have propounded is eminently quixotic; with all our study, we can never arrive at the causes of disease, much less remove them; our surroundings in life are too artificial. We know that pure air ought to be breathed, and that for the sustentation of the body so much fluid, albumen, sugar, and fat should be taken in; but, as a matter of fact, our pabulum is introduced in a thousand different ways to please the palate, and to suit the habits of the country in which we reside. If a man eat and drink and breathe the mountain-air like the hermit—

"The moss his bed, the cave his humble cell,
His food the fruits, his drink the crystal well—"

then his life would be a simple problem to discuss; but with our complex diet, to say nothing of the adjuncts in the way of alcohol, tobacco, and tea, with clothing most unsuitable, what does a knowledge of the amount of albumen and fat help us in discovering the kind of breakfast, luncheon, or dinner of which every man must partake? Seeing that the whole of life is artificial, is it not feeble, foolish, and vain, it is said, to endeavour to set up any authority as to what is wrong or right? We may prove satisfactorily the inutility of alcohol and tobacco, and yet at the same time witness the long life of our patients who are not sparing in their use of wine, or who may smoke to an inordinate extent. And if the medical man think he does know what is right, and makes an attempt to reform society, will society submit?

and what thanks does he receive for his pains? The attempt, I say, is described as quixotic, and therefore the medical man's function should be nothing more than an effort to relieve persons by medicine of the various troubles which necessarily arise in our artificial society, with the addition of a little advice as regards food or dress, remembering not to go too far to disturb the ordinary conventionalities of life.

From this point of view, the public are to be the judges of what they require, and it has been boldly put forth that the popular voice is to be regarded as the dictator of the profession. It is so in other trades; the grocer and cheesemonger do not dictate to the public what is the best article for their consumption, but supply the peculiar butter or cheese which the present taste or fashion demands. In like manner, people have pains and aches; they cannot sleep or digest their food, and they call into existence a class of men called doctors to administer to their wants. "I do not require," they say, "your pathology, or even advice, but give me something to ease my pain, to give me sleep, and some fresh diet for my jaded appetite." This, according to some, is the beginning and end of the medical man's calling; one is not surprised at its having disciples, when one sees how lucrative is the method, and how futile it is found to offer to our patients improved methods of living, or to try and prevent disease. Now, of course, I can have no sympathy with those views, but, on the contrary, feel that it is our duty to try to wipe away the stain when we find our profession is being sullied by the propagation of doctrines of the kind. We can easily see that, if our sole business be to obey the patient's behests, to relieve him of local troubles, how the system becomes in the end the sheerest quackery, the mere offering of drugs for the removal of ills which the patient has portrayed for himself. This is what the public ask for, and not advice. I might take for illustration the case of the quack who has made a fortune out of the spermatophobists by treating the symptoms, and compare him with the case of a distinguished baronet, who probably never received a single fee for writing a most scientific and practical lecture about these very unpleasant people. The opinion of a highly scientific man, which might be of inestimable value, is discarded for the treatment of an ignoramus who panders to a mere sentiment of the patient, however foolish it may be. If public opinion is to be our standard, we are enabled to gauge its value by the price which it puts upon different men; and by this method we observe that the late Mr. Holloway was on the pinnacle of fame, for I believe the public valued him at about three millions of money, and since his death, institutions have been raised to his memory, which will stand as guides or warnings to the profession as to the true aims and objects it should ever have at heart.

The Study of Diseases and its Causes the True Foundations of Medical Practice.—For my own part, I have no hesitation in still adhering to the view, which I have always held, and which I have no doubt is the opinion of all of you, that the medical man's calling has a totally different basis—that it is necessary to lay a foundation in a knowledge of anatomy and physiology of the human body, and then make it one of our prime duties to study disease, and discover its causes. The next step will be an endeavour to remove them; and, as far as we are successful in so doing, we are fulfilling one of the highest objects to which anyone can attain. When all this is accomplished, we make use of the best remedies we have to relieve our patients of the ailments which we cannot prevent.

Importance of Studying the Natural History of Disease.—A second very important function of the medical man is to study the course of diseases which have actually arisen, and observe the circumstances which favour or otherwise the recovery of the patient, to note the best temperature, the quality of air and food, which are most conducive to his welfare. This is called the study of the natural history of disease, and it is remarkable how much has yet to be done in this department of medicine. There are many diseases, notably the specific, which no drug has yet been found able to control, or at least to arrest their progress; so that, at the present day, very little medicine is given in such cases as typhoid fever and the exanthemata. Few higher duties can devolve on the medical man than to make such diseases his study, watch their course, and bring them and his patient to a favourable termination. In cases like this, where he gives no medicine, he is never seen to so great an advantage, or to take a higher professional position. If he administer a drug, and pretend that this has been the instrument of recovery, he opens the door to the possibility of another remedy being considered superior to his in some more favourable case; but, if he maintain that the treatment required for the benefit of the patient is skill in its management, and that no one but he who has had a large experience can guide the case rightly throughout, he immediately assumes a superiority which no one can assail. So far from the medical man depending upon physic

for his success, he never takes so high a position as when he gives none, and makes the friends of the patient stand aloof and rely upon his superior knowledge.

It is not only in specific diseases, which run a definite course, that a long and close study of the symptoms is necessary for their treatment, but in all other acute and chronic disorder there is a wide scope for further inquiry as to the conditions under which they occur and progress. We might take any organ we like—say the lung. One young man has pneumonia of the right lower lobe; it remains limited to that portion, and the lung then rapidly recovers itself. Another young man is attacked with an inflammation, which extends to the whole lung, and rapidly proceeds to a fatal termination. Now, supposing the individual peculiarities of these two patients to be the same, we ought to inquire into the different conditions in which the patient has been placed to bring about such unequal results. What are these, which have acted so favourably or the reverse? Or, if we take chronic diseases of the lung, as phthisis, there is much to be learned as to the conditions which may favour or not its development. Every patient with this disorder is probably swallowing medicine, and some are seeking a foreign clime. They may be taking cod-liver oil, hypophosphites, and all the new antiseptics; but may there not be room for inquiry suggesting a treatment of equal importance in other directions? For example, is tubercle more or less likely to develop with increased activity of the lung? How is this important question answered? I will tell you. A young man goes to a medical man famed for a knowledge of chest-disease. He has, of course, medicine prescribed for him; but he is especially anxious to know the value of exercise, and he is told to swing dumb-bells, to use his arms in rowing, to blow a wind-instrument, and in every way to try to expand his chest. Being not altogether satisfied, he seeks the advice of another medical man, and the latter tells the patient it is important to keep the lungs as quiet as possible; and, in order to prevent mobility of the ribs, recommends a pad or kind of truss to be placed on the suspected side. Now, it seems to me a much more important question for the profession to decide, whether the tendency to the development of tubercle is increased or diminished by exercise, than to discuss the merits of benzoic acid and the hypophosphites. So, in every other disease, there is much to be learned quite outside, and, I maintain, anterior to, the question of giving physic.

We occasionally meet with educated people who have a contempt for our profession, style it the *ars conjecturalis*, and assert that it has no scientific basis. I maintain that, in the discovery of the causes of disease and their prevention, we are pursuing a strictly scientific method. If an agriculturist see a particular crop fail, and, by a careful watching, discover something injurious in the soil, or an absence of some ingredient necessary for the plant's growth, and, in consequence, he either remove the one or supplies the other, and see his future crops flourish, it will be admitted that he is pursuing a rigidly scientific method. He cannot make his withered crop recover its vigour, but his knowledge enables him to produce a better one for the future. If a medical man know that alcohol produces cirrhosis of the liver, inform his patient of the fact, and remove it in time, he is pursuing the same scientific method as the farmer. If, also, under more complex conditions, he can discover the circumstances which favour or arrest the development of disease, and he act upon his knowledge, he is still following a strictly scientific procedure. There is, therefore, I say, much to do quite outside and long anterior to the act of administering drugs for the cure or relief of symptoms. All systems, therefore, which begin with the cure by drugs, are erroneous, narrow in principle, and savour of quackery, as making a direct appeal to popular feeling. The proof of this lies in the fact that all quackery consists in physic-giving, and nothing else. Take away the quack's pills, and there is nothing left; take away our pharmacopoeia, and there is a large basis of science and art still remaining for the benefit of mankind. The public care nothing for anatomy, physiology, and pathology; they come into contact with the medical man at one point only, and that is treatment; therefore, any system which makes this the prominent feature is sure to be popular. This is my principal objection to a wide-spread heretical system; for its foundation is physic-giving and the treatment of symptoms. Every lady can carry her chest of medicines in her pocket, with a little book containing directions for the use of its contents.

Origin of Treatment by Drugs and other Agents.—After considering these primary and important functions of the medical man, we eventually come to treatment by means of drugs and other agents. Now this method arose, no doubt, in superstition. If any part of the body were in pain, it was to be relieved by rubbing, or applying something to it, something especially which could be felt, like heat or cold, and at the same time a liquid was put into the

mouth. We see the process repeated every day in the streets; if a poor man fall in a fit, or faint, he is pulled up on his legs, or set up, shaken, rubbed, and various things, especially spirits, are forced between his lips. I feel some sympathy with these well-wishers, for every one of us must constantly find ourselves in a similar position, and rather sorry plight, when called to a house to witness a patient die of apoplexy, and the wife and daughters beseech us to do something to save his life. To get rid of their importunity, and to occupy them, we set them all to work to make mustard-poultices and such like trifles. Old books on medicine, or herbals, will show how every known plant was dragged into the service of the *materia medica*, and very often a large number of them were combined together for medicinal use. There is no account ever given to show that their value depended on strict observation, but it is rather too evident that they were administered for the most fanciful reasons, as the colour of the flower, the shape of the leaf or fruit. It required the era of Bacon to discard all these fancies, and bring into force the method of observation and experiment. It would be interesting to know, at the present time, how many medicines are given from a knowledge of their use, and how many, because we consider them likely to do good by simply following the dictates of our minds. I mean when, for example, all of us, without exception, as far as I know, write down on a piece of paper, measuring six inches by four, some drug for every trouble with which the patient presents himself, it would be rather difficult for us to give always a good reason for our action. I think it is not difficult to see that our art had not a scientific basis, but, on the contrary was, like all other arts of ancient times, formed out of the fancies of the human mind. What we have been doing since, was not to begin afresh, but to take this huge *materia medica*, and gradually purge ourselves of the worthless articles, and endeavour to preserve those which time has proved valuable; and, further, to endeavour to discover, by observation and exact experiment, the true nature of their action. Of a large number of the most valuable of these drugs, there is no history of their introduction into medicine. Many, however, still keep up their fame, though probably valueless, because of some physiological action which accords with a purely imaginary notion of the nature of the disease in which they are given.

Therapeutics as a Science: Limitation of the Value of Observations on Healthy Subjects.—As regards therapeutics as a science, I will not say much, because opinions seem to differ as to the true method of investigation. Those who are the most esteemed cultivators of this branch of medicine, believe that the method is, first, to observe the action of a drug on a healthy animal, or on man, and then make the result applicable to pathological states; and they thus raise pharmacology to a branch of science. For my own part, although not denying it, I have been reluctant to hold this view in its entirety, because the method has seemed to me to have often failed when put into practice, and so brought discredit upon the therapeutic art. I speak with hesitation, because pharmacology is a branch of medicine above all others the most difficult to pursue, requiring a large amount of labour, of intense application, and a rigidly scientific mind, for the record of results, and I know how few are equal to the task. The select number who are engaged in it I regard as the most scientific men in the profession; and whether I look to London, to the provinces, or to Scotland, I admire them for the devotion they give to so abstruse a subject. Perhaps one ought not to impute blame to such men for all the inferences which have been drawn from their observations, and the applications of these to treatment. There is the well marked example of Dr. Brunton's, where a correct application of a known action in a drug was made serviceable in the very first trial. I mean the use of nitrite of amyl in angina pectoris, owing to its ascertained antispasmodic qualities; but what other examples of a like kind come to mind? It is true that experiments with digitalis show similar results to those observed when it is given as a remedy in disease of the heart; but it is quite another thing to assert that the results obtained in the first place, by experiments on animals, would have suggested its successful use in the case of the feeble irregular heart of mitral disease. But, take other well known drugs, especially those which the physiologist has found to have a well marked effect on the animal system, as, for example, strychnine. This excites the spinal cord and throws the creature into movement; therefore it must be a remedy for paralysis. A human being cannot move his arms or legs, but this drug shall throw them into action. Now, I have seen hundreds, many hundreds, of persons with paralysis take strychnine, and I never remember to have seen it of any service. I should regard it as almost an useless remedy in this disease. On the other hand, it is most valuable in gastric and intestinal weakness, but I am not aware that its administration in these disorders was due to any suggestion of the physiolo-

gist. Take another drug, conium; the experimenter showed how it rendered inactive the motor columns of the spinal cord, and therefore it was a remedy for chorea. It was given largely, even to poisonous doses, and then put aside as valueless. It might have been anticipated that a disease which was not to be arrested by such powerful sedatives as opium or chloroform was not to be subdued by conium. Then, again, there is phosphorus; this was a scientific remedy, because the brain contained it, but doomed soon to become ridiculous, when the public believed their minds were being invigorated by swallowing zedone. I never remember seeing more than one patient the better after taking phosphorus, and therefore I am bound to look upon this as a coincidence. In my private pharmacopoeia I have attached to the word phosphorus the name "humbug."

Another good example is the use of digitalis in disease, owing to its supposed physiological effects. I have, within the last week, seen it given in pericarditis, typhoid fever, and pneumonia, in order to lower the rapidity of the pulse, and on different occasions in, I believe, every known disease where the action of the heart is quickened. No remedy at the present time seems more popular amongst medical men; but I have failed to learn that, in a single instance, it has had any marked effect. It seems to me, on theoretical principles, not possible that a remedy should act in the manner hoped for, when the rapidity of the heart's movements depends upon many different causes; the only true way to discover its value is to make clinical observations of its action in the different diseases in which it is administered. The application of a physiological result to morbid processes, to my mind, in this, and in many other cases, has been fraught with harm, and I cannot regard the method as truly scientific. Do not mistake me. I do not deery the knowledge obtained by an experiment on a healthy animal, for we ought to be in possession of this, in order to compare it with the results observed in states of disease. It is one thing to deny that the action of bromide of potassium on a healthy animal would ever have led to its use in epilepsy, and another, to deny that its action on a healthy animal could assist us in explaining its use in epilepsy and other disorders. Or again, although experiments with arsenic would never suggest its great power in neuralgia and anæmia, they might throw a light upon its action when these effects are known.

If it be, then, that we give medicines, not because their value has been proved, but because we think they ought to be useful, we have only got a few steps beyond the method of our forefathers, and have scarcely, I should say, reached the scientific standpoint. But I apprehend that human nature remains much the same; and therefore, when people are ill, they must take something. If there be any difference of treatment from past times, I may for a moment say that this is not due to any change in the constitution of human beings. There is not a single fact to support so preposterous a supposition; the only suggestion for it being that some senile doctor found that his patients did not necessarily die under his old treatment any more than they do under his new.

[To be continued.]

WEIGHTS AND MEASURES.—Mr. Cox and other inspectors appointed by the magistrates or local boards have, of late, been busily at work among the chemists and druggists, and have succeeded in making some very extensive seizures of weights, scales, and measures. Some of the defendants have been fined three or four pounds; and, in some instances, the chairmen of the Bench have intimated that they had the power to raise the fine to fifteen pounds. They insisted that it was the duty of every one engaged in trade to have his, her, or their weights, measures, and scales in perfect order. This was especially the case with dealers who retailed poisons and powerful drugs. The inspectors declared that they were ready, every Thursday, to stamp and verify scales, weights, and measures, at the Sessions House, Broad Sanctuary, Westminster.

BRISTOL MEDICAL SCHOOL.—Mr. Richardson Cross, the lecturer on anatomy, and, till recently, one of the surgeons at the Royal Infirmary, has given up general surgery, with the intention of devoting himself entirely to special ophthalmic work. The energy and skill which Mr. Cross has thrown into the anatomical department of his school have already borne much good fruit, and been thoroughly appreciated.

REQUESTS AND DONATIONS.—The annual report of the Weekly Board of Governors of the Derbyshire General Infirmary acknowledges the receipt of an unusually large legacy of £4,500, under the will of Mr. George Buxton, in addition to one of £500 under the will of Miss Ann Taylor, of Birmingham, and another of £100, under that of Miss Elizabeth Eld. of Barton.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE ACTION AND USES OF DIGITALIS AND ITS
SUBSTITUTES, WITH SPECIAL REFERENCE
TO STROPHANTHUS (HISPIDUS ?).

Introduction to a Discussion in the Section of Pharmacology and Therapeutics, at the Annual Meeting of the British Medical Association in Cardiff.

By THOMAS R. FRASER, M.D., F.R.S., F.R.C.P.E.,
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I do not think there can be any difference of opinion as to the appropriateness of a discussion in this Section on the action and uses of the group of substances which have their most familiar example in digitalis. This substance itself has long been used in medicine. It seems, first, to have been associated with an action on the intestinal canal, which led to its being used, to a limited extent, as a cathartic and emetic; next, it was recognised as a diuretic; and, subsequently, it was believed to be an agent which so influenced the circulation as to exert a sedative action upon the heart. These actions—and especially the two latter of them—led to digitalis becoming a largely used medicine, although they but imperfectly, and in one respect erroneously, represented the nature of its action. A true conception of this action was only obtained by the experimental investigation of its pharmacology, which was originated by Bernard, Pelikan, and Dybkowski, and afterwards extended by Traube, Boehm, Vulpian, Schmiedeberg, and many others. It has resulted from these investigations that the pharmacology of digitalis has been placed in a position that favourably contrasts, in its relative completeness, with that of the great majority of remedies, while its applications in disease have acquired a definiteness and extension, which render it one of the most valuable of therapeutic agents.

The action of digitalis having been determined, it has subsequently been found that a similar action is produced by other substances. A considerable number of these substances have now been discovered, and they have been placed together in a group to which the designation of the digitalis-group has appropriately been given.

The action of digitalis and of the other members of this group has been shown to depend on certain chemical bodies or principles which are present in them; and a point of interest in regard to these principles is that the majority of them are not alkaloids, but substances destitute of nitrogen, and often glucosidal in their constitution, and, therefore, termed glucosides.

In this digitalis-group, there are included, besides digitalis and its active principles, such other substances as scillain, from *Scilla maritima*; adonidin, from *Adonis vernalis*; convallamarin, from *Convallaria majalis*; antiarin, from *Antiaris toxicaria*; helleborein, from *Helleboris niger*; oleandrin, from *Nerium oleander*; and erythrophlein, from *Erythrophloeum Guineense*. Some of the principles are soluble in water, while others are insoluble; and I have thought it of sufficient interest to place together those which are soluble, as this property has a distinct bearing on the therapeutic value of medicines. They are convallamarin and helleborein, which are freely soluble; and digitalin, antiarin, thevetin, euonymin, adonidin, and oleandrin, which are only slightly soluble. The greatest number of them, therefore, cannot easily be dissolved in water.

In regard to the pharmacology of these substances, the most important action they exert is upon the circulation. They all increase the action of the heart, and they do so by increasing the strength of its contractions, and particularly the contractions of its ventricle or ventricles. There is a difference of opinion as to the manner in which the action on the heart is produced. Some pharmacologists believe that the nerve-apparatus of the heart is directly stimulated, while others believe that the action is produced by a direct influence on the muscle alone; but, while a difference of opinion exists in regard to the production of the former action, no difference exists in regard to the latter. It is acknowledged that all of them have a powerful direct action

upon the muscular fibre of the heart, and not only on the muscular fibre of the heart, but also on striped muscle, wherever it occurs. They are, therefore, muscle-poisons, when given in sufficient quantity.

The action which they produce upon the circulation is followed by various secondary effects. The first of these is an increase in blood-tension. This is undoubtedly produced by an increase in the strength of the heart's contractions; but it is generally believed that the influence of the strengthened heart's contractions in producing this effect is aided by an action upon the blood-vessels themselves, whereby they are stimulated to contract. The production of this contraction has been explained in various ways; sometimes by an action on the vaso-motor centres, sometimes by an action on the vessels themselves, and sometimes by a combination of these two actions.

Another important secondary action is the production of diuresis. It is clearly explicable by the increased blood-tension, however, that may be brought about; but the view is also maintained that the renal secreting function is stimulated in a more direct and special manner.

A third action is a reduction in temperature. It is occasionally decidedly produced; but when the members of this group are contrasted with other, and now more generally employed, antithermals or antipyretics, they must be placed in a much lower position. The explanation of this antipyretic action is probably to be found in the more equal distribution of the blood that is produced throughout the body, resulting in a larger quantity being distributed to the surface.

Increase in the strength of the heart's contractions, and increase of arterial blood-tension, whether it be produced by an augmentation in the strength of the heart's contraction alone, or by this augmentation aided by a reduction in the lumen of blood-vessels, constitute the pharmacological effects which are the main explanations of the therapeutic benefits obtained by the employment of digitalis, and of similarly acting substances.

Digitalis was alone employed for a long period of time to produce these actions. It is the best known member of the group to which it gives a distinctive name, and its chemistry and pharmacology have naturally engaged the greatest amount of attention. It is, however, recognised that several inconveniences accompany its therapeutical application. Many of these are of a pharmaceutical character, but it is not impossible that some substitute may yet be found, having also pharmacological advantages over it. The substitutes hitherto proposed have not in any instance been found to possess any distinct superiority in action. Some of them are inferior to digitalis in their power to produce the fundamental action upon the heart, while others possess a greater number of other actions, which are not desired in the most frequent circumstances in which the production of this fundamental action is indicated in the treatment of disease.

If a substance could be obtained which exerts a more powerful action upon the heart, and at the same time produces fewer secondary actions, it is not improbable that therapeutic experience would prove it to be a valuable substitute for digitalis, and would even place it in a higher position as a remedy than that substance.

Further investigation of the pharmacology of the members of the digitalis-group may lead to the discovery of such a substance. This anticipation is to some extent supported by the results of an examination of *Strophanthus (hispidus ?)*, a plant first brought under my notice in connection with its employment in Africa as an arrow-poison. Some of the results of an examination of its chemical composition and pharmacological action were published in the form of a preliminary communication, intended to be followed by a more full description, in the *Proceedings of the Royal Society of Edinburgh*, and in the *Journal of Anatomy and Physiology*, so long ago as the year 1870. Previously to this time, its chemistry had not been examined, and the only references to its pharmacological action were contained in a brief communication by Pelikan of St. Petersburg to the Academy of Sciences of Paris in 1865, and in a note appended to a valuable paper on certain heart-poisons, published in 1865, by Drs. Hilton Fagge and Stevenson.

Subsequently to my communications, a paper by Polakillon and Carville, appeared in the *Archives de Physiologie* of 1872, in which the main facts I had arrived at regarding the action of strophanthus were confirmed; and, in 1877, Hardy and Gallois described some of the chemical properties in the *Journal de Pharmacie et de Chimie*; but, while adopting strophanthin as the name of the active principle I had already separated in a crystalline form, Hardy and Gallois unaccountably commit the error of supposing that I believed this principle to be an alkaloid.

The difficulty of procuring a sufficient supply of strophanthus—now overcome through the kindness of Mr. John Buchanan of Blantyre—and

other unavoidable circumstances, interrupted for some years the investigation that had so far proceeded, and interrupted especially the application, which had early suggested itself to me, of this substance to the treatment of disease. The latter application has since been made, and in the course of this communication I shall bring before the Section a few of the therapeutic results I have obtained.

Before doing so, it may be interesting to the members of the Section, were I to state some facts regarding the use of strophanthus as an arrow-poison, and regarding its chemistry and pharmacology.

The plant belongs to the natural order of the *Apocynaceae*, and it is widely distributed throughout equatorial Africa. Oliver, De Candolle, and Baillon have described its botanical characters. It produces a follicle from nine to twelve inches in length, within which are contained from one to two hundred oval seeds, characterised by having beautiful comose appendices, that give an arrow-like appearance to the seeds.

The seeds are very active, and, when coarsely ground and formed into a paste, they constitute the poison with which arrows are smeared. Poisoned arrows are used for procuring food, or for purposes of attack or self-defence by many tribes in Africa. They have been met with at Kombé, in the Manganja country, near the Zambezi, in the Shiré Valley, in the Gaboon district, in Guinea, and in Senegambia. The poison is in some places called "Kombé," and in others "Inée" or "Onage."

When examining the chemical properties of the seeds, I early separated a crystalline body, having a strongly bitter taste, of a feebly acid reaction, readily soluble in water and in rectified spirit, and practically insoluble in ether, chloroform, benzole, and petroleum spirit. [A crystalline specimen was exhibited.] This substance, which I have termed strophanthin, is not precipitated by the ordinary reagents for alkaloids; it does not contain nitrogen; and, when it is heated with dilute sulphuric acid, it yields glucose and a body insoluble in water, but very soluble in rectified spirit, and having a strongly bitter taste, which may be termed strophanthidin. The crystalline body, strophanthin, is largely present in the seeds; its action is the same as that of the seeds themselves, and it can be separated in a comparatively pure form by a simple process. The essential part of the process consists of removing from a watery solution of the alcoholic extract a large quantity of fat and colouring matter, by agitating repeatedly with ether, and then evaporating the watery solution at a low temperature. Some further manipulations are required to separate a small quantity of impurity; but, even when they are not adopted, a crystalline and only slightly coloured strophanthin may be obtained, which represents from 8 to 10 per cent. of the seeds used.

I have also found that strophanthin is present in the leaves and bark of the plant, but in smaller quantity than in the seeds.

The pharmacological action of strophanthus appears to be an extremely simple one. It may, I believe, be described in the few words that it is a muscle-poison. However introduced into the body, it increases the contractile power of all striped muscles, and renders their contractions more complete and prolonged. In lethal doses, it destroys besides the capacity of the muscle to assume the normal state of partial flaccidity, and causes the rigidity of contraction to become permanent, and to pass into the rigor of death. As a result of the action on muscle, the heart is early and powerfully affected. It receives a larger quantity in a given time than any of the other muscles of the body, and therefore it probably is that strophanthus affects its action more distinctly and powerfully than the action of the other striped muscles. Indeed, by regulating the dose, a very distinct pharmacological influence may be produced upon the heart, while the other muscles remain apparently quite unaffected.

The changes which I have found to occur in the heart's action are the ordinary changes that have been frequently described in the case of digitalis, and of other members of this group. The systole of the heart is increased, and its contractions are slowed by small doses; it is paralysed in a condition of rigid systolic contraction by large doses. This action is produced if the influence of the cerebro-spinal nervous system be altogether removed; and, with lethal doses, the heart, like the other muscles of the body, passes at once from the condition of pharmacological systole into the rigor of death, with an acid reaction of its muscular fibre. Curiously enough, another rhythmically contracting muscle, the lymph-heart of the frog, is but slightly affected by the action of strophanthus.

The action upon the heart, which I have thus briefly described, is accompanied by a rise in blood-pressure, which appears to be directly produced by it, and, in certain conditions, by an increased secretion of urine, and a reduction of temperature. As these several effects constitute the foundations of the use of digitalis in disease, I deter-

mined, in the next place, to administer strophanthus with the view of discovering whether it would serve as a substitute for digitalis. This has now been done in a large number of cases, a few of which I shall describe briefly to the Section. In most of the cases, I employed a tincture made, by percolation, with the quantities prescribed in the *British Pharmacopœia* for tincture of digitalis; but, occasionally, I have substituted for this tincture one in which the fat, so abundantly present in strophanthus, had previously been removed with ether. I have also used watery and alcoholic solutions of strophanthin; and I have, in a few instances, injected this active principle, dissolved in water, under the skin. Subcutaneous injection was, however, sometimes accompanied with the inconvenience of irritation having been produced at the seat of injection.

CASE I.—Wm. R., aged 43, came under treatment in January, 1881, suffering from shortness of breath, cough, and swelling of the feet. His face was extremely flushed; the difficulty of breathing was so great, that he could not lie down in bed; and he was obviously in a condition of great distress. Examination showed that the liver and spleen were enlarged, that the lungs were œdematous, and that the circulation was much disordered. In regard to the last, violent palpitation was present, the whole præcordium was in a state of constant motion, and there were strong and rapid epigastric pulsations. The heart was considerably enlarged, and a soft, indistinct, mitral systolic *bruit* was present. The radial pulse was almost imperceptible; it was very small and irregular; and, while only forty-eight beats could be counted at the wrist, the cardiac systoles seemed to be 160 in the minute. After the patient had been under general treatment for two days, I began the administration of tincture of strophanthus on the evening of January 23rd, giving in the first place 15 minims, and then 20 minims, of the tincture twice daily, and afterwards 10 minims, 8 minims, and 5 minims twice daily. The condition of the patient quickly improved; the breathing became less rapid; the radial pulse became stronger and more regular, and it soon coincided with the heart's beats. The pulse was, indeed, reduced on January 29th to forty-six beats in the minute. The œdema of the lower extremities, and of the lungs, had disappeared on the 29th; the patient could then lie down in bed, he could take his food with relish, and he expressed great satisfaction with the condition of comfort in which he found himself. The remarkable amelioration in the state of the circulation, which had been produced, is graphically represented in the subjoined pulse-tracings.



Fig. 1.—William R. Before strophanthus. Radial pulse uncountable; Ventricular contractions by auscultation, 160 per minute; respirations, 36 per minute.

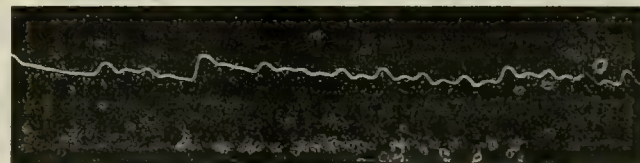


Fig. 2.—William R. Forty minutes after strophanthus. Ventricular contractions 172 per minute; respirations 34 per minute.

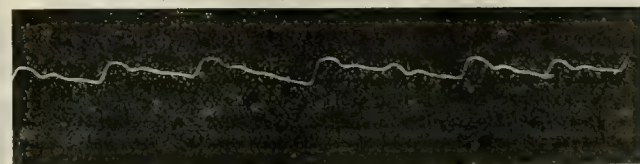


Fig. 3.—William R. Second day of strophanthus. Ventricular contractions, 96 per minute; respirations, 24 per minute.

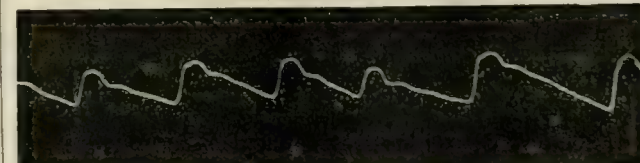


Fig. 4.—William R. Third day of strophanthus. Radial pulse, 88 per minute; respirations, 34 per minute.



Fig. 5.—William K. Fifth day of strophanthus. Radial pulse, 48 per minute; respirations, 28 per minute.

Accompanying this great improvement in condition of the circulation, there was a marked effect in the renal function. The quantity of urine passed each day from January 22nd to February 28th, was as follows.

Before Strophanthus.			Feby.		
January 22	..	13 ounces	9	..	56 ounces
" 23	..	..	10	..	81
" 24	..	27	11	..	60
Strophanthus begun.			12	..	44
January 24	..	22 ounces	13	..	60
" 25	..	42	14	..	55
" 26	..	96	15	..	72
" 27	..	152	16	..	52
" 28	..	109	17	..	66
" 29	..	67	18	..	59
" 30	..	96	19	..	44
" 31	..	102	20	..	56
Feby. 1	..	78	21	..	51
" 2	..	72	22	..	72
" 3	..	65	23	..	58
" 4	..	74	24	..	68
" 5	..	70	25	..	68
" 6	..	69	26	..	74
" 7	..	63	27	..	65
" 8	..	64	28	..	72

During the whole of this time, and for some weeks afterwards, strophanthus was administered. The patient was ultimately restored to a condition of comparatively good health.

CASE II.—The next case to which I wish to refer is that of a boy, W. D., aged 14, who had been ill for three years. He came under treatment in May, 1882, suffering from orthopnea, edema of the lower extremities and lungs, ascites, pain and tenderness over the precordium, sickness, and diarrhoea. The liver was much enlarged, extending in the mesial line to the umbilicus; and the heart was also much enlarged, extending in the vertical line from the second to the sixth interspace, and having a transverse measurement at the level of the nipple of eight inches and a half. The whole precordium, including a part of the right thorax, pulsated strongly; the precordium was prominent, and pulsations were visible in the epigastrium and right hypochondrium. It was found that stenotic and regurgitant murmurs were present at the mitral orifice.

On the night of the ninth day after the patient came under observation, I began to treat him with tincture of strophanthus, in doses of five minims; one dose being given on May 18th, two on the 19th, and three on the 20th, and continued uninterruptedly, with this frequency, until June 4th. The results on the pulse, respirations, and urine, from May 11th to the 31st, are shown in the subjoined table.

Date.	Respiratn.		Pulse.		Urine in Ounces.	Notes.
	M.	E.	M.	E.		
May 11	16	Before strophanthus.
" 12	..	..	..	..	12
" 13	47	..	96	..	10	
" 14	39	..	91	..	10	
" 15	40	40	..	..	..
" 16	43	47	89	92	10	Strophanthus commenced at 9 P.M. Two 5-minim doses of strophanthus. Three 5-minim doses daily to June 4th.
" 17	..	40	84	81	12	
" 18	40	40	..	80	14	
" 19	..	41	..	76	14	
" 20	..	..	..	..	12
" 21	..	..	..	..	42
" 22	40	36	80	77	54	
" 23	96	88	72	67	44	
" 24	30	30	68	70	34	
" 25	..	32	74	..	40	
" 26	36	34	66	..	44	
" 27	..	..	..	68	50
" 28	..	32	..	66	48	
" 29	33	27	72	68	44	
" 30	34	28	68	70	50	
" 31	35	28	66	82	48	

Besides these effects, a marked improvement occurred in the cardiac

action, and I place before you a few of the pulse-tracings that were taken by which this improvement is illustrated.

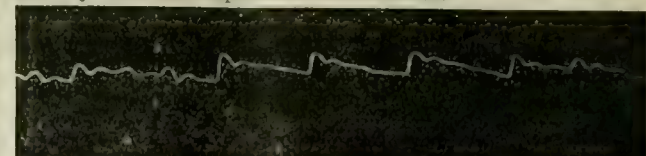


Fig. 6.—William D. Before strophanthus. Radial pulse uncountable; ventricular contractions, by auscultation, 118 per minute; respirations, 34 per minute.

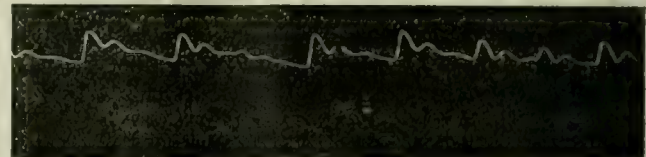


Fig. 7.—William D. First day of strophanthus. Radial pulse, 60 per minute; respirations, 36 per minute.

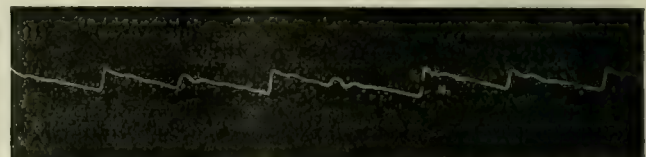


Fig. 8.—William D. Sixth day of strophanthus. Radial pulse, 60 per minute; respirations, 24 per minute.



Fig. 9.—William D. Sixteenth day of strophanthus. Radial pulse, 52 per minute; respirations, 25 per minute.

The patient made a satisfactory recovery from the urgent symptoms, and was convalescent early in July.

CASE III.—In the third case I have to mention, the patient was a lad, J. C., aged 16. He began to suffer from breathlessness about

Date.	Rspirts.		Pulse.		Urine.		
	M.	E.	M.	E.	Quantity in Ounces.	Urea in Grains.	Specific Gravity.
Apl. 29	..	..	..	..	(133 to 170)	71	96 1031
" 30	38	..	126	..	333	608	1026 Tincture of strophanthus, 8 minims at 3 P.M. and at 8 P.M.
May 1	24	34	(140 to 145)	(160 to 140)	86	395	1015 Tinct. strophanthus, 5 min., 4 times dly.
" 2	23	26	80	84	102	420	1020
" 3	25	..	78	45	123	311	1016
" 4	25	25	45	56	110	315	1021
" 5	25	25	41	65	134	215	1012
" 6	24	..	48	..	118	212	1011
" 7	..	22	..	..	61	165	1013
" 8	24	24	..	71	42	154	1020
" 9	27	22	..	82	40	367	1024
" 10	32	..	94	116	60	380	1022
" 11	24	..	118	126	50	437	1028
" 12	24	24	120	130	52	218	1025
" 13	24	25	120	119	53	377	1026
" 14	26	28	..	..	..	..	..
" 15	24	24	110	99	49	477	1024
" 16	22	22	112	121	51	422	1023
" 17	21	21	122	108	52	420	1023
" 18	22	20	120	..	48	432	1024
" 19	24	..	114	..	50	..	1028

three months before he came under treatment. He was soon obliged to remain in bed; he had frequent attacks of nausea and vomiting;

the feet, legs, abdomen, and face became swollen; the urine greatly lessened in amount, and pain and palpitation occurred at the præcordium. All these phenomena were present when he came under observation; and, in addition, the patient exhibited the conditions of marked dyspnea, sitting up in bed with the body bent forwards, and breathing rapidly, and in a laboured manner. The physical examination showed that both mitral and tricuspid regurgitation were present. The condition of the patient immediately before, and during a few days after treatment with strophanthus, is noted in the foregoing Table.

The changes that occurred in the pulse are shown in the tracings that follow.

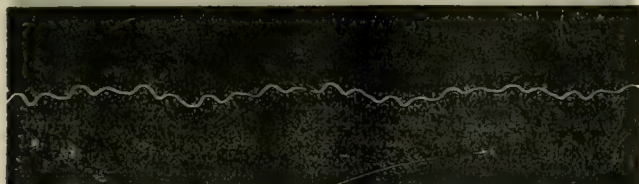


Fig. 10.—John C. Before strophanthus. Pulse, 126 per minute; respirations, 50 per minute.

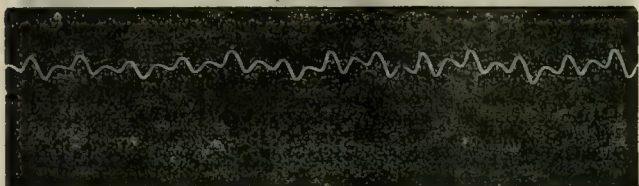


Fig. 11.—John C. First day of strophanthus. Pulse, 140 per minute.

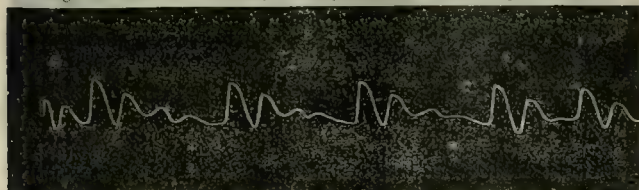


Fig. 12.—John C. Second day of strophanthus. Pulse, 130 per minute.

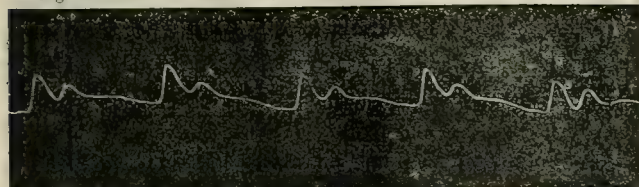


Fig. 13.—John C. Third day of strophanthus. Pulse, 84 per minute (?).

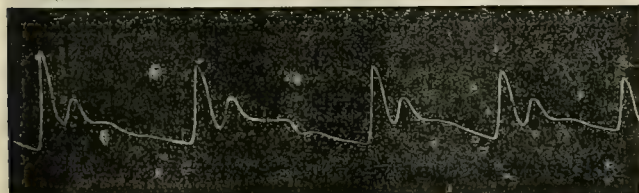


Fig. 14.—John C. Fourth day of strophanthus. Pulse, 42 per minute (?).

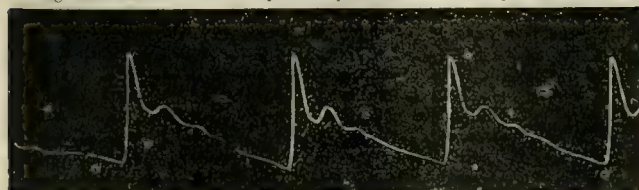


Fig. 15.—John C. Seventh day of strophanthus. Pulse, 44 per minute (?).

The patient improved greatly, but the increase in the pulse-rate that occurred about April 11th persisted, and the heart remained very excitable, even when he was going about as a convalescent, and free from any marked symptoms of cardiac disease.

In these, and in a considerable number of other cases, the effects of strophanthus have manifested themselves generally in a comparatively short time. I have endeavoured to define this time by taking pulse-observations at frequent intervals, with the sphygmograph retained *in situ* continuously for two or three hours. This has been done with single doses of the tincture and of strophanthin, given in the usual way, and, also, with strophanthin injected subcutaneously.

CASE IV.—In the fourth case to which I shall refer, strophanthin was injected subcutaneously, the dose employed being one-fiftieth of a grain. The patient was a woman, Mary N., aged 33, suffering from mitral regurgitation, following acute rheumatism. There was great obstruction of the circulation, with anasarca; the pulse was so rapid and feeble as to be almost uncountable, and the urine was scanty, and contained albumen. I place before the Section a few of the tracings of the pulse that were taken. They seem to show that a distinct

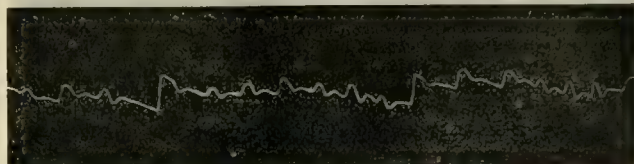


Fig. 16.—Mary N. Before strophanthus. Pulse, 140(?) per minute; respirations, 24 per minute.

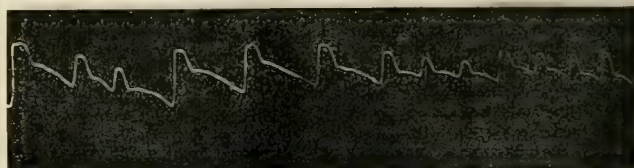


Fig. 17.—Mary N. Twenty minutes after subcutaneous injection of strophanthin. Pulse, 126 per minute; respirations, 24 per minute.

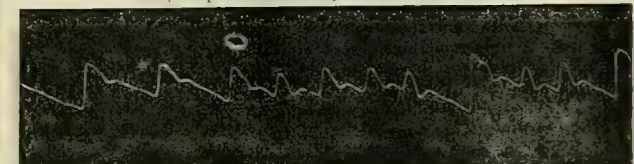


Fig. 18.—Mary N. Two hours after subcutaneous injection of strophanthin. Pulse, 98 per minute; respirations, 28 per minute.

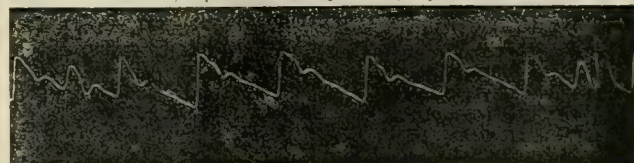


Fig. 19.—Mary N. Three hours after subcutaneous injection of strophanthin. Pulse, 88 per minute; respirations, 24 per minute.

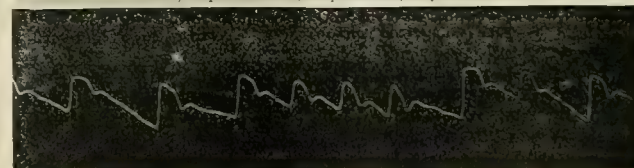


Fig. 20.—Mary N. Day following the subcutaneous injection of strophanthin. Pulse, 92 per minute; respirations, 24 per minute.

action was produced within twenty minutes after the injection, and that this action was maintained for twenty-four hours at least. After this period, the effect of the single dose could not be identified, as strophanthin was then administered by the mouth. The pulse-rate before the injection was 136 or 138 per minute. It fell in one hour and thirty minutes to 124, in two hours to 98, and in two hours and forty minutes to 88. In three hours, it could be easily counted at the wrist. The urine amounted, on an average, to 29 ounces daily during the six days immediately preceding the injection; on the following day, it amounted to 36, and on the second day, and before any more strophanthin had been given, to 50 ounces.

CASE V.—In another female patient, Bridget M., aged 22, also suffering from severe symptoms of mitral regurgitation, I was

enabled to observe, for a longer period, the duration of the effects produced by the injection of the one-fiftieth of a grain of strophanthin. Before the injection, the pulse was uncountable at the wrist, but was ascertained by auscultation of the heart to be from 153 to 140 in the minute. Thirty minutes after the injection, it was 108; in one hour, it was 92; and, in one hour and forty minutes, it was 86 per minute, while it could be easily and correctly counted at the wrist. The character of the pulse-tracing became distinctly improved in twenty minutes; and, in forty minutes, the patient volunteered the remark that she had not felt so little distress from palpitation and breathlessness for six weeks. As strophanthus was not again given to this patient, I was able to satisfy myself that the beneficial influence of the single injection persisted for eight days at least. I place before the Section a few tracings which seem to demonstrate this persistence.

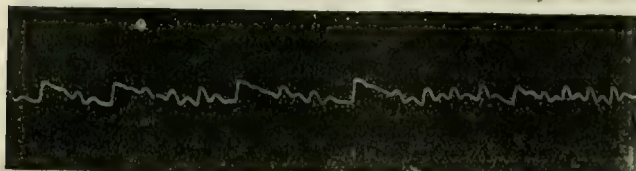


Fig. 21.—Bridget M. Before strophanthin. Pulse, 153 per minute; respirations, 42 per minute.

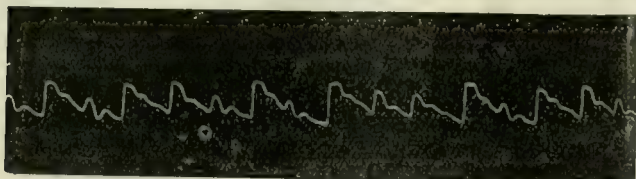


Fig. 22.—Bridget M. Thirty minutes after subcutaneous injection of strophanthin. Pulse, 108 per minute; respirations, 41 per minute.

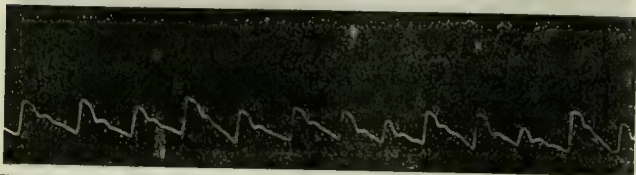


Fig. 23.—Bridget M. Forty minutes after subcutaneous injection of strophanthin. Pulse, 99 per minute; respirations, 37 per minute.

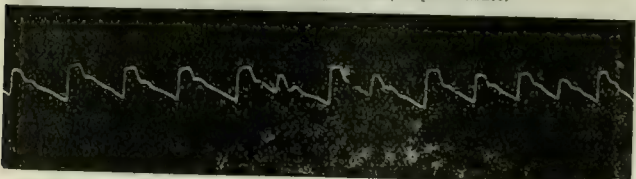


Fig. 24.—Bridget M. One hour and thirty minutes after subcutaneous injection of strophanthin. Pulse, 86 per minute; respirations, 34 per minute.

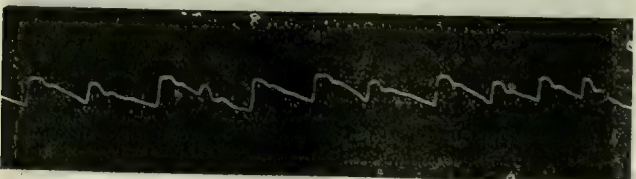


Fig. 25.—Bridget M. Third day after subcutaneous injection of strophanthin. Pulse, 78 per minute; respirations, 30 per minute.

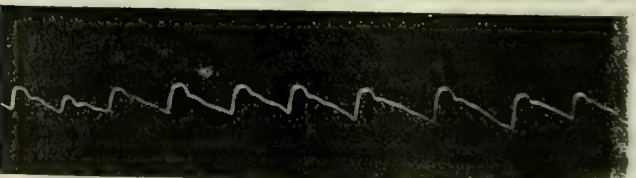


Fig. 26.—Bridget M. Fourth day after subcutaneous injection of strophanthin. Pulse, 80 per minute; respirations, 30 per minute.



Fig. 27.—Bridget M. Fifth day after subcutaneous injection of strophanthin. Pulse, 82 per minute; respirations, 28 per minute.

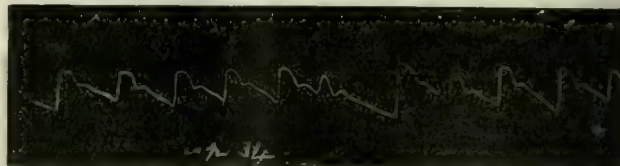


Fig. 28.—Bridget M. Sixth day after subcutaneous injection of strophanthin. Pulse, 77 per minute; respirations, 34 per minute.

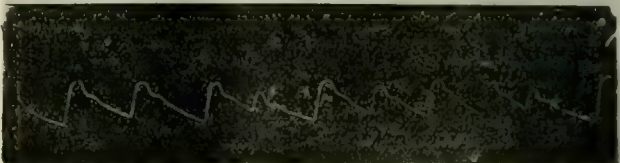


Fig. 29.—Bridget M. Seventh day after subcutaneous injection of strophanthin. Pulse, 74 per minute; respirations, 30 per minute.

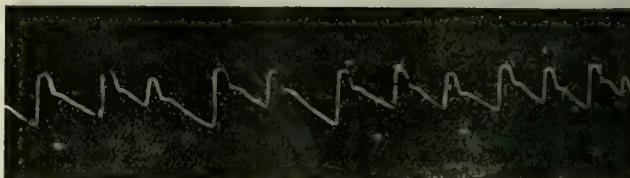


Fig. 30.—Bridget M. Eighth day after subcutaneous injection of strophanthin. Pulse, 74 per minute; respirations, 28 per minute.

This lasting influence was also shown by the increased flow of urine produced by the injection, having been maintained for the same period of time. The average quantity of urine voided in the two days preceding the injection of strophanthin was 27 ounces; it was increased on the following day to 55 ounces, on the second day to 58, on the third day to 70, on the fourth day to 74, on the fifth day to 82, on the sixth day to 78, on the seventh day to 64, and on the eighth day to 73.

Several days afterwards, I injected under the skin of this patient one-sixtieth of a grain of digitalis; but the effects were not so marked, nor in any degree so persistent, as those which had been produced by strophanthin.

The impression that strophanthus is more powerful and more rapid in its action than digitalis has been conveyed to me by several other cases. This occurred, for example, in the case of a man, John C., who came under observation suffering from extremely severe manifestations of mitral stenosis and regurgitation. Strophanthus quickly produced a satisfactory condition of the circulation; removing, at the same time, the visceral engorgement and œdema that were present, and causing a copious secretion of urine to take the place of a scanty secretion. Some months after he had recovered, he again came under treatment, suffering from very much the same condition; and, on this occasion, I substituted digitalis for strophanthus. Under doses of fifteen and then of ten minims thrice daily, no very decided improvement was manifested at the end of a fortnight. I then gave strophanthus, having been somewhat influenced to do so by the importunities of the patient; and the urgent symptoms soon disappeared, the pulse-rate became normal, and a copious flow of urine was established.

It is, however, difficult, by clinical observations alone, to prove the existence of differences between remedies that act in a similar manner. Variations occur in the conditions of patients, and it is impossible to secure, even in the same patient, exactly comparable data at different times. Any apparent difference between strophanthus and digitalis might also be explainable by a difference in the strength of the preparations of each that were administered.

I determined, therefore, to ascertain if any important pharmacological differences could be discovered. As, from my previous experi-

ments, the action on the heart was shown to be incomparably the most prominent action of strophanthus, I first made experiments designed to define the energy of this action on the part of digitalis and of strophanthus. For this purpose, the separated frog-heart was used, and it was supplied with solutions of each substance by means of Williams' apparatus. I do not enter upon a description of this apparatus, nor of the method followed in the experiments, as the members of the Section will have an opportunity of seeing some of the experiments repeated by Dr. Stockman, who ably assisted me in making them.

The substances used were soluble digitalin, supplied by one of the best known druggists in Edinburgh, and, I understand, obtained from Morson of London; and strophanthin prepared by myself, and not quite freed from impurity.

It was found that solutions of digitalin of 1 part in 100,000, of 1 part in 50,000, of 1 part in 10,000, of 1 part in 5,000, and of 1 part in 4,000 each, produced characteristic changes in the heart's action, but were not sufficiently strong to kill the heart, at any rate, not within two hours.

With strophanthin, on the other hand, a solution of 1 part in 100,000 quickly stopped the heart's action in extreme systole, characteristic changes in the heart's action having previously been produced. I then increased the dilution; and solutions of 1 part in 250,000, of 1 part in 500,000, of 1 part in 1,000,000, of 1 part in 2,000,000, of 1 part in 3,000,000, of 1 part in 4,600,000, of 1 part in 6,000,000, and of 1 part in 10,000,000, were each tried, with the result that the heart was characteristically affected, and killed by each of them. Even the almost inconceivably minute dose which was brought into contact with the heart when a solution of 1 part in 6,000,000 of strophanthin was used, produced complete stoppage of the heart's contractions in extreme systole in about twenty minutes.

Assuming that the digitalin was a fairly representative specimen of that substance,¹ these experiments indicate a very striking difference between strophanthin and digitalin in reference to their power of producing the changes in the heart's action, which constitute a most important feature in the therapeutic applications of the members of the digitalis-group.

I have, however, already stated that increase of blood-tension, following the administration of these substances, may be produced, also, by an action on the blood-vessels. We know that digitalis has such an action, and we know, also, that it is produced in part, if not entirely, by an action on the blood-vessels themselves.

Employing the same digitalin as was used in the heart-experiments above referred to, it was found that, in a frog whose central nervous system had been destroyed, a solution of 1 part in 20,000, passed through the blood-vessels, produced, in six or seven minutes, such extreme contraction of the vessels as practically to prevent the solution from passing any longer. Substituting, in other experiments, strophanthin for digitalin, a solution of 1 part in 20,000 had no appreciable effect; nor, indeed, could any decided effect be detected even when the strength of strophanthin-solution was increased to 1 part in 3,000; but a temporary effect, which was soon recovered from, was produced when the solution was increased to 1 part in 2,000.

Strophanthus, therefore, exerts a much more powerful action upon the heart, and a less powerful action upon the blood-vessels, than digitalis. What the exact significance to therapeutics of this difference may be, I am not prepared decidedly to say. On first consideration, however, the advantage seems to belong to strophanthus, in the treatment of cardiac disease at any rate. In difficulties and embarrassments of the circulation depending upon a central cause, it seems preferable to act upon the heart alone, rather than also to increase its difficulties by closing the blood-vessels into which it must empty itself. It may possibly be the case that some of the benefit which digitalis might otherwise cause, is antagonised, as it were, by the action it so strongly produces upon the blood-vessels; and that this latter action may even render large doses dangerous, when they are given to a much weakened heart.

Now, gentlemen, allow me a word or two further as to the therapeutics of my subject. I regard, in common with many others, the characterising action of the members of the group to be the action on the heart. They may be used with advantage in all weak states of this organ, whatever the cause of weakness, and their most satisfactory results are, I think, produced in mitral disease.

They do little, if any, good when the cardiac muscle has undergone much degeneration; they sometimes fail, even while degeneration is absent, when lesions of the orifices throw too great a burden upon the heart, and they are injurious when sufficient compensatory changes have been produced.

¹ As digitalin varies considerably in its toxicity, I have obtained specimens from other manufacturers, with which I propose to make similar experiments.

They are valuable as diuretics; and it appears, from the experiments I have described with strophanthus, that the diuretic action can be produced by substances which have only an insignificant action upon blood-vessels.

They are antipyretics; but in regard to this action, I have no special experience to describe. In the case of strophanthus, I have occasionally seen pyrexia disappear, and very frequently the charts of my pyretic cases exhibit a subnormal temperature.

The hamostatic action, which seems clearly to be possessed by digitalis, finds a satisfactory explanation in the marked effects produced by it upon the blood-vessels. Experiments with strophanthus, however, show that it is not an action possessed by all the members of the group.

And, lastly, as all the members of the group act directly upon striped muscle, I see no reason to doubt that the ecboic action possessed by digitalis is an action common to them all.

As to the inconveniences and disadvantages which are associated with their application in disease, an experience, no doubt somewhat limited, would lead me to state that sickness and gastro-intestinal disturbance are not produced so frequently by strophanthus as by digitalis; while I have not yet obtained any distinct evidence of accumulation, with its consequent manifestations of intolerance, in the cases in which strophanthus has been administered, even for several weeks uninterruptedly.

The therapeutical applications of digitalis are among the most valuable of those producible by substances used as remedies. The fundamental basis of these applications is to be found in an action possessed also by a considerable number of other substances. There is reason to hope that one or other of these substances may, in some respects, be even more valuable than digitalis as a means for applying to the treatment of disease the characterising pharmacological action of the group.

Dr. MURRELL (London) said that Dr. Fraser's paper was not a paper that could be written in three months; indeed, it had taken fifteen years to carry through. Fifteen years might seem a good deal of time to devote to the consideration of a single drug, yet that was the time Dr. Fraser had taken for bringing before the profession the mature results of his labours. The present occasion was a particularly happy one for the purpose, because it served to commemorate the introduction into medicine of digitalis. It was just a hundred years since this drug was so introduced. Strophanthus seemed to be allied to digitalis, but it was to be supposed that each drug would have its sphere of action; and the effect of introducing a new drug was to direct attention to the other members of the same group, and excite a renewed interest in their particular properties. The use of strophanthin hypodermically was a matter of great importance, and it was very necessary to know in what dose it might be employed. That dose, he understood, was one-sixtieth of a grain.

Mr. Bowes (Richmond) asked if it could be explained why certain diuretics acted only when in combination—such, for example, as the combination of digitalis, squills, and mercury—while separately they had little or no effect.

Dr. FRASER said that, before attempting to furnish an explanation of such an action, it would be necessary to prove that any such difference in action existed between the drugs administered alone and in combination. This proof not only had not been afforded, but would be difficult to furnish.

Dr. W. ROBERTS (Manchester) thought that the work Dr. Fraser had done was an example of the very highest kind of work in the domain of therapeutics; and it was impossible not to feel that much of that kind of work would revolutionise therapeutics in a very few years, by furnishing it with that quality which it had always wanted, namely, precision. He had received a request from a medical brother to go and see him, and he could not help hoping that he might take from the meeting some hint for his relief. If Dr. Fraser could furnish him with a little of the strophanthus, he thought it would be a suitable opportunity for its employment.

Dr. DUDLEY BUXTON (London) said that discussion on Dr. Fraser's excellent paper must necessarily be weak, because many new facts were brought forward. With regard to the diuretic action of the drug, he would ask how far that action was exerted when there was no cardiac lesion; and also, whether it was thought that this action was one which could be localised in any particular system. He would also like to know how far one would be able to obtain a supply of the material necessary to further clinical research.

Dr. TALFOURD JONES (Brecon) thanked Dr. Fraser for his very interesting paper. As Dr. Murrell said, he had taken infinite pains, and he had gone to work in the right and proper way. It was, of

course, impossible to many to carry out researches in this fashion; it was reserved to men who were in a position which allowed it. He thought it clear that this new drug was likely to supersede digitalis, not only on account of its qualities, but also because it would appear to be free from certain undesirable properties. He would be glad to get some as soon as possible to use for his patients.

Dr. NORMAN KERR (London), while joining in the chorus of approval, would like to enter a caveat against resigning the virtues of digitalis in favour of the new drug. Treating patients in private practice was a very different matter from treating patients in hospitals. He trusted, however, that there would soon be an ample supply of strophanthus, so that it might be tried on patients.

Dr. FRASER, in reply, said that he was gratified with the manner in which his paper had been received. There were one or two points on which perhaps he ought to make a little explanation. In the first place, in regard to Dr. Dudley Buxton's questions, he had employed the substance in other cases besides those of cardiac disease, and in some of them a diuretic action had been manifested; but he was not prepared to go any further than to say that it was in disturbances of the circulation, where the blood-tension was unduly low, that strophanthus was capable of producing a diuretic effect. There was not, so far as he knew, any other action than that upon blood-tension. As to its action upon particular districts of the vascular area, he advanced some reasons for believing that almost no action was produced by this substance upon blood-vessels directly; and, therefore, it was very improbable that it should single out the vessels of the glomeruli to the exclusion of the rest of the vascular system. Besides, he did not know that it was necessary to bring such an action into consideration; because, if an agent increased blood-tension by operating upon the heart, the increased blood-pressure acted on the vessels of the kidney, as elsewhere—a condition which would account for the diuretic action. This was a point of great interest; but it was also a point which it was very difficult to demonstrate, and he did not pretend to say that it could be regarded as a settled question with this or any other substance. In regard to what Dr. Norman Kerr said, Dr. Fraser had avoided saying anything as to the therapeutical value of strophanthus being greater than that of digitalis. He endeavoured to restrict himself to the data which observation had given, but he was not prepared to say whether the differences between the action of strophanthus and digitalis would constitute decided advantages. He was glad that this point had been referred to, because there was often a tendency to become unduly enthusiastic over new remedies; and he thought this was a danger to be avoided. In regard to the supply, it had been very difficult to obtain enough to enable him to continue his researches; and he was indebted to Mr. Buchanan, of Blantyre, for a large quantity which had recently reached him. He understood, however, that a demand for this substance had arisen, largely on the part of his former students; and the importers were now on the look out for it. He had heard that an enterprising importer expected to have a large supply immediately.

A demonstration was given of the action of strophanthin on the frog's heart; the action of this drug, in the proportion of only 1 in 1,000,000, in the blood circulating through the heart, by means of Williams' apparatus, as shown by the tracing on the revolving cylinder, being to reduce the normal tracing, in the course of five minutes, to a straight line, after producing a lengthened systole and heightened tension.

THE CLIMATE OF THE KINGDOM OF BURMAH.

By D. H. CULLIMORE, M.D., M.R.C.P. Lond. & Dub., F.R.C.S.I.,
Late Senior Physician to the North-West London Hospital; formerly
Resident Surgeon, Mandalay.

As we are, in all probability, about to engage in a third Burmese war, and as the hardships and privations which our troops underwent, owing, in a great measure, to imperfect knowledge of the country, but more so, perhaps, to the prosecution of the war in the hot and wet seasons, are well known to all who either remember or have read of those expeditions, a few remarks on the climate of this country may not at present seem inopportune, or without interest to the profession.

In proceeding, however, to the discussion of the subject in hand, it is necessary, more particularly as the greater portion of the country is *incognita*, and one of which no meteorological sketch of the leading features which influence the climate of India. A glance at the map will show

Fig. 26.—Bridget M. Fourth day great continent is made up of three large islands, 60 per minute, surrounded on three sides by water, and

two of which are almost entirely within the north tropical zone. They are Arabia, India, and the Hindu-Chinese or Eastern Peninsula. Of the latter, Burmah forms an important part. The climate of all, owing to latitudinal influence, is one of great heat. The main feature of Arabia, though farthest from the equator, is intense heat and dryness; that of India, great heat and a varying degree of moisture; that of Hindu-China, great heat and extreme moisture. As latitude, then, has no effect in producing these climatic diversities, they must evidently be due to other causes. Amongst these, the principal are the relief of the land, the size of the seas, and the height of the mountain-ranges by which they are bounded, or separated from neighbouring countries, as well as the character of those countries themselves.

In Arabia, the intense heat and dryness is due to the great Sahara, or desert of Africa, the hot winds from which, blowing for ages across the narrow Red Sea, have converted the country, with the exception of the hilly districts of Yemen and Oman, the Arabia Felix of old, into a desert if possible more arid and desolate than the Sahara itself.

In India, the features are briefly as follows: the lofty Himalayan mountains, which not only act as a barrier against the cold breezes of the Central Asian table-lands, but effectually arrest and disperse the rain-saturated clouds from the Southern Seas; the hot and moisture-laden south-west monsoon; the plains of India lying between the Himalayas on the north, and Vindhya mountains on the south; the central plateau, called the Deccan, hemmed in by the Western and Eastern Ghats, forming their junction in the nucleus of the Nilgiri Hills in the south-west of the peninsula. It is owing to these conditions, then, that, while the central plateau is generally dry, the country west of the Ghats, and at the bases of the Himalayan range, is deluged by rain, varying from twenty feet on the Malabar coast to fifty feet in some of the valleys of Assam. Hence, therefore, as the Western Ghats are close to the coast, and of fair elevation, and as the central plateau rises from 2,000 to 3,000 feet high, and as the Eastern Ghats are often intercepted, and of insignificant height, the climate of India will always be drier and more salubrious to Europeans than that of the Hindu-Chinese Peninsula, to which we will now direct attention.

The Hindu-Chinese Peninsula, while subject, in common with India, to the influence of a tropical latitude, of a lofty Himalayan northern boundary, and of the moisture-laden warm south-western winds, differs from that country in the following particulars. Instead of broad plains and extensive plateaux, protected from the watery winds by a sea-coast range of mountains, the whole country is cut up into a series of narrow river-valleys by long ranges of mountains, trending in a southern direction from, and at right angles to, the Himalayas in the north. This immense region, extending from the third degree beyond the Tropic of Cancer to within one degree of the equator, and including, besides British and native Burmah, the kingdom of Siam, Annam, Cambodia, and Tonquin, may be said, at all events as regards its interior, to be one of the least known regions of Asia.

We are not only ignorant of the real character of these mountains, but of the sources of the rivers themselves. It is generally believed, however, owing to their immense size and rapidity in their upper courses, that they rise, not on the southern slopes of the Himalayas, but on the plateau of Tibet, behind them. As regards the mountains, it is highly probable that, while the Yoma Aracan range, dividing the valley of Irawady from the province Aracan, and protecting it to some extent from the copious rains of the coast, is of low elevation, that between Irawady and the Salween rivers, and between the latter and the Mekong, attains, though narrow, an elevation of from 3,000 to 7,000 feet.

In the north are pressed together an extraordinary number of separate ridges, between which the rivers Irawady, Salween, Menam, and Mekong run south, in close proximity to each other, and forming, as they approach the coast, low lying alluvial deltas, producing rice in abundance. "Nowhere else," writes Mr. Keane, "are there to be found so many large rivers, running for immense distances without uniting, and only separated by single ridges."

Such is the general character of the land. The present kingdom of Burmah, excluding the low lying delta of the Irawady and Tsitoung rivers, now in the possession of England, is surrounded on the north-west and south-west by British territory, on the south-east by Siam, and on the north-east by the Chinese province of Yunnan. A very small portion, however, occupied by the tributary Shans, touches the French possession of Tonquin. It occupies the Irawady and Salween basins, the head-waters of the Tsitoung, and the valleys of the Kiendwen and Myt branches of the Irawady. It contains 190,000 square miles, an extent of territory about equal to Spain, with a pop

estimated at 4,000,000, or 21 per square mile. Its length is about 500 miles, and its breadth 300.

Climatically, as well as politically, it may be divided into three parts: Burmah proper, occupying the valley of the Irawady, and its branches the Kienn and Myt rivers; from the British border, 18° 50', to 24° 30' N. at Bhamo, on China border, North Burmah, beyond this point, is occupied by the wild Kakyciens or Sinfee. This part, which is little known, is hemmed in on all sides by mountains, and is so extremely unhealthy that, in my time, a sentence of banishment to Mongoung, a town in this region, in latitude 25° 30' N., was looked upon by the Burmese officials as equivalent to death. Besides the above, there is, in addition, the hilly country to the south-east, extending from the twentieth to twenty-fourth parallel north, occupied by the tributary Shan States. North Burmah and the Shan States are exceedingly hot and unhealthy in the wet season. During winter, the air is keen, necessitating, even as one approaches Bhamo, the use of warm clothing, and rendering pleasant at night the grateful influence of the bivouac-fire. The Shan country, situated, as it is, on western slopes of the mountains, cannot be otherwise, especially in spring and summer, than exceedingly feverish and unhealthy.

We will now direct attention more especially to Burmah proper, occupying the valley of the Irawady from Thyart Myo to Bhamo, as it is here that the capital, Mandalay, in latitude 22°, and nearly all the towns of importance are situated. It is to this region, also, that the military operations will probably be confined. This being so, it is satisfactory to know that it is the most healthy, as it is the driest part of the country. In speaking of India, we pointed out the effects of the Western Ghats in obstructing rain-clouds, and thereby lessening so materially the amount of precipitation on their eastern declivities and the central plateau beyond. Here, in like manner, does the Aracan Yoma range of mountains, and also the Pegu Yoma range, to a considerable extent lessen the rainfall, particularly in the western and central parts of Irawady basin. As the clouds, however, approach the range forming the eastern watershed of the Irawady, the rainfall must necessarily be great, as, owing to the superior height of this range, the state of affairs is somewhat analogous to that which presents itself in Assam, where, as stated, fifty feet have sometimes been registered. The influence of these mountain-ranges, though of no great elevation, has such an influence that, were the central portion of Upper Burmah a plateau, instead of a low river-valley, the climate would be excellent; even as it is, they exercise considerable influence on the rainfall of the district. Thus, while in the sea-coast districts of Tenasserim and Pegu, the precipitation varies from 200 to 120 inches, and the air throughout the year is saturated with moisture, owing, in part, no doubt, to evaporation from the numerous river-deltas, in Mandalay, in the interior, and in the same latitude as Calcutta in Bengal, it does not exceed fifty inches—a fact clearly illustrated by the production of rice, and the effect of the atmosphere on boots, boots, and clothes. In Lower Burmah, rice is grown and exported in large quantities, while about Mandalay the yield is not sufficient to supply the wants of the indigenous population. Neither is our wearing apparel injuriously affected. There are three seasons: the cold, extending from November till February; the hot, from February till the end of May; and the wet, or rather wet-hot season, till the end of October. In Upper Burmah, the cold season is fairly agreeable to Europeans, and becomes more so the higher we proceed up the river. The noon-day sun is powerful still, but the mornings and evenings are cool, bracing, and pleasant. Thus there are great diurnal variations, far greater than in sea-coast districts, and necessitating great precaution to protect the internal viscera, already enfeebled from prolonged exposure to heat, against the changes above referred to.

The hot and rainy seasons are, however, hotter, and the air more still, in Upper Burmah than in the coast-districts, owing to absence of the land- and sea-breezes, the formation of the valley, and the diminished amount of rainfall. In Mandalay I have myself often, even at night in the house, seen the glass stand at 108° Fahr., and found it necessary to lie in the passage between two doors to get a little air. In estimating the effect of the climate of the Upper Irawady Valley, even in its broadest and healthiest parts, it must be remembered that this river in its upper reaches is a mighty stream, being probably two miles wide at Bhamo, and of great volume and rapidity, even as it issues through its mountain-barriers. To this cause, and to the heavy rains at its head waters, are due the annual inundations, which, commencing about June, continue during their increase, culmination, and decline, for the latter part of the summer, the departing waters leaving behind them, owing to the action of the sun on the cracking mud, a state of affairs more injurious to health than that which appertains during the inundations themselves.

Thus the period from the advent of the rainy season to the fall of the river, and for some time after, is exceedingly unhealthy for Europeans in Mandalay, and other low-lying places in the valley. The rains coming on after the great heats of March and April, find the system in a state favourably suited to the production of a disease of the abdominal viscera. In the capital, in June, dysentery may be said to be epidemic among the natives, while, in those parts of the city subject to inundation, it largely prevails, after the fall of the waters.

During two months, in my house situated in the compound of the British Residency, the water around and under it was between four and five feet deep. The houses are all built on piles, and constructed of boards and bamboo-matting. Thus they afford perfect perfilation of air, and are well adapted to maintain the health of the natives, as they would, perhaps, also that of Europeans if situated beyond the reach of inundation, and had their foundations properly drained and concreted.

The prevailing diseases among Europeans, contracted in the capital and other well cleared towns on the river, are dysentery, fluxes, and acute hepatitis. Fevers, so prevalent and virulent in the remote villages and amongst those engaged in the occupations of forestry or mining, rarely originate in the capital; at least, those which came under my notice occurred in the outlying parts of the country. As regards the prevailing diseases—dysentery, hepatic affections, fluxes, and fevers—although I have no statistics to offer, I may say, as the result of my own experience, from considerable practice amongst the Europeans of all nationalities, as well as the Chinese and river-population of the Irawady-flotilla, that the Anglo-Saxons, or, to speak more correctly, the British and Germans, were more predisposed to hepatic diseases and fluxes than the French or Italians, and the Chinese Eurasians less so than either. Fevers, on the contrary, seemed to attack all with equal impartiality, the only predisposing qualification being that of newness to the feverish district.

In my time, out of three medical men, one of whom only (myself) was in active practice, one succumbed to hepatic abscess, one to fever, and the third (the writer) was placed *hors de combat* from abscess of the liver following dysentery, and brought on from a chill caught in the discharge of the duties of his profession.

As regards the seafaring population, climatic disease was essentially rare among the superior and well fed European sailors, while of frequent occurrence among the common sailors, natives of India.

Of six young Frenchmen, missionaries, who arrived brimful of health, and went into remote stations, after three years' residence, but one remained in the country; the rest either died or went home. The Chinese also suffered much from these affections; thus, by far the worst and most pernicious fevers I have ever seen occurred among the Chinese Mohammedan refugees, brought on from exposure, during their flight overland from the frontier of Yunnan to Mandalay.

A word in conclusion with reference to the probable dangers to the expedition now about to ascend the river. If completed before the advent of the hot season, no disease beyond that incidental to all military operations in tropical countries need be apprehended. Should it be extended into the hot season, and particularly if guerilla operations be necessary, many cases of sunstroke may be feared; while if the wet season sees it still incomplete, dysentery, fevers, and hepatic affections will cause many deaths and much invaliding. Small-pox also, owing to the absence of vaccination and the practice of the vicious system of inoculation, is an exceedingly prevalent disease, and may give rise to much suffering among susceptible Europeans exposed to its contagion. Much more might be written on this subject; but, owing to the great pressure always existing for space in the columns of the BRITISH MEDICAL JOURNAL, I now finish up with the hope that what I have said may enable my brethren to obtain some slight idea of the climate of Burmah.

A CASE OF STONE IN THE BLADDER OPERATED UPON A SECOND TIME.

By CHARLES WILLIAMS, F.R.C.S. Ed.,
Surgeon to the Norfolk and Norwich Hospital.

On February 9th, 1879, I was requested by Mr. Morton, of Aylsham, to visit with him the gentleman on whom I had performed lithotomy in July, 1876. I found him suffering from symptoms indicative of stone in the bladder. He was micturating eight or ten times during the night, and much more frequently during the day; he could not ride in a vehicle without experiencing excessive pain in the bladder; the stream of urine often stopped abruptly whilst he was passing it,

and there was an aching pain in the glans penis. He had passed no blood; the urine contained small pieces of mucus, otherwise it was clear and healthy. His tongue was clean. The bowels were regular; he had a good appetite, and, indeed, looked as if he were in excellent health. On sounding his bladder, a stone was readily detected. He was then in his seventy-fourth year.

On February 20th, with the help of Messrs. Morton, I performed lateral lithotomy along the line of cicatrix, which consisted of firm condensed tissue, and was hard to cut through. In dividing the prostate, about a dessert-spoonful of thick offensive pus escaped through the wound; this evidently had existed as an abscess, probably chronic, in the gland. A flattened oval calculus of uric acid, weighing three drachms, and a smaller one of oval shape, of similar material, weighing half a drachm, were removed; there were no facets on either stone. I could feel no enlargement of the prostate in the bladder. The part from which the middle lobe had been removed at the first operation was smooth and healthy, and was on a level with the floor of the bladder. The rectum was tucked up, in the form of a *cul-de-sac*, to the inside of the tuber ischii; this was probably occasioned by the contraction of parts after the first lithotomy. It created a difficulty in keeping clear of the rectum whilst making the deep incision; but, by a cautious use of the knife, the bowel escaped injury. Haemorrhage was very free from a deep vessel, which could not be tied. A tube was placed in the wound, and pieces of lint plugged around it; this had the effect of preventing any further bleeding.

The next day, the patient was easy; he had suffered no pain; the urine flowed freely through the tube, which was taken out the following morning. On the third day, the pieces of lint were removed; his temperature was 101°, and pulse 72.

On the fifth day, the bowels were opened for the first time; a small portion of faeces came through the wound.

On the eighth day, his temperature was 99.8°; pulse 72. The wound looked sloughy. Faecal material occasionally passed through it; but, from this time, he steadily progressed to complete recovery, and the wound healed most perfectly.

REMARKS.—The above case presents many features of unusual character and interest; it forms a sequel to the notes of the case published in the BRITISH MEDICAL JOURNAL of June 15th, 1878. The first and most interesting point is the fact of the man's requiring lithotomy a second time. One might be tempted to think that a small calculus may have been overlooked at the first operation, not an uncommon circumstance in the hands of the best lithotomists; in this case, no stone or fragment of stone was left in the bladder. The accidental removal of the fibrous growth from the prostate in 1876 required a careful exploration of the interior of that cavity, in order that the amount of mischief which had resulted from the use of the forceps might be ascertained. My finger swept the floor of the bladder, and nothing in the form of a calculus, or piece of one, was to be felt. Again, for a period of one year, he suffered no bladder-irritation of any kind. He certainly would have done so had the smallest portion of stone been left in the vesical cavity. At the end of twelve months, symptoms of stone began to show themselves, slight at first, but more severe as time went on, until, in the end, they culminated in great distress, and a second operation was imperatively required.

The next point is the condition of the floor of the bladder. Two years and a half had elapsed since the part was removed, and no further growth from the prostate had taken place. The wound made by such removal had healed, and the floor of the bladder was soft, even, and natural. The giving way of the rectum on the fifth day was an awkward and annoying circumstance. I am not surprised at it when I consider how near the bowel the knife must have gone, in consequence of the attachment of the rectum to the cicatrix, and how thin was the barrier between the intestine and the wound. The necessity that existed for plugging the wound with lint to arrest deep haemorrhage, and keeping the bowels too long confined, contributed, I doubt not, to produce this result; however, the patient's excellent constitution bore him bravely through these troubles. The rectal wound closed, the external one healed, the parts around became firm and sound. He is at the present time in good health, and in his 80th year.

The systolic *bruit* was still to be heard, and the irregular, intermittent beats of his heart still existed; nevertheless, the patient inhaled chloroform with perfect freedom, and without indication of danger.

Since the publication of this case in 1878, Mr. Reginald Harrison has recorded, in the sixty-fifth volume of the *Medico-Chirurgical Transactions*, two cases of lithotomy in which tumours of the prostate were successfully removed. In one instance, the enlarged por-

tion of the prostate seemed loose and disposed to come away; it was enucleated with the forefinger, and was about the size of a walnut, and analogous in structure to an adenoma of the breast; the patient made a good recovery. In the other case, a mass about the size of a hen's egg was shelled out, and was of similar structure to the above; this man recovered. The subject of recurrence of stone after lithotomy has been fully treated by me in Holmes' *System of Surgery*, vol. iv, second edition, 1870; and in the *Lancet*, May 18th, 1878; and will be again in a future communication.

A CASE OF PARTIAL LACERATION OF THE URETHRA SUCCESSFULLY TREATED BY CONTINUOUS DILATATION.

By D'ARCY POWER, M.A., M.B. Oxon., F.R.C.S. Eng.,
Curator of the Museum at St. Bartholomew's Hospital.

THE following case is one of interest, as it represents a type of injury which is usually attended with the most disastrous results to the patient, and in which the treatment is of little permanent benefit. The patient came under my care whilst acting as house-surgeon to Mr. Savory, but I have purposely delayed publishing an account of his injury in order to allow as long a time as possible to elapse, and to prove whether the benefit was in reality lasting, and not, as is too often the case, merely temporary.

S. Y., aged 23, a gasfitter on a railway, was admitted to Abernethy Ward, St. Bartholomew's Hospital, on March 20th, 1883, at 10 in the morning, with the following history. At 7 A.M., he had fallen astride the buffers from the top of a railway-carriage. After a few minutes' rest, he was able to walk home to breakfast, feeling a little pain in his hips. On trying to pass water, however, he experienced great pain in his perineum, and blood issued from his meatus. He therefore applied for relief at the hospital. On admission, his perineum and scrotum were bruised and oedematous. At 2 P.M., Mr. Savory introduced a No. 8 silver catheter, but, finding a slight resistance at the membranous part of the urethra, he immediately withdrew it. A good deal of blood followed the catheter. The patient was directed to hold his urine as long as possible. On the following day, blood-stained urine passed in a stream, though with pain and a sense of resistance to its flow. The patient only micturated once a day for the next week. On the sixth day after the injury, the urine ceased to contain blood, and the patient only felt pain when his bladder was full. On March 30th, ten days after his admission, a No. 8 silver catheter was passed into the bladder, and urine was drawn off. The patient was discharged on the same day. A fortnight later, the patient noticed that his urine began to pass in a smaller stream than before; and on April 22nd, this difficulty culminated in retention, a complication which the patient himself treated successfully by immersing his penis in hot water. On April 24th, the patient was readmitted to the hospital. At this date, a tight stricture was found in the membranous part of the urethra. A No. 2 silver catheter, however, was passed, and urine was drawn off, the instrument being allowed to remain in the bladder for five minutes. On April 27th, a No. 3 silver catheter was passed at 1.30 P.M., and retained in the bladder until 10 P.M. On May 1st, it was found that a No. 3 silver catheter would not pass, and a No. 2 could only be passed about a quarter of an inch into the stricture; it was left in this position about ten minutes.

On May 4th, a No. 2 could not be passed, nor could a No. 1 be introduced into the bladder; the urine, however, dribbled away.

On May 11th, after the patient had taken a warm bath, Mr. Savory passed a silver catheter, graduated from No. 1 to 3, into the bladder; there was no haemorrhage, but clear urine was drawn off. The catheter was retained for nineteen hours, during which time the patient passed a considerable quantity of blood-stained urine; his temperature fell to 97° Fahr. At the end of nineteen hours, the catheter was withdrawn, and was replaced five hours later, when it was retained in the bladder without pain for a further period of eight hours.

On May 18th, a No. 1 silver catheter was passed with ease, and was kept *in situ* for forty-four hours, when it was replaced by a No. 3, which, except for an interval of three hours, remained in the bladder for forty-eight hours, and was replaced by a No. 4 on May 22nd.

On May 27th, a No. 10 silver was passed, and was retained until the following morning. The patient was taught to pass a No. 10 black rubber catheter on himself, and was discharged, with directions to introduce it himself every night, and to come to the hospital once a week. He followed his orders implicitly, and I saw him from time

to time, and satisfied myself that a No. 10 readily passed into his bladder. I then lost sight of him for a time, but he reappeared with retention after a drinking bout; he was relieved, and, since that time, he has been able to pass a No. 10, which he still does about once a fortnight.

The diagnosis in this case was rupture of the membranous portion of the urethra. The laceration was probably small, and, owing to the prompt treatment, and to the control which the patient appears to have possessed over his bladder, there was little or no escape of urine into the surrounding tissues. The wound in the urethra soon healed, and, for the time, the patient was cured.

After an interval of two or three weeks, however, the newly formed fibrous tissue began to shrink, and a "traumatic" stricture was formed. The patient again applied promptly for relief, and, by steady and almost continuous dilatation, the tendency to contraction was overcome. The contraction, however, was unusually rapid, as is shown by the fact that, whilst a No. 3 silver catheter could be passed on April 27th, No. 2 could not be passed through the stricture on May 1st, and, on May 4th, No. 1 would hardly pass as far as No. 2 had done forty-eight hours previously. The continuous dilatation being once commenced, however, the stricture rapidly yielded, and in a short time, as Sir Henry Thompson has shown is ordinarily the case, a leap could be made from No. 4 to No. 10. When complete dilatation had been thus effected, the stricture was prevented from contracting by the occasional but systematic use of a catheter. Until now, after the lapse of eighteen months, the patient has been so well drilled into habits of regularity in this respect, that it may be hoped he is safe from further trouble. These habits were further enforced by the prompt relapse which ensued upon their disregard.

OBSTETRIC MEMORANDA.

A YOUNG MOTHER.

I SEE recorded in the JOURNAL of October 10th a case of a young mother, reported by Mr. A. Eddowes Legat. The following may be interesting.

On December 1st, 1882, I was called to attend a case, for which I had not been engaged. The father of the girl came himself, and begged me to go at once, saying that they had no notion of what was the matter till that morning just before he started for me. The house was five miles away, so that some time elapsed before I could reach it; and, when I arrived, the girl had just given birth to a fine healthy boy, weighing over nine pounds. The placenta came away shortly afterwards; and the young mother did remarkably well. I inquired very particularly into the circumstances, and found that she was then 13 years and 6 months old. She commenced to menstruate when she was 11 years old, and was regular for over eighteen months. The parents thought she had got a chill when the catamenia ceased, and said that they knew nothing about her actual condition; in fact, they had thought such a thing impossible at her age. They had noticed her becoming very stout, and began to have fears that she was "filling with water," as her legs were swollen; and they told me they intended every day calling me to see her; but a friend of theirs had a daughter about the same age who had "filled with water," and been tapped, and had never recovered. The father was a lad 14 years of age.

W. HAMILTON ALLEN, M.B.T.C.D., etc.,
Bardney, near Lincoln.

UNUSUALLY SMALL CHILD AT ALMOST FULL TIME.

IN the JOURNAL of October 3rd, I reported a case of an unusually small child, which at birth only weighed 3 lbs. 4 oz., as I could not find any notice of a similar case. Since then, on October 27th, I attended a lady, Mrs. B., in her first confinement, when she was delivered of a female child, weighing 2 lbs. 8 oz. This is the smallest child of which I can discover any notice, and I can vouch for the weight, as the scales were perfectly correct. There was great difficulty for several days in getting the infant to take the breast, but it is now doing very well, and I have every reason to believe that it will live.

I should like to know if there be any evidence of so small a child on record, of course excepting the children of "dwarfs." The parents are both of average height. Dr. Ramsbotham says, "some children at full time have been known to weigh even less than 5 lbs.," but he evidently never met a case in which the child weighed 2½ lbs. only. Pregnancy was well advanced in the eighth month. I find it extremely difficult to keep the infant warm, and should be extremely obliged for any suggestions.

S. JEBB SCOTT, M.B., Wood Green, N.

CLINICAL MEMORANDA.

PERNICIOUS ANÆMIA: OBSTINATE HEADACHE.

SOOKA, Hindu, aged 28, was admitted to the River Estate Hospital early in 1885. Her chief complaint was of obstinate headache. She had a small goitre, and was also anæmic, though at this time not to a marked degree. Treatment both in hospital and as an out-patient proved unavailing, and she was sent on to the Colonial Hospital on April 7th. She returned to the Estate Hospital on July 4th, complaining more than ever of the headache, and becoming noisy and maniacal at night. The anæmia was now intense, giving her face a ghastly appearance, so much so that one could scarcely believe she belonged to a dark-skinned race. The headache continued, unchecked by any remedy, and almost limited to the right side of the head. On August 3rd, the right side of the face was swollen, and the left foot. She was wasted almost to a skeleton, and was found to eat plaster from the wall of the hospital when she had opportunity. Obstinate vomiting sent in, together with great pain and swelling of the left leg, and continued till her death on August 8th. She was conscious till the last.

The necropsy was made eighteen hours after death, and showed general advanced anæmia. There were no visceral lesions. The columnæ carneæ of the heart showed no fatty striation. In the neck was a globular goitre, about three inches in diameter, but it was not pressing on the trachea or other neighbouring structures. The brain was anæmic, but otherwise healthy.

This is an extreme case of the anæmia so common among the Indian immigrants in Trinidad. Its chief interest lies in the severe and intractable headache, which was its most distressing symptom, and, taken together with the obstinate vomiting at the close, was sufficient to suggest the possibility of a cerebral tumour. The chief drugs tried were potassium-iodide and bromide, iron, arsenic, cinchona, and chloral. They were all equally unavailing.

BEAVEN RAKE, M.D. Lond.,
Government Medical Officer, Trinidad.

PREVALENCE OF RHEUMATISM IN VINEGAR-MANUFACTORIES.

NOT having heard, or seen in any book, that men who are subjected to the fumes generated in the manufacture of vinegar suffer from rheumatic affections, perhaps I may be allowed to say a few words on the matter.

For some time past, I have, conjointly with Mr. C. Hadley, had the medical charge of the men who are engaged at the Birmingham Vinegar Brewery, and during this time I have noticed the large proportion that rheumatic affections make of the diseases for which these men have required our treatment. Acute rheumatism, lumbago, rheumatic gout, and tonsillitis, seem to make up the majority of the cases. The patients themselves ascribe these affections in great part as being due to the acetous vapours, though I have no doubt that, in some instances, exposure to cold has had much to do with it. The elimination of morbid material by the skin must, to a certain extent, be hindered by these fumes, as vinegar is a common remedy for checking an undue amount of perspiration when topically applied, and perhaps the acetic acid, when introduced into the system for a length of time, may be changed by chemical processes into lactic acid.

I merely record this as a clinical observation, as it may be of some interest to those studying the etiology of rheumatism.

ALFRED WM. ROBSON, L.R.C.P. Ed.,
Ashted House, Birmingham.

THERAPEUTIC MEMORANDA.

STRYCHNINE TO PREVENT FLOODING.

IN a number of cases, strychnine administered along with iron for a month before labour has exerted a remarkable influence in preventing post partum hæmorrhage, where severe flooding has occurred in previous labours.

A. WALKER, M.D., Newton Heath, Manchester.

KING'S COLLEGE.—The Sambrooke Exhibition of £60 has been awarded to Mr. Sandifer, and that of £40 to Mr. Cargill. The Warneford Scholarship of £25 per annum, tenable for three years, has been awarded to Mr. Soutter; and the Science Exhibitions, given by the Clothworkers' Company, have been awarded to Messrs. Hendrich and Paxton.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORTH LONDON HOSPITAL FOR CONSUMPTION.

CASE OF OBSTRUCTION OF THE SUPERIOR VENA CAVA.

(Under the Care of Dr. SEYMOUR TAYLOR, Physician to the Hospital.)

EDWARD J. C., aged 23, labourer, applied in October, 1883. For a month previously he had suffered from pains in the chest and limbs, which he called rheumatism. His mother and a brother and sister had died of consumption. There was no definite evidence of his having had syphilis, except that some three years previously he had a "soft sore," but this was not followed by any subsequent ulceration of the throat or skin-eruption. He had "acute rheumatism" in May, 1883. A week before seeking advice, he had had hæmoptysis to the extent of half a pint, after a fit of coughing.

He was a strong healthy man, to all outward appearance. He was not emaciated; there was no lividity, swelling of joints, nor clubbing of fingers. The superficial veins of the upper half of the front of the thorax, and also of the upper extremities, especially the cephalics, were seen to stand out, owing to engorgement, so that the venous plexus of the chest could be followed out to the smallest tributaries. The situations of the valves in the larger trunks could easily be demonstrated by their knotted condition. There was no œdema. All the superficial veins of the upper extremity were as easily mapped out, and there would have been no difficulty in giving an anatomical demonstration on the feeding-tributaries, and the course of the superficial venous system of the arms and forearms. The superficial veins of the neck were also somewhat turgid, but their congestion was not nearly so marked as those on the chest-walls and in the arms. The venous engorgement ceased rather abruptly at the line of the nipple, the parietes of the chest below this presenting nothing abnormal to the eye. Posteriorly, although a venous trunk here and there stood out somewhat in relief, there was nothing to be seen of a striking nature, and what little congestion there was would most probably have escaped comment, had the condition in front not been known. He had no palpitation, no dyspnoea, except on very great exertion, and only a very general pain over the front of the chest, perhaps a little intensified over the cardiac area. The left radial pulse seemed to be slightly stronger, but no sphygmographic tracings of the two pulses were made at the time. The heart's apex-beat was somewhat diffused; it certainly was not outside the nipple-line, but on the other hand it caused slight epigastric pulsation, as though pulled down by a flattened diaphragm, the condition so common in chronic bronchitis. There was no thrill, and no murmur; he had no abnormal dullness, pulsation, or bulging. The second sound over the aortic valve was reduplicated, and also somewhat accentuated, but no distinct diastolic shock could be recognised. The pulse was 76. The respiratory organs appeared normal. The chest expanded well, and except that there was slightly impaired respiratory murmur over the lower half of the left lung, nothing unhealthy was detected by palpation, percussion, or auscultation. A laryngoscopic examination showed that there was no paralysis of either vocal cord. He had a slight cough, which was occasionally paroxysmal. The bacillus tuberculosis was not found on one occasion, when his sputum was examined. The tongue was clear, he had a good appetite, and the bowels were open and regular. He complained, however, of food "sticking occasionally in the middle of the chest," and sometimes of dyspeptic trouble. As regards the nervous system, he had no special symptoms. The pupils were equal, and responded to the stimulus of light. There was no headache. The urine was normal. The temperature was 99° Fahr., and generally remained at that point. On one occasion only was it recorded as high as 100° Fahr. He had no night-sweats.

He was ordered iodide of potassium and cod-liver oil, and a linnet to allay cough. He improved under this treatment, but occasionally had slight returns of hæmoptysis.

In November, 1883, over the aortic valve, a very roughened and prolonged systole and a reduplicated diastole were heard. The urine was still free from albumen. In January, 1884, the roughened first sound had further developed into a distinct, yet not loud murmur; whilst the second sound became somewhat ringing in character, and the reduplication more distinct. His cough continued; it was irritating

and metallic in quality. He had still occasional attacks of hæmoptysis, but no expectoration.

In March, 1884, Dr. Seymour Taylor brought the patient before the Clinical Society of London. On this occasion, the only new symptom was an inequality of pupils, the left being the smaller.

He has continued under observation and treatment up to the present time, and he has had a long course of iodide of potassium and perchloride of mercury without any alteration in the physical signs. He has, however, improved under cod-liver oil as regards his general health, but still he has the obstruction of the thoracic veins. Hæmoptysis recurs from time to time, and the cardiac murmur varies in intensity, occasionally being almost inaudible, and at other times quite rough and distinct. The apex-beat remains well within the nipple-line. During all this time, he has continued his work as a labourer in Covent Garden market.

REMARKS BY DR. SEYMOUR TAYLOR.—The difficulty in this case is one of diagnosis. There is, manifestly, an obstruction within the thorax to the return of blood towards the right auricle. Further, the situation of the obstruction can be pretty accurately determined; that is to say, unless there be multiple tumours within the chest pressing on both the innominate veins, or unless, which amounts to the same, a large tumour encroaches upon both venous trunks, the site of the constriction must be to the right of the ascending aorta, thus comprising the superior cava, and rendering the venous engorgement equal on both sides of the front of the chest, and in both upper extremities. What is the nature of this obstruction? Is it aneurysm? Is it new growth (syphilitic, tubercular, or malignant)? Is there thrombosis of the superior cava? Is the condition due to thickened pleura? In taking into consideration the probability of aneurysm, it is as well to remember that there are four physical signs diagnostic of thoracic aneurysm, namely, (1) abnormal dulness, (2) pulsation over the dulness, (3) bulge, (4) thrill (Murchison). We might, perhaps, in addition write murmur. All other physical signs which we are accustomed to associate with aneurysm are those of pressure on the neighbouring structures, and, therefore, they belong equally to malignant, syphilitic, or other new growths. My patient had none of these cardinal signs except murmur, and that, besides not being very pronounced, was fugitive. The further evidence against aneurysm was his youth (23); no history of sudden strain or effort; no degeneration of vessels; no cardiac hypertrophy; no (marked) dyspnoea; no dysphagia; no laryngeal troubles; but there was a suspicious point in his previous history as regards syphilis. This evidence we must carefully weigh in our endeavours to arrive at a correct diagnosis, since it is evidence which, by many authorities, is esteemed at a higher value than I am inclined to admit in discussing it as a predisposing factor in the production of aneurysm. We must not conclude that because there is a history of venereal sore some time back, therefore it was syphilis, and that his present trouble is due to aneurysm as a consequence of syphilis; nor, conversely, must we seize on aneurysm as a certainty in our case of difficult diagnosis, and thereby magnify the venereal sore into the importance of a syphilitic contagion.

On the other hand, it is possible that he may be the subject of tertiary growth in the thorax, in which case the disease is the exciting, and not the predisposing, cause of his present ailment. There is, however, nothing conclusive on this point. His previous history gives a suspicion that he may have had syphilis, but nothing more.

And here we may observe that the effects of treatment are often, of course, great elements of diagnosis in difficult cases. The patient has had a prolonged course of antisyphilitic treatment, but without any appreciable benefit therefrom.

As regards tubercular growth, there is strong presumptive evidence in its favour. His family history is bad. He has had occasional attacks of blood-spitting, and his cough has continued all the time he has been under my observation. On the other hand, his temperature has not favoured the hypothesis of tubercle. It has been, as a rule, 99° Fahr., ranging from 98° to 100°; but only on one occasion, has he had a temperature of 100°. He was without hectic, and he has had no night-sweats. The tubercle-bacillus was absent; or, at least, I failed to find it.

I have considered the possibility of pressure from enlarged mediastinal glands, from sarcomatous or other malignant growths, but I dismissed the idea on the grounds partly of his youth, the absence of tumours in other parts of the body, that he has only very slightly lost flesh, and that he continues to look fairly healthy, that is to say, he is without pallor. It should be borne in mind, however, that a patient may continue for some years to be plump, ruddy, and healthy in appearance, and still be the subject of extensive malignant disease. He had no circumscribed dullness, and only a very doubtfully impaired respiratory murmur over the base of the left lung.

Thrombosis of the superior cava is such a very rare condition, that we can only consider it in the light of a possible, rather than a probable, cause. He has had no previous illness which would predispose to such a condition; and we may take it, also, that the length of time he has lived is in itself strong evidence against such a theory.

I have reviewed the possibility of the patient's symptoms being due to thickened pleura, and such a causation has had an increased importance for me, since the delivery of Sir Andrew Clark's masterly Lumenian lectures this year.

I could gather no history of a previous acute attack, although pleurisy may occur without obvious distress to the patient. The percussion-note was good, as were also the movements in respiration. There was no diminution of vocal thrill. The only physical sign favouring such a causation was the weakened character of the breath-sounds over the base of the left lung.

The bulk of the evidence points strongly to tubercular growth, or aneurysm; perhaps both coexist. Whatever may be the cause of his condition, the subsequent development of the case will be watched with great interest.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 10TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Scarlatinal Albuminuria and the "Pre-albuminuric Stage," studied by frequent testing. By R. STEVENSON THOMSON, M.B., C.M., B.Sc.—This paper, which was illustrated by several tables, gave the results of the examination of the urine of 180 cases of scarlet fever. Special attention had been devoted to the first appearance of blood and albumen, for the purpose of investigating the exact condition of the urine in the so-called "pre-albuminuric stage." The subject was considered under four heads: I. Period of occurrence of scarlatinal albuminuria. In this section, the cases investigated were divided into two classes: 1. Cases of "initial albuminuria" occurring during the first eight days of the fever, while the symptoms were still acute; 2. Cases of "late albuminuria" occurring at any subsequent period, when the more acute symptoms were subsiding or had already disappeared, most frequently at the beginning of the third, fourth, and fifth weeks. This classification was confessedly arbitrary, yet might be found of some practical value; in some cases, there was an interval between the two conditions in which no albumen was found. II. Its frequency. On account of the limited number of cases examined, the results of the investigations upon this point were not, in themselves, of any great importance; but the frequency of mild and evanescent attacks of nephritis in scarlet fever was brought out very distinctly, as might be seen from the table at the end of the paper, which showed albuminuria in about 60 per cent. of the cases. The evidence seemed to favour the view that nephritis was a feature of scarlet fever almost as essential as the rash or sore-throat. III. The relations which blood and albumen bore to each other in the urine of scarlatinal nephritis were of importance mainly in bringing out the fact that the so-called "pre-albuminuric stage" was a condition which was of somewhat unfrequent occurrence, and in demonstrating the existence of what might be called a "post-albuminuric stage," in which the urine had characters very similar to that of the "pre-albuminuric stage." IV. "Pre-albuminuric stage," so-called. In this section, the views brought forward differed considerably from those generally accepted. The presence of albumen as well as of hæmoglobin in this stage was demonstrated. The same was found to be the case in the "post-albuminuric stage." The presence of blood-corpuscles and of casts in both stages was also shown. A table was added at the end of the paper giving an epitome of the cases in which albuminuria existed.—The President congratulated Dr. Stevenson Thomson on the useful practical results which his careful observations had brought out; he had shown how necessary frequent examination of the urine was, and had carried it out in the most able fashion by testing 35,000 specimens in 180 cases during a year. If a tithe of such care were taken generally, we should gain a great deal by not being confronted with so many incurable cases of Bright's disease, as at present, when it was no rare thing to find a young man of 20 or 30 who felt himself in perfectly good health, except that his sight was a little impaired, yet, when he consulted an oculist, learnt for the first time that he had albuminuric retinitis, and signs of an incurable renal disease, which could be traced back to an attack of scarlet fever, perhaps as much as ten years previously. It might not have been detected at the time,

and for years might have shown no obvious symptoms, but meanwhile have become incurable. The use of picric acid, as a test for albumen, he regarded as important, for it was more delicate than heat and nitric acid. He had understood Dr. Thomson to say that, in some normal urines, picric acid produced a precipitate with the mucin contained in them. On that point he could not agree with him, and he thought the argument against it was clear; for all normal urines were admitted to contain mucin, yet picric acid did not give a precipitate with by any means all of them; and, for his own part, he was satisfied that any precipitate which was given by picric acid, and which was not dissolved by heat, was albumen. The precipitates of urates, peptones (which were very rare), or quinine, were easily soluble by heat. If a delicate test were to be made with picric acid, it was sufficient to fill a test-tube for about four inches with the urine to be tested, and to add to that about a quarter as much solution of picric acid, which would mix with the upper half; if no precipitates were produced, there was no albumen; if a haze formed, it should be heated, and, if it was not dissolved by the heat, it was albumen.—Dr. CHARLES WEST expressed his pleasure at listening to such an accurate and painstaking paper as Dr. Thomson's, and thought himself lucky to meet with it on the first occasion he was able to attend the Society's meetings after a considerable period of absence. One of the points of value was that it must lead all to see that albuminuria was as much a part of the disease as the sore throat or swollen glands. In one epidemic, described by Frerichs, albuminuria had been noticed in only 4 per cent., in another by Heidenhain, in 80 per cent. It varied probably with the epidemic, as did some of the other symptoms. In malignant scarlet fever it was present nearly always, as in malignant diphtheria. Whether it arose from a change in the blood or in the kidney, he would not presume to say. He had noticed its onset most frequently at the end of the first week or beginning of the second; and if the case had gone on to the end of the third week without its appearance, he thought that the patient was tolerably safe. He had hoped to hear some hints for treatment from Dr. Thomson. He had himself been accustomed to keep up the action of the skin, and to keep his patients always in bed for three weeks. When the albuminuria occurred, he regarded it as generally curable; and the prognosis, good so long as the specific gravity of the urine did not sink markedly below normal.—Dr. DICKINSON said he felt most sincerely obliged to the author of the paper for his careful and laborious researches. He agreed with him that, in the detection of blood, the spectroscope was less delicate than the guaiacum test on the microscope. Chiefly on the results given by picric acid, he understood him to ground his objections to the description of the pre-albuminuric stage which had been given by the late Dr. Mahomed. That description had attracted considerable attention, and he had been inclined to agree with it substantially. He had recently himself made a careful comparison of the action of many tests for albumen on the urine passed in many states of disease. Picric acid he had found most delicate; more delicate, in fact, than any other, except potassio-mercuric iodide. But he could not help thinking it misleading in its delicacy, inasmuch as it sometimes gave results that might be attributed to albumen when there was no albumen present, when the clinical aspect of the case showed no sign whatever of albuminuria, and no evidence of it could be obtained from any other test that was not as fallacious as picric acid. The potassio-mercuric iodide was certainly a most delicate test for he knew not what, but for something which he thought he might say, with due respect, that probably all present possessed. The affection of the kidney should be regarded as an integral part of the disease; in some anginous varieties, however, the poison seem to exhaust itself upon the throat, and the kidney escaped. It used to be said that if there was free desquamation, there was likely to be albuminuria; that might be attributed partly to a greater susceptibility to cold in such cases; but he could not consider that more than a small proportion of the cases of nephritis were really due to cold. The picture drawn by the President was only too true of the young man who first presented himself for treatment with an advanced granular kidney, and all its accompaniments of vascular and other changes; whose disease had had its origin in scarlet fever many years before, but of whom it would be quite certainly ascertained that he had never had any dropsy whatever with the scarlet fever, or any other signs of nephritis. As to treatment, there was one point which he thought deserved remark, and that was the stopping up of the pores of the skin by some oily substance in convalescence; it might be for the advantage of those among whom the patients lived, but, in some cases, experience had led him to think it was decidedly injurious to the patients themselves.—Dr. E. JOSHUA EDWARDS, commenting briefly on Dr. Thomson's tests for albuminuria, ventured to think that his results

might have been produced by no more than a physiological trace of albumen.—Dr. DOUGLAS POWELL hoped that Dr. Thomson would give some further details of the surroundings in which his cases had been treated, of their diet, their temperature, and the length of time they had been kept in bed. He thought it ought to be possible, from the outward circumstances in various epidemics, to ascertain more accurately the reasons of the variations in albuminuria and other symptoms, for he had not much belief that the poison in different epidemics varied in itself so as to affect at one time the throat chiefly, at another, the skin; and at another, the kidneys. As to the rise in blood-pressure, which was reported to precede the albuminuria, he should be glad to hear of its comparison with that in the onset of other parenchymatous inflammations.—Mr. OWEN FOWLER had had the opportunity of observing nearly 2,000 cases of scarlet fever during the last four years at the London Fever Hospital. He had found much albuminuria due to high temperature in the disease, and some to the salicylates occasionally administered; and besides this, an albuminuria which he considered due to disease of the kidneys in about 14 per cent. of the cases. Dr. Dickinson had mentioned cold as an occasional cause of albuminuria, but at the London Fever Hospital they found less albuminuria in winter than summer, and were not afraid of a very free ventilation. The patients used to be kept in bed always for three weeks, but were now got up about the tenth day, and kept in the wards till about the end of the third week. He had assisted Dr. Mahomed in some of his testing, and was inclined to believe in a pre-albuminuric stage.—Dr. STEVENSON THOMSON thanked the Society for the attention they had given to his paper. He had not ventured to read the whole of it to them, and in the parts omitted would be found some matter bearing on the treatment of the cases, and the conditions of their surroundings. He was not desirous of basing his criticism of the theory of the pre-albuminuric stage on the results of testing with picric acid, but rather on the results given with heat and nitric acid in concentrated specimens of urine.—The PRESIDENT said that it was too late to enter on the discussion of Mr. Barker's paper on the Bacillus Anthracis that evening. Before they parted, he felt it his duty to communicate to them the sad intelligence he had just received of the death, from an accident, whilst taking a hot-air bath, of one of their most distinguished Honorary Fellows, Dr. W. B. Carpenter. They would all feel with him in deeply regretting the painful circumstances of their loss.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 9TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

CLINICAL MEETING.

Myxœdema in the Male.—Dr. T. D. SAVILL showed a man, aged 28, who presented symptoms of myxœdema. About three years ago, it was noticed that he had become slow in work and speech. His mother was slow in speech, was subject to fits, and was dropsical for ten years before her death. The patient was born during this period. He was only 4 feet 11 inches high; his face had the characteristic appearances; his tongue was large, his speech slow, his hair was falling out; there were two soft tumours above the clavicles. The amount of solid œdema was slight. The thyroid gland was not absent. The quantity of urine was normal, the specific gravity 1007, and there was no sugar nor albumen. The average quantity of urea was 1.13 per cent. The average temperature was 97.4° Fahr. The conjunctivæ were watery; vision was good, but there was slight hypermetropia; both optic discs were cupped, and there was some disturbance of the choroidal pigment in the apparent inner margin of the disc, probably due to some fibroid thickening there also. Dr. Savill remarked that the disease was very rare in the male; of the cases collected for the Clinical Society, only 13.5 were males.—The PRESIDENT remarked that heredity probably played a part in the production of myxœdema. He had recently seen two women, the daughters of a woman who herself suffered from well marked myxœdema. Altogether, he had met with about six cases in which heredity was present. He asked what was the total quantity of urea. In some cases, it had been noticed to be no more than half the normal quantity.—Dr. SAVILL said the total quantity was rather less than half.

Abdominal Tumour.—Mr. J. H. MORGAN showed a boy, aged 10, who presented a movable swelling in the hypogastric region, a little to the left and below the umbilicus. It could be moved most easily towards the left flank; it was hard and smooth on its surface, and was apparently attached at its base. It was not tender, and manipulation was not followed by pain, hæmaturia, or disturbance of the bowels. Purgation produced no effect. It might be an extra-peritoneal lipoma, or, as he thought more probable, an inclusion-cyst.—

Dr. BRAXTON HICKS remarked that every stage might be found between the *fistula in œctu* and the dermoid cyst, but that all occurred in the median line, and pointed out that the tumour in this case was almost in the middle line.—Mr. R. DAVY made some remarks on the surgery of obscure abdominal tumours, and Mr. H. FENWICK referred to Mr. Sutton's remarks at the Pathological Society on November 2nd, and suggested that the tumours might have originated in connection with the urachus.

Varicosity of Superficial Abdominal Veins.—Mr. H. FENWICK showed a soldier, aged 29, who had served in Burmah, and had there suffered, three years ago, from dysenteric symptoms, followed by hepatic abscess, which ruptured into the gut. During convalescence, he noticed enlargement of the veins on the front of the abdomen, and œdema of the feet, followed by ulceration. Mr. Fenwick suggested that the vena cava was plugged, and perhaps also the portal vein, and made some remarks on the valves of the superficial abdominal veins.—Sir JOSEPH FAYRER said that a varicose condition of the abdominal veins was frequently seen during the progress of hepatic abscess, but it generally subsided after the abscess was evacuated; the condition was a very rare one.—Dr. DE HAVILLAND HALL said that he did not think that the portal system could be involved, as there were no symptoms pointing to its obstruction; the patient did not suffer from hæmatemesis, melæna, or piles. He had seen one case of obliteration of the portal vein; the patient, a woman, had from time to time a profuse attack of hæmatemesis; in the interval she was quite well, and presented no other symptoms.—The PRESIDENT agreed with Dr. De Havilland Hall, that there was more evidence of obstruction of the vena cava than of the portal vein.

Syphilis of Brain.—Dr. S. DOWSE showed a woman, who gave a clear history of syphilis, contracted eight years ago. In June, 1885, she was seized with intense pain in the occipital region, constant vomiting, drowsiness, retraction of the head, and loss of vision; after this, she had a second attack of a similar nature. When she came under Dr. Dowse's care, she could scarcely see at all, there was occipital pain, unsteadiness of gait, and marked neuro-retinitis, with hæmorrhages. All her symptoms ceased under the influence of mercurial inunction and salivation.

Bullet-Wound of the Chest.—Dr. J. KINGSTON FOWLER showed a man who had been accidentally shot in the chest by a revolver. The wound of entry was in the fourth interspace on the left side; the fourth rib was also wounded; the wound of exit was near the spine of the scapula opposite the fourth dorsal spine. A piece of the waistcoat he wore was carried in by the bullet. The immediate consequence was general emphysema; the immediate symptoms were hæmothorax, hæmoptysis, and free hæmorrhage from the site of the wound. He coughed up the piece of waistcoat a week after the injury. Subsequently, there was empyema, which was treated by free drainage. The patient ultimately made a good recovery. He was at first under the care of Dr. Prothero, of Great Malvern, and was subsequently in the Worcester Infirmary, under the care of Mr. Hyde. He was now probably phthisical.—Sir JOSEPH FAYRER described a similar case, which occurred in Calcutta, where the subsequent symptoms were very slight; slight emphysema occurred, but the patient was able to leave the hospital in three weeks.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 5TH, 1885.

T. MORTON, M.D., President, in the Chair.

Hemiplegia, with Paralysis of the Third Nerve on the same side.—Dr. SIDNEY PHILLIPS exhibited a man, aged 37, who had contracted syphilis seven years ago, and who, in addition to occasional headache, had had three epileptiform seizures within the last twelve months. In August last, the right third nerve became paralysed, and, a few days later, also the right limbs and the right facial muscles. Iodide of potassium, in doses of twenty-five grains, in combination with drachm-doses of liquor hydrargyri perchloridi, cured the patient of his hemiplegia, but produced only a very slight improvement of the ptosis. Whilst under treatment, the patient had two attacks of painless conjunctivitis of the right eye, which temporarily aggravated the ptosis. Dr. Phillips considered that, in this case, the lesion was double, the hemiplegia being due to disease in the left side of the brain, whilst the right third nerve was implicated at the base of the skull. The conjunctivitis was probably due to pressure on the ophthalmic vein.

The Treatment of Lachrymal Fistula.—Mr. JULER showed two cases of chronic ulceration of the face resulting from lachrymal fistula. The treatment, which had been most successful, had consisted (1) in removal of the obstruction, (2) in complete removal of the thickened

tissue. A Volkmann's scoop was used for scraping the ulcerated surface, and skin-grafts had led to rapid healing without any noticeable scarring or contraction of the skin.

Passage of Large Gall-stones: Recovery.—Dr. W. F. CLEVELAND read notes of a patient, aged 80, who, after a severe biliary colic twenty years ago, and a second attack eight years later, had become the subject of very frequent and very troublesome jaundice. Gall-stones had been searched for in vain; nevertheless, confident in their presence, Dr. Cleveland prescribed a brisk saline aperient, which brought away several large gall-stones. The patient did well.

Death from Impaction of a very large Gall-stone in the Ileum.—This communication was made by the President, on behalf of Dr. F. HILL. The stone, which was of very large size, completely blocked the bowel. The patient, aged 90, died within three days.

An Unusual Case of Empyema.—Dr. W. H. BLENKINSOP described the case of a man, aged 60, of healthy descent, but subject to rheumatic gout, who had suffered from an old ulceration above the left clavicle, which refused to heal. Under the influence of cold weather, the left apex became the seat of friction and of dulness on percussion, and two weeks later the presence of pus in the pleura was inferred from the bulging of the three upper intercostal spaces, and from the general symptoms. A tea-cupful of pus was removed from the chest, and the sinus was probed and found to take the direction of the chest-cavity, passing along the posterior surface of the scalenus anticus. The patient did not improve; caries of the sternum led to falling inwards of the end of the clavicle, and to pressure upon the trachea, and the patient died. The necropsy showed disorganisation of the left upper lobe, limited empyema of the upper third of the left pleural cavity, and free communication between the empyema and the wound in the neck.

Cancer of the Pleura and Effusion in a Case of Latent Carcinoma of the Spine.—Dr. EWART gave an account of the clinical history and of the post mortem examination of the subject of this communication, a marble-polisher, aged 59. Pleural effusion was diagnosed from the first, but, the amount of chest-pain and tenderness being in excess of the average, disease of the spine was suspected, and a surgical opinion was called in, with the result that no spinal disease could be discovered. After the lapse of three weeks, the patient not having improved, but having lost much strength and weight, and suffering from shooting pains down the legs, and from increased tenderness of the chest, Dr. Ewart reverted to his former impression, and diagnosed disease of the spine, probably cancerous. Throughout the case there was no tenderness over the spine, no pyrexia, no paralysis, but a good deal of pain on movement. After death, small cancerous nodules were found in the pleura, the bodies of the vertebrae were infiltrated with encephaloid material, and bulged anteriorly. The spine was curved, without any angular distortion. The dorsal nerves were not directly pressed upon, but surrounded with cancerous infiltration, and a few were invaded by the latter. The primary disease was a cancerous tumour of the bladder, which had given rise to no symptoms.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, NOVEMBER 5TH, 1885.

R. J. PYE-SMITH, F.R.C.S. Eng., President, in the Chair.

Acute Necrosis of Hip-Joint, with Ossification of Muscles about the Hip.—Mr. H. LOCKWOOD related this case. The patient, a man, aged 40, was admitted into the Public Hospital under the care of Mr. Thorpe on June 10th last. Symptoms of pain and swelling of the hip dated four or five weeks back. He walked to the hospital on the day of admission. The left hip was then found to be swollen, and there was indistinct fluctuation; the various movements of the joint occasioned no pain. Beneath the tensor fasciæ femoris was another swelling, which was opened, and a quantity of dark coloured fluid evacuated; this was unconnected with the joint. On July 4th, the joint was opened, and a quantity of pus let out. The patient contracted pneumonia, probably of a septic nature, and died on July 15th. After death the hip was examined, and found to be completely disorganised, the head of the femur completely bare, as was also the acetabulum, and the neighbouring bone. Real bones were found in the rectus muscle and tensor fasciæ femoris, and one along Poupert's ligament.

A Club-Footed Family.—Mr. H. LOCKWOOD related the following interesting family-history. Mr. and Mrs. K. lived in Norfolk, and had ten children, four boys and six girls. The father and mother were well formed, except that the father had one hand slightly deformed. Of the four boys, two were deformed. One had both hands stunted, the right foot clubbed, and the left flat. He married, and

had five children, one of whom was slightly deformed. The other boy had both feet clubbed; this one and the other two married, and the children were well formed. Of the six girls, three were deformed and three well formed. Of the deformed, all three were club-footed, and in two the hands were stunted. The eldest was unmarried; the next had an illegitimate club-footed child, and the third lived in Sheffield. She was club-footed, with stunted hands. Her husband was well formed, but had a cousin with club-foot. There were eight children; the eldest was well formed; the second had both feet clubbed, the hands all right; the third, fourth, and fifth were well formed; the sixth was club-footed, the seventh well formed, the eighth club-footed, with the hands all right.

A Case of Bell's Paralysis.—Dr. W. R. THOMAS introduced a patient suffering from Bell's paralysis of central origin. The patient, a married man, had had his head injured when 17 years old, and had suffered from epileptic fits about three times a month for two years and a half until five weeks ago, when he had an attack in the street. After this, for three weeks he suffered from headache, and, a fortnight ago, this facial paralysis came on; no exciting cause could be ascertained. As in facial paralysis with hemiplegia, and as was not the case in Bell's, the palsy has never been complete, the orbicularis palpebrarum had never been much implicated, and, above all (a matter of importance in forming a diagnosis), the muscles had never completely lost their faradic contractility. The uvula pointed to the paralysed side, and was drawn at its base towards the sound side. The soft palate and arches protruded into the pharyngeal cavity, and an acid solution applied to the right side of the tongue gave rise to a burning sensation, but not to taste, showing implication of the great petrosal and chorda tympani nerve, which, without any ear-symptoms, pointed to a lesion high up.

Antiseptics in Dental Surgery.—Mr. FRANK HARRISON read a paper on this subject, which will shortly be published in full. He gave also a practical demonstration of his method of employing antiseptics, which he believed to be of the greatest service in dental surgery.

Piece of Steel in Sclerotic.—Mr. S. SNELL showed an eye which had been enucleated a few days before, and in which a piece of steel had passed through the cornea, lens, and interior of globe, and was embedded in the posterior surface of the sclerotic, not far from the optic nerve. The accident occurred eighteen months before, and then the traumatic cataract which had formed was removed through a corneal incision, and the electro-magnet introduced into the lens-space, but, of course, without removing the foreign body. The case was of interest, as an example of a class of cases in which the electro-magnet could hardly render any service.

Notes on the Development of Specific Fevers.—Dr. C. H. WILLEY read this paper, which consisted of observations supporting generally the theory of the evolution of specific fevers, illustrated by cases which had occurred in the Sheffield Fever Hospital. The general subject of specificity in reference to zymotic diseases was first reviewed, contrasting the older and very rigid ideas with the more recent broader views. According to the older views, a specific disease could only descend from a parent exactly like it, and from nothing else, and could only give rise to phenomena exactly the same. According to the more recent views, specificity was attained as a result of the cultivation of disease-virus upon a favourable soil, and disease was a force which was liable to variation according to the reaction of its surroundings, that is, the constitutional predisposition of the individual and atmospheric conditions. Passing to the different species of zymotic diseases, the question arose why our views regarding the origin of species in disease should not advance with those of the origin and differentiation in the animal kingdom under the influence of evolution. Some hybrid cases were related, which had occurred in the Borough Fever Hospital. In two cases, typhoid fever and scarlatina ran concurrently. In each instance, other members of the patient's family suffered from typhoid; characteristic symptoms of each disease were present at the same time. In one of the cases, an exposure to scarlatina-infection subsequently to leaving hospital proved that the hybrid attack had conferred partial protection against scarlatina, only a modified illness resulting. The paper concluded by a quotation from Sir Thomas Watson, anticipating the doctrine of the development of specific diseases.—In the discussion which followed, the President, Mr. Walker, Mr. Garrard, Dr. S. White, Dr. Martin, Mr. Reckless, Mr. Browning, and Dr. Thomas took part.

VACCINATION.—Mr. Crocker, Public Vaccinator for the Bingley District, has received, for the third time, the Government grant for efficient vaccination.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, OCTOBER 30TH, 1885.

HUGH KER, F.R.C.S. Ed., in the Chair.

Sensory Aphasia.—Dr. SUCKLING showed a man suffering from sensory aphasia. He suffered from aortic regurgitation following a severe attack of rheumatism six years ago. While at work in October last, he was taken suddenly ill with pain in the left side of the head, and inability to understand what was said to him, or to make himself understood. It was found that he had complete word-deafness and word-blindness, with inability to name objects, or to write from dictation. He spoke freely, but used wrong words, could write, but did not understand what he wrote. The aphasia was, in all probability, due to embolism of the posterior branches of the left middle cerebral artery.

Fatty Tumours of the Tongue.—Mr. GILBERT BARLING showed an old man with fatty tumours of the tongue.

Fracture of the Skull.—Mr. JORDAN LLOYD showed fragments of bone removed, after the use of a Hey's saw, from a case of extensive compound depressed fracture of the skull. The fragments were eighteen in number, and, when joined together, covered an area of nearly eight square inches. The injury, less than six months ago, was produced by a brick falling from a height of seventy-five feet. The patient, who, after the accident, was hemiplegic and aphasic, was also shown. He had completely recovered, not a symptom of any kind being present, except the healed depression on the top of the head. He had been fully at work as a blacksmith during the past eight weeks.

Specimens.—The following were also shown.

Dr. FOXWELL showed a man with an Abdominal Tumour, which gave rise to interesting discussion.

Dr. SIMON showed a patient with Bromide Acne.

Mr. LAWSON TAIT showed a Parovarian Cyst, which had become strangulated by Axial Rotation.

Mr. BENNETT MAY showed recent cases of Excisions of Knee and Elbow, to illustrate features of these operations.

Hydatid Cyst of Liver.—Dr. SAUNDY showed a cyst of the size of a turkey's egg, containing many daughter-cysts, situated in the left lobe of the liver of a patient, who, during life, had presented obscure gastric symptoms, accompanied by marked typhoid prostration. These symptoms were not explained by the *post mortem* appearances.

Diphtheritic Croup.—Dr. SAUNDY showed a specimen, which was mainly of interest as a very good example of the pathological changes in the pharynx, larynx, and trachea, from a case of rapidly fatal diphtheria in a young adult.

Aneurysm of the Descending Aorta.—Dr. SAUNDY showed a specimen taken from a patient, whose case was fully described in the *Birmingham Medical Review* for July, 1885. The aneurysm pressed upon the left bronchus, giving rise to chronic interstitial pneumonia, and producing all the physical signs of hydrothorax. After an attack of hæmorrhage, bronchial breathing was heard for the first time in the upper part of the lung.

Tumour of Testes.—Mr. BENNETT MAY showed, for Mr. R. Latimer (Greene (Stratford-on-Avon)), a large myxo-sarcomatous tumour of the testes, with cartilaginous and fatty changes. Mr. Greene had recently removed it from a man, aged 60, who showed no sign of further infection.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, NOVEMBER 6TH, 1885.

T. R. JESSOP, F.R.C.S., President, in the Chair.

Patients and Specimens.—The following were shown.

Mr. HEWITSON showed a number of patients on whom he had performed Syndectomy for Syphilitic Keratitis.

Dr. CHURTON showed a Spinal Cord from a case of Disseminated Sclerosis, in which the arachnoid was studded with small irregular plates of true bone.—He also showed an Intestine with Meckel's Diverticulum, which had caused acute strangulation of the bowel.

Dr. JACOB showed microscopic sections of Adenoid Growths in the Kidney, and a Granuloma of the Skin having the appearance of Tubercle.

Dr. GRIFFITH showed sections of Optic Neuritis from a case of Chronic Hydrocephalus.

Dr. ALLAN showed a specimen of the Achiorion Schoenleini from a case of Favus.

Removal of the Ovaries.—Mr. MAYO ROBSON gave a brief record of all the cases in the Leeds General Infirmary, in which he had opened

the abdomen for the purpose of removing the ovaries or the uterine appendages during the past year. He arranged them in three classes: 1, ovarian tumours, of which he reported three cases, one solid, one cystic, and one dermoid; 2, oophorectomy for uterine fibroids, three cases: two completed, with the result of arresting the growth and causing a considerable diminution of the tumour; and one incomplete, but in this case also the growth was arrested; 3, removal of diseased appendages for serious illness, of which there were five cases, namely, two of pyosalpinx, one of hydrosalpinx, and two of salpingitis with cyst of broad ligament and cirrhotic ovary. All the cases had recovered. The paper will be published *in extenso*.—Mr. T. P. TEALE related a case in which he had removed the ovaries for fibroid of uterus, with a successful result. He remarked that, although it was often impossible to get the appendages away, he did not consider, in the light of recent experience, that a simple exploration was attended with danger.—Dr. BRAITHWAITE related a case in which he had operated on a case of uterine fibroid because of great pain, but had only been able to remove the appendages of one side. The tumour had diminished somewhat, and the patient had only menstruated once since.—Dr. CLIFFORD ALBERTT would like to hear a few hints thrown out as to the kind of cases which ought to be operated on. He thought it might be wise, in cases of doubt, to explore the abdomen and ascertain whether or not oophorectomy was feasible.—Mr. C. J. WRIGHT remarked on the non-use of the catheter in Mr. Robson's cases.—Mr. F. H. MAYO said that the catheter was employed in all cases of abdominal section in the Infirmary, except in those coming under Mr. Robson's care. He remarked that cystitis was not uncommon, although the greatest care was exercised in keeping the catheter clean.—Mr. ROBERTS (Keighley) spoke.—The PRESIDENT remarked on the significant fact that in this large gathering of medical practitioners, no one had suggested that removal of the uterine appendages was an unnecessary operation. He had no hesitation in saying that, for such cases as had been mentioned by Mr. Robson, it was eminently justifiable, and this was evidently the feeling of the meeting. He related several cases of operation for uterine fibroids, in some of which he had performed oophorectomy; but, in his experience, this had not always caused the growth to shrink.—Mr. MAYO ROBSON, in replying, said that the recent paper by Mr. Lawson Tait had fully convinced him that oophorectomy was decidedly the operation for fibroids of the uterus, but that occasionally, even in the hands of the most skilful operators, it would be found impracticable, and then the last resort, hysterectomy, would have to be done.

Dr. Auvard's Couveuse.—Mr. SCATTERGOOD exhibited Dr. Auvard's "couveuse" for the use of prematurely born infants, and gave some particulars of a case in which it had been used.

Antiseptic Inhalations in Phthisis.—Dr. HUTCHINSON made some remarks in favour of antiseptic inhalations in phthisis, as tending to relieve the cough without causing the ill effects experienced from the use of cough-medicines. He recommended a mixture of equal parts of eucalyptol and terebene, with or without an equal amount of chloroform or ether, as pleasant to inhale, and of great value, fifteen minims to be used in an oro-nasal inhaler. As a counterirritant application to the chest, he recommended the addition of a drachm each of turpentine and castor-oil to three drachms of iodine-liniment.

Pessary of Cacao-Butter.—Dr. HUTCHINSON also showed a hollow pessary of cacao-butter, which, when filled with a drachm of iron-alum, with or without one-fourth of a grain or one-eighth of a grain of morphia (according to the pain) was a valuable styptic in cases of uterine hæmorrhage. It should be passed up to the os uteri.

Lithia-Water.—Dr. HUTCHINSON also showed a specimen of a natural still lithia-water from the Buffalo Springs of America, which he had found extensively used among his American patients, and he urged its use in this country as superior to the lithia-syrups highly charged with gas.

PRESENTATION TO DR. WRIGHT, OF WAKEFIELD.—A complimentary dinner was given to Dr. T. G. Wright on Thursday, October 22nd, at the Bull Hotel, by his medical brethren of Wakefield, when the presentation of a valuable silver kettle took place. The dinner was attended by Dr. Crichton Browne, Dr. Kendell, Dr. Major, Dr. Lewis, Mr. Charles J. Wright, lecturer on midwifery at the Yorkshire College, and Major Wright, sons of Dr. Wright. The chair was occupied by Mr. Wm. Statter, J.P., as president of the Medical Book Club, who congratulated Dr. Wright on the occasion of his golden wedding. Dr. Crichton Browne next spoke in eloquent terms, and was followed by Dr. Kendell, Dr. Major, and Mr. Young, each of whom eulogised Dr. Wright's character and services. We are told that, on the following day, from the residue of donations, a gold pen and pencil case was also given to Dr. Wright, and a gold brooch to Mrs. Wright.

REVIEWS AND NOTICES.

ANTHROPOID APES. By ROBERT HARTMANN, Professor in the University of Berlin. With Sixty-three Illustrations. (International Scientific Series.) London: Kegan Paul, Trench, and Co. 1885.

THE monkey must ever represent a great problem in nature, attractive to some men, repulsive to others, yet ever of active or passive interest. Mankind might be roughly divided into men and women—especially women—who hate monkeys, because they are so man-like, yet so ugly, and abhor the doctrine which would make them our possible ancestors; and, secondly, men and women—chiefly men—who think that, being human, not only nothing human, but also nothing allied to what is human, can be a matter of indifference to them.

Hence a work on *Anthropoid Apes* is peculiarly adapted for the amateur scientific public, provided that it be compiled by a true scientist. Such being the case in the present instance, the work under consideration is very satisfactory. The anatomist must bear in mind its semi-popular character, and not be too hard on the author for the almost total absence of any description of the visceral anatomy of the apes, excepting the higher nerve-centres. The non-scientific reader must not look for thrilling hunters' tales, and side-splitting anecdotes of quadrumanous drollery. The scientist will, however, find *Anthropoid Apes* correct, and the public will find it readable. As for the profession, who can deny that the subject involves problems which none but the physician can prove? Why does man, as a rule, so readily adapt himself to changes of climate, and why are the three or four animals immediately beneath him in the scale of life so intolerant of transportation from the narrow geographical limits which constitute their home? Why do the coarse, robust-looking apes require such care, and die off so quickly, in this country, whilst the gentle and graceful gazelle, torn from its blazing deserts and warm oases, thrives capably in open paddocks, in the midst of autumnal fogs, in Regent's Park? Many tropical animals, from close jungle as well as from dry desert, live long in England, in menageries, in travelling caravans, in private houses, or even in gardens; but the anthropoid apes, under all or any of these conditions, are among the most unsatisfactory of all delicate animals; and even the Zoological Society of London grudges the care which they require, often to so little avail. Through contemplation of these facts, inferences may be drawn, of value when studying the effects of change of climate on delicate human beings.

Professor HARTMANN, as might be expected, dwells frequently on the connecting link question. He admits that "the most fanatical advocates of the doctrine of descent are becoming ever more convinced that man cannot be the issue of any extant form of anthropoids;" and proves how "that purely hypothetical being, the common ancestor of man and apes, is still to be found, and this is the task assigned to palæontology." He thinks that, considering the great palæontological achievements of our day, we need not despair of the possibility of discovering the true link between the world of man and mammals. Unproved assertions will do nothing; we must "rather trust to the strenuous labour of future times, and this need not disturb any religious or political convictions." Many skulls of Australian aborigines resemble those of monkeys in the prominent supra-orbital ridges, and a few other characters, but resemblance is not relation. Huxley entirely repudiates the idea that the famous Neanderthal skull is that of a connecting link. The similar peculiarities in skulls found in Denmark, France, and Germany, are believed to be individual rather than racial. We may add that the skulls of low type, found at the Victoria Cave, near Settle, and now in the Giggleswick Museum, belonged to men who lived in the days of the cave-bear and hairy rhinoceros. But these worthy, primitive, but lowly organised Yorkshiremen made excellent and well finished spear-heads from flints not to be found nearer than the Eastern Counties. This implies a stage of civilisation far above the condition of many African, South American, and Australian tribes not yet extinct.

With regard to certain differences of muscles, they cannot be of the slightest value in reference to the great problem. The Spanish Inquisition itself would hardly have proved soullessness from a hand-like foot; and Lockwood, Sutton, Wenzel Gruber, and many other anatomists, yearly contribute to medical literature cases of muscular anomalies in man quite as divergent from the normal human type as anything found in the myology of the gorilla. Dr. Hartmann, like Aebly and Virchow, entirely rejects the idea that microcephalic idiots, in any respect, approach monkeys. Virchow concludes that no species of ape presents that precise configuration which is found in a microcephalic

brain, that psychology offers the strongest arguments against men-apes, and that the instinctive side of psychical activity, which is almost wholly absent in microcephalic subjects, is very prominent in anthropoids as well as in other animals. In fact, we may say that authorities are agreed that the adult ape is neither an idiot, a child, nor a fool. He is not an idiot, for the reasons Virchow has given; not a child, for his instincts in adult life are not in any way child-like; and not a fool, for he acts with deliberation even when angry, and seldom behaves, wilfully and knowingly, in a manner which may cause trouble to himself. He naturally shuns excess, after the fashion common to still lower animals, known and quoted by cynical philosophers from time immemorial. Lastly, whilst the ape-like man is entirely theoretical, the man-like ape's existence has been suspected on the slender evidence that the flint-heads found in the Beauce limestone might have been shaped by the extinct *Dryopithecus*. In fact, there is no morphological evidence of the connecting link.

The purely zoological portions of the work do not display material divergence from the opinions of other contemporary writers. Professor Hartmann doubts that more than one species of chimpanzee exists, is very uncertain on the same point with regard to the orang, yet believes that a form intermediate between the gorilla and chimpanzee may be found in Duvernoy's "tschego." He maintains the accepted notions about the distinct species of gibbons. In conclusion, the traveller must remember that orang utan is the correct orthography. Orang-utang means not a wood-man, but a man in debt. The latter animal being commoner than the former, even in Borneo, mispronunciation has caused confusion to Dyak minds, and ultimate laughter from Dyak mouths.

PHARMACY, MATERIA MEDICA, AND THERAPEUTICS. By WILLIAM WHITLA, M.D., Physician to the Royal Hospital, Belfast, etc. Third Edition. London: H. Renshaw. 1885.

THE third edition of this excellent manual has just been issued; and, judging from the rapidity with which the two previous editions have been sold out, the work has met with the approbation of students of materia medica. The arrangement has been slightly altered in the present edition; the section on the administration of medicines and prescribing, which formerly appeared near the end of the volume, now being placed before the materia medica section. The general plan of the work, however, is the same. Nearly fifty pages of new matter have been added, to bring the book up to date; but, by the omission of the official tests, and some condensation of the text, the bulk of the volume has not been materially increased. Precise instructions are given in the details of dispensing, the comprehension of which is much facilitated by numerous woodcuts. This will render the book useful to others besides beginners, and fills a blank in most of the current manuals on the subject.

The chapter on prescription-writing is particularly worthy of notice. There is a copious vocabulary of the principal words and expressions employed in writing prescriptions, with their abbreviations; while a lithographed model is given of the usual style of giving them in practice, the unabbreviated Latin, with its proper rendering in English, being given on the opposite page. This plan cannot be too highly commended; Latin terminology has long been a weak point with students, for want of a plain straightforward exposition of rules and custom. This chapter is preceded by a short summary of the essentials of Latin grammar, a knowledge of which is indispensable.

In the part devoted to materia medica, the drugs are classed alphabetically, and under their respective headings is given their chemistry or botanical description, together with their preparations and doses. The class of remedy under which they come is mentioned, with a reference to the page where they are treated in the section on therapeutics.

The chapter on therapeutics is also arranged alphabetically, and under each drug is a concise, though full, description of its physiological action and medicinal uses, together with a model prescription, showing in what vehicle it is best administered.

A special chapter is devoted to non-official remedies, which are liberally dealt with; and the book concludes with the formulæ of the equations of the official drugs.

This manual fully comes up to its already high reputation, and will be welcome to the student, to whom it facilitates the acquisition of dry and arduous details; it reflects, moreover, great credit on the teaching capacity of its author. We predict for it a further increase of the great popularity which it has already attained.

NOTES ON BOOKS.

Seventh Annual Report of the Connecticut State Board of Health, for the Year Ending November 30th, 1884.—This report covers more than three hundred pages, and deals with subjects of universal interest. Great importance is attached in the general portion of the report to the "gradual increase in the number of victims of intestinal disorders in many and various parts of the State." It is said that, "wherever we find authentic statements of the health of communities during the first epidemic of cholera in 1832, the universal testimony is that bowel-affections both preceded and followed the cholera, and prevailed far more than usual in localities in which cholera itself did not occur." The immediate adoption of sanitary changes throughout the States is earnestly advocated, and eleven propositions relating to cholera, and codified by the State Boards of Health lately convened at Washington, are published for guidance. The "health of towns" has been collated from information sent to the board by a large number of medical men in answer to questions issued by the board, and many facts have been brought out in this way. The Transactions of the Twelfth Annual Session of the American Public Health Association, and of the First and Second National Conferences of State Boards of Health, include some very valuable papers. Dr. Charles Chancellor deals with *The Squalid Dwellings of the Poor, a Social and Sanitary Reproach*, in terms which will not fail to arouse Cis-Atlantic sympathy now that the labours of a Royal Commission appointed to inquire into the Housing of the Poor in England are before the public. "Inquiry," he says, "would reveal places where decency is a physical impossibility, and where men, women, and children are schooled in vice. At times whole streets are blockaded against the police. Over Saturday and Sunday the inhabitants of these rookeries give themselves up to debaucheries of all kinds." This is a grievous tale, and yet one which holds good of many of the cities in the States. Other papers on "school-hygiene" and collateral subjects are of special value. Yet other original papers are given in full. In one on the Park River Nuisance in Hartford, Dr. Wolff finds the polluted river to swarm with microphytes. He says that the same are in countless numbers in the atmosphere over and about the river, and that the diarrhoeal stools of some children who had drunk of milk exposed to this atmosphere "were almost wholly composed of bacteria," the greater portion of which had the characters observed in the microphytes of the river and atmosphere. The report concludes with a long and valuable record of vital statistics.

Alpine Winter in its Medical Aspects, etc. (By A. TUCKER WISE, M.D. Second edition; 8vo. pp. 121. London: J. and A. Churchill.)—The first edition of this book, as the author tells us, appeared under the title of *Alpine Winter-Cure*. This second one differs from the first chiefly in the addition of fuller details regarding the internal and mechanical arrangements of the vast new curhaus at Maloja, the fruit of Belgian enterprise. All the most recent improvements as to heating and ventilation have been introduced, and the chief question seems to be whether they are not too complicated, and liable to derangement. A little further experience is required to determine this point, and also how far this great establishment suits the health of patients. Of course, Maloja has various rivals, and it has been objected that the hotel is too low, and almost on a level with the lake; also, that it is too exposed. We have understood that the sanatorium was nearly empty last winter, but that it filled during this year's summer influx of visitors into the Engadine, and that there is the prospect of a fair amount of patients for this winter. Dr. Wise tells us that nothing more has been done respecting a good chalybeate spring said to exist in the neighbourhood. This volume contains much information useful for visitors to any of the high Alp stations, and has some good views of them.

West African Hygiene. (By C. S. GRANT, M.D. Second edition; 12mo., pp. 51. London: 1884. E. Stanford.)—We think the government of the Gold Coast Colony has acted wisely in giving its imprimatur to this little book. It is remarkable for its clearness and brevity, and is characterised throughout by good sense, and should be useful, especially to non-medical men. We agree with Dr. Grant in most of his recommendations, and would only remark that, with some, it is still an open question whether small doses of quinine can be considered as prophylactic against first attacks of malarious fevers. We are glad to see that, in the treatment of fever, he does not recommend the heroic doses of that drug which are often administered by the laity.

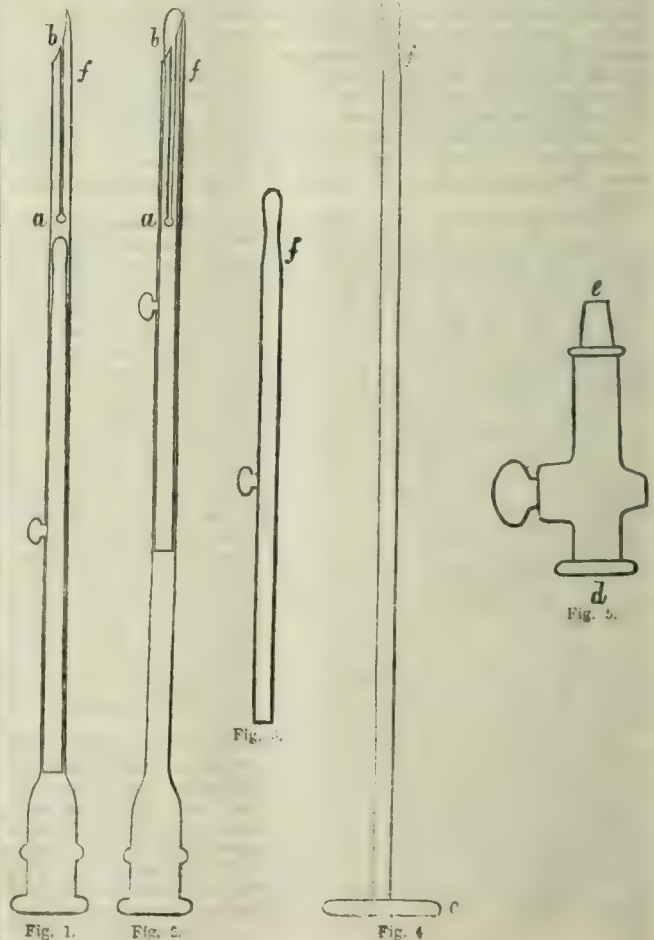
Southborough as a Health-Resort. (By E. PAGET THURSTAN, M.D. 12mo., pp. 69. Tunbridge Wells, 1885.)—Dr. Thurstan's little work is written mainly to inform the world that certain sanitary defects in the

arrangements of Southborough, which were pointed out some years ago, have been remedied, and that Southborough is now a very desirable place of residence. It is evidently a real pleasure to Dr. Thurstan to write this pleasant guide to a neighbourhood of which he is proud. Southborough is near Tunbridge and nearer Tunbridge Wells, is 500 feet above the sea, has a dry soil and dry climate, and a low death-rate. It has also a chalybeate, not falling much short of that of Tunbridge Wells in strength. It appears that the chalybeates of Southborough were known and resorted to before the better known ones of its neighbour.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A GUARDED ASPIRATING-NEEDLE.

SIR,—I enclose some rough drawings of a guarded aspirating and exploring-needle, which, if it is a practicable idea, appears to me a very desirable improvement over the ordinary sharp-pointed needles. The necessity for such an instrument has long been in my mind; and, having recently had to aspirate the chest on two occasions, where there was an enormously thickened pleura, and where the position of the lung was uncertain, and the instrument had to be passed very deeply, it struck me that, had I been able to move the end of the needle about freely after entering the cavity, much advantage would have been gained. The advantage of such an instrument in aspirating the pericardium, the bladder, or a strangulated intestine, would be great.



I have marked the engravings 1, 2, 3, 4, 5, and shall describe them in order.

Figure 1, shows a section of the aspirating-needle slightly larger than a No. 4 aspirating-needle, with the inner probe-pointed hollow tube withdrawn, ready for insertion. Commencing at *a*, the needle is slit from that point to *b* on both sides, so as to permit the inner hollow probe-pointed tube to be protruded, when the needle has been inserted into the chest or any other cavity, and thus guard the point of the needle, which can then be moved freely about in search of fluids, without risk of wounding organs or vessels, if used carefully. At *f* is an opening in both outer and inner tubes, to permit fluids to pass into the needle, and thence into the aspirating-syringe. The inner tube would be made to slide only so far as to exactly guard the point of the needle, and to have the opening at *f* exactly on that of the outer needle. The inner tube is advanced and withdrawn as required, by pressing the button with the thumb. The inner tube fits the needle very accurately, and the probe-point should be rather smaller than the rest of the tube to permit easy protrusion or withdrawal.

In Fig. 2, the needle is shown with the point guarded, after insertion, to permit free exploration for fluid. Slit *a* to *b* would here be slightly open.

In Fig. 3, the inside probe-pointed tube is shown. The slit in the outer needle for the neck of the button would be of length sufficient to allow the point of the needle to be exactly covered; no more. The slit in the outer needle above the button would be accurately closed by the inner tube when protruded. At *f* is the opening corresponding to that in the outer tube.

Fig. 4 shows an inside hollow probe-pointed tube for insertion through the needle after the latter has entered a cavity; it would be of sufficient length to exactly cover the point of the needle. The top, *c*, could be made to unscrew, so as to draw the needle over the inner tube, and leave the latter as a drainage-channel; *f* shows where the opening corresponding with that in the needle is situated.

Fig. 5 shows an ordinary air-excluding tap (open) to carry out aspiration; the end, *d*, for aspirating-syringe; *e* for insertion into needle or tube.

Yours faithfully,
F. W. L. HODDER, M.B.,
Surgeon-Major Medical Staff.

A NEW STETHOSCOPE.

SIR,—Messrs. Maw, Son and Thompson, of Aldersgate Street, E.C., have made for me an extremely efficient and elegant double stethoscope, which I wish to bring to the notice of the profession.

Although there is nothing novel in the form of the instrument, yet the materials of which it is constructed give it a lightness and handiness that I think constitute an improvement upon other binaural stethoscopes. With the exception of two soft rubber tubes attached to the chest-piece, and the nickel-plated spring, the entire instrument is made of celluloid. This material can be made either flexible and elastic or rigid, and the tubes which bear the ear-nipples have the former quality, thereby possessing an effective yet gentle spring that adapts the nipples comfortably to the ears. The mounts are of rigid celluloid, and can be made of different colours, either transparent amber, or ivory white or black, and they feel warm to the ear and chest.

Celluloid is an excellent conductor of sound, and this instrument conveys both respiratory and cardiac sounds, without any of the adventitious murmurs which are so commonly the bane of binaural stethoscopes. This new stethoscope has the additional advantage of extreme portability; it can be folded and easily pushed into the pocket, where it causes no appreciable bulging.—I remain, sir, faithfully yours,
R. HARVEY HILLIARD, M.D., F.R.C.S.E.

A COTTON REEL SEVEN YEARS IN THE VAGINA.—Professor Breisky gives an account in the *Prager Medizinische Wochenschrift* of the case of a woman, who for seven years had suffered severe pain during menstruation, and, four years previously, had had an abscess in the inguinal region, which, on being opened, was found to contain a large quantity of pus. On examination, the vaginal mucous membrane was found greatly swollen, and the vagina itself seemed to come to an abrupt termination, no uterus being felt. On examination *per rectum*, a foreign body was made out, lying in a fluctuating sac behind the uterus, which was then felt displaced backwards. The patient, on being questioned, remembered introducing a cotton-reel seven years before. Under an anæsthetic, the vagina, which was so contracted by cicatrix as only to admit a probe at one spot, was dilated, and the reel drawn out. It was 1.35 inches long, and 1.15 inches in breadth. The contracted cicatricial portion of the vagina was kept distended, and some incisions made in it. The monthly periods became quite painless, and the patient made a good recovery.

VACCINATION.—Dr. Edward J. Latham Blacker, Medical Officer and Public Vaccinator R. district, Thrapstone Union, Northamptonshire, has for the second time been awarded the Government grant for meritorious vaccination in his district.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 14th, 1885.

THE DIETARY OF THE POOR.

THOSE whom hospital-work or private practice brings into frequent contact with the poorer classes of society, must often have been struck with the exaggerated importance which they attach to drugs in the treatment of disease, and with their proportionate ignorance and neglect of all principles of diet. The somewhat sceptical attitude towards medicines now fashionable in the profession—but likely to be as passing a fashion as farthingales or chignons in the larger world—has, to some degree, permeated the highly educated classes, but it has scarcely affected the lower strata of society. Here, indeed, the error is altogether on the other side, and a profound and almost superstitious faith in the efficacy of drugs is found hand in hand with entire obliviousness of the enormous effect of principles of diet and of sanitation upon the individual and upon public health. The practitioner will have little success amongst his poorer classes of patients if, in addition to the ordinary prescribing of medicines, he do not institute a searching inquiry into the question of diet, and insist that the number, hours, and character of the daily meals shall be at least approximated to a correct physiological standard.

The most flagrant errors in the question of food on the part of the poor arise largely from their entire ignorance of the relative dietetic value of the various articles of daily consumption. The value of flesh-meat is well appreciated by them, but often it is beyond their means, and the substitutes adopted in its place are too frequently ill suited for the maintenance of nutrition. Milk and eggs are not correctly estimated by the poorer classes, and, in the large towns, they are difficult to obtain of good quality, and at a reasonable price. We trust the time will soon come when the English farmer will cease the vain struggle to compete with the wheat-growers of America and Australia, and turn his attention to dairy-produce, for which he has every advantage of soil, stock, and proximity to the best markets in the world. This diversion of the efforts of the English agriculturist into their natural channel would lead to the cheapening of milk, butter, cheese, and eggs, and the effect upon the national health would undoubtedly be most beneficial.

Vegetables, although much in use among the poor on the score of economy, are not correctly estimated dietetically by them, and no distinction is made between those which are poor in nutritive properties and such vegetables as peas and beans, which, from their richness in nitrogen, are well calculated to supply the place of animal flesh. Sir Henry Thompson, in his excellent little book on *Food and Feeding*, remarks: "As an illustration of the value of legumes combined with

fat, it may be remembered how well the erbswurst supported the work of the German armies during the winter of 1870-71, an instructive lesson for us in England at the present moment. It consists of a simple pea-soup, mixed with a certain proportion of bacon or lard, and dried so as to be portable, constituting, in a very small compass, a perfect food, especially suitable for supporting muscular expenditure and exposure to cold." The same writer goes on to speak of the great nutritive value of haricots and lentils, and their small cost compared with the price of meat, which is not more nourishing. Considerations of economy apart, there are many reasons for thinking that, as a nation, we are too great meat-eaters, and that a larger preponderance of nitrogenous vegetables in our dietary scale would tend to reduce the ravages of rheumatism and gout.

Oatmeal, whether in the form of oat-cake or of porridge, is a most excellent and economical article of food, to the value of which the Scotch nation, greatly to their advantage, have shown themselves thoroughly alive. If the poorer classes in England and Ireland would follow the example of their Scotch brethren, they would benefit materially both in health and in pocket.

Fish is another article of diet deserving of a wider popularity among the poor. No doubt it is far inferior in nutritive properties to flesh-meat, leguminous vegetables, or oatmeal, but it is a light, agreeable, and appetising form of food of fair dietetic value. No fish in the world equal those that swarm in British waters; no country has the natural facilities which we possess for procuring them fresh, and at a cheap rate; yet, except in the large towns on or near the sea-coast, fish are practically beyond the reach of the poorer classes. The fault does not lie with our fisheries, so much as with the imperfect manner in which their produce is distributed, and the questionable means adopted to secure the maximum of profit to the middleman, without regard to the interest of the consumer.

In the matter of cheap dietary, we have much to learn from our French neighbours. Their methods of cookery are not merely tasteful and appetising, but extremely economical, while our methods are too often at once slovenly and extravagant. The French cook makes excellent and nutritious soup out of materials which the English housewife throws away as useless; while her *pot-au-feu* is composed of stray scraps carefully husbanded which cost her nothing, but which, when skilfully combined, constitute an useful and inexpensive food.

Few dietetic errors among the poor are so pernicious as the place accorded to tea in the daily food-consumption. No medical practitioner requires to be told that tea is essentially a nerve-stimulant, and that it contributes no nutritive elements to the tissues; but it gives a fallacious sense of comfort and well-being, banishing appetite, and relieving weariness, so that it is not suprising that ignorant persons should give it a high place in their daily dietary. In all our large towns, there are thousands of operatives who drink tea three and four times daily, and take little in addition except the innutritious white bread supplied by the bakers. For a time, they enjoy an illusory sense of satisfaction; but soon their strength begins to fail, dyspepsia sets in, functional derangement of the heart is excited, and they present themselves at the out-patient departments of our hospitals in an advanced stage of exhaustion, which is really merely a modification of starvation. Nothing but good food and rest for the overworked and underfed organism will permanently benefit these cases, but such treatment will produce surprising results in a very brief space.

In dealing with the poor, considerations of cost will sometimes hamper the medical practitioner, but fortunately the best food is not always the dearest. He need not suggest oysters, sweetbreads, and Burgundy, when eggs, beans, or milk will serve the turn equally well. It is increased knowledge and improved cookery which the poor need, rather than wealth to purchase luxuries which in most cases they would not have the capacity of enjoying.

CHRONIC METRITIS AND ENDOMETRITIS.

It cannot be denied that the expression "inflammation of the womb" conveys to the ear a very different series of impressions from those evoked by the mention of inflammation of any other part of the body. Most of these impressions are by no means associated with the triumphs of medicine, therapeutics, and pathology; in other words, the subject involves some of the most disputed and, at the same time, most unsatisfactory questions in the science and art of gynaecology. All the evils associated with the name metritis depend upon the uncertainty of what it really signifies. There is no need to waste words in order to prove how imperfect knowledge of a disease must be a necessary source of dispute in theory, and bad treatment in practice.

A really good condensed account of all the different theories of competent modern authorities on chronic metritis, is not only much to be desired, but would also be a literary curiosity. It is very doubtful if such a condensation could be packed into twenty pages of small print. During the present year, a conspicuous feature in the pages of the *American Journal of Obstetrics*, has been a series of Studies in Endometritis, by Dr. Mary Putnam Jacobi. That physician has handled her subject in a scientific manner, and her contributions are chiefly based upon pathological research, and are well illustrated by microscopic drawings. It cannot be denied that the style is somewhat diffuse, but, unlike the still more obscure writings of Teutonic scientists, the paper is furnished with summaries of the authoress's conclusions. Roughly speaking, the current theories on chronic metritis are, first, that it is inflammation of the uterine tissue; secondly, that it is almost synonymous with subinvolution, and in no way inflammatory; and thirdly, that it implies a special pathological condition, which is neither inflammation, nor arrest of involution after pregnancy.

Dr. Jacobi has come to the conclusion that, in women who have borne children, chronic metritis originates in a perversion of the regressive period in the great parturient cycle of reproduction. In one form, it remains identical with this perversion. In another, the original conditions have become complicated, and carried to a higher degree of pathological evolution, because traversed by successive cycles of menstruation, the lesser reproductive process. The most rudimentary of these complications is on the endometrium, and results in fungous endometritis; the most developed is in the parenchyma, causing chronic metritis. Other forms of endometritis are intermediate between these two, and either lead to, or grow out of, lesions of the parenchyma through the medium of the menstrual crisis. Fungous endometritis, according to Dr. Jacobi, is non-inflammatory, like fibroma. Parenchymatous metritis, in her opinion, exhibits all the characteristics of typical chronic inflammation. This is only peculiar from its seat in tissues subjected to rhythmic movement of growth, which necessarily involves rhythmic changes in the circulation. It is these changes in the circulation which affect the parenchyma of

the uterus; the effect of rhythmic growth is felt in the endometrium. Then it is all the more conspicuous, because the influences exerted by inflammation upon the circulation and upon elementary nutrition resemble, to a certain extent, those impressed by the ascending stage of the menstrual cycle. This resemblance, Dr. Jacobi carefully indicates, must be considered but superficial; and if the process of menstruation do not border on inflammation, it remains entirely distinct from that process, so long as it is normal.

Dr. Jacobi further draws certain comparisons between the above forms of metritis, and the varieties which attack nulliparous women. She declares from clinical observation that, when metritis of the non-infectious type does not date from shortly after a confinement, it develops, suddenly or gradually, from an aberration of menstruation. Moreover, just as it is during involution and not during pregnancy that metritis sets in amongst impregnated subjects, so it is in the decline of the process of menstruation, and not in the stage immediately preceding the 'show,' that the chronic metritis of the single is found to originate. Dr. Jacobi shows that, as in the simple menstrual process, as distinguished from pregnancy, there is little change in the deep tissues of the uterus, whilst there is a very great change in the endometrium, so the characteristic disease of reproductive tissues in nulliparous women is endometritis. The endometrium is no mere mucous membrane, but a deciduous structure shed at each period. This involves complicated physiological and histological changes, especially liable, under unfavourable influences, to undergo some pathological aberration. At the same time, a neighbouring pair of structures is influenced by the same agency, the phenomenon of menstruation. Hence any unfavourable influence will involve the ovaries, and this will explain the frequency of some forms of ovaritis in association with disease of the endometrium, and make clear the reason why uterine disease in the unimpregnated is as troublesome, and often as hard to keep from spreading to neighbouring organs, as the metritis which follows pregnancy.

No doubt Dr. Jacobi is following the right path in keeping the menstrual and reproductive cycles constantly in view, whilst considering the subject of metritis. Even if the disease could have nothing to do with menstruation or involution after pregnancy, these processes could not fail to exercise a strong secondary influence upon it; and should metritis arise during the retrogressive stage of one menstrual cycle, every succeeding cycle will have a secondary influence on the disorder already set up. Dr. Jacobi is careful to distinguish, as far as is possible, the precise changes in vascular pressure during the stages of the cycle, as erroneous notions and therapeutic measures have arisen from inaccurate and vague talk about the congestion which succeeds menstruation. There is an afflux of blood to the uterus at the climax of that process, but, during menstrual involution, the congestion is slight and quite passive, owing to diminished arterial pressure. This may expose the patient to a severe type of disease, it is true, but it is not the intense active congestion that many pathologists have in mind. It is, however this may be, not vascular tension, but increase of tissue, that appears to be the essential feature of the metritis of nulliparous women. The epithelium of the endometrium becomes more or less exfoliated, but the adenoid elements and blood-vessels remain, when under normal conditions they would be shed. As this process may be repeated during the declining phase of every menstrual process, it is easy to understand how the morbid elements will accumulate, and these elements

are not broken-down tissue, as in most inflammatory processes, nor even anything akin to the fibrous tissue produced in cirrhosis, but are highly organised. The limits of our columns preclude further details of Dr. Jacobi's opinions, and entirely prevent us from entering into criticism. We may merely observe, in conclusion, that, should the last-mentioned theory be true, it is easy to understand why removal of the ovaries in certain cases of well known pelvic affections called metritis, or certainly allied to metritis, effects a permanent cure, although the ovaries appear to be healthy. For those organs might really be healthy; but, unless we adopt certain extreme opinions, which deny any relation between the ovaries and the uterus, their removal, and nothing short of their removal, prevents the continuous recurrence of that phase of the menstrual cycle which involves an aggravation of pre-existent disease, and consequently must delay its cure for an indefinite period—perhaps even till the menopause.

LEPROSY IN INDIA.

SOME time since, Brigade-Surgeon H. V. Carter, M.D., prepared an exhaustive memorandum on the prevention of leprosy by segregation of the affected, which has recently been published in a complete form by the authorities at Bombay. Dr. Carter, who has collected much useful information from Norway, first discusses the present state of the leper-question in that country. He observes that the methodical isolation of lepers has, during the past twenty-five years, been carried on with unremitting effort, which has been attended by a decided, though somewhat gradual, diminution of the number of sick. Since 1856, he estimates that the decrease had amounted to near 1,000, or one-third of the total number of cases then known. The mean death-rate of leprosy in Norway is 8 or 9 per cent. *per annum*; amongst the incarcerated (who include the worst and most advanced cases) the mean rate rises to 9 to 14 per cent. *per annum*; while amongst the home-dwelling sick, it may be estimated at 5 to 7 per cent. For many years past there has been no marked or progressive change in the death-rate; thus, in 1862, that of asylums was 13 per cent, and of the districts under 6 per cent.; in 1880 the former was 11.3 per cent., and the latter again under 6 per cent. The greater range among asylum-inmates than outside these institutions is owing to occasional brief outbreaks of local sickness. The number of home-dwelling patients has gradually diminished, and it is anticipated that by 1885, 50 per cent., or one-half, of the entire leper community, will be isolated. After briefly reviewing the influences that may have been at work in bringing about a lessened prevalence of leprosy, Dr. Carter comes to the conclusion that "the amendment of public health, in this respect, cannot satisfactorily be accounted for by reference solely to a general improvement in diet, dwellings, soil, or climate; nor has purely medical treatment ever proved curative; and so far from leprosy in Norway showing a natural tendency to subside, there is ample evidence of a present activity equal to that displayed by the disease twenty-five years ago." Some influence might, therefore, he adds, be assigned to the special measure of isolating lepers; and, in point of fact, amongst all the individual data, to none does amendment bear such definite relation—fixed or progressive—as it does to that lessening of lepers at liberty which results from the practice of enforced isolation. Dr. Carter admits that demonstration of such essential relationship is to be had only through a perfect acquaintance with every detailed instance adduced; yet, with present information,

he submits, the evidence is enough to prove its reality, and to indicate the true *modus operandi* of leper-isolation, as practised in Norway. More than a single beneficial influence may, indeed, be at work; but predominant is this conclusive dealing with the leper as himself the source of ill to others. Finally, Dr. Carter discusses the preventive measures for adoption in India. He thinks that segregation is practicable in three modes, either separate or combined—(A) by erecting plain asylums at certain centres, each of which would be a refuge common to several districts, and a place of detention, under due management and supervision; (B) by founding leper-colonies or village-communities of the affected, who, while allowed more liberty of movement, should yet be prevented from mingling with the peasantry around; hence, still the need of strict supervision; (C) by requiring the strict isolation of leprous subjects retained in their homes at the express wish of their friends. Suitable separate lodgment would be indispensable; unsuitable shelter is even now sometimes supplied. Joining of such home-isolation with more public measures should not be overlooked, for to it experience in Norway seems to point, as a means essential to complete success within a moderate period of time; and in India it would have to be still more largely resorted to. The expediency of establishing leper-asylums is, it seems, fully recognised by the Government, who, however, have stated that they cannot undertake to meet the whole of the expense, with due regard to other claims on the revenue. The Governor agrees with Dr. Carter that leper-asylums should rank amongst the fittest of charities, and if sufficiently large donations are forthcoming, he will grant such further aid from the public revenue as the finances will admit. To this end, it has been decided that the report, together with the Governor's statement, shall be published in the *Bombay Government Gazette*, in the hope of attracting the attention of wealthy philanthropists, both in the Presidency and elsewhere.

WE are informed that a slip, containing some corrections which are requisite in the new edition of the *British Pharmacopœia*, may be obtained, by those who do not already possess it, by application to the General Medical Council Office, 299, Oxford Street, London, W.; or to Messrs. Spottiswoode and Co.

THE first ordinary meeting of the Statistical Society for the present session will be held on Tuesday, the 17th instant, at the Royal School of Mines, Jermyn Street, S.W., when the President, Sir Rawson W. Rawson, K.C.M.G., C.B., will deliver an opening address on "International Statistics, illustrated by Vital Statistics of Europe and of some of the United States of America." The chair will be taken at 7.45 P.M.

A GERMAN VIEW OF THE INTERNATIONAL MEDICAL CONGRESS.

THE German medical profession is much exercised about the International Medical Congress, to be held in 1887 in America. The original Central Committee had for its president Professor Austin Flint, and for its secretary Dr. Billings, and numbered the best known names in America. Unfortunately, the differences between the old code and the new code of medical ethics have made themselves felt anew. The chief difference lies in the relationship of the profession to homœopaths and irregular practitioners. Besides, a desire was expressed to have separate representatives of each State: a geographical representation. Thus, although the original Committee was nominated by the American Medical Association, a new Committee has been

formed, with Dr. Shoemaker at its head. Every one of importance on the older Committee has declined to belong to the new one. Germany has been appealed to to support the old Committee, which it does unhesitatingly. The *Berliner Klinische Wochenschrift*, No. 43, pleads that there is yet time to mend matters, for the American Medical Association meets again next spring.

THE FINNISH MEDICAL SOCIETY AT HELSINGFORS.

THE general meeting of the Finnish Medical Society took place on September 28th, in Helsingfors. There was a more numerous gathering than at any previous meeting of provincial practitioners, and of apothecaries, who had also been invited. The meeting was opened by the chairman for the year, Professor J. W. Runeberg, who, after greeting the assembled members, proceeded to state the questions for discussion and the resolutions. Various questions were then discussed. The number of legally qualified practitioners in Finland is, at the present time, 187. From 1640 to 1750, there was only one legally qualified man, a medical professor at Åbo (without counting naturalised military surgeons). In 1750, the number increased to three or four, but at the close of the last century there were about twenty practitioners. The Medical Association was formed in 1835, and then consisted of 65 members. Of these only four are now living, namely, W. Granlund, born 1795; F. G. Sanmark, born 1798; J. F. Elfving, born 1801; and P. Florin, born 1810.

EXCISION OF THE UTERUS FOR CANCER.

ON October 30th, Mr. Jennings excised the entire uterus (*per vaginam*) for cancer of the cervix, upon a patient under the care of Mr. Drowse, at Acton. He was assisted by Messrs. Drowse, Shaw, and Dove. Bichloride of methylene was administered by Dr. Fenton-Jones. The entire operation lasted about an hour and a half. Sir Spencer Wells saw the patient forty-eight hours afterwards in consultation, and gave a hopeful prognosis, which has proved correct. The notes of the case will be published in full in due course, together with an improved method of performing the operation.

SUCCESSFUL DISPOSAL OF A FALSE CHARGE.

IT will be remembered that, not long ago, Dr. Trestrail, of Aldershot, was charged with having committed rape on an hysterical patient in the early period of her first pregnancy. The case was tried on Wednesday last, at Winchester, before Mr. Justice Pollock. Under the new Criminal Law Amendment Act, Dr. Trestrail was called as a witness; and his evidence, supported as it was by that of Dr. Robert Barnes, was so convincing of his innocence of the charge, that the jury summarily terminated the proceedings by returning a verdict of "not guilty." Dr. Trestrail will have the congratulations of the whole profession on the just issue of his trial, and on his escape from a form of persecution to which all medical men are liable.

AMBULANCE-HUTS AT THE ANTWERP EXHIBITION.

AN international competition for ambulance-huts took place at Antwerp last September, organised by the International Committee of the Red Cross of Geneva, and under the patronage of the Empress of Germany, who also offered a prize for the best hut, consisting of a gold medal and 5,000 francs. The English members of the jury were Surgeon-General Thomas Longmore, C.B., and John Furley, Esq., Honorary Director of Stores, St. John Ambulance Association. More than eighty different systems from all countries competed. The prize was awarded to the Danish portable Doecker huts, constructed by Messrs. Christoph and Unmack, of Copenhagen, whose huts have been already for some time well known here in England, and are used by many sanitary authorities, and by the War Department, who sent some of them to Egypt during the late war, as also did the National

Aid Society and Pratt's Club. Some confusion has arisen from the fact that an American gentleman, calling himself Mr. Ducker, exhibited a hut closely resembling the Doecker huts; and some American papers have been led to inform their readers, that it was these huts that gained the Empress's prize. As this report has found its way to several European papers, such as the *Berliner Tageblatt* of September 26th, it is only just to the Danish firm that attention should be called to the mistake.

THE HOSPITALS ASSOCIATION.

A GENERAL meeting will be held at the rooms of the Social Science Association, 1, Adam Street, Adelphi, W.C., on Wednesday, November 18th, at 8 P.M., when a paper on Cholera and the Hospitals, will be read by Dr. J. C. Steele, followed by a discussion.

[DR. HEYWOOD SMITH.

WE have received several communications concerning the irregular course pursued by Dr. Heywood Smith, in the case of Eliza Armstrong, and the comments of the judge thereon. The subject is a painful one, especially regarding the excellence of the motives which prompted this serious indiscretion. We do not desire, under such circumstances, to cast a stone. There are recognised medical and other authorities who may feel called upon to act; and no doubt, in doing so, they will take all the extenuating circumstances into full consideration.—At a special meeting of the Council of the British Gynaecological Society, on November 11th, the following resolutions were unanimously passed. 1. The Council deeply regret that they feel it incumbent on them to accept the resignation of Dr. Heywood Smith of the office of secretary of the British Gynaecological Society. 2. The Council desire to express their thanks for the distinguished services he has rendered to this Society, and their belief that, in what he did in reference to the Armstrong case, he was actuated by what he believed to be the highest motives, while committing a grave professional error.

THE INTERNATIONAL SANITARY CONFERENCE.

THE official announcement just made by the Italian Foreign Office that the meeting of the International Sanitary Conference, fixed for the 16th instant at Rome, cannot take place, will not surprise those members of the Association who have read the correspondence on the subject published in the JOURNAL. The nominal reason given for the adjournment, that many of the States represented have not had sufficient time to study the different suggestions made by the Technical Committee, is only a polite way of glossing over the impossibility of reconciling the hopeless divergence of opinion between the upholders and the opponents of quarantine and restrictive measures. There may be some grounds for believing that the lesson taught by the total failure of the old system in the epidemic of 1834 in France and Italy, and in that of this year in Spain, has not been quite thrown away, and that some of the measures recommended by the representatives of the nations which lead the van of sanitary progress may finally receive diplomatic sanction; but it is obvious that nothing can be gained by any further discussion, at the present time, with the delegates of the various minor states of Europe and America who formed the conservative majority at the Conference.

UNIVERSITY COLLEGE, LONDON.

THE first general meeting of the University College Society was held at the College, in Gower Street, on Tuesday evening last. The Secretary (Professor Morley), in his report, showed that the Society meant to be, and had already to a great extent become, an organisation that united all members of the College, both teachers and students, for the furtherance of social intercourse and fellowship. The number of its members at the close of the session 1884-5 was 998, and the subscription, which had been placed at the low sum of one shilling, had been sufficient for its purposes. Eight assemblies have been held by the Society during the year now closed, at which the average attend-

ance has been about 800. Other parts of the work of the Society have been the furnishing of the common room of the College for men-students, and the laying of two lawn-tennis courts in the quadrangle adjoining the College. The Committee is now endeavouring to bring about the union of all the athletic societies of the College, and to find means for providing a ground within easy access of the College for the recreation and sports of the students. A representative committee, comprising professors and students in each of the Faculties, Fellows, and old students of the College, was next elected for the ensuing session; and, after the business of the evening, a social gathering, at which about 600 persons were present, took place. An interesting collection of pictures, painted by students of the Slade school, was on view, amongst which we may notice one or two oil-paintings exhibited at the Royal Academy, and a series of etchings by W. Strang. The proceedings terminated by a concert given in the botanical theatre.

THE WATER-SUPPLY.

A COMMITTEE has been appointed by the Royal Meteorological Society to take into consideration the question of the supposed diminution of water-supply and the suggested increase of floods. The committee is desirous of obtaining as much information as possible, and will therefore be very glad to receive any data bearing upon the subject, and showing the past and present state of the water-supply, either from gaugings of wells or springs; the height of flood-marks in rivers, streams, and lakes; the records of low-water periods; or any historic data relating to the subject. Information relating to the period between 1825 and 1835 would be extremely valuable, in order to enable the committee to fill up a gap. Communications should be addressed to the Assistant-Secretary, Mr. W. Marriott, at 30, Great George Street, Westminster, S.W.

FEVER AND SMALL-POX IN LONDON.

AT the usual meeting of the Metropolitan Asylums Board, on Saturday, the returns of patients in both the fever and small-pox asylums showed a decrease of both classes of patients, especially of the latter. During the fortnight, there had been admitted to the five fever-asylums of the metropolis 71 patients, against 78 in the previous period. There were 2 deaths, and 74 had been discharged, leaving 338 under treatment, as against 344 at the end of the previous period. The cases remaining under treatment are: scarlet fever cases, 291; enteric fever cases, 41; and other diseases, 6. The Eastern Fever Asylum contains 113 of the whole number, and the North-Western Asylum 102. With regard to small-pox, during the fortnight, 32 cases had been admitted, against 25 in the previous fortnight; and there remained under treatment 98 cases, 97 in the hospital-ships, and one in the South-Eastern Asylum. At the end of the previous fortnight, 106 remained under treatment, so that the last returns showed a reduction of 8.

FUTURE SMALL-POX EPIDEMICS IN LONDON.

AN important committee of inquiry has been appointed by the Metropolitan Asylums Board, on the motion of Sir E. H. Currie, respecting the measures which should be taken in regard to future epidemics of small-pox. Dr. Buchanan's acceptance of the view that the aggregation of even nine cases of small-pox cases in a hospital may be the means of spreading the disease has alarmed the managers; and they consider that, in face of this declaration by this eminent medical authority, they would not be justified in carrying out the measures on which the Local Government Board are insisting, in the making of provision in the fever-asylums in London for small-pox cases. Moreover, the managers say, the provision is costly, as it is not the best for the patients, who, if they are able to be removed down the river, have better chances of recovery than they would have in land-hospitals; and, if they are very ill, they had better remain in their homes than be removed merely to die in the asylums, which are thus made charnel-houses.

THE MECHANISM OF THE RIBS.

In an important monograph on this subject, in the *Archiv für Anatomie und Physiologie*, Dr. Hermann von Meyer comes to the conclusion that the ribs are raised, so as to increase the antero-posterior diameter of the thoracic cavity during inspiration, chiefly by the segments of the external intercostals which lie between the vertebral attachments of the ribs and the angles of those bones, and also, as has long been recognised, by that portion of the internal intercostals which lies between the costal cartilages. The increase of the lateral diameter of the thorax is brought about by the rotation, upwards, of each rib, on a line which runs from the costo-vertebral articulation to the sternum. This is the "bucket-handle action," familiar to lecturers on physiology, demonstrators, and students. According to Dr. von Meyer, this is effected by both the external and the internal intercostals—not, of course, by the whole of each of those muscles, but by the entire segment which lies between the angle of the rib and its cartilage.

AMBULANCE-WORK.

THE annual report of the St. John Ambulance Association has just been published. It is stated that a second donation of £25 has been received from Her Majesty the Queen, and the Duke of Connaught and Princess Beatrice have accepted the presidency of two of the London districts. The Princess of Wales, Princess Christian, and Princess Beatrice have also presented certificates and medallions at some of the numerous meetings held in London and the provinces during the year. Many new centres and classes have been formed both at home and in Australia, New Zealand, and other colonies; especially in localities where the employment of machinery in manufactories, mills, collieries, mines, warehouses, etc., renders accidents inevitable, and consequently indicate the greater necessity for a knowledge of the important principles of "first aid to the injured." Some of the classes are of special interest, such as those at Sandhurst and the Staff College, for the officers and men of the Guards on board the transports *en route* to Suakin, for boys on board the *Exmouth*, for police, volunteer-corps, and fire-brigades, and at public schools. Since the issue of the last report, 10,123 certificates, and nearly 3,000 medallions have been awarded; of these, 5,342 certificates have been conferred on male classes, 3,417 on female "first aid" classes, and 1,364 on "nursing" classes. Altogether, about 90,000 certificates have been awarded by the Association up to date. Many details are given in the report of valuable cases of "first aid" rendered by certificated pupils and vouched for by surgeons, especially in the colliery, mining, and manufacturing districts; and an urgent appeal is made for increased funds to carry on and extend this beneficent work amongst those who need it most, but can contribute nothing towards the necessary cost. To prove that a knowledge of "first aid" is essential, it is sufficient to mention that, in the year ending October last, in factories in the United Kingdom alone, 8,501 bodily injuries, not fatal, were caused by machinery, and that in 403 cases death ensued. A diploma of honour was awarded to the Association by the International Health Exhibition, two gold medals to Mr. John Furley, the Honorary Director of Stores, and a silver medal to the Tibshelf Colliery Centre, for exhibits. The total value of stores issued this year amounts to £4,000. Amongst those supplied with ambulance-material have been the National Aid Society, for Cairo and Suakin; Messrs. Lucas and Aird, for their staff on the railroad in the Sudan; the Metropolitan Asylums Board; the Northern Hospital, Liverpool; and Princess Louise's Canadian Committee; so that it will be seen that the good work initiated and carried on by the English Order of St. John, is as much cosmopolitan as it is national in importance. Full information on all points connected with the work of the Association may be had on application to the Chief Secretary, St. John's Gate, Clerkenwell, London, E.C.

CONVICTION FOR SALE OF UNSOUND MEAT AT HANLEY.

THE recent conviction of George and James Cooper, at Hanley, for being in possession of a quantity of meat unfit for human food, pre-

sents several points of interest. Happily, the magistrates determined in each case to impose the full penalty of £20; but they dismissed the charge against the other brothers, William and Henry Cooper, and expressed their regret that the wording of the Act did not permit them to inflict any punishment on another man, John James, who took the most active part in the transaction. The facts of the case were these. Police-Sergeant Bentley saw, at Newcastle-under-Lyme, James's cart, heavily laden with meat, covered with an oil-cloth, and driven by James's son. He followed the cart in a cab to Hanley. There it stopped at the yard of Mrs. Cooper, the mother of four of the defendants, and four or five quarters were deposited. It was then driven to the market, where, after a cow's head and heart had been taken out, the sergeant detained it; and, leaving it in charge of another constable, proceeded to the Leopard Inn, where, in a stable, let by the proprietor to a man named Chatterton, he found two quarters of unsound meat, which had been deposited in a stall by G. and J. Cooper, dressed as if for sale. He found two quarters at 17, Waterloo Street, and the rest of the meat at the house of Henry Cooper. William Cooper had been seen wheeling some meat, probably this last portion, in a barrow shortly before the discovery at Henry's house. From the evidence of John James's son, it appeared that George Cooper had offered James £2 if he could succeed in delivering the meat. The whole lot was examined by Dr. Walker, the medical officer of health, and Mr. Hodgkinson, inspector of markets, and condemned by the justices as being the flesh of diseased animals, and unfit for human consumption. Though they naturally played different parts in the disgusting procedure, it is perfectly clear that all five were alike engaged in conspiring to dispose of the carcasses of three diseased animals, and that it was purely a matter of chance that two of the brothers took a more conspicuous part than the others; and, in dismissing the charge against the latter, we certainly feel that the magistrates failed in their duty. John James they acquitted reluctantly, on the ground that none of the meat was actually in his possession at the time of the seizure, he acting ostensibly as a carrier only, though the fact of his having accepted the offer of the £2 showed that he intended to effect the sale for the others. Section 117 of the Public Health Acts, 1875, enacts that "the person to whom the same (meat, etc.) belongs, or did belong, at the time of exposure for sale, or in whose possession, or on whose premises, the same was found, shall be liable," etc. The meat in question, it was successfully urged, was never in John James's possession in the sense of being his property, though it could not be denied that he intended to dispose of it in the market for the Coopers. Such a case might be met by inserting the words "or charge" or "or care" after possession. It was argued that there was no evidence that any of the accused "intended the meat for food of man;" but no attempt was made to prove, as Section 116 requires, that it was not, by stating the purpose for which it was "so exposed or deposited." It appears to us that, since in such transactions, as in corrupt practices, agents are likely to be employed with a view to sheltering the principals, some amendment should be introduced which should bring them, too, within the reach of the law, either by the insertion of the words we have suggested, or by making it, as in the German law, an offence to aid or abet the sale of unwholesome food.

THE OFFICIAL REPORTS OF THE INTERNATIONAL SANITARY CONFERENCE.

THE official report of the International Sanitary Conference, issued by the Italian Foreign Office, has recently been received in this country; it is a bulky quarto volume, of about 400 pages. Great care has evidently been expended on its preparation; the reports of the meetings of the Technical Commission, to which are appended the various documents quoted by the delegates who took part in the discussions, form the great bulk of the volume. As we have previously observed, the resolutions of this Technical Commission, upon which all the scientific delegates sat, mark a distinct advance in the direction of more rational

methods of dealing with epidemics than have been popular in past times. A principle of great importance was affirmed when the proposition that "Land-quarantine and sanitary cordons are useless" was accepted with but one dissentient voice; and the regulations proposed to be applied to vessels bound from Indian ports, and to vessels carrying pilgrims, are more satisfactory and efficient than those hitherto in force. Unfortunately, the Conference dispersed without adopting the recommendations of the Technical Commission, and, until these are ratified by the decision of a plenary sitting of the Conference, they can have no binding force on any of the nations represented. The good work achieved will have only an indirect influence in practice, by educating public and official opinion. Should the Conference ever meet again, it will have, in this report, a valuable digest of facts and opinions upon which to found an authoritative code of regulations.

A NEW REMEDY FOR SEA-SICKNESS.

DR. G. W. NOAD writes:—Having noticed in the JOURNAL of September 26th some remarks on the use of cucaïne in sea-sickness, by Professor Manassein, I thought I would follow his directions in the case of my son, aged 24, who was about to sail for Calcutta, and who, on former voyages, had suffered excessively from sea-sickness. I gave him a solution of hydrochlorate of cucaïne (1 in 1,000). He started on October 5th, and writing from Port Said, reports as follows. "Sailing on Monday, I was ill on Tuesday night and Wednesday morning, but quite well between the attacks. Once more, when the weather was very rough, and the ship rolling terribly, I felt squeamish, but two teaspoonful of the cucaïne put me all right." He adds: "I have missed only three regular meals, but had mine at these times on deck. Only one other passenger has suffered less than I have; all the others have been very ill. Other voyages, I have always been the worst on board; and I think the cucaïne must have the credit of the improvement." Other letters have been received, but, as no mention is made of any return of the malady, we conclude he has remained well.

THE EASTERN HOSPITALS INQUIRY.

THE decision at which the Local Government Board have arrived after inquiry into the management of the Eastern Hospitals, has at last been communicated to the managers. The profession will learn with some surprise that the Board, having regard to the resolutions which have been passed by the managers, and the evidence given at the inquiry, are not prepared to remove Dr. Collie's suspension from office. The evidence has been fully published, and it is open to everyone to form his own opinion of the amount of culpability which must attach to all concerned in the management of these hospitals. It is not our intention, at this moment, to discuss this matter further than to state that the only points which could be substantiated against Dr. Collie, and the only offences of which the Local Government Board have found him guilty, are omissions to perform certain details of clerical work, which would have enabled the better exercise of supervision over others; and with regard to these, it must be also stated that Dr. Collie had himself directed the attention of his Committee to his inability, without further assistance, to perform all the duties which devolved upon him. We do not desire to minimise these offences, such as they are, but we do not believe that any public official was ever suspended from office on such grounds, nor do we believe that, were it not for the offences of others, such suspension would have been allowed to remain. Moreover, the omissions to which reference is made, were not the outcome of idleness or negligence. Dr. Collie's energy and industry are far too well known for such a thought to be entertained for a moment, but they are the direct outcome of the enormous amount of responsible work which has been made to devolve upon him, not only as medical superintendent of these institutions, but because the managers had found that they possessed an officer of exceptional ability, and desired to utilise his services to the utmost. Dr. Collie had, during times of exceptional

prevalence of epidemic disease, absolutely three hospitals under his control, as well as the duty of superintending the transference of patients to the hospital-ships on the river. His services were, moreover, largely employed in examining sites and buildings which were proposed as suitable for cholera-hospitals, duties which necessarily withdrew him from those which related to his office of medical superintendent. Under these circumstances, it cannot be supposed that the Local Government Board can desire to lose a gentleman to whose services both the managers and the metropolis are indebted for some of the best work which has been performed by the Metropolitan Asylums Board. The suspension by the managers of Dr. Collie from office was evidently the initial step to the much needed inquiry into the management of the Eastern Hospitals; but that inquiry is now over, and the Local Government Board, while finding much to condemn in others, have themselves borne witness to Dr. Collie's integrity, and to the proper performance of all his medical duties. In declining themselves to remove the suspension, they must undoubtedly have but one intention, namely, to leave in the hands of the managers the reinstatement of their officer. We cannot believe that the managers will be found so wanting in courage, or in sense of justice, that they will fail to take this step.

MEDICAL STUDENTS IN LONDON.

A MEETING held this week at the Mansion House to found a system of "hostels" for business men, bachelor clerks, and others in London, reminds us of a like need which is very perceptible in the case of the young aspirants for medical training. Such collegiate establishments exist in connection with one or two of our public hospitals and medical colleges. They greatly need extension, and, if we may say so, to some extent, in several cases, remodelling. The case of the young medical student launched into the multitudinous dangers and temptations of London, must give many a father the heart-ache. He knows into what peril the lad is pushed, and how little he will be guarded. He knows the isolation, the temptations, and the polluting surroundings of a lad alone in London, with much hard work before him, and few friends. The poorest fare worst. They have little to recreate or to elevate their minds in the dreary characteristics of cheap lodgings. A common life, with manly and refined influences; reasonable amusement in a common society, governed by the higher thoughts which are proper to men training for a great profession—these are the ordinary needs of the ordinary student. Are we, as London medical men, well acquainted with these difficulties and temptations, and anxious for the future welfare of our students, and for their best culture as future practitioners, quite doing our duty in putting this matter indifferently aside? It need not, and ought not, to be a question of individual school enterprise. It concerns deeper interests common to the whole profession and to all society. Our leaders might usefully take this to heart, and help to fill this void.

SCOTLAND.

LARBERT INSTITUTION FOR IMBECILES.

AT the annual meeting of the Edinburgh Branch of the Ladies' Auxiliary of the Larbert Institution for Imbeciles, held on Monday, the report submitted showed that there were now 184 children in the institution, and stated that the reports made by the Commissioners in Lunacy were most encouraging. In 1875, the ladies' subscriptions amounted to £452, and in 1884 only to £320; since 1875, however, kindred institutions have been started, and it was thought this might account for the falling off. Accommodation could be provided for other twenty or thirty children if the funds were increased somewhat; at present, the accommodation must remain as it is. For the investment fund, they had received £9,985, or £115 less than the minimum sum aimed at; while for the infectious diseases hospital, erected

on the recommendation of the Lunacy Commissioners, at a cost of £350, they had received in subscriptions £225. The chairman of the meeting said he thought that the public should feel that, in dealing with the class succoured by the Larbert Institution, they were helping the most helpless of their fellow-creatures.

DEATH OF PRINCIPAL PIRIE, ABERDEEN.

THE Rev. Wm. R. Pirie, Principal of the University of Aberdeen, died from a shock of apoplexy on Tuesday, November 3rd, and was buried on Saturday, the 7th. The students of all the faculties attended the funeral. The appointment of a successor rests with the Crown, that is, with the new Secretary for Scotland, who is the Duke of Richmond.

COMBE LECTURES IN ABERDEEN.

PROFESSOR STIRLING is to deliver a course of eight lectures to students in the University of Aberdeen, under the auspices of the Combe trustees. The lectures will be delivered once a week, and the subject of this year's lecture is Foods, Digestion, Respiration, and Ventilation. These lectures are attended by over three hundred students. The first lecture was delivered on November 2nd.

ABERDEEN ROYAL INFIRMARY.

A MEETING of the Special Inquiry Committee of the Aberdeen Royal Infirmary was held on Monday, for the purpose of receiving a reply from Miss Rachel F. Lumsden anent the lady-superintendentship of the hospital. Miss Lumsden agreed to accept the appointment, but made a stipulation that she should receive no salary. The committee did not see their way to accept Miss Lumsden's services without remuneration, which it was agreed to insist that she should take; and the committee agreed to recommend to the General Committee of the Managers on Thursday that Miss Lumsden be appointed lady-superintendent of the Infirmary, under the Committee of Management.

EDINBURGH UNIVERSITY BUILDINGS EXTENSION SCHEME.

Now that the equipment of the new University buildings according to the adopted plans approaches completion, the Acting Committee of the New Buildings Scheme have passed the following resolution: "The Committee, having before them information which warrants the expectation that at an early date they will be in a position to communicate to the subscribers the results of their liberality in contributing towards the University New Buildings Scheme, and to make a formal transfer of the educational buildings to the Senatus Academicus as originally contemplated; and having regard to the active interest which Sir George Harrison has from the first, and especially during his term of office as Lord Provost, shown in the undertaking, and to his valuable services in connection with the Building Fund, unanimously resolved that his lordship be requested to act as the representative of the Committee in making the formal transfer of the buildings to the Senatus Academicus." This is a very happy and appropriate way of recognising Sir George Harrison's eminent services, while it also accentuates the thoroughly friendly feeling that exists between the Corporation and the University.

NEW APPOINTMENTS IN EDINBURGH INFIRMARY.

At a meeting of the managers of the Royal Infirmary, Edinburgh, held on Monday, Mr. Francis M. Caird, M.B., F.R.C.S.E., was appointed assistant-surgeon. At the same meeting, Mr. Skene Keith, M.B., F.R.C.S.E., was appointed special assistant in the ward of Dr. Thomas Keith (his father), in the Royal Infirmary.

ROYAL MEDICAL SOCIETY, EDINBURGH.

THE inaugural lecture of the winter session of the Royal Medical Society, Edinburgh, was delivered in the hall of the Society, George the Fourth Bridge, Edinburgh, on Friday, November 6th, by Dr. J. Halliday Croom. The Senior President of the Society, Dr. D. Noel Paton, occupied the chair. In his address, Dr. Croom referred to the

many changes that had occurred in the *personnel* of the teaching staff in the University and Extramural School during the last twenty years, mentioning that, in the former, Professor Douglas MacLagan, and, in the latter, Drs. Stevenson Macadam and Littlejohn alone remained as teachers. He also spoke of the desirableness of some change in the work of the curriculum of the Edinburgh medical student, either by an extension of it to five years, or the elimination of such subjects as chemistry, botany, and natural history, by placing these in the preliminary examination, and, for this latter course, Dr. Croom indicated a preference. At the close of the lecture, the meeting awarded Dr. Croom a hearty vote of thanks.

IRELAND.

DUBLIN HOSPITAL SUNDAY FUND.

THE twelfth annual collection in aid of the fund was made last Sunday. Notwithstanding the condition of the county, the amount collected last year (£4,402 14s. 7d.) exceeded that of any former year. We trust the sum realised this year will, like most former records, exceed that of the previous year. The eighth annual football match in aid of the fund took place on Saturday afternoon. The receipts were £67, which will enable the committee to hand over to the charity a sum exceeding last year's donation, and will bring the total amount paid to the fund since the institution of these matches to £360.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE Council of this Society having represented to His Excellency the Lord Lieutenant that they are desirous of having a visitor to their examinations appointed by the Lord Lieutenant and Privy Council, under Section 21 of the Pharmacy Act (Ireland), 1875, and His Excellency having obtained the sanction of the Lords Commissioners of the Treasury to the payment of the visitor's fee, His Excellency has selected Dr. George F. Duffey for the appointment. At the November stated monthly meeting of the Council, the following gentlemen were appointed examiners in the room of those retiring, in consequence of their five years' term of office having expired. Examiner in Arts, H. D. Tweedy, M.D. Dublin, F.R.C.S.I.; Examiner in Materia Medica and Botany, W. Whitla, M.D., L.P.S.I.; Examiner in Pharmaceutical and General Chemistry, H. C. Draper, F.C.S.

INTRODUCTORY ADDRESSES AT THE DUBLIN MEDICAL SCHOOLS AND HOSPITALS.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE opening lecture for the current session in the School of this College was delivered by Dr. EDWARD HAMILTON, Professor of Surgery. He spoke of the reputation of the Medical School of Dublin, and the endeavour that should be made by all its students to maintain it. The hospitals, he said, should be maintained as great clinical schools; the endowments of money with which they were entrusted fulfilled but half their usefulness if they merely provide accommodation for the sick and injured, and stopped there. His own idea was, that the entire hospital-system of Dublin demanded thorough reform and reconstruction. Too much money was wasted on the maintenance and administration of a number of small hospitals over-officed. Two large general hospitals, capable of accommodating 500 patients each—one for the northern, and one for the southern district of the city—would, he thought, have been a wiser disposal of Government money, and a better application of the endowments of the charitable.

He referred to the various fields of professional employment, and warned those joining its ranks against being attracted to its standard by the hopes of State honours, dignity, or titles. "If your soul yearn after these," he said, "seek them not here. Turn your back on the sick-room, the hospital-ward, suffering, and humanity. Go where glory waits you—in the senate, in the court of law, in the tented field. The State encouragement and rewards doled out to medicine bear no adequate proportion to the benefits which she confers on humanity. The successful general, the poet, and the painter, have had honours and titles showered upon them, and deservedly

so; but what can the acts which they represent offer to mankind, when compared with the healing of the sick, or the still nobler and disinterested service of the prevention of disease, the staying the plague, the maintenance of public health, and the prolongation of human life? It is no mere wail of discontent when we say that the medical profession in Ireland has suffered this injustice in a special degree. It is no exorbitant demand to ask that the honours which were conferred on distinguished members of the profession in Dublin should not be permitted to lapse because those who held them have ceased from their labours in the sleep of death. Are there no fit successors to the baronetcies of Sir Philip Crampton, Sir Henry Marsh, or Sir Dominic Corrigan, held almost simultaneously? There were living and working amongst us to-day men as highly cultured, as gifted, as earnest in the pursuit of science, as widely respected and beloved, and why should they be less honoured? Are our brethren who practise in the capital of England alone entitled to those higher dignities of State?"

Reviewing the existing plan of medical education, Professor Hamilton observed that one could not fail to be struck with the tendency which existed to overweight the student with technicalities. "The examination-method," he continued, "is, without doubt, the dominant idea of the present time. It has been twisted into every possible shape and mode, until it has assumed forms almost grotesque—written, *viva voce*, practical, physical, clinical. With us specialists, examinations in the refinements of modern science—even plain useful anatomy—are dusted over with a cloud of names and dishonest catches, which drive the boy from his scalpel to the feet of the special grinder. In a month after, these are quite forgotten, and the time occupied in learning is lost for ever. Too much time is spent over anatomy in our schools. To learn by rote a name for each convolution of the brain; to say from what bone a section, a few inches square, has been cut, may be very interesting in the eye of the specialist examiner. But how will this knowledge," he asked, "help the surgeon in his daily routine of duty?"

The lecturer then offered his advice to the students as to their course and mode of study; and, having spoken of the steps taken by the Council of the College towards rendering their school complete, concluded by paying a tribute to the memory of Dr. Warren, one of their demonstrators.

ST. VINCENT'S HOSPITAL.

Dr. Cox inaugurated the session at this hospital with an address which dealt chiefly with the subject of medical education. One matter of considerable and growing importance in connection with this was the question of the admission of lady students to hospital clinic. It was an open, he might say, a mixed, question. For his part, he confessed himself a believer in the rights of women to the fullest extent, and that there was a career open to them as medical practitioners could not be doubted. In India, at least, there was crying need for their help. They had the testimony of Lady Dufferin to the fact. He thought medicine would gain by the more intimate knowledge which they should acquire through the keener instinct and greater sympathy of women. But some said it would degrade women. Women were the best guardians of their honour. Did it degrade men? The idea was monstrous. Did it not rather elevate, purify, and exalt? Preliminary education ought to be as liberal as possible. Natural philosophy must be the foundation of medical education. Anatomy and physiology were like columns fixed in the principles of natural philosophy; and not a little of medical and surgical practice was based on and dependent on its laws. He advised students to attend hospitals from the very first day of their career. Their knowledge must rest on observation and experience, not on theory.

THE HOSPITALS OF THE HOUSE OF INDUSTRY.

The introductory lecture for these hospitals was delivered in the theatre of the Richmond Hospital by Mr. W. THORLEY STOKER, one of the surgeons to the house. The subject of the lecture was a sketch of the history of the hospitals. He recited the Act of 1772, under which corporations were empowered to found "workhouses," or "houses of industry," and mentioned the parts into which such institutions were to be divided. The different commissions which dealt with the condition of the Dublin House and their results were recounted, and it was stated that, up to the passing of Sir Robert Peel's Poor-Law Act of 1838, the place was a mixture of workhouse, penitentiary, and hospital. After this, the hospital proper was separated from the workhouse, and the punishment of the impenitent left to another branch of the law.

From this time on the lecturer traced the development of the hos-

pital, and showed how a great infirmary, composed of three separate buildings, for the reception respectively of medical, surgical, and fever cases, came to spring from a system of pauper relief. The present annual grant is £7,600, a sum relatively and absolutely less than that received before the amount was fixed in 1856. The buildings, being old, have required a large share of the income to be expended on repairs, and the modern treatment of disease, particularly of surgical affections, is more costly if more successful. Consequently, the number of cases relieved shows a diminution. But, notwithstanding the wants of the hospitals, unsurpassed, if not unequalled, results could be shown, both as regards the general mortality compared with that of other hospitals, and also the mortality after amputations.

In the period from 1870 to 1875, the average mortality from amputations in the London hospitals varied, it was stated, from 26.7 to 54.7 per cent.; while, in the Richmond, it is about 6.6 per cent. Mr. Stoker proceeded to show, with the aid of statistics supplied by Dr. Jacob, that the districts served by the House of Industry and Stevens's Hospitals are the most necessitous and most populous in Dublin.

He then spoke of the Dublin School of Medicine, which he said was the second centre of medical education in the kingdom, being next in size to Edinburgh, and larger than even London. Taking its advantages and its demerits, he believed there was no centre of medical education superior to Dublin, and that there were few equal to it. In one point especially Dublin was in advance of many other places, namely, that in all cases the elementary school was severed from the hospital. It is the intimate connection between the clinical and elementary schools in London which gives colour to the absurd and misconceived attacks of the antivivisectionists about experiments in hospitals. These experiments are made (if made at all) in the elementary schools, and not at the bedside; but the mistake arising from the unity of the establishments fosters the alarm created in ignorant minds by these agitators. Mr. Stoker then referred to the roll of distinguished men who had been connected with the hospital—Perceval, Cheyne, Crampton, Corrigan, Todd, Carmichael, Adams, Robert Smith, and MacDowell—and to the gratifying successes of past students in after life, and concluded an admirable address by observing that now, when a question about these grants is being raised, the history of the hospital is their best defence.

MATER MISERICORDIÆ HOSPITAL.

MR. JOHN MURPHY, Assistant-Physician, gave the introductory address at the institution. Following the initiative set by Sir James Paget some few years ago, he traced the history of 300 former students of the hospital, which showed that 27.5 per cent. adopted private practice, 7.6 the army, 1.6 the navy, 35 dispensaries, hospitals, and asylums; 19 remained in Great Britain, and 9.3 tried their fortunes in various countries. He next referred to the history of the hospital, showing its progress and work since its foundation in 1861 by the Sisters of Mercy, who have it under their control. At first there were 100 beds. At the present day there are double that number; and when the new or east wing is completed, they will number 300, including several for private or paying patients.

THE MEATH HOSPITAL.

DR. ARTHUR WYNNE FOOT, who inaugurated the session at this hospital, chose for his address the subject of a clinical observation, which he invested with a freshness and fervour peculiarly his own. Greeting the students, he said: The new are welcomed to the ranks of a profession whose progress in modern times has been equal to that of any other. During the last thirty years more has been achieved in it than in any previous century. A higher standard of education, better and more practical clinical teaching, and more thoroughness of acquirement, are telling favourably on its students. Silent workers—and they are many—in the wards, the laboratory, and the study are evolving great truths, and continually fortifying the busy practitioner with fresh facts of inestimable value. The medical profession is being held in higher and higher estimation. There never was a time in which more zeal, more ability, and more loyalty were found amongst its members, and there never was an age in which our exalted vocation was pursued with such success as it is at the present day, for never was it able more certainly or more successfully to wage war against the ravages of disease and death. The elder students are welcomed back, after a well earned diastole of relaxation, to a renewal of their studies, in the full assurance that the foretaste they have had of clinical duties will have whetted their appetite for fresh and enlarged experience. Ability in clinical observation is the capital accomplishment of a surgeon as well as a physician. All investigations into the phenomena of nature must begin by the observation of facts, yet few are fully

aware of the difficulty of the art of simple observation. To observe properly in the simplest of the physical sciences often requires a long and severe training. The difficulty of arriving at the actual truth by direct observation is sometimes so great, when contrasted with the ease with which an hypothesis is made, that it ceases to be wondered at that the theory takes the place of observation in the views of those who are not devoted to bedside study. "The greatest thing," says Ruskin, "a human soul ever does in this world is to see something and tell what he saw in a plain way. Hundreds of people can talk for one that can think, but thousands can think for one who can see."

The lecture is published *in extenso* in the current number of the *Dublin Journal of Medical Science*, and will repay perusal.

FOURTEENTH ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD, 1885.

MIXED up with a vast amount of matters with which we have no immediate concern, as pauperism-finance, alterations of areas, and improvements not of a sanitary nature, are many sanitary and medical questions, some of them not treated in the supplementary report of the medical officer.

A case of gross default is reported from Sandwich, where, the inspector having stated that the water-supply was chiefly derived from the Delph, a stream flowing through the town, and in places under the houses, was liable to pollution from the defective drains and numerous cesspools, as well as by refuse carried up with the rising tide, if the sluice were not shut in time, the Board had given orders, still uncomplied with, that the intake should be removed to a point above the town.

The story, now an old one, of the pollution of the Thames and Lee occupies several pages, but the whole of the report dealing with the working of the Rivers Pollution Act is most unsatisfactory.

Hitherto it appeared that the Canal Boats Act, 1877, had produced little result, and Mr. Brydone was specially appointed by the Board to report thereon; but as a large number of authorities have since appointed inspectors in their districts, better results are hoped for.

The returns from public analysts on the adulteration of food and drugs present little improvement, and in the case of milk, where the percentage of samples condemned in 1884 is said to be 17.6, against 20 in 1883, the difficulty of distinguishing between milk naturally poor and normal milk diluted, has doubtless led to many samples being passed, when, if the truth were known, they would have been condemned. In Portsmouth, fifty samples taken as delivered to the retailers were all found pure; but of fifty-one obtained from the shops, eighteen were reported as adulterated. At Salford, on the other hand, dilution was already practised in several cases by the farmer. In one instance, a fraud was detected, which we should have thought to be a thing of the past—the milk diluted with an equal volume of water, and then thickened with starch.

The sale of butterine for genuine butter is believed to be on the increase, and that of coffee with chicory is very general. Once, when the berries were ground in the presence of the inspector, such a proportion of chicory was found, as to suggest that the adulterant was made up by machinery in the form of coffee-beans, and then mixed with the true berry. It is, the report says, no rare thing for a mixture containing three-fourths of chicory to be sold as coffee, but it has been decided by the High Court (*Liddiard v. Reece*, 447, p. 233) that, in such a case, the vendor would not be protected by a notification under Section 8 of the Sale of Food and Drugs Act, 1875.

Some "fine old port" and "fine old sherry," bought at Salford, were entirely "innocent of the juice of the grape," and proved, on inquiry, to be of home-manufacture.

The results of the control over tea now exerted by the Customs Office have been very satisfactory, the samples seized in 1880-2 having been 44, 16, and 14, but none in 1883 and 1884. Nevertheless, last year, out of 870 samples, 19 were restricted to exportation. These represented 203 green teas with a large admixture of decayed and exhausted leaves, 334 of congenous of the same character, and 16 which had been damaged by being packed while damp; also 425 of capers containing 10 to 14 per cent. excess of silica, all, with one exception, from China.

The percentage of children not accounted for in the vaccination-returns was, for London, 6.6; for the provinces, 4.5. In London, the lowest deficits were in Whitechapel and Woolwich; the highest, 12, in Shoreditch. In Paddington and in St. Giles's and St. George's, Bloomsbury, they were also very large. The best vaccinated extra-metropolitan districts were Birmingham, Bolton, Leeds, Blackburn. Huddersfield, Portsmouth, West Bromwich, Wollstanton, and Burs-

lem; and the worst, Keighley, with a deficit of 61.4; Leicester, 30.2; Banbury, 20.4; and several with 12 per cent.

The total number of applications for lymph acceded to was 11,447, and it is worthy of note that in not a single instance has there been a suggestion of resulting syphilis.

An outbreak of enteric fever at Beverley was found to be due to specific contamination of the water-supply, and the same was determined in respect of an outbreak at Kidderminster, the water not being adequately protected, though at Stourton, supplied from the same wells, but by a distinct service, no fever occurred. Simultaneous outbreaks at St. Alban's and in certain parts of London were traced to milk-pollution, and the prevalence of enteric fever at York to the stagnant state of the contents of ill planned sewers, in consequence of the lowness of the river Ouse. A number of inquiries were instituted on account of outbreaks of diphtheria and the unsanitary conditions of many urban and rural districts.

Compulsory notification of infectious diseases, which at the issue of the previous report was in force in thirty-four towns, has, during the year, been adopted at Chester, Croydon, Dewsbury, and York; and bills were submitted for introduction to Parliament during the session just past from Eastbourne, Hastings, Ramsgate, Sunderland, and Wakefield.

As an example of the difficulty attending the working of the Alkali Acts, it is stated that at Widnes alone 1,000 tons of waste are annually deposited on the ground, a mass sufficient to cover the sixty acres of St. James's Park to a depth of three or four feet! Oxidised by wind and rain, this gives off fumes of sulphuretted hydrogen, to the destruction of vegetation and the discomfort of the neighbourhood for several miles round. It is suggested that the extraction of the sulphur might be made a source of profit, and would go far to reduce the annoyance and injury to health.

A fearful story is told of the death of two children at Runcorn, and narrow escape of the parents, from the effects of a vast volume of chlorine-gas which escaped from a chamber where bleaching-powder was being made. The gas poured along a passage through a door opening on the wharf, and, there being no wind to disperse it, into the cabin of a barge, where three persons were sleeping.

The outbreak of cholera in France led to the issue of several orders and memoranda, with which our readers are already acquainted; and the reports on the metropolitan waters have appeared monthly in our columns.

The report of the Medical Officer of the Local Government Board for the year 1884 contains the usual account of the progress of the so-called Auxiliary Scientific Investigations. First among these in practical importance is the elaborate series of researches into the Mechanism of Disinfection carried on under the general guidance of Dr. Burdon Sanderson. It may be remembered that, in a previous report, a careful summary was given of the known facts with regard to the products of the activity of septic bacteria. It was pointed out, especially, that phenyl (carbolic acid), linked with propionic and with acetic acid, was one of these products. The investigation has been, in fact, directed to ascertain the value of these two linked acids and their salts as disinfectants. Mr. J. P. Laws, working in Dr. Sanderson's laboratory at Oxford, in the first place attempted to ascertain the influence of an acid reaction in the culture-fluid. To this end, the fluid was acidified with sulphuric acid, as the neutral salts of that acid exercise no influence on the growth of microphytes. It was found that 1 part of the acid in 1,800 of the culture-fluid prevented the growth of the bacillus anthracis; and that an exposure for two hours to a fluid containing 1 part of acid in 600 killed the bacillus. A fluid containing 1 part of acid in 500 had the same effect in ten minutes. This series of experiments brings out very well an important point already dwelt upon by Dr. Koch in his reports, and by Dr. Klein in a previous volume of this series. In all experiments on the potency of antiseptics, it is necessary to bear in mind that a proportion of the antiseptic which is sufficient to prevent the germination of a microphyte, may not, and probably will not, be sufficient to destroy it. The microphyte, so long as it is in contact with the antiseptic, is in a condition of suspended vitality; but so soon as the proportion of antiseptic is diminished by dilution, evaporation, or otherwise, then the microphyte, if the fluid contain the necessary pabulum, can recommence to grow. The practical significance of this will not escape attention, as, from the point of view of public health, no disinfection can be regarded as efficient which succeeds only in restraining the growth of the microphyte without killing it. Pursuing this line of inquiry, Mr. Laws was able to confirm Endemann's statement that cresol is a more powerful antiseptic than phenol. Cresol is, in chemical constitution, a derivative of phenol; and both

bodies occur together in coal-tar, in naphtha, and in commercial cresotes. It was found that 1 part of phenol in 700 restrained the growth of bacillus anthracis; and 1 part in 200 killed the bacillus, if the exposure exceeded half an hour. On the other hand, 1 part of cresol in 1,200 restrained, and 1 part in 500 killed, the bacillus, after an exposure of ten minutes. These observations apply only to the bacillus, and not to its spores. As is well known, the power of resistance to all destructive agents possessed by the spores is very great. In the present investigation, it was found that a continuous exposure for over forty-eight days to a 2 per cent. solution of phenol, or to a 1 per cent. solution of cresol, had no effect on the vitality of the spores, which germinated as freely as ever. Another point, of less apparent practical importance, but of great speculative interest, was also investigated by Mr. Laws. It appeared not improbable that the condition of the micro-organism itself as to nutrition might have some influence over the power of disinfectants to kill it; and it was found that the bacillus anthracis, provided with nourishment—that is, growing in a nourishing material—had a much greater power of resistance than when unprovided with nourishment. Thus, the bacillus anthracis in pure water was killed by 1 part of phenol-propionic acid in 200; while, in peptone culture-material, the same organism was not killed until the proportion of the antiseptic rose to 1 part in 600. By experiments made on a different principle, Dr. Klein ascertained that phenol-propionate of sodium destroyed the infective power of the blood from a case of anthrax, when added in the proportion of less than 4 per cent., and the mixture kept for half an hour. In all these experiments, it will be noticed that the time during which the antiseptic is allowed to act on the infective material has a notable influence on the results.

Dr. Klein made another observation which well illustrates the great complexity of the problem. In the course of some experiments with sulphuric acid gas—part of a series as to the value of aerial disinfectants—he found that, when healthy pigs were introduced into a stable containing an animal severely affected with swine-fever, they contracted the disease, and died of it, notwithstanding that the air of the stable was impregnated with sulphurous acid; but that, when the same experiment was repeated under precisely similar conditions, with the sole difference that the infected animal was only affected with the disease in a mild form, and was free from severe pulmonary symptoms, healthy pigs did not contract the disease. This observation lends support to the common popular view, generally repudiated by writers on hygiene, that a mild case of an infectious disease is a less dangerous centre of infection than a severe case.

A series of experiments made by Dr. Klein and Mr. Lingard afford solid grounds, as Dr. Burdon Sanderson points out, for believing that whatever means may be found effectual as prophylactics against septic infection, will also be effectual as prophylactics against tuberculosis. Phenyl-propionic and phenyl-acetic acids possess a considerable power of arresting putrefaction, while the power of phenol-sulphonate of sodium is very much slighter. Dr. Klein and Mr. Lingard found that the power these bodies possessed of destroying the virus of tuberculosis stood in precisely the same relation as their power of arresting putrefaction; that is to say, a very much larger proportion of phenyl-sulphonate of sodium was required.

To Dr. Theodore Cash was entrusted a part of the investigation which did not lend itself readily to exact experiment; the purpose in view was to ascertain whether the continuous administration of certain drugs, which possess the power of preventing the growth of specific microphytes, had any effect in restraining or modifying the development of the disease in an animal. The results so far obtained are not very striking, though Dr. Sanderson considers them to be encouraging. No effect of any kind could be detected when tuberculosis was the virus employed; but in the case of anthrax a distinct prolongation of the interval between inoculation and death was observed, when phenol-sulphonate of sodium (sulpho-carbolate of sodium) was administered before inoculation in large doses. Corrosive sublimate had apparently a more decided influence; two guinea-pigs resisted repeated inoculations after they had been subjected to a course of the drug; and Dr. Cash concludes, as the result of the experiments with corrosive sublimate, which are still in progress, that the previous administration of that drug may considerably modify the course of anthrax in rabbits.

Dr. Parsons contributes a very elaborate detailed report on disinfection by heat. In a large number of the experiments made, the bacillus anthracis and its spores were used as a test of the efficiency of the method of disinfection under examination, the necessary experiments, to ascertain whether the material was still virulent, being undertaken by Dr. Klein. The general result of the investigation was, to show that steam, and perhaps especially superheated steam,

was the most efficient and manageable means of disinfecting all articles which would be spoilt by boiling in water; for linen and other articles that will stand boiling, that is the best method of disinfection, but it should be preceded by a thorough soaking in cold water, to remove the grosser dirt. The bacillus anthracis was destroyed by a dry heat of 220° Fahr., or by steam at 212° Fahr.; the spores of this bacillus required for destruction four hours' exposure to a dry heat of 220° Fahr., but were killed by five minutes' exposure to a heat of 212° Fahr. in steam or boiling water. Steam, moreover, penetrates into bulky badly conducting articles, such as bedding, far better than dry heat; steam under pressure penetrates still better, especially if the pressure be relaxed from time to time, so as to displace the air in the interstices of the material. Steam has the disadvantage that it causes as much shrinkage as ordinary washing, and that it is not applicable to articles which will not bear wetting, nor to leather, which "is shrivelled up, and the thinner sorts converted into a gelatinous substance;" with dry heat, scorching is liable to occur, white woollen articles being scorched below 250° Fahr. The report contains a great number of practical observations on matters of detail, which will be found exceedingly valuable.

Dr. Klein and Dr. Heneage Gibbes have continued their investigations into the pathology of tuberculosis. The experiments now described relate to the feeding of rabbits and guinea-pigs with tubercular material. Human sputum, or pus taken from the lungs of tuberculous cows, was mixed with mashed vegetables, and given for four days altogether; the animals were kept on soft food for several days longer, in order to avoid any traumatic injury of the mucous membrane. All the animals became diseased, but certain differences were noticed; rabbits were more susceptible to bovine than to human tubercle; whether fed or inoculated with human tubercular matter, the lungs were the only organs affected, and there was a great scarcity of tubercle-bacilli; on the other hand, bovine tubercular matter always produced general tuberculosis. Guinea-pigs were more readily infected by human than by bovine tubercle. In many of the affected organs of animals killed during the very early stage of the disease, no tubercle-bacilli could be found after the most careful search.

Dr. Klein also contributes a report on the etiology of acute croupous pneumonia, in which he contests the assertion of Friedländer that it is due to the action of a micrococcus, the so-called pneumococcus. Dr. Klein says that he never, in any one of a considerable number of hepatised lungs examined by him, found the pneumococci within the blood or tissues, but that they were sparingly present in the alveolar exudation, and were abundant in the sputum; inoculation of the fresh sputum or of cultivations of the pneumococcus generally failed to produce any symptoms in rodents; occasionally, illness and death was thus caused. Dr. Klein concludes that two sorts of micrococci may be found in pneumonic sputum: the one, a perfectly innocent organism; the other, most abundant in sputum which has been kept, a virulently infective organism. This paper, which is in many respects the most important in the volume, contains numerous references to the literature of the subject. In a postscript, Dr. Klein states that Dr. Sternberg, of Baltimore, has conclusively proved that the micrococci of human saliva which produce, in some instances, septicæmia when inoculated into rabbits, are identical with the pneumococci of Friedländer. Dr. Klein's own conclusion is that the capsuled micrococcus of pneumonic sputum, which produces death in rabbits, is a septicæmic organism only accidentally present in the sputum.

In a short note on the pleuropneumonia of cattle, Dr. Klein, after referring to the statements made by Bruylants and Virriers, Poel and Nolen, and Lustig, with regard to the existence of micrococci in the lungs in that disease, reports the negative result of a series of experiments made by himself.

Dr. Dupré contributes a preliminary report on a very ingenious method of recognising the presence of living organic matter in water. It depends upon the fact that microphytes during their existence in an active state absorb oxygen from the water in which they are. By observing whether or not, during keeping, a change in the amount of oxygen present in the dissolved air of the water occurs, the presence or absence of microphytes may be ascertained, and by observing the amount of change the number and activity of the organisms may, it is thought, be estimated. It is conceivable that this method, when perfected, may be of use as a rough preliminary test of the purity of potable water, and may so have use as a preliminary step in the biological examination of water.

MEDICAL MAGISTRATE. — Mr. Joseph Henry Partridge has been placed on the commission of the peace for the borough of Colchester.

TEMPERANCE LEGISLATION.

THE Council of the Social Science Association have decided to organise a conference on temperance legislation to be held on the eve of the meeting of the new Parliament. The details of the work have been referred to the executive committee, with power to add to their number.

The attitude of the Association in regard to any reform of the licensing laws being at present undefined, it is the desire of the Council that the Conference Committee should be made fairly representative of the interests of both the temperance bodies and the trade societies; and by both parties invitations to join the committee have been accepted. As at present constituted, the committee consists of the following: The Executive Committee of the Association, namely, Sir Richard Temple, Bart., Sir U. J. Kay-Shuttleworth, Bart., Mr. Joseph Brown, Q.C., Mr. H. H. Collins, Mr. W. C. Fooks, Mr. Rowland Hamilton, Mr. G. W. Hastings, M.P., Rev. J. W. Horsley, M.A., Mr. A. H. Mackmurdo, Mr. W. H. Michael, Q.C., Mr. A. E. Miller, Q.C., Mr. F. G. P. Neison, Mr. W. Blake Odgers, LL.D., Mr. F. S. Powell, Mr. A. H. Safford, Dr. Edward Seaton, Rev. S. A. Steinthal, Mr. R. Denny Urrin, Rev. Sir Wm. Vincent, Bart., Mr. E. J. Watherston, Mr. John Westlake, Q.C., Mr. William Westgarth, and Mr. Meryon White; and two delegates from each of the following societies: The Church of England Temperance Society, the Rev. G. Howard Wright and Mr. F. Sherlock; the United Kingdom Alliance, the Rev. Dr. Burns (or Mr. John Hilton) and Mr. James H. Roper; the Independent Order of Good Templars, Mr. E. Wood and Mr. Joseph Malins; the Licensed Victuallers' Protection Society, Mr. Samuel Carington and Mr. Ernest W. Norfolk; the Country Brewers' Society, Mr. H. A. Simonds and Mr. J. Danvers Power. The National Temperance League have yet to appoint their delegates.

At a meeting of the Committee on November 3rd, it was resolved that the following should be the questions to be set down for discussion. First day: "What Reform in the Licensing Laws is desirable?" On this question, representatives of the Church of England Temperance Society, and the Licensed Victuallers' Protection Society, or the Country Brewers' Society, will be invited to select writers of papers. An exponent of the municipal authority scheme will also give a paper. Second day: 1. "Is Prohibitory Legislation desirable; and, if so, in what form?" The United Kingdom Alliance and the Licensed Victuallers' or Brewers' Societies will be asked to contribute papers on this question. 2. "Should Compensation be given on the Compulsory Extinction of Licences; and, if so, from what source?" On this question, the papers to be written will be invited from the Licensed Victuallers' or the Brewers' Societies, from the Church of England Temperance Society, and from the Independent Order of Good Templars.

The joint organising committee have unanimously agreed that this programme—which includes for discussion the main proposals before the public, and is, as regards the contributors of papers, representative of the views held by the leading temperance and trade organisations—will afford a desirable opportunity for the full and frank discussion, from a neutral platform, of a subject of growing importance to the social welfare of the people and the interests of a large section of the community.

THE MEDICAL SOCIETY OF BERLIN.

THE twenty-fifth anniversary of the first meeting of the Medical Society of Berlin was celebrated by a special extraordinary meeting on Wednesday, October 28th, and by a grand dinner at the Kaiserhof on Saturday, October 31st. The Society was formed, as Professor Virchow, the President, observed in his opening speech, on October 31st, 1860, by the union of two other then existing societies of medical men, the Gesellschaft für Wissenschaftliche Medicin (Society for Scientific Medicine), having for its object the protest against the then prevailing mode of medical research, and the Verein Berliner Aerzte. The former of these two societies was founded in December, 1844, under the presidency of Kürte, and included then Klein and Wegscheider, Traube, A. Müller, and Posner, who were soon joined by younger men, such as Virchow, Reinhardt, Liman, Lenbuscher, Parow, Hollstein, S. Reimer, Krieger, Riese, and Julius Meyer. The other, the Verein Berliner Aerzte, was founded in 1858, under the presidency of Von Gräfe, with Krieger, Posner, Ries, and Klein as officers of the Society. It would carry us too far to dilate on the struggles for medical reform of that period, and on the political troubles, in consequence of which Virchow, then Prosecutor at the Royal Charité Hospital, was obliged to leave Berlin. Not long after the foundation of the Verein Berliner Aerzte, there was a movement in favour of the union of the two societies, which, after some considerable delay, was effected, and the first meeting of the new society

took place on October 30th or 31st. The first President of the Society was Von Gräfe, who continued so till his death in 1871, when Von Langenbeck succeeded him, till in 1882 he moved to Wiesbaden, when he was succeeded by Virchow, who is now President of the Society. Amongst other names of those who have held office as Vice-President, Secretary, or Treasurer, may be mentioned the following: Kürte, Bardeleben, Traube, Henoch, Siegmund, Posner, Schweigger, Gurlt, B. Fränkel, Riess, Senator, E. Kuster, Abraham, Rosentein, Ponfick, and Liebreich.

Professor Virchow, in his opening speech, referred to the past and future of the Society in connection with the import of its existence for the medical world. He dwelt, in a few words, on the memory of those whose work is ended, especially Albrecht von Gräfe, Traube, and Wilms, and then expressed to those present Herr von Langenbeck's regret at being unable, owing to an affection of the eyes from which he was suffering, to be present at the meeting.

In the following passage, Professor Virchow spoke of the necessity of uniting together in some common bond the members of all branches of medical science. "Exactly twenty-five years ago the members of both societies were convinced that it is much more useful to unite, instead of pursuing, on separate paths, the two lines (that is, those represented by the then existing two societies), and this I think, gentlemen, will always be the end that we must aim at. You know that in most civilised countries, from the middle ages till quite recent times, medicine has developed in diverging directions. The representatives of the two principal branches, the physicians and surgeons, had—and this practice has taken root in the most striking manner in England—separated themselves, and nothing has afforded such strong testimony of the effect this separation had in Germany, also, as the medical history of our army. . . . Since that time, the great host of specialities has developed in Germany, and it would be in vain, anyhow fruitless, to oppose this tendency; but I think I ought to mention it here, and hope I shall be certain of the approval of all of those present, when I say that no speciality can flourish which separates itself entirely from the common source of science; that no speciality can develop fruitfully and beneficially, if it do not ever and anon draw from the common fountain, if it do not take the other specialities into account, and if all the specialities do not mutually assist one another; thereby, a fact which is perhaps not always considered necessary for practice, receiving knowledge through that unity on which our position internally, and I can also say externally, rests. For, gentlemen, it would be the most foolish and most dangerous development, if the system of specialities should ever come to such a pitch, that special schools were founded in which special branches were taught without any knowledge of other things offered us by the science of medicine."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Thursday, November 12th. Every member of the Council, with one exception, was present.

The President reported the result of the Meeting of Fellows and Members, held on October 29th, and the resolutions carried at the meeting were submitted to the Council.

The following resolutions were unanimously carried.

1. That the Council think it not desirable to diminish the privileges of the Fellowship of the College by depriving Fellows of the exclusive rights of electing to the Council, and of being eligible to become members thereof.

2. That in the opinion of the Council it is quite impracticable for the Council to act upon the second resolution passed at the meeting of Fellows and Members, namely, "That, in the opinion of this meeting, no alteration in the constitution or in the relations of the College, or in any of its By-laws or Ordinances, shall be effected without the consent of the Fellows and Members convened to discuss the same."

3. That it be referred to the President and Vice-Presidents to prepare a statement to be laid before the next meeting of Fellows and Members. That it is advisable that such statement shall clearly convey the Council's decided opinion that it would not be for the good of the College that the Members generally should vote at the election of Members of Council, and shall explain the reasons for their opinion; and that the statement shall also include the reasons why it is impracticable to give effect to the second resolution of the meeting of Fellows and Members.

An Extraordinary Meeting of the Council was summoned for Tuesday, November 17th, at 4 P.M., for consideration of the Report of the President and Vice-Presidents, to continue the discussion of the question of the title of doctor, and to proceed with further business, which was allowed to drop on this occasion through want of time.

Mr. Jonathan Hutchinson gave notice of the following motion: That the Council do take into consideration the proposals for widening the basis upon which the Fellowship is obtained.

The Council, on the report of the Committee of Management of the Colleges of Physicians and Surgeons, agreed to the addition of the Ceylon Medical College to the list of Medical Schools recognised by the Colleges.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HÆMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. RETURNS ON ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above Branch will be held at the Bear Hotel, Lewes, on Wednesday, November 25th. Dr. Crosskey will preside. Paper by Dr. Ranking: Cases of Faecal Tumour. The Honorary Secretary will be glad to receive early intimation of intended contributions; short papers and cases of interest being especially welcome.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton. —October 25th, 1885.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 26th. The President (J. H. Hartill, Esq.) will take the chair at half-past three o'clock. —VINCENT JACKSON, General Secretary, Wolverhampton, November 2nd, 1885.

GLOUCESTERSHIRE BRANCH.—The annual meeting will be held, under the presidency of Dr. Needham, at 6.30 P.M., on Tuesday, November 17th, 1885, in the board-room of the General Hospital, Cheltenham. The supper will be at the Queen's Hotel at 8.30 P.M., tickets 3s. 6d., not including wine. Agenda.—1. Scrutiny of the voting papers, and declaration of the result. 2. Presentation of the balance-sheet. 3. Exhibition of a Case of Hæmoglobinuria accompanied with Symmetrical Gangrene, with Notes and Remarks, by Dr. Wilson (Cheltenham). 4. Exhibition and Description of an Apparatus for Dry Antiseptic Vapour-Treatment of Wounds, and for Producing a Constant Antiseptic Air in Rooms, by T. S. Ellis, Esq. (Gloucester). 5. Some Remarks on the Frequent Non-Recognition of Glaucoma, by E. D. Bower, Esq. (Gloucester). 6. A New and Simple Form of Splint for Use after Tenotomy in Talipes, by G. Arthur Cardew, Esq. (Cheltenham).

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will be held at the Dolphin Hotel, Chichester, on Friday, November 20th, at 3 P.M. Dr. Tyacke in the chair. Agenda.—1. Remarks on Sanitary Matters, by the Chairman. 2. Report on Collective Investigation Work, by Dr. A. E. Buckell, Honorary Secretary for the District. 3. A Case of Typhilitis, by Mr. G. B. Collet. Dinner will be served at 5 P.M.; charge 6s. 6d., exclusive of wine.—G. B. COLLET, Honorary Secretary, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at the Kent and Canterbury Hospital, on Thursday, November 26th, at 3 P.M. Mr. Whitehead Reid in the chair. Agenda: 3 P.M., Mr. Raven, Parient Pericarditis; Mr. W. Knight Treves, Treatment of Big Glandular Swellings; Dr. A. de Watteville, On the Practical Application of Electricity in Disease. The chairman will show a specimen of Calculus passed through the Female Urethra. The dinner will take place at 5 P.M., at the Royal Fountain Hotel. The president will be happy to see members and their friends to luncheon, between 12.30 and 2, at his residence, 34, St. George's Place. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends. N.B.—All gentlemen purposing to dine are particularly requested to inform Mr. Whitehead Reid, by Tuesday, November 24th, that proper arrangements may be made.—W. J. TYSON, Honorary Secretary, 10, Langhorne Gardens, Folkestone.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 P.M. Gentlemen who propose to read papers, etc., are requested to signify their intention to the Honorary Secretary, A. W. Nankivell, Esq., St. Bartholomew's Hospital, Chatham, not later than November 24th.—A. W. NANKIVELL, Honorary Secretary, November 2nd, 1885.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at Brooke House Asylum, opposite Clapton Station, on Thursday, November 19th, at 8.30. The chair will be taken by J. S. Bristowe, M.D., F.R.S. A demonstration of patients suffering from nervous diseases will be given by Walter B. Hadden, M.D. A Case of Elephantiasis Scroti will be shown by A. T. Gibbings, M.D.—J. W. HUNT, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HEREFORDSHIRE DISTRICT.—A meeting of the above District will be held in the Council Chamber, Clarendon Hotel, Watford, on Wednesday, November 18th. The chair will be taken at 5.30 P.M. by the President, Dr. W. Dickson. The following papers will be read.—1. Displacements of Pelvic Viscera: Dr. P. Horrocks. 2. A Case of Emphyema and Thoracentesis: Dr. W. H. Blake. 3. A Few Short Notes on a Case of Raynaud's Disease, with Drawings: Dr. A. D. Murray, of Rickmansworth.—H. LESLIE BATES, Honorary Secretary, St. Alban's.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The next meeting will be held at 198, Union Street, Aberdeen, on Wednesday, November 18th, at 8 P.M.—ROBERT JOHN GARDEN and J. MACKENZIE BOOTH, Honorary Secretaries, 231, Union Street, Aberdeen.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: AUTUMNAL MEETING.

THE autumn meeting of this Branch was held at Tredegar on October 29th; GEORGE A. BROWN, Esq. (Tredegar), President. About twenty members attended.

New Members.—Benj. Griffiths, M.B., Mardy; W. L. Former, Esq., Brecon; E. A. Daniell, Esq., Aberavon, were elected members of the Association and Branch. J. T. Thomas, Esq., Risca; R. C. Hunter, Esq., Pontypridd; Rees S. E. Davies, Esq., New Tredegar; E. S. Wood, Esq., Pontypool; J. W. Phillips, Esq., Cowbridge; A. G. Lawrence, M.D., Chepstow, were elected members of the Branch.

Telegrams from Drs. Talfourd Jones and D. A. Davies, regretting inability to attend, were read.

Papers, etc.—The following communications were made.

1. The President showed a man, a boiler-maker, in whom a piece of steel had struck the left eye, producing dislocation of the lens into the anterior chamber. The lens was successfully removed. Two years after, a similar accident occurred to the right eye, with a similar result; the lens was removed by suction. He has now good sight in both eyes, with convex lenses.

2. Dr. Sheen (Cardiff) read the following: a. Therapeutic note on

the use of Extract of Male Fern in the treatment of Tapeworm; specimen of worm, with head, shown; *b.* Case of Gall-stones; specimens shown; *c.* Case of Colic from passage of a Calculus down ureter to bladder; specimen shown; *d.* A case of severe injuries to a child fourteen months old, with recovery (fractured lower jaw, fracture of both clavicles, and of three ribs).

Enteric Fever and Hospitals.—Dr. SHEEN introduced a discussion on the question, "Should cases of Enteric Fever be admitted into the wards of a general hospital?" He argued in favour of their admission. He pointed out that, in scarlet fever, measles, small-pox, and typhus, the diseased process mainly affected the skin, and to a large extent; thus offering a large infecting surface, the infection from which it was quite impossible to destroy during the continuance of the disease; whereas, in enteric fever, it was mainly through the stools and the linen soiled thereby that infection was carried, the infective surface was limited, and the consequent infective material could be destroyed during the treatment of the case. He contended that it was neither proved nor disproved that infection in enteric fever occurred through any other channels, and was inclined to think that, where any case was brought forward to support this view, there had been some negligence in disinfecting stools and linen. He quoted the opinions of Dr. B. W. Richardson, who, at a discussion before the Medical Society of London, in 1871, said that "he had seen much of it in Glasgow Infirmary, but had never seen a case communicated;" of Dr. Murchison, who said that "cases of enteric fever may be distributed in the wards of a general hospital with impunity;" and of Wilson (*Handbook of Hygiene*), who said, "if proper precautions be taken, there is little or no risk that the disease will spread to persons who nurse or otherwise closely attend upon the sick." There was another important reason why cases of enteric fever should be admitted into the wards of a general hospital, in the fact that in no other way could nurses be trained to nurse a disease in which recovery depended so much upon careful trained nursing.—Messrs. Eben Davies, Steel, Webster, G. A. Davies, F. J. Davies, and the President, took part in the discussion, and an affirmative answer was unanimously given to the question submitted.

A Live Hair-worm.—Dr. REDWOOD (Rhymney) showed a hair-worm, alive, which came with the water from a tap supplied by the water-works.

Collective Investigation.—Letters were read from Dr. Isambard Owen, Secretary to the Collective Investigation Committee, on the importance of an inquiry into the extreme duration of infection in scarlet fever, small-pox, measles, mumps, and diphtheria; and on cases of disease of the heart-valves in which the disease had been known to exist for five years without causing serious trouble.

Specimens of Danielsson and Co.'s Clinical Figures were laid upon the table.

Dinner.—The members and some visitors afterwards partook of an excellent dinner at the Castle Hotel.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Two Cases of Bilharzia Hamatobia.—*Trichina.*—*Malformation of the Fingers.*—*New Effects from Coffee-Intoxication.*—*New Facts concerning the Radial Nerve.*—*The Contagiousness of Tetanus.*—*Inoculation of Chicken-pox during a Hospital Epidemic.*—*The Inefficacy of Vaccine Lymph taken from Re-vaccinated Subjects.*—*Hydrophobia.*—*General News.*

At a recent meeting of the Société Anatomique de Paris, M. Ruault showed two bladders removed from patients with Bilharzia hamatobia. One, an Egyptian soldier, had suffered from hæmaturia six years before he enlisted, and had regularly served his time. With patients in this condition, good general health continues for some time, but death ultimately results from nephritis. The second, a fellah, aged 29, had hæmaturia during four years. Distomata were found in the pelvic veins.

M. Budor, at the same meeting, read notes on a case of trichina. The patient had a small tumour on his back, which, when removed, was found to contain the head of a cysticercus. A few months subsequently, he was readmitted into M. Budor's wards, and died from interstitial nephritis. The characteristic minute cysts were found in the muscles, cellular tissue, liver, brain, etc.

M. J. Guérin showed, at a recent meeting of the Académie de Médecine, a woman with congenital malformation of the fingers.

There was lateral deviation of the phalanges of both index-fingers. The subject had not been injured, nor was she rachitic. Her grandmother had been much struck by the movement of a lobster's claws, and her mother had suffered great anxiety lest her children should have the same digital malformation as herself. M. Guérin considered this malformation to be purely articular, and believed that cutting the ligaments would enable the fingers to be straightened. M. Trélat considers the hereditary transmission of this deformity very remarkable, and believes that there are osseous as well as articular lesions.

M. Brown-Séquard stated, at a recent meeting of the Biological Society, that, in addition to the well known effects of intoxication from coffee, he has observed anal and vulvar pruritus. The cause and effect was clearly established, the symptoms increased and decreased according to the doses administered.

M. Farabeuf demonstrated to the Société Anatomique de Paris that the radial nerve does not pass along the spiral groove, as is generally supposed. In a normal humerus, this groove is completely occupied by the insertion of the brachialis anticus. A ridge below this groove receives the nerve, which is in immediate contact with the periosteum.

M. Laiger, in a paper read before the Société de Chirurgie, maintained that tetanus is contagious, and of an epidemic character. M. Ferrier considers that M. Laiger does not distinguish between veterinary and human medical science. Spontaneous tetanus among animals must be admitted. The facts in favour of the contagion of tetanus are often the outcome of careless clinical study. Rose and Billroth admit the contagion of tetanus, but all attempts to inoculate that disease, even those recently made by M. Nocard, have been unsuccessful.

M. d'Heilly, during an epidemic in his wards of chicken-pox, made several inoculations, which succeeded three times in ten. Trousseau attempted, but was always unsuccessful; Steiner succeeded in 80 per cent. After successful inoculations, chicken-pox is not preceded by prodromata. The period of incubation is from three to seventeen days, an average of from fourteen to seventeen. Chicken-pox always resulted, and never small-pox. One of the children had been previously attacked by small-pox; the subsequent attack of chicken-pox ran its usual course. In children previously vaccinated and then inoculated with small-pox, the vaccination-pustule dried on the eighth day; chicken-pox appeared on the twelfth, and followed its ordinary evolutions. In one case, a small-pox eruption appeared two days after the chicken-pox eruption, and went on through all the stages. M. d'Heilly considers that these facts demonstrate that chicken-pox and small-pox are two distinct diseases. The period of incubation can be coexistent, or follow closely one after the other. Chicken-pox vaccination did not leave any marks, and the eruption was not near the area of vaccination. M. d'Heilly vaccinated from chicken-pox vesicles on the second day. M. Dumontpallier observed that M. De Heilly's experiments were not conclusive, because the children vaccinated for small-pox remained in the ward among the children suffering from this disease. The experiments of the same kind he had made with Trousseau all failed, the children were removed from contact with chicken-pox patients.

At a recent meeting of the Académie de Médecine, M. Blot read his annual report on vaccination and revaccination, and dwelt on the utility of compulsory vaccination. M. Buequoy expressed grave doubts as the efficacy of vaccine lymph taken from subjects who had been previously vaccinated. The question was discussed at the Société Médicale des Hôpitaux, and it was demonstrated that this vaccine lymph had lost its properties. M. Vidal stated that he had successfully vaccinated several people with lymph from revaccinated people; and he vaccinated them again three months afterwards with the same success.

In consequence of a report on hydrophobia, drawn up by M. Dujardin-Beaumetz, the Conseil d'Hygiène et de Salubrité de la Seine have issued a warning to the general public that cauterising with ammonia, carbolic acid, amica, alcohol, etc., is perfectly useless when anyone is bitten by a mad dog; the only prompt treatment is to make the wound bleed, wash it, and then cauterise. The Council also recommends that strict measures should be taken to reduce the number of stray dogs; these animals are the propagators of hydrophobia; owned dogs are bitten by them, and their masters conceal the fact in order not to have them killed. It would be well to make it generally known that all such offenders are not only liable to pay damages, but also to be proceeded against for breaking the sanitary law of July 21st, 1881, concerning animals.

M. Edme, Chef du Bureau de la Police Sanitaire et Industrielle at the Ministry of Commerce, is named Chevalier of the Legion of Honour for services rendered during the cholera epidemics of 1834 and 1835.

Dr. Piotrowski, sanitary physician to the steam-packets of the Administration des Messageries Maritimes, has just received a silver medal for his zealous and devoted conduct during an epidemic of small-pox on board the steampacket *L'Océanien* from June to September.

Dr. Penières, late Deputy for Corrèze, performed tracheotomy on a child with croup, and was seized with pseudo-membranous laryngitis whilst travelling to the Ardennes.

The Sanitary Bureau at Constantinople has reduced the term of quarantine for French and Italian produce to five days; that of Spain, Sicily, Tunis, and Algeria, to ten days; that of Varna, Roumania, and Odessa, will be only inspected.

The Prefect of Finistère has asked for the services of navy-doctors for civil practice, in consequence of cholera appearing at Concarneau. The epidemic has been imported there by a Spanish vessel.

At the last meeting of the Commission Départementale des Bouches-du-Rhône, a sum of 1,000 francs was voted to pay the expense of a professor of the medical school to go to Paris to study M. Pasteur's experiments on hydrophobia, and 2,000 francs *per annum* (£80) towards the expenses of an establishment where hydrophobia should be treated.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Salford Royal Infirmary.—The late Bishop of Manchester.—Conference on Cholera.—A New Sewage Scheme.—Medical Students and Owens College Dinners.—Candidates for the Professorship of Physiology.—Lectureship on Medical Jurisprudence.

THE annual meeting of the Salford Royal Hospital and Dispensary was held last week, to receive the report of the medical officers and the financial statement for the past year. The report stated that 575 in-patients had been received into the hospital; there were 4,659 out-patients; 4,288 accidents had been attended to; and 2,562 patients visited at their homes. The finances were apparently in a flourishing condition, considering the badness of the times, inasmuch as the income amounted to nearly £4,500, while the expenditure was slightly under £4,000. An effort was made, on the part of several influential supporters of the charity, to rid it of the useless and effete system of "recommends," which has been abolished at the infirmary, and does not exist at most other of our local charities; the treasurer, however, proved obstructive, evidently fearing a diminution of the subscription-list if the subscribers were to be no longer entitled to "recommend" patients to the hospital. Surely the time has gone for a popular charity to need bolstering up by such devices; poverty and need of assistance ought to be sufficient "recommends." The additional buildings, which were authorised to be commenced at the annual meeting last year, are now in a fairly advanced condition, and, it is to be hoped, will be ready for occupation next spring. The opening of the new wards will mark an important era in the history of the institution, inasmuch as accommodation will be provided for at least 120 beds, and it will thus be in a position to be recognised as a place of clinical instruction for students. The importance of the hospital is likely to be still further increased, on account of its proximity to the site of the warehouses and docks likely to be built in connection with the ship-canal. A feeling tribute was paid at the conclusion of the meeting to the late Bishop of Manchester, who had always been a good friend to the charity, and one of whose last appearances in public was made in connection with this institution.

The loss of Dr. Fraser will be keenly felt by all the hospitals and charitable institutions of this city. His help was ever available at their annual meetings, and his kindly but candid criticisms of the balance-sheet or medical report were full of sound sense, and went straight to the point. His genial presence will long be missed.

A conference on the subject of cholera was held in the Town Hall last week, under the auspices of our local Sanitary Association and the North-Western Association of Medical Officers of Health. Dr. Ransome explained that the conference had been called to consider how best the local authorities might combine to frame measures for united action to prevent an outbreak of cholera, and to provide suitable hospital-accommodation, to be held in readiness in case of need. A subcommittee was appointed, to draft regulations for the guidance of the authorities, and to submit them to the general committee.

At a recent meeting of the Corporation, an important report upon a new sewage-scheme was presented by the Health Committee. It appears that the present arrangements for disposing of the night-soil from the ash-closets, the street-sweepings, and other refuse collected from the south and south-western districts of this city, must shortly

come to an end, inasmuch as the hollow spaces in various localities used as "tips" are rapidly becoming filled up. The quantity of refuse collected from within the boundaries of the city amounted last year (ending March 31st) to nearly 250,000 tons. Of this, nearly 77,000 tons of night-soil were converted into dry manure at the Corporation's works at Holt Town; while the remainder, consisting of 138,000 tons of night-soil, street-sweepings, slaughter-house refuse, stable-manure, etc., were "tipped." As the city boundaries have recently been extended, there is this year a still larger mass of refuse material to be dealt with. To dispose of this vast accumulation of filth, the Health Committee propose to purchase 1,100 acres of land, known as Carrington Moss, situated six or seven miles south-west of the city, to convey the refuse thither by rail, and to bring this hitherto waste of bog and moss into cultivation. For this land, £38,000 are to be given, and £22,000 more to be expended in improvements, road-making, etc.; the land to be let to tenants, who shall be bound to take the city refuse. This scheme appears to be the most economical and practical way of dealing with a difficult problem.

The medical students' dinner was celebrated last week at the Grosvenor Hotel. Professor A. H. Young occupied the chair. The usual toasts were honoured, including the health of the visitors, who represented both the Liverpool and the Leeds medical students. The evening was enlivened by songs, recitations, and other means well known to medical students. The Owens College dinner, which is to take the place of the Royal Infirmary dinner, which has fallen through for a year or two past, will be held on Friday evening, at the Queen's Hotel. Mr. Lund will preside.

To the list of candidates for the professorship of physiology at Owens College given in my last letter, may be added the names of Dr. J. Theodore Cash and Dr. McWilliam, both of London.

The lectureship on medical jurisprudence will shortly be advertised. The salary is £25 *per annum*, the same as the remuneration attached to all the summer session lectures, including obstetrics, hygiene, and diseases of children. The lecturers receive no share of the students' fees.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—As a Member of the Royal College of Surgeons of England (forty-three years), and a Fellow (twenty-five years), it seems to me, at the present time, three important subjects are engaging the attention of our profession, namely:

First, that in regard to the Fellows and Members of the Royal College of Surgeons of England, claiming the right of voting upon all matters appertaining to the well being and usefulness of the College;

Secondly, that as to the conjoint scheme effected between the Royal Colleges of Physicians and Surgeons, London, for the purpose, especially, of granting a complete diploma for those embarking in the practice of their profession;

Thirdly, that as to the medical education of future students.

As to the first proposition, I maintain that the Fellows and Members should have their just rights accorded to them by being allowed to vote upon all questions belonging to the College affairs, by which means the institution would become a truly representative body, and be placed upon a firm basis.

As to the second proposition, the conjoint scheme of the two Colleges, no doubt, in the estimation of most individuals, is favourably regarded as a move in the right direction, by which circumstance a man entering into practice will have been found fully qualified in the three branches (medicine, surgery, and midwifery), not, as now, as in so many instances, being registered as a practitioner, possessing only either a medical or surgical diploma; in short, practising upon a single qualification.

As to the third proposition, that is, medical education, I consider all students, after passing the preliminary examination in arts, ought to devote twelve months specially to scientific subjects, such as chemistry, physics, and botany, before being allowed to enter as students of any medical college and hospital; this object would be best attained at some university or college.

In London, a teaching university ought to be founded under the auspices of the two Royal Colleges, in order that those students who aspire to a medical and surgical degree might be enabled to acquire the same in London, possessing such extensive field for clinical instruction, etc., without being, as now, necessitated to enter at some university at a distance. The present London University is much beyond the scope of most students.

As to the amalgamated Colleges of Physicians and Surgeons in London intending to obtain powers to grant degrees, I feel convinced, as they are now constituted, strong opposition (and rightly, too) will be offered by the universities in general to that scheme. An university only ought to have the power of dubbing its members doctors, after having undergone the necessary examinations.

If a licentiate of a college of physicians and member of a college of surgeons be allowed to assume the title of M.D., the title of Doctor will become of no value; for, in such a case, it would be better for all practitioners to be styled doctors, a name universally given to them by the public at large. University graduates would be called upon to make some distinction in their title, in contradistinction to those who have not been obligated to pay extra fees. I grant the examinations conducted by the conjoint board in London are both searching and practical, and the diplomas not in any degree to be scoffed at, but rather contrariwise, in the possession of which their recipients may be justly proud.—I am, sir, yours faithfully,

SPENCER T. SMYTH, M.D., King's College, University of Aberdeen; Licentiate of Royal College of Physicians, London; Fellow and Member of Royal College of Surgeons, England; Licentiate of Apothecaries' Company.

Forest Hill, S.E.

SIR,—While generally agreeing with the joint letter of Messrs. Warwick C. Steele and W. Ashton Ellis, our able and energetic Honorary Secretaries, you will perhaps permit me, as an early working member of the Committee of the Association of Members of the Royal College of Surgeons, to say that, while admitting a certain degree of asperity in some of the speeches, it should be remembered that the observations made were not applied to present so much as to past members of the Council, which resembles the Russian Cabinet in its perpetuity and complacent irresponsible autocracy. I am sure that my emphatic friend Dr. Joseph Rogers was simply treating of men of the past, while addressing his vigorous truths to the men of the present.

It was absolutely necessary that the plain truth should be stated; and, personally, I feel as much obliged to Dr. Joseph Rogers for his denunciation of forty years ago as I do to Dr. Collum, the President of our Association, and Mr. Forrest, our former Secretary, for founding it; to Mr. Joseph Smith, Drs. Joseph Rogers, Abud, and Danford Thomas, Messrs. Outhwaite, Jessop, Biggs, and other working members of the committee, for the very valuable assistance given to the cause; to Messrs. Steele, Cook, and Ellis, who have been simply indefatigable, as well as able, in all that pertained to finance and organisation; and last, not least, to Mr. Gamgee, for bringing his eloquent tongue to advocate our cause and accentuate our carefully prepared and hard won triumph. Courtesy to the Fellows who had supported our resolution caused me to defer mine, that the carefully prepared petition to the "Queen's Most Excellent Majesty in Council" be read by the Secretary to the Royal College of Surgeons of England, till the next or quasi-adjourned meeting, as this document contains our demands, and we cannot consistently ask or take less. As I handed in a copy to the President and Council in full meeting, they can no longer say that they have "no cognisance" of this document officially. We require all the backing we can get, personal and financial; for though we have opened the campaign brilliantly, we have to deal with an obstinate, rich, and crafty foe. Our duty is to support our President and those working with him, on whom the brunt of the battle and organisation has fallen; and to stick, after the old Peninsular fashion, "shoulder to shoulder."—I am, sir, yours truly,

KENNETH CORNISH, Chairman of the Petition Committee of the Association of Members of the Royal College of Surgeons. Grosvenor Road, W.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS' COMBINED SCHEME.

SIR,—The letters published on October 31st, from Dr. Prosser James and Mr. Bruce Clarke, clearly show how students and teachers are troubled by the new scheme. Mr. Bruce Clarke's suggestions may or may not be valuable to intending students; but they do not in any way aid the students who joined in October 1884, and on whom the new regulations come very heavily. In all matters of this kind the teaching bodies ought to be consulted, and I feel sure that the combined colleges would lose neither popularity nor dignity if they gave heed to the advice of practical men and teachers. Thanking you for inserting my previous letter.—I am, yours truly,

VERUS AMICUS.

THE MEDICAL DEFENCE UNION.

SIR,—Your readers cannot help but endorse Dr. Bond's remarks in his able and courteous letter to you last week, in which he says "that the British Medical Association ought to undertake the work" upon which the above Union has already entered. Surely, no one can possibly doubt but that the funds of the British Medical Association are ample enough, and that the Association itself is sufficiently strong numerically for the purpose; this being so, then how much more does the reflection lie upon the General Medical Council, which ought to take the lead, considering its monetary accumulations of many years. Members of the medical profession are becoming tired of appealing and waiting for the help which ought really to have been offered to them long ago, and therefore it cannot possibly be a surprise that a Medical Defence Union should be the outcome of this want of consideration. I cannot, however, at the same time, accept Dr. Bond's statement that the British Medical Association represents the whole of the profession; it is an association which, like other associations, simply represents the members that belong to it. I regret very much that I cannot apply the term courteous to Mr. Brown's communication, and I beg most respectfully to state that this gentleman's assertion, that "the Medical Defence Union emanated from a firm of solicitors in Bedford Row," is incorrect. I am solely responsible for the institution and formation of the Union, and I sought the assistance and co-operation of an able and energetic solicitor, who is much respected, and whose connections in the legal profession were known long before Mr. Brown or his association ever came into existence. Mr. Brown's protest against this society adopting the title of the Medical Defence Union comes a little late, for the reason that quite three months ago, before the Union was incorporated and registered, the President and four Vice-Presidents of his association received proof prospectuses, with invitations to join; why, then, was not the objection raised before? Again, Mr. Brown's association does not take up the work for which this Union is especially instituted; therefore, his remark about the likelihood of the two associations being confounded is not called for.

As regards Mr. Brown's ill-advised sneer at the life-membership and the duties of the council (he carefully avoids the word "general," and ignores the fact that the executive, as it ought to be in all well regulated associations, performs the actual work), I think it may be best left alone; for on these points the Union is fully acquitted by the very cordial support it is receiving. If Mr. Brown really have the interest of the defence of the profession at heart, which he professes, he would be the first to welcome, associate himself with, and assist to his utmost, a movement which does not involve the risk of unlimited liability upon its members, and has every promise of becoming a most useful and formidable institution, instead of entering into statements and exhibiting a jealousy which can only end in making him appear ridiculous.—I am, sir, obediently yours,

CHARLES F. RIDEAL, Secretary.

The Medical Defence Union, 17, Bedford Row, W.C.

SIR,—I have great pleasure in supporting Dr. Bond's suggestions as to the desirability of the British Medical Association using its influence and its funds for the protection of its members against calumny and illegitimate practice. Already there is a Medical Defence Association which has done much good service. I should be glad if the British Medical Association would support it by its influence and funds, or, still better, have the Association incorporated into itself. From all I have heard it has done much good, at little cost, and many of us would be glad to subscribe a small sum yearly. I would suggest that the Council, at their next quarterly meeting, consider the question. I am sure the Hon. Secretary of the Medical Defence Association would be happy to aid the Council in this work. The Council might send the result of the deliberations for the further consideration and adoption of each Branch Council.—Yours truly,

Bacup, November 9th, 1885.

JOHN BROWN.

THE PRELIMINARY SCIENTIFIC EXAMINATION.

SIR,—As you have published, in last week's issue, a communication from a correspondent, apparently claiming that University College is the only institution at which candidates can be properly prepared for the Preliminary Scientific Examination, may I be allowed to state that the statistical results at Guy's Hospital, though on a smaller scale, were equally good, or better. Thus, fourteen candidates entered themselves at Burlington House, as having wholly or partially prepared for this examination at Guy's Hospital. Of these, twelve passed; that is, the failures were two out of fourteen, or one-seventh only. I think we may say that the classes at Guy's Hospital, like those at

University College, are conducted by teachers of long experience and first-rate scientific position.—I am, sir, yours faithfully,

FREDERICK TAYLOR, Dean, Guy's Hospital Medical School.
St. Thomas's Street.

THE MULTIPLICITY OF MEDICAL SCHOOLS IN THE METROPOLIS.

SIR,—As I was prevented by the impatience of the meeting at the College of Surgeons on the 29th ultimo from giving the reasons which led me to think the above subject required early consideration on the part of the Council of the College, I trust you will be able to find room for the following brief statement of them in the JOURNAL.

Having quoted the opinions of Professor Huxley and Professor Schäfer to the effect that, so long as the present ruinous system of competition between the London medical schools continues, it would be impossible that physiology should be properly taught in those schools, I was about to point out how much confirmation of those opinions was to be found in the returns of results of examinations published in the so-called Report of the Council, at pp. 41 to 43. Thus, at page 41, in the report on the primary examination in anatomy and physiology for Membership, it will be found that, of a total of 888 candidates examined in 1885 (in which for the first time the numbers referred in each subject are given separately), while $89 + 28 = 117$ were referred in both subjects for periods of three or six months, and $72 + 47 = 119$ in anatomy, $144 + 32 = 176$ were referred in physiology. In the same way, in the report of the Examining Board in England, on page 43, of 365 candidates examined in elementary anatomy and elementary physiology, while 9 were referred in both subjects, and 14 in anatomy, 34, or double the number referred in anatomy, were referred in physiology. Looking at these figures in the light of the professional opinions I have quoted, it seems to me that some part of the blame of these failures must fall on the teaching; that the students cannot be expected, as Professor Schäfer says, to make bricks without straw; and that, simply as a matter of justice to them, an inquiry is necessary. Further, as the College has, in conjunction with the College of Physicians, taken the position of a conjoint board for England, it ought not to shirk the responsibilities of that position, one of which was defined by Clause 20 of the Medical Bill of last year to be, "to ascertain, by inspection or otherwise, the sufficiency of the education provided by any schools for the time being declared to be recognised medical schools," and to take such steps as may be necessary for depriving any medical school of the privilege of being recognised.

Finally, as, even supposing the Council should not think fit to reduce the number of London schools from eleven to three, as recommended by Professor Huxley, but should, proceeding more gradually, determine that six would be a sufficient number, the delicate question as to which of the eleven would be the fittest to survive would take much time and anxious thought, the whole question seemed to demand the early consideration of the Council.—I am, sir, yours, etc.,
H. NELSON HARDY.

DR. IMLACH'S CASE OF PREGNANCY IN DOUBLE UTERUS.

SIR,—Not having been present at the operation described in the JOURNAL of October 10th, I can only judge of its merits by the accounts of those who were.

Apart from the natural dictates of modesty, the success of the case, so far as the mother's life alone is concerned, would make me hesitate to criticise the expediency of the operation, but for the fact that the success itself, if not duly balanced against the other circumstances of the case, might lead to its frequent and unnecessary performance.

I cannot help thinking, with all deference to Dr. Imlach, that, had a consultation of the staff been held, the balance of opinion would have strongly inclined in favour of giving the patient the benefit of the doubt, and waiting for labour, to deliver *per vias naturales*, the probable practicability of which was verified by the two gentlemen who assisted at the operation; or, since the case was mistaken as one for ovariectomy, and the operation therefore begun, to have persevered in the attempt to extract the child by using the forceps. If necessary, hysterectomy might have been resorted to on a subsequent occasion. The risk would have been less, with this difference, that the child's life and the mother's uterus and ovaries might have been saved, whereas the only structure in question left behind was the one which caused the patient to seek relief.

It is true, as Dr. Imlach says, that "Porro was not to blame," as that surgeon never advocated the procedure adopted in this case. In fact, it was not a successful case of Porro's operation, as the latter is

specially directed towards saving the life of the child as opposed to craniotomy or cephalotripsy. Dr. Imlach partially admits this, but attention should be drawn to the error, lest anyone, seeing the heading, and not taking the trouble to read the report, might be misled as to the result of the case.—Yours faithfully, CHARLES E. STEELE,
Liverpool. Assistant-Surgeon to the Liverpool Hospital for Women.

THE LIGATURE IN OVARIOTOMY.

SIR,—I congratulate my friend, Dr. Skene Keith, on the successful results of his first fifty ovariectomies, but I cannot allow his statement about the ligature to pass without contradiction. He says that "the cautery is the only perfect method of dealing with the pedicle, for, by using it, all risk of after-bleeding is avoided. The contrary is the experience of almost all who have used the ligature extensively."

I have used the ligature now for many hundreds of pedicles, and I have never had after-bleeding but in one instance, and that was due to my not using the Staffordshire knot. Doubtless the ligature, improperly applied, will give rise to after-bleeding, just as the cautery, improperly applied, most undoubtedly would, for even this perfect method, the cautery, has failed in my hands, because I do not know how to use it as skilfully as Dr. Keith does. I think no better evidence of the value of the ligature, when used as skilfully as Dr. Keith can use the cautery, can be given than by the statement I can now make, that, yesterday, I removed an ovarian tumour from a patient, being the one hundred and thirty-second operation for cystoma since January 1st, 1884, without a death, and without any incomplete operation in the whole of that long series. Dr. Skene Keith tells us that he has not yet "explored" the abdomen. He will greatly extend his sphere of usefulness when he begins to do so.—I am, sir, yours, etc.,
Birmingham. LAWSON TAIT.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETIQUETTE.

SIR,—Recently a message reached Dr. A., asking him to "come at once to Mrs. B's," at a certain address about a mile and a half off. Mrs. B's name was unknown to Dr. A. On going to the place he found that a sister of Mrs. B. had been suffering severely since the previous night; that Dr. C., the usual attendant on the family, had been sent for before 9 o'clock that morning, and that, as Dr. C. had not appeared by 1.30 p.m., a second message had been sent, stating that if he could not come at once, another medical man must be called. It was then, on the suggestion of the neighbours referred to, that Dr. A. was sent for. Dr. A., having attended to the woman, was expressly asked to call again, Mrs. B. explaining that Dr. C. "was often lazy in answering her messages, and she could not always wait his time;" and also that her sister was only on a visit to her, and had not been seen by Dr. C. These explanations, together with the facts that A. had simply been asked to "come at once," without any mention being made of another medical man's name, and that several medical men's residences were passed between Dr. C.'s and Dr. A.'s houses, were judged by A. as sufficient to justify him in taking the case in charge. He made several subsequent visits, the patient showing progressive improvement. At a later visit, however, he found the woman suffering from a recurrence of the early serious symptoms, and suggested a consultation. This was agreed to, and Mrs. B.'s husband, who had been from home on the occasion of A.'s first visit, proposed Dr. C. as being best known to the family. Mr. B. undertook to see Dr. C., arrange for a meeting next morning, and let Dr. A. know the hour that night. No message came to Dr. A. that night or up to 10 next morning. On calling at B.'s house he was informed that Dr. C. had declined to meet any other practitioner in a house where he was in the habit of attending, but that he had called already that morning, seen the patient, and would again visit next day. Dr. A., of course, at once withdrew from the case, meanwhile being told by Mrs. B. that this was none of her doing, but her husband's and Dr. C.'s, to whom she had complained that Dr. A. was not being properly treated. She said that her husband had left early in the morning to call on Dr. A. and explain. The man neither called, however, that day, nor since, though ten days have elapsed, and Dr. A. has heard nothing more from anyone concerned.

You will oblige A. by kindly giving an opinion on the facts stated. 1. Did he act according to professional rights in taking on the patient in this case? 2. If he did, had Dr. C. justification for refusing to meet him? 3. Was Dr. C. still further justified in entering on attendance in succession to Dr. A., especially before the latter was notified of the new arrangement? 4. What should Dr. A. regard as his dutiful relationship to Dr. C. for the future?—I am, sir, yours truly,
A MEMBER OF THE ASSOCIATION.

* * The ethical note by which Dr. A. should, in our opinion, have been guided in the case which he relates, is as follows. "When a practitioner is called to an urgent case, either of sudden or other illness, accident, or injury, in a family usually attended by another, he should (unless his further attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services." Although we can readily understand Dr. C.'s averseness, under the peculiar circumstances, to meet Dr. A. in consultation, he would have acted wisely, and evinced the true professional feeling, in so doing. Be that, however, as it may, he should undoubtedly have declined to take charge of the case, until, by due inquiry, he had assured himself that Dr

A. had been courteously "notified of the new arrangement," and the reason withal; a contrary line of action would justly expose him to a charge of unethical conduct and professional discourtesy. In reference to Mrs. B., we consider that, under the attendant circumstances, no blame whatever can fairly be imputed to her with regard to the discourteous treatment to which Dr. A. was subjected by Dr. C. and Mr. B. In reply to our correspondent's fourth question, as to what his "future relations" with Dr. C. should be, we would refer him to the answer to a similar query recorded in the JOURNAL of September 19th, page 371, column 2, under the head of "Medical Etiquette."

LUNACY CERTIFICATES.

Sir,—I should like your opinion in reference to a few points in the annexed narrative, for the accuracy of which I can vouch.

A. and B. are two medical men living within a mile of each other. At 10 P.M. A. is sent for to see a labourer, said to be insane. A. goes, and finds such is undoubtedly the case; he leaves another man to stay with the patient during the night, and next day goes again to see him. Finding him as bad as before, A. fills in a certificate for his removal as a pauper lunatic. A. then calls on B., and finding him out, writes a note, asking him to see the man, and certify for his removal. A. has previously seen the inspector of poor about the case. B. goes next day to see the man, and instead of certifying, or communicating directly with A., he informs the inspector of poor "that there is nothing wrong with the man," he could not say the man was sane, but he was not insane." B. also tells the neighbours that "a blue pill and a black draught will put the man all right." A., on hearing these several statements, first requests the inspector of poor to keep his certificate, being sure it will be needed soon, and declines any further responsibility in the case. A. further requests the man's friends to call in B. as their medical attendant, as A. says he is unable to cure with blue pills and black draughts a man he believes to be insane. B. is called in, and attends the man, but he gets no better under the treatment adopted. The first time A. has the opportunity, he asks B. for an explanation of his conduct. In reply, B. says: "If all such cases were sent to an asylum, we should soon fill these institutions," to which A. answers: "It is cases which are not hopelessly bad which should be sent to an asylum for treatment, hence this man should have gone," and asks B. "if he wants the man to murder some one, to prove his insanity?" B. practically denies the man's insanity, and offers no excuse for his other conduct. About a week after this explanation, and five weeks after the first visit of A. to the man, B. is sent for hurriedly one night to attend to a neighbour, who had been murderously attacked by the same (?) man with a poker, and B. immediately signs a certificate for the man's removal as insane.

There is little doubt that B. was annoyed at A. being called to a man in his parochial district at the first, and showed it by his statements to the neighbours in disparagement of A.; but it also seems clearly proved that B. does not know the symptoms of insanity in one of its commonest forms. This was not the first, or last, unprofessional action B. did to A. or to other brother practitioners. Further, the inspector of poor, getting such contradictory statements from two medical men, went immediately to the Board of Supervision in Edinburgh "to relieve himself of the responsibility," as he told A. Before the Board of Supervision, or some person acting on their behalf, the inspector, being an unprofessional man, and, moreover, never having had anything to do with a case of insanity before, was asked to give his opinion whether the man was dangerous or not; thus entirely ignoring the medical opinions, and not doing what they should have done, for example, sent a competent medical man to see the case.

I would like to know, had this insane man burned down several houses, or murdered several people, as he attempted to murder one man, and had repeatedly threatened his wife, would not the Board of Supervision have been responsible for such? and are they not responsible for the injuries the neighbour suffered from this insane man? It seems to me that, in all cases of doubtful insanity where the medical testimony is conflicting, it should be compulsory for the Board of Supervision to send immediately a competent medical man to see the case and decide about it.

Further, I think there should be local councils, in proper districts, to deal with all cases of alleged unprofessional conduct, and to heavily fine the offender if such be proved, as also to fine anyone bringing a trivial or unwarranted complaint, such fines to go for the benefit of the old, infirm, and necessitous of our brethren.

I do not like anonymous letters, and have hence enclosed my card for you to publish the names if you think fit.—I am, sir, yours very sincerely,

D. W. M.

*. Be the cause what it may of B.'s conduct in the case referred to by A., there can be little doubt but that, under the circumstances related, he evinced an unusual lack of professional courtesy in failing to acknowledge, either in person or by note, A.'s personal call and subsequent written request. At the same time, while giving expression to our regret on the point, we cannot ignore the fact that we are all more or less liable to err in diagnosis; and it would, therefore, ill become us to take an uncharitable view of a brother-practitioner's assumed failure in the case alluded to, notwithstanding the unfortunate and regrettable consequence. To give greater prominence to the several points submitted by our correspondent, we think undesirable, especially as no apparent practical good is likely to result. With regard to the legal responsibility of the Board of Supervision under the circumstances narrated, that is a question for the consideration of the injured person's solicitor, and, consequently, one on which we must decline to offer an opinion.

PROFESSIONAL COURTESIES.

Whatever may be "M.B., M.A.'s" opinion as to the real motive cause of the visit of professional courtesy paid to our correspondent by his late opponent, we would, accordant with the principle of returning good for evil, urge him to return it at an early date; and we venture to predict that he will in no way regret it, whether the visit be subsequently renewed or not.

In reference to "the call upon the new residents" in the same village, by a practitioner living in a town four miles distant, our view upon the point will be found recorded in the JOURNAL of October 17th, page 765, col. 2, under the head of "A Junior Member."

T. L. H. AND W. F. W.—The pressure upon our columns, and the unavoidably limited space at our disposal for ethical correspondence, render us unable to accede to T. L. H.'s request to publish the communications (which extend over 428vo. pages of manuscript) received from him and Mr. W. on the subject of their dispute; nor indeed is it necessary, or expedient, for other purpose than to make known in detail the regrettable line of conduct pursued by the latter toward our correspondent. The material points, however, are embodied in the following comments on the case; in reference to which we would remark that a thoughtful and unbiased examination of the several professional and ethical points leave upon our mind a strong impression that Mr. W. has seriously failed in his ethical duty to a brother practitioner; and that, in seeking to promote self at the expense of his neighbour, he has also failed to do unto others as he himself would wish to be done by. Even supposing, for the sake of argument, that Mr. H. had really committed an error of judgment (of which we have no evidence other than that of the self-biased accuser), why, it may well be asked, should Mr. W. have so unnecessarily "called the attention of some people in the room to the fact (?) of two ligatures tied to pieces of adipose," in place of "the wounded artery," and, as he himself writes, have "spoken pretty strongly on the line of treatment adopted," and, further, "commented on Mr. H.'s treatment of the young man in the surgery, as rough and unskillful" (such young man, withal, having been professionally attended to by Mr. H. for Mr. W., in the latter's absence from home at the time of the accident). We quote Mr. W.'s own language, and leave it to tell its own tale of medico-ethical morality. With regard to the second case of alleged erroneous diagnosis and treatment, as related to Mr. W. himself, we regretfully hold the same opinion as of the preceding one.

Expressing, as it does, our own views and feelings on the points involved, we deem it well, in the interest of the profession, to append the following foot-note, extracted from the *Code of Medical Ethics*:—"What, it has been critically asked by an eminent practitioner (the late Sir Robert Christison), should be the conduct of the consultant when he finds that the ordinary medical attendant has misunderstood the case, or it may be, has committed a grievous error? We reply that, in obedience to the 'royal law' (St. James, Ch. ii., v. 3), he should, while striving to do his duty to the patient, at the same time endeavour judiciously to shield his brother-practitioner from the obloquy and prejudice which are always, in a greater or less degree, attached by patients to an error in judgment by their doctor; for who, it may be replied, has not, in the course of his professional life, committed his grievous errors, of which the 'still small voice within,' is alone cognisant, and the sole accusant!"

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

THE following appointments have been made at the Admiralty during the past week: J. R. M'DONNELL, Surgeon, to the *Audacious*; E. W. VON TIMZELMANN, Surgeon, to the *Constance*; A. M. PAGE, Surgeon, to the *Hercules*.

Mr. M. P. S. WARD, Deputy Inspector-General of Hospitals and Fleets, died on the 4th instant at Radstock. He entered the service, July 22nd, 1848; became Staff-Surgeon, August 26th, 1847; Fleet-Surgeon, March 6th, 1872; and Deputy Inspector-General, April 18th, 1881, on which date he retired.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR J. HECTOR, M.B., who has but recently returned from service in Bengal, has been appointed to command the Depot and Training School at Aldershot, vice Surgeon-Major S. K. Ray.

Surgeon W. R. HENDERSON, M.D., has elected to join the African Branch of the Medical Staff, and has been posted to Sierra Leone, at which place he has arrived.

Surgeon E. T. WATKINS, of the 1st London Engineer Volunteers, has been granted the honorary rank of Surgeon-Major.

The name of Surgeon R. JENNINGS is to be substituted for that of Surgeon M. W. KERIN, as having been ordered to embark in the troopship *Serpis* on March 12th, 1886.

Surgeons D. R. HAMILTON, R. G. THOMPSON, M.D., C. T. BLACKWELL, and R. I. POWELL, have been brought on the strength of Her Majesty's Forces in the Bombay command from October 7th, the date of their arrival at Bombay.

His Royal Highness the Duke of Cambridge visited the Cambridge Hospital on the 5th instant, when he presented the Order of the Royal Red Cross to Sister Ireland for distinguished services during the recent Sudan campaign.

Surgeon O. TODD, M.B., is directed to hold charge of the civil medical duties of the Meerut District, in addition to his military duties.

Surgeons A. E. J. CROLY, R. O. CUSACK, and E. F. SMITH, have been directed to proceed to England by the troopship leaving Bombay on or about November 7th, and to report their arrival to the Director-General of the Medical Staff.

Surgeon H. W. McBRAY, M.B., doing duty at the station hospital, Bangalore, is ordered to do duty at the station hospital, Poonamallee.

Surgeon S. L. DEEBLE, on arrival from England, is to do duty at the station hospital, Secunderabad.

Surgeon C. WILLIAMSON, doing duty at the station hospital, Madras, is to do duty at the station hospital, Poonamallee.

Surgeon-Major GEORGE CLERK IRVING died at Malta on the 22nd ultimo, in the fortieth year of his age. He entered the service as Assistant-Surgeon, April 1st, 1867; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1875. He does not appear to have seen war-service. Mr. Irving was the second son of the late Major-General Alexander Irving, C.B., Royal Artillery.

Surgeon W. M. HEWSON, M.B., died at Korosko, in Egypt, on the 30th ultimo, at the age of 27. He joined the army on January 31st last, and was at once sent to Egypt, where he remained till his decease.

INDIAN MEDICAL SERVICE.

THE services of Brigade-Surgeon W. P. DE FAURE, M.D., Madras Establishment, Civil Surgeon of Moulmein, are replaced at the disposal of the Madras Government.

Surgeon S. F. BIGGER, Bengal Establishment, Officiating Medical Officer of the 20th Native Infantry, is appointed to officiate as Senior Medical Officer at Port Petair and the Nicobars, during the absence on leave of Surgeon-Major W. N. KEEFER.

Surgeon-Major T. E. B. BROWN, M.D., Bengal Establishment, has been promoted to be Brigade-Surgeon, vice Brigade-Surgeon R. Rouse, who has retired.

Surgeon-Major G. GRANT, M.D., Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, February 10th, 1859, attaining to Surgeon-Major, July 1st, 1873. He does not appear to have seen war-service.

Surgeon A. T. L. PATCH, M.D., Madras Establishment, is ordered to do general duty under the orders of the Deputy Surgeon-General of Her Majesty's Forces, Eastern District.

Surgeon E. R. DA COSTA, Madras Establishment, is ordered to do general duty under the orders of the Deputy Surgeon-General of Her Majesty's Forces, Hyderabad Subsidiary Force.

Surgeon M. B. BRAGANZA, Bombay Establishment, has been detailed from general duty Presidency Circle, for duty with field and general hospital, Suakin.

Brigade-Surgeon J. BROWNE, M.D., Bengal Establishment, is directed to officiate as Statistical Officer to the Government of India in the Sanitary and Medical Departments, during the absence on deputation of Surgeon-Major A. Stephen, M.B.

Brigade-Surgeon G. FARRELL, Bengal Establishment, Medical Officer to the 5th Goorkhas, and Honorary Surgeon to the Viceroy, is appointed to the medical charge of the Brigade Staff, in addition to his other duties, *vice* Surgeon Nellis, who has proceeded on leave.

Surgeon-Major W. E. JOHNSON, M.D., Madras Establishment, is appointed Secretary and Statistical Officer to the Surgeon-General of Her Majesty's Forces, Madras, *vice* W. Macrae, M.B., deceased.

Surgeon-Major O. T. DUKE, M.B., Bengal Establishment, has been appointed Medical Officer to the 16th Bengal Cavalry, one of the newly organised regiments. Surgeon-Major W. E. GRIFFITHS, Bengal Establishment, has been appointed to the medical charge of the 17th Bengal Cavalry, also newly organised.

Surgeon W. B. BROWNING, Madras Establishment, is appointed to the medical charge of the 31st Native Infantry, *vice* Surgeon W. A. Quayle, who has been transferred to civil employ.

Surgeon-Major L. E. EADES, of the Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, March 31st, 1866, attaining the rank of Surgeon-Major twelve years thereafter.

Surgeon-Major A. L. HACKETT, Madras Establishment, Civil Surgeon of Negapatam, and Acting Principal Medical Storekeeper, is appointed Surgeon of the second district, Health Officer and Superintendent of the Lock Hospital, Madras, *vice* Brigade-Surgeon C. J. Roberts, vacated, but to continue to act as principal storekeeper until relieved.

Surgeon T. H. POPE, M.B., Madras Establishment, Officiating Residency Surgeon at Travancore, is appointed Civil Surgeon at Negapatam.

Surgeon J. LEONARD, Madras Establishment, is directed to officiate as Residency Surgeon at Travancore during the absence of Surgeon-Major Esmonde-White on furlough.

With the sanction of Her Majesty's Secretary of State for India, Brigade-Surgeon H. COOK, M.D., of the Bombay Establishment, is promoted, as a special case, to the rank of Deputy Surgeon-General (superannuated) from June 23rd, 1884, the date on which Deputy Surgeon-General T. G. Hewlett, C.I.E., Sanitary Commissioner for the Government of Bombay, completed five years' tenure of the rank of Deputy Surgeon-General; Deputy Surgeon-General H. Cook, will cease to be superannuated from the date when Deputy Surgeon-General Hewlett's appointment as sanitary commissioner expires. Dr. Cook has been appointed Chairman of the Town Council of Bombay, *vice* Sir Frank Souter, K.C.S.I., who is proceeding on furlough.

Surgeon-Major J. T. WELSH, M.D., Bombay Establishment, Superintendent of Vaccination Western Goojerat Circle, has retired from the Service. Dr. Welsh ranked as Assistant-Surgeon from March 31st, 1865, and as Surgeon-Major from January 26th, 1878.

The undermentioned gentlemen, all of the Bengal Establishment, have obtained leave of absence for the periods specified:—Brigade-Surgeon J. BROWNE, for one year and ninety-nine days; Surgeon H. HAMILTON M.D., Medical Officer to the 23rd Native Infantry, for one year, on private affairs; Surgeon G. J. KELLIE, in medical charge of the 4th Cavalry of the Hyderabad Contingent, for one year, on private affairs; Surgeon P. de H. HAIG, in medical charge of the 4th Punjab Cavalry, for one year, on private affairs; and Surgeon-Major J. J. MONTEATH, M.D., Civil Surgeon of Seebasangor, in extension, for six months, on medical certificate.

Surgeon WILLIAM STEVENSON, M.D., late of the Bengal Establishment, died at Crief, N.B., on October 29th, in the 86th year of his age, his commission as Surgeon being dated March 17th, 1838.

Surgeon-Major P. W. COCKELL, Bombay Establishment, has retired with the honorary rank of Brigade-Surgeon. He entered as Assistant-Surgeon, July 23rd, 1858, and obtained the rank of Surgeon-Major twelve years thereafter. He served during the Indian Mutiny in 1858, and was present as a volunteer at the siege of Dwarka.

Surgeon F. C. CHATTERJEE, Bengal Establishment, is appointed to the medical charge of the 30th Punjab Infantry at Peshawar, *vice* Surgeon-Major D. N. Martin, who has been transferred to civil employ.

Surgeon G. S. GRIFFITHS, Bengal Establishment, is appointed Medical Officer to the 32nd Pioneers, *vice* Surgeon H. K. M'Kay.

Brigade-Surgeon W. R. RICE, M.D., Bengal Establishment, Civil Surgeon of Jubbulpore, is temporarily appointed to the visiting charge of the Nursingpore district, in addition to his other duties.

Surgeon W. A. QUAYLE, M.D., Madras Establishment, whose services have been placed at the disposal of the Chief Commissioner of the Central Provinces, is posted temporarily as Civil Surgeon of Nursingpore.

Surgeon-Major F. R. DIVECHA, Madras Establishment, is appointed to the medical charge of the 8th Native Infantry, *vice* Surgeon-Major J. W. Strong, who has retired from the service.

Surgeon W. H. QUICKE, Bombay Establishment, is transferred from the Quetta Division to general duty, Poona Circle.

Surgeon E. S. BRANDER, Bengal Establishment, is appointed Medical Officer to the 21st Punjab Infantry, *vice* Surgeon-Major W. E. Griffiths, who had been transferred to the 17th Bengal Cavalry.

Surgeon-Major J. W. STRONG, Madras Establishment, has retired from the service on a pension of £292 *per annum*.

The undermentioned gentlemen have leave of absence for the periods specified: Surgeon-Major A. N. ROGERS-HARRISON, Madras Establishment, in medical charge of the 34th Native Infantry, for one year on medical certificate; Surgeon-Major H. POTTER, M.D., Bengal Establishment, Medical Officer of the 18th Native Infantry, for 182 days on private affairs; Surgeon D. W. D. COMINS, Bengal Establishment, Civil Surgeon of Jessore, for six months on extension; Brigade-Surgeon C. ROBERTSON, M.D., Madras Establishment, for three months on private affairs; Brigade-Surgeon W. H. MORGAN, Madras Establishment, Civil Surgeon, Cochin, for three months on privilege-leave.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS FOR MEDICAL AND SURGICAL DEGREES, MICHAELMAS TERM, 1885.—The examinations will be held, except as mentioned below, in the Philosophical Library, New Museums. The following is the plan of examinations (subject to alteration in details, of which due notice will be given).

Degree of Bachelor of Medicine.—First Examination: December 3rd, 9 A.M. to 12 M.: Elementary Biology (in the Biological Laboratory). December 4th, 9 A.M. and 1.30 P.M.: Oral and Practical Examination in Elementary Biology (in the Biological Laboratory). December 5th, 9 A.M. to 12 M.: Chemistry; 1.30 to 4 P.M., Mechanics and Hydrostatics. December 7th, 9 A.M. to 12 M.: Heat, Electricity, and Optics; 1.30 P.M., Practical Chemistry (in the University Laboratory), and Oral Examination. December 8th, 9 A.M.: Practical Chemistry (in the University Laboratory) and Oral Examination. Second Examination. December 3rd, 9 A.M. to 12 M.: Human Anatomy; 2 to 4 P.M., Pharmacy and Pharmaceutical Chemistry. December 4th, 9 A.M. to 12 M.: Physiology I; 1.30 to 4.30 P.M., Physiology II. December 5th and 7th, 9 A.M.: Oral Examination and Dissection (in the Anatomical School). December 7th, 2.15 P.M. - Oral Examination in Pharmacy, etc. December 8th, 9 A.M.: Oral and Practical Examination in Physiology (in the Physiological Laboratory); Oral Examination in Pharmacy, etc. Third Examination: Part I.—December 8th, 9 A.M. to 12 M.: Principles of Surgery; 2 to 4.30 P.M., Midwifery. December 11th, 10 A.M.: Oral Examination. Third Examination: Part II.—December 9th, 9 A.M. to 12 M.: Pathology; 2 to 4.30 P.M., Elements of Hygiene. December 10th, 9 A.M. to 12 M.: Principles and Practice of Physic; 2 to 4 P.M., Medical Jurisprudence. December 12th, 10 A.M.: Clinical Examination (at the Hospital); 2.30 P.M., Microscopical Specimens and Oral Examination. December 14th, 10 A.M.: Clinical Examination (at the Hospital); 2.30 P.M.: Oral Examination and writing prescriptions. December 15th, 9 A.M.: Oral Examination.

Degree of Bachelor of Surgery.—December 12th, 9 A.M.: Surgical Operations and the Application of Surgical Apparatus (in the Anatomical School); 12 M., the Examination of Surgical Patients (at the Hospital).

Degree of Master of Surgery.—December 11th, 9 A.M. to 12 M.: Pathology, and Principles and Practice of Surgery; 2 to 4 P.M., Essay on Surgical Case and Topic relating to Surgery; 4 P.M., Oral Examination. December 12th, 9 A.M.: Surgical Operations and Surgical Anatomy (in the Anatomical School); 12 M., Examination of Surgical Patients (at the Hospital).

The names of candidates for the Third Examination and for the Examinations in Surgery must be sent to the Registry (through the Praelectors of their respective colleges) on or before Monday, November 30th; those for the First or Second Examinations, on or before Monday, November 23rd. Forms on which it is requested that the names may be written will be sent to the Praelectors. The certificates of candidates, accompanied by their postal addresses, should be sent to the Registry not less than seven days before the beginning of the examination for which they are entered. The fees for the examination must be paid to the Registry when the certificates are sent in.

OBITUARY.

WILLIAM BENJAMIN CARPENTER, C.B., M.D., LL.D., F.R.S.

DR. W. B. CARPENTER, who died at the age of 72 on Tuesday last, was the son of Dr. Lant Carpenter, an eminent Unitarian minister in Bristol, where he was born in 1813. He was educated under the superintendence of his father. It had been intended that he should follow the profession of a civil engineer, but he soon found himself drawn in a different direction. At the age of 20, he joined the medical classes at University College, London. In 1835, he passed the examinations of the Royal College of Surgeons and the Apothecaries' Society, and soon afterwards went to Edinburgh, where he graduated as M.D. in 1839. While there, he published in the medical and scientific journals papers "On the Voluntary and Instinctive Actions

of Living Beings," "On the Unity of Function in Organised Beings," "On the Differences of the Laws regulating Vital and Physical Phenomena," and "On the Physiological Inferences to be deduced from the Structure of the Nervous System of Invertebrate Animals." This last essay attracted the notice of Johannes Müller, who inserted a translation of it in his *Archiv* for 1840. His earliest systematic work on biology appeared in 1839 under the title of *Principles of General and Comparative Physiology*, intended as an Introduction to the Study of Human Physiology, and as a Guide to the Philosophical Pursuit of Natural History. The work was well received, and in 1841 a new edition was called for.

Dr. Carpenter now removed to Bristol, intending to settle there in practice, and received the appointment of Lecturer on Medical Jurisprudence in the medical school of that city. He soon, however, resolved to devote himself to literary and scientific pursuits. In 1843, he left Bristol to reside in London. In the same year, he began the publication of the *Popular Cyclopaedia of Science*, in which mechanics, botany, physiology, and zoology were treated in an attractive style. New editions of his large systematic work being demanded, he decided to divide the subject. In 1846, the *Principles of Human Physiology* appeared as a separate work, the *Principles of General and Comparative Physiology* being thenceforth dealt with in a separate form. His *Principles of Human Physiology*, and his smaller *Manual on the same subject*, soon became favourite text-books in the medical schools. He also published, in 1874, a treatise entitled *Principles of Mental Physiology*. He contributed several papers to the *Philosophical Transactions* on the "Foraminifera," and other subjects. Dr. Carpenter also wrote several articles for the *Cyclopaedia of Anatomy and Physiology*, and a volume on the *Microscope and its Revelations*. For some years Dr. Carpenter edited the *Medico-Chirurgical Review*. In 1844, he was elected a Fellow of the Royal Society; the Council of which body also voted him its gold medal in 1861 for his contributions to physiological science. Some time after his removal to London he was appointed Professor of Medical Jurisprudence in University College, Lecturer on General Anatomy and Physiology at the London Hospital School of Medicine, and Examiner in Physiology and Comparative Anatomy in the University of London. In 1856 he resigned these positions on being appointed Registrar of the University of London, which office he held until 1879.

In 1868, and the two following years, he took a principal part in promoting the expeditions fitted out for deep sea exploration, which have yielded results of great importance to physical and biological science; and it was at his and Sir Wyville Thompson's instance that the *Challenger* was despatched. His reports of those expeditions are contained in the *Proceedings of the Royal Society*, and in the *Journal of the Royal Geographical Society*. In 1871, the honorary degree of LL.D. was conferred on Dr. Carpenter by the University of Edinburgh. In 1872, he presided over the British Association at its meeting at Brighton. In 1873, he was elected a Corresponding Member of the Institute of France. In 1875, he was made a Companion of the Order of the Bath.

The death of Dr. Carpenter was caused by a melancholy accident. He was taking a hot-air bath on Monday, when, by some accident, the curtains of the bed took fire. He died at 3 A.M. on Tuesday.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

FEE FOR CERTIFICATION OF LUNATICS.

SIR,—I hold the appointment of medical officer to a colliery here. A patient connected therewith, after an illness of some weeks, became mentally unsound. Not being able to pay for admission and keep in asylum, application to parochial authorities was made. By them, I was instructed to examine and report. For this, a fee of 10s. 6d. is offered. Is this the usual fee? or should I claim 21s.? An answer early will oblige

HAYWOOD.

* We have, on several occasions, pointed out that the determination of the amount of the fee which should be given to a medical gentleman for examining and certifying as to the mental condition of a person who has become a charge upon the parish rests with the magistrate or justice of the peace who countersigned the order. Boards of guardians pretty generally assume this power of deciding what should be given; and, in the case where the examining surgeon is the parochial medical officer, it is advisable, for the sake of peace and quietness, to accept what is offered. In the case before us, as "Haywood" has no official relations with the board, he can safely claim a guinea for his examination and certificate. Should the guardians decline to pay, we advise that he

should at once apply to the justice or magistrate who was concerned in the case, for an order on the guardians to pay this fee, which, under the circumstances, is a very reasonable demand.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE.—Schools and Hospitals recognised by the Special Board for Medicine.—The Special Board for Medicine give notice that, in pursuance of Regulation 4 of the Regulations for Medical and Surgical Degrees (Grace 15, Nov. 1883), they have defined as follows the evidence of medical study out of the University required of candidates for medical and surgical degrees. For the time claimed by the student as passed in medical study out of the University, evidence shall be required of attendance on lectures in one of the recognised Schools of Medicine, or on the practice in one of the recognised hospitals. The following Schools of Medicine and General Hospitals are recognised by the Board.

The University of Oxford.—London Schools of Medicine and Hospitals: The Medical Schools of Charing Cross Hospital, Guy's Hospital, King's College (and Hospital), London Hospital, Middlesex Hospital, St. Bartholomew's Hospital, St. George's Hospital, St. Mary's Hospital, St. Thomas's Hospital, University College (and Hospital), Westminster Hospital.—Provincial Schools of Medicine: Birmingham: Queen's College. Bristol: University College Medical School. Leeds: School of Medicine. Liverpool: University College and Royal Infirmary School of Medicine. Manchester: Owens College and Royal School of Medicine. Newcastle-upon-Tyne: College of Medicine. Sheffield: School of Medicine.—Provincial Hospitals: Bath: Royal United Hospital. Bedford: General Infirmary. Birmingham: General Hospital, Queen's Hospital. Brighton: Sussex County Hospital. Bristol: Royal Infirmary, General Hospital. Cambridge: Addenbrooke's Hospital. Canterbury: Kent and Canterbury Hospital. Derby: Derbyshire General Infirmary. Exeter: Devon and Exeter Hospital. Gloucester: General Infirmary. Hull: General Infirmary. Leeds: General Infirmary. Leicester: Infirmary. Liverpool: Royal Infirmary. Northern Hospital, Royal Southern Hospital. Manchester: Royal Infirmary. Newcastle-upon-Tyne: Infirmary. Northampton: General Infirmary. Norwich: Norfolk and Norwich Hospital. Nottingham: General Hospital. Oxford: Radcliffe Infirmary. Salisbury: General Infirmary. Sheffield: General Infirmary. Shrewsbury: Salop Infirmary. Southampton: Royal South Hants Infirmary. Stafford: Staffordshire General Infirmary. Winchester: Royal Hants County Hospital. Worcester: General Infirmary.—Scotch Schools of Medicine: Anderson's College, Glasgow; University of Aberdeen; Surgeon's Hall School of Medicine, Edinburgh; University of Edinburgh; University of Glasgow.—Scotch Hospitals: Aberdeen: Royal Infirmary. Dundee: Royal Infirmary. Edinburgh: Royal Infirmary, Glasgow: Royal Infirmary, Western Infirmary. Greenock: Hospital and Infirmary. Paisley: Infirmary.—Irish Schools of Medicine: Carmichael College, Dublin; Catholic University, Dublin; Royal College of Surgeons, Dublin; Ledwith School of Surgery, Dublin; Queen's College, Belfast; Queen's College, Cork; Queen's College, Galway; Trinity College, Dublin.—Irish Hospitals: Cork: North Charitable Infirmary, South Charitable Infirmary. Dublin: Adelaide Hospital, City of Dublin Hospital, Dr. Steevens's Hospital, Meath Hospital, Richmond, Whitworth, and Hardwicke (Government) Hospital, Sir Patrick Dun's Hospital, St. Vincent's Hospital. Belfast: Royal Hospital. Galway: County Infirmary.—Colonial and Foreign Schools of Medicine and Hospitals: Berlin: Boumay; Grant Medical College; Bonn; Boston: Harvard University; Breslau: Brussels; Calcutta: Medical College; Copenhagen; Göttingen; Heidelberg; Leipzig; Leyden; Madras: Medical College; Australia: University of Melbourne; Montpellier; Montreal: McGill College and University; Munich: University of the City of New York; Padua; Paris: Pavia; Philadelphia: Jefferson Medical College, Pennsylvania University; Prague: Stockholm; Tübingen; Turin; Vienna; Würzburg; Zurich.

Of the three years during which attendance on medical practice is required previous to the Second Part of the Third M.B. Examination (Reg. 20), periods not exceeding six months may be passed in attendance at a recognised asylum or hospital for the insane, not exceeding six months at a recognised hospital for children, either as a student (in Hospitals A), or as a resident medical officer (in Hospitals B), not exceeding three months at a recognised maternity-hospital, and not exceeding three months at a recognised fever-hospital. Of the two years during which attendance on surgical practice is required previously to the B.C. Examination, a period not exceeding three months may be passed in attendance at a recognised ophthalmic hospital. The following special hospitals are recognised by the Board.

* Hospitals for the Insane: England: The County and Borough Asylums, and Public Hospitals for the Insane. Scotland: The Public Asylums for the Insane. Ireland: The District Asylums, the Asylum at Dundrum, Swift's Hospital.—Hospitals for Children: a London: The Hospital for Sick Children, Great Ormond Street. Edinburgh: Royal Hospital for Sick Children. Glasgow: Hospital for Sick Children.—Hospitals for Children: a London: East London Hospital for Children, Evelina Hospital, North London Hospital for Children. Birmingham: Free Hospital for Sick Children. Liverpool: Infirmary for Children. Manchester: Fendlebury Hospital for Sick Children.—Maternity-Hospitals: London: Queen Charlotte's Lying-in Hospital. Dublin: Rotunda Lying-in Hospital.—Fever-Hospitals: London: London Fever-Hospital (Liverpool Road). Edinburgh: Fever-Hospital. Glasgow: City of Glasgow Fever-Hospital. Dublin: Fever-Hospital (Cork Street).—Ophthalmic Hospital: London: Royal London Ophthalmic Hospital (Moorgate).

UNIVERSITY OF GLASGOW.—At the professional examinations for the degrees of M.B. and C.M., October 1885, the following candidates have passed.

First Professional Examination.—J. Abbott, J. Adam, J. Adams, R. J. Aitken, J. Aitken, D. Allan, W. E. L. Allen, T. C. Barras, J. J. Batty, J. Bauchop, T. K. Bell, J. T. Biernacki, T. L. Blackburn, M. Blair, M. H. Bland, J. F. Boa, J. Boag, J. P. Boyd, M. A. Boyle, R. C. Brodie, J. Brown, A. Buchanan, R. M. Buchanan, F. S. Campbell, J. Charles, H. O. Cowen, J. Culross, J. David, T. J. Davies, J. Donald, M.A., W. C. Downs, D. Ferguson, F. Ferguson, H. Findlay, T. Fleming, E. H. Fyffe, H. Girvan, D. C. Gray, J. G. Gray, R. Hall, A. Halliday, R. T. Halliday, W. C. Hamilton, H. Highet, J. C. Howie, M.A., A. M. Hutton, R. G. Inglis, T. H. Jackson, R. Jamieson, H. Jones, A. B. Kelly, J. G. Kerr, H. L. G. Leask, C. A. Lewis, J. Livingstone, J. L. London, T. M. Martin, T. K. Monro, J. B. Morton, J. M. M. Muir, W. Muir, J. Macarthur, D. M'Dougall, J. M'Fadyen, A. N. M'Gregor, J. M'Kee, K. C. MacKenzie, J. M'Lachlan, J. T. M'Lachlan, T. M'Murray, D. M'Nicol, J. M. Macphail, M.A., C. R. Niven, F. L. Norris, L. R. Oswald, H. H. Park, W. R. Paton, O. T. Pinck, R. L. Pinkerton, M.A., W. Primrose, C. E. Robertson, W. Roxburgh, H. S. Russell, R. P. Shearer, J. Smith, J. Smith, M.A., J. D. Smith, J. T. Smith, J. Somerville, G. Steele, R. Steel, J. Stevenson, H. G. Stewart, J. A. Stewart, W. Stewart, J. Strang, J. P. Tannock, A. W. Taylor, J. Taylor, J. W. Thoms, A. F. Walker, W. M. Wilson, J. Wright, H. J. Younger.

Second Professional Examination.—J. Adam, M.A., J. A. Anderson, R. Anderson, F. Ashurst, W. G. Barras, T. M. Bonar, W. Bryce, T. Cameron, A. Campbell, R. Clarke, D. Craig, A. D. Crawford, H. R. V. Crossfield, D. Curle, W. J. Daly, J. Dewar, H. Dickie, M.A., J. Dickinson, W. Dinsmore, J. Dobbin, J. E. Duncan, J. C. Duncanson, A. W. Dunlop, M.A., J. M. Eadie, J. Edgar, M.A., W. D. Erskine, J. F. Fergus, M.A., H. W. Finlayson, J. P. Gillespie, J. A. Goodfellow, R. Greenhill, W. F. Grier, W. T. Hannah, J. F. Hughes, G. J. Imrie, D. Jones, H. Kirkland, D. Laird, E. Lang, J. R. Marshall, J. Mechan, W. H. Murray, J. M'Corkindale, J. M'Dougall, J. M'Kennrick, M. A. Mackintosh, D. Maclean, W. MacLennan, R. A. Macleod, A. L. M'Millan, J. C. G. Macnab, J. Macpherson, L. M'Whannel, R. B. Ness, M.A., W. F. Ness, M.A., A. Park, W. H. Parry, T. L. Paterson, W. F. Paton, M.A., D. J. Penney, J. W. W. Penney, J. Porter, R. G. Reid, T. J. Redhead, R. Robertson, W. Robertson, J. S. Rosser, G. Russell, W. Russell, A. Shanks, A. Somerville, A. Sprott, R. Stevenson, J. M. Stewart, D. Stone, A. Tannahill, G. Thomson, R. D. Walker, J. B. Wallace, W. Wallace, M.A., D. C. Watt, C. M. Wildridge, R. O. Willis, R. Wilson, J. M'G. Young.

Third Professional Examination.—C. Banks (2), R. Brown (2), J. Bruce (3), A. Bryce (2), J. H. Carslaw (3), J. G. Connal (3), R. Corbett (3), R. Craik (2), S. S. Dale (2), J. L. Downes (3), T. T. Downie (3), A. Duncan (2), J. Dunlop (3), G. G. Ferguson (3), W. R. Forrester (2), W. Fox (3), W. F. Grier (2), C. S. Harris (3), R. C. Highet (3), J. W. Hill (3), A. D. Hughes (3), J. E. Hunter (3), J. A. Jackson (2), J. Jago (3), J. Keddie (3), J. A. Kennedy, M.A. (2), J. Laurie (3), W. B. Leishman (3), R. Mair (3), J. Marshall (2), W. Miller (3), R. C. Miller (3), J. Muirhead (3), J. M'Donald (2), T. Macdonald (3), G. M'Intyre (2), W. M'Kinlay (3), J. Macphail (2), W. T. Nicholson (3), J. H. Nicoll (2), A. T. Nisbet (3), R. S. Penman (3), H. W. Robinson (3), A. Shah (3), W. Snodgrass, M.A. (3), R. Stirling (2), J. B. Stewart (2), J. Stewart (3), T. Watt, M.A. (3), R. Whitelaw (3), D. Wingate (3), A. Wylie (3), J. Young (3).

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on Thursday, November 5th, 1885.

Anderson, James, The Abbey, Abingdon.
Williams, David, Pontgarreg, Johnstown, Carmarthen.

The following also passed in the Science and Practice of Medicine, and received a certificate to practise.

Shackleton, Thomas Francis, Grassmere, Honley Road, Catford.

The following gentlemen also on the same day, passed their Primary Professional Examination.

Avarne, Arthur Blair, London Hospital.
Bell, John Conyers, Guy's Hospital.
Thomas, Charles Ernest, Middlesex Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

ALNWICK INFIRMARY.—Surgeon. Salary, £120 per annum. Applications by November 17th.

BRISTOL GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum. Applications by December 2nd.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by November 27th.

FISHERTON HOUSE ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Finch, Fisherton Asylum, Salisbury.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £100 per annum. Applications by November 17th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury. House Physician. Salary, £100 per annum. Applications by November 21st.

NORFOLK AND NORWICH HOSPITAL.—Secretary and House Steward. Salary, £100 per annum. Applications by November 14th.

SMETHWICK AND HANDSWORTH A.F.S. MEDICAL ASSOCIATION.—Medical Officer. Applications to J. Mitchell, 2, Windmill Lane, Smethwick near Birmingham.

ST. MARYLEBONE GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum. Applications by November 30th.

WINDSOR ROYAL INFIRMARY. House-Surgeon. Salary, £100 per annum. Applications by November 25th.

MEDICAL APPOINTMENTS.

BRISTOW, William Moss, M.R.C.S. Eng., L.R.C.P. Ed., late House-Surgeon, appointed House-Physician, to the Liverpool Royal Infirmary.

BROWN, John, L.R.C.P. Lond., re-appointed Medical Officer of Health to the Bacup Urban Sanitary Authority for one year.

BURD, Edward Lyett, B.A. Cantab., M.R.C.S., appointed Clinical Assistant to the Royal Westminster Ophthalmic Hospital.

BESH, J. Paul, M.R.C.S. Eng., appointed Assistant-Surgeon to the Bristol Royal Infirmary.

CARLESS, Albert, M.R.C.S., L.S.A., appointed House-Surgeon to King's College Hospital, vice J. F. Harries, M.R.C.S. Eng., retired.

CHURCHHOUSE, W. T. Franklin, L.R.C.P. Ed., L.F.P.S., L.S.A., appointed Medical Officer of Health for the Urban District of the Daventry Union.

COLLINS, A. Ward, L.R.C.P. Lond., M.R.C.S., appointed House-Surgeon to the Liverpool Royal Infirmary.

COOPER, Charles B., L.R.C.P. Lond., M.R.C.S., L.S.A., appointed Assistant House-Surgeon to the Liverpool Northern Hospital.

COX, Alfred Harold, L.S.A., appointed Assistant House-Physician to King's College Hospital, vice P. G. Lewis, L.S.A., retired.

DINNEN, William Thomas, L.E.Q.C.P. and M.R.C.S., appointed Surgeon to the Juvenile Lodge, in connection with the Royal Harbour of Refuge Lodge of Oddfellows (M.U.), Holyhead, Anglesea, North Wales.

GEMMEL, J. E., M.B., C.M. Ed., appointed House-Physician to the Liverpool Royal Infirmary.

HARRIES, John Frail, M.R.C.S., appointed Ophthalmic Clinical Assistant to King's College Hospital, vice J. P. Gray, M.R.C.S., L.S.A., retired.

HUGHES, Edgar Alfred, M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to King's College Hospital, vice R. C. Priestley, M.R.C.S., retired.

HUGHES, S., M.B., C.M. Ed., M.R.C.S., reappointed House-Surgeon to the Liverpool Royal Infirmary.

JACOB-HOOD, Charles John, M.R.C.S., L.S.A., appointed Assistant House-Accoucheur to King's College Hospital, vice C. P. Child, M.R.C.S., retired.

LEWIS, Percy George, L.S.A., appointed Physician's Assistant to King's College Hospital, vice C. H. East, L.S.A., retired.

PENNY, Francis, M.R.C.S., L.S.A., appointed Physician-Accoucheur's Assistant to King's College Hospital, vice E. A. Hughes, M.R.C.S., L.R.C.P., retired.

SMITH, Ernest Henry, M.R.C.S., L.S.A., appointed House-Surgeon to King's College Hospital, vice F. Jeffrey, M.R.C.S., retired.

WRIGHTMAN, A. E., L.R.C.P., and L.R.C.S. Ed., late House-Physician, appointed House-Surgeon, to the Liverpool Royal Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

BARNES—HYLAND.—On October 15th, at St. Peter's Church, St. George's, Bermuda, by the Rev. F. A. Lightbourne, M.A., Rector, assisted by the Rev. C. F. O'Reilly, Chaplain to H. M. Forces, Henry John Barnes, Surgeon, Army Medical Staff, to Nellie Ross, daughter of W. C. J. Hyland, Esq., J.P., of Caledonia Park, Bermuda.

JOHNSTON—LEAF.—On November 5th, at St. Stephen's Church, South Kensington, by the Right Rev. Bishop Alford, James Johnston, M.D., F.R.C.S. Ed., late of Shanghai, to Margaret Elizabeth, daughter of the late William Ladler Leaf, of Woodlands, Clapham Park.

RENDALL—MOULTON.—On November 2nd, at Fulham Parish Church, Stanley Morton Rendall, M.D., of Mentone and Aix les Bains, to Clara Louisa, younger daughter of the late George Canning Moulton, and granddaughter of the late Stephen Moulton, J.P., of Kingston House, Bradford-on-Avon.

DEATH.

RENNIE.—At Cawnpore, N. W. Provinces, India, On October 18th, of cholera, Kate, the beloved wife of Surgeon Rennie, Medical Staff, in the 24th year of her age. Requiescat in pace.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Colcott Fox and Mr. Heneage Gibbs: Specimens of Bromide of Potassium Eruption. Mr. C. T. Dent and Mr. W. C. Bull: Central Necrosis occurring in Children.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Eve: Two Cases of Sarcoma of the Tongue. Dr. Chaffey: Hemorrhage into Grey Matter of Spinal Cord. Mr. Sutton: Cysts in the Reproductive Organs of Animals. Dr. Hale White: 1. Fatty and Cirrhotic Liver; 2. (for Dr. Beavan Rake). Specimen of Leprosy (card). Mr. Lockwood: Casts and Dissected Specimens of Contracted Fingers. Dr. Norman Moore: Cases of Gout. Mr. Shattock: Iridescent Calculi. Dr. Gulliver: Stricture of Small Intestine. Mr. D'Arcy Power: 1. Two Cases of Osteitis Deformans; 2. Quiet Necrosis of Femur (card). Mr. Larder: Cancer of Esophagus (card). Dr. Hadden: Right-sided Ulcerative Endocarditis (card). Mr. Fenwick: Miliary Tubercle of Bladder (card).

THURSDAY.—Harveian Society of London, 8.30 P.M. Harveian Lectures, by Dr. T. Buzzard, On Some Varieties of Paralysis dependent upon Peripheral Neuritis.

FRIDAY.—Society of Medical Officers of Health. Dr. Heron: On Koch's Cholera Organism, with Demonstrations.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London, 2.30 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHANCING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th. 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2, o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE PROGRESSIVE CHARACTER OF MEDICAL SCIENCE.

SIR,—Most people who carefully consider will agree that medical science ought to be progressive. This was no doubt the opinion of that celebrated philosopher and physician, Dr. Thomas Young, who, when asked by a patient why he had chosen the medical profession, said, "Because there is always something to learn."

At the present time, it is important to consider why improvement advances so slowly in regard to one important question, the use of alcohol in health and disease. In the year 1847, the following declaration was signed by 2,000 members of the medical profession, including many of the most eminent men then living, such as Dr. Babington, Dr. Addison, Sir Benjamin Brodie (the President of the Royal College of Surgeons), and others, "We, the undersigned, are of opinion, first, that a very large portion of human misery, including poverty, disease, and crime, is induced by the use of alcoholic or fermented liquors as beverages; secondly, that the most perfect health is compatible with total abstinence from all intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, etc.; thirdly, that persons accustomed to use such drinks may, with perfect safety, discontinue them entirely, either at once, or gradually after a short time; fourthly, that total and universal abstinence from alcoholic liquors and beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness of the human race."

Thus, it is clear it has been long known that beer, wine, and spirits are dangerous luxuries; and, after this strong opinion, it is evident that the medical men who commend and order these articles as part of the diet, or as a means of recovering tone or stamina, have not made much progress in medical science. Such medical men have also neglected to observe the successful practice of the Temperance Hospital during the past twelve years, to which may also now be added two other hospitals, where neither beer, wine, nor spirits were used during 1884. It would appear, from an examination of more than forty recent hospital reports, that there is a great diversity in the expenditure of the different hospitals on alcoholic liquors. Thus:

	s. d.
At the Brompton Hospital intoxicating drink costs..	10 7 per patient
" Royal Free Hospital ..	5 3 "
" St. George's Hospital ..	5 1 "
" German Hospital ..	4 5 "
" St. Mary's Hospital ..	4 3 "
" Middlesex Hospital ..	4 3 "
" London Hospital ..	3 1 "

This diversity in the practice of the different hospitals may be taken as a loud call to the medical profession to make inquiry, and ascertain what is conducive to the welfare of their patients and the public good; the more especially as at certain provincial hospitals successful practice is carried on in a much more economical manner. Thus

	s. d.
At the Royal Infirmary, Manchester, alcohol costs..	0 8 per patient
" Infirmary at Chester ..	0 11 "
" Queen's Hospital, Birmingham ..	1 0 "

It has been clearly proved, and open to observation for the past twelve years that none of these stimulants are necessary at the Temperance Hospital in London.—I am, etc.,

GEORGE STUBBS.

Sydenham Hill.

A LONG SUFFERING PATIENT.

SIR,—A. B., aged 42, dressmaker, a multipara, has suffered more or less for twelve months from what she describes as a distinct stoppage of the heart. She feels as if "she was drawing her last" when the symptom troubles her. She is well nourished; there is no anæmia; she has a good appetite; no sensations before, during, or after food. The bowels are kept regular by pills. Every system is normal except the circulatory, there being a slight presystolic murmur in the mitral area. No such stoppage as she feels of the heart takes place at all. I may add that she is highly neurotic, this state being unavoidably increased by family misfortunes.

The only symptom of which she complains is this "stoppage," which troubles her at any time of the day, occasionally at night; though generally she sleeps well. She affirms that she is not thinking about her misfortunes at all at the time the distressing symptom makes its appearance. There is no globus hystericus, nor any other symptom which might point to hysteria.

The reproductive system is apparently normal. I say apparently because, there being no subjective symptoms (connected with this system) present, I have not thought myself justified in proposing a vaginal examination.

For treatment, the following drugs have been used, variously combined from time to time: internally: bromide of potassium; bicarbonate of soda; liquor bismuthi; subnitrate of bismuth; aromatic spirit of ammonia; dilute hydrocyanic acid; tincture of ginger; compound tincture of cardamom; sulphate of iron; compound decoction of aloes; fluid extract of ergot; tincture of digitalis; tincture of nux vomica; liquor arsenicalis; liquor opii sedativus; liquor morphia; tincture of belladonna; externally: mustard; belladonna; opium, etc. The diet is carefully regulated; the bowels are kept regular by pills of iron, aloes, and hyoscyamin. Daily exercise is enjoined. Every drug before mentioned has been tried carefully, increasing gradually such drugs as arsenic, digitalis, and opium to their maximum doses, and giving the bromide of potassium in large doses. Not one of them, nor the combination of any, seems to have any permanent benefit, though several of their combinations have produced temporary improvement. Change of air has been tried with some—I may even say marked—benefit; but, on returning home, the symptom reappeared. Her means obviously preclude her from making many excursions. Wine, such as claret, has been taken at dinner with some benefit. Small doses also of alcohol in the form of whisky have been taken twice a day with some slight improvement; but nothing, I repeat, has that permanent effect which one could desire. If any brother could suggest any remedy which would be likely to prove beneficial, I should be extremely obliged to him.—I am, etc.,

F.R.S.

A PORTABLE MEDICINE CHEST.

SIR,—I should be much obliged if any of my brother members could tell me where I could obtain a convenient case for carrying medicines, fluid and solid, into the country, for dispensing purposes—not an emergency case, I have one, but a sort of medicine-chest for a professional man.—Yours truly,

Rus.

MR. R. ROXBURGH (Weston-super-Mare).—Information as to provident dispensaries can be obtained from Mr. W. G. Bunn, 5, Lamb's Conduit Street, London, W.C. Our correspondent might also write to Mr. Wyeth, Honorary Secretary of the Camberwell Provident Dispensary, Camberwell Green, London, S.E.

GASTROSTOMY FOR CANCER OF THE OESOPHAGUS.

SIR.—The position of gastrostomy as a recognised operation for the relief of cancer of the oesophagus, as well as of obstructive disease of the pylorus, is so greatly due to the enterprise and skill of Italian surgeons that I was not surprised to meet with an instance of it during a visit I paid lately to the Civil Hospital at Venice.

The subject, a man, aged about 60, with cancer of the oesophagus, died two days after the operation was performed by Dr. Vigna, the senior surgeon of the hospital. The following account of the necropsy, at which I was present, may be interesting.

The body, that of a well grown man, was not much emaciated. The wound of operation, which had nearly cicatrised, was three to four inches long, parallel with and just below the left costal cartilages. On the abdomen being opened, the peritoneum around the wound was seen to have formed close adhesions with that covering the stomach, and there was no sign of any peritonitis on either aspect. The sternum and anterior portion of the ribs were removed, together with the heart, lungs, and great vessels, so as to display the windpipe and oesophagus in their entire length. On the former tube being laid open, a fistulous track was seen on its posterior surface at a point opposite the top of the sternum, which led into a large ragged ulcer in the oesophagus, having the distinctive characters of carcinoma. The lungs were highly congested.

It would seem, therefore, that death was due to this congestion, as the immediate result of the communication established between the oesophagus and trachea, and that, if gastrostomy had been performed earlier, perforation might have been staved off and life preserved for some considerable time.—I am, sir, your obedient servant,

Guildford.

HENRY TAYLOR.

REMOVAL OF SUPERFLUOUS GROWTH OF HAIRS BY ELECTRICITY.

SIR.—In answer to "A. J.," I may say that I do not know of any English author who has given a detailed account of the mode of performing the above operation. It is a most tedious and tiresome undertaking, but efficient when thoroughly carried out.

A galvanic battery of at least twelve cells is required. The number of cells to be used will depend upon their construction and condition, and also upon the resistance offered by the patient's skin. A small flat electrode, covered with some substance which will retain moisture, should be placed under the patient's collar to the nape of the neck, and connected with the positive pole of the battery, and a fine needle connected with the negative pole should be inserted into a hair-follicle by the side of one of the hairs. In a few seconds, a little froth will be seen by the side of the hair, and it can then be easily removed by a depilatory forceps. Only about twenty-five to thirty hairs should be removed at one sitting, and these at some distance from each other, so that no sore place is produced. It is not altogether a painless process, and, with the greatest amount of care, it will be found that some few hairs operated on each time will be reproduced. They can be attacked on a subsequent occasion, and with time and perseverance all the superfluous hairs will at last be effectually removed.—I am, etc.,

W. E. STEAVENSON, M.D. Cantab., M.R.C.P.,
Electrician to St. Bartholomew's Hospital.

HYPODERMIC INJECTION OF OIL.

SIR.—In the JOURNAL for June 20th appeared a brief paragraph bearing upon the above subject.

It appears that some success has been met with in America in injecting various oils for different purposes; and, among other applications of the method, it has been used in cases of gastric ulcer, in order to supply nourishment. In a case of this sort under my care, which has made very little progress for many weeks under ordinary treatment, and where emaciation is becoming alarming, I have tried hypodermic injection of oil; but the operation causes much pain, and is followed by very painful cutaneous inflammation, so that I have been forced to give up the attempt. I need not say that every step was taken to ensure success, the oil used being the purest cod-liver oil, and the syringe previously cleaned in hot water. The oil was injected into the subcutaneous areolar tissue.

I shall be glad to hear something of the experience of those who have tried this method of feeding, as it seems a matter of great importance. My patient is daily losing ground under careful rectal feeding, and her stomach can tolerate nothing but a few drops of milk at long intervals. If subcutaneous feeding can be carried out, her life, like that of many others, may be saved. Would deep injection involve danger of oil-embolism? Would it be likely to cause less pain?—I am, yours truly,

W. F. G.

CORONERS' INQUESTS.

SIR.—Will you permit me, through the medium of your columns, to inquire of my brother country practitioners whether it is not high time that something was done to reform the coroners' inquest system as at present conducted in country places?

Only a few days ago, in this neighbourhood, a child was taken ill in the afternoon with vomiting and convulsions, and died about 10 o'clock the next morning, before medical assistance arrived. As a matter of course, an inquest was held, and a jury of twelve intelligent men, presided over by an equally intelligent coroner, who, incredible as it may seem, is practising as a medical man, returned the verdict of "Death by the visitation of God."

The unsatisfactory nature of such a verdict is obvious at any time; but more especially so in the present case, when the *ante mortem* symptoms are considered; and yet, in spite of these symptoms, any light that could possibly have been thrown on the matter by means of a *post mortem* examination was totally neglected. Surely in this case, as in many others which are constantly taking place, the object for which the inquest was held, namely, to ascertain the cause of death, failed entirely.

I am confident that there is no greater farce existing than an inquest conducted under conditions of which country practitioners are only too well aware. It sometimes happens that the coroners are improperly qualified, and the members of the jury only too frequently devoid of even that amount of intelligence so peculiarly attributed to jurymen.

Your JOURNAL has continually cited instances of cases in which the power with which these illiterate busybodies are invested has been abused most unjustly in censuring medical men who have had to appear before them. Would it not be possible, by unanimous agitation on the part of the profession, to obtain some reform in a system that is so obviously inadequate for the purpose for which it exists?—I remain, sir, yours obediently,

SFR.

THE COUNCIL OF THE COLLEGE OF SURGEONS AND FEES TO EXAMINERS.

SIR.—As the Council of the College of Surgeons, in their so-called report presented to Fellows and Members at the meeting of the College on the 29th ult., admit that, during the financial year ending Midsummer, 1885, they had paid upwards of £10,000 in fees to examiners appointed by the Council, but principally from among themselves, I wrote to an Oxford professor, who for several years acted as "Great Go" class examiner at that university, asking as to the amount paid to an examiner for his services. His reply is as follows. "The maximum payment to an Oxford examiner is £100 a year, and he works five times as hard as the College of Surgeons' examiners do."

I leave this to the consideration of my fellow Members, with the expression of a hope that they will speedily make an end of the wrongful distribution of the College income funds.—I am, sir, yours obediently,

31, Montague Place, W.C.

JOSEPH ROGERS.

CUCUINE IN DENTAL SURGERY.

SIR.—Having read the letter of Dr. Sloan, in the JOURNAL of October 10th, and having, ever since the introduction of the drug, subjected it to an exhaustive trial in dental surgery, may I be permitted to relate the results at which I have arrived? I may premise by saying that I have discarded all solutions as almost useless in dental surgery, and use the drug in the form of the solid cucuine-hydrochlorate prepared by Merck. Briefly, the cases where it is of advantage are as follows.

In extraction, cucuine has no power to deaden the pain caused by the tearing of the periodontal membrane from the alveolus, and the rupture of the nerve, but will entirely remove that which accompanies the separation of the gum from the root of the tooth with the forceps, which is preliminary to the actual extraction. It is applied by introducing a small portion of the solid cucuine between the edge of the gum and the tooth, with the point of a knife.

After extraction, I always introduce a small portion to the bottom of the alveolus, after bleeding has ceased, and it has been properly syringed out. If any dressing be required, I place it upon the cucuine. This will be found to almost completely do away with the pain, sometimes very severe, which is frequently experienced for some time after an extraction.

Inflamed Pulp.—Cucuine applied in the solid form will deaden the surface of an exposed pulp, and when it is inflamed, will cause speedy resolution.

These are the only cases in which I have found the drug of service. In only one case have I derived benefit from the use of a solution, and that was in one reported in the *Dental Journal* of last month. Here a tooth, which had growing from the periodontal membrane a cystic tumour, when extracted, left an opening into the antrum, and, as the pain was very severe, I injected, through the opening, a 2 per cent solution with a small syringe, with the result of immediately alleviating the pain in a very marked manner.

I am of opinion that, used in the manner I have described, the drug will be found of marked benefit, and I think that the reason why so many failures have been reported, is owing to the fact that weak solutions have been used. Practically, I may say that, invariably in those cases where I used to use morphine in a dressing, I use the solid hydrochlorate of cucuine instead, with the most satisfactory results.—I am, sir, yours faithfully,

H. E. HARRIS, L.D.S.

A NEW SPRAY-APPARATUS FOR INHALATION.

SIR.—In the laryngological section of the International Congress of Medical Science, held last year at Copenhagen, the value of medicated inhalations in affections of the air-passages was under consideration. Whilst the majority of those taking part in the subsequent discussion testified to the value of this means of treatment, several—Gottstein (Breslau), Reichert (Rostock), Hering (Warsaw)—remarked on the uncertainty in the use of inhalants in the form of spray, owing to the difficulty experienced in bringing the remedy in contact with the part affected. An experience of many years in the use of remedies in the form of spray has convinced me that, in a large majority of instances in which the ordinary form of apparatus delivering a powerful jet of spray in a horizontal direction is entrusted to the patient's own use, very little of the remedy gains access to the larynx, whilst in affections of the naso-pharynx and posterior nares such apparatus is useless.

Partly, therefore, with the object of permitting spray to be directed with certainty to the larynx, pharynx, or posterior nares, but chiefly to allow the use of small quantities of concentrated solutions of remedies (cucuine, morphine, etc.), I have had constructed the following form of spray-apparatus, by means of tubes which fulfil their object in a very satisfactory manner. In using small quantities of concentrated solutions, accuracy in the amount used is secured by the fluid-tube having a fine bore, and being continuous with the bottom of the fluid-bowl, so as to allow of the utilisation of the whole of its contents. This latter feature secures economy in the use of remedies, a by no means unimportant item in the use of cucuine. I find that, by the judicious use of ten minims of a 10 per cent solution of cucuine from a laryngeal spray-tube, a degree of anaesthesia of the larynx may be induced sufficient, to allow the removal of small laryngeal growths.

The fine bore and curved form of the fluid-tube ensure its always containing liquid, so long as any remains in the apparatus, and thus prompt production of spray occurs on the slightest pressure of the hand-ball. Drip and spluttering are prevented by the nozzle being, on an average, level with the fluid in the fluid-bowl.

Two drops may be distributed in the form of spray with accuracy; and for this purpose the liquid is dropped into the fluid-bowl, and, by gentle pressure of the hand-ball, made to pass to the extremity of the fluid-tube, when the apparatus is ready for use.

The fluid-bowl is of size sufficient to contain half an ounce of liquid. Its dimensions and shape are such as to allow the nozzle to be passed to the back of the throat; and, according as it is intended for the larynx, pharynx, or posterior nares, is so constructed as to direct the spray in a downward, forward, or upward direction respectively. One hand-ball serves, of course, for all three forms of apparatus.

The apparatus is made by Mr. Midgley, St. Ann's Square, Manchester, whom I take this opportunity of thanking for patiently carrying out my suggestions. Mr. Midgley promises to forward to you several of the tubes for inspection and trial.—Believe me to remain, yours very truly,

ALEXANDER HODGKINSON, Honorary Physician,
Hospital for Consumption and Diseases of the Throat, Manchester.
26, King Street, Manchester.

CONGENITAL DEFORMITIES.

SIR,—I have had recently two cases of congenital deformity, a description of which may be of interest. Neither of the women expected or looked for any abnormality. They were not of a nervous temperament, nor could they in any way account for the cause of the deformity.

A. G., unmarried, was confined, on September 8th, 1884, of a seven months' dead male child. It had absence of the cervical vertebrae and occipital bone; the skin of the face was continuous with that of the shoulders. In other respects, it was apparently well formed and healthy-looking. The eyelids were small and drawn tightly back; they would not even permit covering the eyes, which were very prominent.

Mrs. G., who had two healthy, well formed, living children, was confined, on June 23rd this year, of a six months' dead male child. The left leg was absent; there was no cuticle over the abdomen, all the organs of which were visible through a delicate membrane, which was continued over the placenta. The umbilical cord was about half an inch in length. The scrotum was situated farther back than usual, and by the side of it, in place of the absent leg, was a tumour of the size and appearance of the scrotum. In other respects, the body was well formed, and in good condition.

With the exception of slight defects in formation, these are the only two cases I have met with whilst attending five or six hundred births. Occasionally, a mother has inquired of me at a birth whether the infant had a mark upon it, mentioning the part she had expected to have received the impression, when no such defect existed; at other times, when marks or blemishes have been discovered, no mention was voluntarily made by the mother that she had been alarmed at any time whilst pregnant; although, upon inquiry, a fright she received at some distant time might be mentioned by her. I have observed that, when a woman has been alarmed, and it has impressed her that the child would be marked, and it has actually been the case, the accident has always happened between the third and fifth months of gestation. When (as sometimes happens) deformity is hereditary, is it not rather a production of the same class of formation of species than maternal impression?—I am, etc., J. T. McMAHON, Dartford.

STATE MEDICINE AND THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

SIR,—In the BRITISH MEDICAL JOURNAL of September 19th, and 26th, Surgeon-Major Evatt, and Dr. Thomas Dolan, have raised very important questions as to the better organisation of the civil medical services, and the desirability of special and higher medical education of medical officers connected therewith. This is, I think, a very important matter; and in view of the present movement of the Royal Colleges of Physicians and Surgeons to obtain the power of granting medical degrees, why should they not carry out to the fullest their regal titles by constituting themselves a Royal or State University of Medicine, which shall be the representative of our profession in the eyes of the nation and in her councils? The first step in attaining such an end would be the institution of a degree in State Medicine, such as D.S.M., in addition to those which they now have under consideration. No one could question, I think, the justifiability of such a title, which embraces the subjects of hygiene, medical jurisprudence, and the medico-legal aspects of poverty, crime, and lunacy, based on a sound knowledge of the social sciences, and general medicine.

The importance of such a step would not rest long before its significance would be appreciated by Parliament; and the organisation of the medico-civil service would, I think, soon follow the special qualification of medical men in the above named subjects, and with it the increased political and social power of the profession. The study of State Medicine, which is now so disjointed, would by the union of its component parts receive increased impetus; the intimate relations of poverty, crime, and lunacy, their causes and power of amelioration, would be more carefully worked out; and by the institution of proper laboratories, the origin and mitigation of preventable diseases would be investigated with greater facility, and so also all other matters relating to Public Health.

In such a scheme, gold medals for special merit to commemorate the labours of Parkes and Taylor might well be associated. An university so constituted, with the medical schools of London affiliated, would indeed be a Teaching University of Medicine, affording opportunities for research and teaching equal to those of other European capitals. At the present time, all these matters are in a state of almost hopeless chaos. The medical officers of health, of prisons, of asylums, and workhouses, while bent on studying their own departments, too often lose sight of the intimate relations of the others, on which so much depends. The very unconnected nature of these services increases the breach which special education and union would fill up.

There is now hardly any social question on which medicine does not in some way or other come to the front; and indeed, so great has been its power for good, in spite of its wants in organisation, that one must feel that still greater results must accrue to the community by its closer union to the State. The law may enact penalties for crime perpetrated, and make provisions for poverty and lunacy existing, but it is the coming advent to power of medicine in the councils of the nation to remove or ameliorate those conditions, those diseases on which crime, poverty, and lunacy, so largely depend. To further this end is, I think, a very high aim and well worthy to be associated with a movement relating to the individual requirements of London students, as it is not only for their own personal advantage, but is, I feel, for the benefit of the profession and the whole community. To achieve such results the first steps must first be taken. Now there seems to be an opportunity for the first advance, and that appears to me to be the thorough qualification of medical men, who devote themselves to the various branches of the medico-civil service. Would not the conferring in addition to the ordinary medical titles, the one also of Doctor of State Medicine on those who embark in the above services be a most important move?—Your obedient servant, SPES.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Wilks, London; The Secretary of the Local Government Board, London; Dr. Dingley, Wolverhampton; Mr. N. C. Wrighton, London; Dr. Fishbourne, Norwood; Mr. E. Cureton, Shrewsbury; Mr. Gubb, London; Our Manchester Correspondent; Mr. A. T. Brand, D-ffield; Our Aberdeen Correspondent; Mr. T. L. Gentles, Derby; Dr. Rentoul, Liverpool; Dr. Maxwell, Woolwich; Mr. Romeike, London; Dr. Ewart, London; Messrs. Wright, Layman, and Umney, London; Mr. A. D. Wyness, Aberdeen; Dr. Mickle, London; Mr. H. Nelson Hardy, London; Messrs. A. S. Cattell and Co., London; Mr. W. Dun-

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BOOKS, ETC., RECEIVED.

- History of Homeopathy. By Wilhelm Ameke, M.D. Translated by Alfred E. Drysdale, M.B. Edited by R. E. Dudgeon, M.D. London: E. Gould and Son. 1885.
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THE BOWMAN LECTURE ON OPHTHALMOLOGY AND DISEASES OF THE NERVOUS SYSTEM.

Delivered before the Ophthalmological Society, Friday, November 13th.

By J. HUGHLINGS JACKSON, M.D., F.R.S.,
Physician to the London Hospital, and to the Hospital for Epilepsy and Paralysis.

BESIDES acknowledging the honour of being asked to deliver an address before this Society, I wish to say that I consider it an additional gratification that the address is the "Bowman Lecture." Praise from me to Bowman would be impertinence. But here is my opportunity, not only for thanking Sir William Bowman for the benefit which I, like the rest of my profession, have derived from the basic work he has done, but of also tendering him my warmest personal thanks for much encouragement given me in the work I was, many years ago, trying to do. At the same time, I gratefully acknowledge that to his successor in the presidential chair (Mr. Hutchinson) I feel highly indebted for my earliest instruction in ophthalmology, as well as for great help of very many kinds for many years.

It was long ago said that division of labour, or, more generally, differentiation, is an universal law. Things become increasingly numerous and more different, or, in other words, more complex. Differentiation is well seen in the development of animal organisms, and is seen, too, in the social organism. It would be very remarkable if there were an exception in the case of one part of the social organism, the body medical—if in so great a field of work as the medical there did not arise more and more different workers in different parts of that field. There is no exception. The body medical is now very complex; there are alienist physicians, obstetric physicians, neurologists, ophthalmic surgeons, aural surgeons, dentists, physiologists, chemists, etc.; the speciality of each comes out of, is a differentiated part of, a wide general knowledge.

Specialists have to justify themselves—to justify their differentiation. Differentiation is not the whole of the modern doctrine of evolution. The factors in progressing evolution, according to Spencer, are increasing (1) differentiation, increasing (2) definiteness, increasing (3) integration, and increasing (4) co-operation.¹

Increasing differentiation without increasing definiteness would be only confusion. That the ophthalmic surgeon has justified himself in the second factor of evolution needs no proof. I will instance, however, his highly definite work on paralyses of ocular muscles and on abnormalities of refraction. In neurology, I may instance the work of Charcot. And here I must say, as the examples are intended to imply, that by definiteness I mean definiteness which connotes exactness.

Now for the third factor. Each different definite worker is working for the whole body medical; his work leads to the greater integration of medical knowledge of other workers. Each different worker helps all the others. Many different workers in the medical field are seriously indebted to the ophthalmic surgeon in this way. To give but one example, and making again an arbitrary limit. Argyll Robertson has given to neurologists, in the pupil-symptom which is called by his name, not merely a new symptom, but a means of investigation of several important diseases. This debt, neurologists, Westphal and Erb, working in a different field, have paid back in showing the diagnostic value of loss of the knee-jerk.

There is yet another factor in evolution—increasing co-operation. Each different worker, knowing one subject best, and having great integration of different, definite medical knowledge, of necessity cannot have the precise knowledge of other subjects which other different workers have. Division of labour necessitates the co-operation of labourers. The whole of one disease is better understood by bringing to bear on its direct investigation and treatment different workers in different fields. To give but one illustration of the need of integration of different kinds of definite medical knowledge, and yet of the need, too, of co-operation of workers; the neurologist ought, at

least, to be able to suspect hypermetropia as a cause of head-troubles, but only the skilled ophthalmic surgeon can estimate it precisely, and correct it accurately.

I think we often err by underrating the complexity of some nervous diseases. I take epileptic paroxysms and their after-conditions as being, together, an illustration of the morbid nervous affection of greatest complexity of symptoms. When its symptomatology is fully displayed, it shows, I submit, the imperative necessity of (1) different, (2) definite, (3) wide knowledge, and of (4) co-operative work. I speak of the "genuine epilepsy" of nosologists,² not of epileptiform seizures. Epilepsy is a disease of the "organ of mind"—that is to say, of the highest and most complex, etc., centres. The symptomatology of the paroxysm is probably an universal symptomatology, is demonstrably nearly so. It may be said that insanity is more complex than epilepsy; not so, since epileptic paroxysms are not unfrequently followed by temporary insanity. The study of epilepsy, therefore, involves the study of some cases of insanity. These insanities are what I have called the after-conditions of the epileptic paroxysms. We ought, of course, to speak of epilepsies as we should do of insanities; for certainly, if two epilepsies have different "warnings" of their fits, the discharging lesions are in different parts of the highest centres in the two cases. There are many epilepsies, and many insanities. But now I give *en bloc* the symptoms of many severe epileptic fits, of many slight fits, and the symptoms of epileptic fits (or, I should say, epileptiform seizures), artificially produced in dogs; all are, at any rate, symptoms produced by cortical discharges. Among them are very important eye-symptoms.

At the climax of a severe fit, we see the algebraical sums of the co-operations and antagonisms of strongly developed movements of all the muscles of animal life accessible to observation—universal convulsion. As to wide involvement of sensory elements in the epileptic discharge, we can say that this is implied by "warnings" of crude and excessive smells, colours, sounds, tastes, by tinglings, etc., of the hands, and by many crude and excessive systemic sensations. Of what happens in the sensory sphere after loss of consciousness, we can say nothing. Besides colour-development, there is another eye-symptom—a vertigo—in which external objects seem to move, implying discharge, direct or indirect, of motor cerebral elements representing ocular movements. We find dilatation of the pupils, perhaps, sometimes contraction; there are great pallor of the face, increased flow of saliva, perspiration, alterations of pulse and respiration, passage of urine and feces, and erection of the penis.

Vulpian curarised a dog, thus putting the muscles of animal life out of the reach of an artificially induced discharge of the dog's left sigmoid gyrus (artificial respiration). Speaking almost only of effects of cortical discharges, which I have not yet mentioned, there were slowing and irregularity of the heart, raised arterial pressure, increased flow of bile, a little paling of the kidneys, and diminution of their secretion, contraction of the bladder, and contraction of the spleen.

So we go a long way towards showing that the epileptic paroxysm has an universal symptomatology, having shown that sensations are referred to many different parts of the body, and that effects by efferent (motor and inhibitory) nerves are produced in different ways in very numerous parts, "from the eyes to the feet" (strictly, I suppose, "from nose to feet"). We can add to the list of parts represented by the cerebral cortex.

"Rochefontaine and Lépine, on stimulating several points, especially in the neighbourhood of the sulcus cruciatus in the dog, observed increased secretion of saliva, slowing of movements of the stomach, peristalsis of the intestine, contraction of the spleen, of the uterus, of the bladder, and increased respiration." (Landois' *Physiology*, vol. ii, p. 942, Stirling's Translation). Bufalini has observed the secretion of gastric juice.

I do not think I need apologise for speaking in this lecture of the non-ophthalmological symptoms of epileptic paroxysms, especially of those of the organic parts. The neurologist and the alienist physician must take into account all the symptoms. They are an important part of the evidence towards showing that the "organ of mind" (highest centres) represents or co-ordinates all parts of the body. Unless retinal impressions corresponding to colour of objects, and ocular movements corresponding to shape of objects, are represented in the highest centres, how are we to account for the physical bases of visual ideation? If the organic parts are not represented in the highest centres, an emotional manifestation—say, of fear—is unaccountable; and so, too, are the physical symptoms of some cases of melancholia, the insanity of fear (anxiety, depression, etc., being only "fear spread out thin"). Whilst a man is thinking, or even dreaming, of a brick, he is having a purely psychical state; the correlative physical

¹ I am using terms more familiar to medical men than those Spencer uses; for this change, of course, Spencer is not answerable, nor must he be held responsible for my applications of his formula of evolution. I should consider it a great calamity were any crudities of mine imputed to a man to whom I feel profoundly indebted.

state is discharge of some nervous arrangements of his highest centres representing parts of his body—certain retinal impressions and particular ocular movements. Again, when a man is afraid, he is having a purely psychical state; the correlative physical state is discharge of some nervous arrangements of his highest centres, representing parts of his body—notably, the organic parts. There are clinical reasons why the ophthalmic surgeon should be interested in symptoms in organic parts. Often enough, in other diseases of the cerebrum, does he see effects produced in organic parts. To say nothing of vomiting, common with optic neuritis from cerebral tumour, there are acute stages in such cases, in which there are alterations of pulse and respiration, retracted belly, and constipation. Consider also the migrainous paroxysm, which is no doubt owing to a cortical discharge, often beginning by elaborate visual projections, and often ending by vomiting. Eye-symptoms from disease of the cerebrum cannot, in many cases, be studied isolatedly from organic symptoms.

We have not yet done with the complexity of the epileptic paroxysm. We must note, in slight fits, movements of chewing or tasting, swallowing, vomiting, and writhing movements of the arms during arrest of respiration. I do not believe that these movements result directly from the epileptic discharge, holding that such a discharge, so far as it spreads, puts an end to all movements properly so called, "runs them up" into convulsion. I suggest that an important eye-symptom at, or near to, the onset of some epileptic fits, the apparent alteration in size or distance of external objects, is, on the physical side, a phenomenon of the same order as the chewing movements; that both are the indirect (reflex) results of epileptic discharges of sensory elements. Ferrier produced, by faradising a monkey's "taste-centre," movements like the chewing and tasting movements which some epileptics or their friends describe. It is exceedingly important to distinguish movements proper from convulsion, which is a contention of many movements. I suppose everyone would believe that spitting, rubbing one hand with the other, clutching at the throat (in rapid suffocation?), are movements too elaborate to result from such a discharge as that which produces convulsion. There is yet more complexity; when, in severe fits, respiration is arrested, there is carbonic acid poisoning. Asphyxia renders a dog's cerebral cortex unexcitable (Hitzig, Franck and Pitres); but some other lower centres, or parts they supply, or both, are stimulated; thus there will be a multiplication of effects. Asphyxia produces dilatation of the pupils, besides other effects (salivation, sweating, etc.) But we must bear in mind that the centres which are directly stimulated by carbonic acid, or overacting from lack of oxygen in simple asphyxia, will be, more or fewer of them, to some degree, in an epileptic paroxysm already engaged by the epileptic discharge; and that, when the fit is over, there will be a degree of exhaustion of them corresponding to the degree of prior discharge, and so far an unsusceptibility to be acted on. The pupils are small after severe epileptic fits.

Now for the mental symptoms of, or rather during, the discharge beginning in part of the "organ of mind." During the epileptic discharge, there is defect or cessation of consciousness. Some think that also during it, at the outset of the fit, there arise the exactly opposite mental states of "overconsciousness," "dreamy state," alterations in size and distance of external objects, "seeing faces" and "hearing voices." I believe these superpositive mental states, and, adding to the list, fear—different miniature insanities—at the outset of different epileptic attacks, to arise during slightly raised discharges of healthy nervous arrangements untouched by the epileptic discharge.

We must be very careful, both in ophthalmological and neurological studies, not to confound sensations—colours, for an example—which are states of mind, with activities of sensory elements, which are states of body. We must not speak of any mental states as occurring *from*, but as arising *during*, nervous discharges. Only physical effects, such as movements, arise *from* nervous discharges. We must also distinguish different degrees of elaborateness of different mental states. "Seeing faces" is a greatly more elaborate mental state than colour-projections at the onset of an epileptic fit. What I have called the "dreamy state" is vastly more elaborate than "seeing faces." Whilst I think that colour-projections, at the onset of an epileptic fit, arise *during* the epileptic discharge, I believe that so elaborate a state as "seeing faces," and the still more elaborate mental state, the "dreamy state," do not, but that they arise *during* discharges only slightly stronger than normal. The "dreamy state" is a very voluminous mental state; it is commonly called an "intellectual aura." As I have implicitly said, I do not believe it to be an aura or warning; not a thing, I mean, of the same meaning as the crude sensations of colour, etc. Admitting that crude sensations arise *during*, and that convulsions occur *from*, the epileptic discharge,

I urge that elaborate mental states arise *during*, and that movements, properly so called, occur *from*, but slightly raised discharges of nervous arrangements.

[The lecturer then spoke of the different association of different sense-warnings in epilepsy, believing that the "subjective" sensations, smell, taste (or chewing, etc., movements) and the "epigastric" sensation most often occur in those cases of epilepsy, in which there is the "dreamy state;" and that the cortical lesions in these epilepsies are in parts of the cortex in the region of the posterior cerebral artery, which vessel supplies, among other parts, Ferrier's centres for smell and taste. He suggested that some cases of epilepsy, with colour and sound warnings (with which he had never known the "dreamy state" to be associated) were owing to cortical disease in some part of the region of the middle cerebral artery, which vessel supplies, among other parts, Ferrier's centres for sight and hearing. He considered that the nervous changes (the "discharging lesion") in epilepsies were not primarily, but only secondarily nervous; that in most cases they were secondary to embolism or thrombosis of small arterial branches; that there were "arterial cortical lesions" in most epilepsies. He had held that some epileptiform seizures have that pathology since 1864 (*London Hospital Reports*, vol. i, p. 465), and considered that some cases recently published by different physicians proved that hypothesis. The researches of Duret and Heubner, on the detailed arterial supply of parts of the brain, will enable us to be more definite in our arterio-cortical localisations of "discharging lesions," especially in epileptiform seizures; some cases of this kind were evidently owing to blocking of branches of the middle cerebral. Another way of putting part of the foregoing, is to say that epileptiform seizures do not always depend on tumour. This brings us again close to ophthalmology. If anyone is thinking of removing a brain-tumour in a case of epileptiform seizures, he ought to refrain from operating, if he does not find optic neuritis, perhaps with one exception. Of course there are epileptiform seizures from brain-tumour, in which (for years at least) there is no optic neuritis, but without this eye condition we cannot (with perhaps one exception) be sure of tumour. It was from both neurological and ophthalmological knowledge that Dr. Hughes Bennett made the double diagnosis of seat and nature of the disease in the case of tumour which Mr. Godlee removed from the patient's brain.

The lecturer then spoke of certain important cases of epilepsy, complicated with some particular definite and persisting eye-symptoms, pointing to intracranial tumour; the investigation, by the ophthalmic surgeon, of paroxysms of epilepsy so complicated is most desirable. A man had occasionally smells in his nose, heralding in slight attacks of epilepsy with the "dreamy state;" there were left-sided "shakings" in the paroxysms. There was double optic neuritis, but no defect of sight; the neuritis passed off under mercurial inunction and iodides, sight remaining good. The patient died, apoplectic, with left hemiplegia; his case illustrates the dictum that a man with optic neuritis is to be considered as being in imminent danger of death: that this patient was in any such danger, no one would have surmised who did not find out that there was optic neuritis. Whilst the optic neuritis is the best indication for treatment, and of most prognostic value, such an important variety of epilepsy as this patient had deserves most careful investigation.

In this association, the lecturer urged that the great thing in the diagnosis of epilepsy is not so much the "quantity or severity of the symptoms" as their paroxysmalness; and that the slighter a paroxysm, the more necessary, both for the patient's sake and for medical science, is its minute investigation. Attacks of epilepsy with the "dreamy state," when very slight, as they often are, are sometimes attributed to hysteria, or to stomach and liver derangement. To the uninstructed, the accounts given by the patients seem "fanciful." That optic neuritis is often overlooked in its pre-amaurotic, most curable state, is certain. The case mentioned was the only case of epilepsy with "dreamy state" the lecturer had seen complicated with optic neuritis. There was no necropsy. The presumption is, that death occurred by hæmorrhage from a vascular tumour in the right cerebral hemisphere. Another case of this kind of epilepsy (bitter taste, "dreamy state," and right-sided numbness), investigated by Dr. James Anderson, was complicated by simple atrophy of the optic nerves; there was loss of sight of the left eye, of the right field of the right eye, almost loss of smell in the left side, defect of taste more on the left side (the paroxysmal one-sided symptom (numbness) was right-sided, and the patient was not left-handed; in most cases of this variety of epilepsy, the lecturer thinks the one-sided phenomena, if any, are left-sided). Having regard to an important case recorded by Mr. Nettleship (*Transactions of the Ophthalmological Society*, vol. iv, p. 285) like this in the optic symptoms (necropsy by Dr. Sharkey), in which

there were slight epileptic fits, with a feeling of suffocation referred to the nose and mouth, the lecturer thought that in Dr. Anderson's patient's case, there was a basal tumour causing the epileptic fits by involving, or by in some way inducing changes of instability in the left middle cerebral lobe. Cases with such fixing-eye symptoms, implying gross organic disease, for obvious reasons deserve most careful and minute investigation, not only of the eye-symptoms, but of the epileptic fits also.]

Speaking now of the after-conditions of epileptic paroxysms very generally, we have insanity, according to the severity of the fits, in two degrees at least,—in three, I think. There is so-called "loss" of consciousness with actions (postepileptic "unconsciousness" with mania, for example), and after very severe paroxysms, acute dementia (coma). Here I remark that it is vain to attempt the realistic study of epilepsy and its after-conditions, or that of any other insanity, without psychological knowledge. Confounding psychology with physiology of the highest centres leads to crude metaphysical explanations, such as that in postepileptic coma a man does not move because he is unconscious; although, in a slighter postepileptic condition, epileptic mania, there is movement enough, when, according to the opinions of most, consciousness is lost. Taking postepileptic coma after a very severe fit, there is exhaustion of more or less of the highest centres implied by the negative affections of consciousness, and, in some slighter degree, of more or fewer of the lower (more organised) centres. Westphal and Gowers have noted transitory absence of the knee-jerks after epileptic paroxysms, thus showing there to be sometimes exhaustion of lumbar nuclei, some lowest motor centres. Deep post-epileptic coma is, psychically, dementia; but is, on the physical side, nothing else than some universal, almost total, paralysis—paralysis, not only of animal, but of organic parts also—proportionate to the degree of the prior epileptic discharge upon them.² This contention of mine is, however, denied; let us say, what cannot be denied, that the patient is nearly dead. I dare say my calling the psychical side of the condition insanity (dementia or amentia) will be objected to. Let us say that the patient is, or is nearly, mentally dead; this cannot be denied. Moreover, the patient is suffering from carbonic acid poisoning, from slow respiration, from imperfect circulation; thus there will be a multiplication of effects. Possibly the excess of carbonic acid helps somewhat in re-evolution, by strongly stimulating the respiratory and other partially exhausted (lowest) centres.

There is one after-effect which is certainly paralytic—transitory lateral deviation of the eyes, observed by Beevor instantly after severe attacks. Again, the exaggerated knee-jerks and foot-clonus after some fits (Beevor) imply paralysis, signify exhaustion of fibres in the lateral columns, and possibly also of inhibitory centres, in the cord itself (Gowers). Here we have after-effects at the two extremes—eyes (paralytic), feet (implying some paralysis); it would be remarkable if the rest of the symptoms were not paralytic.

I submit that it would not be possible for a neurologist to scientifically study this exceedingly complex disease without availing himself of the work done by different specialists. We require many different kinds of definite or technical knowledge; all the sagacity in the world will not avail, either for practical ends, or for the scientific investigation of complex problems, without technical knowledge. No one man can have, from his own working, enough different, definite knowledge to thoroughly investigate the universal symptomatology of epilepsy.

It is vain to begin the careful analysis of this complex problem without aid from psychology. Could the neurologist analyse the physical condition without help from the physiologist? How, without that help, is he to put in any reasonable order symptoms related to the organic parts, slowing of the heart, raised arterial pressure, and the rest? Recent researches by Gaskell will, I think, help us greatly in our analysis of the organic symptoms. I submit the hypothesis that, in some cases, the first effects of the epileptic discharge on the organic parts are by intermediation of Gaskell's leucentric (inhibitory) fibres. Does not the neurologist need the help of the alienist physician? Witness the definite work on epileptic insanity by Falret. To the ophthalmic surgeon the neurologist is very directly indebted. Here I will pick the eye-symptoms out of the heap.

Sometimes, but yet very rarely, we have optic neuritis (common in epileptiform seizures), or simple optic atrophy, as I have illustrated. To speak only of the paroxysm; in some cases there are colour-warnings, occasionally followed by the greatly more elaborate mental state, "seeing faces." There are pupillary affections. In one case

of uræmic convulsions I saw the fundus easily during the fits, when the pupils were widely dilated, but could get no glimpse of it in the intervals. Vulpian found that the pupils in his curarised dog enlarged during the artificially induced paroxysm, and that, after the fit, they were smaller than before the fit. We have vertigo at the onset of some paroxysms. Vertigo is consciousness ceasing; that variety of it in which objects seem to move to one side is an eye-symptom; it implies discharge, primary or secondary, of centres representing particularly the most special of ocular movements. If we have not clear ideas on vertigo in epilepsy, we shall work sad havoc in the investigation of some important varieties of epilepsy. Here the neurologist should avail himself of the definite knowledge the ophthalmic surgeon can give him from cases of paralyses of ocular muscles, in which vertigo is seen in its simplest form, before he studies it in the vastly complex circumstances of the epileptic paroxysm. After that, he should take heed of what the aural surgeon can tell him of ear-vertigo. I have seen, so to speak, vertigo during an attack of ear-vertigo. Speaking more correctly, I saw the patient's eyes jerk to one side whilst he saw objects jerking to one side (*Brain*, April, 1879). In our *Transactions*, vol. iii, I have recorded a case (essentially like one previously published by Schwabach) in which pressure on a diseased right ear produced vertigo and movements of the eyeballs to one side. Such cases are very valuable in the interpretation of vertigo. The variety of vertigo mentioned occurs, no doubt, in an epileptic fit along with turning of the eyes to one side. Beevor has noted that, after some epileptic fits, the eyes deviate from the side to which they were strongly turned in the prior paroxysm. This is a matter of great importance. That movements of the eyes are represented in the highest motor centres (frontal lobes, motor division of the "organ of mind"), one might infer *a priori*. Ocular movements are the most representative of all movements. Most mentation is carried on in visual perceptions and ideas; and, as there is an element of, or symbolising shape, in every visual perception and idea, there is, of necessity, a representation of ocular movements in the physical bases of these ideas, that is, in the highest centres.

Ferrier and Gerald Yeo find, by experiments (ablations) on monkeys, that movements of the eyes and head are represented in the frontal lobes. There is another important eye-symptom in epilepsy; apparent alteration in the size and distance of objects. It occurs, I think, most often in those epileptic attacks in which there is the "dreamy" state. It is physically a "motor affair;" that size and shape are not simply "retinal affairs" is easily proven. Here we avail ourselves of the definite knowledge of the ophthalmic surgeon (the micropia after instillation of atropine; in paralysis of an internal rectus; the opposite condition after eserine). But we must not apply the knowledge derived from such simple cases to alterations in size of external objects at the onset of epileptic fits without great caution, the situation being an exceedingly complicated one. I have already stated an hypothesis regarding the mode of production of these phenomena. Dr. Gowers has considered them, with his characteristic ability, in his valuable work *On Epilepsy*, page 64, a work rich in ophthalmological knowledge.

Although I have spoken of epilepsy, there are really very many epilepsies, just as there are many epileptiform seizures, and thus, illustrating by the eye-symptoms (vertigo, colour, alteration of size or distance of objects), just mentioned, we should try to find the particular sequence of symptoms of other kinds of which each of the eye-symptoms is the prelude. Epilepsy is not a complex thing when it is empirically regarded as a clinical entity, which for some purposes it should be. It is comparatively easy to note the "causes," "warnings," etc., "of epilepsy;" much good work has been done in that way. But, besides investigating in this way, we have to "turn ourselves round," and try to ascertain what different symptoms result from differently seated "discharging lesions" of the highest centres. We have the large question to answer, what is the constitution of the "organ of mind" (highest centres) by which it results (1) that discharge, beginning in different parts of it, produces different epilepsies, and produces, if severe enough, nearly universal effects, no doubt in different degrees and sequences; whilst (2) other kinds of disease of different parts of the "organ of mind" produce different insanities. (3) In one case we may have first, in the paroxysm, cessation of consciousness with universal convulsion and equivalent effects in the organic field, and then, after the paroxysm, insanity, acute temporary dementia (coma), or "loss" of consciousness, with mania. After epileptic fits of different degrees of severity we have different degrees of insanity, from "confusion of thought" to coma. Indeed, some physicians go so far as to say that an attack of mania sometimes occurs instead of an epileptic convulsion; as I have implicitly said when

² Of course, we cannot say that such superpositive phenomena as foot-clonus, passage of faeces, etc., after epileptic fits, are paralytic, but they signify exhaustion of "controlling" nervous elements, are indirect evidences of paralysis.

speaking of movements properly so-called, and of elaborate mental states, I do not hold this hypothesis. (4) We have to find a means of studying epilepsies and insanities (diseases of highest centres) with diseases of lower centres.

It is impossible even to begin to work methodically towards answering the compound question put, if we confuse psychology with the anatomy and physiology of the nervous system; manifestly, referring to (4), we cannot reasonably compare and contrast loss of consciousness from disease of the highest centres with monoplegia from disease of the middle centre, nor with any other physical symptom.

We should follow the method of science, and investigate by the use of hypotheses. This may seem a strange remark to those who erroneously suppose an hypothesis to be a conclusion in which we may rest. It is only used for the methodising of work by observation and experiment. I submit that we should adopt the hypothesis of evolution, according to which the whole nervous system is a sensori-motor system representing all parts of the body. I suggest that all parts of the body are represented in each of three levels of evolution (representative, re-representative, and re-re-representative). Strictly, we should speak of four levels; as, when tracing the "ascent" (*vide infra*) from eye-muscles to most complex ocular movements, we should begin at the periphery. Representation increases in (1) differentiation (complexity), (2) definiteness (speciality), (3) integration (intricacy), and (4) in number of interconnections (co-operation) from lowest centres to highest centres ("organ of mind"). The "organ of mind" is nothing else than a series of centres representing, or, what is the same thing, co-ordinating, all parts of the body, "from eyes to feet," in greatest complexity, etc. Let me compare and contrast the lowest level of evolution with the highest, ignoring the middle level. (The lowest level is cerebro-cerebellar.) Each lowest centre represents, most nearly directly, some (3) limited particular region of the body (least integration), each some region in (1) fewest least different, and (2) least definite, combinations; there are (4) fewest interconnections between these centres. The supposition is that each of the highest centres represents triply indirectly (through middle and lowest centres) (3) all, or very wide, regions of the body; that each represents in (1) most numerous, most different, and (2) most definite combinations; and that there are (4) most numerous interconnections between these centres. (Each highest centre represents all parts, or wide regions of the body; no two represent all parts, or the same parts, in the same way.) The evolutionist, it must be added, does not attempt the marvellous feat of "getting the mind out of the body;" he only tries "to get" the physical bases of mind (highest centres) out of the rest of the body. Mental states are only concomitant with nervous states. Taking mental symptoms to be only signs of what is not going on, or of what is going on wrong, in the highest parts of a great sensori-motor mechanism, we may, I hope, find an answer to the large compound question put. We cannot expect to find an answer if we are not thoroughly materialistic as to what is purely material, the nervous system.

Taking an ophthalmological illustration, and yet artificially simplifying it by considering only the first factor in evolution, we might try to trace an ascending complexity of representation from the nerve-supply to ocular muscles, up to representation of ocular muscles in exceedingly complex movements in the physical bases of visual ideas and other mental states. We should use the "experiments" which disease makes (dissolutions) in endeavouring to trace that "ascent": 1, paralysis of ocular muscles from lesions of their nerve-trunks (periphery); 2, ophthalmoplegia externa and interna (lowest motor centres); 3, lateral deviations of the eyes in lesions, negative and positive, of the middle motor centres, or of a plexus (internal capsule) just below them (Vulpian and Prevost). In some limited epileptiform seizures, we see development of movements of the eyes in very important associations. Possibly the interesting and remarkable paralysees of particular ocular movements, which Priestley Smith has described, are monoplegias owing to negative lesions of some middle centres; 4, deviations of the eyes in and after epileptic fits; these are, I presume, developments and losses of the most complex movements which are represented in the physical bases of visual ideas and other mental states. These "experiments" are very rough, but some of them can be supplemented by the very definite experiments, properly so called, of Hitzig and Ferrier. I refer again to the proof which Ferrier and Gerald Yeo have given of the representation of ocular movements, or of the most special of them, in the frontal lobes; these parts of the "organ of mind" I call highest motor centres.

It may be said that such a wide way of studying disease tends to vagueness. I think we may guard ourselves against this.

³ I use numbers to indicate the particular factors of evolution previously stated. It is convenient here to state the factors in different order.

In the epileptic paroxysm (dissolution being effected), the universal symptomatology is suddenly presented, and is transitory. But whilst working at this disease of the highest level of evolution, and at insanities, other diseases of it, we may, at the same time, work at different diseases of the lowest level (ignoring the middle in this illustration), in which, taking numerous different cases, the symptomatology is of nearly, if not of all, parts of the body. I remind you that the hypothesis is that the lowest level of evolution represents all parts of the body; that the middle level is the lowest over again, and so to speak, "raised to a higher power;" that the highest level is the middle over again, "raised to a still higher power."

In different progressive muscular atrophies we have symptoms nearly, if not quite, all along the lowest level, from ophthalmoplegia externa downwards (some forms of "bulbar paralysis," the common variety, Duchenne-Aran, etc.), "from eyes to feet."

Here is an important ophthalmological matter. It is well known that, with destructive lesions of the brachial plexus, we have smallness of the pupil on the side of the injury. Ferrier finds that, in the monkey, and presumably it is so in man, the dilator fibres of the iris, contained in the cervical sympathetic, are derived from the anterior root of the second dorsal nerve. In the monkey, the second dorsal sends a communicating branch to the brachial plexus, and so it does in most cases in man (Cunningham). Now the second dorsal root (Ferrier) supplies also the intrinsic muscles of the hand. In one case I have observed a small pupil (inability to dilate when shaded) in a case of progressive muscular atrophy, at a stage when the hand-muscles were almost solely those atrophic. Here again the neurologist has common ground with the ophthalmic surgeon. So much for atrophy of the animal parts. The separation is, of course, not absolute; bulbar paralysis is evidently a morbid affection of parts, mixed in function, or rather, having both kinds of function.

I submit, quite hypothetically, that we have atrophies of cells of centres for organic parts, like the atrophies of cells of anterior horns, and their higher homologues, which produce progressive muscular atrophies; thus I submit that (pernicious) diabetes may be a nuclear atrophy, progressing atrophy of cells of that part of the great vaso-motor centre which especially governs the hepatic artery. I would venture to suggest that Graves' disease is of the same kind of central pathology. (Similarly, *mutatis mutandis*, for myxoedema; central atrophic changes leading to atrophy of the thyroid. Dr. Ord says that marked bulbar paralysis has been found in two cases.)

In Graves' disease, we have an important eye-symptom—that, on the patient's looking down, the lid does not follow the globe; perhaps, by this symptom, we may hope some time to fix the seat of the changes in the centres in cases of Graves' disease. Warner and Bristowe have recorded a case of Graves' disease in which there was a form of progressive muscular atrophy, ophthalmoplegia externa. This case, so complicated, renders my hypothesis a little plausible. Of course, I do not mean that all the superpositive phenomena in Graves' disease are the direct consequences of atrophy of cells. The engorgement of the thyroid body may be owing to such atrophy of some part of the great vaso-motor centre. Some other symptoms, for example, the palpitations, may be indirect consequences of atrophy of cells of inhibitory centres. There is no reason why atrophy should not begin in cells of Clarke's column and its higher and lower representatives, and in spinal and bulbar "regulating centres."

In tabes dorsalis, we have, taking numerous different cases, symptoms "all along the line," from optic atrophy and pupillary affections downwards, "from eyes to feet." In these cases, we have morbid affections of many organic parts, among others, gastric crises (Charcot, Buzzard, etc.), bladder-troubles, and impotence; sometimes loss of smell and hearing, but the most important sensation-defect is of resistance, a defect clearly seen in cases where there is the feeling of "padding" of the soles.

Diphtherial paralysis is another disease on the lowest level of evolution, probably (Vulpian, Déjérine, Abercrombie, Percy Kidd) a myelitis of parts of anterior spinal horns and of their higher homologues (possibly, the ptomaine generated during the diphtheria acts, somewhat like curare and poisons endings of motor nerves). In this disease, we have, in severe cases, paralysees from eye (ciliary muscle) downwards—"from eyes to feet." We must not forget the occasional implication of the organic parts—death after slowing of the pulse (implication of the accelerating centre?).

We may study the nearly universal symptomatology of different kinds of disease on the lowest level of evolution made up by the symptoms of the cases mentioned and by those of other diseases on that level. The ophthalmic surgeon sees eye-symptoms from lesions at or near to the "top" of the lowest level of

evolution, and in cases which, superficially regarded, are uncomplicated. But having great integration of medical knowledge of other kinds, he does not regard them as eye-diseases only, but finds what they mean, what wide symptomatology they are important elements of. By co-operation of many different workers, each with definite or special knowledge of particular kinds, and each with great integration of more general knowledge, we may hope to thoroughly analyse three very complex symptomatologies. The symptoms are slowly produced, are presented in detail, are persistent or permanent, and, so to speak, are comparatively simple analysing experiments by disease on the lowest level of evolution (simple dissolutions). But now regarding these symptoms taken *en bloc* as signs of negative lesions of (nearly) all parts on the lowest level of evolution, let me compare and contrast them with symptoms from negative lesions on the highest level.

The condition of a patient after a severe epileptic fit is one of nearly universal, and almost total, paralysis (dissolution effected). He has loss of consciousness, but this has nothing to do with his not moving. The symptomatology is, so to speak, the "evolutionary sum" of all, or nearly all, the symptoms of all the diseases on the lowest level of evolution. This statement needs obvious qualifications; one is important. Since the epileptic discharge, beginning in the highest centres, produces effects in nearly all (ento- and epi-) peripheral parts, currents from this primary discharge must have traversed and discharged more or less of the middle and lowest centres, in order to "get at" the periphery. Hence the paralytic condition after a very severe fit will be a very compound one, a very compound dissolution, all orders of centres being somewhat exhausted, but in different degrees.

Thus the neurologist, by availing himself of the different definite work which ophthalmic surgeons, aural surgeons, laryngologists, etc., are doing at different points all along the (1) lowest level of evolution, by working himself at different diseases on the (2) middle level (epileptiform seizures, monoplegias, migraine, etc.), by working with the alienist physician at diseases of the (3) highest centres (epilepsies and insanities) may hope to justify his differentiation. The several workers may hope to add (1) different (2) definite knowledge to, and further the (3) integration of general medical knowledge, and to lead to a higher and more methodical (4) co-operation of different workers. I say once more that this wide comparative study cannot be methodically undertaken, if we confuse psychology with the anatomy and physiology of the nervous system—not if we take the *organ of mind* to be mind. The "organ of mind" is simply a series of centres re-representing impressions and movements of all, literally all, parts of the body.

LACTIC ACID AND TUBERCULAR LARYNGITIS.—A discussion has taken place in the Berlin Medical Society on the value of lactic acid in laryngeal tuberculosis. Dr. Krause stated that, of fourteen undoubted cases he had treated in this way, some were improved, and some completely cured. The least satisfactory cases were those where the posterior wall of the larynx was affected; also those where there was a lesion below the vocal cords which could not be well brought under the influence of the application. The voice improved, also the power of swallowing, and the general condition of the patients. Dr. Rosenberg confirmed the statements of Dr. Krause as to the good effects of lactic acid, but, for his own part, was still more satisfied with the results of a twenty per cent. solution of menthol. He was also treating pulmonary phthisis with menthol-inhalations. Dr. Lublinski had had a certain amount of success with lactic acid, but found that, after the ulcers had healed, they again broke out. Professor Virchow pointed out that when these ulcerations healed, a cicatrix only was formed, not true mucous membrane. He hoped that further observations on this subject might be made, especially on cases that had healed for some time.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The first meeting of the thirtieth session was held on Friday, November 6th, when the following officers were elected. *President:* Robert E. Carrington, M.D. *Vice-Presidents:* C. H. Hartt, L.R.C.S.I.; F. B. Jessett, F.R.C.S. *Treasurer:* Prior Purvis, M.D. *Secretary:* H. W. Roberts, M.R.C.S. *Librarian:* J. B. Saundry, M.D. *Council:* J. Brindley James, M.R.C.S.; W. C. S. Burney, L.K.Q.C.P.; H. G. Cable, M.R.C.S.; W. Collingridge, M.D.; A. Forsyth, M.D.; John Marshall, M.R.C.S.; Frederick Moon, M.B.

RUSSIAN PROFESSORSHIPS.—Dr. A. Bruyeff, of the Military Medical Academy of St. Petersburg, has been appointed Professor of Syphilography and Dermatology in the University of Kharkoff. Professor Danilevski, of Kazan, has been appointed to the Chair of Physiological Chemistry in Kharkoff.

INAUGURAL ADDRESS ON MEDICAL TREATMENT.

Delivered before the Midland Medical Society, November 11th, 1885.

By SAMUEL WILKS, M.D., LL.D., F.R.S.,
Consulting Physician to Guy's Hospital, etc.

Slow Progress of Disease.—Duty of the Medical Man as regards the Study of its Causes and its Prevention.—The Voice of the People as the Medical Man's Guide.—The Study of Disease and its Causes the true Foundation of Medical Practice.—Importance of Studying the Natural History of Disease.—Origin of Treatment by Drugs and other Agents.—Therapeutics as a Science.—Limitation of Value of Observations on Healthy Subjects.—Influence of Fashion on Modern Changes in Treatment.—Multiplicity of Medicines undesirable.—Specialism.—Increased Closeness of Relations between Medicine and Surgery.—Antiseptics.—Summary.

[Continued from page 903.]

Influence of Fashion on Modern Changes in Treatment.—The difference of treatment from a former age is due, partly to an advance, but more to a change in fashion. Then it was thought that disease implied some over-activity in the part of the body affected, and it was to be knocked down by depleting measures—such as bleeding, general or local, assisted by medicines of the nature of purges, emetics, and salines, combined with low diet. Now, the theory of modern medicine can be best exemplified by turning to the advertising pages of the medical journals, in which you will perceive that there is no insertion of any medicine of a lowering nature, and, if there were, not a single dose would be sold. Every patient is too low, and all the chemist's powers are exercised to produce strengthening remedies. After the clever combination of quinine and iron had existed for some time, strychnine was successfully added to them, and large was the number of people swallowing the compound. This continued until some one suggested the addition of phosphorus, as necessary for weak brains. As a fortune seems to be soon made with these invigorating compounds, we need not lament that it was soon to be superseded by a similar mixture, combined with cod-liver oil. Then some wary rival found that these would not digest without lactic acid or pepsine, and a new compound was framed. Then, the articles of diet are all made on the same principle; the strongest essences of meat are sold, so that a spoonful is equal to a chop or pound of beef, and a little maltine is as invigorating as, and less injurious than, a pint of beer. To prove the value of these things, I propose that a healthy chemist be taken, and made to live for a month, if possible, on his own essence of meat and maltine, with perhaps a few peptones thrown in. If he fall into a bad way, he should then be revived by chemical food—such as the lacto-phosphates, Siegel's syrup, or some good blood-restorer. I have intended to imply, as you no doubt comprehend, that we are too much in the hands of the chemists and druggists; and that, instead of administering simple remedies of known effect, we have been content, through laziness, to prescribe these popular strengthening compounds. In this way, the therapeutic art will assuredly not advance; and it is equally evident that, if it were placed on a scientific basis, nothing could be more conducive to the death of all quackery. The latter could not exist if the prescribing a medicine implied a knowledge of its action and the proper occasion for its employment.

Since the discovery by Bernard of the regulating power of nerves over the smaller blood-vessels, hopes have arisen that we had therein a clue to the operation of medicines, as well as an explanation of many morbid processes. A paralysis of the vessels, or their increased tension through the influence of the nerves, could explain almost every action in the human body. It was thought by one enthusiastic physician that in belladonna and strychnine might be found the universal remedies; the same idea was simplified by the substitution of heat and cold. It was certainly interesting to observe how the system could be made applicable both to surgical and to medical treatment. If the physician, by giving an internal medicine, could, by acting on the vaso-motor nerves, increase or diminish the supply of blood to a part, and so arrest the morbid process, in like manner the surgeon could apply an astringent to an inflamed conjunctiva, or paint nitrate of silver on an erysipelatous surface, or, by a more mechanical way, arrive at the same end by strapping an inflamed joint or testis, or arrest a growth in a limb, by tying the main artery which supplied it.

To me it seems strange that such a simple system should ever have

been propounded, fascinating as the theory is, seeing how complex is the human body, and how manifold are the conditions falling under the name disease. There was a time when a section of the profession thought that all changes occurred primarily in the solid tissues of the body, and the members were called solidists, in distinction to the humoralists, who thought that all disease commenced in the blood.

Now, if we prick the skin with the finest needle, we wound blood-vessel, nerve, and various cells, so closely are all parts united in the nutritive process. It may be true that the prime mover, in one case, is the blood, and, in another, the nerve, etc.; but it is quite impossible to separate the tissues, for pathological purposes, in the subsequent changes which take place. If fancy is to rule medical doctrine, we might have a third, for we hear our patients speak of a complaint arising from one part of the body to another, and then we should have the solid, humoral, and aerial pathologists.

How any general law of curing can be made applicable to the human body, seems to me about as likely as some general method of putting a watch or steam-engine to rights when out of order. No truth can be told in a few words. I myself have a great horror of formula; they are as false as telegrams, and, like proverbs, express one particular attitude of the mind, and that is all, for an exact opposite of every proverb can be readily found. I have a great sympathy with John Hunter in this respect, who says, in his lectures, "Of all things on the face of the earth, definitions are the most accursed; for if you make a definition, you may bring together under it a thousand things that have not the least connection with it."

Multiplicity of Medicines undesirable.—I should be loth to discourage true therapeutics, since the scientific method of treating disease is one great desideratum; but, at the same time, the discovery of a substance which shall act in some powerful manner upon the organism is only a small part that is required. Judging from the immense number of medicines in use, and these daily increasing, one would think that the sole object of the physician was to discover new remedies. In looking over a list lately sent me by a druggist, I counted no less than fifty drugs whose names I had never before heard of, and the multiplication is still going on. It is not medicines which we want, but a better knowledge of how to use those which we already possess. It has been said that all we have to do is to treat symptoms, but I never could see the force of this reasoning. The symptoms must depend upon a cause, and, unless we know their meaning and their origin, we cannot be sure whether we are right in treating them. Such a case as the following I constantly meet with.

I was asked to go a few miles from London to see a young man who had for some days been the subject of constant vomiting. The medical man told me that he had given every known remedy, when I suggested iodide of potassium. This he never heard of as a remedy for sickness, but, after listening to the lad's history, an examination of the eyes, and the discovery of a lump in the testes, he willingly gave it. After a few doses the sickness had passed, and the young man was in every respect better. The medicine had been operating on the prime cause, which, no doubt, was a gummatous substance on the brain.

I say, even if you have a remedy for symptoms, it does not follow that you should use it; for example, I once heard a medical man order some Dover's powder for a patient suffering from rheumatic fever; his friend objected to it, since it would increase the sweating and weaken the patient. "The very thing I should give it for," said the other, "for I believe the disease is really cured by sweating." You see it was not the question of some remedy, but whether a known medicine should be used or not.

I constantly hear the opinion expressed, that our knowledge of therapeutics lags far behind our knowledge of physiology, pathology, or clinical medicine. I have no sympathy whatever with this notion, for I believe they all go hand in hand; and if I venture my own individual opinion—and with this, perhaps, some of you will not agree—I do not wish for any more drugs, for of what good would they be to us? What is the use of putting edged tools into the hands of children who do not know how to employ them? What is the value of a drug, even if we be not uncertain of its action, but have no knowledge of the indications for its use? I think you will, perhaps, be the more inclined to agree with me if you look into the past history of medicine; and what is true of the past is true of the present in a lesser degree. Suppose our ancestors, with a less amount of knowledge of disease than ourselves, had been in possession of powerful drugs, is it not clear that harm would have been done by their employment, as we know was the case by a misuse of those which they had, and of other powerful agents? Had they not the means of

using stimulants, and applying heat and cold, and similar methods? and do we not know that they injured their patients by their use? Take, for example, the specific diseases attended by fever; we are all now aware that the fever is a dangerous symptom, and that the patient will run favourably through the disease when this is kept in abeyance. Now what thought our forefathers? Why, that the symptoms should be encouraged, and heat was to be promoted. What was wanting to these good people was certainly not powerful agents, but a better clinical knowledge of disease.

Hear what Sydenham says. He tells us that, before his time, he found small-pox treated by placing the patients in a hot room with a fire, and closed windows, and with blankets heaped upon them. He, with more enlightenment, commenced a totally different system. He opened the windows, and allowed the patient to lie cool; and the good result was so marked, that he was forced to the melancholy conclusion that people would do better if left quite alone, than be treated by the usual method. Here are his words: "It appears, from what has been said, why so few of the common people die of this disease, compared with the rich that are killed by it, which, indeed, can hardly be ascribed to any other cause than that, by reason of their poverty and country way of living, they have not power to hurt themselves by a more accurate and delicate regimen. But this disease has destroyed more of the common people since they knew the use of mithridate, disacordium, and decoction of hartshorn, and the like, than in ages more unlearned, but far wiser; for now there is scarce a house wherein there is not a pragmatical woman who practises that art to man's destruction which she never learnt." Now, this is really an awful consideration, that the use of remedies should ever do harm; but if the reason was clear that it was so in Sydenham's time, it must be true still. I confess, for my own part, that I never pass a week without having inwardly to exclaim, "Thank Heaven, we have no more drugs, and those in use are not so powerful as their administrators would wish." I will explain. I see a lad with pleuritic effusion which has pushed down his liver; the medical man had overlooked the presence of water in the chest, but had discovered the liver below the ribs. He considered this to be enlarged, and gave the boy mercury to reduce it. Now, is it not fortunate that mercury had not the wished for power in reducing a healthy liver to half its size? Again, I see people with osteitis deformans and other cases where the bones are enlarged, and iodide of potassium is almost universally given, but it never does any good. Again I exclaim, "How fortunate is this. Could iodide of potassium absorb bone, what a responsibility would rest on the medical men who prescribe it, and in what a condition would all the skeletons of civilised people be.

Another example, the hypertrophied spleen. Nearly all patients with this affection are given quinine and iodide and bromide of potassium in order to reduce it. How thankful I am that these attempts are ineffectual; for if these drugs could absorb healthy spleen-structure, what a mass of people would now be spleenless! I have more than once heard a medical man deplore the want of a more powerful styptic in a case of hæmorrhage from the lung in heart-disease, and in hæmorrhage from the stomach in cirrhotic enlargement of the liver, when Nature was doing her best to relieve the congested organs. If good liver-tissue, bone-tissue, and spleen-tissue, could be removed in the manner hoped for by the medicines given for the purpose, and if gorged lungs and livers could be stopped from emptying themselves by styptics, is it not a mercy that we have no more powerful drugs? The only compensation I can see for these direful influences would be the compensating power of reproduction by other medicines, in the way of flesh-formers, fat-formers, blood-producers, and the like. For example, a little idiot child is taken to a medical man, who prescribes for it cod-liver-oil and phosphate of iron as being the only likely remedies to improve the brain, seeing that phosphorus and fatty matters enter into its composition. Now, if the prescriber had his wish, he would have liked to create some more good cerebral tissue, or to see the brain grow. Supposing he could have done so, consider the gigantic brains and corresponding intellects which it would be in the power of the profession to produce.

The result of all this experience teaches me that we have enough drugs for our present state of medical knowledge. In spite of the enthusiasm of some as to the value of drugs, I think there must be a large amount of scepticism afloat in the minds of the profession; for if, for example, in a case which is believed to be tubercular meningitis, medicine should be given in a most serious mood, and the child recover, the medical man thinks he must have been mistaken in his diagnosis, and the disease could never have existed. He never fails to give medicine, but never expects it to do any good; he has some kind of hope that it may be useful in some other way. Now this is a very curious attitude of the medical mind:

to prescribe for a complaint in the hope that it does not exist, or that it is something else. Then, again, scepticism is shown in the absence of any compunction of conscience when we discover that we have mistaken the nature of the case. Now, if remedies were more precise in their action, they would do harm if wrongly prescribed (as assuredly all good remedies do), and when the discovery was made, our bewailing would be great; but this is not so, or with rare exceptions. I think Helmholtz told us that he was brought up to the medical profession, but when one of his patients died, he felt the responsibility so great that he gave up medicine for the study of natural science. Simple-minded man! Now, I think I can show you how an improved treatment has come about, not by the discovery of new drugs, but by a better knowledge of the nature of disease, and by clinical observation. Thousands of persons are now cured of epilepsy, paralysis, and various other nerve-disorders, by means of iodide of potassium; and why? Because syphilis was found to attack the brain and internal organs, when a more extended and closer observation of morbid structures was begun to be made in the *post mortem* room. Let me most emphatically dwell upon this fact, that an improved treatment, saving thousands of lives annually, arose, not from the discovery of a new drug, but from work in the deadhouse. Suppose phthisis is proved to be of bacillary origin, and is to be treated by antiseptics. Where are we to look for the origin of the improved treatment? Not to any new remedies, for they were already at hand, but to the pathological laboratory at Berlin. The cold bath has saved many lives in hyperpyrexia; the remedy had always been before us, but was not put in force until suggested by the thermometer. Look, again, at the enormous improvement in surgery due to the antiseptic treatment, whereby tens of thousands of lives are now annually saved. This was not due to the discovery of new remedies, but by seeing the necessity for using those which we had. I might go on illustrating the fact that a very large part of the improved treatment of late years has not been by the use of new drugs, but by pathological and clinical researches which have pointed out the use to us of those which we have always before us. It would require a long survey of the practice of medicine to show the proportional advances made in treatment by the introduction of new drugs and by an improved pathological and clinical knowledge. You must judge for yourselves; but for my own part, if I look merely at the two examples I have mentioned—the cure of visceral syphilis by iodide of potassium, and antiseptic surgery—and remember how the improved treatment has saved thousands and thousands of lives, I cannot but think that the preponderance in favour of pathological and clinical knowledge is overwhelming. It seems to me that, so far from therapeutics lagging behind, we seem to be ever ready with drugs when we require them. A well known gynaecologist told me, the other day, that every rising member in his department had invented a new pessary, but probably there were only one or two who had the experience to know whether the instrument was wanted or not. The treatment had far outrun pathology and clinical medicine.

I am not saying a word against pharmacology, for I hail with delight the introduction of a drug whose action we know and whose use we have ascertained; and as regards this department of our art, I believe great advance has been made of late years. I have been more than once told by examiners at medical boards that students fail in writing prescriptions. I answer that this is probably true, but that they have learned something better, a knowledge of drugs. I can go back now many years, and call to my remembrance Addison and Babington in the wards of Guy's Hospital, and their dictating prescriptions which were written out in a book by the clerk, but I have no recollection of their ever giving a reason for mixing a dozen drugs together. It is very different now. After an examination of the case, the physician asks what is the best treatment to pursue, and if there be any medicine which may be of service to the patient. If it be thought so, a medicine is ordered in its simplicity. The students have thus an opportunity of watching its effects unalloyed with other drugs, and in this way they acquire a positive knowledge of the effects of iodide of potassium, digitalis, belladonna, or arsenic. They know now that quinine is not only a tonic, but an antiseptic and antipyretic. A very revered physician, who died not long ago, is reported to have said that therapeutics had retrograded in the last twenty years. This coincided with the time at which he retired from practice. I believe there is not the slightest truth in such a supposition, but, on the contrary, I hold that it has made a marked advance.

I said just now that it is the custom to prescribe a drug for every ailment for which the patient seeks our advice. I am well aware that this is often done to act on the patient's mind, rather than on the supposition that it has any directly curative effect. I believe this is not only legitimate, but right, for human nature requires

something to be done on which to rest. None of us are so strong-minded but that, if, while we lay on a bed of suffering, a friend came in, and put something in our mouth, assuring us, at the same time, that it would do us good, we should not be relieved, and feel happier than if we were told we must lie and suffer. I think, however, that when we have prescribed for the patient's mind, we should hesitate before giving him medicine for the sake of his friends. When, for example, a patient is lying unconscious on his bed, and beyond all hope, I feel very reluctant to make him swallow physic for the satisfaction of those around him. If it do him no harm, so much the better; but how often is the medical man asked to give a patient a narcotic because he does not sleep at night, and the friends are tired of the weary hours? A man, although he obtains snatches of sleep during the day and night which suffice for his necessities, must have an opiate given him because the wife declares that she cannot go through another such night.

My belief in remedies goes to this extent, that if the right one for the complaint be given, it is tolerated, and that all good remedies, if not rightly administered, do harm. When, therefore, I hear of a universal remedy like bromide of potassium being given with impunity for any time and in any doses, I do not form a very high opinion of its value.

I believe also that we have a sufficient number of remedies to afford relief in all complaints, even the organic and incurable; therefore, if in any case no medicine be of any good, and the patient say "I cannot take this, and I cannot take that," I conclude that he or she has no disease to cure. We thus have a number of patients who are never any better for our treatment, and I am often inclined to reverse the aphorism of Hippocrates, and exclaim, "Life is long, but art is short."

Specialism.—I find it impossible to speak of medical treatment without touching on the subject of specialism. I do so rather reluctantly, because a discussion of it seems apt to arouse angry feelings—a fact in itself, however, which might be made use of in arguing the question of its advantages. From what I have already said, there can be little doubt in what direction my own thoughts tend; for, when I say it is a prime duty of the medical man to discover the causes which give rise to complaints, and that many of these are to be found in our usual surroundings, it is evident that a very large and comprehensive view must be taken of the conditions in which we live, before we can arrive at a conclusion upon this point. When, again, a large number of ailments are due to the wear and tear of life, and of age itself, a consideration must be given to the working of the whole organism, in order to understand the derangements thus brought about. No limited view of one part of the body would suffice. Again, if one organ be so markedly diseased as to warrant the expression of a name denoting its morbid change, a large number of other parts are affected in relation with it. This is one of the most striking facts observed by those who make *post mortem* examinations, and I can substantiate it with the result of large experience: that, under whatever name the patient dies, a very large number of structures in the body are found altered from their normal state; and, on the contrary, that a number of persons dying under different appellations may be all the subject of the same disorder. One may be dying insensible with coma, another with fits, a third with apoplexy, a fourth has pneumonia, and so on; and yet all these persons are the victims of chronic Bright's disease. During life, the affections which are called secondary or accessory to the main disorder may not be so manifest, but assuredly they exist. In these circumstances, it seems to me perfectly impossible for any one to treat one organ alone, without a due consideration of others; and I know as a fact, from observation, that the best physicians are those who can take the body as a whole, and study the relations existing between the parts, and then regulate the functions accordingly. As regards medical specialism, or that which relates to physicians' practice, it has no basis in nature, and therefore cannot be attempted without detriment to the patient. Now, although it is not applicable to internal complaints, specialism may be of service in the surgical department. I think it is evident that a man who is always using his hands in a particular manner must gain a facility which others cannot possess, and therefore the necessity of the oculist and the operator in some other special sections. I apprehend that the surgeon who did nothing but perform herniotomy would be more skilful in that operation than the one who did nothing but amputate, and *vice versa*. To what extent the surgeon should thus subdivide himself with advantage, is another question. The gynaecologist, in like manner, who is constantly making an examination of the uterus, must gain a facility of diagnosis which others cannot have; but, as regards the mere disturbances of the sexual organs, then the general physician can equally take cognisance of them, seeing that they occur in connection with

every kind of disease. As a matter of fact, therefore, pure specialism can exist to only a limited extent; and the public are in error when they think that there are physicians with special hospitals devoted to the treatment of kidney, liver, heart-disease, etc. The nearest approach to specialism in medicine proper is seen in the case of a general physician whose inclination leads him to the study of some disease, and writes a book about it. This will always be the case; but such men are not regarded as specialists either by the profession or by the public. The public opinion is virtually expressed in the words which I heard let fall the other day from a poor woman who had been sent to two of the leading hospital-surgeons in London for cancer, both of whom had written on the subject. She was not content until she had seen the surgeon of a special cancer-hospital (whose name was unknown to me), and then told her friends she had consulted "the head cancer-doctor."

If purely local diseases existed, something might be said in favour of specialism, especially if the medical attendant could proclaim with ease the part at fault, and recommend the proper person to put it right; but, in a large number of cases, this is quite impossible, the organisation of the body is too complex, and the difficulty of diagnosis too great. What really happens is that the patient judges for himself, both as to his complaint and his adviser. Thus many phthisical patients go to the throat-doctor because they are hoarse; and, if women, to the gynecologist, because the menses have ceased. I have met with a great many instances of both kinds.

If specialism were instituted in its various branches by the profession, it is very difficult to say to what extent it would be allowed; but, at present, the system is said by some of its advocates to have been invented by the public, which is probably the case. The *vox populi* declares it is common sense that a person who devotes all his attention to one thing must know most about it, to which is added the corollary, which appears to me strictly logical, that the medical man who gives all his time to one subject must necessarily know less of others; how unfortunate, then, I have heard a patient exclaim, should he fall into the hands of the wrong man. I am sorry to say the public are perfectly justified in their fears, as I could show by numerous examples. I believe the statement is correct that the public, in contemplating the division in the mechanical arts, have demanded the same thing in our profession; specialism has been asked for, and the demand has created a good supply. The reason one is led to this view is, that it is not otherwise apparent why some parts of the body are selected for the medical man's devotion rather than others. If there be no specialists for the pancreas or spleen, it would be probably because the public are not aware of the presence of these organs, whereas they are conscious, often too conscious, of those parts which constitute the orifices of the body, highly sensitive parts, and always before the ken of the patient; these are, therefore, to be found amongst the principal objects of the specialist's care, some taking the superior and others the inferior orifices. There may be, also, a more legitimate reason for this selection, seeing that these parts can be manipulated, and, therefore, can receive the undivided attention of the surgeon, who obtains, without doubt, a facility in handling them which others have not.

As regards the evils from mistaken diagnosis, this is inevitable, for it is impossible for a man devoted to one object to discover the causes of disease as well as his fellows; this can only be done effectually by the general practitioner or by the general physician. And even pure clinical experience is not enough, as I have often proved; for it requires the addition of pathological knowledge to form a right conclusion; one is of no value without the other. I must call your attention for a moment to the method of making a diagnosis; it amounts to no more than this in a large majority of cases: the probability in favour of the existence of one disease rather than other; the symptoms imply a certain derangement within the body, and you infer from your experience what the cause of this is. You must, therefore, be previously supplied with a category of disease, and out of this you choose one most accordant with the symptoms. Now, this category could not be made in the wards alone, it must be supplemented by *post mortem* examinations. You may diagnose an intestinal obstruction, but the different causes which may have produced it can only be known by inspection after death.

It might remind you here that general hospitals alone can give us the results obtained by this *post mortem* inspection. I naturally think of my own institution, and recall the discoveries of Bright, Addison, Hodgkin, and others. Visceral syphilis could never have been discovered at a venereal hospital. Again, all the great improvements in surgery, notably the antiseptic treatment, excision of joints, have all been made in general hospitals. It is in the general hospitals, also, that medicine can be properly taught; the public are little aware that

diseases of the heart, liver, stomach, etc., are taught to students by men whom the public in no way know as specialists. One reason why specialism is so favoured by the public and discredited by many men in the profession, is that it is formed generally on a basis of treatment rather than for scientific ends. This is what the public like; but, at the same time, it partakes of that nature which often leads to charlatanism. Any man of any scientific knowledge and feeling must be aware that some of the most useful inventions of the age have arisen from small beginnings, and from facts which had apparently no value; also, that true workers labour for truth alone, in the *siccum lumen* of Bacon, and not for any result of practical good; they know that this must some day follow, but it is not the immediate object before them. Grand is the toast which is said to be given at the Mathematical Society in honour of mathematics—that it is of no use to anybody. Therefore, there must always be a number of workers of whom the world knows nothing, although the fruits of their discoveries may be made use of by others who gain the pecuniary reward. This holds true in medicine as in other branches of science; and, therefore, whilst there are the silent workers, there are those who make use of the results in the more lucrative department of treatment. I would finally say, in a word, that surgical specialism is allowable, because great facilities of manipulation must be gained by those who are always using their hands in the treatment of one part of the body; from which it follows that its professors must gain a greater knowledge of local diseases and means for their relief. At the same time, I should pronounce against purely medical specialism, seeing that the internal organs are so intimately related; it is impossible to attempt to treat one alone without disadvantage to the patient.

Increased Closeness of Relation between Medicine and Surgery.—In speaking of the progress of our art, it is impossible to overlook the fact of how much more intimate of late years has been the relation between medicine and surgery. Surgery at one time was occupied largely in the use of the knife for the removal of parts which failed to be cured; it now applies itself as a remedial agent, and assists the physician in the treatment of many internal diseases. Surgery as a mere piece of carpentry reached its climax when, a few years ago, two rival surgeons were able respectively to remove the upper and the lower extremities with the parts to which they were articulated. When I was a student, the surgeon would say to the patient with a diseased knee-joint, "I cannot cure you, but I can cut your leg off." The improvement in surgery has been due to two things, the employment of anæsthetics and the antiseptic treatment; for, even if the surgeon had soared to the possibility of removing diseased structures from a scientific standpoint, the length of time required for the operation would have entirely frustrated his purpose. Anæsthetics have now allowed him to take deliberate measures for the manipulative treatment of various morbid processes. If a calculus cannot be got rid of from the kidney, the surgeon will cut it out, or remove the whole organ if diseased; and, in a most remarkable case of which we were lately reading, an Italian surgeon dilated a strictured pylorus, and cured his patient. One of the greatest successes from the physician's point of view is the treatment of empyema; a large number of lives are now saved by surgical interference, and sometimes with a complete restoration of the chest to its normal condition. In my younger days, when a patient was tapped, the greatest care was taken not to admit air into the chest; consequently, if the case were one of empyema, it was excessively rare for the whole of the matter to be expelled by the expanding lung, the amount drawn off being merely the excess above that which had occupied the lung's place from distension of the chest. A certain amount of relief was obtained, but the operation was again had recourse to, and then for the third and fourth time, until the patient sank, with the chest as full as on the first occasion. It is obvious that, if the lung did not expand, and no air were allowed to enter through the cannula, no matter could flow. It did not either occur to the physician at that time that the presence of the purulent fluid was injurious otherwise than by its mechanical action on the lung, so that, if the chest were not full of fluid, and there were no great oppression of breathing, there seemed no need of operation. We now, on the contrary, see the error of this, and that a localised empyema, comparatively small in amount, will affect the system injuriously, and gradually bring about hectic fever and wasting, as in suppuration elsewhere. Some of the most remarkable instances of recovery from approaching death which I have seen have been those of thoracentesis: cases where the chest has been opened and washed out, with immediate subsidence of all constitutional disturbance. And more than this, as in the case of a lad I had lately in the hospital, who was so ill and wasted that he apparently had only a day or two longer to live, on finding that he had empyema, his chest was opened, and he gained immediate relief. He then began slowly to

recover, his chest falling in on one side, and the spine becoming curved. After some further time, however, I found the lung gradually expanding, and the chest filling out, so that very shortly the affected side was as large as the other, and the spine straight. There was no trace left, except the scar, of there having been any thoracic affection whatever. I apprehend that in such cases the lung becomes adherent, and so goes creeping down by means of pleuritic adhesions, after the manner of a plant with its tendrils. It is quite impossible that so painful and prolonged operation as thoracentesis, with washing out of the chest, could have been performed in pre-anæsthetic times.

Conservative surgery almost entirely owes its origin and progress to anæsthetics, seeing how tedious must necessarily be operations performed under this denomination. One of the most striking and important is that of the removal of carious bone and diseased joints; the propriety and success of such operations have already been realised by the dentist, to whom too much praise cannot be given for the wonderful remedial measures which he is able to adopt. There is scarcely a person above middle age who has not been relieved by his skill, and can still boast of the retention of teeth which, had he lived years before, would inevitably have been lost to him. The method of removal of diseased parts is now carried to great perfection, and the surgeon sees some of the greatest triumphs of his art in the preserved limbs of his patients. He can now exclaim, in the words of our great poet (*Richard II.*, Act v, Scene iii)—

"This festered joint cut off, the rest rest sound;
This let alone will all the rest confound."

Antiseptics.—And now a word about antiseptics as it strikes a physician or a looker-on. As regards the beneficial result of antiseptic surgery, there can be no doubt, for rarely now do we see a case of pyæmia on the *post mortem* table at Guy's, when formerly this was almost of daily occurrence. When, some years ago, I was writing a paper on pyæmia, I had no difficulty in collecting 150 cases from my own recent records. But the great fact which has struck me as an outside observer is, that the use of antiseptics has delivered the surgeon from the fear of infection, and allowed him to treat his wounds after pure scientific principles. Formerly, the terror of infection obliged the surgeon to put into practice the most unnatural and most unscientific methods of treatment; for it is remarkable that, if by chance he discarded these fears and adopted a rational method, he would often obtain as good results as he does now. I remember seeing the flaps of a thigh-stump stitched together by Mr. Bransby Cooper, and unite in a few days by what was called the first intention; also the case of a boy, under Mr. Aston Key, who had all the fingers of his hand crushed by machinery, lacerating the skin and breaking the bones; and which, being all plastered up, were found, after a week, rapidly healing, and all the parts becoming cemented together. In one of the earliest recorded cases of ovariectomy, in the year 1837 (the organ removed is now in Guy's Hospital museum), the surgeon tapped the cyst, then turned it out, tied the peduncle, replaced it in the abdomen, sewed up the wound, and in a few days this had healed, and the patient was well. The operation exactly resembled what is done now, and with equal success; showing that, if a scientific and true method be adopted, the results must be the same; but between the performance of this successful operation, nearly fifty years ago, and a similar operation now, what have we witnessed! The most extraordinary and unnatural devices put into practice in order to avoid this dreadful blood-infection; so that the best methods of treating the wound became a matter of secondary consideration, compared with the great object of preventing or getting rid of the purulent secretion and other discharges which might act as septic poisoning. Now, if we consider for a moment how the body grows, by the formation of cells, fibres, and blood-vessels, and how this takes place in the mother's womb at a temperature of 100°, we are sure that nearly the same temperature must be necessary during the subsequent growth of parts as in the healing of a wound. Now, look at the extraordinary and unnatural conditions to which wounds were submitted, and ask yourselves if you can be surprised at the result. If two raw surfaces can only grow together when placed contiguous at a temperature of nearly a 100°, what must happen to flaps of an amputated leg when left sticking out at the end of the bed, with water of the temperature of 60° constantly trickling upon them? Is it surprising that, under this treatment, the muscle looked like a piece of boiled beef, that the flaps sloughed, and that necrosis of the bone projecting quite out of the wound came to be looked upon almost as the normal process of cure? All this was done to get rid of the dreaded discharges which might infect the system; but it is obvious that the very delay in the healing process added to the chances of blood-poisoning. But even in those times I believe we were more natural and simple in our methods than the French, who would not allow the healing process to go on without being interrupted by

the introduction of charpie into the wound, besides all sorts of unguents and other messes. A looker-on, as I am, who knows nothing of the details of dressing, sees now a scientific method of procedure, adopted in distinction to a most unnatural and barbarous one of former years: and he witnesses the fact that, the fear of infection having passed, natural processes are allowed to pursue their own course. Knowing, as a physiological fact, that the temperature of the body is the same in all of us, although some may produce and give off more heat than others, and recognising that the balance is kept in whatever climate we may be, it wants but a moment's consideration to see how the relation between the blood and the tissues would be altered, the cells themselves undergoing a change, were not the temperature always the same. In these circumstances, if a wound heal, it must be placed under the same conditions as regards heat as the natural tissues during their growth; and the surgeon now looks to his wound to see that it is neither too hot nor too cold. With such facts before me, it does not seem remarkable that it is a better piece of surgery to stitch up a piece of injured intestine and put it back into the abdomen than to leave it outside, seeing that it is in the best condition to heal in the former position, and to slough in the latter. One felt also equally sure that, as regards ovariectomy, a method adopted in the case I mentioned as occurring fifty years ago was the right one, that of replacing the stump in a cavity where the temperature would allow it to heal up rapidly. Regarding, therefore, the progress of our art, we cannot but look upon the assistance of the surgeon in cases which were once called strictly medical as an immense advance; and this has been accomplished by the discovery of anæsthetics, and by the use of measures which has allowed wounds to be treated on a scientific method.

Summary.—The moral of my whole discourse is this. Advance in medicine must be looked for by a better insight into the causes of disease; by a study of pathology, in its very widest signification, which shall include not only morbid anatomy, but all those changes in the blood and nervous system which often constitute the *fons et origo mali*. These causes may be found to be of a specific nature, or to exist in the ordinary surroundings of our lives. Of whatever kind they may be, a discovery of their detrimental influence will lead to the means of their removal.

Then, again, much success may be hoped for on making a more complete study of diseases when actually running their course before us, by observing which are the favourable and which the unfavourable circumstances which determine the issue of the case; and not only the surroundings should be noted, but the meaning of the symptoms should be investigated, so as to discover which to encourage and which to oppose.

When we have arrived at some knowledge acquired by these means, the action of drugs may be considered, and the conditions which suggest their employment. As I have before said, it is by no means sufficient to know the physiological action of a medicine, but rather how it will exert an influence on various pathological phenomena. To quote again the instance of digitalis, we require to know not only its action on a healthy heart and arteries, but what power it exerts on quickly acting hearts, for whose correction we now see it daily given.

In upholding these views, I am of necessity protesting against the so-called popular theory, that diseases are so many entities, whose symptoms are to be relieved by some drug; or, as I have seen it expressed in a book on the most widespread heresy of the day, that, since it has pleased the Almighty to visit his children with various ailments, so he has provided in the herbs of the field some remedy for their cure. This is both an untruth and an absurdity; or, as a Member of Parliament declared in the House of Commons, when denouncing restrictions on medical practice, that all collegiate training was useless, the medical art being a gift with which some persons were naturally endowed. It need scarcely be said that he was the patron of the most flourishing quack in the county. If medicine is a branch of science, it must be studied in the same way as other sciences, by observation and experiment. There must first be a study of anatomy and physiology; then a study of disease, as seen in the living subject, and in its results on the dead; then, again, an investigation into the action of remedies of all kinds, and their suitability to the amelioration of morbid states; efficient treatment can only follow by a complete adoption of all these methods. By making it the result of a scientific procedure, we are assisting to stay the degeneracy of medicine, which is ever apt to constitute treatment the very foundation of our art, the alpha as well as the omega.

At a special meeting of the Council of the British Gynæcological Society, on November 11th, Dr. W. C. Grigg was appointed one of the Secretaries of the Society.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ASTHMA AS RELATED TO DISEASES OF THE SKIN.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By L. DUNCAN BULKLEY, A.M., M.D., New York.

At the Cambridge meeting of the British Medical Association, in 1880, there occurred in the Medical Section a most interesting discussion upon the subject of asthma, which was opened by Sir Andrew Clark. Unfortunately, the report of that day's proceedings did not appear immediately with the other reports in the *BRITISH MEDICAL JOURNAL*, and I can find no mention of the subject in later issues. But the matter interested me greatly at the time; and, being prevented from taking part in the discussion owing to the lateness of the hour, I at once made some notes upon the subject, which I have recently found, and which form the basis of the present brief communication.

The point of special interest to me in the remarks of Sir Andrew Clark was the suggestion which he threw out, that asthma might be closely allied to urticaria, if, indeed, it were not a similar production of ephemeral swellings of the mucous membrane, giving rise to the series of phenomena known by the name of asthma. The speaker narrated an interesting and striking case, in which the skin-manifestations of urticaria and the symptoms of asthma alternated in a manner which seemed almost conclusive of an intimate relationship between the two conditions; but the suggestion was not, in the main, well received by the gentlemen who followed in the discussion, and, if I remember rightly, little if any other corroborative testimony was offered.

The object of the present communication is to recall the suggestion then given by the distinguished speaker, and to direct attention to the occurrence of asthma and bronchial affections in those suffering from diseases of the skin, and the possible relations which may exist between the two, pathologically and therapeutically.

It will not be necessary to enter at large into the subject of asthma; but a few words may be of service, in order that there may be no misunderstanding in regard to what condition is indicated thereby, and in order that the relationship between the skin and the pulmonary tract, as hereafter noted, may be better understood.

Thanks to the earnest work of Dr. Hyde Salter and others, our knowledge of asthma has greatly increased of late years, and the word has no longer the uncertain and vague meaning which has often been attached to it during times past. It is sufficient to state that the term asthma is here employed in its restricted sense, in accord with recent teachings on the subject; namely, as expressing a definite condition of the bronchial tubes, spasmodic in its nature, nervous in origin, generally without discoverable pathological changes, but exhibiting clinical features of a decided and almost uniform character. Asthma is here distinguished from simple obstructed breathing from other causes, such as that due to bronchitis, acute or chronic, and the dyspnoea and orthopnoea arising from emphysema or heart-disease, aneurysm, etc. The aim is to consider briefly any possible connection between true asthma and disease upon the skin, and to illustrate, from clinical experience, the occurrence of this and also certain other conditions in the lung in connection with lesions upon the skin.

In looking over the literature of dermatology, comparatively little reference is found to such a coincidence or relationship, although certain very strong statements and reports have at times been made in regard to it.

Caillaut (*A Practical Treatise on Diseases of the Skin in Children*, London, p. 132) mentions the case of a boy, aged 6, with eczema of the face, who, every time the eruption disappeared, was seized with a violent attack of asthma. Dr. William Stephenson (*On the Eczematous Eruptions and Eczematous Asthma of Childhood*, *Obstetric Journal of Great Britain and Ireland*, August, 1874) has reported two cases where, with eczema appearing at two or three months of age, asthmatic symptoms developed later, in one case first occurring at two years and five months. During the discussion following this paper, in the

Edinburgh Medico-Chirurgical Society, Dr. Balfour (*Edinburgh Medical Journal*, August, 1884) narrated the case of a child, who, from the age of fourteen days, had suffered from general eczema of the whole body, and in whom dyspnoea would follow each improvement in the cutaneous disease. During the same discussion, Dr. Cunynghame said that he had seen a family, all the members of which, during the period between the first and second dentitions, suffered from eczema of the body generally, with symptoms of spasmodic asthma, all of which passed off when the second dentition was over.

Mr. George Gaskoin (*On the Relation of Asthma to Skin Diseases*, *Lancet*, March 28, 1874; and *BRITISH MEDICAL JOURNAL*, April 4, 1874) brought the matter before the Royal Medical and Chirurgical Society of London in 1874, and afterwards incorporated his observations in his work on psoriasis and lepra (*On Psoriasis and Lepra*, J. and A. Churchill, London, 1875), giving the following figures. Among 2,000 consecutive cases of skin-disease, excluding those of parasitic or syphilitic origin, he states that such complication was discoverable in 141 instances, or 7.05 per cent. These cases were as follows: psoriasis, 65; eczema, 28; acne simplex, 10; acne rosacea, 8; acne punctata, 2; syccosis, 4; lichen, 3; lichen planus, 2; strophulus, 3; pityriasis, 2; impetigo, 1; pemphigus, 1; urticaria, 1; boils and ecthyma, 1; varix, with eczema, 1; alopecia, 5; leucoderma, 1; ichthyosis, 2; lupus, 1. Unfortunately the statistics presented by Mr. Gaskoin are not as valuable as might be desired, inasmuch as in the subsequent discussion on his paper he stated that "he had taken as asthma what was called so by the people, and did not often find it was of the dry, spasmodic kind."

Although the subject is not alluded to in the text-books on dermatology, as far as I can discover, the relationship between asthma and conditions upon the skin has been mentioned more or less by writers on general medicine.

Thus, Trousseau (*Lectures on Clinical Medicine*, New Sydenham Society, London, vol. i, p. 64) observes that asthmatic patients have frequently suffered during earlier years from "eruptions of an herpetic or more commonly of an eczematous nature," and adds, "nothing is more common than to find herpetic, rheumatic, gouty, or hemorrhoidal affections transform themselves into asthma." He further says, "Thus eczematous eruptions, rheumatism, gout, and hemorrhoids, and, I may add, gravel, are complaints which may be replaced by asthma, and may replace it in turn; they are different expressions of one and the same diathesis." It is to be remembered that Trousseau had here reference to true spasmodic or idiopathic asthma, as he called it, and that his description of the disease is a very lucid one, and clearly distinguished from the conditions of dyspnoea arising from other causes.

Copland (*A Dictionary of Practical Medicine*, New York, 1846, vol. i, p. 185) mentions among the causes of spasmodic asthma "suppressed eruptions, discharges and habitual perspiration of the feet."

Aitken (*The Science and Practice of Medicine*, Philadelphia, 1866, vol. ii, p. 193) gives as an exciting cause of the paroxysms of asthma "irritation of an eruption on the skin, and its sudden subsidence."

Bartholow (*A Treatise on the Practice of Medicine*, New York, 1880, p. 417) states that asthma alternates with affections of the skin, with urticaria, for example, and succeeds to eruptions of the skin of an herpetic kind.

Eustace Smith (*A Practical Treatise on Disease in Children*, New York, 1884, p. 520) declares that "the tendency to asthma is occasionally associated with a tendency to general eczematous eruption, and Dr. West states that he has never known eczema to be very extensive and long continued without a marked liability to asthma being associated with it. The two affections may alternate, the one subsiding when the other appears."

Dr. C. Theodore Williams (*BRITISH MEDICAL JOURNAL*, June 13th, 1874) recognises that a fit of asthma may be "induced by a certain state of the blood, as from gout or skin-disease."

It is not a little strange that Dr. Hyde Salter, in his classic monograph on asthma (*On Asthma, Its Pathology and Treatment*, New York, 1882), should have omitted any direct mention of this subject, as his work is a marvel of close observation and keen reasoning. The only allusion I can find in the text to any connection or relation between asthma and affections of the skin, is the single statement that he believes that the irritation of boils may act as a reflex excitant, inducing an attack of asthma. But a careful study of the book, and of the cases which he analyses, furnishes abundant incidental proof of a possible relationship between asthma and skin-disease. Thus, he mentions the case of a man in whom the application of cold to the instep would invariably be followed by an attack of asthma; and he also records the fact that, in a large number of cases, itching under

the chin is a sure accompaniment of an attack of asthma, which is often associated with the same itching sensation over the sternum and between the shoulders. Dr. Salter also makes numerous references to the reflex character of the spasms of asthma, and recognises that cold may excite an attack by operating as a stimulant to the cutaneous surface, acting reflexly through the centripetal spinal nerves. Many of his remarks, likewise, about dietary and other causes, and also in regard to gouty influence and urinary and other disturbances, all point in the direction of a more or less relationship or connection between asthma and possible disease of the skin.

In the analysis of cases appended to Dr. Salter's book, we find also a number of references to skin-lesions in asthmatic patients, which indicate that this connection was not as unfrequent in his cases as might be supposed from the absence of reference to the subject in the text. Thus, out of 223 patients with asthma, some reference of this kind occurs in 18 cases, or 8 per cent., as follows: among the alleged causes we find measles, in 4 cases; eczema, 3; "disappearance of an eruption, 3; "disappearance of small-pox," 1; tooth-rash on the head, 1; among associated diseases in patients, we find, eczema, 1; acne rosacea, 1; purpura, 1; secondary syphilis, 1; "squamous," 1; and "family herpetic," 1.

It has fallen to my lot to see asthma associated with skin-diseases in a number of individuals; and my impression was that I should find this condition more frequent, and recorded in the notes of the cases of a larger proportion of the patients who had been under my care than has proved to be the case. After a very diligent search over my records of cases, I can find but 37 instances where the existence of true asthma was mentioned, out of a total of about 4300 patients with skin-disease in private practice, of which I have notes; although in fifty or more additional cases there were symptoms of respiratory difficulty, which might, possibly, have been classed by some as asthmatic, but which could more rightly be referred to other bronchial and thoracic difficulties. Thus, less than 1 per cent. of all patients exhibited true spasmodic asthma, even when syphilitic and parasitic eruptions were excluded from the total number of cases mentioned.

Of these 37 cases, the different skin-affections were represented as follows, the numbers referring to separate individuals affected: eczema, 20, acne 7, urticaria 5 (2 of these having also eczema), psoriasis 1, xeroderma 1, erythema nodosum 1, alopecia areata 1, lupus vulgaris 1. These figures differ very considerably from those presented by Mr. Gaskoin, but represent actual data, taken from records made in private practice among the more intelligent classes of society; those taken from public practice are less apt to be reliable, and, I think, moreover, that there would be found comparatively few notes in regard to asthma among the records of my hospital and dispensary patients, owing in part, no doubt, to the greater attention paid to the skin-elements of the cases. Among 10,000 or 12,000 patients with skin-diseases who have passed under my care in public institutions, I hardly remember any number with asthma; but we would naturally expect to find a much larger proportion of asthmatic cases among the richer classes in private practice, where the nervous element plays a more important part in the causation of many maladies.

Undoubtedly, the number of cases of true asthma, which could be found among all the patients who have been under my care, would be very much larger than is here indicated, if the matter were specially investigated. But, at the same time, the figures here given represent, perhaps, the true state of the case better than might be imagined, inasmuch as a large share of the patients were carefully studied, and notes made in regard to associated or related disease; and asthma is a somewhat striking affection, which would be very liable to be mentioned if it had existed very actively; also, most patients were interrogated, and records made in regard to sleep, and, if any had had asthma, it would be likely to be mentioned as disturbing the night's rest.

We see, then, that, while spasmodic asthma may occasionally be found intimately associated with, or related to, disease on the skin, it is by no means a very frequent complication. The twenty cases of asthma in eczematous patients occurred in just 1,500 cases of that disease; the seven with acne, out of 948 cases; the five with urticaria, out of 68 cases; and the one with psoriasis, out of 196 cases. But, at the same time, as before mentioned, there were also found among the notes numerous references to respiratory difficulties, which might by some have been called asthma; and a little observation will readily show that there exists a close relationship between the skin and the pulmonary tract, which, in certain cases, may become strikingly apparent.

The most interesting point to be noticed, in connection with the figures here given, is the apparent connection between asthma and

urticaria, where, out of a total of sixty-eight cases of urticaria, five individuals, or over seven per cent., exhibited spasmodic asthma; while, in addition, there were eight other patients with bronchial symptoms; thus, a total of thirteen cases in sixty eight, or almost twenty per cent., presented symptoms which illustrated the connection between thoracic disorder and urticaria, confirming, in a measure, the suggestion thrown out by Sir Andrew Clark, and mentioned at the beginning of this paper.

It is rather remarkable that my cases of psoriasis should have yielded such an exceedingly small proportion of instances of asthma; for, whereas Mr. Gaskoin asserts that asthma is a disease which is seen in frequent combination with psoriasis, I have chanced to meet with but a single instance of true asthma among 196 patients with psoriasis of whom I have notes in private practice. It is true that I find notes of bronchial disturbance in about twenty additional cases, but not such as could rightly be called true spasmodic asthma. In a very few instances, I have also found it noted that asthma had existed in the family. It would be very interesting to have Mr. Gaskoin's statements confirmed by other observers in England; for it is quite possible that the type of this disease and its relations may vary in England and in America, as has been remarked in regard to other affections. It is rather strange that Dr. Salter does not mention psoriasis at all in his work on asthma, although Mr. Gaskoin makes the remark that "the fact of the concurrence of the two diseases is so apparent, that it is impossible to have a moderate acquaintance with asthma without having met with it thus combined." The only suggestion looking towards psoriasis which I can find in Dr. Salter's book is where one case is spoken of as "squamous," in the tabulated cases; and in another case the alleged cause was "the sudden disappearance of a chronic scaly eruption."

With regard to the occurrence of asthma in connection with eczema, although the number of recorded cases was only twenty among 1,500 of eczema, some of these were very striking; and, from the manner in which the two sets of symptoms alternated, there could be little doubt of a more or less direct connection between the two states. In a number of them, the course of treatment, dietetic and medical, directed against the eczema, proved of the greatest service to the asthma.

A word may be added in regard to the real relationship or connection between asthma and disease upon the skin; for we have seen that such has been recognised by a number of competent observers, and physiologically and pathologically it is quite explainable.

The occurrence of asthma in connection with, or in those suffering from, disease of the skin may be looked upon in three lights: 1st, as a coincidence; 2nd, the asthma may occur as a secondary condition, arising by means of a reflex irritation from the skin; 3rd, they may both develop from the same cause, which may be either (a) nervous, or (b) hæmic. A fourth method, namely, by the skin-disease "striking in," might be suggested by some, but the simple mention of this is sufficient, without it being necessary to refute it scientifically.

First, in regard to asthma and skin-disease occurring together simply as a coincidence. This might readily be the case in eruptions of certain classes, as neoplastic or hypertrophic skin-diseases, or those of a parasitic or syphilitic nature, as any individual is liable to suffer from several morbid conditions, which need not have any relation to or connection with each other. But in regard to the skin-diseases which most commonly occur with asthma, such as eczema, acne, urticaria, and psoriasis; these are of such a nature, and so connected with and dependent upon internal and general conditions of the system, similar to those found in asthmatic subjects, that the one may readily affect the other, or both may be dependent upon the same systemic or other causes.

It must be premised and distinctly understood that it is by no means intended that these or any causes can generate skin-disease or asthma in every individual, for this is no more true than it is true invariably of the many causes which are recognised as originating this latter disease, even such as whooping-cough, bronchitis, or local irritants. There is still some unknown and possibly undiscoverable element which predisposes to, and even produces, the peculiar tendency to spasmodic action in the bronchial tubes, known as asthma, and the alterations in the skin; and we only know that they are most likely to occur in those of a nervous temperament, and in those of gouty stock or proclivities.

Second, in regard to asthma resulting as a secondary condition, dependent upon reflex irritation from an eruption on the skin; it is quite possible that this may be the case in rare instances, as has been quoted from Dr. Salter in regard to asthmatic spasms occurring from direct cutaneous stimulation by cold. But this seems improbable in a

majority of instances, for in acne and psoriasis there is little or no irritation of the skin, whereas the cutaneous irritation may be very great in scabies and phthiriasis, and yet we do not expect or find asthma ever excited thereby. A suggestion in this direction may be found also in the recent treatment for asthma, verified by Saundby and others (BRITISH MEDICAL JOURNAL, November 20th, 1880, and January 1st, 1881), namely, by means of iodine painted along the track of the pneumogastric nerve: here cutaneous stimulation affords relief to the bronchial spasm, instead of producing or increasing the same.

We come, therefore, to the third method in which asthma might be related to disease upon the skin—namely, in the way of depending upon the same cause, the result being manifested at one time upon the skin, and at another time within the chest, upon a mucous membrane which is continuous with the skin. This may be effected, first, through the agency of the nervous system; and, second, through blood-conditions. Time does not permit the elaboration of this portion of our study; but it is sufficient to mention that the nervous element of many diseases of the skin is very striking, and many observations and researches tend to show that skin-lesions can be produced through the agency of the nervous system alone; so that it is quite understandable that, in certain instances, a nervous cause may at one time induce a disease upon the skin, and at another may excite spasmodic irritation in the bronchial tubes.

But a very careful study of asthma clinically, in all its relations to diet and hygiene, and the conditions of dyspepsia and constipation which affect it, together with the urinary disturbances and liver-disorder often associated with it, and the gouty element recognised as a factor in its development, all point to a condition of system much the same as is observed in the skin-affections referred to, and indicate a more or less close connection or relationship between the latter and asthma. Certain it is that, in both of them, the actual manifestations of disease may be found to vary very greatly in relation to the above mentioned factors, and in such a manner as to leave little doubt as to their etiological connection with the diseases in question.

In regard to the manner in which the spasmodic bronchial disturbance is occasioned, but little can be said. The theory of contraction of the muscular element of the bronchial tubes, as elaborated and defended ably by Dr. Salter, is so universally accepted, and appears so satisfactory and probable, from all the evidence adduced, that it would seem almost useless and hopeless to propound any other. But certain observers have from time to time suggested other explanations of the pathological cause of the symptoms of asthma; and, as the theory of muscular spasm is not demonstrable, or at least has not been proven by *post mortem* appearances, there is still room for any theory which can bring sufficient proof to its support. The suggestion of Sir Andrew Clark, referred to at the beginning of this paper, likening spasmodic asthma to urticaria, had been somewhat anticipated by Störck (*Med. Neuigk.*, Erlangen, May, 1875, p. 156) in 1875, who expressed the opinion that the nature of bronchial asthma is not of a purely nervous character, but is due to a primary acute swelling of the mucous membrane of the bronchioles; and Schütz (*Allgem. Zeitung*, 1876, Nos. 4 and 5) also has regarded the complaint as a vaso-motor neurosis, thus agreeing with Weber and Störck.

The arguments presented by Dr. Salter against the theory of the asthmatic paroxysm being due to engorgement of the mucous membrane do not apply in the present case. He assumes that swelling of the mucous membrane could only be relieved by exudation, which is not an element in asthma to a degree sufficient to admit of this method of obstruction, as indicated by the absence of both mucous rales and free expectoration. But in the sudden mucous swellings, which we know to occur in urticaria in the mouth and about the tongue, as well as on the skin, we have no subsequent exudation, the tumefactions sometimes disappearing as rapidly as they appeared, leaving no trace to mark their former presence. Whether such swellings can and do occur deeper in the respiratory tract, and give rise to the phenomena of asthma, can only be determined by much painstaking and careful research and observation; but it is a suggestion worthy of consideration.

In conclusion, the results of our study may be summed up as follows.

1. Asthma has been observed in patients with certain diseases of the skin, in such a manner as to indicate some occasional relationship between the two.

2. Asthma does not occur, probably, in more than 1 per cent. of patients with diseases of the skin, and those mainly of the class known as exudative or inflammatory disorders.

3. This occurrence of asthma in skin-patients cannot be looked upon as a coincidence, nor is the skin-disease to be regarded as a cause of the asthma; but both the skin and bronchial difficulty depend

upon the same internal cause, which may be nervous in origin, or may result from some altered condition of the blood.

4. While the theory of the dependence of asthma on a state of spasm of the muscular element of the bronchial tubes has very strong evidence in its favour, it is still possible that the paroxysm of asthma may be occasioned by sudden and evanescent swelling of the mucous membrane of the bronchioles, partaking more or less of the characters of the wheals of urticaria, occurring both on the mucous membrane of the mouth and on the skin.

Dr. BYRON BRAMWELL (Edinburgh) thought the Section were much indebted to Dr. Bulkley for his elaborate and interesting paper. Time did not permit him to enter into the different theories which had been from time to time propounded as regards the causation of spasmodic asthma, and the connection between that disease and affections of the skin. He briefly related a case in which very severe bronchitis and profuse hæmoptysis were associated with urticaria, and in which the two conditions suddenly and rapidly at the same time disappeared.

ACUPUNCTURE, AND ITS APPLICATION IN THE TREATMENT OF CERTAIN FORMS OF CHRONIC RHEUMATISM.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By G. LORIMER, M.A., M.D. Edin., Buxton.

It is proposed, in the following paper, to make some remarks on acupuncture; to consider its application in the treatment of certain forms of chronic rheumatism; to cite illustrations, with which the writer's experience has furnished him, of its successful employment in the affection in question; to indicate the cases in which favourable or negative results may be anticipated from its use; and, finally, very briefly, to advert to views which have been entertained in regard to its *modus operandi*.

Acupuncture is no new remedy. It was used by the Chinese and the Japanese from ancient times, and, together with the moxa, constituted the two pillars in their system of therapeutics. It was introduced from Japan into Europe, about 200 years ago, by Ten Rhyn, a medical officer in the Dutch East India Company's Service, and his account of it is recorded in a *Thesis de Arthritide*, published in London, 1693. Karmphor, in his *Amenitates Exoticae*, published 1712; Dujardin, in his *Histoire de la Chirurgie* (1774); and Vieq D'Azyr, in the *Encyclopédie Méthodique*, make mention of the subject.

It was in France that it first received practical effect. Dr. Haime, of Tours, and Berlioz, of Paris, made trial of it; the former published the accounts of his cases in the *Journal Universel*, 1819, and the latter communicated his results to the Academy of Medicine about the same time; and, in a *Mémoire sur les Maladies Chroniques, les Evacuations Sanguines, et l'Acupuncture*, commends its efficacy and promptitude, but refers to its inutility in inflammatory diseases, and those attended with sanguineous turgescence. Subsequently, M. Jules Cloquet and his pupil, Dr. Dantu, practised it extensively at the Hôpital Saint-Louis. M. Jules Cloquet has, in a monograph, recorded his experience in regard to it, and alleges that, of 129 cases treated by him, twenty-nine were cured.

Mr. Scott, a surgeon in Westminster, appears to have been the first to employ it in England, at the early part of the present century; and, shortly afterwards, Mr. Morris Churchill published an account of cases which he treated by it in a vigorous pamphlet, subsequently followed by a second, in which he continued to advocate its use, and also replied to certain objections alleged in regard to it.

It is, however, to Dr. Elliotson that we owe the best account of the subject. In an able and interesting article in the *Cyclopædia of Anatomy and Surgery*, he has placed together all that is known in regard to it, along with his own experience of its use at St. Thomas's Hospital.

Trousseau, in his *Clinical Lectures*, refers favourably to its use in the treatment of neuralgia, but, in modern times, it seems to be entirely disregarded and forgotten. The more recent notices in regard to it are from Mr. Snell, of Sheffield (*Medical Times and Gazette*, 1871), and Mr. Pridgin Teale, of Leeds (*Lancet*, 1871), and both advert to the fact that it has passed into disregard and disuse.

Why acupuncture has passed into neglect it is not easy to explain. It may be that, in some conditions for which it has been used, it has been superseded by other and better means: for instance, by hypodermic

methods of treatment. It may be that it has suffered at the hands of charlatans; and it may be, as has been suggested, "that there is some general disinclination to use a remedial agent whose *modus operandi* cannot, in some way, be connected, analogically or otherwise, with that of the remedies which common use or universal experience has sanctioned." Be this as it may, the fact remains that acupuncture has passed out of fashion; and it is hoped to be shown that it has undeservedly passed out of fashion, and that, in suitable cases, it is still a prompt, efficient, and reliable remedy.

It is not intended to enumerate all the applications of acupuncture in the treatment of diseases, for many of which it is now superseded by more efficient means. It is used with success, and sometimes, too, with signal success, in the treatment of sciatica; and of its efficacy in the treatment of this affection, from repeated trials, I am fully convinced; but it appears now to be eclipsed by the more formidable process of nerve-stretching.

It is, however, to its application in the treatment of chronic rheumatism, that my remarks will be limited; and in reference to this subject, Dr. Elliotson, in volume xiii of the *Medico-Chirurgical Transactions*, has well observed: "Acupuncture is chiefly useful in rheumatism of the fleshy parts—rheumatism—and the more so as the disease is less inflammatory. Indeed, when the parts are hot, or the pain is increased by heat, the remedy is generally useless, and cannot supply the place of antiphlogistic measures. The effects are sometimes magical. The pain sometimes ceases while the needle is in the flesh. Of forty-two cited from his practice at St. Thomas's Hospital, thirty were cured, and the other twelve were clearly not adapted for it, there being much heat of the affected parts."

My experience is in full harmony with the preceding remarks; but in further referring to this portion of the subject, I wish to summarise briefly the results at which an extensive experience in its use has led me to arrive.

In chronic rheumatism of the muscles and their fasciæ, and aponeuroses, there are usually three conditions present: 1, pain; 2, impaired mobility or muscular disability; and 3, impaired nutrition leading to muscular atrophy. The last condition is not always present, and is most marked in cases of a pronouncedly chronic character. The first two conditions may occur separately or conjointly. They may co-exist in equal degree, or they may occur each in greater or less degree.

Acupuncture may be employed with advantage for the relief of pain for the removal of muscular disability; and, with the removal of the latter condition, muscular atrophy is usually improved. Acupuncture, however, is less certain and efficacious in the relief of pain than in the treatment of muscular disability. For the relief of the latter condition, however, as well as sometimes for the former in rheumatism of the lumbar muscles, of the muscles of the thigh, and in rheumatism of the muscles of the arm and shoulder, the effects are sometimes signally efficacious.

With regard to the last mentioned situation (namely, the shoulder), the relief from muscular disability is most marked when the disablement is referred to a point situated in the central or lower part of the deltoid muscle. When situated in the upper part, relief is less frequent, and, when above the scapular spine, it is very seldom obtained. The certainty of relief is in proportion to the limited area of obstruction to movement; if, however, the area of obstruction to movement be extended and indefinite, success is less likely to result. In some cases, galvano-puncture succeeds when acupuncture fails.

After the removal of the needle, at the seat of puncture there frequently appears a red areola, from half an inch to two inches in diameter. The appearance of this areola bears a direct relation to the success of the operation. It is generally absent in cases where the action is inert, and the result negative.

In the removal of muscular disability, the action of acupuncture is immediate. The maximum amount of muscular power, however, obtained from its application is gradual, being from ten minutes to one hour after the removal of the needle.

It is doubtful if any benefit is obtained from retaining a needle beyond two minutes in the treatment of cases of muscular disability; more benefit is obtained from increasing the number of needles than prolonging the time of their insertion. With regard to relief from pain, however, the converse is true.

When extensive muscular atrophy is present, relief is doubtful. When the latter condition is present, and is an obstacle to improvement, galvano-puncture may succeed after acupuncture has failed. For the relief of pain, several applications may be required, each of some hours' duration. Cases which most frequently receive benefit in relief from pain, are those of subacute inflammation of fibrous tissue, myalgia, and anomalous forms of rheumatism, which sometimes attack

the surrounding structures of articulations subsequent to injury. In some instances, after the application of acupuncture-needles, pain may be removed, but it may pass to the corresponding situation on the opposite side of the body.

After the application of the needle, there is generally experienced, at the point of insertion, and for some distance from it, a feeling of coldness or numbness, or a sense of prickling or heat. Syncope seldom occurs from the employment of acupuncture.

Acupuncture is less frequently followed with beneficial results in muscular disability, and muscular atrophy consequent on sciatica.

The needles employed are about two inches in length, or longer. They are set in round handles, and should be introduced with a gentle rotatory motion. Those now used by the Japanese are made of gold, which is an unnecessary extravagance.

I would now cite some cases from an extensive experience in the subject, in order to show the efficacy of acupuncture, and to illustrate the preceding remarks.

CASE I.—Male, aged 55, had suffered from chronic rheumatism for three years. This complaint had become localised in the right shoulder, and, for nine months preceding, he had been unable to raise his elbow for more than a few inches from the side. The impediment to raising his arm was referred to an obstruction felt in the middle of the deltoid muscle. Two acupuncture-needles were introduced, and retained for two minutes. In five minutes after their removal, he could raise his hand to touch the back of his head.

CASE II.—Male, aged 19, had suffered from chronic rheumatism for some months. For seven weeks, he had been unable to raise both elbows, except a few inches, from the side. The obstruction was referred to the middle and posterior aspect of the deltoid. Two acupuncture-needles were introduced, and retained for one minute. In two minutes after removal, he could raise both arms with comparative ease.

CASE III.—Male, suffered from chronic rheumatism, consequent on an acute attack occurring eighteen months previously. He had been unable to raise his right arm from obstruction and pain, referred to the middle and lower third of the deltoid. Three acupuncture-needles were introduced, and retained two minutes. After their removal, he was able to raise his arm at once to his head; the pain subsequently passing away.

CASE IV.—Male, aged 42, had suffered from chronic rheumatism for six months, consequent on an acute attack. The disease had become localised in the left shoulder, and, for two months, he was unable to raise his arm. There was some muscular atrophy of the deltoid and biceps. Four acupuncture-needles were introduced into the points which were felt to impede the raising of the arm—namely, in the upper third of the biceps, and middle of the deltoid muscles. After remaining for two minutes, they were withdrawn, and it was found that he could raise his arm with comparative ease.

CASE V.—Male, aged 57, had been unable to raise his arm for three months, in consequence of chronic rheumatism, affecting the right shoulder. Three acupuncture-needles were inserted into the right deltoid, with the effect that, after their removal, he was able to raise his arm without difficulty.

CASE VI.—Male, aged 31, had suffered from chronic rheumatism for six months, and from stiffness and disablement in the muscles of the back, in consequence of which he was unable to rise from his seat without aid. Four acupuncture-needles were introduced into the points of impediment to movement, in the lumbar muscles. They were retained for two minutes, and, after their removal, he was able to rise from his seat without assistance and without difficulty.

Similar cases might be multiplied, but a sufficient number have been cited in order to demonstrate the efficacy of acupuncture in muscular disability. Reference must be made to cases in which negative results followed its use.

CASE VII.—Male, aged 23, had suffered for three months from rheumatic pains. For six weeks he had suffered from loss of power in the right arm, inability to raise it, and loss of power in the muscles of the shoulder. He was unable to raise his arm, and, if it were raised by an assistant, he had no power to maintain it in an uplifted position. The arm dropped immediately. The muscles of the shoulder were well nourished. Acupuncture-needles were introduced without benefit. No red areola was observed on their removal. The patient ultimately recovered by the use of galvano-puncture.

CASE VIII.—Male, aged 47, had suffered from chronic rheumatism for eight months. The muscles of the shoulder were wasted. He was unable to raise his arm; the impediment to movement being extended and general, and not referred to a fixed point or limited area. Acupuncture was employed with negative results. Some relief was obtained from the use of galvano-puncture.

CASE IX.—Male, aged 40, had suffered from chronic rheumatism for several months. He was unable to raise his arm from an impediment of indefinite extent referred to the lower edge of the trapezius, above the scapular spine. Several acupuncture-needles were introduced into the lower edge of the trapezius muscles, and the supraspinatus, where the obstruction was felt. The result, however, was negative.

In some cases, adhesions may be present, or the condition of the joint itself be a source of impediment to movement; and, if so, negative results may be anticipated.

It is next proposed to cite some cases where acupuncture has been used successfully for the relief of pain; in this, however, it is less reliable than in the treatment of the former condition.

CASE X.—Male, aged 19, had pain in the os calcis and plantar fascia, consequent on gonorrhoeal arthritis. The pain was of two months' duration. An acupuncture-needle was introduced on two occasions, and retained for two hours each time, with the effect of completely removing it.

CASE XI.—Male, aged 25, had had chronic rheumatism of four months' duration. Pain was referred to the plantar fascia for six weeks. Two applications of acupuncture, each of one hour and a half duration, effected its entire removal.

CASE XII.—Female, aged 29, had pain in the upper part of the right thigh, of eight months' duration. It was situated about six inches below the tuberculi. She had suffered from chronic articular rheumatism for ten months. An acupuncture-needle was introduced into the seat of pain, and retained for three hours. A well marked areola continued after its removal. The pain entirely subsided, but recurred a fortnight subsequently in the corresponding part on the opposite thigh. A second acupuncture-needle was introduced, and retained for a corresponding period of time, with the result of entirely dispelling the pain.

Lastly, I wish very briefly to call attention to the views which have been entertained in regard to the *modus operandi* of acupuncture. Some have ascribed its action to derivation, others to counterstimulation. Haime and Cloquet believe that pains depend on unequal distribution of nervous fluid, and that acupuncture equalises its distribution, thus giving relief. Dr. Bachu adopts this view, and thinks that the accumulation of nervous fluid is dependent on an altered state of the fasciæ. Others, again, have ascribed its effects to moral influence.

Passing over these conjectures, I wish to notice the views which Mr. Teale, of Leeds, has proposed, to explain its action in the relief of pain, and in the removal of muscular disability. In regard to the former, it is held that injury or inflammation of the fibrous tissue has produced defective nutrition of the nerves pervading such tissue; the nerves are ill-nourished from improper blood-supply, and consequently painful. The needle produces a temporary active congestion, or flushing, of the vasa nervorum, and this acts as a starting point for improved nutrition, and consequent cessation of pain.

With regard to the removal of muscular disability, it is held that, the muscles being in a state of rest, the fibres waste from disease; the arteries, too, having less blood to supply, become diminished in calibre. In addition to the diminution of arterial calibre proportioned "to the reduced muscular bulk, there must be further diminution from the cessation of the demand for blood for carrying on active tissue-change, which accompanied the active work of the muscles. The arteries of the disabled muscles must have become reduced in calibre, in a degree greater than would be accounted for by the mere muscular wasting, so as to be capable only of nourishing the wasting muscles when at rest, and not when at work. The mere act of will is inadequate to force sufficient blood to give the muscles tone to act. This defective power of will, the stimulus of acupuncture supplies, by producing a temporary congestion, and corresponding increase in the calibre of the vessels and the blood-supply."

These views seem not improbable, and are not inconsistent with the conditions necessary for healthy muscular action. How far, however, the *primum mobile* in the change is nervous agency, acting secondarily through the vascular supply of the affected muscles, is open to question. In conclusion, it is hoped that, by calling attention to acupuncture, and to the cases in which it is suitable, in such it may receive further trials, and that it may not be allowed to pass, undeservedly, into disregard and disuse. It is a remedy which is prompt and efficacious, and one which, in properly selected cases, will maintain its place.

REQUESTS AND DONATIONS.—The Worcester Infirmary has received £1,600, being one-seventh of the "residue" under the will of Mr. R. Barnett, of Malvern.

CHRONIC SPRAINS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By C. W. MANSELL MOULLIN, F.R.C.S.,

Assistant-Surgeon and Senior Demonstrator of Anatomy to the London Hospital.

I HAVE ventured to give the above heading to certain cases, which, though they present many features in common, are frequently met with in actual practice, and probably have the same pathological origin, have never yet, so far as I can ascertain, been grouped together as a distinct class. Isolated instances have, it is true, been recorded by many writers, and some few have paid them considerable attention; but they do not seem to have separated them from other affections, in which the result may bear some comparison, but of which the pathology is totally different.

One of the first and most characteristic examples that I have seen was in the person of a young girl, who was brought to me complaining of partial paralysis of the right arm, attended at times with attacks of severe pain. She was a tall, overgrown girl, aged 14, employed as a nursemaid, having to carry about a heavy child, and owing to this condition of her arm, which had been coming on gradually for the last three or four months, had lost her situation. She was not aware of having ever sustained any single severe injury to her shoulder; but stated voluntarily that, long before it reached its present state, it was continually giving way, or, as she expressed it, coming out of joint. On comparing the two sides, there were apparently great wasting of the right trapezius and deltoid, and some diminution in size of the other muscles round the joint; all the movements were limited and constrained to a great extent by the pain they occasioned, and the general muscular strength was decidedly below normal. The cause was apparent at once: there was a large amount of thickening and tenderness all round the acromio-clavicular articulation, and the bones were so loosely connected together that the end of one could easily be made to slip backwards or forwards over the end of the other. When the scapula was held in position, by firm pressure from behind, the movements of the arm could be executed nearly as well as those of the opposite limb, and with almost as much vigour; while the wasting diminished so much, that it evidently was, in the main, apparent only. As soon as the pressure was taken off the bone, it at once underwent considerable rotation, the upper border being so much displaced that a deep hollow made its appearance behind the clavicle, which, in its turn, slid to such a distance on the acromion, that there could scarcely have been any of the normal articulating surfaces in contact with each other.

The fact that the wasting almost disappeared, and that movements could be executed with ease when the scapula was restored to its position, quite negated the idea of paralysis. The slight amount of real atrophy, affecting as it did only the extensor muscles, could easily be accounted for by the inflammation of and round the joint; wasting, much more extensive than this, will sometimes, under these circumstances, come on within a week. There was no history of any accident sufficiently severe to suggest the idea of a dislocation, with rupture of the ligaments; the onset of the mischief had been quite slow and gradual, though, every now and then, the pain, which had as usual been called growing pain, and the inconvenience, had suddenly become temporarily worse. For the same reason, it could hardly be termed a subluxation: the capsule was not torn, and the whole thing had come on slowly and imperceptibly, so that the patient could assign no date at all for its first commencement. The characteristic features were the weak muscular development, the imperfection in shape of the articular ends, and the loose yielding condition of the ligaments. So long as no extra strain fell on the articulation, the ligaments and the muscles surrounding it, weak and feeble as they were, were sufficient to maintain the surfaces in contact; a little extra work, slowly and gradually in this case, tiring out the muscles, allowed the strain to fall on the ligaments until, as ligaments always will when subjected to a long-continued strain, they gradually stretched more and more, and became so loose, that the end of one bone could slip backwards and forwards, and ride over that of the other.

A similar case, differing however, in the joint affected, the sternoclavicular, and in the fact that it had been distinctly made worse by one rather severe strain, came under my notice almost on the same day. The patient, who was also a girl, aged about 18 years, had suddenly felt severe pain in this joint two days before, as she was trying to lift a heavy weight, and, of course, had been told that the "joint was out." At the first glance, this did not seem unlikely,

for the inner extremity of the collar-bone was very much too prominent; but there was very little swelling or tenderness, and no bruising whatever, and on further inquiry it was elicited from the patient that for some months past that arm had felt very weak and unsteady in its movements. Examination of the opposite joint showed that it was nearly in the same condition, and, in fact, the bones on both sides were so loose that they could be pushed almost as far backwards and forwards as they could upwards. Clearly the ligaments were unusually lax; and two days before, when an unaccustomed strain fell on the interarticular fibro-cartilage on the right side, it gave way, causing so much pain and inconvenience, that the patient was compelled to seek advice.

These two cases are, perhaps, somewhat exaggerated examples, because in both the already lax condition of the ligaments had been intensified by continual strains; the same state, however, exists independently of this, and no joint in the body is exempt. The shoulder, from the peculiar arrangement of its capsule, which, when the muscles are paralysed, is so loose as to allow the head of the bone to drop at least half an inch, is peculiarly prone to suffer. If the structural details of the joint be poorly developed, or the muscles on which it depends for its stability be lax and feeble, it can readily be made to assume abnormal positions. Sometimes this occurs with any movement; more often only with certain definite actions; in one case, a girl aged 16, whom I watched for a long time, whenever in dressing of a morning she placed her hand on the back of her head in trying to arrange her hair, the upper extremity of the humerus slipped on to the anterior inferior edge of the glenoid fossa, and was caught there. At length she learned, by a clever twisting action, to bring it into its place again, and even, gradually, by the same method, to avoid displacing it.

In the elbow-joint, from the shape of the bones, this accident can scarcely happen, but the same condition of things does occur. I have seen three well marked examples in which the forearm could, without any trouble or pain, be bent back to an altogether abnormal angle on the arm; the anterior ligament was too loose; the muscles were weak and feeble, and the tip of the olecranon, which does not normally touch the fossa to which it gives a name, was probably smooth and rounded.

In the temporo-maxillary articulation, it has long been known. Hamilton has described it in this joint as occurring in his own person, with, naturally, the greatest possible accuracy. He has noticed also the curious circumstance that this peculiar displacement, when it does occur, is much more common in the morning than at any other time of day. Particularly at breakfast the lower jaw is apt to become locked, either on one side or on both, with a very considerable amount of pain, and some manipulation is required to bring it back. It is uncertain in this case what the particular defect may be, owing to the complicated character of the joint itself, and the presence of an interarticular fibro-cartilage.

Whether the same thing can occur in connection with the hip is, I should think, very doubtful. I have seen one case in which the patient, who was also a young girl, could voluntarily dislocate her thigh-bone by a peculiar twisting of the limb; but in the absence of history to the contrary, and as her other joints gave no sign, which they almost certainly would have done in such an extreme case, I should imagine that more probably this condition had existed from birth, by virtue of some congenital defect. In the knee, minor degrees of it are quite common, not only allowing the tibia to move on the femur to an abnormal extent, but also giving much too wide a range of action to the semilunar cartilages in the interior, whereby perhaps at length is brought about the beginning of some of the forms of internal derangement.

I have seen one striking example in the case of the superior tibio-fibular articulation, so identical in the majority of its features with that described by Sir Astley Cooper, that I cannot do better than make use of his words. He says that "the head of the bone in these cases is thrown backwards, and is easily brought into its natural connection with the tibia, but it directly slips away again from its position. This state produces a considerable degree of weakness and fatigue in walking, and the person suffers much from exercise. As in these cases there is a superabundant secretion of synovia, and a distension of the ligaments, repeated blistering is required to promote absorption, and afterwards a strap to be buckled round the upper part of the leg, to bind the bone firmly into its natural situation. A cushion may be placed behind the head of the bone to give it support, or at least to prevent the increase of the malady."

It is singular that this condition of the joints, which is very common, and in the exaggerated form that I have described above very striking, should have attracted so little attention. Sir Astley Cooper, as I have stated already, has described it in the case of one joint, the

tibio-fibular. Hamilton mentions it from his own personal experience in another. Malgaigne gives a vague account of something similar in the knee, spine, and pelvis (during pregnancy); but although he regards it quite correctly as induced by debility, and often determined to one particular joint by a local trouble, such as a sprain, he does not recognise it, any more than the rest, as a general condition affecting many joints at one and the same time; and he fails altogether to separate it from cases in which the capsule or ligaments have been weakened or stretched by inflammation, or by the passive accumulation of fluid in their interior. It is even more strange that he does not seem to appreciate the fact that the ligaments, though undoubtedly concerned in the production of this condition, and, indeed, giving it its most characteristic features, are in reality only passive agents, and not in any way the immediate cause. He states that it is due to an essential relaxation of the ligaments, though he fails to describe what this may be; in reality, it is the muscular system that is in fault, for on this, more than on anything else, depend the perfection of the articulation, and the strength and power of resistance of the ligaments.

This principle has long been recognised in the case of the bones. The skeleton of the male is very different from that of the female; the work is harder, and the bones become stronger. In the one they are solid, heavy, and exceedingly irregular from the development of muscular ridges; in the other they are lighter, and much more smooth and even. So with animals that have long been kept in confinement: the bones, contrasted with those of wild ones of the same species scarcely admit of comparison, the difference is so great. It is the same with the muscles, as Dr. Humphry has pointed out; there is a difference almost of kind between the slender compact frame and active, wiry, muscular system of the thoroughbred, and the coarser, heavier, and more clumsy tissues of the cart-horse.

What is true of the shafts and muscular eminences of bones, is equally true of their articular ends, and of the rough surfaces to which the ligaments are attached. Joints are well formed and secure from injury, so far as shape can make them, in proportion to the amount of their use, and the perfection of the development of the muscular system.

Nearly all the cases that came under my own immediate notice, and the majority of those I find already described, were girls, and at that particular period when not only is growth often exceedingly rapid, but when, too, there are other serious calls upon the general vigour of the body. The right side of the body was much more commonly involved than the left, though the latter was rarely quite exempt; they had in the majority of instances recently, and when quite unfitted for it, suddenly undertaken some too severe muscular work; naturally this fell more on the right side than on the left, and so the pain and discomfort were greater in the former.

The secret of it all is, that the muscles are too feeble to give the support they ought. The joints are not properly developed, and the ligaments are not strong enough, because they have not been properly exercised. The muscles are unaccustomed to any degree of work. When a little extra labour has to be done (and it is extraordinary how little is required in cases such as these) they soon become fatigued; the joints lose their support, and the already feeble ligaments yield slowly and steadily, with a very considerable amount of pain, as ligaments always will yield, when they are exposed to any continual strain. It cannot be too clearly laid down that not only do the joints depend for their perfection on the development of the muscles, but that at any moment the muscles that surround and act on a joint are as essential to its security as the ligaments, perhaps more so. If they yield, the ligaments will never hold for long.

This subject derives additional importance from the fact that flat-foot, knock-knee, and lateral curvature of the spine are, in the great majority of instances, induced in exactly the same manner. They occur in the same class of patients, at the same age, under the same conditions, and are due to the same causes. I have even seen instances in which, so to speak, acute flat-foot and acute lateral curvature of the spine (of course, only acute relatively to the ordinary forms) have occurred as a direct consequence of a single strain supervening on this general condition, just as, in one of the cases I described at first, attempting to lift too heavy a weight caused the sterno-clavicular articulation of that side to yield upwards. In the one instance a violent blow disabled, for a time, the peroneus longus of one foot; the antero-posterior arch lost the main tie that holds down its front pillar, and, the strain falling on the ligaments, they gave way, allowing the arch to drop, with long continued and severe pain. In the other, a boy who was swinging by his hands in the gymnasium, suddenly experienced acute pain in the suprapubic region running round both sides of the body, evidently in the course of the

upper branches of the lumbar plexus. In a very few weeks, lateral curvature of the spine showed itself, and progressed with such rapidity that it was evident that the vertebrae had, for the time, quite lost their support. As soon as the real cause was recognised, recovery was rapid in both cases.

With regard to the question of treatment, there is one point to which it is worth while to call attention. I have already mentioned in the first case I recorded that, though the atrophy of the muscles was, to a great extent deceptive, owing to the malposition of the scapula, it was not at all false; they had, when compared with those of the opposite side, distinctly lost size and tone. The extensor muscles only were involved, hence clearly it did not arise from mere disease of the joint; the only explanation would seem to be that it was the direct result of the repeated slight attacks of traumatic synovitis consequent on the continued strain to which the joint had been subjected. This would accord well with the swelling and tenderness that plainly existed round the joint on the first occasion on which I saw the patient. However this may be, there can be no question that the wasting of muscles, no matter how it arises, is a serious complication to a condition of which muscular debility is the main feature. It tends to perpetuate the trouble, and aggravate it in every way. Fortunately, in galvanism, systematically and regularly applied, there is a powerful ally. Meantime, by means of rest, counterirritation, pressure, and the use of absorbents, the inflammation can be reduced and the effusion absorbed; and then attempts must be made to restore the muscular system to its normal strength by all the means in our power; orderly and well regulated exercise, arranged with a view to definite ends, never carried too far, either in extent or time; massage, to improve the circulation; galvanism, to restore the tone; cold bathing, shampooing, and, above all, tonics, fresh air, and good food. Like most other things, it is easier to prevent than to cure; and, provided due attention be paid and a little watchfulness exercised, there need be no apprehension of this condition supervening, even if growth be as rapid as it often is at the time of puberty. Regular and systematic exercise is all that is required, taking care to avoid sudden violent strains and overfatigue of any special set of muscles.

INFECTIOUS SORE-THROAT, IN WHICH RHEUMATISM PLAYED A PROMINENT PART.

*Read in the Section of Public Medicine at the Annual Meeting of the
British Medical Association in Cardiff.*

By ALFRED MANTLE, M.D.

INFECTIOUS sore-throat is by no means an uncommon disease, yet it is remarkable how little is said about it in medical literature. I have witnessed several epidemics of this disease, and have made careful observations and taken notes of a number of cases. In these epidemics, one striking feature of the disease has been the presence of rheumatic symptoms in most of the cases; so much so, that I believe rheumatism to be a more common complication of infectious sore-throat than of sore-throat of a non-infectious character. That the rheumatic symptoms are often of a very transient nature and not severe, I am bound to admit; but, in some cases, they are by no means so transient or slight, and occasionally they would appear to be the origin of serious trouble hereafter. During the last month, I have seen thirteen cases in close proximity to each other, and I cannot do better than relate one or two of the most typical of them.

A. H., aged 18, a pupil-teacher, was seen by me. She complained of having been seized with shivering the day before, when in school, and had now pains in the joints and sore-throat. I examined the throat, and found both the tonsils and uvula congested and swollen. There was no appreciable swelling of the joints. The temperature was 103.2°. Pulse 120. There was no cardiac disturbance. I saw her again next day. She then complained of severe pain in the joints and back, and well marked swelling of the wrists was seen, and less marked swelling of the knees. The patient seemed a good deal prostrate. Temperature 102.8°; pulse 110. Upon both tonsils, spots of white exudation were seen, and the parts were much swollen. The urine was loaded with lithates, and the specific gravity increased. There was free perspiration, and the sour odour characteristic of rheumatism was very noticeable. I found, on my third visit, the joints not so swollen or painful, but she still complained of the back. The throat was in much the same state as before; the white deposits seen the day previously were still visible.

The next visit found the patient nearly free from pain, and the

throat-symptoms improving. I need not follow the case further, more than to say the patient made a good recovery, but it was remarkable the weakness it produced.

A milder case took place in the same house, which is typical of the disease when seen in its milder aspects. She was a sister of the last case, aged 16, and complained of an aching more than actual pain of the joints, there being no swelling. The temperature was 100.8°; pulse 104. The tonsils were congested and a little swollen, but there was no deposit visible, as seen in the other case. The patient was not prostrated like her sister, but had general *malaise*. In three or four days, she was apparently well again.

Rather more than two years ago, I attended ten cases in two houses, when the disease, in some instances, assumed a severe form. Rheumatic symptoms were very prominent in all. Time will only allow me to give details of one of them, which well illustrates the occasional results of what appears to some to be only a trivial ailment.

A. S., aged 8. On my first visit, I found both tonsils swollen, and I was told the patient had cried all night on account of pains in her knees and wrists. No swelling of the joints was to be seen. On the third day, an erythematous rash was seen on the arms and legs, of a papular nature. A "murmurish" first sound was heard at the apex of the heart, but no actual murmur. Convalescence was slow. About ten months afterwards, I was called to see this child again, when she was said to be short of breath. I examined the heart, and found its action irregular, but I could not satisfy myself as to the presence of a murmur. She had some slight choreic movements of the right side, and the child appeared very nervous, the mother again stating she had never been well since her throat was bad. A few months elapsed, and I was called in a third time to see her. She was suffering with joint-pains. I then found a well marked mitral systolic murmur, which still exists. This child had never had any illness before, rheumatism and scarlatina being particularly inquired after.

Having now read the notes of a few cases, I will draw your attention to the leading characters of the disease.

There appear to be two forms which it assumes, so far as the throat is concerned; one in which there is found a whitish deposit, sometimes amounting to a membrane upon the tonsils, which leaves a bleeding surface upon removal, which, for the sake of distinction, I shall call the membranous form. The other has no such deposit or membrane upon the tonsils, but a thickish secretion is seen upon the swollen parts, which I shall distinguish as the non-membranous form. The first or membranous form of the disease appears to lean towards the milder cases of diphtheritic tonsillitis, whilst the second or non-membranous form approaches nearer to the milder cases of scarlatinal tonsillitis. In both, the general symptoms of the disease are the same. It is ushered in with shivering, often amounting to a distinct rigor. The throat is complained of, and the patient is frequently heard to say "every joint of my body aches." The tonsils are always congested and generally swollen, and, as I have already noted, may or may not have a deposition of membrane. The deep ulceration sometimes seen in scarlatina is never seen, and suppuration is very exceptional. The submaxillary glands are usually painful, and sometimes enlarged.

In my experience, the joints are nearly always complained of. Those of the upper extremity most commonly, and particularly the wrist-joints. The knees and ankles are frequently affected also, and pain over the lower dorsal and lumbar vertebral joints is very common. Swelling of the joints is seen in the severe cases. The skin is very active in some instances, and the perspiration frequently has a sour odour. I have never found albumen in the urine after examining for it in a number of cases, but it is usually loaded with lithates. The heart is affected in some cases, particularly when the fever runs a high course. I have several times found a mitral murmur, but, in each instance, it has always passed away. If strict rest had not been enforced, it is just probable such would not have been the case.

These cases, no doubt, are some of those which help to supply the want of a rheumatic history in many cases of valvular disease that we find in young persons. The temperature sometimes reaches as high as 104° in severe cases, but, in mild cases, it often gets no higher than 100°. In two instances, I have seen an eruption in each case bearing the characters of erythema papulatum.

One striking feature of the disease is the short, sharp course it usually runs, the high temperature and quick pulse sometimes disappearing almost as quickly as they appeared. Occasionally the symptoms relapse, but this is very exceptional. The disease appears to be most common between the ages of 10 and 30. In two cases I have seen the same individuals attacked after an interval of two and a half years. The cause I believe to be influenced by bad sanitary arrange-

ments—crowded houses, with deficient ventilation and bad drainage. Some will be interested to know if epidemics of diphtheria and scarlatina have preceded, or followed close on, these of infectious sore-throat. I cannot say this has been the case, though scarlatina is frequently present in the same district in which they occurred.

I shall now show you the micro-organisms I have always found in the secretion and membranous deposit removed from the tonsils in such cases, and their mode of growth when cultivated artificially in gelatinised meat-infusion.

A WINTER VISIT TO DAVOS.

By E. DE LA HARPE, M.D., Lausanne, Switzerland.

Two roads lead to Davos; the first from Chur (or Coire), through Churwalden, Lenz, and Wiesen. I found it far more picturesque and interesting than the other one, though somewhat longer. Starting from Chur at 8 A.M., we reached Davos at 4.30, with forty-five minutes' stoppage at Lenz for dinner. The other road begins at Landquart, a small railway-station about eight miles from Chur, and passes through the Prättigau valley, to Klosters and Davos; it is a drive of seven hours. It is better to go by Landquart and return by Lenz, as one thus has all the time a fine view before one's eyes.

I started from Chur on February 25th. The weather was very fine and mild. In a few hours, Wiesen was reached. It is a well sheltered place, which strives to take its rank as a winter station; it has two large hotels, and a medical man. It lies pretty high above the valley, on the steep slopes of a mountain, facing the south-east. It must have accordingly a high mean temperature, but it is about 800 feet lower than Davos. At the time of my journey, there was not a trace of snow to be seen at Wiesen and the sun was already almost too hot.

Between Wiesen and the Davos valley, the road winds through a narrow pass, called "die Züge" (that is, the passages of the avalanches). There is room only for the river, the Landwasser, which comes from Davos, and the road has, in many places, been cut through the rock. The small amount of snow which fell last winter is remarkable. Commonly, the avalanches fall into the gorge, so as to cover up river and road many feet deep, and a tunnel for the traffic has to be dug in the snow. There was nothing of the kind this year; in some places, the river only was hidden under a frozen crust of snow, one or two feet thick.

In the valley of Davos itself, there was about one foot of snow on the ground, except on the western slopes, which were completely bare at their base. The valley becomes wider as soon as one emerges from the pass, and the road leaves the river-side. This road is not good; the water remains on it, and renders very necessary the foot-pavement which exists in the village.

Davos is a collective name for two localities: Davos Platz, the larger of the two, and Davos Dörfli, one mile and a quarter farther north. Davos Platz bears a certain likeness to Montreux, but without the steep slopes which are such a drawback at the latter place. There are so many new houses and large hotels, that it is well nigh impossible to discover the old chalets hidden behind them, and form an idea of the old Davos. There is only one street, bordered on both sides with clean houses; the street itself is kept in good order. I noticed, indeed, that in many places refuse is thrown on the ground between the buildings; but a remedy to this evil exists under the form of special carts, which convey offensive matters out of the village.

Some cases of typhoid fever having formerly occurred in Davos, the authorities hastened to make two important improvements, by providing good water, and establishing a system of drainage. The water is taken in the mountain high enough to be safe against the possibility of pollution. At the time of my visit, workmen were busy everywhere, laying pipes and fitting up public fountains. The drains flow into the Landwasser.

Davos already looks like a small town; many houses have shops with large plate-glass fronts, displaying all the various articles requisite in such a place and climate. On the road, one meets numerous patients taking walks, foreigners of every description, Germans, English, Dutch, Americans, etc. Nearly everyone has dark snow-goggles, a strong walking-stick with an iron point, and well nailed boots. A white felt, or a large straw hat, and occasionally an umbrella, complete the outfit, but no overcoat, or only a light one. The patients remain as much as possible out of doors, sitting in the sun or walking, going up the hills, or skating. Those who wish to remain quiet may hear the daily concerts of the "Kurmusik;" others take drives to Wiesen, Davos Dörfli, etc.

I lodged at the Curhaus, the largest hotel in Davos. It is a fine building, containing also the meeting-rooms, the theatre, etc. It is heated by steam-pipes, which are laid in the passages as well as the rooms. Every window has in its upper part a movable sash for ventilation, which may be opened at pleasure. Some of the rooms have, besides this, apertures in the walls above the door. In some, there are stoves instead of steam-pipes. The dining and drawing rooms are well heated and ventilated. The food is good, but, like that of all other hotels, seems to contain too much meat and too few amy-laceous articles, which, with fatty bodies, are of great importance to consumptive patients.

The price of board and lodging ranges from seven francs upwards. I paid, for a very comfortable room on the ground-floor, with carpet, stove, sofa, large looking-glass, etc., nine francs a day. Other petty expenses—attendance, firing, *cur und musiktaxe*—brought this sum to about eleven francs. There are hotels with much more moderate charges, namely, from five to seven francs, all found. A patient may also take a *chambre garnie*, and have his meals at a *table d'hôte*. English people chiefly reside together in two or three hotels (Belvedere, Buol, etc.), which form the English quarter, "das Englische Viertel."

During my short stay there, the weather was very fine, the sun burning hot. The snow was already melting rapidly (a very abnormal thing for the season). There was a frost, nevertheless, every night. The sun rose at 8.30, and set at 4.30; it rises three-quarters or one hour earlier in Davos Dörfli. During the second half of December, the hours of sunshine are from 10 to 3 o'clock.

I went in the morning with the "Curisten" to take the customary walk up the mountain called the Schatzalp, a pasturage nearly 1,000 feet above the village. Early in the morning, the patients are already seen slowly going up hill to altitudes fixed by the medical man's prescription; only a few go as high as the Schatzalp. The footpath winds in a picturesque manner among the big fir-trees, but it is not protected enough against the water, and becomes muddy as soon as the snow melts. At the Schatzalp, the snow was of course much thicker than in the plain (about three feet deep).

Germans seem to be the most numerous visitors of Davos; next come, in decreasing order, English, Dutch, French, and Belgians, Americans, and certainly a smaller number of Swiss than might be expected. The *table d'hôte* at the Curhaus is very lively. The ventilation of the large dining-room, where 180 find accommodation, is perfect, the foul gases escaping through openings in the ceiling; and after dinner the air is pure, not heavy, as it too often is in hotels. I heard very little coughing during the dinner; there was more of it in the coffee-rooms, where ventilation is also provided for, and seems to work well, but where also the fatal habit of smoking is indulged in. As means of recreation may be mentioned a small theatre, an orchestra playing every day, a place for skating with shelter against the north wind, a shooting-ground, etc.

A small paying hospital, the "Diaconissenhaus," has just been opened; it is intended for patients too ill to remain in the hotels. They may have there advice of their ordinary medical man, and attendance from the "diaconissen" (sisters).

Davos stands at 5,000 feet above the sea. The barometer showed, on February 27th, a pressure of 25.1 inches. I must mention the dryness of the air, and the intense heat of the sun-rays, two phenomena well known to the tourist in the high Alps. The hygrometer shows generally a very small amount of (relative) moisture, the figures being sometimes 50°, 30°; even 15° has been seen. The hands are dry, as well as the lips and nostrils. This dryness of the air explains how well the great cold of the winter is supported by the patients. The temperature was, at 8 A.M. on February 27th, 28° Fahr.; and on the 28th, 23°; but it rose to 50° at 12 (in the shade). The sun was very hot, and sitting in its rays was nearly intolerable. During the winter, with the thermometer at 14° to 10° Fahr., patients do not feel the cold when resting in well sheltered places.

From the intensity of the light, as well direct as reflected by the snow, the patients get brown tanned faces, like so many Arabs; they call "Davoser Schminke," or "Davosian paint." Of course, many of them do not look the better for that; but, nevertheless, the exposure to such an amount of light cannot be bad for the general health.

The valley runs from the north-east to the south-west, and the winds prevailing are either the north-east or the south-west; the first brings with it fine clear weather. It is a favourable wind, as one may shelter oneself against it, and at the same time remain exposed to the sun, which is not the case when the wind comes from the south or south-west.

Among the minor points favourable to Davos, we must reckon the

scarcity of dust, due to the fact of the ground being everywhere under snow, the proximity of pine-forests, the absence of steep inclines along the road, and the pleasant width of the valley.

The last winter was not so good as it generally is; too little snow fell in October and November. Then came a number of bad days, cold or windy, without sunshine. In January, however, there was a series of fourteen clear days without any interruption.

I saw the well known "apostle" of Davos, Dr. Spengler, and his son-in-law, Dr. Peters, whose cordial reception I will not forget to mention here. They gave me much valuable information about Davos and its value as a health-resort. They seem to aim chiefly to strengthening the general system, and the heart in particular. I do not think they make systematic use of the milk-cure or of the *douche*; but the methodical walks up hill form part of the curative system. Consumptive patients benefit by their stay here if the heart be in good functional order, and if they have still a certain amount of strength. Erethic, or very weak patients, sometimes lose their sleep as soon as they are here; and, unless they regain it after the first few days of acclimatisation, they do better to leave the place altogether. Davos seems to be favourable also in the case of torpid, scrofulous, patients who want a bracing and exciting atmosphere, for non-irritable anemics, debilitated and convalescent subjects. The fear of tuberculous infection in these large sanatoria may keep away a number of such patients until special hotels have been opened for non-tuberculous persons.

I spoke with our professional brethren on the occurrence of hæmoptysis, and was told that it was by no means more frequent here than in the plain. It is a question which, I am unhappily, too often answered *a priori*. In a pamphlet, *Die Landschaft Davos*, I find the following instructive data given by Dr. Spengler himself. "Out of 323 patients, 178 never had hæmoptysis, either at home or here (in Davos); 126 had hæmoptysis at home, and none here; 16 had it both there and here; 3 first got it here." These figures speak very plainly for themselves.

Davos has now got over the first stage through which every new place of cure has to pass. The number of visitors was over 1,000 last winter. There may be certain dangers in the agglomeration of so many patients in one place. The hotels are, it is true, well ventilated. But there is also the question of the expectoration; and though the hotels are well provided with spittoons, it is impossible that, in the open air, matter be not scattered in every direction. It would be certainly interesting to know whether the native population, which was free of phthisis when Dr. Spengler settled there, is still so now. It is known that in Montreux, for instance, phthisis is now more frequent among the peasantry than it used to be before that place became a favourite resort to German and Russian consumptives. But this is obviously a delicate problem to solve, as it is impossible to weigh the other factors introduced into it, such as the rise in the price of everything, overcrowding of the dwellings, intemperance, etc.

Upon the whole, I brought back a favourable impression from Davos. During fine weather, the patients have a first-rate opportunity of being the whole day in a bracing air. Otherwise, the hotel-arrangements seem to be good, warmth and ventilation well provided for. Summer-time may be spent in some other high place of the Grisons, and thus, during the whole year, the invigorating and curative influence of Alpine air is enjoyed. Patients may also remain in Davos, a custom which, as I was told, is every year becoming more popular. The melting time of the snow seems to be by no means so bad as it has been said; but immediately afterwards, in May or the beginning of June, according to the year, there is an unhealthy period, when the ground is soaked with moisture and people begin to work in the fields. Pneumonia is then frequent among the native population, a disease almost unknown during the winter-time.

Davos will certainly benefit by the opening of the Arlberg railway. An international train runs now between Calais and Vienna, bringing the traveller directly to Sargans. Thence to reach Landquart by rail takes only half an hour, so that by leaving London at 11 A.M., Davos is reached the next day at 8 P.M.; but travelling at this rate is meant only for tourists. Invalids should, I think, as a rule, remain a few days at some intermediate altitude.

DR. CHARLES E. CORMACK has settled in practice at Hyères. The other English medical men in the island, which is much resorted to in the winter months, are Mr. Griffith and Mr. W. P. Biden.

BEQUESTS AND DONATIONS.—Mrs. Willink has given £100 to Queen Charlotte's Lying-in Hospital, Marylebone Road.—Sir Andrew Barclay Walker (the President) has given £100 to the Derbyshire Children's Hospital.

SURGICAL MEMORANDA.

GUNSHOT-WOUND: SUICIDE: NECROPSY.

AN interesting gunshot-injury came under my notice lately. On May 26th last a sepoy, off sentry-duty that morning, went, after breakfast, to the naick in charge of the armoury, and asked for his rifle to clean. The naick brought the key and an oil-can, offering the sepoy the latter as he opened the door. But the sepoy remarking that he had oil enough on his cleaning-rag, the naick took the can back to his quarters. On the way, he heard a muffled discharge, and rushed back, with another man, to find the sepoy lying on his back, quite dead. He had taken down his pouch, abstracted a cartridge, loaded his rifle, and, sitting in native fashion, had pressed its muzzle against his belly, and pulled the trigger with his toe. The two men carried the body out, and I saw it twenty minutes later, as it lay at the armoury door.

On inspecting the body it was seen that the bullet had entered the middle line five inches above the navel. The wound was punched clean through the abdominal wall, of the size of a threepenny-piece, circular, its edges not inverted. The skin for an inch around was scorched and blackened, the epidermis partly detached. An inch and a half above the wound, to the right of the middle line, was a group of small burned spots; on the shirt opposite there were corresponding charred parts. Opposite the wound the shirt was torn and blackened, but not burned. No blood had flowed from the wound, and there was no oozing. The wound went directly backwards. There was no other wound or mark of injury on the body.

The body was conveyed to hospital, and a necropsy performed. On examining the abdomen, the following conditions were observed. All the contents were bathed in blood; the omentum was entire; the small intestine was perforated in seven places; opposite the wound the transverse colon was three-quarters shot through, its contents escaping into the abdominal cavity; the stomach was perforated on its upper curvature, near the pyloric end. Behind the stomach, on each side of the spine, was a space filled with blood, found, on introducing a hand, to communicate freely with the corresponding pleural cavity. Lying against the ribs could be felt pieces of hard matter, which proved, on inspection, to be fragments of bullet. The head of the pancreas was shattered; the under surface and posterior border of the liver were much lacerated. This latter viscus was completely severed from its connection with the abdominal wall behind; the gall-bladder was full and entire. The inferior vena cava was torn through where it comes in contact with the liver; the aorta was completely severed at the same level; the splenic vessels were torn across, the spleen itself was uninjured; the bladder was empty; the rectum and the kidneys were all uninjured. All the abdominal organs were normal in size, and showed no trace of present or previous disease. The lower lobes of both lungs were found to be shattered posteriorly. The pericardium was intact; the heart firmly contracted, quite empty, and uninjured. The diaphragm was rent from side to side. The sixth and seventh ribs on the left side were fractured at their angles. No trace of abrasion or fracture could be seen or felt along the front of the spinal column. There were old pleuritic adhesions of the right lung. The other lung was normal. The heart was small, independently of the contraction, weighing only seven ounces. The great vessels and heart were quite healthy. The brain and its membranes were quite healthy in appearance. The victim was a young soldier, aged 23, and of two years' service. No motive for the act could be adduced.

The extensive injury to organs finds its explanation in the condition of the bullet. This, an ordinary Snider bullet, had burst into thirteen pieces, including the plug; these were about equally distributed on each side of the spine. The fragments are now in my possession. But save as regards the fractured ribs, and perhaps the perforations of the small intestine, the explanation is indirect. The broken pieces could not form a wound of exit; the gases produced by the explosion of the gunpowder, forced into the body from the muzzle of the rifle having been pressed against the belly-wall, caused even greater havoc than is usual under the circumstances, when much of their force is expended in widening the wound of exit produced by the bullet.

DAVID BAIN, M.A., M.B., L.R.C.S., Indian Medical Service.

ACCIDENTS WITH DENTAL SPRING-GAGS.

MR. CRIPPS LAWRENCE draws attention in the JOURNAL to an accident by which part of a dental spring-gag was detached in the mouth of a patient during anaesthesia; and Mr. Lawrence points out that such gags should be made with the tooth-plate and movable cylinder in one piece. I would add that the surface of the gag which rests on

the teeth should be sloped to correspond with the angle which the alveolar processes of the two jaws make with each other when the mouth is opened. If this is not so arranged, the stress of the bite falls upon the anterior edge of the gag, its weakest point, instead of upon the whole surface of the tooth-plate; and thus the gag is much more liable to fracture and to displacement. A spring-gag of this kind, made of vulcanite, with a surface cut to an angle which distributes the pressure of the bite over the whole thickness of the prop, was made, at my suggestion, many years since, and has been in frequent use.

WARRINGTON HAWARD, Savile Row.

TREATMENT OF FRACTURE OF THE THIGH IN CHILDREN BY MEANS OF THE "STEADLE-SPLINT."

By the steadle-splint, or crib-splint, is meant the using a steadle, bedstead, or crib, for the purposes of a splint, namely, for extension and counter-extension; and any further appliance for setting, or coaptation, may be omitted, with good results. One method of using it which answers very well is this. From an ordinary bandage, cut such a length as, when folded in the middle, will reach from the lower ribs of the child beyond the top cross-piece, forming part of the framework upon which the mattress rests; whether it be the framework of an iron bedstead, of a crib, or of an old wooden steadle. Take two such lengths, and lay them singly, not doubled, along the sides of the child's chest; and pass round the chest, under the arm-pits, and over the bandage-lengths, an ordinary rib-roller. On bringing up on the outside of the roller the other ends of the bandage-lengths, there is on each side of the chest a loop of bandage, with the rib-roller lying in the loop. Let the upper and the under portion of bandage be secured separately by thread or safety-pins to the upper edge of the rib-roller, and at such points that the under part goes under the shoulder, and the outer part over the shoulder, without dragging. Adjust the child's head and pillow, and fasten the bandage-lengths to the top cross-piece, which forms part of the framework upon which the mattress rests. And one has only to raise the feet of the bedstead upon bricks, when the arrangements for counter-extension are complete. Cover the ankle thickly with wadding, and, having taken a loop-length of bandage, long enough to reach from the angle, beyond the bottom cross-piece, forming part of framework which supports the mattress, tie the bandage round the ankle, with the knot at the back, above the heel; make extension, and secure to the bottom cross-piece. All that remains is to keep the foot in position by means of bandage-lengths passing round the foot, and fastened to the side-pieces of the framework; and the thigh is set. The main use of such a plan as this is that, in whatever out-of-the-way house one finds a child with a broken thigh, there, also, is the steadle-splint.

But, besides, the following points might be mentioned in its favour.

1. It avoids all the trouble consequent upon perineal bands in children.
2. The counter-extending bands over the shoulder check both forward and turning over movements during sleep, as well as when awake.
3. In permitting the omission of special setting splints and all bandaging, it adds to the comfort at the time and throughout the treatment.

S. WILSON HOPE, Petworth, Sussex.

HYSTERECTOMY: A SUGGESTION.

EVERYONE interested in gynaecological surgery naturally desires that the mortality after removal of the womb, in suitable cases, should be reduced to a minimum; and I have no doubt many have, like myself, pondered for years on the best mode of reaching this much desired result. Certain ideas which occurred to me years since have been recalled through a case which is at present under care at the Hospital for Women, Soho Square. The patient has a large fibro-myoma extending above the umbilicus; she has free floodings and pressure-symptoms. I intend to give galvano-caustic treatment a fair trial, and, if not successful, shall proceed to supravaginal hysterectomy, according to the following plan. The abdominal incision having been made, and the uterus withdrawn from the abdomen, and held up vertically by assistants, the peritoneal surfaces and edges of the wound are to be accurately adjusted, and especially at the upper and lower parts near the uterus; the serous covering of the womb must also be carefully joined to the parietal peritoneum. Then the abdomen must be supported with plaster in the usual way, above and below the protruding womb, which is to be enveloped in warm mercuric, boracic, salicylic, or iodoform gauze, covered by bandaging, and suspended in the swing of a special abdominal cradle, which will furthermore protect it from the bedclothes during the week which will be allowed to lapse before the womb is cut or burned away. During this time, the temperature of the patient and of the extra-abdominal uterus must be

carefully attended to. This may be called the first stage, and its object is to do away with one of the three chief producers of death after the operation, that is, peritonitis septica. Hæmorrhage and shock, the main remaining lethal factors, are proposed to be abolished in the second stage of the operation, which will be this. The patient being again anaesthetised, an assistant will support the womb in the vertical position, while a previously disinfected Esmarch's bandage is firmly applied to it in the same way as in bandaging a stump so as to render it exsanguine; then an elastic constrictor (which I have had made, and which is rather less in circumference than an ordinary lead-pencil) is to be closely applied around the womb, just above the abdominal wall, and the turns of this are to be secured by strong silk threads, so as to prevent slipping. When this is done, the elastic bandage is to be removed, and the uterus cut away well above the constrictor. I take it that there will thus be little or no shock or bleeding, and the patient will be saved the loss of much blood by the previous application of the elastic bandage which drives it into the body. The stump is to be dressed with some disinfectant, and the constrictor left in place until the distal part of the stump separates; and this must, of course, be attended to as in extraperitoneal treatment of the stump. In the case of large œdematous fibroids, frequent attention will be necessary during the first week to render clean and pure all serous oozing.

I am sanguine that this division of the operation will practically abolish septic peritonitis by the closing of the abdominal cavity before doing hysterectomy, thus making the latter an extraperitoneal operation, and that hæmorrhage, both during and after operation, will be reduced to nearly zero. The shock of the sudden removal from the abdomen of a large and important organ full of blood, accompanied, as it is, with free reflux bleeding, will, I trust, also be minimised.

Until we can get far better results than at present by either the intra- or extra-peritoneal modes of treating the stump, it seems to me that this plan of extraperitoneal operation, in successive stages, holds out encouraging prospects of success, and only needs crucial practical testing; and it is in the hope that some one may have suitable cases before I am justified in operating on mine, that I publish my ideas before they have been put in practice.

H. A. REEVES, Grosvenor Street, W.

OBSTETRIC MEMORANDA.

DYSTOCIA FROM RIGOR MORTIS IN THE FŒTUS.

THE following case is one of great rarity. Previously to its occurrence, I had never heard of a similar condition, and none of the books I had at hand made any mention of this state in the fœtus. Dr. Robert Barnes, however, to whom I communicated the case, has very kindly informed me that he has, in his *System of Obstetrics* (vol. ii, p. 578), made reference to this condition, and to its effect upon the labour, as follows: "Death or impending death of the fœtus. In connection with this, there may be emphysematous distension from putrefaction, or the rigor mortis may prevent the adaptations of the fœtus." I am glad that my opinion of the cause of the difficult labour is in accord with that of so eminent an authority.

On the 30th of September last, I was called to a woman in labour of her tenth child by the midwife in attendance, who had been with her patient for several hours, during which the pains had been frequent, and the labour had progressed, although slowly, until the head reached the outlet of the pelvis, when it became arrested. As it had been in this position for an hour and a half, on my arrival, I at once applied the forceps, and brought down the head without very much difficulty; as soon as the greatest diameter of the head had passed the outlet, and the occiput was external to the vulva, I removed the forceps, expecting that another pain would bring the head, but it remained stationary for some time, although the maternal resistance was overcome, and required several very strong pains, assisted by considerable manipulation, before the whole head was born, and I anticipated the necessity of having again to apply the forceps.

After the head was delivered, there was again considerable difficulty attending the birth of the rest of the body. When traction was applied, a dense feeling of resistance was encountered, which suggested that we had to do either with a case of malformation, or some morbid state of the fœtus. As careful examination failed to reveal anything to account for the difficulty, greater force was used; and, after considerable and continued traction, the shoulders and the rest of the body were extruded; and it was seen that the whole of the fœtus was stiff and rigid, with the knees flexed, and in one or two places slight desquamation of the cuticle, from commencing putrefaction.

On a detailed examination, the following condition of the fœtus was

discovered. The lower extremities were perfectly rigid and semi-flexed the muscles of the abdomen and back in the same condition as to rigidity. The arms were movable, though stiffly, but the muscles hard and indurated. The neck and spine, to about the fourth dorsal vertebra, were indurated, but could be moved at this point as a hinge. The muscles of the head and face were also stiff and rigid, and the cause of the dystocia had evidently been here, the body not being able to adapt itself to the curves of the passages until the death-stiffening had been overcome. The condition of the child, thirty hours after birth, was identical with the preceding description, except that the whole body was somewhat more flabby.

There can, I think, be no doubt that this was a case of true rigor mortis, and its rarity is sufficient excuse for recording it, though one may wonder whether this condition may not be sometimes overlooked, as such a condition in a stillborn child does not seem a very remote probability.

B. JONES, Leigh, Lancashire.

PREVENTION OF LACERATION OF THE PERINÆUM IN PRIMIPARÆ.

I wish to state what I consider to be an important practical point in the manipulative treatment necessary for the prevention of laceration of the perinæum in primiparæ, or, at least, for its reduction to the smallest possible limits.

In a great number of cases, where the pelvis is of normal size, the dilatation of the perinæum is performed by the whole vertex of the fetal cranium, and not by the occiput. In consequence of this, there is a great tendency for the movement of extension to take place before the occiput has properly escaped from behind the pubes; and, when this occurs, it naturally follows that first the occipito-frontal, and then the occipito-mental diameters, which are much the longest diameters of the fetal skull, will have to pass through the ostium vaginae. Hence, in primiparæ, the result is often that more or less laceration follows the tremendous tension put upon the not previously dilated parts.

The treatment which I would recommend to be followed is to complete the movement of flexion by every means in our power, so that the movement of extension will not begin till the occiput has completely descended from behind the pubes. By this means, the shortest fetal diameter compatible with the complete birth of the head has only to pass the ostium vaginae.

I have found the following method to be the most useful. As the fetal head, with each successive pain, gradually dilates the perinæum and the ostium vaginae, the fore and middle fingers of the right hand should be passed up behind the pubes during a pain, as high as possible; and, having grasped the occiput, if possible, being inserted in some suture, should be retained there till the pain subsides, and as the head recedes in consequence, the movement of flexion is greatly aided. Then, during the few pains which immediately precede the birth of the head, the occiput should be grasped in the hollow of the right hand, and pulled down from behind the pubes, while the frontal part of the vertex should be pushed in an upward and backward direction towards the sacrum with the thumb of the same hand. This being accomplished, flexion is complete, and the termination of the case may be left to nature. With the above I combine lubrication of the parts and the prolongation of the second stage, as far as the limits of safety to the mother and child will permit.

I do not claim complete originality for this form of treatment; but I think that, if known, it has not been properly appreciated, if we may judge from its absence from text-books on midwifery.

DAVID P. GAUSSEN, M.D., M.R.C.S., Dunmurry, Co. Antrim.

CLINICAL MEMORANDA.

GANGRENE IN AN INFANT THIRTEEN DAYS OLD.

ON October 16th, I was sent for to attend Mrs. R., a primipara, who had been in labour for the previous twelve hours. The child was born about three minutes before my arrival, and, but for an occasional gasp, appeared dead. All the usual means of inducing respiration, including Sylvester's method, seeming hopeless, though continued for some time, I inflated the lungs by applying my mouth to that of the infant, squeezing the nostrils at the same time, and emptying the lungs by pressure on the chest after each inflation. This I did about eight times in the minute, sometimes having recourse for an interval to Sylvester's method. During this time the heart continued beating, and frequently the inflation of the lungs caused a spasmodic expiration.

After an hour and a half, the abdominal muscles commenced to

work, and soon the child breathed naturally. Two days after this, spasmodic contractions of the entire right side were observed, which, however, passed off in a few days.

I was again sent for on the 24th, when I found the entire right foot and leg, to within two inches of the knee, in a state of gangrene. No cause could be assigned by the nurse, who had only noticed a dark spot on the leg the previous day. The child died next morning, apparently in extreme pain, judging by the mother's account.

As spontaneous gangrene in an infant thirteen years old is, I think, unusual, I considered the case worth reporting. The spasmodic contraction of the right side, and the fact of the gangrene occurring on the same side, might indicate some connection between them.

EDMOND MURPHY, L.K.Q.C.P.I., etc., Ballyroan, Ireland.

THE PREVENTION OF MAMMARY ABSCESS.

A METHOD of treating inflamed breast after delivery may be worth notice in connection with Dr. Edis's paper on the use of support by a bandage or towel. Dr. Edis appears to use his method after every delivery, and, by beginning it before lactation is established, assures success; but one occasionally sees cases where abscess is on the point of forming, either from neglect or injudicious treatment, and where, consequently, something more is required.

I have repeatedly seen a hot, heavy, inflamed breast, with redness of skin, throbbing, and deep seated pain, the pulse being 120 in the minute, yet these symptoms have disappeared in the course of a few hours under fomentation with hot water and ammonia. An ounce of carbonate of ammonia is dissolved in a pint of boiling water, and, when solution is effected, the temperature will scarcely be too high for fomentation with cloths dipped in the liquid. These must be assiduously applied for half an hour at least, and repeated two or three hours later if necessary. It is well to protect the nipples, though I have never known them to be injured. Relief is immediate, and more than three applications are seldom required.

Unless applied too late, or improperly, or some foolish rubbing, or drawing with the breast-pump be used, contrary to orders, this remedy may be thoroughly relied on. I am indebted for it to Mr. Douglas, of Banbury; and, as it has had a trial of thirty years in my hands, I can speak of it with some confidence.

PHILIP MIALI,
Consulting Surgeon to the Bradford Infirmary.

GRAVES'S DISEASE CURED BY GALVANISM.

THE following case appears to have been an example of the above.

Miss E. W., a pale, spare, delicate-looking lady, after nursing her betrothed, broke down in health. I saw her on July 1st, 1885, six weeks after her symptoms had declared themselves. The features of her condition were these—cephalalgia, vomiting, with constant palpitation night and day. She slept but little, always awaking with palpitation, which lasted all day, rendering her condition pitiable, and completely incapacitating her from all occupation. She spent her time in bed, or on a sofa, any movement emphasising the palpitation. The pulse ranged habitually from 160 to 180 per minute. There was prominence of the thyroid region.

She was treated alternately with purgatives, digitalis, belladonna, bromide of potassium, and iron, without any relief.

On August 15th, galvanism was begun, stable currents in the sub-audal method, with an average dose of seven milliamperes.

On August 22nd, I had the advantage of the advice of Dr. Saundby, who confirmed the diagnosis, there being at this time prominence of the eyes, and counselled continuation of the galvanic treatment, with bromide of potassium and iron internally. Of this latter the patient only took one bottle. Daily galvanic applications were made, lasting ten minutes, and improvement soon took place.

On September 18th, a note was made—"no palpitation on awaking; very little during day."

On September 20th, the pulse was 90. The treatment was continued every two or three days till October 9th, when the patient removed from the town, and has since married. During the latter part of the treatment, voltaic alternatives were given with strong currents, and the applications were continued after the patient considered herself well, no medicine being given after that mentioned on August 22nd.

LESLIE PHILLIPS, M.D. Brax., Lincoln's Inn, Birmingham.

BRISTOL ROYAL INFIRMARY.—A special ophthalmic department has just been founded in this hospital, and placed under the care of Mr. Richardson Cross, who will now confine his attention entirely to this branch of surgery. Mr. Harsant has been appointed surgeon, in place of Mr. Cross; and Mr. Bush succeeds him as assistant-surgeon.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

AUCKLAND HOSPITAL, NEW ZEALAND.

FIVE CASES OF BERI-BERI.

[Reported by JAMES C. MACMULLEN, L.K.Q.C.P.I., etc., Honorary Physician to the Hospital.]

FIVE seamen, part of the crew of the barque *Androcles*, were admitted on June 18th, 1884; they were suffering from a disease the most noticeable symptom of which was general oedema of the body, and especially of the lower extremities.

The crew consisted of the captain and two mates (Europeans), a steward and two cooks (Chinamen), and eight seamen. The vessel had sailed from Amoy, China, on February 4th, 1884, and the passage, which was very rough and cold, to New Zealand occupied over four months. The men had continuous hard work, and were wet for many days consecutively. The captain stated that the seamen suffered from symptoms which will be described, and that they at last became so weak that they could not do anything, with the exception of one or two who were still able to steer, consequently the ship had to be worked by the three Europeans and three Chinamen. The men, when shipped, were allowed to choose whether they would have the same diet as the Europeans, or that to which they had been accustomed; they chose the latter. Of the five admitted to hospital, two were Japanese, two Malays, and the fifth was from Manila. They said they had been very badly fed, and that the salt meat and biscuits were not good.

The following extracts are taken from entries in the ship's log-book.

"March 10th. Crew having now been ten days on salt provisions, served out lime-juice and sugar; but, later on, several of the men refused the lime-juice, saying they did not like it.

"May 5th. Two of the seamen complained of their legs being swollen, and were treated for scurvy, although there were not any signs of it about their mouths. They were given a tablespoonful of scraped potatoes in vinegar and sugar, also pickles and preserved soup.

"May 10th. All hands excepting Chinamen and Europeans complained of swelling of the limbs, and same treatment was continued, with addition of preserved apples.

"May 18th. One of the men complained of his belly being swelled, and his breathing short.

"May 23rd. Another complained of severe pain in the chest.

"May 24th. One of the men refused food, became insensible, and died.

"May 25th. Tan Bee, another seaman, had difficulty in making water.

"May 28th. All complained of being costive. Castor-oil given.

"May 29th. Tan Bee complaining of swelled testicles."

Tan Bee died in great pain on June 14th. The ship reached Auckland (Manukan harbour) on June 15th. The Europeans and Chinamen were in good health.

Of the five admitted, one was so ill that he had to be carried to his bed on a stretcher. In his case, there was great oedema of the feet and legs, and a small round ulcer on the upper part of the left leg; the thighs and back, also, were oedematous, the front of the body was slightly so; there was also the condition known as "ram's horn penis," well marked. Breathing was short and shallow; the pulse was 60, very feeble, soft, and compressible. The heart-sounds were feeble and intermittent, and there was a mitral systolic blowing murmur. This man died on June 19th, the day following his admission.

A *post mortem* examination was made on June 20th. The body was apparently well nourished. Hypostatic congestion and rigor mortis were well marked. The surface of the body pitted on pressure everywhere. The skin of the scrotum was tense and shining, pitting on pressure. "Ram's horn penis" was still marked. The subcutaneous cellular tissue of the abdomen was filled with fluid. The peritoneal cavity contained four or five ounces of clear dark-amber-coloured fluid. The peritoneum was thickened and white, and the minute vessels were injected. The liver weighed 3 lbs. 2 oz. The surface was rough; the section had

a nutmeg appearance, and bile oozed from the ducts, the same in character as that which tensely distended the gall-bladder, the colour and consistence of treacle. The spleen weighed four or five ounces; there were white lines on its surface. The kidneys weighed each about five ounces. The capsules were slightly adherent at places. The right pleural cavity contained about twelve ounces, and the left eight ounces, of amber-coloured fluid. The upper lobe of the right lung was attached to the pleura by recent adhesions. The pericardium contained about an ounce and a half of clear fluid. The apex of the heart was adherent to the pericardium. There were also adhesions between the upper part of the left ventricle and the pericardium. The heart weighed one pound. The right auricle was filled with dark clotted blood, and a fibrinous coagulum extended into the right ventricle. On the surface of the heart were several large white patches. The left ventricle was dilated, and the walls of the heart were pale and flabby. In the lateral ventricles of the brain and the subarachnoid space, there was some clear fluid. Two small yellowish-white nodules were seen in the coats of the right middle cerebral artery.

The history of the illness of Nayi de Sabio, which now follows, may be considered as typical of the symptoms and condition of the three besides himself who survived.

This man said that, on May 10th, 1884, two of the men (both now dead) complained to the captain of swelling of the legs; soon afterwards, several of the others also complained; and, finally, all hands excepting the Europeans and Chinese. The swelling gradually rose to the serotum, abdomen, and chest; the faces of those most affected swelled a little; they could not lie down on account of great dyspnoea. Some of them had a slight cough.

The passage was an exceptionally stormy one. The men had been nearly always wet from the commencement, and had to work very hard; many of them had very little clothing. The weather was cold, as the ship had gone down as far as 45° S. The captain, mates (Europeans), and cooks (Chinese), were not affected at all. The Chinamen were for the greater part of the time not so exposed to the wet, and had all night in bed; but, during the last three weeks, the Europeans and Chinese had to do all the work. The sick men could not work at all at this time, though some of them had tried to do so. The Chinamen lived partly on the same food as the Europeans. The sick men ate well all the time, but had to take salts and oil to keep the bowels acting.

On June 19th his respirations were 44 per minute. Moist crepitation was heard at the bases of both lungs posteriorly. The pulse was soft and compressible; there were blowing murmurs with both cardiac sounds. He was drowsy and weak. On attempting to walk, his gait was heavy, and as if his legs could hardly carry him. He complained of cold feet, and of severe pain across the stomach. The whole surface of the body was oedematous, especially the legs and feet.

June 21st. The hæmic murmurs were not so loud. The second sound was more distinct. The oedema was less, the appetite was very good; the stools, as formerly, were white and claylike. The diet consisted of fish, milk, tripe, bread, butter, oranges, bananas, and port wine.

June 22nd. No murmurs could be heard, and the moist *râles* had disappeared from lungs. The oedema was rapidly subsiding; the muscles were very weak.

Microscopic examination of the blood showed the red discs to be paler than normal, and less numerous. On June 20th he passed 122 ounces of urine, containing mucus. On June 21st, 206 ounces; the specific gravity was 1,012; it was very acid, and contained no albumen. He continued to pass a large quantity of urine until the oedema disappeared.

Francis, another of the men, had had small-pox when young, and his face was deeply pitted; he convalesced much more slowly than the others, the legs remaining weak and feeling heavy, and the knee-joints and thighs being stiff, for a considerable time. The other two complained of headache, for some days after admission. All were discharged cured, on July 30th, 1884.

The treatment adopted consisted of very full diet, port wine and diuretics, also quinine and iron. Digitalis appeared to be of special benefit to all. On July 2nd the port wine was replaced by four ounces of Burroughs' beef and iron wine daily.

REMARKS BY MR. MACMULLEN.—The disease was, from the first, diagnosed and treated as beri beri, the conditions which gave rise to it, and the symptoms from which the men suffered, pointing unmistakably to that disease. A good account of this most interesting and dangerous malady is given by Sir Joseph Fayrer, in *Quain's Dictionary of Medicine*.

[We may add that Chira is not mentioned by Sir Joseph Fayrer

one of the localities where beri beri is endemic, and that, at a discussion which took place at the Medical Society of London, on March 31st, 1884, Dr. Gordon stated that the disease had anciently prevailed in China, but had now disappeared; Hirsch, however, states that it still occasionally occurs there. Dr. Norman Chevers, who introduced the discussion on that occasion, expressed the opinion that it was a specific fever *sui generis*, most nearly allied to scarlatina; it does not, however, appear to be infectious, but to be due to local unsanitary conditions. Dr. de Lacerda has described a micro-organism which he regarded, but apparently on insufficient grounds, as characteristic of beri beri. The widest divulgence of opinion exists with regard to the pathology of the disease. It has been regarded as a form of renal disease, as a variety of scurvy, as a combination of malarial poisoning with scurvy, as a functional disease of the spinal cord, as a rheumatic process, as a variety of pernicious anemia, as a disease analogous to trichinosis, and due to an animal parasite; and, as above stated, as a specific fever. Hirsch (*Handbook of Geographical and Historical Pathology*, translated by Dr. Creighton, vol. ii, New Sydenham Society) adopts the theory that it is a specific morbid process, on the ground that the general assemblage of symptoms presents no clear analogy to any other disease, and that it occurs in an endemic form with occasionally epidemic outbreaks. He appears to favour the theory that the morbid poison is some specific noxious body in the food, and mentions the suggestion that the disease is nearly allied to ergotism. An outbreak of the disease in a ship trading to New Zealand must be considered, with our present information, very unusual.]

WESTON-SUPER-MARE HOSPITAL.

A CASE OF ENLARGED PROSTATE TREATED BY RECTAL PUNCTURE.
(Under the care of Mr. C. V. HITCHINS.)

[Reported by T. A. PERRY MARSH, M.R.C.S., L.R.C.P. Lond., Surgeon, M.S.]

W. P., aged 47, married, a stone-sawyer, was admitted at 8 P.M. on July 18th, 1881, suffering from retention of urine. He had suffered from ague when a boy, but had never had gonorrhoea or any venereal disease.

About five years ago, he first noticed that the stream of urine was diminishing in size. On the morning of admission, with straining, he passed a stream, of the size of a "darning needle." He had been at work as usual, but in the afternoon found he could not pass urine at all.

He was a sallow complexioned man, who looked much older than he was. The bladder was distended half way to the umbilicus; catheterisation failed, the instruments apparently being arrested about the prostatic portion of the urethra. The prostate was very much enlarged, but not tender. After a hot bath and a morphine-suppository, he passed (by drops) about six ounces of healthy urine, and was much relieved.

July 19th. During the day, the usual hot baths, fomentations, etc., were administered, but did not relieve his condition. At 8 P.M. his bladder was distended to the umbilicus, and he was much distressed. Mr. Hitchins, therefore, punctured *per rectum*. Extreme enlargement of the prostate rendered the operation much more difficult than usual: the point of the forefinger could not quite touch the bladder beyond the margin of the hypertrophied gland. The urine was drawn off, and the cannula tied in.

July 21st. The cannula slipped out during the night; this could not be prevented, as, even when pushed up to its full extent, the point was only just within the bladder. All attempts to pass the cannula back through the old puncture failed. At midnight his bladder was again much distended, and his general condition serious. Hot baths and fomentations effected no relief; a fresh puncture *per rectum* was therefore made by Mr. Perry Marsh.

July 24th. The cannula again slipped out during the night, but urine passed freely *per rectum*. At about midday he had a severe rigor, much like the cold stage of an ague-fit. At 8 P.M., his temperature reached 105.6° Fahr. On the following day, the temperature was normal, and he felt much better. He passed some urine in a small stream by the urethra. For the next three days, he progressed satisfactorily. The urine flowed both ways, but the quantity passed *per rectum* gradually diminished up to July 28th, when it ceased, and the urethral stream had gained in size considerably.

On August 3rd, he was up and passing water in a larger stream than he had done for many months previously. On August 10th, he was discharged at his own request. About three weeks afterwards, he stated that his stream of urine was as large as ever it had been, and that he was following his occupation again.

REMARKS BY MR. PERRY MARSH. This case is very similar to one reported by Mr. Reginald Harrison in the BRITISH MEDICAL JOURNAL of April 8th, 1882, namely, an enlarged prostate cured by a surgical operation. No stricture existed in the urethra; the catheter met no obstruction till the point was passing beneath the pubic arch. The fact that great enlargement of the prostate existed was verified, on examination, by three other members of the hospital staff besides myself. At the age of 47, it is perhaps early to find this state of things, but then, physiologically, this man was much older. The trocar must have passed, to some extent, through the prostate, at least, it did so on the second occasion, as from the hypertrophied condition of that gland, I could not touch the bladder beyond it with my forefinger. The rigor and rise of temperature which occurred on July 24th, although very alarming at the time, apparently depended on his previous malarial taint, and passed off much like an ague-fit. From this time, his recovery was rapid; the urine once having found its legitimate course, at first by drops, a stream of increasing size soon developed, and when he left hospital, it was larger than it had been for some years. Before the patient's discharge, the hypertrophied prostate had decreased in size to a marked extent. That the operation produced this I do not doubt, but why it should do so I am not prepared to state; but, bearing in mind Mr. Harrison's case and my own, I think we have indications sufficient for operative interference, with a chance of speedy relief, in a class of cases the treatment of which hitherto has been tedious and unsatisfactory. To say the least of it, we have, in those cases of retention resulting from enlarged prostate, where the bladder must be tapped, a guide to select the puncture *per rectum* in preference to any other operation.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 17TH, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Cardiac Clot.—The PRESIDENT showed a specimen removed that day from a man who had been admitted to St. Thomas's Hospital on account of intense pain in the chest; it was so severe as to lead to the supposition that malignant disease of the vertebra was present. The necropsy showed that the vertebra were unaffected, but that the stomach was the seat of malignant disease. The heart and both ventricles were lined with old coagulum; the free surface towards the ventricle was smooth; the columnæ carneæ and musculi papillares were almost concealed in the clot.

Hæmorrhage into Grey Matter of Spinal Cord.—Dr. CHAFFEY read notes of a case in which extensive hæmorrhage occurred into the grey matter of the spinal cord without affecting the white matter. A female child, aged 4 years, was seized with vomiting some hours after a severe fall. Two days after the fall, she was unable to sit up; and by the fourth day she was paraplegic. From the fifth day, there was some trouble in micturition. Six days after the fall, she was admitted into the Children's Hospital, Great Ormond Street. There was paraplegia, and slight accumulation of mucus in the throat. In the afternoon, there was some duskiness. The reflex phenomena were abolished, but sensation was unaffected. Shortly before death, the right arm appeared to be weakened. The temperature rose to 101° before death. Death occurred some days after the fall. At the necropsy, the lumbar enlargement was seen to be swollen. On section, copious hæmorrhage was seen to have taken place into the grey matter. In the lower part of the lumbar enlargement, the whole grey matter was involved, but the area involved diminished higher up; in the cervical enlargement, the hæmorrhage was limited to the anterior cornua. The white matter was normal, except in the lower part of the lumbar enlargement, where it was softened. The nuclei of origin of the nerves in the medulla oblongata were affected.

Ovarian Cysts in Mammalia.—Mr. J. BLAND SUTTON read a paper, the main object of which was to show that cysts arising in the parenchyma of the ovary originated in corpora lutea. The uterus and appendages from a large number of animals, fifty pigs, twenty mares (in addition to fifty already reported on), and various animals from the Zoological Society's Gardens, had been examined. Specimens of ovaries illustrating all the stages and the formation of the cysts were exhibited. The mode of formation was evident on dissection, the peculiar yellow colour of the material rendering the identification indisputable. The development was best traced in cows. Multilocular cysts were the result of the concomitant growth of two or more cysts in the same ovary, as might be observed in the ovary of

the sow, the ass, the mare, the tiger, the monkey, and in women. Waldeyer and Beigel had insisted that the ovaries in early life were not idle, but that many of the follicles ripened, atrophied, and formed a sort of corpus luteum, even in the fetus. He had been led by Mr. Doran's discovery of an incipient papillary cyst in the tissue of the hilum to examine fetal ovaries; he had found that ovarian cysts very frequently occurred in the human fetus; he exhibited three specimens of this condition; in one of these, ova might be seen in the follicles, but smaller than those found after puberty. These facts accounted for the occurrence of cysts in children, in accordance with the theory above propounded. He was able to endorse the view that the cysts arising in the hilum took origin from the remains of the Wolffian body; on one occasion he was able to make out an almost complete longitudinal section of a Wolffian tubule, and in one specimen the true tissue of the ovary seemed to be almost entirely replaced by Wolffian remains. A specimen of a cow's uterus and vagina was exhibited, showing large cysts in the vaginal wall developed in the lower (posterior) end of Gartner's duct. The ducts of Gartner and Skene's tubes were identical; the glands described as independent structures were only diverticula from the ducts, and were homologous with the vesiculae seminales of the male. Cysts of the broad ligament, unconnected with the parovarium, from mares, cows, pigs, and kangaroos, were also exhibited. Examples of hydrosalpinx in pigs, and in the cow, were also shown. The condition seemed to be not unfrequent in these animals, and was a cause of sterility.—Mr. ALBAN DORAN observed that the paper, and the specimens by which it was illustrated, were of the highest interest. He was glad to find Mr. Sutton confirmed him in maintaining that ovarian cysts generally arose from follicles, but he was not prepared to admit that they originated in corpora lutea; he preferred to say that they began in follicles which had undergone involution without any necessary connection with impregnation, menstruation, or rut. It was necessary to distinguish, as Dr. Klein had done in his *Handbook*, between the tissue of the hilum and the parenchyma of the ovary. The former was the blastema which had been found to develop in the embryo around the upper part of the Wolffian body. The dilated lymphatics observed by Mr. Sutton, corresponded to the "kystes lacuneux" of Verneuil, which formed conspicuous but ill-defined cysts in the broad ligament, in cases of myoma of the uterus. To decide the true position of the orifice of Gartner's duct, it was necessary to make sure where the vagina ended, and the vestibule began, in different species of animals. Owing to differences in the development of the lower part of the united Müller's ducts, the true vagina was sometimes very long, in other cases functionally replaced by the vestibule.—Dr. J. KINGSTON FOWLER had recently met with a case of cyst in the human female, exactly analogous to those described by Mr. Sutton.—Dr. W. B. HADDEN described certain small cysts with long pedicles attached to the broad ligaments.—Mr. BLAND SUTTON said that these cysts were dilated tubules of the parovarium.

Liver divided into Two Parts by a Constricting Band.—Dr. HALE WHITE showed a liver constricted by a band, one part being fatty, the other being cirrhotic. The patient was a man who died with large white kidneys. Stretching across the upper surface of the liver was a deep fissure, which began at the posterior part of the suspensory ligament, and ran along at the upper surface at the attachment of that ligament for about two-thirds of its extent; then it bent to the right, and terminated at the anterior border of the liver, thus cutting off a small piece of the right lobe. The portion to the right of this band was fatty, the rest of the liver being cirrhotic. The fatty portion quickly underwent alteration, taking on the sponge-like appearance which was produced by decomposition. This opinion was confirmed by microscopical examination. The constricting band was probably due to the patient wearing a belt, although it was not at all in the usual position; still it was extremely improbable that it was due either to disease or congenital malformation. From its position, and from the fact that the small piece of the right lobe which was nipped off by it was cirrhotic, it was certain that the cirrhotic condition of the left lobe, as contrasted with the fatty condition of the right, was due to the constriction. This view was confirmed by the fact that the vessels to the left lobe would have been pressed upon, whilst those to the main part of the right would not, considering the position of the constriction.—Dr. J. K. FOWLER said that the specimen showed an extreme degree of the change seen in livers compressed by tight lacing.—In reply to Dr. NORMAN MOORE, Dr. HALE WHITE said that, in the majority of cases, the vacuolation of the liver was a *post mortem* change; a true vacuolation of the liver-cells occasionally occurred, and might be associated with cysts in other organs.

Contracted Fingers.—Mr. C. B. LOCKWOOD described casts and dis-

sections of some cases of contracted fingers. A dissection of a hand from a case of Dupuytren's contraction was shown. In another case, the hand was infiltrated with urate of soda, as were all the joints in that case; and the contraction in that case he was inclined to attribute to the presence of urates in the fascia.—Dr. W. M. ORD said that he had frequently seen the crystals of urate of soda in cartilages, without any kind of alteration in the tissue; in the kidney, too, in certain cases, deposits might be seen which had not set up any inflammatory change; he was therefore inclined to believe that the tissues were very tolerant of urate of soda, and was not prepared to allow that the contraction in Mr. Lockwood's case was due to the presence of that salt.—Dr. NORMAN MOORE agreed that deposits of urate of soda were frequently found in the fasciæ in gouty patients, without any evidence of inflammatory reaction.—Mr. WILLIAM ADAMS said that the dissection in the case of Dupuytren's contraction was a good example of pure fascial contraction.—Mr. BLACK mentioned a specimen in the Westminster Hospital, where urate of soda was deposited in the cancellous tissue without any inflammatory change in the bone.—Mr. SUTTON suggested that the crystals noticed by Mr. Black were probably not urate of soda, but cholesterol, which was very liable to be found in specimens preserved in museums.

Gummata of Liver in a Boy.—Dr. NORMAN MOORE showed the liver of a boy aged 9, who had been under Dr. Gee's care in St. Bartholomew's Hospital from December, 1883, to September, 1885, with enlarged liver, ascites, and general cachexia. He had well marked Hutchinsonian teeth, and a shrivelled sallow skin. At the necropsy, the liver, kidneys, and spleen showed slight amyloid infiltration, and the stomach and intestines extreme amyloid infiltration. The liver was irregular on the surface, with one prominent nodule and several puckered depressions. Under these, in its substance, were several large, yellowish, tough masses, each of which was surrounded by a red zone of engorged liver-substance and fresh formed connective tissue. These masses were large gummata, and microscopic sections showed several minute gummata on the surface of the liver and in the neighbourhood of these large masses. Very few cases of gummata in the liver due to congenital syphilis had been observed, but the growths in this case were no doubt of that nature.

Iridescent Calculi.—Mr. S. G. SHATTOCK read a paper on the occurrence of iridescence in calculi. He showed a group of fifty calculi of varied form, but all possessing sharp facets. The largest was two centimetres long, the smallest was about the size of a hemp-seed. It showed a remarkable iridescent appearance, and a lustrous yellow colour. This property resided in a distinct separable layer on the surface. The inner part of the calculi, which was phosphatic, was composed of conical intersecting tufts of fine acicular crystals. The calculi were removed from the prostate of a man in 1843. Phosphate of lime, and magnesia and ammoniac-magnesian phosphate, together with carbonate of lime, were the most important chemical constituents. The iridescent outer part consisted of closely opposed homogeneous concentric lamellæ, readily transmitting light; a laminated nucleus occupied the centre. Iridescent calculi had been long known to occur with some frequency in herbivora, but he was not acquainted with many such specimens removed from man. A calculus presented to the late Mr. Liston by Civiale was a beautiful example of iridescent calculus. The porcellaneous appearance of certain prostatic calculi was due to a similar disposition of the superficial lamellæ, which, however, were less regularly arranged; phosphate of lime, with a small proportion of carbonate, formed the bulk of the porcellaneous surface. He remarked that all the calculi were made up of phosphate and carbonate of lime, combined with a colloidal base. The colloidal base in this case had been found by Dr. Bernays to be albuminoid. Mr. Shattock suggested that, in all cases in which iridescent calculi were formed, the urine contained albumen, though not necessarily albumen from the kidney. In support of this, he referred to a case of iridescent calculus reported to the Society last year by Mr. B. Pollard, where the calculus was contained in the pelvis, and the urine contained pus. Dr. W. H. Stone had examined the iridescent calculi shown, and had found that the iridescence was a phenomenon of diffraction.—Dr. W. M. ORD was still inclined to think that the iridescence belonged to the same class of phenomena as Newton's ring, and was not a phenomenon of diffraction. He agreed with Mr. Shattock in regarding the presence of a large quantity of colloid to form the matrix, and of a large quantity of carbonate of lime, as necessary to the formation of an iridescent calculus; moreover, he would lay great stress on a long lapse of time as another necessary element in its production.

Card-Specimens.—Dr. GULLIVER: Hemorrhage into Suprarenal Body.—Dr. HALE WHITE: 1. Melanotic Scirrhus of Liver; 2. Hemorrhage into Long Bones in Case of Purpura Hemorrhagica.—Dr. BEAVEN RAKE (per Dr. HALE WHITE): 1. Hand and Larynx

from a Case of Mixed Tubercular and Anæsthetic Leprosy; 2, Hand from an Old Case of Anæsthetic Leprosy, showing spontaneous amputation and arrest of the disease; 3, Extreme Ulceration of Larynx with Perforation, from a Case of Anæsthetic Leprosy; 4, Thickened Median Nerve, from a Case of Anæsthetic Leprosy.—Mr. HURRY FENWICK: Miliary Tubercle of Bladder.—Mr. HERBERT LANDER: Cancer of Oesophagus.—Dr. PERCY KIDD: Tuberculosis of Uterus and Fallopian Tube.—Dr. W. B. HADDEN: Ulcerative Endocarditis of Right Side (two cases).—Mr. D'ARCY POWER: Intra-osseous or Central Necrosis of Femur.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 13TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

A Case of Idiopathic Purulent Peritonitis in a Child of Ten Years; with Necropsy.—Dr. SAMUEL WEST described this case. Julia S., aged 10, after a wetting, was suddenly seized with intense abdominal pain. There was no rigor, but vomiting was severe. The pain and vomiting continued severe till her admission, four days later. The bowels had not acted since the commencement of her illness; there was no personal or family-history of importance; the physical signs were all abdominal—great distension, pain, and tenderness. No tumour was felt, but there was thought to be a little dullness in both flanks. The skin was hot and dry, but temperature was only 99.8°; pulse 100; respirations 28. The vomit was frequent, yellow, acid, but not fecal. Punctices and opium were ordered. On the 14th, the symptoms were unrelieved, and the bowels still unmoved. On examination *per rectum*, a baggy swelling, of indefinite nature, was felt high up in the pelvis. On the 15th, the condition of the patient being worse, and all symptoms unrelieved, the abdomen was opened by a mesial incision. Pus was found, chiefly in the lower part, and evacuated. The cavity was washed out, and drainage-tubes were inserted. The child nearly died of collapse upon the table, but rallied sufficiently to be removed to the ward, where she died about six hours later. The necropsy revealed acute suppurative peritonitis, but no cause for it could be found; the whole of the intestines, abdominal glands, and organs were perfectly healthy. The case was, therefore, one of idiopathic purulent peritonitis. Such cases were rare. Dr. West and also Dr. Goodhart mentioned only one case each similar to the present. Acute idiopathic peritonitis was first described by Duparcque in 1842; subsequently by Ganderon; but most completely by Rehm in Gerhardt's *Kinderkrankheiten*. Dr. Hilton Fagge had referred to the extreme rarity of these cases, and had met with only two such cases in an extensive experience of twenty years. The case presented great difficulties, from its resemblance to some form of intestinal strangulation; but of this there was no clear evidence. Nor was there any history which pointed to perforation as the cause of the peritonitis. To whatever the peritonitis might be due, it was almost certainly suppurative, and this diagnosis carried with it the appropriate treatment, namely, evacuation. The low temperature throughout added to the difficulty of the diagnosis; but other cases were quoted of acute internal suppuration with low temperature, to which also Dr. Hilton Fagge had referred.

Diffuse Purulent Peritonitis.—Mr. W. MORRANT BAKER read the following case only as a contribution to the discussion on Dr. Samuel West's paper. Owing to the short duration of the patient's life after admission into the hospital, the notes taken were of fragmentary character. A lad, aged 15, was admitted into St. Bartholomew's Hospital under Mr. Baker's care in April, 1885, suffering from what was believed to be acute intestinal obstruction. He seemed moribund, or nearly so, at the time of his admission. Only half conscious, he lay with a listless expression; the eyes were sunk and half covered by the eyelids, and he had a dull congested complexion. The abdomen was tense and tender; temperature subnormal. It was said that no action of the bowels had taken place for five or six days, and that there had been frequent vomiting for about the same period. The vomit was dark and ill smelling, but not distinctly fecal. No external hernia could be detected. Nothing abnormal beyond what was produced by the tense condition of the intestines could be found on examination *per anum*. A small quantity of soft but formed fecal matter was found in the rectum. Under chloroform, an incision, one and a half or two inches in length, was made in the middle line, between the umbilicus and pubes, and the abdominal cavity opened. On cutting through the peritoneum, a large quantity of offensive pus welled up, and on gently introducing the finger, a fresh quantity escaped from between the displaced coils of intestine. The pus was obviously diffused throughout the peritoneal cavity, with no definite boundary other than was caused here and there by contiguous coils of

intestine, which could scarcely be called adherent. As far as was possible, the abdominal cavity was washed out with warm lotion of permanganate of potash; the wound was then closed, a drainage-tube having been inserted. No alteration was produced in the general condition of the patient by the operation, and he died five hours afterwards. *Post mortem examination.*—The thoracic viscera were normal. The abdominal cavity was distended by sero-purulent fluid, containing flakes of lymph, and there were signs of general peritonitis. A few coils of intestine were more darkly congested than the rest, and were slightly adherent to the bladder and rectum; they were not distended. The upper part of the small intestine was found distended. Peyer's patches were very vascular and prominent. There was no perforation of the bowel at any part, nor could any cause of the peritonitis be discovered.—Dr. CHARLES WEST observed that cases of peritonitis occurring in children without apparent cause were not so extremely rare; but, as a rule, the fluid collections in them were not purulent. Instances were found in new born children, and in syphilitic children of greater age; and in some cases, in older children, peritonitis was sometimes induced as a result of blood-poisoning. In these, the fluid collected in the abdomen often contained flakes of lymph, and distinct purulent matter sometimes existed. In two cases he had found idiopathic purulent peritonitis, which discharged at the umbilicus, and, of these, one only recovered. He failed to see any reason for adopting the term "rheumatic purulent peritonitis," but regarded the cases so designated as resulting from cold, to which causation he would also attribute all those examples not due to obvious causes, or to fevers. As an aid to diagnosis, it was worthy of note that discomfort was always referred by the patient to one side or the other when due to obstruction, although the symptoms were not always referred to the affected side. Further, constipation was less marked in peritonitis than in obstruction.—Mr. HOWARD MARSH confirmed Dr. S. WEST's remark that, in perforation of the appendix, pain was most often felt on the left side. In one case under his care, this symptom thus located led to the performance of left lumbar colotomy. He agreed that the temperature-chart was not to be depended on as diagnostic of peritonitis, since it often exhibited even a subnormal figure. For the purpose of washing out the abdominal cavity, he preferred solutions of iodine-tincture or of potassium-permanganate, and not long ago, in a case in which, after laparotomy, he had employed carbolic water 1 in 60 for this purpose, marked carbolic poisoning resulted.—Dr. W. B. HADDEN said that, two years ago, he conducted a *post mortem* examination on a girl, aged 15, who died one week after being attacked with peritonitis, for which no cause could be assigned, or found after death. Two persons, however, had just previously died in the house from which she had been removed, one from typhoid and the other from puerperal fever.—Dr. F. TAYLOR, referring to the diagnostic value of pain in a particular position, expressed doubt of its being a trustworthy guide.—Mr. GOLDING-BIRD observed that the pulse afforded much more reliable indications than the temperature in peritonitis, its steady rise from hour to hour by two or four beats being characteristic of the disease. The fallacy that high temperature always obtained in peritonitis should be corrected. Dr. Fagge had pointed out that, in cancer of the descending colon, pain in the right iliac fossa was due to the engorgement of the cæcum with faeces.—Mr. H. MORRIS objected to the dictum that, in cases of intestinal obstruction, no faeces were ever found in the rectum, for he had seen many in which this was the case; and, in one instance of purulent peritonitis, he had found the rectum quite clear of fecal matter. He thought it was generally recognised—it was at any rate taught at Middlesex Hospital—that peritonitis often occurred without elevation of body-heat.—The PRESIDENT considered that pain, as a diagnostic factor, was of great value in peritonitis, but of little point in chronic obstruction, except when acute symptoms were grafted on this condition; but he was glad to see so evident a disinclination to place any importance on the seat of pain. Dr. Fagge had shown that this was determined by pressure, and was usually at the cæcum, which acted as a repository for the faeces. Though Addison had denied the possibility of idiopathic primary peritonitis, he, Mr. Bryant, must admit its occurrence; but it might be that some cases at least were susceptible of being associated with a cause, if carefully and fully traced. Three cases had occurred in his own experience to emphasise this conclusion. The first was that of a lady who had consulted him for a slight rectal trouble, for which he prescribed, but regarded it as a mere trivial affection. Three days later, the patient was dead of acute peritonitis, and being unable to attend the *post mortem* examination, he obtained permission to reopen the body, as no cause for the peritonitis had been made out at the necropsy. He found a small rectal ulcer, and a suppurating gland in the pelvis, to which the peritonitis was due. The

second case was that of a boy admitted into Guy's Hospital with an enlarged abdomen; pus trickled from the umbilicus. The abdomen was opened, the purulent matter evacuated, and the case did well for weeks, but subsequently died; and *post mortem*, a suppurating track was found extending round behind the cæcum, which had caused the fatal peritonitis. The third case, of recent occurrence, was that of a child, aged 6, hitherto healthy, until some months before being seen by Mr. Bryant, when some bowel-trouble had occurred. Recovery from this ensued, and yet, later on, symptoms of obstruction set in. The abdomen was much distended, and very painful, and the case was regarded as one of peritonitis from cæcal mischief. An incision was made along the right semilunar line, and some blood-stained serum escaped; on introducing the finger, it was arrested at the middle line; the cæcum was unaffected. The left side was next opened, but the finger introduced through the new incision was again stopped in the mid-line, and on exploring behind the obstruction, a fluctuating swelling was found from which six to eight ounces of fetid pus escaped. The cavity was washed out with iodine-water, and a drainage-tube left in it. The child was restored to perfect health. In this case, had the child been left untreated, the abscess would have burst, peritonitis would have followed, and nothing would have been left to explain its origin.

Two Cases of Ligature of the External Iliac Artery for Femoral Aneurysm.—Mr. WALTER RIVINGTON cited these cases. CASE I. *Femoral Aneurysm: Ligature of External Iliac Artery with Catgut: Recovery from Operation: Loss of Motion and Sensation in the Limb: Restoration of the Canal of the External Iliac: Secondary Hemorrhage, and Death from Exhaustion Five and a Half Months after Operation.*—J. M., aged 27, sailor, accustomed to lift heavy weights, was admitted into the London Hospital, under Mr. Reeves, on September 10th, 1882, with a pulsating swelling in the right groin. Four weeks previously he first noticed a swelling, of the size of a halfpenny, but, as it gave him no pain or inconvenience, he took very little notice of it. It enlarged gradually until two days before admission, when it increased rapidly, and caused him considerable pain. On admission, the tumour was of the size of a cricket-ball, with marked *bruit* and pulsation. He had a sore on his prepuce and a suppurating bubo on that side, but there was no history of syphilis. An attack of facial erysipelas, some doubt as to the diagnosis, and a deceptive appearance of consolidation in the swelling, caused delay in resorting to operative measures. He then came under Mr. Rivington's care, and a fortnight later, when an increase in the size of the swelling was perceptible, the external iliac artery was tied under thymol spray. Owing to the encroachment of the aneurysmal sac above Poupart's ligament, the external iliac was found to be displaced inwards to the inner side of the vein, and so deep, that it was not exposed to view. Immediately after the catgut ligature was applied, all pulsation and *bruit* ceased, and the tumour became soft and flaccid. The wound was closed, and the limb wrapped in cotton-wool. The wound did not remain long aseptic. On the 27th, some offensive discharge occurred, and lint, soaked in carbolic oil, was substituted for the gauze. The tumour had diminished considerably in size. The chief feature was a loss of sensation and motion in the parts supplied by the sciatic and anterior crural nerves. On November 5th, there was a mild attack of erysipelas. The right leg was warm, but there was no sensation in it, except occasional "pins and needles," and pain in the back of the thigh and knee. Galvanism was tried without avail, beyond restoration of slight power over the rectus femoris. Return of pulsation was first noticed in the femoral artery on November 29th. The wound had healed by December 12th. Pressure-sores existed over the trochanter and the heel. The tumour gradually decreased in size till March 2nd, when it was four inches and five-eighths less in circumference than previous to the operation; the patient's condition otherwise was stationary. Suppuration ensued from the original wound, which reopened on March 27th. The clots in the sac broke down; secondary hemorrhage took place on April 5th, 6th, and 9th. On the last occasion the sac was opened, all the clots were cleared out; but although no blood was lost during the operation, the patient did not rally. The *post mortem* examination showed destruction of the external circumflex, and commencement of the popliteal arteries where the aneurysm had originated, and absence of anything like an aneurysmal sac. The external iliac artery and vein were pervious. A slight mark across the artery where the ligature had been applied could be seen. The anterior crural nerve was embedded in inflammatory plastic matter for several inches. The sciatic nerve was normal. The author considered that the loss of sensation and motion was an extreme form of a recognised temporary effect of ligature of a large artery. The collateral circulation was established sufficiently to avert gangrene, but insufficiently to maintain the functional integrity of the more remote and delicate

tissues, like the terminations of sensory nerves and the motor end plates in the muscles. The limb was on the verge of gangrene, its feeble vitality being shown by the sores over the trochanter and the heel. The case further illustrated the uncertain behaviour of the ordinary catgut ligature when used for ligaturing an artery in its continuity. Probably the catgut would have held longer if the wound had remained aseptic.—CASE II. *Femoral Aneurysm: Ligature of External Iliac with Carbolised Silk: Recovery.*—H. C., aged 51, commission-agent (formerly a soldier, who had served in the Crimea and the Indian Mutiny), was admitted into the London Hospital on July 10th, 1885, for a fusiform aneurysm of the left common femoral artery, underneath Poupart's ligament. The size of the aneurysm was about that of a hen's egg. He was treated by the author, in 1879, for a left popliteal aneurysm, which was cured by Esmarch's bandage and digital compression. The case was reported in the *Lancet* of October 16th, 1880. The external iliac artery was tied, under the carbolic spray, with carbolised silk, on July 3rd, by means of an incision three inches long, intermediate in position between Abernethy's and Astley Cooper's incisions. The artery was easily found. The patient made a good recovery, and was discharged, cured, on September 22nd. The chief points of interest in the case were the circumstance that this was the second aneurysm which had developed on the main artery of the left lower limb, and the use of carbolised silk ligatures cut short and left in the wound.—Replying to the President, Mr. RIVINGTON said pressure had not been tried in his first case.—Mr. GOLDING-BIRD inquired as to the condition of the pulse at the ankle in the first case, because, in sarcoma of the thigh, there was said to be no difference between the pulse at the ankle on the two sides. He had shown a case of aneurysm of the femoral in which he had ligatured the external iliac, and in which case the main artery of the limb was pushed inwards by the tumour for some distance. Operating according to Astley Cooper's method, he did not see the artery. He had rejected Abernethy's method, and in a similar case would decline to adopt it.—Mr. RIVINGTON said there was no pulse at the ankle in his patient. He had adopted Abernethy's operation, because, had he chosen Astley Cooper's, he must have cut across the tumour.

A Fatal Case of Nitric Acid Poisoning.—Dr. DYCE DUCKWORTH related the following particulars. A city merchant, aged 29, was admitted to St. Bartholomew's Hospital on February 11th, 1885, with the history of having swallowed about an ounce of strong nitric acid shortly before. He had been seen by a surgeon, and was found vomiting. Lime-water was given to him. He was supposed to have had his luncheon before he took the poison. Calcined magnesia in milk was given freely, and the vomit, previously acid, became alkaline. Opium was given *per rectum*, and linseed and opiate poultices were laid on the abdomen. The suffering was intense; there were retching and vomiting; collapse followed. Nutrient enemata with brandy and opium were given. His cough was troublesome; next day, there was relief, from the opium. The urine contained blood on two occasions, and albumen twice afterwards. Vomiting and retching persisted at intervals, and the pulse became running. Shreds of putrid mucous membrane were ejected. The temperature rose on the fourth day to 102.2°. Diarrhœa set in, but no blood was passed. There was a suspicion of pericarditis. The patient nearly sank on two occasions, but was revived by nutrient enemata with brandy. On the fifth day he was so much better, that his friends believed that he was recovering. He died one hundred hours after taking the acid. On examination, there were signs of inflammation at the fauces, and down the œsophagus, stomach, duodenum, and as far as the jejunum. The stomach was contracted, but not perforated. There was some local peritonitis over the stomach and liver, but no general peritonitis. The pericardium was sticky. He took, in all, over an ounce of laudanum while under treatment. (The parts, preserved in glycerine, were shown; also drawings of the first four specimens of urine passed.)—Dr. Dr. H. HALL asked why opium was administered rather than morphine by subcutaneous injection.—Dr. DUCKWORTH replied that the subcutaneous injection of morphine was unjustifiable, when equally satisfactory results could be secured by administration of opium through the mouth.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, NOVEMBER 12TH, 1885.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair. *Partial Ophthalmoplegia Interna and Externa.*—Dr. SEYMOUR SHARKEY showed a case of partial ophthalmoplegia externa and interna, with locomotor ataxy. The patient was a man, aged 37, who

had had tabes dorsalis for three or four years. There were ataxy, without paralysis, loss of knee-jerk, and some loss of sensation in the legs. The optic discs were normal: there was practically no ptosis. The left eye retained a fair degree of downward movement, and some downwards and outwards. There was no movement in other directions. The right eye had a fair degree of movement inwards, and inwards and upwards, and downwards, but hardly any outwards, or downwards and outwards. Mr. Nettleship said the left pupil measured 4.5 millimètres, and the right 4 millimètres, but neither acted to light or to accommodation. A slight transient diplopia was noticed by the patient when any sudden movement was made. Vision was $\frac{1}{2}$ in both eyes; there was hypermetropia. The patient had perfect vision for colours.—In reply to the PRESIDENT, Dr. SHARKEY said that the man denied all history of syphilis, but, as had been noticed in other cases, there was a history of acute rheumatism twelve years earlier.

Retinal Detachment.—Dr. W. A. BRAILEY showed a case of retinal detachment, which had much the appearance of a sarcoma of the choroid. The man, fourteen years ago, whilst in a stooping posture under a tunnel, felt that something had happened to his eyesight, and on coming into the light, the corresponding half of each field of vision was noted to be blind. Owing to the presence of iritis in the left eye, the fundus on that side could not be properly examined. As the detachment might have been due to hæmorrhage, Dr. Brailey made a large iridectomy upwards, and subsequently the field of vision and acuity had improved. French observers had noted great improvement after iridectomy in cases of detachment of the retina.—In reply to Mr. NETTLESHIP, Dr. BRAILEY said that the hemiopia was noticed as soon as the man left the tunnel, and that the iritis came on about Christmas, 1884, and apparently had no relation to the hemiopia.

Scissors for Intra-ocular Operations.—Mr. BRUDENELL CARTER showed a pair of scissors specially made for the division of the capsular bands or iris after cataract-extraction. They are made in two sizes by Messrs. Weiss and Son.

Lid-Irrigator.—Mr. J. B. STORY showed an instrument for irrigating the lids in severe ophthalmia. The instrument consisted of a length of fine India-rubber tubing, perforated and stiffened with wire where introduced beneath the eyelids.

Aneurysms of Retinal Vessels.—Mr. J. B. STORY showed a young man who presented aneurysms of the retinal vessels. A drawing of the retinal vessels, by Mr. A. H. Benson, had been exhibited to the Society in 1883, and published in the Society's *Transactions*. At the present time, it was possible to see five or six aneurysms scattered about the fundus of the eye, some connected with arteries, others with veins.—In reply to the PRESIDENT, Mr. STORY said that the retinal aneurysms did not now exactly correspond with those observed at the time when the drawing was made.

Neuro-retinitis of Doubtful Origin.—Mr. HENRY POWER showed a severe case of retinitis in a boy, who had also paralysis of the left sixth nerve. There had been some headache, slight nausea, and constipation. There was no albuminuria and no evidence of syphilis, but some history of rheumatism, and a systolic bruit at the left apex of the heart. Possibly, a cerebral tumour was the cause, but it was curious that no further symptoms were present.—Dr. ANGEL MONEY said the boy's voice was nasal, and the knee-jerks could not be readily got, if at all. The boy said his throat had been sore. Was there any reason to suspect a postdiphtherial disease?—Mr. BRUDENELL CARTER inquired how long the boy had been under observation. He related a curious case of identification in a man who had optic neuritis three years before his death; a necropsy showed that a cerebellar tumour was the cause.—Mr. POWER, in reply, said there was no albuminuria; diphtheria might have been present, but there was no definite history of it. The boy had been under observation since October 23rd.

Pemphigus of Conjunctiva.—Mr. LANG read a paper on pemphigus of the conjunctiva. Mr. White Cooper recorded the first case of this disease in vol. i of the *Royal London Ophthalmic Hospital Reports*, in 1858. No other case had been published in England. Campbell in America had described one. The remaining twenty cases had been described by continental writers. Stellwag, in 1870, described a disease called "Syndesmitis degenerativa." Von Gräfe, in his *Archiv* for 1873, described the same disease as "Essentielle Schrumpfung der Bindehaut." Steffan had also written on the subject. The first case of Mr. Lang's was a woman, aged 52, who had been subject to ulcerated sore-throat since childhood. In the spring of 1883, the white of the eye became red, the lids drooped, and there was a discharge, accompanied by pain and heat. The case was described in the Ophthalmological Society's *Transactions*, vol. iv, p. 20. For the last seven months the disease had remained stationary. The right palpebral fissure was much shorter and narrower than normal, both lids being completely adherent to the globe. The eyelashes were unaltered. The conjunctiva

was replaced by a dry, black, opaque membrane. At only one point was the cornea moist and transparent. The left eye was in much the same condition. The globes were almost motionless, but the lids could be completely closed. The mouth and throat were normal, except for a small round grey patch on the soft palate. The second case was that of a young woman, aged 24. In the spring of 1871, the left cervical glands began to enlarge. In 1876, the ends of the fingers gathered, and blisters came on the backs of the hands and the front of the body; since then, she had never been free from this eruption. The same year, the eyelashes turned in, and the whites of the eyes became red. A vigorous shake of the hand would produce a blister. The condition had not altered during the last three years. There were several thin large scars in the neck, and the palms of the hands and fingers were smooth, thick, and contracted. The toes were in the same condition. The backs of the hands were in the same scarred condition. The mucous membrane of the lips, mouth, and tongue was considerably altered. There were vesicles, filled with clear yellow fluid, on the left side of the tongue. Three years ago, Mr. Adams performed Burrow's operation for inverted lashes.—The PRESIDENT had never met with a case in which xerophthalmia was associated with pemphigus, nor had he noticed the existence of pemphigus of the conjunctiva.—Mr. ADAMS FROST said there was a case of xerophthalmia of one eye only at St. George's Hospital last year, which closely resembled the cases described by Mr. Lang, but no pemphigus occurred on the body. Transplantation of rabbit's conjunctiva had improved the vision.—Mr. LANG remarked that transplantation had been performed several times with some advantage, but the improvement was of very short duration.—Mr. NETTLESHIP said that a case, apparently of this class, had recently been under his care at St. Thomas's Hospital. The patient was a man about 50, who had previously been under the care of Dr. Semon for an unusual affection of the nose and throat, which, he complained, was frequently obstructed by scabs, which from time to time came away, leaving the nasal mucous membrane sore and raw. When first seen by Mr. Nettleship, the right eye was in a condition which was diagnosed as chronic muco-purulent conjunctivitis; contraction and partial obliteration of the conjunctival sac had occurred; on a few occasions, one or two aphthous looking patches, such as might have been left by bullæ, had been seen. The man had not had any bullous eruption, but had had syphilis, and presented a serpiginous eruption of the palms.—Mr. HENRY JULER asked on what grounds Mr. Lang classed his second case as one of pemphigus, as the cutaneous lesions were so slight. In his case, thickening of the conjunctivæ and lids, with shrinking, was present, but there was no evidence of pemphigus on the skin.—Mr. LANG, in reply, said the woman had had bullæ on the pharyngeal mucous membrane; he added, that he had seen two other cases. One was in a man, aged 70; the eyelids were thin, and the cornea seemed to be covered by a thin skin. In another case, there was general pemphigus, and a bulla formed over the cornea, which sloughed, and the iris prolapsed; there was no shrinking of the conjunctiva.

Pupillary Movements Associated with Extrinsic Movements.—Mr. W. H. JESSOR showed a patient who presented a peculiar anomaly of the movements of the pupil. The patient was a man, aged 33, who, when 14 years old, was admitted into the Great Northern Hospital with fracture of the skull; a depression in the skull, the result of this injury, was still apparent. For the last ten years he had suffered from gout, probably connected with his occupation (painter). Four years ago he had left hemiplegia, and the face was still paralysed; there was no affection of the eyelids; there was no wrist-drop or perversion of the reflexes. With all movements of the eyeball with which the external rectus was associated, the pupil dilated to 7.5 millimètres, while, with all movements inwards, the pupil contracted to 3.5 millimètres; this was the case with both eyes. On convergence and accommodation, the pupils contracted to 3 millimètres. The pupils did not react to light or to sensory irritation; the contraction of the pupil occurred much more quickly than the dilatation. When the external rectus was in action, the dilatation was like that produced by sympathetic irritation; when the movement was inwards, the contraction was like that produced by stimulation of the third nerve. With regard to the situation of the lesion, Mr. Jessor remarked that the loss of the light-reflex and of the sensory reflex, combined with good action on accommodation and good conjugate deviation, rendered it probable that the lesion was in the nervous path beneath the aqueduct of Sylvius, and below the anterior part of the corpora quadrigemina.—Dr. BEEVOR thought the lesion was situate towards the posterior third of the posterior segment of the internal capsule, as there had been hemianæsthesia. He had not seen the phenomenon in locomotor ataxy.—Dr. ORMEROD said that we ought to expect a similar condition in cases of locomotor ataxy.—Mr. LANG referred to an ob-

servation of Maughner on ophthalmoplegia externa, in which the pupil dilated when the patient looked outwards. In a case that he (Mr. Lang) had seen, a case of paralysis of the left external rectus, the pupil dilated when the patient looked to the right.—MR. MARCUS GUNN had noticed in some cases of paralysis of the sixth nerve that the pupil dilated on attempts to look in the direction of action of the paralysed muscle.—MR. JESSOP, in reply, said that he had not examined many cases of locomotor ataxy in this regard, but the existence of a contracted pupil might obscure the condition.

Dangers of Cucaine.—MR. NETTLESHIP said he wished to hear the experience of members of the Society. Was there any general suspicion that the gelatine-discs of cucaine were not satisfactory? His suspicions had been raised by the occurrence of a serious run of cases of panophthalmitis at St. Thomas's Hospital, while, at the same time, the cases at Moorfields did well. At St. Thomas's Hospital, he had been using gelatine-discs of cucaine before iridectomy and cataract. Messrs. Savory and Moore had informed him that, since cucaine was hygroscopic, the gelatine-discs were always moist, and that it was impossible to keep them thoroughly dry; he suggested that the discs might afford a breeding-ground for pathogenic organisms. Solutions of cucaine also apparently had a tendency to cause panophthalmitis. Gräfe had found chronic interstitial keratitis much more common since he had used cucaine.—MR. M. MCHARDY had also, at one time, had a run of panophthalmitis after using solutions of cucaine. Fifteen days appeared to be the longest time which it was safe to keep a solution of cucaine; since using quite fresh solutions (eight per cent.) he had had no bad cases.—MR. EDGAR BROWNE had also recently had an unfortunate series of cases, and was inclined to suspect that cucaine was responsible for that misfortune.—MR. STORY said that solutions of cucaine might be made up with boric acid. He observed that he found it difficult to understand why solutions of cucaine should be so dangerous, while atropine-solutions had been used for many years without mischance. He observed that epidemics of panophthalmitis had always occurred from time to time before the introduction of cucaine.—MR. MARCUS GUNN suggested that these epidemics might have been due to the atropine-solutions, which had also afforded a breeding-ground for germs.—MR. LANG mentioned a case of panophthalmitis which he had recently encountered, where the only cause that could be suggested was that the solution of cucaine was not fresh.—MR. NETTLESHIP said that, at Moorfields, the solutions of cucaine were made up with saturated solution of boric acid. He had never before had so severe a run of cases in his own practice.

Deep-Seated Foreign Bodies, with Preservation of Sight.—MR. SIMEON SNELL (Sheffield) referred to three cases of pieces of steel in the retina, which had come under his observation. One was recorded in the *Royal London Ophthalmic Hospital Reports* for 1879, and sight remained perfect when the patient, a young man, was lost sight of, many months after the accident. The fragment lay in the retina near the disc, and had passed through the sclerotic. The second was in a man, aged 42, and the chip passed through cornea and lens, lodging in the retina, near the periphery; for some time vision was excellent, cataract then formed, underwent absorption, and good vision returned. At the end of five years, the eye remained quiet so far as the foreign body was concerned. The accident in the third case, a man, aged 26, occurred in May, 1883; the chip penetrated the sclera, just external to the cornea, and lodged in the outer and lower part of the retina. When first seen in August, 1883, vision = $\frac{3}{60}$; the fragment looked black, and lustrous, and was surrounded with whitish exudation, as in the other cases. On November 27th, the situation of the foreign body was obscured by a patch of whitish exudation. On February 22nd, 1884, he came with iritis, and great pain; the condition became rapidly worse; and on February 25th the sclerotic was punctured between the internal and external recti, and the piece removed with the electro-magnet; cataract was developed, but at the present time perception of light was excellent, and so was tension, and with extraction (iridectomy had already been done), sight would, it was hoped, be restored. Mr. Snell discussed the question, as to whether or not the chip had left its place in the retina, and fallen into the vitreous humour, as he supposed at the time of the operation; no foreign body was, however, at any time clearly seen with the ophthalmoscope in the vitreous humour, the foreign body was coated on one side and not on the other, and the position of the scleral wound brought the chip well within the field of the magnet. He inclined to the view that the piece remained in the retina, and was removed therefrom by the magnet. The fragment weighed four milligrammes. Reference was made to the cases collected by Knapp, thirteen in number, and to other recorded cases. Experience taught how frequently these particles were tolerated in the back of the eye; but reference was made to those cases which were more easily accessible, and in which the use of the electro-magnet would be serviceable.

Generally speaking, however, it appeared that they might be left alone, and interference would be fraught with more danger. Galezowski and Stevens (New York) had each reported a case of removal of a splinter from the retina with a magnet. Mr. Snell also related an instance of a small particle of shell, tolerated, with perfect sight, in the vitreous humour for twelve months; it had passed through the cornea and lens. There was also paralysis of accommodation, the cause of which was not certain; the injury seemed insufficient; the patient and others of the family had not long before suffered from sore throats, but their medical attendant did not allow that it was diphtheria, nor were there any other marked sequelæ.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 16TH, 1885.

R. DOUGLAS POWELL, M.D., F.R.C.P., in the Chair.

Bromide-Eruption.—DR. COLCOTT FOX read a paper on an investigation into the morbid anatomy of the eruption produced by bromide of potassium, conducted by himself and Dr. Heneage Gibbes. The case examined was a child eight months old, who, on June 2nd, was ordered one grain of bromide and one grain of iodide of potassium every six hours. Two days later, a quarter of a grain of iodide and five grains of bromide were given every two hours. Two days later, the dose was given every four hours. The eruption appeared on the sixth day, and the drugs were withdrawn on the following day. The earliest eruptions were inflammatory papules, vesicles with a solid base, vesicles without any solid base, and one bulla. The eruption somewhat resembled varicella; the papules became vesicles, and the contents of the vesicles became puriform. The eruption occurred in patches; and, later on, some of the patches much resembled condylomata. The evolution of the rash continued after withdrawal of the drug, and did not cease before the death of the patient. The upper part of the cutis was infiltrated, and the vessels blocked. Where further advanced, the eruption showed that the centre of the inflammatory focus had broken down, forming a small abscess. In none of these cases had the rete Malpighii become separated from the cutis. In the pustular stage, the whole of the upper part of the cutis and derma was broken down, but the epidermis was not separated from the cutis. In places, the small arteries were blocked; and the vessels were affected, in every section examined, by inflammatory changes. In the superficial layers of the cutis around the pustules, the vessels were plugged and filled with debris. The superficial and deep lymphatics showed signs of inflammatory change. The sweat-glands immediately beneath the pustule were in various stages of disintegration. The sebaceous glands showed no changes except where they were involved in the inflammatory foci. The inflamed appearance and blocking of the blood-vessels appeared to indicate that the poison was carried by the blood; and the inflammation, going on to disintegration of the sweat-glands, showed that they were also involved. The changes in the sebaceous glands described by Professor Neumann were not encountered; neither could the authors agree with Dr. Stephen Mackenzie that the eruption was acneiform, as the occurrence of suppuration in the vicinity of the sebaceous glands was purely accidental. The paper was illustrated by microscopic specimens and micro-photographs.—DR. DOUGLAS POWELL remarked on the great interest which attached to the authors' observations on the implication of the sweat-glands. The point was, he believed, novel.—DR. RADCLIFFE CROCKER observed that the eruption in many cases had occurred where, as in this case, iodide was combined with bromide. He believed that the rash was due to defective elimination, and that the brunt of the difficulty fell on the blood-vessels. The fact that sometimes the sweat-glands and sometimes the sebaceous glands were involved, seemed to show that neither had much to do with the production of the eruption.—DR. STOWERS related a case of bromide-eruption in a child. He observed that the rash sometimes disappeared while the bromide was persisted in.—DR. HENEAGE GIBBES said that some of the specimens showed the duct of the sweat-gland opening into the abscess.

Central Necrosis in Children.—MR. CLINTON DENT read a paper, of which he was the joint author with Mr. W. C. BELL, on central necrosis. The condition he designed by this term was that in which there was necrosis of the cancellous tissue alone, with slight affection of the compact tissue, but not of the periosteum. The disease commonly attacked the long bones. It was not unfrequently symmetrical. It occurred commonly in children between 2 and 5 years old. In the early stage there was no pain, though the bone was enlarged; the compact laminae were expanded and thinned, and in the centre was a necrosed portion of cancellous bone, covered by granulation-tissue. After the

abscess opened, as it commonly did, discharge might continue for many years, during which the sequestrum was slowly rarified, and, finally, entirely removed. Occasionally, however, the sequestrum became sclerosed, and then might be retained for indefinite periods. In the early stage, some effusion might take place into the joint, but shortly subsided. At a later period, the sequestrum, usually situated in the neighbourhood of a joint, might be pushed into the joint by the growing granulations. The exploring-needle was often of great use in diagnosis, which it was important to make early, as very few cases spontaneously recovered, and the liability to joint-complications was serious. In conclusion, Mr. Dent made some remarks on the confusion in the nomenclature of diseases of bones which still existed.—Mr. W. ADAMS remarked that a subacute inflammatory process in cancellous bone in any situation, as in the vertebrae, might give rise to central necrosis. Sir Benjamin Brodie used to trephine, especially when the sequestrum occupied the head of the tibia.—Mr. J. H. MORGAN agreed with Mr. Dent that a reform in the nomenclature of bone-disease was much to be desired. He suggested that the condition might be better described as epiphyseal necrosis; that, he believed, was most probably the commonest cause of disease of the hip. He objected to the use of the exploring-needle, as it was liable to do mischief.—Mr. WALTER PYE could not agree with Mr. Morgan as to the frequent association of the disease with joint-disease. The symmetry of the disease was an interesting point to establish; it had not been generally noticed.—Dr. ANGEL MONEY said the disease was situated at the growing end of the shaft of the bone. He thought it had some analogies with syphilitic disease of that region. He was not sure that syphilis might not be operative in some cases.—Mr. WARRINGTON HAWARD said the disease was not rare. He did not think it was the same disease as the disease of the growing end of bones in syphilitic children. Moreover, the disease might occur in any part of the shaft, and the term epiphyseal was not a good one. In operating, it was necessary to remove not only the sequestrum but the granulation-tissue by which it was surrounded.—Mr. ROYES BELL related a case, where both tibiae were symmetrically affected in succession.—In reply, Mr. DENT said that he had not referred to necrosis in the vertebrae, because he had wished to insist on the symmetry of the disease. He thought the disease in Sir B. Brodie's cases was essentially different. He had not meant to convey that the disease was rare, though he could not agree that it was the same disease as epiphyseal necrosis, which was a common condition, nor that it was identical to, or nearly allied with, the disease described by Mr. T. Smith under the name of acute arthritis of infants.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 4TH, 1885.

J. B. POTTER, M.D., F.R.C.P., President, in the Chair.

Specimens.—The following specimens were shown:

1. Dr. LEWERS, unusually Large Vein in Wall of Uterus.
2. Dr. LEWERS, Malignant Disease of Sigmoid Flexure Invading Uterus.
3. Dr. W. S. A. GRIFFITH, Broad Ligament Cyst with Septa in its interior.
4. Dr. HERMAN, Drawing of Chancre on Cervix Uteri.

On the Suppuration and Discharge of Pelvic Dermoid Cysts.—Dr. HERMAN read a paper on this subject, of which the following is an abstract. The author first said that, while, under ordinary conditions, pelvic dermoid cysts were best treated by laparotomy, yet, when such a cyst had suppurated and burst into one of the pelvic mucous tracts, there would usually be extensive pelvic adhesions, making the operation for the removal of such a cyst more than commonly difficult and dangerous; and, on the other hand, the suppurative process offered some prospect of cure without extirpation. The object of the paper was to assist in the treatment of these cases, by offering as complete an answer as could be given to the following questions. 1. When a pelvic dermoid cyst suppurates and bursts, what may be the course of such a case? 2. What prospect of cure does this event offer? 3. Is this cure complete? 4. How can the cure be best promoted by treatment? It was commonly believed that so long as any part of the lining of a dermoid cyst remained, the cavity would not close. He thought there were sufficient cases to show that either this did not always hold good, or that suppuration usually so altered the character of the lining membrane as to make it capable of contracting and closing. The author had had under his own care three cases, in which dermoid cysts had suppurated, in two of them bursting into the vagina, in one into the bladder. He had collected from various sources a large number of other cases; and from examination of them he drew the following practical conclusions. 1. The suppuration of a dermoid cyst is sometimes a favourable event

leading to its cure. 2. This is especially likely to be the result, if the cyst be small and unilocular, and if it have opened into the vagina. 3. An originally very small cyst may, when it suppurates, rapidly attain a very large size. 4. When the cyst is small, it may be inverted through the aperture of discharge, become polypoid, and be spontaneously expelled or easily removed by the surgeon. 5. This process may be imitated by the surgeon, but it is not safe unless it can be very easily done. 6. When a suppurated dermoid cyst has been emptied, it contracts, and its cavity either becomes obliterated, or remains as a small sinus which causes no trouble. 7. The first indication in the treatment of a cyst which has burst, is to empty it, for cure by suppuration depends upon the cyst being emptied. 8. The opening of the cyst should be enlarged as much as can be safely done, the cavity explored, and its solid contents removed as completely as can be done without violence to the integrity of its wall. 9. If the cyst have discharged into the bladder, its cavity should be reached by vaginal cystotomy, not by dilatation of the urethra. 10. If the cyst be multilocular, or if, after having been emptied as thoroughly as possible, it do not rapidly contract (from which it may be inferred that it has not been completely emptied), it is likely that it will discharge indefinitely, and exhaust the patient's strength; and therefore it should be removed by abdominal section without long delay.—Mr. KNOWSLY THORNTON said he would refer to a few points only. First, as to cysts which opened into the bladder, the evidence must be very clear that they were ovarian, for dermoid cysts occurred in the utero-vesical cellular tissue. Second, unilocular dermoid cysts were very rare; most dermoid cysts were multilocular, or associated with ordinary multilocular ovarian tumours. Thirdly, the pathology of dermoid cysts was against cure by suppuration, though it might happen from the violence of the putrid inflammation entirely destroying the skin, etc., lining the cyst. Unless the lining membrane were entirely removed or destroyed, they did not heal. The fact that they were occasionally malignant, was against attempting a cure by incision and drainage. He had treated a case in which the tumour burst into the bladder. He attempted to remove it by abdominal section, but found it impossible. He then attempted to cure by drainage; but, after many weeks, the patient died, worn out by the discharge. He thought abdominal section was the better treatment, where possible, than lingering suppuration. With regard to the side-issue of cystotomy versus rapid dilatation of the urethra, he entirely agreed with Dr. Herman.—Mr. ALBAN DORAN said that many dermoid cysts of the abdomen which had been described as non-ovarian, were really ovarian cysts which had become separated from their pedicles. Pelvic dermoid cysts were undoubtedly non-ovarian in some cases.—Dr. BRAXTON HICKS thought that many of these dermoid cysts were of the nature of the tumours called *fetus in fetu*. In one case, which he tapped, six weeks afterwards, he attempted removal, but found it impossible.—Dr. ROUTH thought most of them were in reality *fetus in fetu*. If a whole fetus might be enclosed, a portion might be. So far as he knew, no cyst containing teeth could have other than an ovarian origin.—Dr. PLAYFAIR endorsed what had been said by Dr. Herman as to the advisability of not attempting to operate through a dilated urethra. Rapid dilatation of the urethra was very far from being as simple and safe as it was generally considered to be. His results from vaginal cystotomy had been so satisfactory, that he was quite disposed to agree with Dr. Herman that, in the class of cases to which he referred, it was likely to be preferable to urethral dilatation.—Dr. GALABIN thought that Mr. Doran's views, if confirmed, might throw light on the mode of origin of these growths. Dermoid cysts due to inversion of epidermis only produced hair and fat; growths due to attachment of one ovum to another were generally found at some external part. Cysts producing teeth or bones were hardly ever found where they could not be derived from the ovary. If it happened that a liberated unimpregnated ovum became implanted on the peritoneum, and there grew, this explained why such growths were found in the pelvis and not at other parts. He was strongly of opinion that vaginal cystotomy was far preferable to dilatation of the urethra for the removal of any growth. He had been struck with the facility of the operation, the rapid recovery of the patient, and the ready closure of the opening.—Dr. HERMAN said that, although many dermoid cysts were multilocular, cases given in his paper showed that some were unilocular, and might be emptied. He agreed with Mr. Thornton that intentionally to treat a dermoid cyst by incision was not good practice, but his paper dealt with cysts that had already burst, or could not be distinguished from abscesses. The case mentioned by Mr. Thornton, in which he had been unable to remove a suppurated cyst, showed the utility of considering the questions raised in the paper.

A Case of Obstructed Labour, in which Spontaneous Version Followed an Unsuccessful Attempt to Deliver by the Crotchet after Perforation.—This paper was read by Mr. S. D. HINE (Ilminster). The patient had been in labour thirty hours; liquor amnii escaped twenty-one hours. The cord was prolapsed; the head presented in the first position; the os uteri was dilated; the uterus was in a state of tonic contraction; the conjugate diameter of the brim was under three inches; the head was immovable above it. After ineffectual attempts to deliver with forceps, the skull was perforated, and for about an hour endeavours were made to deliver with the crotchet, but in vain. A consultation was then held, which lasted about ten minutes; and, on examination at the end of this time, the head-presentation was found changed into a breech; a foot was then brought down, and the child thus delivered.—Dr. ROBERTSON asked why turning was not done before.—Dr. BARRACLOUGH thought that turning might have been done after perforation. Art ought to have anticipated nature.—Dr. AUST LAWRENCE preferred forceps to turning in cases of contracted brim. He did not think that a living child could here have been brought through by turning.—Dr. PLAYFAIR thought the practice followed in these cases was correct. There were two reasons why turning should not have been done; 1, the long prolapse of the cord; 2, tonic contraction of the uterus. Turning was a valuable occasional resource after craniotomy, but he did not think it should be the rule.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, NOVEMBER 6TH, 1885.

W. B. HEMMING, M.R.C.S., President, in the Chair.

Chronic Scirrhus of the Breast.—Dr. ALDERSON showed three cases, who had been under his observation for a long series of years. CASE I.—M. P., aged 50, was shown as a typically successful result of operation; the cicatrix now, after several years, being perfectly smooth and very pale, evidently fading. Dr. Alderson diagnosed this case very early, when it had only been noticed a fortnight, and was but of the size of the kernel of a nut; but it grew rapidly in the interval of two or three weeks that elapsed before operation, and was then about the size of a small egg. The breast was removed by Mr. Hulke, in the Middlesex Hospital, in 1878. CASE II.—A. B., aged 68; large scirrhus cancer of right breast of twelve years' duration; large cancerous induration of left side, and commencing cancer of left breast; now in good general health. A. B. refused operation years ago. CASE III.—M. H., aged 70, lived all her life at Queen Street, Hammersmith, the high autumn tides coming a considerable distance up the street. About four years ago, there was a cancerous induration, in a straight line, like a small cord, which the finger could move, two inches below the breast and to the left of the sternum; there was a slight ulceration in the centre of this induration, and subsequently that ulceration extended along the cancerous seam, which became a wide raw surface with everted edges; it inflamed, and then gradually contracted and healed. At the same time, a cancerous lump formed in the breast; in healing, it fixed the breast to the sternum. The glands in the axilla were hard and tender. There was but slight discharge and bleeding, though about two years since, the bleeding was frequent and copious. This case was shown as an example of the slow growth and comparative little danger to life of cancer in elderly people. Dr. Alderson thought that such cases did best without operation.

Cancer in the Breast and its Relation to Riverside Habitations.—Dr. ALDERSON read a paper on cases of cancer of the breast, with remarks as to locality as a cause of the disease. He gave some interesting particulars as to ten cases, the patients having been under his observation in private practice for several years. In seven of the ten, the cancer was in the left breast. He did not think that their proclivity to the left breast was accidental. Five of the patients were single, five married, two had no children, the remaining three six between them. Whatever influence child-bearing might have on the production of uterine cancer, he believed it had none in the production of cancer of the breast; as an obstetrician, he spoke as to this with some confidence. There was no history of rheumatism in any. He thought rheumatism and cancer vicarious; cancer-patients had frequent premonitory pains, but did not develop cancer. Five had their breast removed, one lived seven years after operation, with four years' complete health, and then came recurrence, excited by injury. One derived but doubtful benefit from operation, the cancer quickly reappearing in the cicatrix, and subsequently developing in the right breast; the patient died just two years after operation. The third (case shown), after several years, was perfectly successful; the cicatrix was so pale and smooth, that Dr. Alderson thought that the patient

might prove an example of what had been considered "one of the rarest successes of operative surgery, that is when it is cut out and never returns." The fourth recurred, and death occurred in two years. The fifth was too recent to speak as to results which were, at present, favourable. Dr. Alderson mentioned that all his cancer-patients, uterine and mammary, lived very near the river, some at only an altitude of ten to twelve feet above the mean level of the sea. This question of locality, he thought, was something more than a theory. He quoted the opinions of Mr. Haviland, and made some further observations of interest on the subject.

Theory of Cancerous Inheritance.—In a long, able, and interesting series of arguments, Mr. DUNN combated the alleged heredity of cancer. Beyond the consecutive appearance of the disease in certain families, cancer fulfilled, in no sense, the characters of an hereditary malady. It included no physiognomic aspect, diathesis, or general condition, seen in true hereditary diseases, as gout, syphilis, and tubercle. There was no such thing as a cancerous stomach, a cancerous neuralgia, a cancerous ache or pain, without local objective cancer, and no patient was cancerous till he had the local and tangible symptoms of primary cancer. In these points, cancer entirely differed from hereditary diseases.—Mr. BUTLIN, after expressing the interest with which he had listened to the papers of Dr. Alderson and Mr. Dunn, stated that the memorandum which he (Mr. Butlin) had drawn out for the Collective Investigation Committee, in which, among other things, certain questions were asked in regard to the inheritance of cancer, was not intended to convey the expression of any decided opinion upon the matter. It was merely for the purpose of eliciting facts. Of course, he had his own views upon the subject. Speaking personally, he did not agree with the adoption of the hereditary theory of cancer. Amongst the upper classes, it was looked upon as a great calamity if a case of cancer occurred in the family. He was of opinion that the locality in which the person resided was most important, and that residence had a most powerful influence over the disease; but he also considered that there were other factors of great moment which predisposed to cancer, such as, amongst others, smoking, diet (good or bad), anxiety or worry, that it was from a combination of these rather than from any single cause that predisposition arose. In addition to the above influences, he would also mention that important factor in health, namely, the soil of the locality, and the way in which it was drained and manured.—Mr. KEETLEY said that, in the investigation of cancer as to its causation, hereditary or otherwise, great care was required, as it was an exceedingly complex question. In a collective investigation of the predisposing causes of cancer, he considered that an inquiry in each district and in each neighbourhood should be considered separately.—Mr. LLOYD was of opinion that locality was an important factor in the causation of the affection under discussion.—Dr. ALDERSON, in reply, said that he thought that the importance of the heredity of cancer was considerably overrated, inasmuch as, whilst many families were undoubtedly tainted with the disease, it nevertheless occasionally never manifested itself in any way. It was of the utmost importance that the predisposing causes should be fully investigated.—Mr. DUNN, in reply, thanked the members of the Society for the kind attention they had given to his paper.

Specimens.—Mr. DUNN showed a collection of specimens of Sarcoma and Carcinoma from patients who had died in the West London Hospital during the last fifteen months.—Dr. WELLS showed a specimen of Colloid Cancer of the Colon.—Mr. KEETLEY showed a case of Gritti's Operation.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, NOVEMBER 6TH, 1885.

JOSEPH WHITE, F.R.C.S. Ed., President, in the Chair.

The Vaccination-Laws.—It was proposed by Dr. RANSOM, and seconded by Dr. WHITELEGGE, that a special meeting of the Society be called on Saturday, November 14th, for the purpose of considering if any, and what steps should be taken by the medical profession in Nottingham, in view of the persistent attempts made to impair the efficiency of the vaccination-laws. This motion was unanimously carried.

President's Address.—Mr. JOSEPH WHITE selected for his subject The Present Position of Antiseptic Surgery, and drew attention (1) to the methods adopted at or soon after the introduction of the antiseptic treatment of wounds; (2) to the methods now in use; (3) to the objections which had been urged against this plan of treatment; and (4) to some effects upon present surgical practice which might be fairly attributed to its adoption. He reviewed the rise and development of Lister's method, as based upon Pasteur's theory, as

the objections which had been brought forward by Mr. Savory and well as some recent modifications by other surgeons; and considered others—the advocates of the plan of strict cleanliness and diligent care—as well as the objections arising from the arrest of cicatrisation under the continued use of carbolic acid, and those arising from the absorption of the acid when applied to large denuded surfaces, or to serous membranes, as that of the peritoneum. Whilst doubting the advantage of the use of carbolic spray in such operations as ovariectomy, he believed that the greatest benefit had arisen from following this plan of treatment in other operations and for open wounds, in the wards of hospitals; and that the so-called hospital-diseases of pyæmia, septicæmia, etc., might (as evidenced by the results of its adoption in many British and continental hospitals) be almost completely arrested by strict and complete asepticism; and that, by it, many surgical procedures which were previously considered extremely hazardous, might now be adopted with comparative safety.

CHESTER MEDICAL SOCIETY.

FRIDAY, NOVEMBER 6TH, 1885.

W. M. DOBIE, M.D., President, in the Chair.

Mediastinal Tumour.—Mr. GEORGE HARRISON showed a sarcoma of the anterior mediastinum, having the superior vena cava and both brachio-cephalic veins imbedded in its substance, with their lumen constricted. The patient, a man aged 46, had come under Mr. Harrison's observation on July 28th, 1885, suffering from cough, dyspnoea, and œdema of the neck, upper extremities, and upper part of the trunk, with hydrothorax, which symptoms increased up to the time of his death on October 7th.

Aortic Aneurysm.—Mr. HENRY DOBIE showed a specimen of aortic aneurysm involving the whole transverse portion of the arch. The innominate, left carotid, and left subclavian arteries all opened out of the sac. Pressure was exerted upon the bifurcation of the trachea, giving rise during the last weeks of life to intense dyspnoea. Shortly before death, the cricoid cartilage had subsided behind the manubrium sterni, and the rate of the pulse was sometimes over 150. No perceptible difference between the pulses existed. The patient was a man aged 35. His illness, dating from the first appearance of cough and dyspnoea, lasted eight months.—Commenting on these two cases, Dr. BALTHAZAR FOSTER, a visitor, said he considered that œdema of both sides of the neck pointed to a diagnosis of tumour as opposed to aneurysm. In aneurysm, he had found the right and left pulses modified respectively according as the ascending or descending portions of the arch were affected, while they were modified equally when the transverse portion was the seat of disease, as in Mr. Dobie's case. He had found that aneurysm in young persons was almost always the result of syphilis. With regard to treatment, he had never seen an aneurysm cured by anything except iodide of potassium, which must be given in very large quantities, often three drachms a day. He advised aconite as a means of reducing the pulse-rate, because, unlike digitalis, it did so without distending the arterial walls.—Dr. EYTON JONES referred to a case of aortic aneurysm, in which dyspnoea was greatly relieved by the hypodermic injection of pilocarpine, but death occurred suddenly shortly after a repetition of the dose on a subsequent day.

Fœtus.—Dr. HAINING showed a three months' fœtus with some peculiarities.

Cancerous Ascitic Fluid.—The PRESIDENT exhibited, under the microscope, a specimen of ascitic fluid containing large proliferating cancer-cells from a case the diagnosis of which was doubtful before their discovery.

Cases of Lithotripsy.—Mr. TAYLOR read notes of five cases of stone treated by lithotripsy at one sitting. In his last case, the fragments had to be removed by lithotomy, owing to the large size of the stone. On one of these patients he had performed lithotomy nine years previously, removing two stones glued together. All had made a good recovery.—Several members took part in the discussion which followed, and various theories were advanced to account for the rarity of vesical calculus in the Cheshire district. Dr. Eyton Jones spoke of its rarity in Denbighshire and in Herefordshire, Mr. Hoops and Mr. Miller of its rarity in the north of Ireland, and Dr. Weaver and Surgeon-Major Tomlinson of its frequent occurrence in India.

Glaucoma.—Mr. GRANGER read a short paper on this disease.

Case of Obstructive Jaundice with Bronchitis of Right Lung.—Mr. ARCHER read notes of a case of obstructive jaundice, which was accompanied by a severe attack of bronchitis entirely confined to the right side.

Case of Dropsy of Amnion.—Dr. WEAVER related a case of dropsy

of the amnion in which, at the commencement of labour, considerable difficulty had been found in discovering the os uteri, owing to the great expansion of the vagina.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, NOVEMBER 6TH, 1885.

R. E. CARRINGTON, M.D., President, in the Chair.

Physiological Action of Alcohol.—The PRESIDENT gave an address on this subject. Its importance and its large and complicated nature were first pointed out, and a food was defined as being a substance passing through the organisation, either ministering to the formation of tissue or to the evolution of force; and to this perhaps might appropriately be added the evolution of carbonic acid and the formation of urea. This definition did not, however, include such substances as water and salts, which were excreted unchanged, but were undoubtedly "foods," as being necessary to the normal maintenance of the organism. Judged by these tests, numerous authorities—Anstie, Richardson, Parkes, and many others—were cited to show that alcohol was a doubtful fat-former, and, if so, only by its capability of ready oxidation, causing the storing up as fat of amyloid and saccharine bodies. Except a transitory initial rise, it lowered temperature. There was no doubt of its diminishing the formation of urea. Although there were some discrepancies between different alcoholic liquors as regarded the excretion of carbonic acid, yet its tendency, according to the majority of observers, was to diminish the excretion greatly. On the other hand, alcohol must act as a food; the evidence being, on the authority of Anstie's *Narcotics and Stimulants*, that many inebriates lived for years on large quantities of spirits, and practically took no food in any other form; and also severe cases of disease, of which several were quoted, in which the patient was supported for days by large quantities of alcohol. The question of the dietetic value of alcohol was next discussed; and the army medical reports, more especially perhaps those of the Nile expedition, had shown that a spirit-ration was not necessary. Other expeditions, notably that up the Red River, and the Polar, under Sir George Nares, were referred to. Finally, it was pointed out that, if men lived under normal circumstances, alcohol was useless, if not injurious; but that, in the wear and tear of ordinary life, alcohol certainly, if in good form and proper amount, was useful and beneficial.—A long and animated debate followed, and the meeting adjourned.

REVIEWS AND NOTICES.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1885.

Vol. xxv; pp. 277. Presented to both Houses of Parliament. London: 1885.

The Report of the Army Medical Department, issued during the present year, refers to the health of the army in the year 1885, and shows that the strength of the white troops, serving at home and abroad at that time, averaged 168,383 in number. This number does not include the commissioned officers of the army, nor 4,283 men detached from their corps, and, as regards the non-commissioned officers and privates which the number comprehends, only refers to those who were recruited in Great Britain. The force named led to 172,202 admissions into hospital for sickness, a proportion of 102.7 per 1,000; and, of the patients admitted under treatment, 1,653 died. The number of deaths was in the ratio of 9.57 per 1,000, when the strength of the men detached, among whom a proportion of the deaths occurred, is added to the average effective strength of troops already given. Of the troops serving on foreign stations, 3,137 men were sent home as invalids, a ratio of 37.38 per 1,000; and, out of this number, 2,936 were discharged from the army, as being physically unfit for further service, or 17.28 per 1,000 of strength. Out of the total force of 168,383 men, 9,154.28 were constantly non-effective from sickness, or 55.28 per 1,000 of the strength. The numbers above quoted exhibit a considerable improvement in the sanitary condition of the troops, in certain respects, by comparison with the corresponding ratios during the preceding decennial period from 1873 to 1882, when the proportion of hospital-admissions to strength was 104.4 per 1,000; of deaths, 12.21 per 1,000; of men invalided from foreign stations, 39.04; and disabled men discharged from the army, 21.80 per 1,000. In some other particulars, a similar improvement did not take place; for, while in 1883 the proportion of men constantly non-effective from sickness was 55.28 per 1,000, during the ten preceding years the proportion was only 48.80; and, while in 1883 the average

duration of each case of sickness treated in hospital was 19.72 days, during the preceding ten years the average duration of each case was only 16.97 days.

The average strength of the warrant officers, non-commissioned officers, and men, serving in the United Kingdom during the year 1883, was 81,677. This body of troops furnished 69,140 admissions into hospital, giving an annual ratio of 846.5 per 1,000; the deaths amounted to 540, including 36 among men who were absent from their corps, being a rate of 6.28 per 1,000; while 1,847 were discharged from the service as invalids, or 21.48 per 1,000. The average number of men, out of the total force, who were rendered non-effective daily by sickness, was 3885.8, or 47.57 per 1,000, and the average duration of each case of sickness was 20.51 days.

A large amount of information is furnished on the subject of venereal diseases among the men serving in the United Kingdom. The returns show a considerable increase in the prevalence of these diseases, by comparison with their amount during the five years immediately preceding the annual period under notice; and no reason is apparent for the increase, unless it were the change which occurred at this time in the working of the Contagious Diseases Acts. In the month of May, 1883, the compulsory examination of prostitutes was abolished. The increase in the prevalence of venereal affections is principally shown by the admissions into hospital for primary syphilis and gonorrhoea. The number of men admitted for the former disease was 9,511, for the latter was 8,573. If the admissions for the sequelæ of gonorrhoea be added, the number of admissions amounted to 9,386. Comparing the number of admissions for primary syphilis in 1883 with the corresponding number in 1882, the figures show an increase at the rate of 14.5 per 1,000 in 1883; and, in comparison with the mean rate of the previous four years, the increase amounts to 25.5 per 1,000. The report states that the admission-rate for all forms of venereal disease, taken together, including gonorrhoea and its sequelæ, amounted to 260 per 1,000, and the rate constantly sick from these affections to 18.54 per 1,000. Compared with the returns for the previous year, there is shown an increase of 14.0 per 1,000 in the ratio of admissions into hospital, and of 1.68 per 1,000 in the ratio of men constantly on the sick-list for disorders of this class; but, compared with the average rates of the four preceding years, the increase in the ratio of admissions per 1,000 amounted to 30.1, and in the ratio of inefficiency through these diseases to 3.19 per 1,000.

The information supplied under the title of the "Recruiting of the Army" embraces subjects which are not merely of medical or military interest, but are of much wider concern, inasmuch as it exhibits several particulars in the condition of that class of the population from which our soldiers chiefly come, that can hardly be obtained from any other source. The number of men seeking enlistment in the army, that come under the observation of the army medical officers and civil practitioners annually, is a very large one. During the year 1883, the number of recruits inspected amounted to 59,436. Out of this number, 35,841 were ultimately accepted as fit for military service, or 603 per 1,000; while 23,595, or 397 per 1,000, were declared to be unfit and rejected.

It is interesting to observe the occupations of the 59,436 men who thus sought service in the army, and they are enumerated in the report in all but thirteen instances. The largest number came, as might be expected, from the class of labourers of various descriptions, namely, 35,970; 8,636 were manufacturing artisans, such as weavers, cloth-workers, lace-makers, etc.; 9,388 were mechanics employed in occupations favourable to physical development, such as smiths, carpenters, masons, etc.; 3,203 were clerks or shopmen; 645 are returned as having been professional men or students; and 1,581 were lads under 17 years of age. The largest proportion rejected as medically unsuited for the army occurred among the manufacturing artisans, the actual number rejected being 3,556, or 411.76 per 1,000 of those examined. The next highest proportion of rejections was among the shopmen and clerks, of whom 1,304 were declared unfit as recruits, or 407.13 per 1,000; and this was almost precisely the same in proportion as that of the rejections among the labourers, of whom 14,614 were rejected, or 406.28 per 1,000. The number found unfit among the mechanics was high—namely, 3,653, or 389.11 per 1,000. The smallest ratio of rejections was among the boys, of whom 267 were found medically unfit, or 168.88 per 1,000. Out of the 645 professional men and students, 187 failed to pass for the service, or nearly 290 per 1,000.

The causes of rejection of the 23,595 men who were declared unfit for military service are shown under forty-two headings, the majority of which embrace morbid states or physical defects, while a few refer to special military requirements. Thus 680 were rejected from their "apparent age not being in accordance with General Order;" 7,466

from being "under the standard chest-measurement;" 1,729 from being "under weight;" and 1,367 from being "under height." The last heading in this return is "over height," and under this four rejections are shown. We are not aware of any particular excess in height having been laid down as incapacitating for military service, and it seems not unlikely that in the instances referred to there was either some defect of due bodily proportion, or some concomitant physical infirmity, which influenced the decision to reject the men for enlistment. Under the various classes of diseased conditions and physical defects, the largest number of rejections—namely, 2,131—occurred for "defective sight;" 1,180 were rejected on account of "cardiac diseases;" 1,086 for "varicocele;" 583 for "syphilis;" 939 for "varix;" 815 for defects of the lower, and 401 for defects of the upper, extremities, the results of fractures, luxations, contractions, etc.; and 404 rejections appear under the heading of "impaired constitution." These are shown as the principal sources of physical unfitness; the remaining numbers rejected appear under various headings in less noticeable proportions. A considerable difference is observable in the ratio of rejections among the recruits inspected by civil medical practitioners, as compared with the ratio of rejections by the army medical officers. Thus, the general ratio of rejections by the former was 159 per 1,000, while by the army medical officers it was 400 per 1,000. This contrast is exhibited under all the causes of rejection when they are individually examined, with the exception of that of "varicocele," under which the rejections by the civil practitioners exceed those by the military practitioners; those by the former being in the proportion of 18.45 per 1,000, while the rejections for varicocele by the army surgeons are 16.79 per 1,000. The contrast in the relative numbers of rejections is very marked in some particular instances. Thus, the civilian inspectors of recruits rejected only 18.45 per 1,000 for "deficient chest-measurement," the army examiners 134 per 1,000; for "deficient height" the former rejected 2.29 per 1,000, the latter 24.18 per 1,000; for "defective vision" the civil practitioners rejected 15.32 per 1,000, the military practitioners 36.38 per 1,000; for "heart-disease" the civil examiners rejected 10.21 per 1,000, the military, 19.66 per 1,000. Out of the number of recruits passed fit for service by civil medical practitioners, 1,933 were subsequently rejected as unfit for service at a secondary inspection of the men.

The numbers of recruits inspected at each year of age, from boys under 17 years to 25 years and upwards; the numbers under the respective heights, by inches, from 5 feet 3 inches to 6 feet and upwards; their weights, by variations of 10 lbs., from 100 lbs. to 170 lbs. and upwards; and their chest-measurements, by inches, from under 31 inches to 35 inches and upwards, are shown in separate tables specially devoted to these subjects. As regards the ages of the recruits, a larger proportion of men younger in years, and a less proportion of men higher in years, were inspected during 1883 than in the previous year. The increase in the proportion of recruits from 17 to 18 years old was 57 per 10,000, and in that of recruits from 18 to 19 years of age was 2,115 per 10,000, as compared with the returns for the preceding year; while at all other ages above 19 years, there was a decrease in the proportion, but especially between 19 and 20 years, in which the decrease amounted to 1,665 per 10,000. There was also a considerable falling off as regards the heights of the recruits inspected for the army. The returns show an increase of 76 recruits under 5 feet 3 inches in height, of 760 between 5 feet 3 inches and 5 feet 4 inches in height, of 137 between 5 feet 4 inches and 5 feet 5 inches per 10,000 recruits inspected, when compared with those of the preceding year; while at all greater heights above 5 feet 5 inches, there was a marked decrease in the numbers. The same unfavourable conditions appear when the tables of weight and girth of chest are examined. As regards the weights of the recruits, on comparing the returns with those of the previous year, we find there was a proportionate increase of 176 recruits between 100 and 110 lbs. in weight, of 886 between 110 and 120 lbs. in weight, and of 212 between 120 and 130 lbs. in weight in every 10,000 examined; while there was a decrease in the proportionate numbers of men of greater weights. Equally, with respect to the chest-measurement, while the ratios of recruits having a girth of between 31 and 32 inches were increased by 99; between 32 and 33 inches, by 359; and between 33 and 34 inches, by 533 in every 100,000 inspected; among all the recruits possessing a larger chest-development, there was a decrease in the proportionate numbers. These facts point to the obvious conclusion that, for some military purpose or other, a lower physical standard was regarded as acceptable in 1883 than had been considered necessary in the previous year, 1882.

Another special table shows the general state of education of 57,847 men out of the 59,436 inspected, the information, as regards

the 1,589 recruits omitted from the table, not having been furnished to the statistical branch of the Army Medical Department. The figures are so far satisfactory, that they exhibit a fair amount of improvement in the educational condition of the men, by comparison with the figures of the corresponding table in the report of the previous year. Of the 57,844 men reported upon, 4,553 are described as having been "well educated;" 41,608 were able to write as well as read; 4,507 were able to read only, while 7,179 were unable to read. The well-educated men were in the proportion of 78.7 per 1,000, an increase of 2.1 per 1,000, as compared with the men of the same class, in the year 1882; the recruits able to read and write were in a proportion of 719.3 per 1,000, an increase of 35.6 per 1,000 over the proportion in 1882; those able to read only, gave a proportion of 77.9 per 1,000, being less by 23.7 per 1,000 as compared with the previous year; and the men unable to read, 124.1 per 1,000, being less by 14 per 1,000 than the ratio of similarly ignorant men in 1882.

The state, as regards vaccination, of the recruits who were passed into the army, and the effects of vaccination or revaccination after their admission into the service, are subjects of general interest. The number of recruits found fit for the army, primarily, was 36,035, but as 194 were discharged from the service within three months of their enlistment, having been found on trial to be unlikely to make efficient soldiers, the actual number finally approved was 35,841. But the state, in respect to bearing or not bearing marks of small-pox or vaccination, of nearly the whole of the 36,035 men originally passed fit for service was placed on record. We are thus enabled to see that, out of this number, 33,127 men, or 919.3 per 1,000, had marks of vaccination; 1,042, or 28.9 per 1,000, had marks of small-pox; 1,819, or 50.5 per 1,000, had neither marks of small-pox nor of vaccination; in 47 instances, unfortunately, the condition of the men in these respects escaped record. These numbers show a slight decrease in the ratio of men bearing marks of vaccination; and a slight increase in the number marked with small-pox, as compared with the corresponding numbers in the previous year. The decrease in the proportionate number of men with marks of vaccination is 8.7 per 1,000, and the increase in the men marked with small-pox is at the rate of 4.0 per 1,000. There was also an increase in the number of men who had neither marks of vaccination nor small-pox at the rate of 3.4 per 1,000. The number of men in the army on whom vaccination was performed, either primary vaccination or revaccination, during the year was 34,734; 31,617 of this number being recruits, the remaining 3,117 being soldiers already serving in the ranks. The vaccination was performed from preserved lymph in 20,195 cases, from arm to arm in 14,539 cases. Of these, there were altogether 1,117 primary vaccinations, being performed on men on whom the operation had never previously been performed or performed satisfactorily; and 33,617 revaccinations. The results were, among the men who underwent primary vaccination, 572 who had perfect vaccine-pustules, or 512.1 per 1,000; 383, or 281.4 per 1,000, in whom the pustules were modified; and 162 in whom failures occurred, or 335 per 1,000. Among the subjects of re-vaccination, there were 13,535 men who had perfect vaccine-pustules, or 402.6 per 1,000; 11,392, or 338.9 per 1,000, in whom the pustules were modified; and 8,690 in whom failures occurred, or 285.5 per 1,000.

The total number of vaccinations performed on the children of soldiers' families during the year 1883 was 3,135. The operations were followed by successful results in 2,808 instances, or in the proportion of 895.7 per 1,000 cases.

Among the 81,677 men serving in the United Kingdom, 6 cases of small-pox occurred, and in the soldiers' families, one case occurred among the women, but not one among the children. No death ensued. Small-pox was rife in many parts of India among the natives during 1883; the disease amounting to an epidemic in the province of Bengal. Among the 56,190 troops stationed in India, 105 were attacked by it, and 17 women and 13 children also caught the disease. From the 105 cases among the men, 9 deaths resulted; from the 17 among the women, 3 deaths; and from the 13 among the children, 2 deaths. Eighty-six of the cases among the men, and 7 of the deaths, took place in Bengal. There were also 14 cases of small-pox and 2 deaths among the troops serving in the colonies, 4 cases among the women without any death, and 3 cases among children, all of whom also recovered. Altogether the ratios of attacks to strength were for men, .75 per 1,000; women, 1.62, and children, .68 per 1,000. The ratios of mortality to strength were for men, .07; for women, .22; and for children, .08 per 1,000.

MEDICAL MAGISTRATE.—Dr. P. M. Rice has been appointed to the commission of the peace for the Borough of Galway. His name is also on the list of the peace commission for the Borough of Galway.

TRAITEMENT DE LA MIGRAINE PAR LE MASSAGE. Par le Dr. G. NORSTRÖM. Paris, 1885.

THE treatment of megrim by shampooing may appear, at first sight, to some people, as useless and fantastic as the treatment of epilepsy by a lotion. The two diseases, as interpreted by their most careful observers, are nearly allied, both of them nervous in origin, both of them essentially cerebral in seat. The brain, it is true, has some relation to everything else in the body, but it does not seem very probable that the manipulation of the skin will sooth its spasms, and re-establish it, after excitement, in a permanent condition of stable equilibrium. The more careful English physicians have succeeded, or almost succeeded, in limiting the use of the word megrim, and its elder unabbreviated Greek form, hemicrania, to a group of symptoms which may reasonably, and, indeed, with very great probability, be referred to a central origin; yet the French *migraine*, in professional language, as well as in common speech, covers a much wider field, and includes much that would be classed in England under the vague terms of headache, neuralgia, and possibly rheumatism. The pathologist has not had the *post mortem* opportunities requisite for thoroughly convincing himself what is the morbid anatomy which accompanies these attacks. He can point now and then to perineuritis, now and then to periostitis, which compresses a nerve in its passage through a bony canal, and, with the help of the physiologist, he can show how many of the symptoms may be reproduced by a vaso-motor spasm in the medulla, or more often in the cortex. But he has not paid hitherto very much attention to the spots slightly raised and very tender which the patient occasionally regards as the foci of his discomforts.

It is in cases in which these are present that the shampooer has his opportunity. It matters very little to him how exact he may be in calling them in the language of Dr. Norström, "the indurations of acute or chronic myositis." The College of Physicians has lately eliminated the phrase muscular rheumatism, or perhaps it might have been convenient for use here. At any rate, careful palpation of the head and neck, in some cases of severe and paroxysmal headache, lead to the detection of subcutaneous toughenings, thickenings, tendernesses, and irregularities, which massage can do something to disperse, and whose dispersal is generally followed by some relief in the very painful headaches. Dr. Norström furnishes an analysis of forty-nine cases in which the position of these indurations was noted; at the superior attachments of the muscles of the back of the neck were found 14; in the bodies, and at the inferior attachments of these muscles, 19; in the muscles of the sides and front of the neck and shoulders, 9; in the subcutaneous tissues of the head, 2; on the temples, 3; involving the ganglia of the sympathetic, 2. They are hardly ever to be found in the regions of the parotid and masseter: the commonest position is in the superior insertion of the trapezius, the next most common in the splenius and scaleni. That these should be put forward as the commonest places for the pains of megrim is out of the question, and Dr. Norström frankly acknowledges it, saying that neither the pain of the headache, nor the tenderness to pressure, as a rule, coincide with the indurations, but that nevertheless these indurations are the cause of the pain, and that there is nothing contradictory, or even very surprising, judging from analogy, that the pain should be felt at some distance from its cause. He feels no difficulty in a case of acute pain in the region of the fifth nerve, in attributing it to a thickening in the trapezius, if one can be found, and he bases his practical confidence that this is so on the cures of such pain, which he relates as following upon the massage of the trapezius, among other parts, and the disappearance, at the same time, of the induration. The method of the intercommunication between the induration and the pain he is kind enough to leave to the physiologists, confining himself to suggesting that it might be by central reflexes, which, he admits, he hardly understands, or by connections by way of the vaso-motor nerves that run with the vessels, which he admits he has not accurately traced. It is the practical side of the matter that is by far the most interesting to him and doubtless to his patients, and he concludes his book with a short account of thirty-six cases, in the majority of which there was cure, and in all but one, considerable improvement. We have only space for a very brief outline of one fairly typical case of benefit (p. 96).

Mme. C., aged 36, had had sick-headaches from a child, often twice a month; they lasted four or five days. The pain began on getting up in the morning, increased to its worst in an hour, continued equally severe for another couple of hours, and then subsided considerably with nausea and vomiting. It began in the left orbit, spread gradually backwards to the forehead, temples, vertex, and occiput, ending in the back of the neck, and changing, during its pro-

gress, from left to right side. There was pallor, photophobia, and intolerance of noise, and, after the vomiting, heaviness, tinnitus, and insomnia. The attacks were worst in autumn when she was most exposed to cold. Some relief was got from large doses of bromide of potassium, but not from hydrotherapy, warm climate, or quinine. Near the upper insertion of the left sterno-mastoid a lump could be felt in it about the size of the end of the forefinger. Pressure on this produced acute pain in the left eye. Another lump, larger, but not so tough, was imbedded in the cervical portion of the left trapezius; on the right side, there was tenderness over the mastoid process and upper edge of the splenius. Massage of these parts specially, and of all the head and neck, gave relief from the first day, and sleep was obtained. On the fifth day of treatment an attack came on, in the worst part of which massage was employed, and took away the sharpness of the pain. Complete comfort was restored in rather more than half an hour. During seven weeks of treatment, there were two very slight attacks.

Some of the recorded cures have been watched for a year or so without showing signs of relapse, but the method is too novel to claim more than to be on its trial as suited to a peculiar and limited group of cases. None of the cases which Dr. Norström relates show the scintillating scotoma, the hemiopia, the vertigo, that mark the truly cerebral affection. Still medicine is not so rich in therapeutic methods that it can afford to neglect any that lead to relief. Dr. Norström has explained his operations more in detail in his previous larger work, *Traité Théorique et Pratique du Massage*, which is substantially a popularisation of Metzger's Dutch pamphlet, and now he has pointed out a small field in which we can see no reason why he should not be given a fair trial.

HEALTH-RESORTS AT HOME AND ABROAD. By M. CHARTERIS, M.D. 12mo., pp. 156. London: J. and A. Churchill.

THIS is a pleasant little volume which should be useful to many practitioners; it is provided with an excellent map. The alphabetical list of places will, we hope, be revised in a new edition. It is very difficult to obtain accuracy in topographical notices. Still, to show that we are justified in the remark that we have just made, we may mention some of the points that have struck us. Altpaich is set down as at an elevation of 4,800 feet, instead of 400 mètres. We are told that the season for Guis, and for Meran also, is from June to September, when the heat is excessive; no doubt, from September to June was intended. We learn for which complaints Eaux-Chandos and Canterets are good, not which ones are cured by Eaux-Bonnes and St. Sauveur. Gais and Heinrichsbad in Appereil are mentioned as whey-cures; why not the better known Heiden? We could add similar remarks, not with the wish to disparage, but to improve the work.

NOTES ON BOOKS.

The Medical Aspects of Bournemouth and its Surroundings. (By HORACE DOBELL, M.D., etc. 8vo., pp. 338. London: Smith, Elder and Co.)—The author of this handsome volume tells us that there is now no necessity for "writing up" Bournemouth, but that he publishes it because his friends are anxious to know what he thinks of the place. Dr. Dobell appears to be a very happy man. He tells us how he came to settle at Bournemouth, and how well it has suited him. Some of his patients, who believed that their safety depended upon being near him, followed him to, and took up their residence at, Bournemouth, without consulting him; and some of them have remained there through all seasons, rather than be away from him. Bournemouth offers everything that can be desired; not to mention climate, it has got Dr. Dobell; and the local practitioners, he assures us, are excellent. Mr. Hogue finds the climate favourable for dental operations. The chemists are entirely unexceptionable. There are great facilities for taking horse, pony, and donkey exercise, although the author is obliged to make some severe remarks on the conduct of the donkey-boys attached to the invalid chairs. The hotels, boarding-houses and lodgings, are, almost without exception, excellently built, and well arranged for invalids. The Mont Dore Hospital, originally projected by Dr. Dobell, is now open, and great things are expected of it. Although everything is thus painted *couleur de rose*; yet this volume contains a quantity of information. There is in it all that can be said about Bournemouth and its geology; sixty-two pages are taken up in an account of the beneficent effects of its pine-woods; eighty pages are devoted to the medical and clinical aspects of the place; and more than sixty pages to the drawbacks of foreign travel, which are

severely animadverted on. Our readers can now judge of the general nature of the contents of the volume. We must not omit to add that the illustrations are excellent, and the views very true to nature.

The Saline Waters of Leamington. (By FRANCIS WILLIAM SMITH, M.D. Second edition. 12mo., pp. 96. H. K. Lewis.)—It is not long since we noticed the first edition of this little work, which has now reached a second one. We hope that this is an index of the prosperity of Leamington. The chief difference which we observe in this edition is, that Dr. Smith has very judiciously obtained an analysis of the waters, and one of the results is that the chemists now regard what used to be considered chloride of calcium as sulphate of that base. Theoretically, this is rather disappointing, as we can no longer allude to the effects of chloride of calcium in scrofula. The proportion of chloride of calcium cannot now be said to be "certainly very great, and add much to the value of the waters." Practically, the curative value of the waters cannot be affected by the analysis.

REPORTS AND ANALYSES

AND

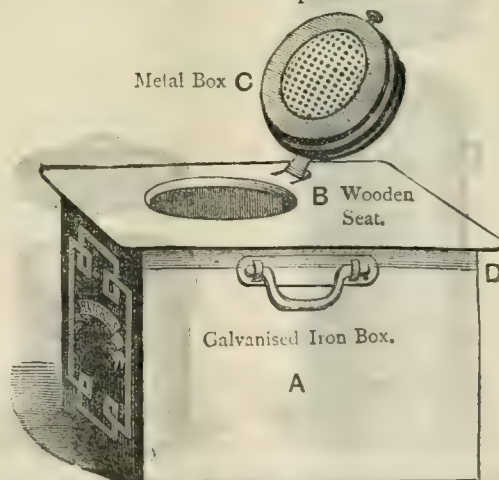
DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. NICHOLLS' PATENT ANTISEPTIC CLOSET, DUST-BIN, AND PAIL.

AN opportunity having been recently publicly afforded of again examining the antiseptic closets, dust-bins, and pails devised by Dr. Nicholls for domestic purposes, we gladly draw attention to them, as they seem destined to render the disposal of sewage an affair of much easier accomplishment in many localities than has hitherto been the case. The difficulty which many householders experience in that most necessary department of household management, the proper disposal of sewage and refuse, especially in inland towns, where there is no large body of moving water into which sewage can be discharged, renders valuable every means by which the necessity of drainage may be avoided. The closet devised by Dr. Nicholls entirely accomplishes that desideratum.

This new antiseptic closet, which has been patented, is constructed of galvanised iron; it consists of a strong metal box, twenty-three inches and a half long, twenty-one inches wide, and seventeen inches deep. Above the box is a perforated iron tray, which fits into the top of the iron box, just below the mahogany seat above. An orifice in the tray corresponds with that in the seat, and both these orifices are plugged by the hinged lid, which is also perforated at the bottom. The lid and the tray are filled with an antiseptic mixture of soot and common salt. When the box-lid is opened or shut down—that is,

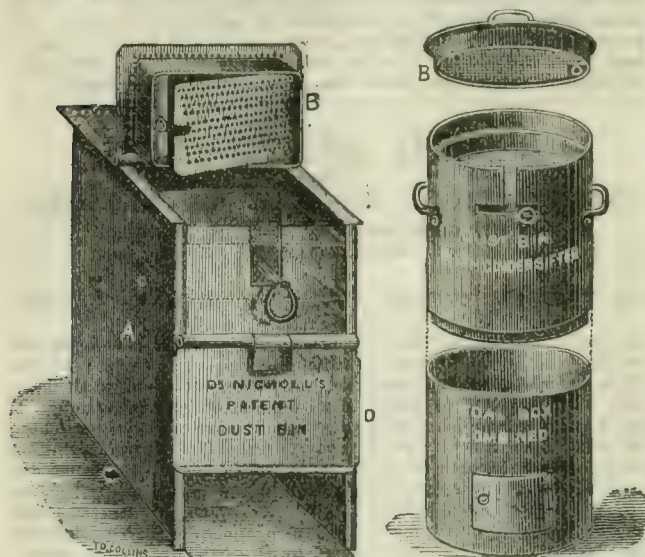


each time the closet is used—a shower of the antiseptic mixture falls from the perforated lid and tray upon the excreta within the box, deodorising them so thoroughly that no odour is perceptible, even directly after use. The box can be removed, and its inodorous contents taken away in a cart, or placed upon land, whenever the box is becoming too full; and the value of the excrement is so considerable, that the manufacturers, Messrs. Jonas and Co., are prepared, wherever

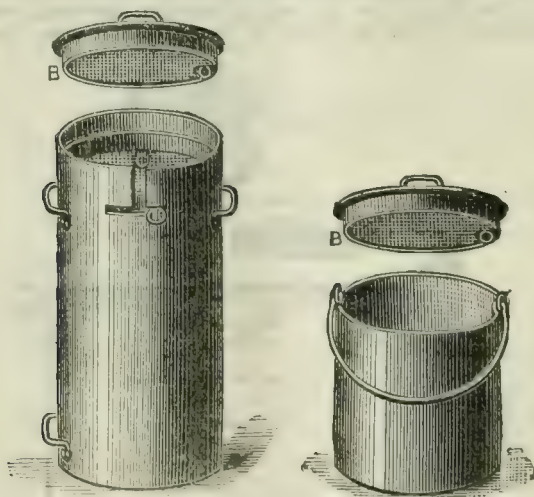
fifty householders living close together can be found to combine to use these closets, to supply the closets, and keep them emptied entirely free of charge to the householders in question. Such a liberal offer has probably never been made before by any one. It is likely to be eagerly seized, we should imagine, by many an urban and village community.

The antiseptic material which is placed in the tray and lid is easily obtained, and its cost is very light, even if it be purchased, whilst it may be manufactured in every household without difficulty.

Dr. Nicholls has further patented some other useful inventions. One of these is a square dust-bin, fitted with the carbon box-lid, which



can be made of any size, and painted in any colour or design, or galvanised, according to order. Another of these novelties is a circular dust-bin and coal-box combined. In these receptacles, the disinfectant is so combined with the animal and vegetable refuse that no decomposition nor putrefaction occurs; and the dust-bins may consequently be kept in any room without any odour arising therefrom, and are specially suited for single rooms let out as tenements. A cinder-sifter



has also been contrived for the square and circular dust-bins, by which much economy in the use of fuel may be effected. All these appliances are already in use in artisans' dwellings in the East of London; and the readiness with which the boxes may be carried down to the dustman's cart, and there emptied, is likely to bring them into high favour. The antiseptic pail, which has also the perforated box in the lid, is recommended for use in hospitals and other like institutions, and in sick-rooms, particularly where the illness is contagious. The

shower of antiseptic substance that falls from the lid when it is replaced deodorises and disinfects the contents of the pail.

All the above appliances are manufactured by Messrs. H. Jonas and Co., Friar Street, Reading, and Mortlake, Surrey, who are the sole agents for their supply. This system of domestic appliances requires, as will have been noticed, no water at all for its use, and is said to pay for itself within the first year of its employment. The principle of disinfection employed is the same in all the inventions, and is so simple in its action that it may almost be said to be automatic, when once the antiseptic mixture has been put into the receptacles intended for it in the roof of each utensil.

A PORTABLE CAMPAIGNING HOSPITAL-BED.

SURGEON-MAJOR CORBAN, who was in charge of the hospital at Abu Fatmech during last winter's campaign up the Nile, has since devised a portable campaigning hospital-bed, by which he hopes to do away with the necessity for air-pillows and air-beds on active service; and to prevent bedsores, which are so frequent after enteric fever, besides affording facilities for the dressing of such wounds if already present. Air pillows, after being in use for a short time under bedsores, invariably become much soiled, discoloured, and fetid, from discharges, even when the sores are most carefully dressed. Besides, they become hard, have an irritating effect (like all India-rubber articles worn near the skin), are uncomfortable, apt to slip, are more or less painful, and, most important of all, the sores do not heal kindly on them, owing to the irritating qualities and heat of the India-rubber in hot climates. On all these points, Dr. Corban speaks with confidence from his hospital experience in Egypt. Moreover, on active service, these foul pillows have to be used on different persons in succession, the supply being limited, owing to difficulties of communication and distance from base. This, of course, is very objectionable, to say nothing of septic risks thereby incurred. Air-pillows and beds are also very liable to become useless from punctures and leaking generally.

The hammock-bed, which is made of canvas, is provided with holes over the trochanters, sacrum, and anus, and thus admits of easy dressing of sores from the outside, without disturbing or painning the patient by moving him—a very important matter. When the dressing has been applied, a loose pad of cotton-wool is placed over the dressing, and the canvas flap which covers the aperture is loosely strapped, so that there is absolutely no pressure on the sores. Cleanliness is also ensured, and one orderly can dress the sores. Thus labour is economised; for a helpless patient ordinarily requires two or three persons to lift him and dress his sores when air-pillows are under him. The opening under the anus admits of easy and comfortable use of the bed-pan; and, if the patient passes motions involuntarily, the flap may be kept open, and a tin of earth underneath will receive evacuations, and thus avoid foul sheets and the disagreeable duty of constantly changing them. In cases of threatened bed-sores, Dr. Corban is convinced that the hammock-bed would prevent them, if used when a red patch on the skin is first noticed.

The hammock-bed is suspended by cords from two tripods, one at each end, united by a cross-bar above the bed. The tripods are made of deal, have no hinges, but joints fitting together like the sections of a fishing-rod. The bed can be easily and rapidly put together; and it can thus be placed on either long or short legs. When it is on the short legs, it makes a capital bed for general use in a movable field-hospital, being about one foot from the ground, which is a great boon, as at present in such hospitals the patients have to sleep the best way they can on the ground covered with a blanket; whilst, when the bed is placed on its high legs, it affords the facilities already mentioned for the prevention and treatment of bed-sores. It can also be easily adapted to either of these distinct purposes, an important matter. The horizontal bar overhead furnishes a support to which a green mosquito-curtain may be adapted. Native bedsteads cannot always be obtained, and may convey small-pox or other infectious diseases, to say nothing of the bugs and fleas with which they swarm.

Finally, the hammock-bed is cheap, simple, unbreakable, and can scarcely get out of order; whilst, with the wooden legs and all appliances complete, it weighs only ten pounds, an affair of much moment where the matter of transport is a difficulty.

BEQUESTS AND DONATIONS.—Mr. William Goldsmith, of Parliament Street and Gloucester Square, wine and spirit merchant, has bequeathed £400 to the Western Dispensary, Rochester Row; £400 to the Charing Cross Hospital; £400 to the Hospital for Incurables, Clapham Road; £300 to the Westminster Hospital; and £200 to the London Fever Hospital.—Mr. Thomas Walker has given one hundred guineas to the British Home for Incurables.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 21st, 1885.

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CLIMATE AND HEALTH.

AMONG the multifarious subjects which now claim the attention of the medical student and the medical practitioner, it is quite time that some scientific instruction on the question of climate should be accorded a place. The subject is not one of extreme complexity, and does not call for a separate course of lectures, or for any elaborate educational machinery. It might readily form an appendix to the usual course of instruction in practice of medicine, or hygiene and public health. Its importance to the practitioner would be difficult to overrate. "Change of air" is the modern panacea for all varieties of chronic ailments; and the medical attendant, from lack of practical acquaintance with health-resorts, or theoretical instruction in their respective types, too often leaves the choice to his patient, thus losing the great advantages which the judicious adaptation of locality to disease cannot fail to confer. No doubt, change of any kind is often beneficial; but, on the other hand, there are cases which do badly at the seaside, yet receive immediate benefit by a change to a mountainous locality; while another class of cases is rebellious to both sea and mountain-air, but improves on removal to some dry inland resort of moderate elevation. It is worth our while to distinguish these cases as far as our knowledge of the subject permits, and save the time and pockets of our patients, as well as our own reputation, by recommending at the outset the locality most adapted to each individual sufferer.

The popular belief in the efficacy of change of air has deeper foundations than its warmest adherents are always fully aware. The change in atmospheric conditions, involving altered conditions of temperature, humidity, barometric pressure, and amount of ozone, are only part of a general revolution in the life of the individual, which affects his diet, his habits of exercise, rest, and sleep, and his mental condition. This last point is, no doubt, one of cardinal importance. Much of the advantage of travel and change is unquestionably due to the tonic and stimulant effect upon the nervous system, which reacts by vaso-motor action upon the digestive organs and the secretions, thus improving appetite, absorption, and nutrition. It has been well observed by Michelet, "Few diseases admit of cure while the patient remains in the circumstances and the locality which have given them birth, and to which they owe their origin. Such diseases are the result of certain habits of life, which the influence of locality tends to perpetuate and to render invincible." These considerations are so weighty and so just, that the general attitude of the profession has often been to advocate change of any

kind, with little regard to the peculiar requirements of each individual case. "Go anywhere, only go away from home," is practically the advice which the patient too often receives when he seeks the guidance of his medical attendant in the choice either of his annual summer-holiday, or of a health-resort in which to recruit his energies after some serious disease.

Health-resorts admit of an almost unlimited variety of classification, inasmuch as no two localities possess identical conditions of climate, soil, and local configuration; but for general purposes the simplest grouping is into marine, mountainous, and inland resorts of slight elevation. None of these terms, however, conveys a perfectly exact signification. A seaside-resort may be moist and relaxing, like Ilfracombe or Torquay, or tonic and bracing, like Cromer or Saltburn. Mountain air may be enjoyed at all varieties of elevation, but the difference between the conditions at 2,000 and 10,000 feet, is such as virtually to constitute a new variety of climate. Inland health-resorts (other than mountainous districts) present equal diversity. A town situated on a broad and exposed plain will possess extremes of temperature, to which another town, sheltered by a neighbouring range of hills, will not be subject. We are thus somewhat at a loss when we come to define our types, and each locality must be judged upon its merits. Speaking generally, however, sea-air is tonic and stimulant, increasing tissue-change, promoting the exhalation of heat from the body, and in favourable cases improving appetite, digestion, sleep, and the general well-being. Thus, those who are already in fair health, free from organic disease, and requiring only a little bracing after the hard work of commercial or professional life, the still harder work of the pure pleasure-seeker, and the lowering effect of long confinement in the vitiated atmosphere of large towns, for the most part benefit decidedly by a resort to the seaside. The annual summer exodus from all our large towns to maritime localities is amply justified by its usually beneficial effects. But the case is different when we come to deal with actual disease, and few mistakes are more frequent or more disastrous than the indiscriminate ordering of all invalids to the seaside. Sea-air is so decidedly stimulating, that it requires a fair reserve of vigour to react to the stimulus. Those whose systems are greatly debilitated from any cause frequently, in common parlance find the sea-air "too strong" for them. Their appetite, instead of improving, fails altogether. They suffer severely from headache and insomnia; and other indications, such as the loss of hair, indicate that the system is giving way to the abnormal stimulus, instead of showing a wholesome reaction to it. Such persons frequently get immediate relief from all their troublesome symptoms on removal to an inland locality. Caution should be exercised in sending dyspeptic patients to the seaside. Some do well, but in other cases the appetite is lessened, or possibly it is injuriously stimulated before the absorptive processes have had time to receive any accession of vigour.

Highly nervous persons, the victims of hypochondria, those suffering from excessive brain-work—above all, those in whom these conditions are found in conjunction—should not, as a general rule, be advised to try the seaside. A quiet inland locality, or some mountainous spot of moderate elevation, will be found to suit their cases better. The monotonous aspect of the sea and the ceaseless beat of its waves are mentally depressing, while the highly-strung neurotic patient is irritated instead of braced by the stimulating effects of the sea-air. Those who are just recovering from a serious illness, such as

pneumonia or typhoid fever, should not be sent prematurely to the seaside, as an accession of febrile symptoms is frequently the untoward result. An inland locality is more suitable during early convalescence; but, later on, nothing conduces more to complete cure than a resort to the seaside.

The marvellously restorative effects of sea-air in cases of slight general debility, in persons of strumous habit, and in those with family predisposition to phthisis, are well understood, and must not be regarded as being in any degree impugned by the opinions expressed in the present article.

Mountain-air is tonic and stimulant, but it is less provocative of tissue-change than sea-air. The cold keen atmosphere promotes the free circulation of the blood through the skin, thus unloading the internal organs; and it excites to active exercise, and improves the appetite. It acts as a powerful respiratory stimulant, increasing the number and depth of the respirations, and expanding the chest. Its effects on the nervous system are variable. In mild cases of nervous disturbance, in simple overwork, and mental exhaustion from worry and anxiety, mountain-air is often a specific. Its tonic properties, the distraction of magnificent scenery, the purity of the air, the stillness of high altitudes, all contribute to the beneficial result. In cases of severe nervous derangement, in marked hypochondria or severe hysteria, mountain-air is usually less suitable than that of quiet wooded inland resorts of low altitude.

Mountain-air is unsuitable for aged persons with little physical vigour, for cases of heart-disease, rheumatism, or renal affections. It also fails to benefit those who suffer from functional cardiac derangement, and its influence is doubtful in the confirmed dyspeptic.

Quiet inland resorts of low elevation, well shaded from excessive sunshine and from cold winds, are very suitable for the early stages of convalescence from acute disease, and cases of severe nervous debility. Their influence is mainly sedative or mildly tonic. The neighbourhood of pine-forests seems in many cases a decided advantage.

The nature of the soil, the character and direction of the prevailing winds, the sanitary arrangements, and the water-supply, are points of the first magnitude in determining the virtues of a health-resort, and can never be left out of account. The taste of the patient, and his known idiosyncrasies, are also deserving of our attention.

It is much to be desired that the members of the profession should aid in the diffusion of a more exact knowledge of the effect of climatic conditions upon health, by reporting any striking cases of exceptional benefit, or otherwise, which may occur in the course of their practice. The material for observation is unlimited; its accumulation and utilisation could not fail to be productive of practical results of the first importance.

THE BOWMAN LECTURE.

THE influence of the theory of evolution—or perhaps it would be more correct to say of the mode of thought which has found expression in that theory—upon scientific progress in this century, has been very remarkable. No department of science, from astronomy to psychology, has escaped its transforming touch; it has proved itself one of those large hypotheses which mark an epoch in the history of science. Medicine, which is rather a complex of sciences than a science, is at length beginning to feel the impetus in various departments; and the Bowman Lecture this year is a striking example

of the way in which a keen observer and careful thinker, thoroughly imbued with the evolutionary principle, looks at the facts of a certain department of pathology. The main object of the address was to show forth the necessity for differentiation of work, but differentiation combined with co-operation. In the progress of evolution, said Dr. Hughlings Jackson, four stages or degrees were to be discriminated; and scientific investigation must be governed by this condition, and can, therefore, be regarded as the product of the interaction of four influences. The advance of science depends upon increased differentiation of work and definiteness of observation, combined with increased integration of knowledge and co-operation of workers. Numerous illustrations of the advantages to be obtained from this integration and co-operation were drawn from neuropathology; but the greater part of the lecture was devoted to an exposition of the pathology of epilepsy, which was chosen because it presented the greatest complexity of symptoms. For the full comprehension of true epilepsy, the co-operation of the physiologist, the alienist physician, and the ophthalmic surgeon with the neurologist was required. "Epilepsy," said Dr. Hughlings Jackson, "is a disease of the organ of mind—that is to say, of the highest and most complex centres;" and the organ of mind, he added, was nothing else than a series of centres representing (or co-ordinating) all parts of the body. He advanced the hypothesis that the whole nervous system was a sensori-motor system, in which all parts of the body were represented at three different levels or stages of evolution, integration, and intercommunication increasing from the lowest to the highest level; so that, in the highest centres, larger areas of the body were brought into connection with each other, while at the same time function was more differentiated.

Tabes dorsalis, Graves' disease, and diphtheritic paralysis, were given as good examples of diseases in which the centres at the lowest level of evolution might be affected along their whole extent. In the last-named affection, for instance, every organ, from the ciliary muscle of the eye to the muscles of the feet, including the thoracic, abdominal, and pelvic viscera, may be involved. Epilepsy, being a disease of the organ of mind, is at the opposite pole; and Dr. Jackson set himself to show that that disease presented an universal symptomatology, or, in other words, that every department of the nervous system is involved. In epilepsy every muscle, and in the "warnings" of epilepsy every sensory area, from the nose (first cranial nerve) to the feet, might afford symptoms; and after the fit there is universal paralysis of both animal and organic parts; and not only mental paralysis (coma, unconsciousness), but paralysis to a slighter degree of the lower centres also.

Sir William Gull, after the lecture, said that Dr. Hughlings Jackson was the greatest living worker, as he was also the most honest and most disinterested, in the field of neuropathology; certainly, he has given us, in his Bowman lecture, as he never fails to do in all his public utterances, much food for thought, and many suggestions to guide future observation and research. But he is not a prophet who prophesies smooth things; he sees and feels the complexity of the problems which he attacks, and he takes no pains to hide the difficulties which exist, both in the facts themselves and in the hypotheses by which it is attempted to explain them. Sir William Gull also said that Dr. Jackson had made his hearers feel that they had been all unprofitable servants, the field of work glanced over was so large, the workers so many, but the work so unmethodical, desultory, and

scattered. Every observer may, as Mr. Macnamara well said, make definite accurate observations in his own department, though it was reserved for the few to analyse the observations and combine them as the Bowman lecturer had done this year, stringing them on the serviceable thread of a convenient working hypothesis.

MR. ERICHSEN'S CANDIDATURE.

It has long been a common matter of regret, and sometimes of almost querulous complaint, that, neither directly nor indirectly, has the medical profession obtained any adequate representation in the legislature of this country. Much has within comparatively recent times been done to increase the indirect influence of the profession on the course of legislation, and the labours of the Parliamentary Bills Committee of this Association have not been without tangible result in the improvement of the provisions of many measures now on the Statute-book. But more than this is needed, and the electors of the Universities of Edinburgh and St. Andrew's have now an opportunity of giving a voice to the legitimate aspirations of the medical profession, and at the same time, in the words of a circular signed by several influential members of both Universities, "to vindicate their right to special representation by sending to Parliament not a mere party politician, but one who will worthily represent the great educational interests of the Universities."

In Mr. Erichsen, a candidate of exceptional excellence has been obtained; a surgeon of acknowledged eminence, bred from his earliest youth to the profession, he has held all the offices of highest honour which the surgical section of our profession has to offer, and was chosen as one of the medical members of the Royal Commission on Vivisection. Mr. Erichsen, in his address, has put prominently forward the special interest which he would be able to take in legislative measures based upon medical and sanitary science, and we may add that this interest in sanitary reform is no new thing taken up to catch the votes of electors; for, by his valuable work on Hospitalism, and by the help which he gave in time and money towards the foundation of a Museum of Hygiene in London, Mr. Erichsen long ago showed that he appreciated its social importance. The abuse of medical charity, the inefficiency of the protection at present afforded to the public against unqualified practitioners, and the necessity for strengthening the hands and reforming the constitution of the General Medical Council, are also touched upon in his address; and upon all these points his opinion, as a representative of the medical profession, would be a valuable assistance to the legislature.

It is admitted by most men that there are occasions when considerations of public interest and professional loyalty may fairly outweigh the ordinary claims of party politics. Mr. Erichsen's candidature in such a constituency as the Universities of Edinburgh and St. Andrew's seems to be pre eminently such an occasion. No opportunity of sending competent medical representatives to the new Parliament ought to be lost; the reform of local government is one of the first questions which will occupy attention, and one to which both parties in the State are pledged. On such a question, the voice of the medical profession ought to be heard, not only in the interests of the profession itself, but also, and chiefly, in the interests of the public—that great patient public which for generations past has suffered so much from the apathy and inadequate sanitary knowledge of party politicians.

We understand that Mr. George Cowell, Senior Surgeon to the Westminster Hospital, and to the Victoria Hospital for Children, Chelsea, has resigned the latter appointment.

At the first meeting of the Pupils' Physical Society of Guy's Hospital, Dr. Wilks, Honorary President, in the chair, after the proceedings, a massive silver "loving-cup" and an address were presented to Dr. Wilks by the present and immediate students of the Hospital.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

At the next meeting of the Society, on November 24th, Mr. Barker's paper, on the Distribution of *Bacillus anthracis* in the Human Skin in Malignant Pustule, will be read, and also one by Dr. John Harley, on a Case of Tubercle of the Liver in which the appearances of Actinomycosis are presented. In this paper, the question is raised as to the reality of the so-called actinomycosis.

THE OPHTHALMOLOGICAL SOCIETY.

The Ophthalmological Society of the United Kingdom held two meetings last week. At the first meeting, a most important practical point was raised by Mr. Nettleship's frank avowal that he had had a series of bad results after cataract-extraction, where gelatine-disks containing cucaine were used; it turned out that other operators had met with similar misfortunes, and the general opinion seemed to be that cucaine-solutions ought to be made up with a saturated solution of boracic acid. At the second, the very large audience which assembled to hear Dr. Hughlings Jackson's Bowman lecture, was treated to a most remarkable address, which will be found in another column. Sir William Gull, in moving a vote of thanks to Dr. Jackson, spoke of the lecture in terms of warmest praise. Mr. Macnamara said that the lecture was appropriate to the occasion, not only by reason of the matter, but because it was characterised by the same desire to arrive at truth by careful observation and analysis, as had been the distinguishing feature of Sir William Bowman's own fruitful work.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The quarterly meeting of this Association was held at Bethlem Hospital on Tuesday, November 17th; Dr. H. Rayner presiding, in the absence of Dr. Eames, the President for the year. Mr. Conolly Norman read a paper "On some Points in Irish Lunacy Law," in which he explained the different mode of procedure which existed in Ireland in regard to the admission and discharge of pauper lunatics, and urged the great desirability of assimilating the lunacy laws throughout the United Kingdom. Dr. Hack Tuke read a paper "On a Recent Visit to Gheel." In the discussion which followed, Dr. Savage and Dr. Pritchard Davies, who had also visited Gheel, gave their experience on the subject, concurring with Dr. Hack Tuke's statements as to the somewhat dull appearance of the place, and the moral dangers and difficulties involved in the supervision of so large an area; but, at the same time, fully recognising the care and kindness of the authorities.

CUCAINE IN WHOOPING-COUGH.

DR. PRIOR, of Bonn (*Berliner klinische Wochenschrift*), has treated several cases of whooping-cough with cucaine, with good results. As is evident on *a priori* grounds, he does not consider the drug a specific, but simply a means of relieving and reducing the number of the paroxysms. He used fifteen and twenty per cent. solutions to paint the fauces, the interarytenoid fossa, and the vocal cords, with the result of prolonging the interval between the attacks, and lessening the severity of these. The treatment was resorted to twice daily, great stress being laid on the necessity of producing at the time complete anaesthesia of the fauces and upper part of the larynx. Inhalation of a twenty per cent. solution four times a day was not so successful as painting.

PATHOLOGICAL SOCIETY OF LONDON.

At the meeting of this Society on Tuesday last, an interesting series of specimens were exhibited by Mr. J. Bland Sutton. They illustrated the position and character of cysts in the reproductive organs of animals, and Mr. Sutton's observations on their nature will be found in our report of the meeting. Perhaps the most noteworthy portion of Mr. Sutton's communication referred to the duct of Gartner. The persistence of a trace of the upper portion of that duct in the human female has long been recognised; but several German authorities have recently denied the theory that Skene's tubes—a pair of ducts in the walls of the female urethra—represent the lower termination of Gartner's ducts; and Schüller described Skene's tubes as the efferent channels of a pair of urethral glands. Mr. Sutton, on the other hand, declared that he had been able to trace Gartner's ducts from the broad ligament as far as Skene's tubes, with which they were continuous. Since Gartner's ducts were homologues of the vasa deferentia, the urethral glands which ran into them were, Mr. Sutton reasonably asserted, homologous to the vesiculæ seminales. The questions raised on the subject of ovarian development and histology were of great importance. As long as the earlier doctrines of Pflüger and others, who believe in "tubes," are retained, to the prejudice of the more mature observations of Balfour, Foulis, Harz, and several still more recent writers, errors will be rife in ovarian pathology. Changes in the human ovary cannot be scientifically explained either by studying the ovaries of embryo kittens and guinea-pigs alone, as once was customary, or by examination of human ovaries alone, and neglect of homologies, as is still too frequent. Against the latter source of fallacy, where no allowance is made, for instance, for the fact that the tissue of the hilum of the human ovary, with its abundant relics of Wolffian tubes, exists in very few lower animals, Mr. Sutton's method of investigation offers an effectual antidote.

THE WRITINGS OF THE LATE DR. FARR.

The Sanitary Institute of Great Britain has just completed the preparation of a volume which will be of great interest to the statistical world, containing selections from the reports and writings of the late Dr. W. Farr. The selection of the papers and reports, and the editing of this work, have been undertaken by Mr. Noel A. Humphreys, of the Registrar-General's office. The volume consists of 550 pages, and is divided into six parts: Part I, Population; Part II, Marriage; Part III, Births; Part IV, Deaths; Part V, Life-Tables; Part VI, Miscellaneous. It has long been the source of much regret among students of vital statistics and others practically interested in that branch of sanitary science that, from the form and manner of the publication of Dr. Farr's valuable papers on statistics, they have not been generally available, being scattered over a long series of Blue-books and other reports. The object of the Institute in publishing the selection is to give those interested in the subject a ready means of studying the valuable writings and tables of that eminent statistician.

CHOLERA IN A FRENCH SHIP.

We have received information respecting the occurrence of cholera on board the French transport *Chateau Yquem*, which lately arrived at Suez from Tonquin. It appears that the vessel left Tonquin on August 14th, having on board 225 sick and convalescent soldiers. The next day a case of cholera occurred, and proved fatal; and when the vessel arrived at Singapore on August 20th, there had been eight deaths from cholera. As there was no room in the lazaretto at Singapore, the vessel sailed for the island of Pulo-Condor, where it arrived on August 26th, and remained till September 28th. On September 6th, all the passengers were removed on shore, and the vessel was fumigated by overheated steam and sulphur. From September 4th to 15th, there was no cholera on board; afterwards, up to the 19th, there were three cases. The vessel returned to Singapore on September 30th, and the next day sailed for Aden, where it arrived on October 19th. On the arrival of the vessel at Suez, there had been in all 72 deaths

on board, of which 36 were from cholera. Under the regulations of the Quarantine Board, the vessel was compelled to perform seven days' quarantine, and did not pass through the Suez Canal until November 10th, nearly three months after leaving Tonquin. Had any fresh cases of cholera appeared, the detention might have been still longer, as ten days' quarantine and disinfection are required after the last case of the disease.

M'GILL UNIVERSITY, MONTREAL.

On October 26th, the new buildings of the Medical Faculty of McGill University were publicly opened. Speeches were made by Professors Pepper and Osler, of the University of Pennsylvania; Sir William Dawson, Principal of the University; Senator Ferrier, Chancellor; Dr. R. P. Howard, Dean of the Medical Faculty, and others. The buildings consist of a main hall, library, museum, students' reading-room, rooms for the professors of anatomy, physiology, chemistry, and materia medica, lecture-rooms, a dissecting room, and a physiological laboratory.

THE BRITISH PHARMACOPOEIA.

In a paper read before the Pharmaceutical Society on Wednesday, November 11th, by Mr. Charles Umney, the author reviewed and criticised the *British Pharmacopoeia* of 1885 from the pharmacist's point of view. The subject was treated in some detail, and in a fair and friendly spirit. Most of the alterations were approved, and objections in most instances referred to minute pharmaceutical details. The preparation, for example, of syrupus ferri iodidi, was objected to, and a suggestion, which seems reasonable, was made to improve it. The author recognised the great advantage of making the strength of the liquors uniformly 1 per cent., being a distinct advance towards the metric system. The strength of Asia Minor opium ($9\frac{1}{2}$ to $10\frac{1}{2}$ per cent. morphine) for pharmaceutical purposes, was objected to, chiefly from a commercial point of view, and from the fact that a higher percentage of morphine is allowed in the *United States Pharmacopoeia* and the *French Codex*. This, of course, is not a serious objection. Citrate of caffeine, the author said, ought not to have been introduced, because it is not a definite compound, "only a mixture of caffeine and citric acid." Whether this be so or not, the "salt" has a distinct therapeutic effect, which caffeine itself does not produce. Criticism from various quarters, chiefly pharmaceutical, will, no doubt, be forthcoming, and much may be learnt from the adjourned discussion on the paper; but it may be said that the objections mentioned above—those of an experienced pharmacist—only show how well the Committee of the *British Pharmacopoeia* have done their work.

MATERIA MEDICA AND PHARMACOLOGY.

A FEELING is gradually becoming general, that at the present system of examination in the above subjects requires revision and readjustment. The large percentage of rejections at the College of Physicians has excited much dissatisfaction, which may possibly make itself heard ere long, and the opportunity will be an excellent one to consider the matter on general grounds. One point, however, should be conceded in advance; namely, that any proposition to lower the present standard cannot be entertained. What is wanted is a fresh grouping of the subjects. The examiners complain that the candidates for the first professional examination, who are often at the very beginning of their curriculum, are ignorant of the meaning of even the simplest words of pharmaceutical manipulation or therapeutic action. This is to be attributed to the injudicious plan of allowing students, who have yet to become acquainted with the most elementary facts in physiology and anatomy, to enter themselves for an examination in subjects which involve a knowledge of the physiological and pathological action of drugs—to describe effects or organs, of whose structure or situation they may be, and probably are, totally ignorant. Then, again, the vast amount of unnecessary and useless labour put upon

the student, by obliging him to commit to memory the arid details of medical botany, bristling with names which are formidable in appearance and next to impossible to remember, takes up so much of his time that little is left for the more interesting and practical facts concerning drugs. Of what earthly use is the information that quassia is the *Picræna excelsa*, N. O. Simarubaceæ, and comes from the Honduras? and how many of us remember anything of it a month or two after we have gone through the examination? Take botany, as a science, by all means; but to eliminate all that is interesting or useful in it, and reduce it to an exasperating vocabulary of discordant syllables, is about as useful as a commentary on the writings of Celsus or Galen. There can be no objection to the student fresh from school showing himself efficient in physics (on which far too little stress is laid), including pharmaceutical chemistry, pharmacy, and dispensing; but the action of drugs, and their medicinal uses, would be relegated with advantage to a subsequent period, when, with a knowledge of anatomy and physiology, the student would be enabled to take a more intelligent grasp of the subject, to the great relief and satisfaction of himself and his examiners.

STORY OF HABITUAL ABORTION AND KIDNEY-DISEASE.

MUCH has recently been written on albuminuria in pregnancy, and on the relation of disease of the kidney to physiological and morbid enlargement of the uterus. At the recent meeting of German scientists and medical men at Strasburg, Dr. Fehling, of Stuttgart, read a memoir on habitual death of the embryo in kidney-disease. In the first case under his observation, premature expulsion of a dead fetus occurred six times, and there was no evidence of syphilis. At every pregnancy, anasarca, albuminuria, and death of the fetus, with severe cramp of the abdominal muscles, occurred, between the fifth and sixth month; the dead fetus was expelled from three to ten weeks later. In the second case, similar symptoms appeared in a young unipara; the fetus died, and thereupon the albuminuria abated. In the third case, the patient had borne two healthy children. During her third pregnancy, albuminuria and characteristic changes in the retina occurred; and, during the fourth, she was seized with hemiplegia; in both, a decomposed fetus was expelled at the fifth month, with subsequent decrease of the albuminuria. In the fourth case, the patient, in her first pregnancy, aborted at the fifth month; then she gave birth at term to a recently dead child. In the third pregnancy, great edema and albuminuria supervened, the child was still-born, and the mother died of uræmia. Dr. Fehling believed that, in all these cases, kidney-disease existed before pregnancy, which aggravated the renal symptoms. Winter had described two cases of premature detachment of the placenta, normally situated, where albuminuria existed. Dr. Fehling found atrophy of the villi of the chorion, with wedge-shaped or spherical infarcts in the placenta, in his cases, similar to renal infarcts. The infiltration of the chorionic villi and vessels of the umbilical cord with small cells, as seen in syphilis, was absent, nor did any of the embryos exhibit a trace of congenital syphilis.

MEDITERRANEAN HEALTH-RESORTS.

MR. CHARLES PALMABO, British Vice-Consul at Mentone, writes, on October 29th, "that there has not been a single case of cholera in Mentone, and that the place is perfectly healthy, and has been so during the whole summer. Travellers *via* Marseilles are subjected to no fumigation or inconvenience of any kind." Mr. C. H. S. Stevens writes from Algiers, on October 24th, that he has received, through the kindness of M. de Vialar, A.D.C. to His Excellency the Governor-General, authentic information as to the health of the troops and the civil population. "The health of Algiers has for the last two summers been exceptionally good; but, since October 12th, some doubtful cases of death have occurred, entirely amongst the poorest portion of the Spanish population. As the number of deaths in ten days only amounted to ten, it can scarcely be looked upon as serious, especially

as it appears that the characteristic symptoms of true cholera are wanting." Mr. Stevens further says: "The semi-oriental character of this town and its inhabitants, the picturesque quaintness of costume, and the great beauty of the surrounding country, will always bring a fair number of winter-visitors; but I think that, were it more generally known that Algiers possesses a most admirable evenness of temperature in winter, an entire freedom from the north and north-east winds, and a very slight variation between the night and day temperature, it would be a yet greater favourite with medical men than it is at present."

TOXIC ACTION OF CUCAINE.

DR. ZIEM, of Dantzig, has communicated to the *Allgemeine Medicinische Central-Zeitung* the notes of a case, in which he applied two drops of a four per cent. solution of cucaine to the eye of a man, aged 40. In a few minutes, after the pupils had become dilated, the patient's face became pale, sweat broke out on his forehead, and his breathing became embarrassed. Dr. Ziem at once loosened his clothes and opened the window, but it was a quarter of an hour before he could return home. The man's wife said that he had not previously had syncope. He was of intemperate habits, and some years ago had been treated for disturbances of motor power in the lower limbs, apparently connected with syphilis. Dr. Ziem says that seventeen cases have been recorded in ophthalmological literature in which toxic effects followed the use of cucaine. In three it was injected hypodermically, and in fourteen dropped into the conjunctival sac. The cases have been described by Peck (1), Mayerhausen (1), Stevens (1), Reich (2), Knapp (3), Hense (4), and Bellarminoff (5). In some cases the symptoms have been transient, consisting of pallor of the face, giddiness, and sweating of the face or neck; in others there have been dyspnoea, great feeling of prostration, malaise, and apathy, lasting sometimes for several days. Vomiting and headache have been rarely present. In one case, the application of fifteen drops of a 2 per cent. solution to the conjunctiva was followed by tottering gait, difficulty of speech, confusion of the mind, and extraordinary restlessness; and, in another, the subconjunctival injection of about 8 drops of a 3.5 per cent. solution produced convulsions and loss of consciousness. The strength of the solution used was 4 per cent. in eight cases, 2.5 per cent. in four, and 2 per cent. in three or four others. The quantity generally varied from two to four drops. The subjects were, in some cases, feeble aged women; in others, they were strong and healthy individuals, both male and female.

TUBERCULAR MENINGITIS CURED BY IODOFORM.

A SWEDISH physician, Dr. Emil Nilsson, alleges that he has cured an undoubted case of tubercular meningitis by frictions on the shaved scalp with iodoform-ointment (1 to 10). The patient was a boy, aged 8, whose mother had a family history of phthisis, and four of whose brothers and sisters had died from tubercular meningitis. The symptoms in this child's case were similar to theirs—headache, torpor, convulsions, strabismus, and pyrexia. He was at first treated with calomel and iodide of potassium, but did not improve; and, after having been under treatment a week, became distinctly worse, being unable to take food or medicine. The pallor of the face, which had pre-existed, gave way to flushes of the cheeks. The child threw himself out of bed, and presented severe clonic spasms of the limbs and of the facial muscles. The head was then shaved, and iodoform-ointment rubbed in, an oil-skin cap being put on. The friction was repeated three or four times in the day; and the next day there was a decrease in the convulsive movements, the sleep was calmer, and the spasmodic contractions, which had previously been excited by the slightest noise, now ceased to be so. Consciousness shortly afterwards returned, and the child's face became of a more natural colour. This, however, was accompanied with a severe coryza, redness of the lips, and an irritable cough, the breath smelling strongly of iodoform.

The ointment was discontinued, and syrup of iodide of iron given. The unpleasant symptoms rapidly disappeared, and the child was soon running about in good health.

NEPHROTOMY FOR TOTAL SUPPRESSION OF URINE.

THE patient on whom Mr. Clement Lucas operated for total suppression of urine, lasting four days and six hours, and whose case was mentioned in the BRITISH MEDICAL JOURNAL of November 7th, is progressing favourably, and gradually gaining strength. As, during the first week, no urine reached the bladder, a little concern was felt lest there might be another stone impacted in some lower part of the ureter. All anxiety on this score was, however, dispelled on the twelfth day, when, for the first time, the patient voided about two ounces and a half of urine by the urethra. Since that time, the amount passed *per vias naturales* has gradually increased. The wound has healed primarily, except where the drainage-tube is inserted, and the patient's temperature has scarcely risen above normal since the operation. Mr. Lucas's case of nephrectomy, performed on October 20th, left the hospital well just three weeks from the date of the operation.

DISEASES OF THE MALE BREAST.

DR. SCHUCHARDT, of Gotha, has recently contributed to Langenbeck's *Archiv für Klinische Chirurgie*, a valuable memoir on diseases of the mammary gland in men. Inflamed breast and nipple is frequent, a few days after birth, in male as well as in female children. Several German writers have written on the tenderness in the mammary gland, frequent in youths at puberty, the *mastitis pubescentium virilis* of Albers. This represents a condition probably very common; it has, from time to time, formed the subject of communications published in our Correspondence columns, and must be much more general than many authorities suppose, since the kind of patients subject to the affection often take no notice of it. Langer believes that permanent enlargement of the male breast represents simply a result of *mastitis pubescentium*. In a series of 1,440 cases of cancer of the breast, Gurlt only found eight in male patients. Schuchardt, like Sir James Paget, estimates the proportion of cases in males to amount to 2 per cent. In 272 cases of tumours of the male breast, collected by Dr. Schuchardt, the varieties of disease were as follows: malignant tumours, mostly cancerous, 247 cases; enchondroma, 1; calcareous deposit, 1; adenoma, 2; fibroma, 3; myoma, 1; cystic tumours, 15; tubercle, 2. Of these cases, 154 occurred in this country. In 90 of the malignant cases the age was recorded, and between 40 and 59, 53 occurred. The shortest duration of the disease was three months, the longest fifteen years. In only three instances did both breasts appear to have been involved. The right and the left seem to be almost equally liable to malignant disease.

THE POSTERIOR ANNULAR LIGAMENT AND COMPOUND GANGLION.

DR. WENZEL GRUBER publishes in Virchow's *Archiv* a series of researches on the anatomy of the posterior annular ligament, which he has made in his capacity of Professor of Anatomy at St. Petersburg. It is generally taught that each of the separate spaces under that ligament of the carpus has a distinct synovial sac. Dr. Gruber, examining 300 hands belonging to 150 subjects, found that a communication between the sheath of the radial extensors of the carpus and that of the extensor secundi internodii pollicis existed symmetrically in 141 cases, in the right hand only in five, and in the left in three cases. The communication was absent on both sides in one, on the right in three, and on the left in five cases. Excepting in one case, the aperture of communication was always simple. When the long extensor of the thumb was double, the two sheaths of the two tendons both communicated with the sheath of the radial extensors by a separate opening. Dr. Gruber found that the presence or absence of the communication bore no relation to sex. This communication lies below the tendon of the long extensor of the thumb at the point

where it passes across the tendon of the extensor carpi radialis brevis, exceptionally also at the point where it crosses the long radial extensor. The aperture varies in shape, being sometimes round, sometimes elliptical, sometimes square or triangular, and ranges from 1.5 to 16 millimètres; Dr. Gruber found it in the fœtus, even so early as the fourth month; but after examining 100 fetal and new-born bodies, he found that the communication did not exist in forty-five hands. According to his calculations, the condition about which he writes is 19 per cent. more frequent in subjects over ten years old than in the fœtus. The aperture may, then, be very probably the result of friction. Dr. Gruber had the advantage of dissecting a case of compound ganglion on the back of the hand. The sheaths of the extensores ossis metacarpi and primi internodii pollicis were involved, together with those of the extensors of the radius and the long extensor of the thumb. The dilated and diseased cavities of the two latter sheaths were opened, and found to be filled with a great quantity of structures resembling the melon-seed bodies of an enlarged bursa patellæ, but mostly cubical or prismatic in form. A distinct and very wide opening was detected at the usual point, between the sheaths of the long extensor of the thumb and that of the radial extensors. The disease had probably begun in the sheath of the more exposed long extensor of the thumb, and had spread into the neighbouring sheath through the communication, which was itself dilated by the morbid process.

OPHTHALMOLOGY IN VIENNA.

DR. ERNEST FUCHS, the newly appointed professor of ophthalmic surgery in Vienna, in his opening lecture, gave an interesting account of the history of ophthalmological teaching in that university. In the last century, the surgery of eye-diseases was practically resigned by the members of the regular profession into the hands of charlatans. In the university, there was no chair assigned to the subject, and the only instruction which was given was contained in a few lectures given by the professors of surgery and anatomy. This state of things had lasted a long time, when one of the Empress Maria Theresa's court ladies, the Countess Taroucca, became blind. The medical men consulted were unable to agree as to the nature or treatment of the affection, some diagnosing cataract, and advising an operation, whilst others pronounced it to be amaurosis, and incurable. In order to solve the difficulty, Dr. Wenzel was summoned from Paris. He recognised the affection as cataract of an unusually dark colour, and operated successfully. As Dr. Wenzel's journey was a very costly affair, an arrangement was made to utilise it as far as possible; and so, during the time he remained in Vienna, he instructed three young medical men in eye-diseases. The most prominent of these was Barth, then professor of anatomy and physiology, who was afterwards appointed to carry on the instruction in ophthalmology. He chose as his assistant Joseph Beer. It was not long before Beer surpassed his master, ultimately becoming the most renowned ophthalmologist of his time. He was, however, not fully installed as professor until 1818, when the first chair of ophthalmology was created, at which time he was 55 years of age. One of Beer's assistants was Friedrich Jäger, from Germany. He won his master's esteem, and married his daughter. He was not only a brilliant operator, but a cultured man of the world, and was Prince Metternich's private physician. His son, Edward Jäger, the lecturer's immediate predecessor is universally known in connection with ophthalmoscopy.

ABDOMINAL GESTATION.

A CASE of this form of extra-uterine fœtation has recently occurred in the practice of Dr. T. Chambers, Lecturer on Midwifery at the Sydney University. It is reported in the *Australasian Medical Gazette*, the organ of the combined Australasian Branches of the British Medical Association. The patient, 38 years of age, underwent Emmet's operation and the operation for ruptured perinæum within a fortnight, in December, 1884, having suffered injury during labour two years pre-

viously. She ceased to menstruate in February, 1885. In May, she suffered from constant discomfort about the lower part of the abdomen, the uterus was found to be enlarged and high in the pelvis. Pregnancy was suspected. On June 10th, she was seized with severe abdominal pain, with extreme collapse. The pain was intense along the line of the transverse colon. Seybala were cleared from the rectum, and the patient rallied. On June 17th, a second attack occurred, followed by jaundice. A third seizure followed the disappearance of the jaundice a week later. Early in July, the cervix was dilated with tangle-tents. A swelling was detected, pressing the posterior wall of the uterus forward; this swelling could plainly be felt from the rectum. The swelling was aspirated, and several ounces of liquor amnii escaped. The patient's general condition became very unfavourable; and on July 18th, abdominal section was performed. The uterus was found to be fixed posteriorly. After an omental adhesion was removed, and the operator's index-finger introduced behind the organ, a great quantity of jet-black intensely fetid fluid escaped from a swelling somewhat to the left, and more fluid of a similar character welled up from the sides of the pelvis. It appeared impossible to proceed further, so the cavity from which the black fluid issued was stuffed with antiseptic lint and two sponges. The patient rallied for a short time, but died eight hours after the operation. The ovaries and tubes were found to be intact; but behind and to the left of the uterus was a large cystic cavity, the walls of which adhered to Douglas's pouch, the ureters, and other soft tissues. The cavity was divided into two portions; the left and posterior part contained a fetus, of about the thirteenth week, with detached placenta and decomposed blood-clots. The other part lay between the back of the uterus and the left compartment of the main cyst. It contained liquor amnii, and was lined with a smooth delicate membrane. The three attacks of pain and collapse probably represented repeated hæmorrhage into the cyst, due to detachment of the placenta.

DISPLACED SPLEEN AND PREGNANCY.

MUCH attention has recently been paid to the anatomical or teratological conditions wherein the kidneys or liver are found to be unusually movable. Arguments have been brought forward to show that the condition represents a mere anatomical or physiological peculiarity, or, on the other hand, that it is pathological, and of the nature of hernia. The latter theory is adopted by Landau and others, who also deem pendulous abdomen and uterine displacements to lie within the province of hernia. Dr. Gabriel Engel, of Klausenburg, Transylvania, has published in the *Orvos Természettudományi Értesítő*, a paper on the "Ætiology of Displaced Spleen." In three cases under his observation, two occurred in pregnant women, without interfering either with gestation or labour. The third case was very interesting. A woman suffered from amenorrhœa for sixteen months, and pregnancy had been confidently diagnosed, the patient, cachectic from malaria, had also been seized with acute pains resembling those felt during labour. A large soft tumour filled the lower part of the abdomen and the pelvis. Quinine was administered in all three cases, and the tumours diminished in size. Otherwise, should drugs or an abdominal belt have failed to relieve, Dr. Engel would have recommended extirpation in preference to the artificial induction of atrophy of the spleen by twisting that organ by manipulation applied to the lax abdominal walls, so as to cause obstruction of the vessels at the hilum. Dr. Engel distinguishes between displacement and mere enlargement, although the three cases which he quotes seem, from the satisfactory therapeutic results, to have all been instances of ague-cake. From any point of view it is doubtful if displaced spleen be homologous, pathologically speaking, to movable liver or kidney.

VACCINATION.

At a meeting of the medical profession of Nottingham, held at the instance of the Nottingham Medico-Chirurgical Society, on November

14th, the following resolution was passed: "That the medical practitioners of Nottingham, being convinced that vaccination is the only security against small-pox, and that the evils incident to the operation are so slight, compared with the immunity from small-pox which it confers, as to be practically of no importance, are of opinion that the only way in which the disease can be eradicated is by vaccination being universally adopted."

GUY'S HOSPITAL OXFORD AND CAMBRIDGE GRADUATES' DINNER.

The annual dinner will take place at the Holborn Restaurant on Thursday, November 26th, at seven o'clock, when Mr. W. H. A. Jacobson will take the chair. Graduates who propose to attend are requested to communicate with Dr. Pitt, Guy's Hospital.

HEPATIC ABSCESSSES IN PERU.

In an interesting clinical lecture on Abscesses of the Concave Surface of the Liver, by Dr. Romero, published in the organ of the Lima Academy of Medicine, *El Monitor Médico*, several patients were referred to, showing the gravity of these cases as compared with those of abscesses affecting the upper or convex surface of the organ. Having detailed the anatomical relations of the two surfaces, the lecturer pointed out how, in the former situation, abscesses produce hæmorrhoids, hæmorrhages, icterus, deformity of the abdomen, œdema of the inferior extremities, vomiting, indigestion, diarrhœa, and sometimes open into the stomach, duodenum, transverse or ascending colon, or even into the peritoneal cavity. Rarely, also, they extend to remote regions, and have been known to point in the right iliac fossa. Dr. Romero has long remarked that the prognosis is worse when a hepatic abscess opens into the intestine than when it discharges itself by the bronchi. In the former class of cases, the lesion is situated amongst more important anatomical structures, as the vena cava inferior and other large vessels, the celiac axis, pancreas, and stomach; and, when perforation occurs into the intestinal canal, there is nothing but the weight of the pus itself to cause its evacuation; whereas, when an abscess on the upper surface of the liver forces its way through the diaphragm, and perforates a bronchial tube, the presence of the pus in the tubes sets up a constant irritation, resulting in continual coughing, which greatly assists in its expulsion and the evacuation of the abscess.

SCOTLAND.

MEDICO-CHIRURGICAL SOCIETY, EDINBURGH.

At a meeting of the Medico-Chirurgical Society of Edinburgh, held on November 4th, the following gentlemen were appointed office-bearers for the ensuing year. *President*: Professor Grainger Stewart. *Vice-Presidents*: Dr. J. Batty Tuke, Dr. John Duncan, Dr. Peel Ritchie. *Councillors*: Dr. Rattray, Dr. A. Moir, Mr. J. Symington, Dr. Macbride, Dr. John Smith, Dr. Littlejohn, Dr. Troup, Dr. Allan Gray. *Treasurer*: Mr. A. G. Miller, 11, Walker Street. *Secretaries*: Dr. James, Dr. Cathcart. *Editor of Transactions*: Dr. William Craig.

BURNETT LECTURES IN ABERDEEN.

PROFESSOR STOKES, of Cambridge, delivered the third and final series of his lectures on Light in the University of Aberdeen. The first lecture dealt with "The Effect of Light on the Inorganic World." He dwelt upon the beneficial effects of light as rendering the world fit for the habitation of living beings, but he used the term light not in its usual acceptance, but as identical with radiant heat, thus including the total radiation from the source, whether it affected the eye or not. In the second lecture, on "The Beneficial Effect of Light in Relation to the Organic World," he dwelt upon the well known source of energy as derived from the sun. It may be remarked that neither diagram nor experiment was shown in the two foregoing lectures.

THE DUAL PATHOLOGISTSHIP IN EDINBURGH INFIRMARY.

THE managers of Edinburgh Royal Infirmary proceeded, on Monday, to fill up the dual pathologistship which they have recently created. Dr. G. Sims Woodhead and Mr. Alexander Bruce were the successful candidates. The infirmary is to be congratulated on the new arrangement having been so auspiciously inaugurated.

AMBULANCE LECTURES, LEITH.

A course of ambulance lectures was commenced in Leith, some time ago, to members of the Leith police force. Dr. Ormond H. Garland delivered the last lecture on Tuesday. The course has been well attended, and has been so enthusiastically entered into, that the thirty-two policemen who constituted the class will be examined on behalf of the St. Andrew's Ambulance Society.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

THE Medical Missionary Society of Edinburgh, which does much beneficent work, has in connection with it an invalids' auxiliary. To enable the work to be prosecuted a bazaar is held annually, and the money obtained from that source is divided among the various branches of the society at home and abroad, these branches having in all about 200 invalids to look after. Beginning modestly with £50 from a bazaar, the first of its kind, last year the seventh bazaar had produced £120; and this year the bazaar at present being held, it is hoped, will still further enable the Society to increase its usefulness.

STUDENTS' MEETINGS, EDINBURGH.

THIS session the University students' religious meetings (which were so successful last session) commenced on Sunday, 15th November, in the Oddfellows' Hall, which was crowded throughout. The Earl of Aberdeen presided, and among others who accompanied him to the platform were Professors Grainger Stewart, Simpson, and Cossar Ewart.

IRELAND.

SAD DEATH OF A SURGEON FROM MORPHINE-POISONING.

ON November 8th, Mr. T. Esmonde Cahill, of Balingarry, Callan, died under melancholy circumstances. He had been troubled with sleeplessness, and injected morphine under the skin of the calf. As this did not produce the desired effect, he repeated the injection after a short interval. In fifteen minutes his face became congested; a medical man was summoned, who applied a blister and gave two enemata of coffee and brandy, but the patient never regained his senses, and died in a few hours. Mr. Cahill had recently become a member of the Dublin Branch of the Association. He leaves a widow, to whom he had only been married three months.

ACADEMY OF MEDICINE.

THE opening meeting of the Surgical Section of the Academy was held on yesterday (Friday) week. Sir Charles Cameron, President of the Royal College of Surgeons in Ireland, and, *ex hoc officio*, of the Section, delivered an address which gave an interesting summary of the work done by Irish anatomists. This was followed by a paper from Dr. Kendal Franks, of the Adelaide Hospital, on the Treatment of Wounds. The paper went minutely into the details of the method adopted by the author, and failed to elicit any discussion. After the meeting, the President, in accordance with a custom handed down from that followed at opening meetings of the old Surgical Society, entertained a number of the Fellows at supper in the College of Surgeons.

SIMPLE ANEMIA PRODUCING BLINDNESS.—A case of absolute blindness from amaurosis, due to non-essential or simple anemia, has recently occurred in Berlin. After confinement to bed, a generous diet, and treatment with iodide of iron, the patient, a girl, aged 15, recovered.

REPORT OF THE ENGLISH CHOLERA COMMISSION.

THE report of Drs. Klein and Heneage Gibbes, entitled "An Inquiry into the Etiology of Asiatic Cholera," has been issued by the India Office, together with the transactions of a committee convened in 1885 by the Secretary of State for India in Council. Sir William Jenner presided over this committee, upon which Sir William Gull, Dr. Burdon Sanderson, Professor De Chaumont, and Sir Joseph Fayrer, and several other officers of Indian experience, sat; Dr. Timothy Lewis acted as secretary.

Drs. Klein and Gibbes commence their report by making some observations on the various theories of the etiology and nature of cholera which are maintained in different quarters, and then give a summary view of Dr. Koch's observations, and the deductions made from them. Certain *a priori* objections to the acceptance of these deductions, founded on the general natural history of the disease, are next advanced; the habitual escape of attendants in cholera-hospitals, the immunity enjoyed by certain towns, and the happy effect in the case of ships lying in infected ports of putting to sea, are mentioned as militating against the acceptance of Dr. Koch's views. The objection founded upon the fact that the comma-bacillus of Koch cannot live in acid solutions, and that it would, therefore, be killed in the stomach, is stated, and it is pointed out that a dyspeptic condition would not favour the growth of the bacillus, since dyspepsia increases the acidity of the gastric juice.

With regard to the comma-bacillus itself, a preliminary objection to the name is made, on the ground that it is not comma-shaped, nor a bacillus, but a minute form of vibrio. The various statements upon which the theory that the comma-bacillus is a pathogenic organism is founded, are then examined.

A. That these "comma-bacilli" occur only and exclusively in cholera. Under this head, it is pointed out that it is now generally admitted that comma-shaped organisms do occur under other conditions, and that no reliance can be placed on the thickness of the bacilli in any particular case, as their dimensions vary very much. It is pointed out that Dr. T. R. Lewis has not shown that the comma-shaped bacillus observed by him in the mouth is identical with Koch's comma-bacillus, and that Finkler and Prior have entirely failed to prove that the comma-shaped organism found by them in cholera nostras is physiologically identical with Koch's comma-bacillus, but it is contended that these and other similar observations do away with the diagnostic value claimed for the comma-bacillus by Koch, though Dr. Klein admits that gelatine-cultures of these two organisms "differ in an unmistakable manner." With regard to the conditions of growth, also alleged to be characteristic of Koch's organism, it is stated that it will grow in acid media, and will flourish luxuriantly in neutral media; the peculiarities in the mode of growth enumerated by Koch are examined, and it is pointed out that other organisms may closely simulate the mode of growth of the comma-bacillus, and that cultivations of that organism do not always present an uniform character. The objection which might be made that the comma-shaped bacillus observed by Drs. Klein and Gibbes is not the same as that described by Dr. Koch is discussed and refuted.

B. That the comma-bacilli occur in vast numbers in the small intestine in cases of cholera, and give rise to a chemical ferment, and that they occur in the tissues of the intestine. Drs. Klein and Gibbes state that, in some typical fatal cases, when the examination was made shortly after death, the comma-bacilli were very scarce in the mucous flakes, while when the examination was delayed, or when the patient remained in *articulo* for many hours, the number of comma-bacilli in the mucous flakes was much greater; when in examinations made very soon after death, the comma-bacilli were abundant, other bacteria (micrococci, b. termo, b. subtilis, vibrio rugula, spirillum, or others) were also very abundant. It is stated that, in the mucous membrane, the tissue of the villi, Lieberkühn's crypts, and the lymphatic tissue of the solitary and agminated glands, "the comma-bacilli, or any other organisms, are conspicuous by their absence. In two cases only were there present in sections through the Peyer's glands, near the ileo-cæcal valve, comma-bacilli, in some places around Lieberkühn's crypts, and also scattered here and there amongst the superficial parts of the lymph-follicles." In another case, examined immediately after death (the patient had been in *articulo* six hours), the epithelium of the surface was detached, no comma-bacilli were present, but there were, nevertheless, "in some places on the surface, minute groups of putrefactive bacillus subtilis, and from here they entered into the spaces resulting from the detachment of the epithelium of the Lieberkühn's follicles from the membrana propria. And even capillary blood-vessels of the lymph-follicles, near the denuded surface, were found crowded with putrefac-

tive bacilli and micrococci." It is for these reasons contended that the preparation described by Koch on page 6, and figured on page 7 of his paper, is an exceptional one, and not typical of cholera, and that his statement that "in acute cases, the mucous membrane of the ileum, contains so great a number of comma-bacilli, as to represent almost a pure cultivation of comma-bacilli, is in direct opposition to the facts observed. And if this statement of Koch is not in conformity with the facts, his inference that the large numbers of these comma-bacilli produce a large quantity of the chemical ferment, and, therefore, an acute illness, is in no way justified, and his whole edifice as to the relation of the comma-bacillus to the disease having thus lost its chief support (namely, vast numbers of comma-bacilli supposed to be present in the mucous membrane in acute cases) falls to the ground." In reply to the argument that though the comma-bacilli are not present in the mucous membrane, yet they exist in large numbers in the contents of the intestine, it is urged that (1) this is not invariably true; (2) that though the whole of the small intestine presents the same appearances, the comma-bacilli are very scarce, except in the lower part of the ileum; (3) that the "comma-bacilli" are present only in dead tissues; (4) that the bacilli must have been present in vast numbers before the onset of the disease in order to produce the hypothetical chemical ferment, which, it is contended, must be absorbed before that onset, absorption being impossible after the disease is set up. It is further remarked that the total absence of "comma-bacilli" from the liver, kidneys, spleen, central nervous system, blood, and especially from the mesenteric glands, is opposed to the view that "comma-bacillus" could have been present in very large numbers long before the onset. The facts mentioned under 2 and 3 are stated to "point clearly to the comma-bacilli being putrefactive organisms."

No other organisms were found, either on microscopical examination or on culture-experiments, in the blood or tissues; but attention is called to certain small straight bacilli found in the intestinal contents, but not in the mucous membrane. In acute cases, examined very shortly after death, "freely floating, glassy-looking clumps of mucus" are found; they consist chiefly of mucous or lymph corpuscles; in certain cases, where the necropsy was made early, these lymph corpuscles contained immense numbers of the straight bacilli; "the best preserved spherical corpuscles are completely filled with very minute straight bacilli," but not in all instances, for in some cases the straight bacilli were missed in most of the well-preserved corpuscles, and found only in those that had slightly swollen up, or were on the point of disintegration. But in all instances, the same small bacilli are found scattered in amongst the detached epithelial and lymph-cells. There has not been a single case examined in which they were not found in the mucous flakes; in cases in which the comma-bacilli were very scarce, the small bacilli were not scarcer. In most cases, they were met in larger or smaller groups, and as isolated examples." The opinion is, however, expressed that these straight bacilli must "be regarded, like the comma-bacilli, as something extraneous, present only in tissues practically dead in the cavity of the alimentary canal." Dr. Klein has cultivated this bacillus, which is about half the length and one-third the thickness of the comma-bacillus, and does not liquefy gelatine.

c. That the comma-bacilli, of pure cultivation, are capable of producing disease when introduced into the animal system. Experiments were made by feeding monkeys, cats, mice, rats, and rabbits with rice-water-stools, choleraic-vomit, and pure cultivations of the comma-bacillus, by inoculation, and by injection into the duodenum. The results were negative. The deaths of the animals operated on by Koch and others (see BRITISH MEDICAL JOURNAL, 1885, vol. i, pp. 956 and 1011), are attributed, not to any specific disease-producing power of the comma-bacilli, but to the operation on the abdomen, or a septic injection.

The first appendix is occupied by a discussion of the relation of bacteria to Asiatic cholera. It is contended that a review of all the facts shows that the stools do not contain a cholera-poison in the shape of an organism; and that, therefore, the direct cause of cholera "must be some kind of ferment, produced altogether outside and independently of the body of a cholera-patient;" "this something must evidently be self-multiplying.....a living entity, an organism.....the direct virus being a chemical or non-organised ferment, we arrive at the conclusion that a living organism, transferred from a cholera-locality into a new and suitable soil, therein multiplies, and gives rise to the production of a chemical ferment, which, when finding access to the body of a person, sets up the disease cholera." The second appendix contains an account of observations made on the water of certain tanks, and some remarks on the general question of the relation of water-supply to cholera. This appendix shows, as before indi-

cated (see BRITISH MEDICAL JOURNAL, 1885, vol. i, p. 248), that no importance can be attached to Dr. Koch's observation of "comma-bacilli" in certain tanks. The investigation of drinking-water during epidemics, and in the intervals, must be made systematically and with scientific accuracy, before any conclusion can be drawn.

In accordance with the provisions of the original proposal made by Sir Joseph Fayer for the despatch of commissioners to India, their report was submitted by the India Office to a committee constituted as above stated. A memorandum was drawn up by Dr. Timothy Lewis, and adopted by the committee after discussion and emendation. The conclusions of the committee may be summarised thus. 1. Comma-shaped organisms are ordinarily present in the dejections of persons suffering from cholera, but not in the blood, the intestinal mucous membrane, or any other tissue. 2. Comma-shaped organisms of closely allied morphological appearances are ordinarily present in different parts of the alimentary canal in health, and are developed in an unusual extent in certain diseases in which there is copious intestinal secretion; the predominant form in any given case depending in great measure on the nature of such secretion. 3. The comma-shaped bacilli ordinarily found in cholera do not induce that disease in the lower animals, and there are no real grounds for assuming that they do so in man. 4. The committee expressed its "conviction that sanitary measures in their true sense, and sanitary measures alone, are the only trustworthy means to prevent outbreaks of the disease, and to restrain its spread, and mitigate its severity when it is prevalent."

As a conclusion to our notice of this document, the following observations, made by Sir William Gull at the second meeting of the committee, may be quoted. "It was," he said, "becoming more and more probable that sanitary measures might destroy the conditions upon which the existence and spread of the cholera-poison depended.....In other words, we may, in fact, be able to defend ourselves against the invasions of cholera before science has discovered the essential cause of the disease."



FIG. I.—A "wet" preparation, the field swarming with "vibrios," in a state of great activity.



FIG. II.—A "dry cover" preparation from the same cultivation, made at the same time as Fig. I. The field crowded with commas.

From a pure cultivation of choleraic comma-bacilli fifty-six hours' old (Obj. 1 in oil immersion). Drawn by Dr. T. R. Lewis.

THE CHANGED INCIDENCE OF SMALL-POX MORTALITY.

DURING the last few days, two highly interesting reports have been issued as Blue-books by the medical advisers of two great Government departments—the one, Dr. Buchanan's annual account of his stewardship as Medical Officer of the Local Government Board; the other, Dr. Ogle's letter to the Registrar-General on the mortality in England and Wales during the ten years 1871-80, in continuation of the two previous decennial supplements of Dr. Farr. Each report devotes more attention than has of late been customary in professional literature to the important—though, to the medical mind, unargumentative—subject of the prophylactic effect of vaccination. There has been a tendency—very natural to professional thinkers—to rely upon the obvious and undoubted effects of vaccination in mitigating small-pox, and to pass over, as unworthy of attention, and still less of reply, the strong assertions and ingenious misstatements of the anti-vaccinators. This is now seen to have been a mistake, from the point of view of popular appreciation of the operation. The average householder, seeing, on one side, a plausible collection of so-called facts and statistics, industriously thrust under his eyes at every turn; and, on the other, what the agitators are accustomed to denounce as a grim conspiracy of silence, has been more or less inclined, despite his better self, to lend a willing ear to the sophistries of the noisy party, and to allow his mind to be warped by their blatant condemnation of vaccination. When, however, anti-vaccinators have been calmly and soberly met upon their own ground, their rout has been complete, to the hardly concealed satisfaction of the re-assured citizen aforesaid.

For these reasons, if for no other, we think that, in devoting so much space in their just published blue-books to the statistics of vaccination, Dr. Buchanan, of the Local Government Board, and Dr. Ogle, of the General Register Office, deserve general thanks and acknowledgments. The same thought runs through the remarks of both commentators, but is better expressed, perhaps, by Dr. Buchanan, who points out that "the unsusceptibility to small-pox gained by the English community has, during recent years, and by the influence of recent legislation, been gained in preponderating measure by the infantile section of the community; wherefore, the peculiar incidence of small-pox on the early years of life has, to an increasing extent, been reduced, and later periods of life are contributing more and more to each thousand deaths by the current disease."

In discussions concerning the protective influence of vaccination, too exclusive attention is usually given to the change which has occurred since its introduction in the death-rate from small-pox at all ages; but it is important that not only this, but also the changes in the death-rate at successive periods of life should be taken into account.

Going back as far as we can with the statistical records available in the Registrar-General's reports, the results appear which are summarised in the annexed table.

Mean Annual Deaths from Small-pox at successive Life-periods, per Million living at each such Life-period.

SUB-PERIOD.	AGE.						
	All Ages.	0—	5—	10—	15—	25—	45— and upwards.
1. Vaccination optional (1847-53) ..	305	1,617	337	94	109	66	22
2. Vaccination obligatory, but not efficiently enforced (1854-71)	223	817	243	88	163	131	52
3. Vaccination obligatory, and more efficiently enforced by vaccination-officers (1872-80)	156	323	186	98	173	141	58
Entire period of obligatory vaccination (1854-80)	198	633	222	92	167	135	55

These figures show conclusively (1) that, coincidently with the gradual extension of the practice of vaccination, there has been a gradual and notable decline in the mortality from small-pox at all ages; (2) that this decline has been exclusively among persons under 10 years of age, and most of all among children under 5, in which group the rate fell no less than 80 per cent. in the interval between the first and the third sub-period; and (3) that, after the age of 10 years, the mortality, so far from having declined, has actually increased—very slightly among persons of from 10 to 15 years of age, but very decidedly for persons older than this: and (4) that the increase has been the greater, the more advanced the time of life. Thus, again, comparing the third with the first sub-period, the rate for persons from 15 to 25 years of age rose 59 per cent.; from 25 to 45 years of age, it rose to 114 per cent.; and after 45 its rise was no less than 164 per cent. These striking changes in the rates at successive periods of life are, it will be noted, not petty differences, nor mere matters of decimal points or the like, but enormous changes, of such magnitude as utterly to preclude all explanations which would refer them to chance fluctuations or to errors in registration. How, then, are they to be explained? Mr. Buchanan sets himself to supply the answer, so far as explanation is at this moment possible.

Conducting to an increase in the registered annual death-rates between the first and second periods, he points to the probability of small-pox death-rates among adults having been artificially low during the first period 1847-53; an exceptional number of the men and women of that time having very recently passed through their primary vaccination; and, secondly, the increased mobility since the end of that period of the population, essentially of the adult population, which has brought grown-up people ever more and more into towns and into contact with the infectious diseases that find their homes specially in towns. These considerations may account for a part, but only a part, of the increase in the small-pox death-rate observable in adults since 1853, the date at which the decrease in the death-rate of children began, thanks to the legislation of that year, to be conspicuous.

To the question whether in past times, during the successive periods in which English adults received their infantile vaccination, there could have been any deterioration in the vaccination-procedures of the

kingdom, of a sort to account for the later born possessing, as they grew up, an inferior degree of protection against small-pox than had been possessed by the earlier born, Dr. Buchanan answers that not improbably there was something of such deterioration in successive decades before vaccination was made a matter of State concern and before those measures began to be taken under the auspices of the General Board of Health that had for their object to secure throughout the country the efficient performance of the operation. The time has not yet come for statistical evidence whether the present vaccination of the country is for the individual a more durable protection against small-pox than that given to the infants of twenty or thirty years ago; but, from the recent experience of his department, Dr. Buchanan says confidently that infantile vaccination in England is being carried out far more intelligently than in past times, and year after year with increasing solicitude; that public vaccination is, as a rule, excellently performed, and much private vaccination also: so that the average vaccination of the country is making good progress towards its proper standard.

Claiming consideration equally with a possible diminution in vaccine protection is the question of a possible intensification in the current small-pox of the country. As regards this, there are not wanting indications of a recent malignity and fatality of the disease, among unvaccinated and vaccinated persons alike, in excess of that which was customarily observed in English small-pox thirty or forty years since. Some evidence on this head, important in the present connection, was given to the Hospitals Commission of 1881 by Dr. Munk, one of the Physicians to the Highgate Small-pox Hospital; the question also arose in Mr. Power's recent inquiry into the dissemination of small-pox around the Fulham Hospital. The Registrar-General has, indeed, in one of his reports, pointed out that, if we must believe small-pox itself to have become more virulent, it is plain that the saving of life due to vaccination has been even greater than hitherto supposed. "For not only did the small-pox death-rate fall, with its extended use, from 305 per million to 156, but it so fell in spite of an increased intensity of the virus, which would, if unimpeded, have enormously increased the mortality."

It is to be regretted that all who apprehend the fact that small-pox continues to prevail in England, having largely transferred its fatal incidence from the period of infancy to a later time of life, do not, instead of decrying the agency which has preserved through childhood, accept, and urge on others to accept, that renewal of protection that may be had by a second vaccination. The English vaccination-system, though it provides facilities for renewal of the vaccine protection at puberty, does not provide for any second enforcement of the operation, but leaves the adult to decide whether, in his own interests, he will receive the full measure of protection that vaccination is capable of giving him. Yet, in the case of some people, there is a period of life between childhood and manhood, before the age of legal responsibility is attained, in which period the protective influence of their infantile-vaccination is so far lost as to leave them liable to small-pox, and, in some instances, to death by small-pox. The German legislature, in enacting its compulsory vaccination law of 1874, had regard to this fact; and, considering that the protective influence of vaccination might reasonably be trusted for ten or twelve years from the time of operation in infancy, directed that all children should be vaccinated a second time during their school period, and made the parent of the child responsible for this being done.

As was shown in the important report of the German Vaccination Commission, on the influence of this law upon small-pox prevalence, which was summarised in the JOURNAL of August 29th last, during the ten years last past Germany has not only experienced smaller death-rates by small-pox than ever before, but even has passed from a position of inferiority to England into a position of distinct superiority, as regards its immunity from the disease, and it would appear certain that this result has been brought about through the working of the compulsory re-vaccination law of 1874. In the large towns of Germany, since that date, small-pox death-rates have become actually trivial, whereas in London, Paris, and Vienna there have been several appreciable epidemics, in the case of London having, to an unusual degree, their fatal incidence upon young adults.

The moral of the figures which Dr. Buchanan has thus analysed is obvious. It is that, by systematic and universal primary vaccination, children under five years of age, who, in pre-vaccination days, contributed by far the largest proportion of small-pox deaths, are now very generally protected from that disease; and that the incidence of current small-pox mortality tends more to fall upon adolescents and adults, thus showing the necessity of renewing the protection afforded by infantile vaccination by a repetition of the operation in youth. We

have not, on this occasion, adverted particularly to the striking diminution of small-pox mortality generally, which the table above quoted proves, but the figures are well worthy of attention at the present moment.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

SECOND SESSION 1885.

Tuesday, November 17th, 1885.

SIR HENRY ACLAND, President, took the chair at 2 P.M.

President's Address.—The PRESIDENT directed the attention of the Council to the removal of names from the *Register*; the consideration of the penal by-laws; the conditions for registering the Irish students; the claims of the Colleges of Galway, Cork, and Belfast; the visitation of the universities; a report on the new *Pharmacopœia*; the statistics prepared by the Statistical Committee of the Council, and other questions of import. The President pointed out the necessity of two meetings every year, one educational, the other for general and legal business; the latter late in the year, in time to prevent the names of persons convicted of crime, or condemned by the Council, from appearing in the next volume of the *Register*. The penal clauses of the standing orders had been submitted to a keen scrutiny by the legal advisers of the Council. The resolution of the Council that an examination must be undergone in mechanics previously to registration, appeared to have taken many Irish students by surprise; but the Executive Committee had directed that the registration of the applicants could take place whenever they passed, the time of passing to be antedated. An analogous course was adopted by the Executive Committee in respect to the Colleges of Galway, Cork, and Belfast, and the question of refusing the testamurs of these Colleges was deferred for consideration during the present meeting. The reports of the visitation of examinations would be submitted to the Council when complete. The thanks of the Council were due to Dr. Quain and the editors who acted with him in the preparation of the third edition of the *Pharmacopœia*. Mr. Marshall's report on statistics of the medical profession showed, amongst other things, that, as in the middle ages and in modern Germany, students migrated in quest of teachers of reputation, and other advantages. After a reference to the general election, the President reviewed the action of successive governments, with regard to medical education, the question of a State examination, of the independent licensing bodies, an increased utilisation of the clinical opportunities afforded by the London hospitals for educational purposes, and other kindred topics. Mr. Marshall moved that the address be entered on the minutes, and Dr. Humphry seconded the motion, which was carried unanimously, after some complimentary remarks by Dr. Haughton.

Business Committee.—On the motion of Dr. HUMPHRY, seconded by Dr. QUAIN, it was resolved that the Business Committee should consist of the following members of Council: Sir Hy. Pitman, Dr. Aquilla Smith, and Dr. Struthers.

Removals from the Register.—The first case was that of Francis Goold, who was convicted of manslaughter at Auckland, New Zealand, on December 2nd, 1876, and, in July last, was removed from being a member of the Royal College of Surgeons of England. The case of Mr. T. Clarkson, M.R.C.S., L.S.A., was next considered. Mr. Clarkson had been removed from the membership of the College, in consequence of his refusal to comply with a request to discontinue certain offensive advertisements. It was agreed that the qualification of Member be struck off the *Register*, that of Licentiate to the Society of Apothecaries to remain for the consideration of the Society. It was next agreed that the name of Thomas Miller, of Coventry, recently sentenced to ten years' penal servitude for procuring abortion, be removed from the *Register*.

A long discussion followed, upon the removal of Dr. Robert Locke Evans, of Carrickfergus, from the roll of Licentiates of the King and Queen's College of Physicians in Ireland. As the nature of the offence was not stated, and the representative of the College refused to state it, the Council did not think it advisable to strike Dr. Evans's qualification in question off the *Register*, until the matter had been submitted to counsel. Mr. Simon, and others, spoke very strongly against the removal of the qualification of any medical man from the *Register*, if the qualifying body refused to give reasons for such a course.

Preliminary Examinations.—The Council then debated on the pre-

liminary examinations of the Queen's Colleges of Galway, Belfast and Cork. Dr. Banks defended these Colleges; other members of Council considered that they were merely affiliated to Dublin, and their examinations should no more be accepted elsewhere than those of the individual colleges which made up the University of Oxford. A resolution for the appointment of a Committee on Preliminary Examinations, to consider and report upon the communications from the Queen's Colleges was then agreed to, the following gentlemen to form the committee: Dr. Haughton, Dr. Heron Watson, and Dr. Humphry. In consequence of the action of the Executive Committee, which, for certain reasons of equity, had temporarily set aside a previous decision of the Council, not to recognise the preliminary examinations of the above named colleges, Dr. Lyons gave notice of motion for Wednesday, to call attention to the action of the Executive Committee.

Registered Qualifications in the United Kingdom.—The President stated that Dr. Matthews Duncan had given notice of motion: "That the President be requested to state how far, in the different divisions of the kingdom, arrangements have advanced with the object of securing that all registered qualifications be complete, and not partial." This question ought not to be answered until he had communicated with the representatives of the different bodies.

The Council then adjourned.

Wednesday, November 18th.

SIR HENRY ACLAND (President) took the chair at 2 P.M.

Removal of Names from the Medical Register.—The Council received the report of the Executive Committee on the Standing Orders relating to complaints against registered medical practitioners, and to removal of names from the *Medical Register*. The Committee reported that they had, with the assistance of the solicitor of the Council, and with the advice of counsel, carefully considered the subject, and recommended that chapters xi and xiv of the Standing Orders be annulled, and that new Standing Orders should be substituted. After hearing a statement from Mr. Muir Mackenzie, the Council resolved itself into committee, and considered the Standing Orders *seriatim*. After some discussion, the remaining proposed Standing Orders were read through, and some of them agreed to, others being referred to Mr. Muir Mackenzie for further report on the following day.

The Council having resumed,

Dr. SCOTT ORR moved, "That the list of names and qualifications erased from the *Medical Register*, by order of the General Medical Council, for the reasons assigned in each case, be published annually, as an appendix to the *Medical Register*."

Dr. A. SMITH seconded the motion, which was agreed to.

Dr. SCOTT ORR moved, "That intimation, by means of a registered letter, be made to those whose names are erased from the *Medical Register*, by order of the Medical Council." A practitioner in Glasgow, whose name had been erased from the *Medical Register*, in 1881, had since been distributing bills, announcing himself as a licentiate in medicine, surgery, and midwifery; and when prosecuted for so doing, he set up the defence that he had received no intimation from the Council of his name having been removed. At the trial, the verdict was, "not proven," no evidence having been produced that the accused was present when his name was struck off, or that he knew of it.

Dr. QUAIN thought that a registered letter would not be sufficient evidence of notice of erasure being given, and that if the person were not present when the Council removed his name, he should be served with personal notice through the solicitor.

Dr. SCOTT ORR accepted the suggestion, and the resolution having been so amended, it was agreed to.

Mr. SIMON gave notice that he would move to rescind the first resolution of Dr. Scott Orr, which the Council had passed.

Dr. SCOTT ORR moved, "That on the application of any of the medical authorities in the United Kingdom, the Registrar of the Council be in future empowered to present such medical authority with a bound copy of the minutes of the Council as they are published."

Dr. QUAIN seconded the motion.

Dr. STRUTHERS suggested that the following addition should be made to the resolution. "And to present any such authorities with a copy of any past minutes which they may not possess, and for which they may apply in the course of next year."

Dr. SCOTT ORR acquiesced in the addition, and the resolution was then passed.

Charge against a Registered Practitioner.—Dr. H. WATSON gave notice that he would ask whether any action was proposed to be taken

under Clause 29 of the Medical Act, by the Branch Council of England or the General Medical Council, in connection with the case of a registered medical practitioner, a Member of the Royal College of Physicians of London, whose name had been recently brought before the public as a witness in a criminal case, and on whose professional conduct the judge had animadverted in very strong terms.

The PRESIDENT requested strangers to withdraw. Strangers accordingly withdrew.

Report of Statistical Committee.—Mr. MARSHALL brought up the report by the Statistical Committee, and moved: "That the *ad interim* report of the Statistical Committee be received and entered on the minutes, and that the committee be empowered to continue its investigations."

The resolution was seconded by Dr. STORRAR, supported by Dr. M. DUNCAN and Dr. STRUTHERS, and agreed to.

Pharmacopœia Committee.—Dr. QUAIN moved that the report of the Pharmacopœia Committee be received, entered on the minutes, and adopted. The committee suggests the advisability of reappointing the present committee as a standing committee, with power to appoint a subcommittee, who should prepare for publication, by way of appendix to the present Pharmacopœia, when necessary, such changes or additions as might be deemed desirable, for which purpose a sum not exceeding £100 *per annum* should be placed at their disposal.

Dr. H. WATSON seconded the motion, which was agreed to.

The Local Government Board and the Licence of the Apothecaries' Society.—A communication was received from the Local Government Board, in regard to the qualification of the Apothecaries' Society of London. The question raised was, whether the licence of the Society of Apothecaries was now sufficient to confer a qualification in surgery, as well as in medicine, for the purposes of an appointment as Poor-law medical officer.

Sir HENRY PITMAN moved, and Dr. STRUTHERS seconded, that this communication be received and entered on the minutes.

After discussion, the motion was carried.

Thursday, November 19th.

The Council assembled at 2 o'clock.

Dr. HERON WATSON, in pursuance of notice, asked the President whether any action was proposed to be taken under Clause 29 of the Medical Act, by the Branch Council for England or by the General Medical Council, in connection with the case of a registered medical practitioner, a Member of the Royal College of Physicians of London, whose name had recently been brought before the public as a witness in a criminal case, on whose professional conduct the judge commented in very strong terms.

The PRESIDENT said he presumed there was no doubt as to the person to whom the question referred. With respect to that case, he had to inform the Council that it was under the consideration of the Royal College of Physicians of London, and a complete inquiry was being made by that body. It would rest with the Branch Council as to whether it took any action, but he presumed that the inquiry by the College of Physicians would be completed before the Branch Council met.

The Standing Orders relating to complaints against registered medical practitioners were then agreed to.

The case of Mr. H. F. Partridge, whose diploma as Licentiate in Dental Surgery had been withdrawn by the College of Surgeons in Ireland, on account of his advertising in connection with the Ladies' Dental Institution, South Kensington, was referred to the Dental Committee.

On the motion of Mr. SIMON, it was resolved to rescind the resolution passed on the previous day, that the list of names and qualifications erased from the *Medical Register* should be published annually as an appendix to the *Medical Register*.

On the motion of Dr. HUMPHRY, seconded by Dr. BANKS, the Queen's Colleges of Belfast, Cork, and Galway were restored to the list of bodies whose preliminary examinations are recognised by the Council.

The Council then adjourned.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An extraordinary meeting of the Council was held at the College on Tuesday, November 17th. The minutes of the Ordinary Council held on the 12th were read and confirmed.

The statement of the President and Vice-Presidents respecting resolutions passed at the meeting of Fellows and Members held on October 29th, with verbal alterations and additions, was approved and adopted, subject, however, to confirmation by an extraordinary meeting of Council to be held on November 24th.

The question of the College, in conjunction with the College of Physicians, obtaining power to grant the degree of Doctor, was postponed till the Extraordinary Meeting on November 24th.

It was resolved that a meeting of Fellows and Members be held at the College on Thursday, December 17th, at three o'clock.

A sum of £50 was voted for the repair of the Holy Trinity Church Little Queen Street.

Mr. HUTCHINSON moved, and Mr. BRYANT seconded, the following resolution. "That the Council do take into consideration proposals for widening the basis upon which the Fellowship is obtained."

The consideration of this motion was postponed.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of
DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HÆMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

MEDICAL MAYORS.—The list of mayors appointed for the ensuing year contains the names of the following medical men: Blackpool, Dr. McNaughton; Bootle, Dr. M. Hill; Cardiff, Mr. D. Edgar Jones; Colchester, Mr. H. Laver; Droitwich, Dr. S. Roden; Evesham, Mr. Haynes (re-elected); Hartlepool, Mr. Rawlings (re-elected); Launceston, Mr. Andrew; Liskeard, Mr. Nettle (re-elected); Ludlow, Mr. Brooks (re-elected); Ryde, Mr. B. Barrow (eighth time); Tewkesbury, Mr. Boughton (re-elected).

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 26th. The President (J. H. Hartill, Esq.) will take the chair at half-past three o'clock. —VINCENT JACKSON, General Secretary, Wolverhampton, November 2nd, 1885.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above Branch will be held at the Bear Hotel, Lewes, on Wednesday, November 25th. Dr. Crosskey will preside. Paper by Dr. Ranking: Cases of Faecal Tumour. The Honorary Secretary will be glad to receive early intimation of intended contributions; short papers and cases of interest being especially welcome. —T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton. —October 25th, 1885.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at the Kent and Canterbury Hospital, on Thursday, November 26th, at 3 P.M. Mr. Whitehead Reid in the chair. Agenda: 3 P.M., Mr. Raven, Purulent Pericarditis; Mr. W. Knight Treves, Treatment of Big Glandular Swellings; Dr. A. de Watteville, On the Practical Application of Electricity in Disease. The chairman will show a specimen of Calculus passed through the Female Urethra. The dinner will take place at 5 P.M., at the Royal Fountain Hotel. The president will be happy to see members and their friends to luncheon, between 12.30 and 2, at his residence, 34, St. George's Place. All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends. N.B.—All gentlemen purposing to dine are particularly requested to inform Mr. Whitehead Reid, by Tuesday, November 24th, that proper arrangements may be made. —W. J. TYSON, Honorary Secretary, 10, Langhorne Gardens, Folkestone.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 P.M. Gentlemen who propose to read papers, etc., are requested to signify their intention to the Honorary Secretary, A. W. Nankivell, Esq., St. Bartholomew's Hospital, Chatham, not later than November 24th. —A. W. NANKIVELL, Honorary Secretary, November 2nd, 1885.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —J. MAITLAND, M.B., Honorary Secretary, Madras.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting will be held in Ashton-under-Lyne, early in December. Gentlemen wishing to show cases, or read papers, will oblige by communicating with the Honorary Secretary, without delay. —CHARLES EDWARD GLASCOTT, M.D., Honorary Secretary, 23, St. John Street, Manchester.

OXFORD AND DISTRICT BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Radcliffe Infirmary, Oxford, on Wednesday, November 4th, at 3 P.M., under the presidency of Sir H. W. ACLAND, K.C.B., F.R.S. There were present twenty-six members.

President's Address.—The PRESIDENT delivered an introductory address, in the course of which he touched upon the great improvement in the sanitary condition of Oxford during the last fifty years. He compared the state of the drainage of the city during the time of the cholera in 1854 with what it is now. As a result of these changes, he pointed out that the death-rate had fallen from something like 22 to 16. The paper was full of statistics and details of an elaborate nature, and was full of interest, especially to the Oxford residents.

Multiple Exostoses.—MR. W. L. MORGAN showed a little girl who exhibited a large number of exostoses. The chief points of interest were their number and their symmetrical arrangement.

Fracture of Patella, sutured with Silver Wire under Antiseptics.—MR. H. P. SYMONDS described this case. The patient, an adult man, was able to walk easily, to ascend and descend stairs, and to kneel. The bony fragments were close together, joined by bony union; they still had two thick silver-wire sutures remaining, as inserted at the operation. Mr. Symonds alleged that in no other way could such a result be obtained.

Gastrostomy.—MR. WINKFIELD showed a specimen from a woman on whom he had performed the operation. It was done on account of inability to take nourishment through the oesophagus, owing to a syphilitic stricture. The patient rallied after the operation, and increased in weight, but died from intercurrent disease.

Excision of Hip.—MR. WINKFIELD showed a case in which he had performed early excision. The result was good, and the child could walk well.

Ulcerative Endocarditis.—DR. DARBISHIRE read a case of endocard.

itis ending in plugging of the femoral and profunda femoris arteries, and death. Specimens were shown—namely, the heart and the plugged femoral artery.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

A MEETING of this District was held at the Grosvenor Hotel, Southsea, on Friday, October 30th, 1885. Surgeon-General LAMPREY, M.B., occupied the chair, and twenty members were present.

Ununited Fracture of Thigh.—DR. LLOYD OWEN exhibited a case of ununited fracture of the thigh in a man aged 40. The patient had been in several hospitals, and was admitted into the Royal Portsmouth Hospital wearing a Thomas's splint. Dr. Lloyd Owen drilled the ends of the bone together under chloroform, and good union took place in two months. He thought some muscular or fibrous tissue must have got between the broken ends, and so prevented repair. The patient's health was good, and the cause of the non-union appeared to have been purely local.

Ovarian Tumour.—DR. WARD COUSINS exhibited an ovarian tumour removed from a patient aged 56. It contained a large quantity of recent blood. The urgency of the symptoms called for immediate operation, and the patient recovered.

Compound Fracture of Arm.—DR. WARD COUSINS also exhibited the upper part of the humerus, recently removed in a case of compound fracture of the arm, necessitating amputation at the shoulder.

Multilocular Tumour.—DR. KEALY exhibited a large multilocular ovarian tumour, removed from a patient after death. She had been in several hospitals, but her general condition prevented any surgical interference. Dr. Kealy said that it was quite clear, from the post mortem examination, that the case was not unfavourable for operation.

President's Address.—The PRESIDENT delivered an address on Cholera, giving some of his own experience from practice in Eastern countries; as well as from observation of the disease in Berlin in 1848, and subsequently in England. He noticed the contrast between the present epidemic in the south of Europe, and that of 1848, which visited the north of Europe with greatest intensity. He referred also to the fact that two cases of cholera in the primary stage were landed at Portsmouth last year; but, proper precautions being taken, no spread of the disease took place. With reference to this subject, he spoke of the difficulties attending sanitation in Portsmouth, through the want of a proper fall for the drainage-system and the faulty construction of the drains, and criticised the modern construction of houses as favouring the escape of sewer-gas. He then referred to the causation of cholera, speaking briefly of the comma-bacillus and of ptomaines; and related a fact which came under his notice in Burmah, where the opening of a pit in which the bedding and dejecta of cholera-patients had been buried for some years was followed by an outbreak of the disease. He then gave an account of his observations in Berlin in 1848, and expressed his doubt that Ferran's system of inoculation would become acceptable in this country. He related an instance in which imagination evidently had a powerful effect in favouring the recovery of a patient from cholera; and advised that nothing should be said to damp the hope or courage of the sufferers. The address concluded with some remarks on treatment.

Midwifery-Forceps.—DR. FREDERICK PEARSE (Haslemere) exhibited a midwifery-forceps having a hinge in the shank added, with the object of more easy carriage and to facilitate its application. It was alleged that the second blade was rendered easier of introduction by being enabled to bend the handle of the first out of the operator's way. An additional advantage urged was that, by flexing the instrument after its application, compression could be exerted on the child's head.

Empyema-Tubes.—DR. PEARSE also exhibited empyema-tubes, consisting of two short tubes joined (an inch to an inch and a half) side by side, and of half an inch calibre, and made in either metal or rubber. The object was to allow free drainage, and washing out by means of rubber siphon-tube, and the prevention of the closing of the opening in the chest-wall by approximation of the ribs.

Pessary for Prolapse of Bladder.—DR. PEARSE also exhibited a modification of Cullen's pessary for uterine complaints, adapted to cases of prolapse of the bladder.

Specimens.—DR. O'MALLEY showed a new clamp, and new form of suture. —DR. WARD COUSINS showed a new apparatus for oscillating the ossicles of the ear.

Rupture of Ligamentum Patellæ.—DR. O'MALLEY described a case of rupture of the ligamentum patellæ on board ship, treated by an extemporary apparatus. The limb was put up in the following manner. The patient being placed in bed, a McIntyre's splint was

adjusted, and a splint was applied on the upper surface, and retained by a few turns of a roller. A Petit's tourniquet was then applied, through which was run a long piece of webbing pierced at the required lengths, and passed over the stud at the lower part of the splint, the separated surfaces previously having been brought as close as possible. A bed-rest was placed behind the patient, in order to incline the pelvis a little forward and relax the extensor muscles. A few turns of the screw daily brought the parts into close apposition, and retained them in their place, until perfect union was established. The man returned to his duty with an useful limb, and without any deformity, having been fifty days under treatment. When the splints were removed, a starched bandage was applied. This was the only case which Dr. O'Malley recollected, during his long service, of a seaman not being invalidated after receiving a similar injury.

Partial Paralysis of Arm.—Dr. Axford showed a patient with partial loss of power in one arm, following an injury of the musculo-spinal nerve.

NEW SOUTH WALES BRANCH: GENERAL MEETING.

A GENERAL meeting of the New South Wales Branch of the British Medical Association was held on August 7th, at the Royal Society's Rooms, Elizabeth Street, Sydney. Dr. O'REILLY occupied the chair.

A paper was read by Mr. HANKINS on "A Case of Suppression of Urine, following an Operation for Stricture."

Cucaine in Surgery of the Larynx.—Dr. HOFF read a memoir on this subject. In the discussion which followed, Dr. KNAGGS remarked that it acted most rapidly on the conjunctiva and mucous membrane. It did not act fully for ten minutes when applied to the skin. He believed, however, that, as an anæsthetic, it would create a greater revolution in the medical world than even chloroform.—Dr. MATHER described the effects of the drug when applied to his own eye, the cornea and conjunctiva becoming insensible to feeling. He thought, however, that if it caused coagulation of the blood it would interfere, in cases of cataract, with the removal of the anterior capsule and the soft matter.—The CHAIRMAN stated that the solution would not keep for any length of time.—Mr. HANKINS said that this difficulty could be obviated by the addition of a single drop of chloroform.—Dr. CREED remarked that cucaine would be exceedingly valuable to check the dangerous convulsive spasms which resulted when any foreign body entered the larynx.

Quackery in Sydney.—Dr. CREED, honorary secretary, read a letter, which had been forwarded to the chairman by a layman, complaining of the increase of advertising "nervous debility" quacks in Sydney. This led to a discussion on the unsatisfactory condition of laws concerning medical qualifications in the colony. In one case a man had been convicted and sentenced to be hanged on the medical evidence of an unqualified man, whose sole experience of professional work consisted in having occasionally assisted a country surgeon in making a necropsy.

Council.—Mr. Hankins was elected to fill a vacancy in the Council, caused by the death of Dr. Fortescue.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Reflex Neuroses of Nasal Origin.—*Amaurosis in connection with Tania.*

Gift of the Minister of the Interior to the Académie de Médecine.

The Influence of Falsified Alcohol on the Increase of Madness.

Infant Mortality from Milk when the Cows are fed on Malt.—*Treatment of Whooping-Cough by Cucaine.*—*General News.*

Dr. CARTAZ, in an article in the *France Médicale*, describes the varieties of nervous disturbance which may proceed from nasal affections. There is a special form of asthma due to the presence of nasal polypus; irritation of the nasal mucous membrane produces the same condition. Spasmodic cough, sneezing fits, vertigo, different kinds of neurosis, may result from hyperæsthesia of the nasal mucous membrane. The special cough called nasal cough is only exhibited when an exploring instrument is passed up the nasal fossæ. Coughing is most intense when the instrument is in contact with the deepest part of the fossæ. The region whence proceeds this reflex action is very limited. Patients tormented with a violent cough, utterly unexplained by the condition of their respiratory organs, have been cured by treating a nasal affection. According to Hack, of Freiburg, various nervous affections, migraine, neuralgia, vaso-motor neuroses, result from a

pathological condition of the nasal mucous membrane. Summer-asthma, or hay-fever, is often in connection with a nasal affection, but it may be perfectly independent of it. M. Cartaz reports a case in which exploring the nasal fossæ produced contracture of the upper and lower limbs, the eyes became filled with tears, and the face extremely pale. This condition lasted a quarter of an hour; on a subsequent occasion, the mucous membrane was painted over with a 10 per cent. solution of cucaine, and these symptoms did not reappear. Another patient, a boy, who, during three months, suffered from violent fits of coughing at a certain hour in the morning, was completely relieved from them after removal of a nasal polypus. Constant and repeated sneezing was temporarily relieved in another patient by applying cucaine; this remedy acts frequently as a palliative, and also serves, when it does not cure, to establish the possible connection between a nasal affection and a neurosis. Most generally, the nasal membrane has to be cauterised with the thermic cautery, which generally modifies the existing hypertrophy; sometimes excision is inevitable. Coryza and other lesions are generally combated by applying to the membrane weak solutions of chromic acid or nitrate of silver.

M. Molard publishes, in the *Recueil d'Ophthalmologie*, a case of amaurosis. Its etiology was traced with difficulty, but the presence of tania seems to have been a pathogenic factor. A man was seized with sunstroke, after working some hours in the sun; subsequently he exhibited symptoms of cerebral congestion, accompanied by amaurosis. This condition disappeared for a time and then returned. The muscles of the neck were stiff; pharyngeal spasm appeared; he became insensible, delirious, and presented amblyopia with dilated pupils. It was then ascertained that the patient was subject to frequent cerebral attacks of a similar character, and that each attack coincided with the expulsion of fragments of tania. The bark of pomegranate root was administered, the worm was expelled, the patient's condition improved, and he was finally cured.

The Minister of the Interior has written to the Académie de Médecine, that he places at the disposal of that body a sum of 2,000 francs (£80) annually, to be awarded to the writers of the best works on the mortality of new-born children.

At a recent meeting of the Société de Médecine Publique et d'Hygiène Professionnelle de Paris, M. Ch. Girard read a note on the falsification of alcohol, and the necessity of instituting a strict investigation concerning the influence of falsified alcohols on the increase of insanity. Alcohols have toxic properties which increase with their atomic weight. Brandy would be dangerous if it contained alcohol belonging to a higher series than ethylic alcohol. Brandy, cognac, etc., are manufactured; the aroma is given to them by using an article of German manufacture, excessively injurious to health. The essential oil of lees of wine is obtained from Germany, and is invariably used in manufactured alcohols.

M. Toussaint read, at the same meeting, the result of his researches on milk from cows fed on brewers' grains. Some years ago, M. Girard drew attention to the fact that milk from cows fed on grains is injurious. Later on, M. Pellé, and also a number of veterinary surgeons, opposed M. Girard's belief. MM. Pellé and Bréard argued that, according to analysis, the milk was good, and therefore it was wholesome; but M. Toussaint maintains milk may be chemically good, and yet not digestible. The author examined the death-register of Argenteuil, and he ascertained that deaths from gastro-enteritis, and from intestinal affections, were more frequent among bottle-fed children since a large distillery had been established there. Milk from cows to which the malt-refuse from the distillery is given is acid, and is not digested by children.

De Barbillon, in the *Revue des Maladies de l'Enfance*, publishes the results obtained by Dr. Labric, by painting over the isthmus of the fauces with a solution of cucaine in whooping-cough. The first application produces a fit of coughing, but not the subsequent ones; two or three applications are made within twenty-four hours, according to the condition of the patient. This treatment has reduced fifteen or twenty fits of coughing in one day to five or six; vomiting after eating also disappears under the influence of cucaine. The proportion is 50 centigrammes of chlorhydrate of cucaine, and 10 grammes of water. Dr. Greffner, in the *Gazette des Sciences Médicales de Bordeaux*, publishes a case of whooping-cough successfully treated by vapour, holding hydrochlorate of cucaine in suspension. These inhalations are repeated twice a day. The solution contained from six centigrammes to one gramme of hydrochlorate of cucaine, according to the age of the patient, 45 grammes of distilled water, and five centigrammes of chlorate of potash. Dr. Greffner also recommends painting over the throat with a 3 per cent. solution of cucaine for nervous cough in hysterical women.

M. Bourgeois, an army surgeon, has invented a new vaccinating lancet. The excisions can be made as deep as desired with this instrument. The length is generally a millimètre. The operation is painless and almost bloodless. By means of a glass tube, a small drop of vaccine-fluid is poured on to each incision, and inoculation is thus assured.

Professor Jaccoud stated, before the Académie de Médecine, that his researches on thalline and antipyrine lead him to conclude that these substances are by no means valuable therapeutic agents. They undoubtedly lower the temperature, but produce nervous distress.

Dr. Laurand publishes, in the *Journal des Sciences Médicales de Lille*, cases which indicate that antipyrine in epistaxis is a powerful hæmostatic. A solution of 1 in 30 was used.

Cochin Hospital will soon be laicised. It appears that this hospital was founded in 1782, by a legacy from Abbé Jean Denys Cochin, under the express condition that sisters, not lay nurses, should attend the patients. When the hospital was built and organised, sisters of charity were the sole nurses. The administration argue that there is not any clause in the Abbe's will prohibiting lay nurses doing the work, and the presence of the sisters of charity when the hospital was organised does not prevent their being replaced by lay nurses. The Conseil de Surveillance de l'Assistance Publique, on April 23rd last, endorsed this view. M. Cochin, a municipal councillor, is the Abbé's heir. He intends to dispute this decision, and to proceed against the prefect of the Seine.

BERLIN.

[FROM A SPECIAL CORRESPONDENT.]

The Vacation-Courses for Medical Practitioners.

THESE courses, which have been in existence for a few years, have now really established themselves as a fixed institution, and are becoming appreciated as they deserve. They are conducted by able physicians and surgeons, some of whom are well known and occupy important positions. This year a large number of medical men took advantage of the practical instruction; and although the great majority were German practitioners, a number were from America and a few from England and Scotland.

The courses began on September 25th, and continued till the end of October. A number of them were held at the Royal Charité, the oldest and largest hospital in Berlin. It was founded in the year 1710, and has now accommodation for about 1,800 patients. Its wards are low roofed and badly ventilated; they appear rather small and overcrowded. At the head of each bed is fixed, at a considerable height, a small black board, on which is chalked, in very admirable calligraphy, the name of the patient, his occupation, age, etc. A schedule is also placed there, in which are entered the particulars of the case. Male nurses attend the men. Two university teachers, Fränkel and Litten, each conduct a course on general medicine in the Charité. Both these teachers devote special attention to auscultation and percussion, in addition to the other means of diagnosis. A vacation-course on midwifery and gynecology was held in the Charité by Dr. Wyder. At the Pathological Institute, connected with this great hospital, two classes in the course met for practical demonstrations in pathology and histology.

A little north of the Charité is situated the more modern Augusta Hospital, where Professor Kuster and Dr. Schmid held practical courses in modern surgery and the application of surgical appliances. Dr. Guttman, well known by his work on *Physical Diagnosis*, a translation of which is published by the Sydenham Society, had a class for clinical medicine, meeting in the Stadt Krankenhaus or Touris Hospital at Moabit, a suburb of Berlin. The doctor occupies the post of Director of this institution, and is, therefore, in a position to utilise the enormous material at his command for teaching purposes. A stranger is struck by the free way in which German teachers use this word in speaking of the patients under their charge, whom they regard very much as a means of instructing their students. The Krankenhaus at Moabit is a well appointed hospital, and is beautifully situated quite in the country, amidst abundant vegetation. It is constructed of detached one-storied buildings, and has accommodation for all kinds of disease. Dr. Guttman is a very systematic and lucid demonstrator, and is much appreciated by the practitioners attending his courses.

At the other town's hospital, in the Friedrichshain, classes met in connection with the vacation-course for practical instruction in clinical medicine and surgery. This hospital is quite modern, having been

completed in 1874. Like the hospital at Moabit, it is constructed on the "pavilion" system. It is a large institution, providing accommodation for 600 patients. It is a beautiful place, and is furnished with all the latest improvements. Its two Directors, Dr. Hahn and Dr. Riess, gave practical demonstrations—the former in surgery, and the latter in medicine—to the student-practitioners attending their classes. It is not to be understood that these Towns Hospitals are only for paupers, as the patients are required to pay, and this they are enabled to do by reason of the benefit-societies, of which nearly all the working population of Berlin are members.

One of the outstanding features of the city of Berlin is the large number of monuments erected everywhere to the memory of distinguished warriors. There are very few to be seen commemorating the peaceful achievements of workers in literature, art, and science. However, there is one very beautiful memorial, of a man distinguished in a special branch of medical science, which must commend universal admiration. At the south end of the garden in which the Charité is situated, but facing the street, is placed a very elegant statue, by Siemering, of Professor von Gräfe, embellished on each side by splendidly coloured mosaics representing sufferers before and after treatment at the hands of the great oculist. The special department of surgery which he did so much to advance has still a number of worthy representatives in Berlin; and in this autumn's vacation-courses two classes were held for practical demonstrations in ophthalmology, one of them being conducted by Professor Hirschberg. For the study of diseases of the ear, Dr. L. Jacobson, assistant to Dr. Lucae, the professor of otology in Berlin University, had a large class of medical men which met in the premises of the Royal University Ear Clinic. Dr. Jacobson took the greatest pains to demonstrate the diagnosis of each case brought before his students. He attached a sheet of paper to each patient, on which the diagnosis was written, accompanied with a sketch of the appearances seen on inspection with the mirror and speculum. He also gave demonstrations of modes of catheterising the Eustachian tube, and delivered a theoretical course of lectures on separate days. At various polyclinics, other courses for the teaching of this branch of surgery were conducted. One of the best known was that of Dr. Arthur Hartmann, who, although not included in the vacation-course, had a class of surgeons in practice studying the ear and nose. Dr. Hartmann has long been identified in a very distinguished manner with aural surgery, by reason of his frequent contributions to the literature of the subject, by his well-known book on *Deaf-Mutism*, translated by the late Dr. James Patterson Cassells, and by his work on *Ear-Disease and its Treatment*, a third edition of which has just been published. Dr. Hartmann is associated in the same polyclinic with Professor Köbner for diseases of the skin, and Dr. Krause for diseases of the throat, both of whom have classes for the study of these special branches in connection with the vacation-courses of this autumn. We were refused admission to Dr. Krause's class, because he already had more students than he had accommodation for; and for this reason he had to decline to enrol a number of others in addition to ourselves. This may serve as an illustration of how these courses are being appreciated. Another class, for diseases of the throat, nose, and nasopharynx, was held by Dr. Lublinski, in the Royal University Polyclinic, where a large number of patients were examined and treated by the students three times a week, one of these days being Sunday, when a theoretical lecture is given. Other special departments of medicine and surgery received their due share of attention in the vacation-courses. Among these should be mentioned the course on gynecology by Dr. Martin, well known in this department. His class met in his own clinic or hospital for diseases of women, a large and splendidly equipped establishment. He is a most careful and daring operator, and has a major operation on hand almost every second day, amongst these, figuring very prominently, the operation of ovariectomy, in which he has achieved distinguished success. There were some courses for diseases of children held at public polyclinics throughout the city, where all kinds of cases in this most important branch of medicine receive treatment. At one of these we saw, at one sitting, cases of scarlet fever, measles, and whooping-cough, along with many other interesting cases. The other special departments of medicine and surgery represented in the Berlin vacation-courses included psychiatry and brain-disease, nerve-diseases and electro-therapeutics, dentistry and diseases of the mouth. Similar short courses are held during the rest of the year by some of the foregoing teachers, the winter semester commencing in the beginning of November.

We are inclined to regard the medical school in Berlin as a worthy rival of that in Vienna, the latter of which has hitherto been more widely known. The merits of medical teaching in Berlin are yearly gaining a more extensive circle of appreciation; and, from personal

experience of them, we have great pleasure in recommending the above courses to all who can find it convenient to take advantage of them.

CAIRO.

[FROM OUR OWN CORRESPONDENT.]

Reorganisation of the Egyptian Sanitary Service.

In a previous letter, I referred to the fact that Surgeon-Major Greene was now virtually the head of the Sanitary Service, the native Director having resigned, and his office being held in abeyance. It is still undecided whether another Director will be placed over Dr. Greene; the latter, however, has been accorded the title of Inspector-General of the Sanitary Service, and his influence and authority are now firmly established. Notwithstanding that passive obstruction in which native officials are such adepts, Dr. Greene's quiet, but firm, persistence has succeeded in introducing a thorough reorganisation of the Sanitary Service. Many of the reforms introduced have been described on previous occasions. I will now only mention those changes which have occurred quite recently, or will come into force at the commencement of the year.

There were originally two chief clerks at the Central Bureau, one European and one native. The latter was a type of the corruptible Egyptian official, and had many and powerful friends. These gentlemen are to be replaced by one chief clerk, who will be proficient in Arabic and French. This change will save money and facilitate business. Mr. Colvin, the late European chief clerk, who has done valuable service to the administration during fifteen years, will be appointed secretary and finance director to the Khedivial Laboratory, in succession to Mr. Ismailun, whose appointment, opposed by Dr. Grant Bey, was one of the scandals of a former "Conseil Sanitaire." Mr. Ismailun is to be made Director of Government Exhibitions. The Khedivial Laboratory will be placed under the Sanitary Service.

In future, questions of discipline, instead of being referred to the Comité Sanitaire, which is independent of the Directorate, will be decided by the head of the Service in consultation with the senior inspectors.

The Budget for 1886 will be entirely under the control of the Administration, and not entrusted partially to governors of towns and mudirs of provinces, as was formerly the case.

The sum of £7,000 has been set apart by the Public Works Department for new constructions, such as hospitals, abattoirs, etc., to be undertaken next year. The sum originally named was only £4,000, but Dr. Greene's representations obtained its increase to £7,000.

The provincial hospitals have been equipped with instruments, and are periodically provided with medicines according to scale.

The central medical store depot, which is situated at the Cairo Hospital, and is under the control of Dr. Milton, has been divided into three sections of medicine, instruments, and surgical dressing materials. A standard *Pharmacopœia* has been introduced.

The management of fairs has been relegated to the Sanitary Department, and special grants of money are made for the purpose. The favourable result obtained in the case of Fantah Fair, under Mr. Hooker's direction, I have previously described. The sheikhs of mosques in the towns, where fairs thus controlled have taken place, have expressed themselves as much pleased with the measures adopted.

Owing to the acknowledged incapacity of the existing veterinary surgeons, the chief part of them have been released from the service of the Government; only those are to be retained who can satisfy a board of examiners, consisting partly of Englishmen. Qualified veterinarians from Europe will be obtained for the vacant posts.

In future, all the chief medical men at provincial hospitals are to reside at their hospitals. Dr. Varenhorst, the late chief medical man at the Alexandria Hospital, to whom I referred in a previous letter, has, in consequence of this rule, ceased to act as doctor of the hospital, but retains his salary with the title of consulting physician.

Port Said Hospital has been much improved under the able management of Dr. Robertson.

In order to improve the provincial hospitals, it is ordered that the medical officers in charge shall attend at Kasr-el-Ain Hospital, in batches of four, to undergo a period of three months' instruction.

A sanitary engineer is to be appointed at a salary of £480 a year, rising gradually to £600; also a lady doctor, in order to introduce sanitation into the harems.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Charge of Manslaughter against an Unqualified Practitioner.—Hospital Sunday and Saturday.—Financial Condition of the Hospitals.—The Municipal and School-Board Elections.—Proposed Foundling Hospital.—The Artisans' Dwellings, Victoria Square.—The Mayor of Bootle.—Hospital Sunday in Bootle.

IN THE JOURNAL for February 21st of this year, I referred to an action for libel brought against a surgeon by an unqualified practitioner, in which a verdict was recorded for the defendant. The plaintiff in this case, whose name is De Tomanzie, has again come prominently before the public. On October 31st, an inquest was held on the body of a woman, who, it was alleged, had died in consequence of an operation to procure abortion having been performed by De Tomanzie. After a full investigation, in the course of which Dr. T. W. O. Pughe and Mr. Paul, of Liverpool, and Dr. Miller, of Birkenhead, gave evidence, the jury brought in a verdict that "death was the result of an operation performed on her by Dr. De Tomanzie." This the coroner pointed out amounted to manslaughter. The case will be tried at the Chester assizes.

The usual annual meeting of the Hospital Sunday Committee was held on November 7th, the mayor presiding. Last year there was a considerable falling-off in the receipts, but this year the deficiency amounts to £341, more than double that of the previous year. On the other hand, the Hospital Saturday Collection shows an increase of £43. The total receipts for the year amount to £9,216 15s. 3d., including £6,537 from collections at places of worship, and £2,603 from the Saturday boxes. Grants to the medical charities have been made to the extent of £8,880. A very gratifying feature of the work of the year has been the formation of a committee by working men for the purpose of looking after Hospital Saturday collections.

Several of our hospitals have been seriously affected by the falling off of subscriptions, in consequence, presumably, of the general depression of trade. Special efforts have therefore to be made, in order to clear off debts, or to meet the working expenses of the year. It is announced that a concert will shortly be held in aid of the Hospital for Women; and, during the first three days of December, a bazaar, in the interests of the Ladies' Charity and Lying-in Hospital, is to be opened in St. George's Hall. In the latter case, unfortunately, the general election will be going on about the same time. Political feeling runs high in this city; and it is to be feared that the sale of work will be lost sight of amidst the excitement of the election.

It is a most unusual circumstance for three elections to take place so near one another in point of time. Two of them—the municipal and the school-board—are over. In the first of these, much interest was taken in the candidature of Dr. John Bligh for one of the wards, but he was unfortunately defeated. This is to be regretted for many reasons; but especially because at the present juncture, when hospital matters are absorbing so much attention in the Council, another medical representative would have been a valuable addition to the ranks of the city councillors. Dr. Bligh and Dr. Canavan, members of the late School Board, did not seek re-election this time; but the latter has become a member of the recently constituted School Board at Bootle.

Several months ago, it was proposed to establish a foundling-hospital here; and, on the 4th of this month, a public meeting was held in support of the project. It is intended to raise the sum of £400 at first, which it is believed will cover the expense of maintaining about fifteen children. There is no doubt that such an institution is greatly needed; but, up to the present, the scheme has not enlisted much active sympathy or support. The meeting was very badly attended, and only £200 have as yet been subscribed.

The artisans' dwellings on the Nash Grove site, which were recently opened by the Home Secretary, are likely to be rapidly occupied. The group of buildings, which have been named Victoria Square, contain 86 tenements of three rooms each, 164 of two rooms each, and 21 of single rooms; and the rents are from 5s. to 5s. 6d., 3s. 6d. to 4s. 6d., and 2s. a week respectively, inclusive of gas, water, and taxes. The buildings are most admirably constructed, all the workmanship is solid and good, and the tenements and the buildings generally are roomy and cheerful, with plenty of space for the free circulation of fresh air. The site upon which the dwellings have been erected is bounded on every side by streets, and contains 9,195 superficial yards, of which 3,924 yards are occupied by buildings, and 5,271 yards in approaches and in a large quadrangular open space.

The total estimated cost, including the full market value of the land, is under £70,000. Before the area was cleared, under the Artisans' and Labourers' Dwellings Act of 1875, a population of 1,310 lived in the low streets by which it was covered. The number of people living here, under the worst possible sanitary conditions, was at the rate of 282 per acre.

Last week, Dr. Hill was unanimously elected Mayor of Bootle. He has been a member of the council for some years.

The Hospital Sunday collections were made in Bootle last Sunday. The proceeds go to the Borough Hospital, which this year shows a deficiency of £500 on its working expenses. This deficit appears to be mainly due to increased expenditure resulting from a marked increase in the number of patients.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Pulsating Tumour of the Orbit.—*Outbreak of Small-Pox.*—*Liquid Fuel.*—*Western Infirmary Museum Catalogue.*—*Pathological Society.*—*Discussion on Malignant Tumours.*

LIGATION of the carotid artery was performed last week at the Royal Infirmary by Mr. H. E. Clark for a pulsating tumour of the orbit. The patient was a female, and the orbital affection had followed an injury to the head. The case was brought recently before the Pathological Society, and the general opinion then was that the affection arose from some communication between the internal carotid artery and the venous channel in the cavernous sinus. The operation was done some days ago, and the result so far has been very satisfactory. Another of Mr. Clark's operations last week at the same hospital was that of gastrostomy for malignant disease of the œsophagus, but I understand that the case has followed the usual course of these cases, and had a fatal issue.

We seem at present to be threatened with an outbreak of small-pox in our midst, notwithstanding the unceasing vigilance of our sanitary staff. Since the beginning of the month, about twenty cases have occurred, a larger number than has been registered since April of last year. The one satisfactory feature about this sudden extension of the disease is that a connection has been more or less traced between all the cases, and they can mostly be referred to that of a girl who suffered from what was clearly an attack of modified small-pox, in which, however, no medical man saw her, and consequently no precautions were taken to prevent her becoming the source of infection to others. Our death-rate for the last week has been 24 per 1,000, which is below that for the corresponding period of previous years. The sudden access of cold and frosty weather that has taken place this week, seeing that it is accompanied with dense fog, is likely to make itself felt injuriously on the very old and young by an increase in pulmonary affections.

The question of liquid fuel for our steamers, and for the machinery in our large works, is a matter of scientific interest that is at present exciting some attention here. Creosote-oil is the substance that has been very extensively experimented with, and recent trials seem to point to its suitability as a substitute for coal, especially in the case of steamers, the heat from the flame being quite equal to that obtained from coal, and enabling steam to be raised very rapidly. No doubt the subject is being pushed forwards on economical grounds, but one very great recommendation connected with the use of this liquid fuel is the absence of smoke accompanying its employment. In fact, it causes little or no smoke; so that it is not difficult to see that, if its use become general in connection with the machinery employed in our large manufacturing towns, the amenity and healthiness of cities would be much increased by the substitution of a clear and agreeable atmosphere for the present dense murky one that often envelopes them. I may say that it has been decided to put the matter to a practical test on one of our river-steamers.

I understand that a somewhat laborious but very useful piece of work has just been accomplished, in the preparation of a very complete catalogue of the specimens in the pathological museum of our Western Infirmary. Although not yet published, it is out of the printer's hands, and will shortly be issued. Our Western Infirmary is, so to speak, a comparatively recent hospital; but already there has been brought together in the museum a large number of interesting and instructive specimens, and the work which has just been completed by Dr. Coats and those assisting him must materially add to their value and usefulness for the purpose of study and the teaching of pathology.

At the last meeting of the Pathological Society, a boy suffering from pseudo-hypertrophic paralysis was shown by Dr. Donald Mac-

phail. Dr. Newman brought forward two patients suffering from tumours of the larynx, the case of one of them being interesting from tracheotomy having been performed painlessly after the subcutaneous injection of cocaine. It has been decided to hold a discussion in connection with the Society on the 20th of January next, the subject to be malignant tumours. The points to be specially considered are, their origin and mode of extension, their recurrence, their hereditary tendency, and how they cause death apart from involving vital organs. A demonstration of specimens and microscopic preparations will be held during the previous week, and there can be no doubt that a most interesting and profitable discussion should follow on such a topic.

CORRESPONDENCE.

THE COLLEGES AND THE M.D. DEGREE.

SIR,—May I venture to put before your readers one or two considerations with regard to the proposal to obtain for the Colleges of Surgeons and Physicians in London, the power to confer the title of Doctor of Medicine?

1. The title will be of no value to its possessors, excepting in so far as it may convey the false belief to an unenquiring public, that the possessor has acquired the M.D. degree of an university. The significance of an university degree in medicine is simply this, that it is conferred as the result of the compliance with a curriculum or tests, approved not by a special professional body, but by an academical body representing science and learning of all kinds.

That the representatives of the once highly esteemed and venerated medical corporations of London should be dissatisfied with the honourable titles which they have so long been wont to confer, and should desire to confer a title which is at the present moment the exclusive property of the universities and the Archbishop of Canterbury, is a matter for deep regret: especially when it is obvious (although it is impossible to suppose that those who advocate the demand perceive this to be the case), that it will lead to a grievous deception and confusion in the public mind.

2. Whether it is possible that, by a side-wind, the power to confer an electro-plate university degree may be attained by the Colleges of Physicians and Surgeons, it is certain that, in fair and open discussion, the universities of Great Britain would be able to show conclusively that, for the Crown to delegate this power to any corporation not having an academical constitution, would be a serious wrong to the duly organised bodies which have accepted the privilege, and have carried on their business accordingly. It would, morally, amount to a breach of contract. That existing universities may need correction and reform, and that new universities should come into existence, and receive the some privileges which have been accorded to others, in the manner and on the conditions which have been approved in most European States, one can admit, whilst one must regard as an absolute crime the destruction of the distinctive significance of the letters implying an university degree; the privilege of conferring which has been granted by the Crown, hitherto with the express purpose of inducing the youth of the country to seek the higher and more extended courses of study rather than the lower; and never for the purpose of enabling professional corporations to pretend to an academical character which they do not possess. This, indeed, they cannot claim without showing a strange want of appreciation of the time-honoured and dignified position won for them by past generations of their own body.

3. Lastly, I would ask those interested in medical education in London whether, apart from the above considerations, they consider that it is desirable that the future M.D. degree of London should be in the hands of two corporations, which, however excellent for the functions hitherto discharged by them, are not so constructed as to represent the interests of medical education in London. The Colleges represent, in a more or less efficient way, the interests of the medical profession in England; but are the teachers in the London hospitals and schools satisfied that, whilst the examining body in Burlington Gardens appears to them in this matter of medical degrees as King Log, the conjoint colleges will not prove a King Stork?

Surely it will be better to have still some patience, and not to hastily assent to the undignified proposition that the conjoint colleges shall usurp the functions of an university. Let us rather endeavour to construct a real university in London, with Faculties of History, Science, Law, and Medicine, in the latter of which the profession of Medicine will not be represented as such, but the special

class of the profession who alone are entitled to take part in the management of such matters, namely, the chief teachers in the London hospitals and medical schools? To such a corporation it would be impossible for the Crown to refuse the right of granting degrees, either as an independent university or as a purely nominal dependent of the existing University. The demand could not be refused, because the same reasons for complying with it could be assigned as in the case of the Victoria University, and as in the case of the Edinburgh University, and the same guarantees could be offered that the honourable titles thus entrusted by the Crown, though they should be more accessible than those at present offered by the University of London, would not be perverted from their legitimate significance, nor used so as to cause confusion and deception to Her Majesty's lieges.—Yours faithfully,
E. RAY LANKESTER.

SIR,—In the scheme which is now under consideration, of creating what practically amounts to a new degree in medicine in the gift of the United London Colleges, it is to be hoped that important modifications will be introduced into the standard of preliminary education, including under this head not only the knowledge of reading, writing, and arithmetic, which is pretty much all that is required at present, but also those subjects, such as botany and the sciences, which, although indispensable to the proper carrying on of subsequent studies, are at present only required to a ridiculously slight extent. Then, in the latter part of the curriculum, it is nothing less than a scandal that a man may be fully qualified, and yet be absurdly ignorant of the most elementary principles of hygiene, medical jurisprudence, and psychology.

Assuming, then, that some noteworthy advances will be made in this direction, I would willingly avail myself of the opportunity to urge on the United Colleges the desirability and justice of comprising such modifications of existing requirements, as they may see fit to introduce, in an examination, the passing of which shall entitle the present holders of the double qualification to avail themselves of the advantages to be derived from the new scheme. By these means, any unnecessary depreciation of the value of the new degree by flooding the market will be avoided, while to debar those already qualified from sharing in the benefit of an innovation which they have done so much to render possible, would be the height of injustice.—I am, sir, your obedient servant,
ALFRED S. GUBB, L.R.C.P., M.R.C.S.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—The President and Council of the College of Surgeons deserve (and doubtless have) the most cordial thanks of the Fellows generally for the firm and uncompromising manner in which they have determined to uphold the dignity of the College, and to maintain the just rights and privileges of the Fellows, by refusing to accede to the extraordinary and unjustifiable demands of the Association of Members.

As one of those who voted in the minority against the resolution brought forward by the above Association at the meeting on October 29th, I ask permission to point out how it was that that resolution was carried by a large majority: the reasons are twofold.

First, the vast majority of Fellows (with the exception of a few who have formed themselves into an Association, and who appear, for the nonce, to have joined hands with the Association of Members) being content with the manner in which the affairs of the College are managed under the present system, did not take the trouble to attend, excluding a small number who, like myself, probably went chiefly out of curiosity.

Secondly, the meeting was a packed one, as the Association of Members had sent round, a few days previously, a whip underlined "most urgent."

Looking at these facts, any unbiassed person must admit that the result of the vote goes for little or nothing. But, sir, let me ask the Association of Fellows (or rather those few members of it who were present and voted with the majority) if they do not heartily regret having, even temporarily, supported the Association of Members, after having heard the vituperative and scurrilous language indulged in by most of the speakers (?) language the like of which, I venture to say, had never before been uttered within the College walls by any qualified man, and which even lacked the merit of being expressed in Queen's English.

"In the interests of the public and the profession" (to use the Association's own words) I would ask, are these the kind of men to whom it is desirable to give the privilege of participating in the election of the Council, and of becoming members thereof? Surely not.

But on what grounds does the Association claim the right either (a) to speak on behalf of the general body of Members, many of whom, I know, will have nothing to do with it; or (b) to have a voice in the representation and election of the Council?

With regard to the latter question, they ground their claims, apparently, on the fact that, at some former date, they paid a fee to the College on their examination, for which they say they received nothing in return. It appears to me that, on the contrary, they obtained a very big *quid pro quo*, seeing that they became qualified, and were permitted to go forth with the means of earning not only a livelihood, but, in many cases, a substantial fortune. If the paying a fee for a diploma were to give a man the right to representation and election into the Council, surely the Licentiates of the London College of Physicians (or, even more, the Members of that body who passed a higher examination, and paid a still higher fee) might, with equal reason, claim a voice in the affairs of that corporation, which would be manifestly absurd.

The Members of the College of Surgeons seem to forget that they are already represented by the Fellows, who are also Members, and whose interests are identical.

Let me remind every ambitious Member that, given the necessary amount of brains, he may at any time, after he has been in practice two years, pass the examinations for the Fellowship, and thus legitimately obtain what he is now vainly clamouring for.

In conclusion, I would most strongly urge upon all the Fellows the necessity for immediate and combined action, so that we may let the Council see they have the united support of those who placed them in office, and that we warmly approve their firm and dignified action in studying the best interests of the College, and the just privileges of its Fellows.—I am, sir, yours faithfully,
WILLIAM A. DUNCAN.
Harley Street.

PERINEORRAPHY.

SIR,—Baker Brown's second edition is a book which has a permanent place on my writing-table, and therefore one with which I am completely familiar. Langenbeck's perineo-synthesis is an operation which has long since been discarded; and anyone who has seen my method of operating will recognise, what is the fact, that in its details it is almost essentially the opposite in every particular to Langenbeck's operation. Dr. Percy Boulton will therefore do well in future to consider that others, besides himself, are familiar with gynaecological literature. He will do still better if he will see some one perform the operation which goes by my name, before he again so utterly misrepresents it. If there had been anything in Dr. Percy Boulton's criticism it was certainly a most remarkable thing that, out of the scores of surgeons who have seen this operation performed, including one of Dr. Boulton's own colleagues, Dr. Bantock, not one has ever said anything, but that it was an entirely original proceeding. Kindly permit me to say, in addition, to answer very many correspondents who have addressed letters to me concerning this operation since Dr. Fancourt Barnes's paper was published, that the best description of it is given by Dr. Edis in his book on *Diseases of Women*, my own description being much less clear and intelligible than his. I should also like to say that it is a very difficult matter to understand the operation from any kind of description, but any one who sees it will at once recognise it as the simplest possible kind of proceeding. I have shown it at the Soho Hospital, and at the Chelsea Hospital; and if there be any other institution in London, where the staff would like to see the operation done, it will give me the greatest pleasure to give a demonstration of it when I happen to be in town.—I am, sir, yours etc.,
LAWSON TAIT.

Birmingham.

STATE OF THE PUPIL AFTER DEATH.

SIR,—In an annotation in the JOURNAL, of October 31st, headed "Death or Coma," the writer, who evidently speaks as an expert, refers, among other signs of death, to the "dilated insensitive pupil;" this probably represents the current idea on the subject. It is found, however, that the pupils, although usually more or less dilated at the moment of death, almost always undergo a distinct, and often a considerable, reduction in size for many hours thereafter, and so the phrase quoted above is apt to mislead. The subject is referred to briefly in an article by myself in the *Lancet* of January 3rd, 1885, page 3; and, at my suggestion, Dr. John N. Marshall inquired fully into the matter, as shown by his paper on the subject in the *Lancet* of August 15th, 1885.—I am, yours truly,
GLASGOW.
JAMES FINLAYSON, M.D.

OVERCROWDING OF THE MEDICAL PROFESSION.

SIR,—In the JOURNAL of September 26th, Dr. G. Buchanan, of Glasgow, calls attention to the above. He has given figures relating to the population and number of medical men. The following table, taken from Gore's *Directory*, furnishes some interesting statistics.

Year.	Liverpool.	Districts.	Total.
1875	261	75	336
1876	259	77	336
1877	242	76	318
1878	235	78	313
1879	266	95	361
1880	242	87	329
1881	247	89	336
1882	283	92	376
1883	297	99	396
1884	324	106	430
1885	399	116	415

The population of Liverpool in 1871 was 493,346. In 1881, it was 552,425; and in 1885, 579,724. To make this list complete, the names of 18, classed in Gore's *Directory* as physicians, should be added, thus giving a total of 433 physicians and surgeons.

In coming to a correct conclusion as regards the number of medical men to the population, it must be remembered that, in 1884, 253,059 persons were treated at the eighteen local medical charities, and 40,701 by the parochial medical officers, so the official and hospital reports say. If we take the number of medical paupers, 293,760, from the population of 579,724, 285,964 persons will remain as patients for the 433 medical men, that is, about one medical man to every 660. I understand that a fair average is 1 to 1,000.

With these figures, few can have any doubt about the state of the medical profession in Liverpool. A few weeks ago, I wrote to all the local members of the profession. Forty-three of my letters were returned to me by the Post Office, with "Gone; no address." Does this not speak volumes?

I may add that in Liverpool we are reduced to sad straits. One of my patients, some time ago, went to an eye and ear hospital. She is now a private patient of the hospital-surgeon who saw her at the charity. The Clerks' Association also obtain medical treatment and medicines for their members by paying their medical men four shillings for each member, although many of the clerks are being paid salaries of £500 a year. I wrote to the Secretary, suggesting that this rate of wages—for it is not a fee—was rather low. However, he cannot see it, and replies that "this class of members introduces to our medical staff a valuable private practice; it is no loss, but a benefit to them." He evidently thinks it a good plan to "throw a sprat to catch a mackerel." Who will say that these clerks are not clever fellows? The pity is, that our own profession will so demean themselves.—Yours truly,
ROBERT RENTOUL, M.D.
Liverpool.

THE MEDICAL DEFENCE UNION.

SIR,—In a letter published in the JOURNAL of November 14th, Mr. Rideal charges me with incorrectly stating that the "Medical Defence Union emanated from a firm of solicitors in Bedford Row." I stand corrected. I should have said that it emanated "from a solicitor's office in Bedford Row." Subject to this correction, I maintain that my original statement is true in substance and in fact. Mr. Rideal may have conceived the idea, and he is welcome to the credit of it; but the circulars are dated from, and were sent out from, the office of the solicitor to the Union, 17, Bedford Row. The ability and energy of this gentleman have never been questioned by me, or the respectability of his connections.

About the "Union," however, I am more concerned, and claim the right to state that I do not approve of the manner in which the promoters attempt to get it taken up by the profession. We are all agreed as to the need of some organisation to defend persecuted members of the medical profession; but surely, before a society, "union," or company was incorporated and registered for this purpose, some steps should, in common courtesy, have been taken to ascertain the feelings of the profession in the matter, and to consult them in regard to the appointment of the executive and law-officers.

As soon as I received the circulars which were sent out by Mr. Rideal, I went to the offices in Bedford Row to obtain further particulars. On making inquiries on the ground-floor, I could gain no definite information, but was told that some parties had, within the previous two or three weeks, taken rooms on the second floor. Here I found a youth in a back office, with a *Medical Directory* before him,

busy addressing envelopes (of which there was a huge pile in the room), as I presumed, to the medical profession. The *impedimenta* and documents usually seen in a solicitor's office were conspicuous by their absence; but these probably had been cleared away to facilitate the circular-business then in hand. I was told that Mr. Rideal could be seen only by appointment, but that, if I called again, I might, perhaps, see the solicitor to whom the offices belonged. Next day, I called again—having meantime written the letter which you kindly published on the 7th instant—and saw the solicitor, who answered my inquiries frankly and courteously, but the information I gathered from him only confirmed me in the opinion that the "Medical Defence Union" was organised outside the general body of the profession, and that no sufficient provision had been made to secure to the profession the free and independent control of its working.

Without in any way desiring to influence the action of other members of the profession, I must beg—until satisfied that the management of the Union will be placed in the hands of a body elected by members of the medical profession—to decline Mr. Rideal's invitation to join the movement he has initiated.

Begging the favour of the insertion of this letter in the JOURNAL, I remain, sir, your obedient servant,

GEORGE BROWN, Honorary Secretary,
Medical Defence Association.

16, Chandos Street, Covent Garden, W.C.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CONSULTATION FEES.

SIR,—May I trouble you for your opinion on the following? Last April twelvemonth, a gentleman in the next county was ill, and I visited him, in consultation with his regular medical attendant. A few weeks later I was sent for again in consultation with the same gentleman, and Dr. X., of this town. We were not paid at the time, but a couple of months after were written to for our bills, and sent them.

Last Saturday morning a note in Dr. X.'s handwriting reached me, of which the following is a copy.

"October 31st, 1885.

"V. W., Esq., M.D., to Dr. X.

"For professional attendance on the late Esq., in consultation with yourself, April, 1884, £3 3s."

Is this an unusual thing in similar cases? Because, if so, it will be perilous to ask for a second opinion, or even to consent to it when asked. I have been in practice twenty years, and have been called in consultation many times; sometimes I have been paid, sometimes I have not, but I certainly never thought of claiming my fee of my brother-practitioner, nor have I ever before heard of anyone who has so claimed. I think you will agree with me, sir, that, unless an embargo is to be put upon consultations, it is desirable that this point be cleared up.—I am, etc.,

V. W., M.D.

*. If we read our correspondent's letter aright, it would seem that both he and Dr. X. were consultants in the case, and met the family medical attendant in consultation thereon. If that be so, we fail to see that Dr. X. has the slightest claim whatever on Dr. W. Even if they stood in the relative position of consultant and ordinary medical attendant, Dr. X. would, simply as such, have no legal claim on the latter. With the view, therefore, to correct the erroneous impression which appears more or less generally to prevail, relative to the pecuniary obligation that should subsist between the consultant and the family medical adviser, we deem it well to remark, that, in the new edition of the *Code of Medical Ethics*, about to be issued, it is clearly laid down that, in cases of consultation, the duty which ordinarily devolves on the family medical attendant is simply to intimate to the patient, where necessary, what the consultant's usual or expectant fee is, and, as far as possible, to see that it be paid at the time, unless, for financial or other valid reasons, deferred payment be deemed expedient; but there is no professional obligation whatever on the "family doctor" to do so out of his own pocket.

AN ETHICAL QUESTION.

WITH reference to the letter and comment published under this heading in the JOURNAL of September 26th, page 624, we have received a long letter from a correspondent who signs himself "Reader," also copies of correspondence between A. and B., and extracts from a local paper of letters on the subject, one of which contains the letters and comment in the JOURNAL.

"Reader" says that the case was not fairly put before us by "A Member." His letter is too long for publication; but the subjoined extract contains his account of the case.

"This, as stated by your correspondent, was under the control of the board of guardians. The salary paid was £5, and payment for all active services rendered in the presence of epidemic disease in the port. On these terms, it has been held by B. for the last two years. On its being transferred to the local board, they were bound to advertise it. This they did at a nett salary of £20. A. called on B., and they talked it over. B., considering how great the risk was of cholera coming, said the remuneration was inadequate, and that they would not get him on those terms. A. made a similar statement on his part. They were supposed to be on a common footing. Before the meeting, A. wrote a letter to the board, of which he informed B., but the exact terms of which B. never knew; B. accepting his statement that it was not an application. The result of this letter, however, was that A. was offered the appointment at £20.

This he refused. The appointment was again advertised at £20. After waiting till the date for applications to be in had expired, B., having heard that the board would not be unwilling to let it on B.'s old arrangement, and would even make the salary £10, with payment for all active services rendered on the advent of epidemic disease, asked if that were so, and stated his willingness to become a candidate in that case. The suggestion was acted on; the board decided to re-advertise the appointment on those terms. A. is medical officer for the urban district; and I am bound to think, heard of B.'s letter, within half an hour after the meeting. * * * An associate of A.'s called on B., before B.'s application had been sent in, and stated that he knew for a fact that, if B. went in for the appointment on those terms, certain medical men would ignore him. In face of this, can you accept "Member's" statement, that B. took the appointment unknown to A.? B., being the only applicant, was appointed.

"Committed not to apply at a salary of £20 they both were, but both were entirely free to accept better terms. Considering how imminent cholera was, I do not think £10 and payment for active services are better terms than £20 nett. Had cholera come into the port, the medical officer would have had to give up all general practice, undertake dangerous and disagreeable duties, and subject himself and his family to the risk of infection."

"* We have also perused the written and printed correspondence forwarded by "Reader," with his letter, and are bound to say that correspondence so injudiciously initiated was ill calculated to lead to an amicable settlement. If the disputants have not been induced to meet in friendly converse, with the view to a mutual explanation and reconciliation (which would be the most desirable course), we would suggest a reference to one or more outside practitioners of mature age and experience; and, failing that resource, to submit the matter for the consideration and decision (by which each party should be legally bound) of a small committee of the local Branch, severally selected by them, with the president, or other practitioner, to be mutually agreed upon, as chairman.

PRACTITIONERS, CONSULTANTS, AND UTERINE APPLIANCES.

SIR,—I shall feel obliged by your replying to a few queries in the next number of the JOURNAL. A. is at present, and has been for several months, attending a lady suffering from a chronic affection. Her friends wished for further advice, and B. was called in consultation, and continued in attendance for some days. The treatment, involving the introduction of a pessary, was agreed upon, and directions were given to her friends as regards the administration of medicines, diet, and various other matters.

1. Whose province was it to introduce the pessary, and give the directions?

2. Was it that of the family attendant, A., or of the consultant, B.?—I am, sir, faithfully yours, M.D.

"* There can, in our opinion, be no doubt that it devolved upon the family medical attendant, "A.," to introduce the pessary, and on the consultant, "B.," to communicate to the patient, or her friends, the general directions, which may have been mutually agreed upon by the consulting practitioners, together with any opinion it may have further been decided to express on the case.

DENTISTRY IN CLUBS.

SIR,—I should be thankful for information as to whether it is usual or not to make a charge to club-members for extraction of teeth. Can it be legally done when there is no stipulation about it? I find that some charge, and some do not. I have always made a charge, and it has been a very unusual thing for any objection to be raised.—Yours faithfully, W. R. COSSHAM, M.D. Cirencester.

NAVAL AND MILITARY MEDICAL SERVICES.

TITLES OF MEDICAL OFFICERS.

SIR,—I see in a late number of the *Army and Navy Gazette* that a medical officer proposes that we should be called by a series of long winded designations not defining to the soldier or the public in any way our relative military rank. The editor of the military journal in question acknowledges the necessity for the change now being persistently urged by officers of the corps, who have been placed at a serious disadvantage in army estimation since honorary rank has been conferred on officers of other departments who rarely see a soldier, and never exercise a command, and hundreds of whom never held a combatant commission. As long as chaplains and young commissariat officers enter their departments with the rank of captain, I cannot conceive upon what plea that rank should not be conferred upon medical officers who spend five years in learning their profession at their own, and not the State's, expense. The idea is absurd, and the premises upon which the argument is founded false. All executive officers of the medical staff should be called Surgeon-Captain, Surgeon-Major, Surgeon-Lieutenant-Colonel, and Surgeon-Colonel; and this latter rank should be conferred upon Brigade-Surgeons of over twenty-five years' service, to put them on a par with men who command regiments, and in four years become full colonels in the army, and take precedence over officers occasionally many years their senior. Nothing else will satisfy the A. M. S.

THE VOLUNTEER MEDICAL SERVICE.

SIR,—The period has come when some action ought to be taken to reorganise the Volunteer Medical Service, and to change from the old and faulty regimental to the departmental system, which has been found to work so well in the army. I think most people recognise the fact that, should this country be invaded, we volunteer surgeons would be next to useless, on account of having no organisation or even appliances for entering upon a campaign. But, putting all this on one side, our present position is anything but pleasant; for instance, take a field-day. What becomes of the surgeon to a regiment, or where is he to put himself? He is simply to hang about and keep out of every one's way, and then he fulfils his duty. On the other hand, should we be formed into a separate corps, we should then have our proper place, with our own men and equipment, and be able to render the aid so often necessary on those occa-

sions. Another advantage in this system would be that only one surgeon would have to attend the rifle-range, for one or more regiments. In the case of the Manchester volunteers, there are often three or more surgeons with different corps within one or two hundred yards of each other, detained the whole of the Saturday afternoon at rifle-practice, whereas one would suffice.

I may also ask, why should such a rank as Acting-Surgeon be allowed to exist? We rank as Lieutenants, but do not hold any commission like they do; whereas in the Army Medical Staff the lowest grade, namely, Surgeon, ranks as Captain.

I am sure that we volunteer-surgeons owe much indeed to Surgeon-Major Evatt for the way in which he has devoted himself to the improvement of our branch of the service, and I for one hope to soon see his efforts crowned with success.—Faithfully yours, W. H. B. CROCKWELL, Acting-Surgeon, 16th Lancashire Rifle Volunteers.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Brigade-Surgeon F. W. Moore ..	Malta ..	—
" W. Ashton, M.B. ..	Bengal ..	—
" F. W. Wade ..	Bengal ..	—
" H. Knaggs ..	C. of Good Hope ..	—
" A. S. K. Prescott ..	Bengal ..	—
" J. Robinson ..	Singapore ..	—
" G. E. Gribbon, M.B. ..	—	Aldershot.
" G. E. Will ..	—	Cyprus.
" J. Y. Donaldson ..	Bengal ..	—
" O. Codrington, M.D. ..	—	Gosport.
Surgeon-Major T. Murtagh ..	Bombay ..	—
" F. Falwasser ..	Aldershot ..	Bombay.
" T. Maunsell ..	Dover ..	Bengal.
" C. S. Wills, C.B. ..	Bengal ..	—
" A. F. Churchill, M.D. ..	—	Preston.
" F. B. Scott, M.D., C.M.G. ..	Bengal ..	Aldershot.
" T. F. O'Dwyer, M.D. ..	London ..	Woolwich.
" L. Corban, M.D. ..	Egypt ..	—
" F. Howard, M.D. ..	Colchester ..	Madras.
" C. F. Churchill, M.B. ..	Dublin ..	Colchester.
" J. Hector, M.B. ..	Bengal ..	Aldershot.
" J. B. Kelly ..	Madras ..	—
" R. H. Carew ..	Bengal ..	—
" S. Flood ..	—	Sheffield.
" G. B. Mout, M.D. ..	London ..	Woolwich.
" R. C. Eaton ..	Bengal ..	—
" W. M. Harman, M.B. ..	—	Portsmouth.
" A. W. Roche ..	Bengal ..	—
" J. R. Croker ..	Sheffield ..	York.
" E. V. MacSwiney, M.D. ..	—	Aldershot.
" J. Latchford, M.B. ..	Gosport ..	Aldershot.
" W. H. Garde ..	Egypt ..	—
" J. J. Crean ..	Hulme ..	Singapore.
" B. B. Connolly ..	—	Dublin.
" J. Coats, M.B. ..	C. of Good Hope ..	Dublin.
" R. Harman, M.B. ..	—	Canterbury.
" W. B. Slaughter ..	Dover ..	Dublin.
Surgeon C. H. Swayne ..	—	—
" O. G. Wood, M.D. ..	Bengal ..	Gosport.
" G. B. Hickson ..	—	—
" J. Martin ..	Egypt ..	Chatham.
" B. W. Wellings ..	—	—
" G. H. Le Mottee ..	Chatham ..	—
" A. E. Hayes ..	Bengal ..	—
" P. H. Johnston, M.D. ..	Queenstown ..	Cahir.
" G. Laffan, M.D. ..	—	York.
" U. J. Bourke ..	—	Woolwich.
" J. L. Peyton, M.B. ..	Camp Diggle ..	York.
" P. J. O'Sullivan, M.D. ..	Aldershot ..	Chatham.
" J. Pedlow, M.D. ..	Portsmouth ..	Dorchester.
" J. I. Routh ..	Canterbury ..	Madras.
" E. R. Power, M.B. ..	Snakin ..	Egypt.
" A. A. Lyle ..	Singapore ..	Penang.
" A. S. W. Young ..	Fort George ..	Edinburgh.
" T. F. MacNeece ..	Bengal ..	Alderney.
" E. R. Cree ..	—	Gosport.
" M. O'C. Drury ..	—	Dublin.
" G. E. Twiss ..	Dublin ..	Curragh.
" L. W. Swabey ..	—	Devonport.
" R. Haselden ..	—	Portsmouth.
" G. J. Coates, M.D. ..	C. of Good Hope ..	—
" T. B. A. Tuckey ..	—	Limerick.
" J. Osburne ..	Ballincollig ..	Clonmel.
" R. P. Hetherington, M.B. ..	—	Templemore.
" R. C. Johnston, M.B. ..	—	Dublin.
" T. A. Dixon ..	—	Hulme.
" R. I. D. Hackett, M.D. ..	—	Nova Scotia.
" R. T. McGeagh, M.D. ..	—	Devonport.
" H. H. Johnston, M.B. ..	—	Fort George.
" C. W. S. Magrath, M.B. ..	—	Portsmouth.
" F. J. Jencken, M.B. ..	—	Limerick.
" C. E. Faunce ..	—	Portsmouth.
" M. O'D. Braddell, M.B. ..	—	Cork.
" N. Manders ..	Chatham ..	Gravesend.
" E. Davis ..	Dover ..	Bengal.
" S. Powell, M.B. ..	Fleetwood ..	Pontefract.
" J. Meek, M.D. ..	Belfast ..	Bengal.
" E. N. Sheldrake ..	Woolwich ..	Grenadier Gds.
" E. Cormack, M.B. ..	Dublin ..	Bengal.

	From	To
Surgeon M. O'Halloran, M.D. . . .	Curragh . . .	Buttevant.
" C. Hayden, M.D. . . .	Devonport . . .	Horfield.
" P. J. R. Nunnerly . . .	York . . .	Burnley.
" T. Daly . . .	Newcastle . . .	York.
" H. E. Cree . . .	— . . .	Portsmouth.
" F. L. Carte . . .	— . . .	Dublin.
" W. H. Starr . . .	— . . .	Portsmouth.
" A. A. Sutton . . .	— . . .	Devonport.
" A. P. H. Griffiths . . .	— . . .	Devonport.
" W. S. Boles, M.B. . . .	— . . .	Devonport.
" H. L. G. Chevers . . .	— . . .	Portsmouth.
" F. J. W. Stoney . . .	— . . .	Dublin.
" J. F. Burke . . .	— . . .	Dublin.
" H. N. Kenny, M.B. . . .	— . . .	Dublin.
" C. D. G. Mosse . . .	Cape Coast Castle . . .	—
" R. Crofts . . .	Cape Coast Castle . . .	Sierra Leone.
Quartermaster J. MacSwiney . . .	— . . .	Aldershot.

THE NAVY.

THE following appointments have been made at the Admiralty during the past week: Deputy Inspector-General F. W. DAVIS to Haslar Hospital; M. A. HARTE, Fleet-Surgeon, to Pembroke Dockyard; ST. L. FRENCH-MULLEN, M.D., Staff-Surgeon, to the Royal Naval Hospital, Chatham; C. L. VASEY, Staff-Surgeon, to the *Garnet*; H. J. Medders, Staff-Surgeon, to the *Pembroke*, additional; CHARLES ANDERSON, Surgeon, to the *Tyne*; W. R. CRAIG, Surgeon, to the *Sultan*.

ARMY MEDICAL SERVICE.

SURGEON F. W. HUMPHREYS, of the 15th Middlesex (the Customs and the Docks) Rifle Volunteers, has been granted the honorary rank of Surgeon-Major.

Surgeon and Honorary Surgeon-Major WILLIAM BROWNE, M.D., of the 2nd Volunteer Battalion of the Prince of Wales's North Staffordshire Regiment (otherwise the 5th Staffordshire Volunteers) has resigned his commission, with permission to retain his rank and uniform.

Surgeon-Major E. C. R. WARD, serving in the Bombay Presidency, has been granted six months' leave of absence on medical certificate.

Surgeon-Major T. W. JACKSON, M.B., was brought on the strength of Her Majesty's Forces in the Bombay Presidency from October 18th, the date of his arrival at Bombay.

The official return just issued shows the number of non-commissioned officers and men of the Medical Staff Corps employed during the recent campaign in Egypt and the Soudan to have been 850. Of these, 362 were attached to the Nile expeditionary force and 468 to Suakin. In addition to these, there were 3 non-commissioned officers and 53 privates, belonging to Line regiments, employed with the Nile force. Of the Medical Staff Corps on the Nile, 30 are returned as sick in hospital—we presume at the date of the return being prepared—being in the ratio of 83 per 1,000. Of those at Suakin, 20 were in hospital, or 41 per 1,000 of the strength. The distribution according to rank was 8 sergeants-major, 105 staff-sergeants and sergeants, 98 corporals, and 426 ward orderlies.

INDIAN MEDICAL SERVICE.

SURGEON-GENERAL W. R. CORNISH, C.I.E., Madras Establishment, who retired from the service on the 1st of June last, has been appointed Honorary Physician to the Queen, in succession to Principal Inspector-General of Hospitals G. Pearce, M.D., deceased.

The services of Surgeon G. M. NIXON, Bengal Establishment, Officiating Medical Officer, 7th Cavalry, are temporarily placed at the disposal of the Government of the North West Provinces and Oude.

The services of Surgeon H. K. M'KAY, Bengal Establishment, in medical charge of the 32nd Native Infantry, are permanently placed at the disposal of the Chief Commissioner of the Central Provinces.

Surgeon G. M. E. M'KEE, Madras Establishment, has been appointed to the medical charge of the 23rd Light Infantry at Seetabuldee, vice Surgeon T. H. POPE, M.B., who has been transferred to civil employ.

Surgeon M. P. KHAREGAT, Madras Establishment, is appointed to the officiating medical charge of the 30th Native Infantry at Trichinopoly.

Surgeon R. N. CAMPBELL, M.B., Bengal Establishment, is confirmed in his appointment as Civil Surgeon at Darrang.

Deputy Surgeon-General A. M. DALLAS, Bengal Establishment, on return from furlough, has resumed charge of his duties as Inspector-General of Civil Hospitals, relieving Brigade-Surgeon J. Fairweather.

The services of Surgeon D. S. E. BAIN, Madras Establishment are placed at the disposal of the Military Department.

Surgeon W. H. QUICKE, Bombay Establishment, is appointed to officiate in medical charge of garrison staff and details at Fort Asserghur, vice Surgeon H. W. STEVENSON, who has been appointed to the medical charge of the 6th Bombay Cavalry, one of the new cavalry regiments authorised to be raised in Sind.

Brigade-Surgeon H. R. L. McDONOUGH, M.D., Bombay Establishment, has been permitted to return to duty from sick-furlough.

Brigade-Surgeon C. K. COLSTON, Bombay Establishment, has obtained three months' leave on medical certificate; and Surgeon-Major A. P. HOLMES, Bengal Establishment, in medical charge of the 1st Sikh Infantry, has two years' leave on private affairs.

Surgeon-Major JOHN CAMERON, M.D., of the Bengal Establishment, died at Adelaide, South Australia, on September 27th, in his 53rd year. He entered as Assistant-Surgeon October 1st, 1860, and ranked as Surgeon-Major twelve years therefrom. He is not assigned any war-service in the Army Lists.

missions; and 8.6 per cent. if reckoned on the average number resident during the year. The information given does not enable one to test the statement, with regard to the deaths, that in all but one case the fatal disease "was connected with the mental condition, more or less intimately, as a cause or concomitant of the alienation, or as induced or favoured by the morbid condition of the mind and nervous system"—after all, a very general statement. The arrangements as to occupations for patients, religious services, amusements, and for precautions against fire, appear to be satisfactory; and a most useful and important addition is a new detached cottage-hospital, now built, for isolation of infectious cases. The reports of the visiting commissioners are favourable to the management.

OBITUARY.

HENRY GRAVES BULL, M.D., Hereford.

IN the death of Dr. Bull, the City and County of Hereford have lost an able medical practitioner and an admirable citizen, whose loss in public and social life will be long felt.

Dr. Bull's medical career began in 1834 at Northampton General Infirmary. Pursuing his studies in Edinburgh, with an interval of one year at the medical schools in Paris, he finally completed them in Edinburgh, and obtained two gold medals for his medical essays, and Sir Charles Bell's prize for surgery.

Dr. Bull's connection with Hereford dates from 1841. He became attached to the Hereford Dispensary in 1842, and gradually established a large practice. His appointment on the staff of the General Infirmary dates from 1864. His ability, punctuality, and thoughtful consideration of the poor, and his cheery encouragement to them in their infirmities, brought to him an enormous array of patients at the Infirmary, where he used to devote several hours during three days a week, on alternate weeks giving an additional day. These duties he actively continued until the week before his death. The amount of gratuitous advice given to the poor was very great, and included gratuitous advice to several charitable institutions at a considerable distance from his house. Several reforms in the better sanitary arrangements of the Infirmary were ably assisted by his powerful advocacy. The institution of the Provident Dispensary, and its connection with the existing Dispensary, were organised by him. He also held the office of Medical Officer to the Hereford Prison from 1846 to 1880.

Dr. Bull was unwearied in the pursuit of any work for the public good. Every benevolent and philanthropic institution had his support, not only liberally by his purse, but by his useful action on committee. He was one of the oldest subscribers to the Medical Benevolent College at Epsom, and has materially aided it by his advocacy. The Herefordshire Friendly Society, the Society for Aiding the Industrious, the Free Library, the Permanent Library, and various other societies, have owed much to his ability and energy.

Since 1866, Dr. Bull has contributed annually valuable papers on botany, mycology, history (local, mediæval, or antiquarian), and other subjects to the transactions of the Woolhope Club; and, atterly, his energies were devoted to the subject of British and Roman camps in Herefordshire. On his deathbed he corrected the MSS. of *The Birds of Herefordshire*, a work on which he had bestowed great labour, and gave the final directions regarding the compilation of *The Apple and the Pear as Vintage-Fruits*, an epitome of a magnificent standard work, entitled, *The Herefordshire Pomona*, a work upon which he was much occupied for about nine years. Dr. Bull was desirous of ascribing the principal credit of this work to Dr. Hogg, Pomological Director of the Royal Horticultural Society, from whose *Fruit Manual* the letterpress descriptive of the varieties was compiled. A testimonial from the successive nine presidents of the Woolhope Club, recognising Dr. Bull's services as general editor and superintendent of the work, follows the general introduction to the book, and gives the glory where it is due.

As a husband, father, and a man, Dr. Bull combined all the qualities of a real manly Christian. After a life of activity and devotion to good works, he died, at the age of 67, of scirrhus of the pylorus, having been engaged actively in the duties of his profession until the week before his death. He leaves a widow and family of two sons and four daughters, prudently and comfortably provided for.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE PERTH DISTRICT ASYLUM.

ACCORDING to the report of this Asylum for the year ending May, 1885, the unfavourable character of the admissions has affected the recovery-rate, which is about 27 per cent., if reckoned on the ad-

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE THIRD QUARTER OF 1885.

In the accompanying table will be found summarised the vital and mortal statistics of the thirty-nine sanitary districts of the metropolis, based upon the Registrar-General's returns for the third quarter of this year. The mortality-figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided. By this means the precise number of deaths of persons actually belonging to the respective sanitary districts is known, as all deaths occurring in institutions of persons who had previously resided in another sanitary district have been excluded from the total deaths in the district in which the institution is situate, and credited to the districts from which they came. By this means alone can reliable data be secured, upon which to calculate trustworthy rates of mortality.

During the thirteen weeks ending October 3rd, 32,074 births were recorded in London, equal to an annual rate of 31.5 per 1,000 of the population, estimated to be 4,083,928 persons in the middle of this year. In the corresponding periods of each of the two preceding years, 1883 and 1884, the metropolitan birth-rate was 32.8 per 1,000.

The birth-rates in the various sanitary districts differ greatly, owing to the wide variations in the sex and age distribution of the population. In Kensington, St. George Hanover Square, St. James Westminster, and Hampstead, where the population contains a large proportion of domestic servants, the birth-rates are considerably below the average. On the other hand, in Fulham, St. Luke's, and most of the East districts, where the population consists of a large number of young married persons, the birth-rates show an excess.

The 18,334 deaths registered in London during the quarter under notice were equal to an annual rate of 18.2 per 1,000, which was lower than in any preceding corresponding quarter on record, except in 1879, when the rate did not exceed 18.0 per 1,000. Among the thirty-nine sanitary districts, the lowest death-rates last quarter were 11.6 in Hampstead, 12.8 in Plumstead, 13.8 in St. George, Hanover Square, 14.3 in Kensington, and 15.0 in Hackney. In the other districts the rates ranged upwards to 24.8 in St. Giles, 24.3 in St. George, Southwark, 25.4 in St. Luke's, and 30.1 in St. George-in-the-East. As in the first two quarters of the current year, the rate of mortality in the last-mentioned sanitary district again considerably exceeded that recorded in any other metropolitan district. During the quarter under notice, 3,933 deaths were referred to the principal zymotic diseases in London, equal to an annual rate of 3.9 per 1,000 persons living. The lowest zymotic death-rates in the thirty-nine sanitary districts were recorded in St. Martin-in-the-Fields, St. George Hanover Square, Westminster, Hampstead, St. Saviour Southwark, and Plumstead; the highest in Islington, Clerkenwell, St. George Southwark, Shoreditch, Fulham, and St. George-in-the-East. The 3,933 zymotic deaths included 2,043 from diarrhoea, 610 from measles, 541 from whooping-cough, 237 from diphtheria, 185 from scarlet fever,

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after complete distribution of Deaths occurring in Public Institutions, during the Third Quarter of 1885.

Sanitary Area.	Estimated Population middle of 1885.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Unde-fined Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.											
LONDON	4,083,928	32,074	18,334	31.5	18.2	3.9	3,933	136	610	185	237	541	7	150	24	2,043	187
<i>West Districts</i>																	
Paddington	110,291	712	443	25.9	16.1	3.4	94	2	17	6	3	11	1	4	—	48	191
Kensington	182,924	958	654	21.0	14.3	2.7	125	8	25	9	18	18	—	2	—	60	195
Fulham	140,136	1,367	775	39.2	22.2	7.3	255	5	49	7	9	30	1	4	3	147	223
Chelsea	95,502	719	514	30.2	21.6	4.6	109	—	14	—	6	17	—	5	—	66	253
St. George, Hanover Square	88,248	431	303	19.6	13.8	1.6	36	1	3	1	5	3	—	—	—	21	155
Westminster	57,031	435	241	30.6	17.0	2.2	31	—	—	—	4	3	—	1	—	23	179
St. James, Westminster	28,502	143	125	20.1	17.6	2.1	22	—	5	—	1	5	—	1	—	10	224
<i>North Districts</i>																	
Marylebone	151,302	1,114	699	29.5	18.5	3.9	146	2	46	—	3	10	—	4	—	80	188
Hampstead	51,950	336	150	26.0	11.6	2.2	28	4	8	—	2	3	—	—	—	9	74
St. Pancras	239,999	1,826	1,053	30.5	17.6	3.2	193	8	—	8	10	29	—	11	—	102	166
Islington	314,881	2,361	1,392	30.1	17.7	4.8	375	11	88	7	45	41	1	12	3	167	195
Hackney	218,535	1,583	818	29.1	15.0	3.5	188	8	30	6	18	15	—	10	1	100	189
<i>Central Districts</i>																	
St. Giles	42,038	308	252	29.4	24.1	3.0	31	1	5	1	2	3	—	—	—	16	218
St. Martin-in-the-Fields	16,028	92	67	23.0	16.8	1.5	6	1	1	—	1	—	—	—	—	3	185
Strand	30,527	197	147	25.9	19.3	3.7	28	1	3	—	—	7	—	—	—	14	244
Holborn	32,465	244	175	30.2	21.6	4.1	33	2	7	3	1	—	—	—	—	19	205
Clerkenwell	60,091	567	329	32.9	19.1	4.8	83	3	17	1	4	9	—	—	—	46	210
St. Luke's	44,043	499	279	45.6	25.4	4.6	51	2	10	7	3	4	—	—	—	30	196
London City	43,312	169	292	15.7	21.5	2.8	30	1	4	3	1	6	—	—	—	74	207
<i>East Districts</i>																	
Shoreditch	123,565	1,165	691	37.2	22.1	5.3	166	3	32	26	9	21	—	—	—	14	213
Bethnal Green	129,175	1,237	680	38.4	21.1	4.4	143	1	22	18	2	21	—	—	—	71	186
Whitechapel	68,828	549	316	32.0	18.4	3.5	60	1	10	4	4	4	—	—	—	36	184
St. George-in-the-East ..	46,490	488	349	37.8	30.1	8.9	103	2	8	13	5	15	—	—	—	58	212
Stepney	58,544	507	333	34.8	22.8	4.4	64	1	14	7	4	5	—	—	—	29	187
Mile End Old Town ..	110,709	978	457	35.5	16.6	4.3	118	—	28	14	2	24	—	—	—	42	149
Poplar	174,596	1,459	780	33.5	17.9	3.7	163	17	21	13	4	26	—	—	—	77	181
<i>South Districts</i>																	
St. Saviour, Southwark	27,674	242	153	35.1	22.2	2.6	17	—	1	—	—	2	—	—	—	13	169
St. George, Southwark ..	59,063	504	358	34.2	24.3	5.0	73	—	9	3	—	7	—	—	—	46	222
Newington	115,772	985	564	34.2	19.6	3.3	96	13	12	3	8	6	—	—	—	47	221
St. Olave, Southwark ..	10,736	86	55	32.1	20.6	4.5	12	—	—	—	—	—	—	—	—	9	256
Bermondsey	88,111	771	419	35.1	19.1	4.6	101	2	16	12	5	13	—	—	—	21	188
Rotherhithe	40,055	352	180	35.3	18.0	3.0	36	2	3	4	—	—	—	—	—	136	165
Lambeth	273,295	2,263	1,144	33.2	16.8	3.4	234	6	35	4	18	36	1	—	—	154	186
Wandsworth	257,092	2,157	1,020	38.7	15.9	3.8	246	1	18	3	11	49	—	13	—	92	176
Camberwell	227,947	1,714	874	30.2	16.4	2.9	163	14	14	4	13	20	—	—	—	64	182
Greenwich	145,569	1,255	684	34.6	18.9	3.8	139	7	61	14	5	42	—	—	—	21	156
Lewisham	36,758	454	213	33.8	15.9	4.1	65	1	7	—	1	18	—	—	—	15	113
Woolwich	77,242	328	169	33.8	18.5	3.3	30	—	3	1	5	8	—	—	—	22	127
Plumstead	53,843	569	247	29.6	12.8	2.6	30	1	2	2	5	15	—	—	—	—	—

150 from enteric fever, 136 from small-pox, 24 from simple or undefined fever, and 7 from typhus. Compared with the preceding quarter of this year, the fatality of small-pox, measles, and whooping-cough showed a decline, but that of each of the other diseases showed an increase. The 136 deaths from small-pox included 72 of London residents which were recorded in the Metropolitan Asylum Hospitals situated outside Registration London, which have been distributed among the districts in which they resided previously to their removal to the hospitals. It appears that 17 cases belonged to Poplar, 14 to Camberwell, 13 to Newington, 11 to Islington, 8 to Kensington, 8 to Pancras, and 8 to Hackney. Diarrhoea was proportionally most fatal in Clerkenwell, St. George, Southwark, Fulham, and St. George-in-the-East; measles in Shoreditch, Mile End Old Town, Marylebone, and Islington; whooping-cough in Fulham, Lewisham, Greenwich, and St. George-in-the-East; diphtheria in Islington; scarlet fever in Shoreditch and Bethnal Green; and enteric fever in Lewisham.

Infant-mortality, measured by the proportion of deaths under one year of age to births registered, averaged 187 per 1,000, against 185 and 242 in the corresponding periods of 1883 and 1884.

QUALIFICATION FOR DISTRICT MEDICAL OFFICER.

SIR,—Will you inform me in your next issue if the registered qualifications of M.R.C.S. Eng. and L. & M.R.C.P. Ed., and the certificate of vaccination given by a public vaccinator authorised by the Privy Council, are sufficient for the holder of them to be appointed District Medical Officer and Public Vaccinator for a Union.—Yours faithfully,
CHARLES COTTON.
40, Spencer Square, Ramsgate.

*. * If anyone hold a medical and a surgical qualification from licensing bodies that are recognised by the Local Government Board, and a certificate of vaccination, there is very little doubt but that his appointment would be confirmed, should he be elected to a parochial medical office.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent M.B. Examination.

First Division.—C. E. Adams, B.Sc., University College; C. J. Arkle, University College; L. Barnett, University College; R. D. Batten, St. Bartholomew's Hospital; J. Berry, St. Bartholomew's Hospital; J. I. Boswell, Guy's Hospital; J. H. E. Brock, University College; J. Calvert, B.A., B.Sc., St. Bartholomew's Hospital; J. W. Carr, University College; E. J. Cave, St. Bartholomew's Hospital; L. F. Child, Guy's Hospital; W. T. Cocking, University College; A. F. Davenport, University of Edinburgh and University College; A. W. Dingley, University College; J. Elliott, B.Sc., St. Bartholomew's Hospital; W. H. Evans, B.Sc., University College; H. H. Fisher, St. Bartholomew's Hospital; E. W. Goodall, Guy's Hospital; F. Hichens, London Hospital; G. W. Hill, B.Sc., St. Mary's Hospital; F. Hinds, University College; C. B. Innes, St. Bartholomew's Hospital; A. J. Jefferson, St. Thomas's Hospital; H. H. Lankester, St. Thomas's Hospital; J. Marriott, Charing Cross Hospital; G. H. Melson, Queen's College, Birmingham; M. E. Pailthorpe, London School of Medicine, and Royal Free Hospital; W. Pearce, B.Sc., St. Mary's Hospital; H. W. Pilgrim, University of Edinburgh and University College; A. E. Price, Guy's Hospital; R. M. H. Randall, Guy's Hospital; H. B. Robinson, St. Thomas's Hospital; J. H. Sellick, Guy's Hospital; T. S. Short, King's College; A. M. Sutton, Guy's Hospital; J. Swain, Westminster Hospital; F. D. Turner, University College; J. J. D. Vernon, Guy's Hospital; P. P. Whitcombe, St. Mary's Hospital; R. T. Williams, Owens College; W. A. Wills, Westminster Hospital.

Second Division.—R. W. Brogden, Guy's Hospital; A. H. Cook, University College; J. G. Harsant, Guy's Hospital; F. Lever, B.Sc., Guy's Hospital; E. P. Mounryan, Guy's Hospital; E. C. Pettifer, St. Bartholomew's Hospital; F. Tratman, London Hospital; F. J. Wethered, London Hospital; P. W. Williams, Bristol Medical School; L. E. Wood, St. Mary's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentleman passed the Examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise, on Thursday, November 12th, 1885.

Earle, Walter George, 12, Rothwell Street, N.W.

The following gentlemen passed their examination in the Science and Practice of Medicine, and received their certificates to practise.

Gidley, Gustavus George, Honiton, Devonshire.
Queely, John Eugene St. George, Ingham, North Queensland.
Smith, Samuel Edwin Lambert, General Hospital, Birmingham.

MEDICAL VACANCIES.

The following vacancies are announced.

BRISTOL GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum. Applications by December 2nd.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Assistant-Physician. Applications by November 30th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by December 1st.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 7th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Assistant-Anæsthetists. Applications by December 14th.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by November 27th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury. House-Physician. Salary, £100 per annum. Applications by November 21st.

OWENS COLLEGE, Manchester.—Lecturer on Medical Jurisprudence. Applications by November 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology. Applications by November 28th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Chemistry. Salary, £100 per annum. Applications to G. P. Field, Dean.

ST. MARYLEBONE GENERAL DISPENSARY.—Resident Medical Officer. Salary, £105 per annum. Applications by November 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Registrar. Salary, £63 per annum. Applications by December 7th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 7th.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer for the Infirmary and Workhouse. Salary, £120 per annum. Applications by November 30th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Ophthalmic Surgeon. Applications by December 7th.

WHITECHAPEL UNION.—Assistant Medical Officer of the Infirmary. Salary, £150 per annum. Applications by December 7th.

WINDSOR ROYAL INFIRMARY. House-Surgeon. Salary, £100 per annum. Applications by November 25th.

MEDICAL APPOINTMENTS.

HARRIS, Vincent D., M.D. Lond., F.R.C.P., Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, appointed a Physician, *vice* J. I. Berkart, M.D., resigned.

KEMP, John R., L.R.C.P., M.R.C.S., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital.

LAWRENCE, Sidney Cameron, L.R.C.P. Lond., M.R.C.S., appointed Resident Surgeon to the Birmingham General Dispensary.

WOODHEAD, German Sims, M.D., F.R.C.P. Ed., appointed to be Pathologist to the Royal Infirmary, Edinburgh, *vice* Byrom Bramwell, M.D., F.R.C.P. Ed., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SMITH.—On the 17th instant, the wife of T. F. Hugh Smith, F.R.C.S., L.S.A., of Farningham, of a daughter.

MARRIAGE.

MAUDEN—ANDERSON.—On the 17th instant, at St. James's, Paddington, by the Rev. S. C. Whalley, Thomas Marsden, M.D., M.R.C.S., of Bridgwater, Somerset, to Jessie Mary, third daughter of W. J. Anderson, Esq., of Westbourne Terrace, Hyde Park, and Capetown.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 p.m. Mr. A. Pearce Gould: Cases of Sarcoma rapidly following upon Injury. Mr. Walter Pye: Pyæmia after Removal of a Sarcoma from the Base of the Skull.

TUESDAY.—Royal Medical and Chirurgical Society. Mr. Arthur Barker: On the Distribution of *Bacillus anthracis* in the Human Skin in Malignant Pustule. Dr. John Harley: A Case of Acute Tubercle of the Liver agreeing completely with the so-called Actinomycosis. A series of Microscopic Specimens illustrative of Dr. Harley's paper will be on view at 8 p.m.

WEDNESDAY.—British Gynaecological Society, 8.30 p.m. Specimens will be shown. Dr. Purcell: On a Case of Intravaginal Amputation of the Uterus. Dr. R. T. Smith: On Trachelorrhaphy.—Hunterian Society. Dr. Herman: 1. Cases in which Turning is facilitated by Amputation of the Pericent Arm; 2. Cases of Disease of the Female Urethra. Dr. Cotman: Two Cases of Sudden Death. Dr. Turner: Specimens of Traumatic Emphysema.

THURSDAY.—Harveian Society of London, 8.30 p.m. Harveian Lectures, by Dr. T. Buzzard, on Some Varieties of Paralysis due to Peripheral Neuritis.

FRIDAY.—Clinical Society of London. Mr. Barwell: A Case of Gastrostomy. Mr. Dent: A Case of Gastrostomy. Mr. John Morgan: A Case of Gastrostomy. Mr. Golding-Bird: Jejunostomy in Cases of Cancer of Pylorus. Living Specimens.—Dr. Felix Semon: A Case of Congenital Malformations (Web between Vocal Cords, and Coloboma of Eyelid). Dr. E. R. Walker: A Case of Myxœdema. Dr. T. D. Savill: A Case of Myxœdema.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY ...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London, 2.30 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY ...	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.
GUY'S. —Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopaedic, F., 12.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30. Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should autenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE INCOME-TAX.

SIR,—I should be much obliged if some of your readers would communicate to me, either privately or through the medium of your columns, some particulars as to the deductions they claim and are allowed with regard to the income-tax; more especially abatements relating to bad debts, allowances for horses, drugs, servants, and other incidental expenses.—I am, sir, yours faithfully,
Fairfield House, Chelmsford.
E. HUNT CARTER.

THE VACCINATION-SHIELD OR ARM-PROTECTOR.

MR. T. L. GENTLES, one of the public vaccinators of the Derby Union, writes to us concerning the "Vaccination-Shield" or "Arm-Protector," which is frequently seen on the arms of babies during the progress of the vaccine-vesicles. He says that at first sight this little apparatus looks effective and harmless; but if we consider the nature of the materials entering into its composition, and also the indiscriminate use made of it by parents and nurses, we must see that it is a "germ-breeder" of no little potency. The framework of the shield is generally made of galvanised iron wire. Round the circumference of the shield this wire is, in many instances, covered with wadding, bound down with soft cotton-tape. Many vaccinators must have seen the rims of those shields soaked with escaping lymph, and encrusted in many places with pieces of scab from the vesicles; thus producing a state of things eminently calculated to set up septic action. Besides this, the shields are not only used for successive children in the same family, but they are lent to others.

Some sort of "protection" ought to be given to the arms during the rising and scabbing of the vesicles; and Mr. Gentles commends for the purpose pieces of clean linen rag, bound lightly round the arm, and renewed four or five times a day; each piece as it is taken off being burnt.

MEDICAL PRACTICE IN THE UNITED STATES.

THE laws affecting the practice of medicine in the United States vary considerably, each State having its own regulations. In some, there is no doubt that a doubly qualified English practitioner (M.R.C.S. Eng., L.R.C.P. Ed.) would be recognised, on presenting his diploma for registration. We are not aware that the absence of the degree of M.D. interferes with the social status of the practitioner, or excludes him from societies.

AN UTERINE CASE.

SIR,—I shall be very glad and grateful if some of your readers will give me their opinion and experience of the following case.

A lady consulted me about six months ago. She was suffering from ante-flexion of the uterus, with slight catarrh, which I treated in the usual way with success. She also complained of pain at the external orifice of the urethra when she passed urine; this came on in very severe paroxysms. I examined for vesicular tumours, but found none. I applied the solid stick of nitrate of silver, which caused severe pain for a day or two, but afterwards gave considerable relief for a short time; I then applied a strong solution of carbolic acid and glycerine, which eased the pain for a short time. She suffered from neuralgia for some time. This I treated by tonics and cold baths to build up the constitution; I also gave her a pill containing iron, quinine, strychnine, arsenic, and aconite, which gave her considerable relief. She still complains of the pain at the external orifice of the urethra, which comes on in severe paroxysms. I may also state that at first she was obliged to pass urine every half-hour; latterly every two hours.

I shall be very glad if any of your readers would kindly give me a few suggestions in the treatment of the above case.—I am, etc.,
R. J. R.

THE GALVANO-CAUTERY.

SIR,—Remembering the prominent part which my late father, Mr. Baker Brown, took in advocacy of the treatment by cautery of the pedicle of ovarian cysts, I am interested to learn the great success which Mr. Skene Keith has had with this method, and I venture to offer him my congratulations on the brilliant record of his first fifty cases.

In another branch of surgery, I am daily using the galvano-cautery; and if Mr. Keith has not yet employed it for the purpose under consideration, I would strongly urge him to do so.

The following are the advantages that may be claimed for it over the actual cautery. 1. The instrument can be applied cold, and the cautery action excited and arrested instantaneously at will—a most important matter in a procedure, the complications of which are so manifold and various. 2. The amount of heat employed can, by means of a rheostat, be accurately gauged. In my own practice, I always ascertain the amount of heat before applying it. It is a great mistake to suppose that great power is required in cautery operations; on the contrary, the danger is in allowing the instrument to be too hot; and it is even more easy to have an effectual black or dull red heat with the platinum-cautery than with irons heated in a fire. Finally, in my experience, there is far less scorching of parts around, and consequently a far better recovery of tissues treated by the galvano-cautery than by the actual.—I am, yours faithfully,
LENNOX BROWNE.

SIX CHILDREN AT A BIRTH.

It is stated in a Spanish medical journal, *El Genio Medico*, that a woman has recently been delivered of six children at a birth. Five died immediately, and the sixth is living and healthy.

LIPPITUDO.

SIR,—Having suffered from chronic ophthalmia tarsi—the "lippitudo" of some writers—for over two years, and having tried almost every remedy of note with no, or only temporary, effect, I should feel deeply indebted to any of my brother practitioners if they could suggest anything new.

Among external remedies I have tried citrine, red oxide and red iodide of mercury, iodoform, and sulphur ointments; tincture of iodine, alum, nitrate of silver, and sulphates of zinc and copper; and among internal remedies, arsenic, strychnine, bitter tonics, etc.

I am, and always have been, in excellent health, and attribute the ophthalmia, which affects only my left eyelid, to reading hard by gaslight.

I may add that I have refrained from tobacco-smoking for months together without any amelioration of the condition. Any hints will be gratefully accepted by, yours faithfully,
ROB. ROY.

HOME FOR INCURABLES.

MR. H. S. ROBINSON (Monkwearmouth) asks for information regarding "homes for incurables." The patient has been bedridden for four years, from spinal and other injuries. Removal being a great difficulty, a home in the north of England would be preferred.

DRESSERSHIPS IN HOSPITALS.

M. asks if it be customary in London medical schools for students to wait twelve months before coming on as dressers; also if Oxford and Cambridge students have the preference over full students at the same hospital. The first question is obscure. In some hospitals, dresserships are awarded by examination; and when awarded, the date when the term of dressership begins is notified to the successful candidates. No preference should be shown to any person on the score that he happens to be a student of one of the old universities. Such a practice would simply be harmful to those honourable seats of learning.

CONSTIPATION IN INFANTS.

DR. W. R. COSSHAM (Gloucester) has generally found much benefit from ordering the infant to be fed every morning with a cupful of gruel, which may be sweetened with treacle or honey. Further help is obtained by giving a teaspoonful of cod-liver oil twice a day, and using friction over the bowels every night with olive-oil on the palm of the hand. An occasional morning draught may also be necessary, such as tinct. podoph. $\mathfrak{m}\mathfrak{i}\mathfrak{j}$ (gr. ii ad 5i); pulv. ipec. gr. $\frac{1}{4}$; glycerini 5i; aquam anisi ad 5ss.

L. suggests two or three meals of "Mellin's food" daily. He has found this useful, and has long since dispensed with drugs as much as possible in the treatment of some troublesome cases. If the infant is being nursed, two or three meals a day will be sufficient, and these may be dispensed with as soon as the object is attained, and resumed if necessary; but if it be living upon artificial food, "Mellin's food" should be substituted.

MR. E. GIBSON BERKLEY says that the liquid extract of cascara sagrada, combined with minute doses of tincture of nuxvomica, and made palatable with a little syrup of lemon or glycerine, will be found very useful. It should be given two or three times a day.

SIGN-POST writes: If "M.D." will refer to the *Lancet* of November 12th, 1881, he will find in it a very instructive letter upon the above subject, signed "Oatmeal and Milk." The writer of it recommends feeding the infants on well made oatmeal gruel, and milk, in proper quantities, and at intervals. Briefly, I may state that, for an infant from four to six months old, he advises half the feeding-bottleful of milk, with the same quantity of oatmeal gruel, to be given every four hours. The directions in the letter for preparing the gruel are as follows. "Take a teaspoonful of the common coarse, but sweet (not bitter, oatmeal); let this soak in a little more than a tumblerful and a half of cold water for some hours, say all night; then place this meal, and the water, in a clean covered saucepan capable of holding double the quantity of the liquid poured in; place the saucepan near the fire, so as to heat the contents slowly, and after a time place it on the fire, and stir the contents, until, and for a minute or so after, it boils; then pour the contents on to a horse-hair sieve, the creamy gruel is made."

MR. M. F. BUSH (Bristol) advises a spill of paper dipped in castor-oil about two or three inches, and inserted into the lower bowel. It should be used every day for a time.

DYSDROSIS OF FEET.

MR. J. J. EYRE (Forest Hill) recommends salicylic acid used as follows. Each time the patient puts on a clean pair of socks or stockings, a little of the acid is to be dusted on the inside of the soles of the stockings on the parts corresponding to the parts of the feet which sweat. The acid not only deodorises, but also almost immediately checks perspiration.

MR. W. WHITWORTH (St. Agnes) advises that two pieces of common adhesive plaster be cut of the same shape as the flat of the feet, and applied to the soles. Sweating and malodour will speedily cease.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

IN the *JOURNAL* of October 24th, I see reference to the Society for the Relief of Widows and Orphans of Medical Men. Would you kindly inform me if the payment to this Society, or if not, to any other, of a certain sum each year entitles the widow and orphans to a certain sum annually after the decease of the person so subscribing? I understand clergymen have such a society.—Yours truly,

YOUNG MEMBER B.M.A.

* * * The Society for Relief of Widows and Orphans of Medical Men provides for the payment of annual sums to the widows and orphans of members, when left in indigent circumstances. Candidates for admission must be resident within twenty miles from Charing Cross. Beyond this, there is at present no such society. The Medical Sickness, Annuity, and Life Assurance Society (Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, London, S.W.) provides payments in sickness, old age pensions, and sums at death, in return for quarterly premiums. This Society does not, however, provide anything for widows or orphans, but we believe there is a probability of some extension of its work in that direction.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

SIR,—May I ask your kind indulgence to enable me to correct an error, for which I am myself responsible, in the report of my paper on Hernia, which appeared in the report of a meeting of the above Society in the *JOURNAL* of October 31st, p. 836? It is there stated (line 11) that "inguinal hernia made its appearance ten times more frequently during the first year of life than during any subsequent year." It should have read "twice as frequently," instead of "ten times more frequently." The table showing the proportion of first cases of rupture at various ages will appear, with the rest of my paper, in the *Medical Press and Circular*. The error arose from the various years except the first being arranged in periods of five years, which led to my erroneously dividing the number for that first year by five.—I am, sir, yours truly,

R. J. PRE-SMITH.

RANCID BUTTER.

SIR,—In reply to "Economy," I saw, three or four years ago, at the Royal Agricultural Hall, a hand-press exhibited, which by pressure squeezed the butter through water. The lactic acid was thus washed away, and the rancid butter became fresh. The instrument is used, I believe, in hotels.—I am, etc.,

H. F. S.

MR. W. F. ALLAN (Glasgow).—There is a "National Sanatorium for Consumption and Diseases of the Chest" at Bournemouth. Information may be obtained from the secretaries, Dr. Humby, at the Sanatorium, and Mr. W. H. Beckley, 28, Duke Street, St. James's, London, S.W.

CIRRHOTIC ENLARGEMENT OF THE LIVER IN A FEMALE.

SIR,—Under the above heading, Dr. James Oliver contributes (*JOURNAL*, October 24th) a very interesting case. It has, however, been admitted by competent authorities that, "in exceptional instances, a cirrhotic liver is enlarged throughout, and even to a marked degree." Dr. F. T. Roberts further remarks, "This is generally due to fatty or lardaceous disease being associated with the cirrhosis, but not always, there being in some cases merely a hypertrophic interstitial hepatitis."

As to the unusual causes of interstitial hepatitis, the same writer observes: "It has been attributed to the influence of malaria, or prolonged heat; to the abuse of hot condiments, and various articles of diet; to the circulation of products of faulty digestion; or to the extension of a localised peritoneal inflammation. Cases have come under my notice which could not be traced to any definite cause, and it has appeared to me that occasionally there may be hereditary influence at work." These views are certainly entertained, also, by most pathologists.

Loss of flesh during any stage of cirrhosis is not always due to the action of alcohol; it is also a symptom in cases not due to its abuse.—I am, sir, yours faithfully,

J. GRANT BRIDE, L.R.C.P.Ed.

22, Guilford Street, W.C.

RINGWORM OF SCALP.

X. writes on this subject: To a drachm of calomel add one ounce of tincture of iodine; a red precipitate is formed, with a clear supernatant fluid. Allow the phial to stand for a few days, shaking it up frequently. Take a camel's hair brush, and paint the parts affected with the ringworm, and a clear margin beyond, with the liquid. One or two applications are generally sufficient.

MR. H. P. LEECH (Woolpit) advises a trial of the following combination: thymol 3i; chloroform 5ss; best olive oil, sufficient for 5ii. Mix well. Apply to the part twice a day by means of a camel's hair brush; and have the part well washed and cleansed first with soft soap and water.

DR. J. WALTHER (Eastbourne) writes that he has cured forty cases of ringworm by the application of the 10 per cent. oleate of mercury, with the addition of one-seventh of acetic ether.

HYDROCHLORATE OF CUCAINE FOR MINOR OPERATIONS.

SIR,—Kindly allow me to add my testimony to the great assistance cucaine has given to our profession, and more particularly those who may be practising in the country. All operations are necessarily painful, and previous to my using cucaine, I have always administered chloroform, even for very minor operations, and consequently have required help from a brother surgeon; but now I find I can perform a great many single-handed.

The following cases are those in which I have used it so far, and in all of them the operation was absolutely painless: two operations for cataract; double squint; removal of a prickle in the cornea; opening of lacrymal abscess; removal of three sebaceous tumours from the face; ligature of two *mevi*; three anal fistulae.

In the removal of the sebaceous tumours, I injected four drops of a 4 per cent. solution by means of a hypodermic syringe, and introduced it into the fistulae by placing six drops into the groove of a director.—Yours truly,

Saltsash.

H. BOYLE RUNNALLS.

APPLIANCES FOR INVALIDS.

SIR,—Can any of your readers tell me of an institution where invalid-appliances can be hired at rates available for poor people? I personally know of no such institution, the great need of which I daily recognise amongst my poorer patients. Such institutions established in the poorer districts of London would have large spheres of usefulness. Might not the instrument-departments of our metropolitan hospitals, under due regulations, be made available by the authorities for such purposes?—I am, sir, yours faithfully,

176, Richmond Road, Dalston.

FREDERICK E. COCKELL, Junior.

THE ENTRIES AT THE MEDICAL SCHOOLS.

WE learn from the Honorary Secretary of Queen's College, Birmingham, that the full entries at that institution amount to twenty-three students, besides sixteen who have entered for special and one for dental courses, making a total of forty new students.

THE CAMBRIDGE SANITARY SCIENCE CERTIFICATE.

SIR,—Could you or any of your readers inform me of a "coach" for the Sanitary Science Certificate of Cambridge? Also books to be read for it? Apologising for troubling you, I am, sir, yours truly,

JUNIOR MEMBER.

* * * A list of the books recommended to be read for the Sanitary Science Examination at Cambridge will be found in the *JOURNAL* of September 12th, pages 519 and 520.

AN INSTITUTION FOR EPILEPTICS.

SIR,—Would you kindly inform me of the address of any institution into which an epileptic patient, from the humbler ranks, would be received.—Yours faithfully,

GALE HOUSE, AMBLESIDE.

AUGUSTUS JOHNSTON.

* * * Epileptic patients are received for treatment at the National Hospital for the Paralyzed and Epileptic, Queen Square, London, W.C., and at the Hospital for Epilepsy and Paralysis, Portman Terrace, Regent's Park, London, N.W.

THE BACILLUS TUBERCULOSIS.

SENEX asks: What is the best way to detect the bacillus tuberculosis in caseous nodules in the lung?

* * * Harden in alcohol. Use Weigert-Ehrlich's solution: 100 parts saturated watery solution of aniline, 11 parts saturated alcoholic solution of fuchsin. Stain for twenty-four hours, wash for a few seconds in dilute nitric acid (1 to 4). Wash in water; place in a strong solution of methylene-blue for one hour; wash in water, alcohol, oil of cloves; and mount in Canada balsam.

ANOTHER CURE FOR CANCER.

IN a case of alleged epithelioma involving the facial bones, with extensive infiltration of the tissues, where an operation was not deemed desirable, Dr. Antonio, of Mazzara del Vallo Maggio, applied an ointment consisting of 15 parts of resoreine to 20 parts of vaseline twice a day, with the result, it is said, of completely curing the disease; nothing remaining but a white scar a centimetre in diameter.

THE NEW REGULATIONS OF THE CONJOINT BOARD.

SIR,—I am very glad to see that the examiners for the first examination (first portion) have not only set fair questions, but have passed a decent number of men this time. I do not wish to enter into any question as to the advisability of compelling a student to cram up materia medica and chemistry in three months, because I am perfectly certain for a first year's student it cannot be done without, provided there has been no previous knowledge of the subjects.

I feel confident, however, that the examiners, in July (the first examination where numbers were used), were rather careless in their manipulations of the numbers or the marks, because candidates who had only crammed three weeks were passed; others, who did not cram, but who had been reading for months, and in some cases years, were rejected ignominiously. Some who only got out one salt in the practical chemistry were given a *viâd voce* examination, and passed; others who got out both were rejected without any such examinations; and I have heard of one lucky gentleman who had sent up his name, but did not present himself, receiving a certificate in mistake.

I myself was one of those individuals rejected in chemistry. I took both salt and solution home, to be submitted to delicate and careful analysis, and found correct. Now, as I have been engaged in chemical study for years, I went northwards, and passed a stiffer examination at one of our great universities a few days later, and without any extra preparation. Students are thus driven from London, to where they may be asked decent questions; and it is a known fact that the most stupid, and in some cases impracticable, questions emanate from the London boards.

I make this protest in the interests of those who are not through yet, believing, as I do, that there should be a *viâd voce* examination always as the true test of a man's knowledge, and that no examination is complete without one.

Yours truly,

B.A. and M.B.

MEDICAL DEFENCE ASSOCIATION.

SIR,—I observe, in the BRITISH MEDICAL JOURNAL, of October 31st, page 844, notice of a "Medical Defence Association." Are there two? I received a prospectus of one, a few days ago, and was about joining it, when I saw the above notice of quite a different association. Of this one I have received no prospectus, so I suppose that they have not been issued to the profession generally. Why should there not be one good defence association in connection with the British Medical Association? This would command confidence, and be generally joined; which cannot be the case if two rival associations be struggling into existence. Any information will be gladly received.—Yours very truly,

J. SINCLAIR HOLDEN, M.D.

THE COLLEGES AND MEDICAL TITLES.

SIR,—Presuming the resolution recently passed by a majority of the College of Physicians of London, in reference to conferring degrees upon those passing the conjoint examinations, be confirmed by Act of Parliament, will it have a retrospective effect? If not, it will be extremely unfair for those who, like myself, spent five years in metropolitan hospital work, before presenting myself for the L.R.C.P., and have been prevented by circumstances from obtaining a degree elsewhere.

In fact, the grievance is more painful to the old licentiates and members of the college, who, after settling down in practice, discover that the double qualification confers no title legally, than to present students who are fully alive to the fact; and surely the former, who have agitated the question, ought to be allowed to use the title of Dr., seeing they will shortly more than ever be so surrounded, not only by foreign, but also by English M.D.'s, that the general public will soon be induced to question their competency to practise medicine at all.—Yours faithfully,

L.R.C.P. Lond., M.R.C.S. Eng., and L.S.A.

B. B.—Surgeon-Major Shepherd's *First Aid to the Injured*, edited by Robert Bruce.

THE DUTIES OF CORONERS.

SIR,—I shall be obliged by your inserting the following particulars of a case of sudden death, hoping that I may thereby get the views of some member, on the course adopted by the coroner.

On Tuesday, October 20th, about 5 A.M., I was asked by the father to visit his child, T. H., who, he was afraid, was dead. On my arrival at the house, about two hundred yards distant, I found a fine child, of five months of age, lying on its side on the bed, dead, but still warm. There was no outward sign of compression, rigor mortis was commencing, and there was a patch of discoloration on the calf of the right leg. I recognised the child as one whom I had vaccinated nine days previously, and from whose arm I had, on the previous day, vaccinated four other children. The scars showed no inflammatory areola, but were dry and natural.

On enquiry, the mother told me that, in consequence of an elder child being unwell, she, the father, and both children had slept in the same bed, and that at about 2.30 A.M. she had nursed the infant, and then turned her back towards it and gone to sleep. Shortly before five she awoke, and turning to the child, found that its face was cold. She roused her husband, lamenting loudly that she had overlaid the child. The police-inspector communicated with the coroner, sending a note with particulars, and stating that the medical attendant considered that there should be an enquiry. The reply to this was simply that there would not be an inquest.

Owing to the facts of the child's recent vaccination, and the transmission of lymph from this to four other children, I wrote myself to the coroner, requesting him to reconsider his decision, and hold an inquiry as to the cause of death; to this I received no reply, but find the coroner filled up the form, stating there would be no inquest, consequently the death was registered "cause unknown." I refrain from comment, but seek the opinion of others.—I am, sir, faithfully yours,

RUSTICUS.

* * * It is a coroner's duty to hold inquests in cases where there is a reasonable suspicion that death was caused by violent or unnatural means. The facts stated certainly establish a *prima facie* case of suspicion, and the coroner seems, to say the least, to have acted unwisely in refusing to hold an inquest.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. C. Moore, Hereford; Mr. Cameron, Birmingham; Mr. Gubb, London; Our Liverpool Correspondent; Mr. G. Smith, Birmingham; Dr. Dobie, Chester; Mr. G. Brown, London; Mr. Cash, London; Mr. W. J. Le Grand, London; Mr. J. Eaton, Cleator Moor; Mr. Barnett, Durham; Mr. A. H. Clemow, Liverpool; Mr. R. F. Mackenzie, Birmingham; The Secretary of the City of

London Hospital for Diseases of the Chest, London; Mr. G. Sturge, London; Mr. A. Teevan, Melbourne; Mr. T. V. Lister, London; A Member; Mr. J. G. Harries, Haverfordwest; Mr. Cooper, Durham; Mr. E. Atkinson, Leeds; Mr. White, Nottingham; Dr. Tatham, Salford; Dr. A. Wahlteu, Manchester; Mr. B. Allsop, Shipley; Mr. Vincent Jackson, Wolverhampton; Mr. F. J. Gawthrop, London; Mr. E. Mackenzie, Cheadle; Mr. J. Bernard, Cork; Dr. W. J. Mackie, Turvey; Mr. T. Joyce, Cranbrook; Mr. W. B. Boughton, Dursley; Dr. Jackson, Hexham; Mr. P. Swain, Plymouth; Mr. F. R. Cross, Clifton; Mr. W. H. B. Crookwell, Manchester; Dr. C. Haig Brown, Godalming, Surrey; Mr. F. Dodgson, Cokermouth; Mr. W. F. Allan, Glasgow; Our Dublin Correspondent; Mr. W. Williams, Llandair; Mr. J. D. Pryce, Nottingham; Mr. R. F. Owen, Liverpool; Dr. G. M. Johnston, Leith; Mr. H. Boyle Runnalls, Saltash; Dr. G. F. Masterman, Stourport; J. G. W. B.; Dr. R. Aldridge, Yeovil; Mr. N. F. H. Fitzmaurice, Dunning, Perthshire; Mr. R. Melvor, Devonport; Mr. A. H. Carter, Chelmsford; Mr. G. Meadows, Hastings; Mr. W. T. Jackman, Coggeshall; Mr. F. D. Pryce, Nottingham; Mr. J. Snell, Bacup; Mr. C. Mayhew, Dover; Mr. J. A. Angus, Newcastle-upon-Tyne; Mr. A. H. J. Cameron, Liverpool; Mr. J. E. Lane, London; Mr. W. Fearnley, London; Mr. R. Clement Lucas, London; Mr. C. G. Wheelhouse, Leeds; Mr. T. G. Parrott, Bournemouth; Dr. W. A. Duncan, London; Mr. H. P. Dunn, London; Dr. Herman, London; Mr. R. J. Collis, Sunderland; The Secretaries of the Russell Memorial Fund, Birmingham; Mr. Morgan Williams, Cardiff; Dr. Maxwell, Woolwich; Our Aberdeen Correspondent; Mr. J. Edwards, London; Mr. R. F. Woodcock, Wigan; Mr. T. M. Watt, Hovingham, Yorkshire; Mr. J. Gordon Stuart, Edinburgh; Dr. Pitt, London; Dr. Percy Boulton, London; Dr. S. T. Smyth, Forest Hill; Dr. S. Dowse, London; Dr. J. N. Davis, Dublin; Dr. Tibbits, London; Messrs. Lolesen, Brothers, London; Our Edinburgh Correspondent; Dr. D. Ridpath, Ormskirk; Mr. M. Fowler, London; Dr. Douglas Powell, London; Dr. H. Rayner, London; Mrs. M. Kuhne, London; Dr. E. D. Tomlinson, Beverley; Mr. E. White Wallis, London; Mr. C. Midgley, Manchester; Dr. R. M. Rice, Galway; The Secretary of the Royal Medical and Chirurgical Society, London; The Secretary of the Clinical Society, London; Our Glasgow Correspondent; Mr. T. F. Hugh Smith, Farnham; Dr. T. J. Burroughs, Crondall; Dr. G. S. Woodhead, Edinburgh; Dr. Lindsay, Belfast; Mr. E. Deane, Bath; Our Manchester Correspondent; Our Paris Correspondent; Mr. Skene Keith, Edinburgh; Our Berlin Correspondent, etc.

BOOKS, etc., RECEIVED.

- The Student's Guide to the Practice of Medicine. By M. Charteris, M.D. Fourth Edition. London: J. and A. Churchill. 1885.
- Under the Red Crescent; or, Ambulance-Adventures. By R. B. Macpherson. London: Hamilton, Adams, and Co. Edinburgh and Glasgow: J. Menzies and Co. 1885.
- The Life of Sir Robert Christison, Bart. Edited by his Sons. Vol. I. Autobiography. Edinburgh and London: W. Blackwood and Sons. 1885.
- Annual Reports of the National Board of Health, 1879-80-81-82-83. Washington, U.S.A.: Government Printing Office. 1885.
- An Index of Surgery. By C. B. Keetley, F.R.C.S. Third Edition. London: Smith, Elder, and Co. 1885.
- The Preservation of Health as it is Affected by Personal Habits, such as Cleanliness and Temperance. By Clement Dukes, M.D. London: Rivington. 1885.
- Plumbing Problems from the Sanitary Engineer. With 146 Illustrations. London: and New York: Sanitary Engineer. 1885.
- Notes on Anæsthetics. By A. S. Underwood, M.R.C.S. First Edition. London: Claudius Ash and Sons. 1885.
- Transactions of the Ophthalmological Society of the United Kingdom. London: J. and A. Churchill. 1885.
- Christian Million. Christmas Number. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE DURATION OF THE ACTION OF
MEDICINES.

Introduction to a Discussion in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association in Cardiff.

By D. J. LEECH, M.D., F.R.C.P.,

Professor of Materia Medica and Therapeutics in Owens College, and Physician to the Royal Infirmary, Manchester.

THE subject I have the honour to bring before this Section for discussion is one which has, it seems to me, received less attention than its importance merits. In the treatment of disease by medicines, we have to determine the frequency with which a drug must be given, as well as the quantity in which it should be administered. Experience doubtless aids us in deciding as to the periods which should intervene between successive doses of medicines; but I believe most practitioners will agree with me that, in a large majority of cases, the frequency of repetition is, to a great extent, a matter of routine. The custom of administering medicines at regular intervals of three or four hours—a little oftener when the case is severe, at longer intervals as it becomes milder—has come down to us from a time when the knowledge, both of disease and of drugs, was less advanced than it is now. Disease was formerly looked upon as an enemy to be attacked and routed by medicine; if the enemy were in strong force, it was considered desirable that a strong fire should be maintained at short intervals. If he showed signs of retiring, the fire was slackened in its severity, in its frequency, or in both. The exact manner in which medicines effected the cure of disease was either not considered at all, or was the subject of vague speculation. But, at the present time, one of the leading objects of the therapist is to alter the functions of certain tissues or organs, temporarily or permanently. Sometimes we aim at restoring the normal functions of parts, sometimes we desire to modify functions for a time, and thus neutralise evils arising from a disordered condition of other parts on which we cannot act. But whether our purpose be to restore or modify, we know it can rarely be attained except by acting on the tissues or organs we wish to influence, with a certain degree of continuity; and we should endeavour, therefore, to repeat our medicines in such doses, and at such intervals, that the continuity of action we desire may be attained.

If this be so, it is manifest that our knowledge of the length of time during which a medicine can be counted on to act on any organ, ought to play an important part in our decision as to its repetition. Unfortunately, our information as to the duration of action of some drugs is very limited, and the causes which lead to variations in duration are only obscurely known to us. I believe, however, that further investigations may furnish us with additional knowledge on these points which will render our therapeutic proceedings more exact, and in this way add to our power of combating disease. Holding this view, I have ventured to introduce this subject for consideration here.

Now, first of all, the question may be raised, does our present knowledge support the view that medicines act during definite periods; that is, can we rely on a given dose of a drug influencing the organ in which it acts for the same space of time in different individuals, or on the same individual at different times?

It must be confessed that some of our experiences seem at first sight to give a negative answer. We know that if a number of persons take a poison together, the effects may commence and terminate at different times. A dose of arsenic may cause violent symptoms in ten minutes, but ten hours may elapse before evidences of poisoning appear, and the period at which death occurs may vary in a corresponding manner.

Differences with regard to the effects of poisons can be, to a great extent, explained by differences in the rapidity with which the absorption commences. As long as a poison remains quite unabsorbed in the stomach, it cannot, of course, exert its usual effects on other organs; and toxic substances seem at times to influence the stomach in such a manner that absorption is materially delayed.

Drugs in medicinal doses are less liable to raise up barriers to their own absorption, but a very slight alteration in the condition of the stomach may delay the solution of the materials which, ordinarily, are quickly digested; and there can be little doubt that drugs, even in medicinal doses, may at times remain long unchanged after they are swallowed. Sometimes they are then rejected; most of us have seen cases in which a dose of medicine has been returned after a sojourn of an hour or two in the stomach. But sometimes absorption at length takes place, and then the ordinary physiological effects appear, though at a late period. Deferred absorption, probably, accounts for most of those instances in which the action of medicines is unduly delayed.

When the absorption of a drug commences without any unusual delay, the duration of its action will depend chiefly on the time required for the completion of this process, and on the rapidity with which excretion of the drug takes place. It will likewise be influenced by the susceptibility of the part affected, for we may well suppose that the more powerfully an organ is acted upon, the longer will the disturbance in its functions continue, even though the cause of the disturbance has passed away. Now, susceptibility of an organ to the influence of a drug may vary considerably in different people, and likewise in the same individual, according to state of health and other circumstances.

Manifestly, the conditions which regulate the duration of the actions of medicines are exceedingly complex. I shall try, however, to show that, apart from exceptional circumstances connected with absorption, many medicines do act for tolerably definite periods; and, in some cases, it may be possible to determine the average time of action of individual doses with sufficient exactness to serve as a guide to repetition.

In the first place, it may be pointed out, that experience has already made us aware of relative uniformity in the period of activity of many drugs. Ammonia acts quickly on the heart, and its effects soon pass away; the tonic effects of digitalis are slow to appear, but they last a long time. Of our diuretics, purgatives, and emetics, some act for a shorter, some for a longer, period. The diuretic effects of caffeine, for example, soon cease when we stop the administration of this drug, whilst the increased flow of urine which is produced by digitalis usually goes on for a long time, sometimes for several days, after the medicine has been discontinued. The difference in the period during which these two drugs act, may of course depend on the fact that they exert their influence on different tissues. Caffein, it has been suggested, stimulates the tubular epithelium, whilst digitalis causes diuresis through its effects on the vascular system. But the relative difference in the duration of action must certainly be dependent on the fact that each influences the tissues it affects for a more or less definite period. We find, too, that when drugs act in a similar manner on the same tissues, the relative periods of their activity may vary distinctly.

The symptoms of intoxication produced by alcohol can be reproduced by ether, and there can be little doubt that, in inducing their usual results, these two drugs affect the same tissues and functions. But each stage of intoxication is shorter, when caused by ether, than when it is due to alcohol, and as the relative difference of activity is always to be observed, it is manifest that the duration of the influence of these two drugs, on the parts of the body they affect, must be, within certain limits, definite. What these limits are, has not yet been ascertained; but in the case of a class of drugs which yield symptoms capable of graphic representation, the limits of duration may be, to a certain extent, demonstrated.

The marked phenomena produced by the inhalation of nitrite of amyl, and the resemblance between them and those which follow the administration of other nitrites and nitro-glycerine, have been made known to us by the investigations of Drs. Brunton and Cash, Dr. Murrell, Dr. Hay, and others; but all who have made observations on the comparative effects of these substances have noted the great difference there is between the duration of the influence of the amyl compound and that of the other nitrites and nitro-glycerine. Dr. Murrell has pointed out that, while the influence of amyl-nitrite is very transitory—a tracing taken a minute and a half after the inhalation of the drug appearing normal—the full action of nitro-glycerine is not observed in the sphygmographic tracing till six or seven minutes after the dose has been swallowed, and the tracing does not assume its normal condition for half an hour. Dr. Hay has further drawn attention to the fact, that nitrite of sodium checks anginal pains for a longer time than nitro-glycerine, from which it follows that the influence of the alkaline nitrite on arterial tension persists longer than that of the glycerine compound.

But it has been noticed, too, that the phenomena produced by the nitrites and nitro-glycerine vary not a little in different individuals.

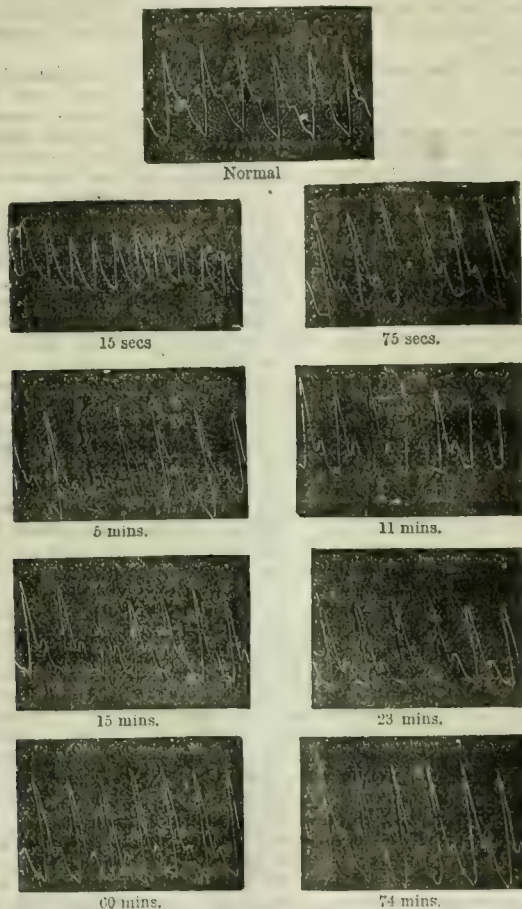
Some people, for example, are powerfully affected by half a drop of a one per cent. solution of nitro-glycerine, but many can take five drops, and some even a larger quantity, without feeling any sense of discomfort.

In endeavouring, therefore, to determine the period during which nitro-glycerine and the nitrites depress tension, I have administered these drugs in various doses to individuals differing considerably in susceptibility to their effects; and, though the number of experiments is not sufficient to fix absolutely the limits of the duration of their action, I think that the results show that an approximately correct estimate of these limits may be obtained.

I may point out that I have devoted my attention especially to the effects of the drugs on arterial tension. It would be quite possible to determine the time during which they alter the frequency of the pulse, or produce subjective phenomena, and this time might or might not accord with their influence on arterial pressure.

Amyl Nitrite.

Fig. 1.



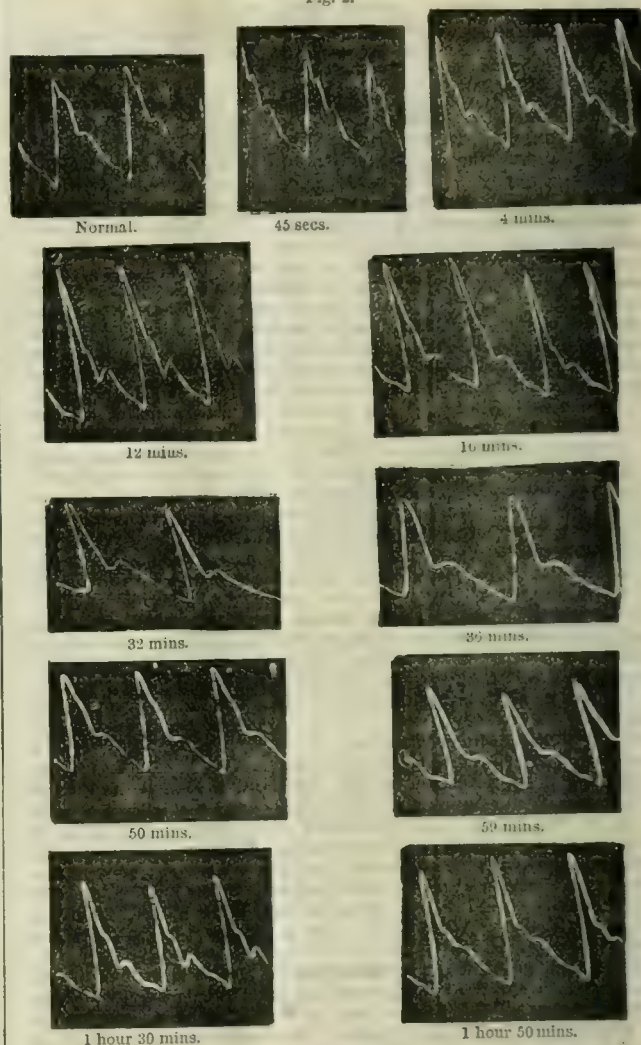
It seemed to me, however, better, in the first place, to limit my attention to one point only. In all cases in which I have made observations, to determine the duration of the effects of drugs on circulation, tracings were first taken, frequently for three or four days, to determine the variations of the pulse apart from medicinal influence. In some, these variations are considerable, and such I have rejected for experimental purposes, choosing those only from whom I found that fairly uniform tracings could be obtained. The subjects of my experiments were all free from cardiac disease. The observations were made, as far as possible, under similar conditions as regards time of day, food, etc.

The influence of amyl-nitrite on the pulse commences immediately after its inhalation. The arterial tension is reduced to its lowest point in thirty to sixty seconds; the blood-pressure then rises again, and usually attains its ordinary height in a minute and a half, as stated by Dr. Murrell. But at times the normal tension is not quite reached

for two to four minutes; and, not unfrequently, a fall of tension follows in a few minutes after the apparent recovery, so that really the return to normal is not accomplished for eight or ten minutes. A further slight fall may follow on this second return, the effects of the nitrite on the pulse being traceable by the sphygmograph for twenty minutes to half an hour. Alternations of this kind occur during the action of all the nitrites, and I shall allude to them as oscillations. Occasionally, the blood-pressure does not rise quite to its proper height in the first few minutes, a distinct fall in tension taking place after the pulse has only partially regained its normal character; and the average blood-pressure, in a few cases, is not reached for an hour.

Ethyl Nitrite, m. xxv.

Fig. 2.



In only one instance (Fig. 1) have I been able to trace the effect of the nitrite of amyl for more than an hour. Here, a minute and a quarter after the contents of one of Martindale's capsules were inhaled, the pulse had partially regained its ordinary tension. Four minutes afterwards, the pressure was somewhat higher, but still had not quite reached its normal condition. Six minutes after this, a slight fall in tension was noted, and soon after, again a very slight rise. Then there was a fall. After this it gradually rose, but with slight oscillations; and 1 hour and 15 minutes after inhaling the nitrite, it regained permanently its ordinary condition. I should have deemed it almost impossible for the amyl compound to act for so long a time, had I not known that the subjective effects of the drug often continue long after its pronounced effects on the circulation have disappeared.

The duration, then, of the effects of nitrite of amyl varies consider-

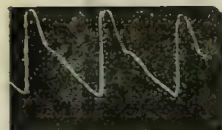
ably; its very marked tension-reducing influence never lasts more than one and a half to two minutes, but a slight depression of blood-pressure is commonly present for a longer period, and not only does the duration of the influence of the amyl-nitrite differ in different people, but it is also variable in the same individual at different times. Of two successive doses, the influence of one may be traced for half an hour, whilst the effects of the other may disappear in the course of a few minutes; but this remark only refers to the slighter effects, very distinct lowering is of the same duration in all.

Ethyl Nitrite, m xxv.

Fig. 3.



Normal.



15 mins.



50 mins.



1 hour 30 mins.



1 hour 50 mins.

Nitrite of ethyl depresses tension for a much longer time than amyl-nitrite, and in quite a different manner.

A dose of 25 minims of a 25 per cent. solution, in alcohol, causes, in those susceptible to the influence of the nitrites, a slight fall in tension within a few minutes; but, as a rule, the greatest effect is not

Nitro-Glycerine, m i.

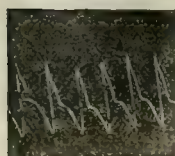
Fig. 4.



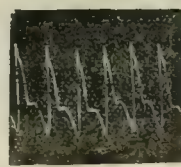
Normal.



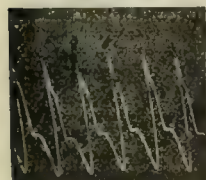
1 min.



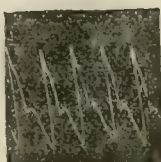
2 mins.



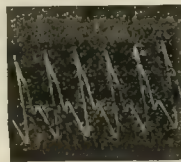
7 mins.



11 mins.



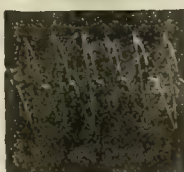
15 mins.



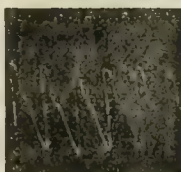
25 mins.



35 mins.



75 mins.



95 mins.

noticed until from six to fifteen minutes have elapsed. For twenty or thirty minutes longer, the tension continues low. Then a return towards the normal takes place, usually with oscillations. I have traced the effect of this nitrite for two hours. Where the dose is small, or in those not very susceptible to the action of the nitrites, hardly any fall is seen during the first half-hour, and the normal tension is regained in about an hour and a half. Fig. 2 illustrates the influence of 25 minims of a 25 per cent. solution on a subject (L.) very susceptible to the influence of nitrites. Fig. 3 shows the effects of the same dose in a man (S.) with hemiplegia and high tension. In L., the administration of this nitrite caused, in half an hour, such faintness, as to compel him to assume the recumbent position; slight traces of the influence of the drug on the pulse could be detected two hours after administration.

Nitro-Glycerine, m iiss.

Fig. 5.



Normal.



2 1/2 mins.



3 mins.



4 mins.



20 mins.



22 mins.



27 mins.



45 mins.



55 mins.



75 mins.



95 mins.

I have not made a sufficient number of observations with the alcoholic solution of ethyl-nitrite to satisfy myself as to the exact limits of the time during which it acts. But, from some experiments made with spirit of nitrous ether, answering to the *British Pharmacopoeia* test, I believe that seven or eight minims of pure ethyl-nitrite will usually keep the tension distinctly depressed for at least forty-five minutes, in some people for rather more than an hour; and that the circulation is often influenced during the whole of the second hour after administration. The depression of the tension, though more prolonged, is not so great as that produced by nitrite of amyl.

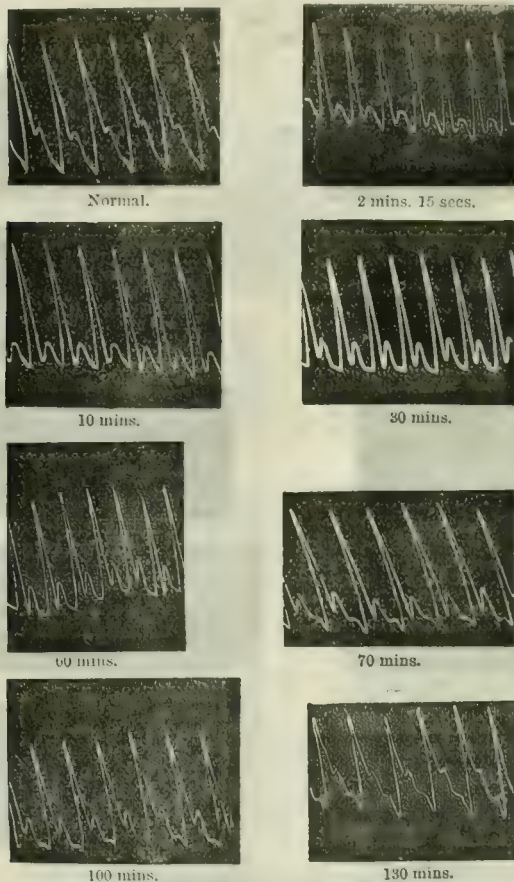
Nitro-glycerine acts more quickly and more powerfully than nitrite of ethyl; its effects, too, are more prolonged. A single drop of a 1 per cent. solution usually causes a fall in the pulse-tension in one and a half to two minutes, and in three or four minutes the fall is well marked. The blood-pressure continues low for about ten minutes,

sometimes a little longer; then it gradually rises, and in half an hour may be almost normal. But, after this, oscillations commonly take place, and the normal standard is not usually perfectly attained for an hour to an hour and a half after the drug has been given. (Fig. 4.)

The effects of two or three minims are often well seen for nearly an hour; after this they are not well marked, but are perceptible for some time. In about an hour and a half, the tracing has returned to the form it had before the drug was given. But even after this, slight oscillations may appear, as in the case of nitrite of amyl. If a large dose be given, the effects are often distinct for an hour and a half, and traceable for two hours and a half (Figs. 5, 6, 8).

Nitro-Glycerine, m iiii.

Fig. 6.



But nitro-glycerine acts on some individuals more powerfully, and for a longer time. Fig. 7 shows the effect of a single drop of a 1 per cent. solution on the pulse of W. H., one of the most susceptible of all the subjects on whom I have experimented. It will be seen that the tension was very distinctly lowered for one hour and a half; then it gradually rose; but in three hours and a half it had not quite regained its normal height. I never ventured to give W. H. a larger dose; but to another susceptible man (V. C.) I gave three minims and a half; and the results are set forth in Fig. 6. Here for an hour the tension remained extremely low, and in an hour and a half it had by no means regained its proper height. Even the return, in two hours and ten minutes, was not permanent, a slight fall being once or twice observed in the ensuing forty minutes.

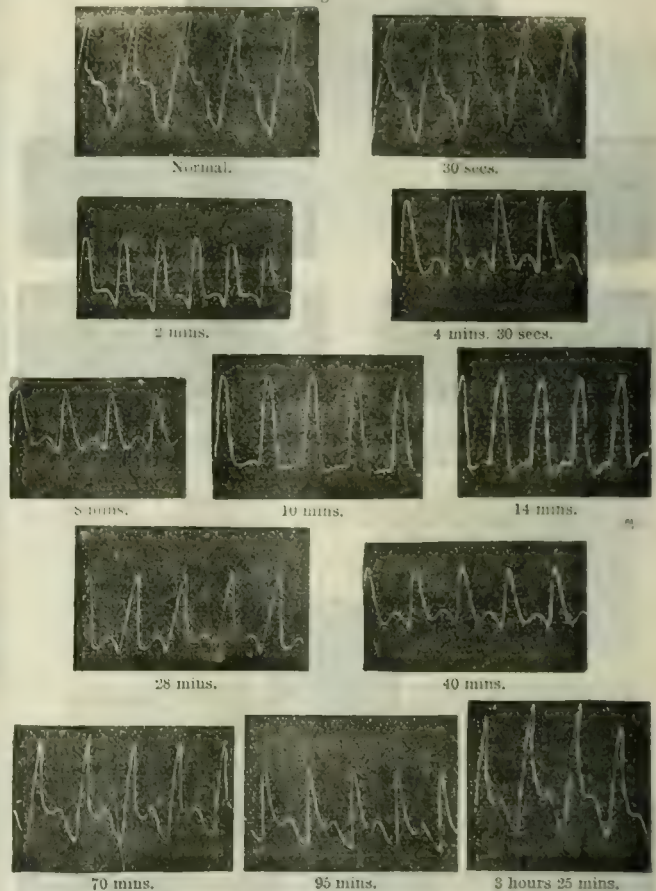
It is manifest that we cannot look on half an hour as the limit of the tension-reducing effect of even small doses of nitro-glycerine; and, from a large series of tracings I have taken, it seems to me that, as a rule, a dose of one to two minims of the 1 per cent. solution exercises its most powerful effect in the first half-hour, but that it usually affects the pulse for an hour longer, that a larger dose (five minims) does not depress the tension markedly for more than three-fourths of an hour, and its effects are apparent for two to two and a half hours; but that, in those very susceptible to the influence of nitrites,

marked lowering of pulse-tension is kept up for an hour or more, whilst some influence can be detected for three hours, and sometimes a little longer.

The tracings I have taken after the administration of the nitrites of sodium and potassium confirm the view already expressed by Dr. Hay, that the duration of the effects of the alkaline nitrites is more prolonged than those produced by nitro-glycerine. The influence of the alkaline nitrites is not exerted so quickly as that of nitro-glycerine. In most cases, ten minutes elapse before the tension falls markedly; but a slight change is seen within the first five minutes. Size of dose exercises only a slight influence on the time of commencement; but

Nitro-Glycerine, m i.

Fig. 7.



those who are very susceptible to the action of nitrites are affected in six minutes as strongly as ordinary people are in ten. After the first ten minutes, the pressure falls rapidly, and it remains usually very low from the end of the first half-hour until about two hours have elapsed from the time that the drug was administered. But slight oscillations in the pressure are always present during this period. Oscillations, too, are noted during the rise of the pulse to the normal pressure, which is reached in from four to five hours.

From a number of observations, I estimate that, whilst the average duration of five grains of an alkaline nitrite in ordinary individuals is about four and a half hours, the effect of three grains does not last so long by half an hour. Fig. 9 shows the influence of five grains in a moderately susceptible man. Though the influence of nitrites on the degree of tension is more marked in those whom I have designated susceptible, I do not find that in such people the duration of the effect is materially greater.

Fig. 10 shows the tracings taken after the administration of four grains of nitrite of potassium to a man very susceptible to the action of nitrites, but the dose required to produce fall in tension in the susceptible is very small. In Fig. 11 is seen the influence produced in a very susceptible man by half a grain of nitrite of sodium.

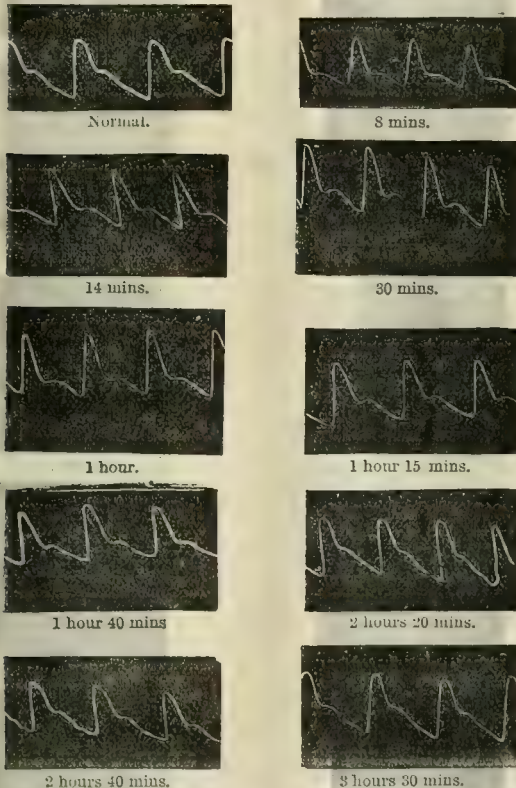
The duration of the action of a drug is doubtless in part dependent

on the rapidity with which it is absorbed from the stomach, and it seemed to me possible that a more prolonged effect on tension might be obtained by a substance less soluble than the alkaline nitrites. I, therefore, tried the effect of cobalt yellow, a double nitrite of cobalt and potassium. I found it somewhat irregular in its action; in some individuals, three or four grains produced very little fall in pressure, but in others, as seen in Fig. 12, the influence was considerable, four grains lowering the tension greatly for three hours and ten minutes. Seven grains, in one case, affected the tension for six hours; but, generally, the duration of its action was not more considerable than those of the nitrites; they appear, however, later, twenty to thirty minutes usually elapsing before the tension is much lowered.

In estimating the duration of the effects of tensor-depressants, the oscillations which occur, both during the rise and fall of blood-pressure, cause considerable trouble. It is difficult to fix the exact time at which the tension becomes permanently normal, as well as the time at which it reaches its lowest point. The influence of the nitrites,

Nitro-Glycerine, m v.

Fig. 8.



indeed, seems, to a certain extent, wave-like. When the tension is falling rapidly, oscillations can hardly be detected; but, both when it is low and when it is rising, they are often very conspicuous.¹

I have only looked on the return to normal as complete when the tracing has indicated the same tension as before the drug was given on several consecutive trials. I do not pretend, as I have said, that the observations I have made determine accurately the limits of the tension-depressing effects of the compounds with which I have experimented, but they certainly seem to show that these substances act for a fairly definite time. Nitrite of amyl acts powerfully almost at once, and for two minutes, but its influence on the pulse may often be traced for ten to twenty minutes, sometimes longer. The effects of nitrite of ethyl are but seen five to twenty minutes after its administration, but remain very visible for an hour, and are perceptible for one and a half to two hours. Nitro-glycerine powerfully affects the circulation in two minutes; its influence is most marked for thirty to forty-five minutes, and may be detected for two and a half to three hours. The alkaline nitrites produce but little influence on pressure

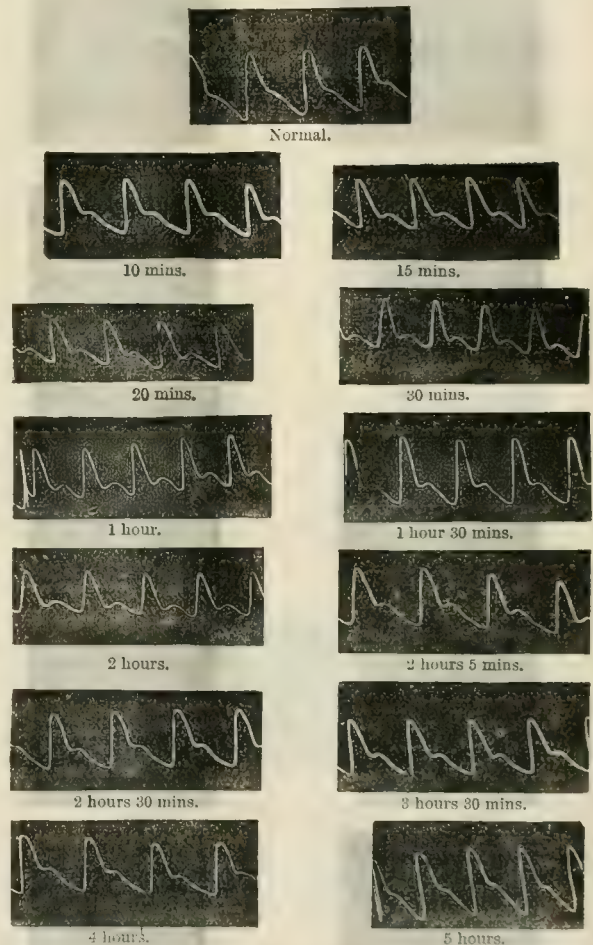
for from six to ten minutes, but then depress it strongly, for two and a half hours, and act altogether for between four and five hours. Cobalt yellow begins to act markedly in from twenty to thirty minutes; its tension-depressing effects are often very pronounced for more than three hours, and sometimes visible for six hours.

The times I have named are, of course, averages. As I have pointed out, the period during which drugs act on individuals is influenced by the natural susceptibilities of the organs affected, by the dose, and by the condition of the absorptive and excretive powers. It therefore follows that the duration of action must differ within certain limits, not only in different individuals, but also in the same individual at different times.

The state of the organs connected with absorption and excretion is hardly ever the same for any length of time, and so it comes to pass that even consecutive doses in the same individual often vary, to some extent, in the period of their action. If, however, we can arrive at some idea of the average time during which we can count on single doses of our medicines acting, and the limits of variation in duration under different conditions, we shall have gained much.

Sodium Nitrite, grs. 5.

Fig. 9.



Susceptibility can usually be determined by experiment, and sometimes judged of in other ways. In the case of the nitrites, for example, a single administration, if carefully watched, may enable us to decide as to whether the subject is easily affected or the reverse; but we may form an opinion on this point from the general characters of the circulatory system. The anæmic, and those of weak circulation, are usually powerfully affected by tension-depressants; those who have a high arterial tension, are not so readily influenced. In judging of the effects of diseases of organs on duration, we can only be guided by accumulated knowledge of the influence which disease has on absorption and excretion, and on the susceptibility of the organs which

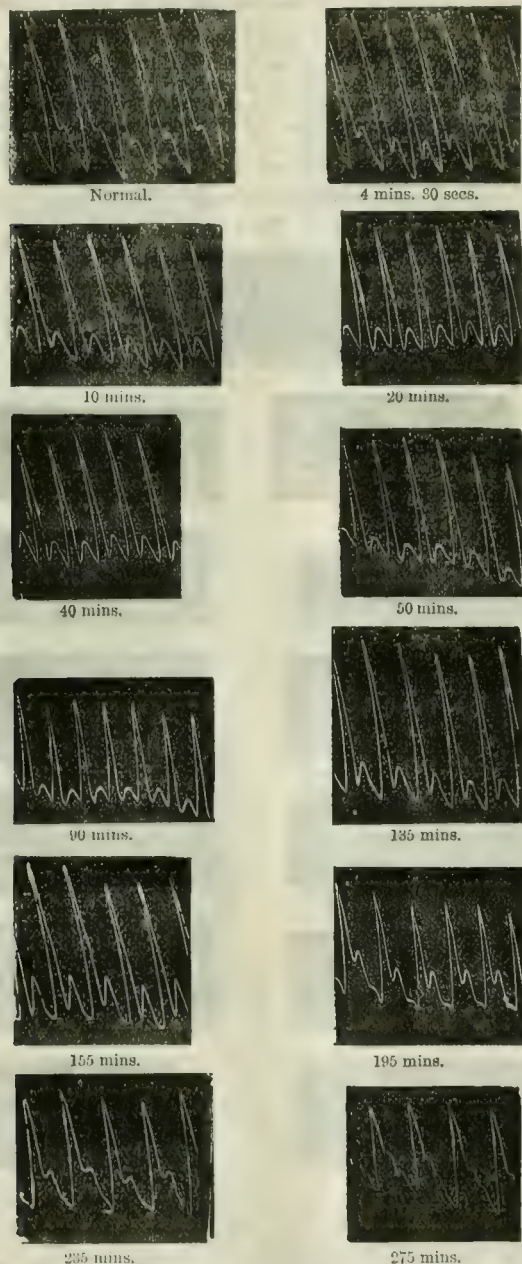
¹ Van der Heide (*Arch. für Exp. Path. und Pharm.*, xix, p. 139) has noted in animals similar oscillations during the return of the blood-pressure to the normal, after it has been affected by digitalis.

the drug acts upon. The dose required to produce an average effect as regards duration, will not be difficult to decide when the other factors which influence duration are known.

The effect of tolerance and cumulative action in altering the duration of successive doses, still requires consideration. I have several times carefully watched the effects of three or four doses of the various nitrites given in succession, with the view of ascertaining whether

Potassium Nitrite, grains iv.

Fig. 10.



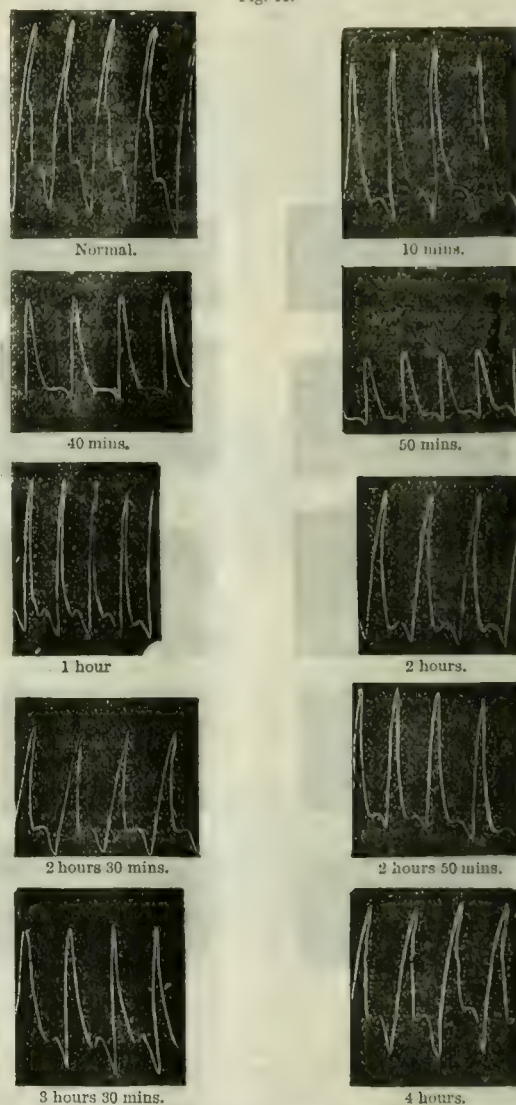
the length of time of the tension-reducing effect of the individual doses was thereby influenced, but I have found no indications that it was so; and in two cases, who have taken nitrites frequently during several weeks, I have not found the duration of their tension-depressing effects materially altered; but further investigations are needed to decide the influence of tolerance and cumulative action on these as on other drugs.

Notwithstanding the difficulties which beset the utilisation of a

knowledge of the duration of the action of the separate doses of drugs, it seems to me that the advantages of this knowledge are sufficient to warrant a further investigation into this hitherto neglected subject. The benefit which may be derived from such knowledge is well seen in the case of the nitrites. We have now the power of depressing, for any time we like, arterial tension. We may influence it for a few seconds, we may keep it low for hours; and when

Sodium Nitrite, $\frac{1}{2}$ grain.

Fig. 11.



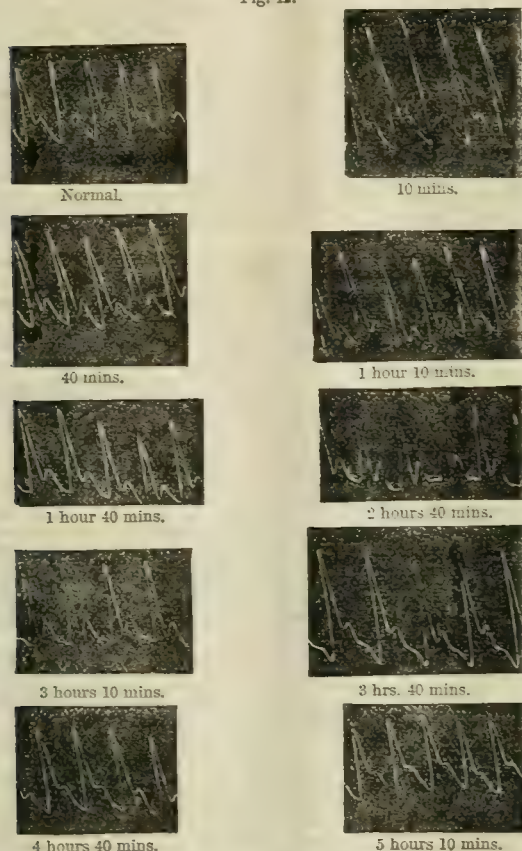
we consider the advantages which accrue in certain conditions from lowered tension, it is manifest that we have acquired almost a new therapeutic power. I have no doubt that, before long, we shall be able, in like manner, to raise arterial tension for definite periods of time.

Van der Heide has already made some experiments which bear on the duration of the influence of digitalis, in single and repeated doses, on animals. As might be expected from the knowledge we already possess, the length of time during which this drug acts was found to be very considerable, two or three days sometimes elapsing after the administration of the drug before the blood-pressure fell to its normal level. But the researches of Schmiedeberg and others have shown that there are numerous substances acting like digitalis, but differing considerably in their solubility in water. It seems to me probable that we may find amongst these some which act for a short time, some for a long time; and that, as in the case of the tensor-depressants, we

may be able to arrange them in series, according to their duration. A further addition would then be made to our curative powers. I have already made a few preliminary experiments with helleborein; and, though I cannot at present be quite certain of my results, its tension-raising effects seem to me to both come on and pass away more quickly than those of digitalis. I have seen the pressure rise in six hours, and fall in the same time. Cumulative effect, however, here seems very marked. I find, too, that small doses, frequently repeated, have a more powerful effect than the same amount given in one large dose. But our inquiries will not end with drugs acting on tension; there is good ground for hoping they will be extended to other groups; and I look forward to the time when a more complete knowledge of

Cobalt Yellow, grains iv.

Fig. 12.



the time during which single doses of most of our medicines act may give to practical therapeutics a scientific exactness which is now wanting.

Dr. ISAMBARD OWEN (London) asked whether Dr. Leech thought that external influences, such as temperature, might have some effect on the duration of action of these various drugs, by favouring or retarding the elimination of a particular drug. For instance, would it not be natural to suppose that, in the case of a drug which was got rid of through the skin, a difference of temperature, by increasing or diminishing the functional activity of the skin, might accelerate its elimination, and so rapidly rid the organs of its influence; or, on the other hand, when its functional activity was diminished by cold, the drug remaining in the body might continue to exercise its effect, and this irrespective of any real persistence of action in the drug itself. The same remarks applied to influences bearing on the urinary organs.

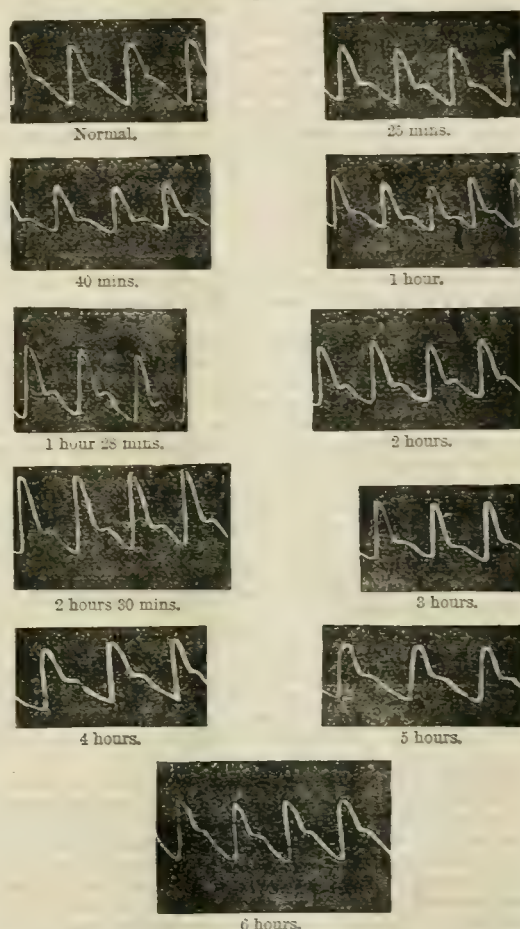
Dr. SPENDER (Bath), after expressing his high opinion of Dr. Leech's paper, said that the subject of the persistence of effects of drugs had long occupied his attention. In other words, he had long endeavoured to ascertain how often certain drugs should be administered, and in what doses, in order to keep up their influence without intermission. With this object in view, he had long advocated the

administration of certain drugs frequently and in small doses, and thirteen years ago he had contributed a paper to one of the medical journals in reference to it. Dr. Spender instanced ipecacuanha and tartar emetic, in both of which, but particularly in the latter, all the undesirable effects could be obviated by giving them in very small but frequently repeated doses. Neither nausea nor vomiting would be produced. Of course, this gave more trouble, and therefore was the more difficult to carry out. Again, the peculiarities of individuals required to be borne in mind, since some patients were notoriously more sensitive to the influence of certain drugs, and remained longer subject to their effects.

Dr. FRASER (President of the Section) asked whether Dr. Leech's

Cobalt Yellow, grains vii.

Fig. 13.



observations were made in a state of health or otherwise. He had remarked, in the case of the nitrites, that a certain tolerance was established, and that a larger dose was required subsequently to produce the same effect. Further, their action in many cases had seemed to him to commence much earlier than Dr. Leech had stated, and had lasted, not four, six, or eight hours, but four, six, or eight days, before they altogether passed off.

Dr. LEECH said, in reply, that he had not taken external circumstances into account; but some of the observations were made in the summer and some in the winter, so that on the whole they represented a good average. He thought it very possible that differences in temperature might act in some such way as that suggested by Dr. Owen, but only to a slight extent. None of the observations had any bearing on disease, though the subjects of his experiments were not always in perfect health. Further investigations were required to ascertain exactly the influence of various diseases on the duration of single doses. He had never noticed that in the healthy marked tolerance was acquired, or that the same dose failed to produce the same effects on tension.

PANCREATIC DIGESTION.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By PROSSER JAMES, M.D.,

Lecturer on Materia Medica and Therapeutics at the London Hospital, Physician to the Hospital for Diseases of the Throat and Chest, etc.

It is only about forty years since Claude Bernard began his observations on the pancreatic secretion, and yet such progress has been made, that we now daily attempt to increase its production, supply its deficiency, or utilise it for partially digesting food for the sick.

As soon as food passes the pylorus, it is subjected to a new set of conditions, particularly through its admixture with bile and pancreatic juice. Confining our attention to the latter, we find it to possess an alkaline reaction (in this respect being reinforced by the bile). When freshly collected from a recent fistula it is a viscid and very easily coagulable liquid, of specific gravity 1030, with a somewhat saline taste. Suspended in the fluid are a number of the smaller colourless blood-corpuscles, which display slight amoeboid movements, besides larger corpuscles, intermediate in size between those just named and those found in saliva. The corpuscles possess one to four nuclei, and exhibit Brunonian movements. These are, however, soon arrested, and the corpuscles are broken up and disappear; they are, in fact, digested if the temperature be favourable, and no other change be brought about to arrest this process. The juice coagulates into a solid at 75° Fahr., but an opalescent fluid portion separates from it, which is precipitated by acetic acid; it contains an alkaline albuminate, and its reaction is more distinctly alkaline than the fresh juice.¹

Fresh pancreatic juice coagulates when dropped into water, but the precipitate is soluble in dilute acids, and in solutions of sodium chloride. Alcohol produces an abundant precipitate, which is largely soluble in water at 32° Fahr., the residue resembling a coagulated albumen. Other precipitants are tannin, metallic salts, mineral acids, chlorine. Pancreatic juice rapidly putrefies at ordinary temperature. When it has been for a while in a warm place, chlorine-water strikes a red colour, showing that some change has taken place, the exact nature of which is uncertain; but very soon further change has occurred, and the red reaction is no longer exhibited, but the offensive liquid may be shown to contain indol (C_8H_7N), to which the odour is due, by adding nitric acid (commercial).

Much more interesting are the reactions of pancreatic juice which are attributed to the enzymes.

a. The proteolytic, which changes proteids into peptones and amino-acids, as leucine and tyrosine.

b. The amylolytic, which rapidly converts starches into dextrins.

c. The emulsifying, which, probably, is an instance of hydrolytic change; since the effect of the enzyme on tristearin may be thus represented: $C_{57}H_{110}O_6$ (tristearin) + $3H_2O$ (water) = $C_{18}H_{34}O_2$ (glycerin) + $3C_{18}H_{32}O_2$ (stearic acid).

Going back a step further, we ask whether the enzymes are to be found free in the cells of the pancreas? The theory generally entertained by physiologists is that this is not so, but that antecedent bodies (zymogens) are formed by the gland-cells, and that these zymogens in time give rise to the ferments. It does not seem altogether certain that a single zymogen could not possibly be capable of different reactions under varying circumstances. To some of us, moreover, it is at least conceivable that a single ferment might possess different characters, and be capable of exciting varying reactions in different substances.

But the physiologists have almost unanimously decided against this, and, of course, they will scarcely brook a question from a mere clinical physician, and it must be confessed that their view is supported by weighty evidence. For instance, we cannot extract by glycerin a solution containing all the enzymes. Such a liquid has none of the proteolytic powers, but the addition of a little acetic acid endows it with this quality, and we may suppose that the zymogen is thereby converted into trypsin, as the proteolytic ferment is called. Analogous zymogens give rise to pepsin and the rennet-ferment, so the amylolytic ferment is thought to be a derivative of a peculiar zymogen. Whether there be one or more zymogens, the distinct actions of the derived ferments are remarkable. Perhaps pancrea-

tin is mostly employed for its action on starches, and its enormous power in this direction is really amazing, it being estimated that the ferment can convert thirty thousand or forty thousand times its own weight of starch into dextrins.

The great powers of the ferments account for the enormous effect of the pancreatic juice, for it must be obvious that, were this due to a reaction like that of an acid and alkali, larger quantities would be essential. It is estimated that from $7\frac{1}{2}$ to 12 ounces of pancreatic juice should be secreted by a man in good health in twenty-four hours. Of this, according to C. Schmidt's analysis of the secretion of a dog, 1,000 parts would contain 900.8 of water and 99.2 of solids. Of these latter, 8.8 are inorganic, and most of this sodium-chloride, leaving us 90.4 of organic solids. The precipitate produced by alcohol has been supposed to constitute the ferment, and has been sold as pancreatin; but this must really be whatever can be thus thrown down, and the distinct ferments are believed to be merely carried down mechanically, and to constitute but a portion of the precipitate. It will be seen that it must be most difficult to isolate the enzymes in a state of purity; and the most successful attempts have probably hitherto only resulted in an albuminous body, highly charged with enzymes. I am indeed inclined to fear that, in some instances, decomposing organic substances have resulted from the processes adopted, and consequently, instead of pancreatic ferments, that unstable bodies, the products of putrefaction, have done duty for pancreatin. Such a product would probably be injurious, and the idea is undoubtedly disgusting.

If we cannot isolate the enzymes, we can at least obtain them in a cleanly and agreeable form, mixed with indifferent and fairly stable substances, and most of you will be acquainted with such preparations. I have to announce another which may be yet more successful. In May last, I published in the JOURNAL a plan of administering pepsin in combination with salt. From statements made to me, there seems to have been in some quarters a difficulty in preparing this, and in others some doubt as to the product. But a little patience will overcome the trouble in manipulation, and the sodium chloride is naturally present in the stomach with pepsin.

I have now to present, in addition to peptic salt, an analogous pancreatic salt, in which the power of the enzymes is fully displayed. This salt is stable, and entirely free from putrefactive products. In appropriate conditions as to time and temperature, it will (a) rapidly convert starch into dextrins; (b) in neutral or feebly alkaline fluids, it will transform proteids into peptones; (c) in feebly alkaline media, it will peptonise milk; (d) in feebly acid or neutral media, it will curdle milk; (e) it will emulsify fats. It therefore represents the power of pancreatic juice.

With regard to the presence of sodium-chloride, a word may be added. It is an error to suppose this will impede the action of the enzymes. On the contrary, it facilitates the changes set up, as you may easily convince yourselves by a few simple experiments. But that you may not accept this statement on my authority only, let me refer you to E. Pfeiffer, who, in the *Chem. Centralb.* 1885, deals with this point. In the *Journal of the Chemical Society* for last month is an abstract of Pfeiffer's paper, in which he is reported to state that "a sample of starch-solution which has been treated with sodium chloride will be free from starch in one-third or one-fourth the time required by a similarly concentrated and treated solution to which no sodium chloride has been added. The rapidity of the saccharification increases directly with the quantity of sodium-chloride added. Sodium carbonate hinders this change to a considerable extent, and in large quantities appears to prevent it altogether. The diffusion of peptone-solution through parchment (dialysis) is assisted by the addition of $\frac{1}{2}$ to 1 per cent. of sodium-chloride or sulphate, and especially so by the former salt."

Such complete support to my view from the most recent contribution on the subject renders it unnecessary to insist further that sodium-chloride appears a most natural substance with which to combine the enzymes—an idea quite in accord with the fact that nearly all the inorganic matter—7.35 out of 8.8—in fresh pancreatic juice consists of this salt. I have placed a specimen of my pancreatic salt, with many other preparations illustrating the digestive ferments, in the museum, and hope to pursue this subject.

I am not without expectation that my process may be found practicable on a commercial scale.

The rate of secretion of pancreatic juice deserves some attention. It is most rapid two or three hours after a meal, although it begins to increase as soon as food is taken. From the maximum it seems gradually to decrease for five to seven hours; then a rise occurs, lasting a couple of hours, after which (that is, from about nine or eleven hours after the meal) there is again a gradual fall, until the secretion

¹ Fluid collected from an old fistula will be found to differ considerably from that described above. The solid constituents may be only $\frac{1}{2}$, $\frac{2}{3}$, or even $\frac{1}{3}$ of the quantity found at first, according to the age of the fistula. There will have also been a corresponding fall in the specific gravity to 1012 or 1010. Heat may cause little or no coagulation in the thin juice then obtained, though, with the addition of acid, coagulation will still take place.

stops. Not only the amount of secretion, but its richness in enzymes also varies greatly with the time after food; for example, there is less emulsifying enzyme about six hours after a rich meal, than at any period. From the minimum it gradually increases up to forty hours. These are the figures, at least, which physiologists have arrived at by experimenting on animals. It also appears that, while the gland is active, the inner zone of the pancreatic cells diminishes, but the outer zone increases, as if the former was drawn upon for the secretion, and the latter recouped the cell from the materials supplied by the blood. The granules of the inner zone, formed out of the protoplasm of the cell, are deposited round the lumen of the alveolus, and, when the gland is active, pass into the secretion. Thus the inner zone decreases during activity, but as secretion diminishes it supplies itself again from its fellow, and that from the blood.

The reason for dwelling on the variable rate of secretion is that it is apt to be forgotten when we attempt to influence it, or to supply its place; and yet success in such an attempt must be largely influenced by bearing the facts in mind. That we may stimulate the pancreas by ether, was shown by Claude Bernard, and the fact was utilised by Dr. Balthazar Foster. Let me add that we may employ for the same purpose acetic ether, and I think, but have less evidence to support me, chloroform. With regard to supplementing the secretion by the exhibition of artificially prepared or preserved enzymes, it is also necessary to observe that times, as well as modes, of administration, may have a most important influence over our results.

THE STANDARD OF SANITY.

By WILLIAM R. HUGGARD, M.A., M.D., M.R.C.P.Lond.

WHAT is meant by insanity? As the writer, in a recent paper ("Definitions of Insanity," *Journal of Mental Science*, January, 1884) has shown, insanity is a legal or social, rather than a medical, term; and even that disease is present, cannot be affirmed in every case. From this point of view, insanity is any mental defect that renders a person unable (and not capable of being made able by punishment) to conform to the requirements of society.

The popular view, then, that insanity is something definite and absolute, must be looked on as a fallacy of suppressed correlative. Insanity is not something fixed and definite; it is relative to the requirements of society—the standard of sanity in the class the person belongs to. Societies differ in their requirements. Primitive societies do not require as much control on the one hand, or as much intelligence on the other hand, as more civilised communities do. The *Damara* or the *Prairie Indian* is allowed to do a number of things from which an Englishman must refrain. A *Fijian* regards murder as a claim to glory; and, if he feel a homicidal impulse, he is not required by his society to check his inclination. Thieving is a virtue amongst the *Patagonians* and *Comanches*. Chastity would be considered a vice by the *Creeks*, the *Chinooks*, and the *Andamans*. The intellectual requirements differ also. Many of the inmates of our idiot-establishments have as much intelligence as the average *Tasmanian*, *Fuegian*, or *Veddah*; and, as to delusions, the *Fijian* has fifty beliefs more absurd than the lunatic, who in this country is shut up because he thinks that the *Princess Beatrice*, reciprocating his affection, means to marry him, and carry out a great moral revolution, and that all who oppose this programme must be punished and utterly destroyed.

It may be said that the difference between the delusion or the overpowering impulse in the *Fijian* and in the insane Englishman is that, in the savage, the mental characters are due to education and surroundings; while, in the lunatic, they are due to disease. In a two-fold manner, however, would this explanation fail. On the one hand, even if in the *Fijian* there were disease, the question of insanity could not arise in regard to a matter considered by his society to be one of indifference. It would be absurd to talk of homicidal mania, of nymphomania, and of kleptomania, as forms of insanity, where murder, promiscuous intercourse, and stealing, are not condemned. On the other hand, the assumption that insanity is always due to disease is not merely an unproved, but an improbable supposition. There must, of course, be some defect of organisation; but there is every reason to think that, in many cases, the defect is of the nature of a congenital lack of balance between structures themselves healthy; and that many cases of insanity might properly be regarded as a kind of "throw-back" to a type of organisation now common only amongst the lower races of mankind.

What is the standard of sanity in this country—what are the requirements of society? Opinions differ. Some think that anyone who, by reason of mental defect, is a detriment to the public welfare, should be

under efficient supervision and control, though not necessarily in an asylum. Others think that only homicidal or suicidal lunatics should be confined. In the case of *Nottidge v. Ripley* and *Nottidge* in 1849, the Lord Chief Baron was of opinion that no one should be confined in an asylum unless he were dangerous to himself or to others; and even at the present day this opinion is not uncommon. Indeed, I have recently heard a lawyer emphatically assert that no one should be put in an asylum, unless he would commit murder if at large.

If this view be right, the majority of the lunatics in this country are unjustly detained; for more than two-thirds of the entire number, it may be confidently asserted, are not dangerous either to themselves or to others. Is there, however, for this reason, no justification for detaining them under care and treatment? What would happen if asylums were cleared of all but dangerous lunatics—lunatics likely to do violence against themselves or against others? The damage to society from the insanity so turned loose would be threefold: first, the damage to individual members of society directly, in squandered property, in libelled character, and in ruined peace; secondly, the detriment to the patient himself in lessened comfort from less suitable surroundings, in diminished chance of recovery, in pecuniary ruin, or in premature death; thirdly, and lastly, the damage inflicted on society generally by the lowering of the standard of sanity. A word on each of these points demands a moment or two. Society, through its members, would suffer directly, in property squandered, in character and reputation libelled, and in domestic peace ruined. The chronic maniac who considers himself an emperor, and the demented lunatic who has a scheme for crossing the Channel on India-rubber bands, would beggar their families in attempting to support their own dignity or to benefit their race. Reputations would be blackened by foul and obscene aspersions, the offspring of delusions. The devoted and faithful wife would be accused of poisoning and of infidelity. In many a family, domestic peace would be forever shattered by the return of an insane member before his malady had passed away. The clouds that might be dissipated by asylum-treatment become blacker and heavier by a too speedy return to the place of their origin.

In one or other of several ways the lunatic himself would suffer by being driven from his asylum. He would suffer in diminished comfort from less suitable surroundings, in lessened chance of recovery, in pecuniary ruin, or in premature death. The fate of a hopelessly insane person, shut up for life in an asylum, is frequently spoken of as a living death. The fate is, in truth, a sad one; but the sadness lies in the malady that afflicts the patient; not in the surroundings necessitated thereby. Most lunatics (including idiots and imbeciles) would find themselves in a much less congenial atmosphere outside the asylum-walls than within. Asylum-life is an artificially made world or society, specially contrived to avoid the disagreeable jars that madness would entail upon those who should display it in the outer world. But suppose the case is curable, the illness may be of such a nature that timely treatment would cut short the malady which otherwise would drift on to hopeless dementia; or, it might be that, though not sent to an asylum, the patient might recover his reason, only to find that in his insanity he had beggared himself, besides blasting his reputation. Numbers would of course perish when deprived of the protection required by their infirmity.

Such would be some of the direct effects of clearing out from asylums all patients not directly dangerous. The indirect effects would be more widespread and more disastrous. In addition to the beggary and premature death of persons unable to take care of themselves, and the unhappiness, disquietude, and ruin, inflicted on others, we should have, indirectly, murders, suicides, drunkenness, and other crimes, arising on the one hand from the feeble self-control, and on the other hand from the greater friction. Moreover, the insane are frequently so obscure in thought and in act, that if at large, they would inevitably render themselves amenable to the penal laws. But punishment will not hold madness in check: and the sane would be goaded by the annoyance they suffered from their neighbours to take the law into their own hands. Private revenge would take the place of public justice. The national character would undergo a degradation wider and deeper than a superficial view would lead one to suppose; and we should have a return of the social disorder that characterised this country in by-gone centuries.

What, then, is the principle whereby to determine the standard of sanity? The protection of the public and the protection of the insane. The protection of the public means, not merely protection from bodily violence, but the protection of all that makes life worth living. The protection of the insane means, that they shall not be subjected to any restrictions but what are necessary for their own good, or for the public safety.

To recapitulate, sanity is commonly judged by an erroneous standard, the standard of mental health; whereas it ought to be judged by the standard of social capability. On the one hand, many persons not in good mental health are far from being insane; and, on the other hand, there are many persons who are normally so much below the average in mental function, that they cannot be regarded either as able to take care of themselves in a country like this, or as devoid of danger to the public.

FURTHER COMMUNICATION ON THE FUNCTION OF THE RECURRENT LARYNGEAL NERVE WITH REGARD TO THE THYROID BODY.

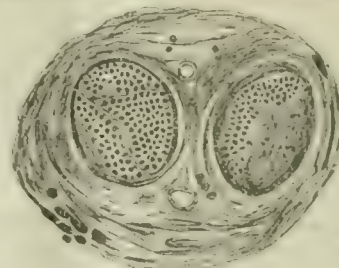
By W. HALE WHITE, M.D.,
Assistant-Physician to Guy's Hospital.

In the BRITISH MEDICAL JOURNAL for August 22nd of the current year, page 342, I published a paper on Atrophy of the Thyroid Body following pressure on the Recurrent Laryngeal Nerve. In this paper, two cases that had occurred at Guy's Hospital were recorded; in both of them, there was an aneurysm pressing on the left recurrent laryngeal nerve, and in both of them the thyroid body was extremely atrophied. The chief features of this atrophy were the small size and weight of the organ, and its fibrous appearance. The microscope showed that the vesicles were much smaller than natural, their contents were broken up into irregular masses, and the epithelial lining was in many cases destroyed; there was considerable increase in the amount of fibrous tissue, for, in some parts of the section, very little else but fibrous tissue could be seen; there also appeared to be some obstruction to the lymphatics, for the perivesicular lymphatic spaces were much engorged.

Shortly after the above paper was written, there was admitted into Guy's Hospital, under the care of Dr. Goodhart, to whom I am indebted for permission to use the case, a woman suffering from cerebral tumour. It is unnecessary here to detail her symptoms; the first to appear was deafness; after this had existed for some time, it was evident that she had a considerable tumour somewhere on the right side of the base of the brain, and implicating most of the nerves at the base on that side. The affection of the eighth pair was shown most conclusively by the atrophy of the right trapezius and sterno-mastoid muscles. During life, we thought that the right lobe of the thyroid body could be felt to be less in size than the left, but after death this was found not to be the case; the deception had been caused by our not allowing sufficiently for the atrophy of the right sterno-mastoid, which rendered the gland on the right side more easy to define than on the left, and hence gave a deceptive feel of diminution in size. At the *post mortem* examination, the diagnosis was completely verified. There was a large rapidly growing glioma on the right side at the base of the brain, implicating the eighth pair. At first, I thought there was a slight difference in colour between the two lobes of the thyroid gland, but it was not of sufficient importance to be of any moment; the gland was about its natural size. The right recurrent laryngeal nerve was decidedly smaller than the left; the muscles on the right side of the larynx were atrophied. Microscopic examination showed the tumour to be a glioma, evidently of rapid growth. There was no appreciable difference between the two lobes of the thyroid gland; sections from both appeared normal, and the secretion was evidently going on actively at the time of death, because not only the vesicles, but the lymphatics, were full of the special secretion; the secreting epithelium was normal, and there was no increase of fibrous tissue. A section of the right vagus, as compared with one of the left, showed considerable sclerotic change; where it existed, it was extreme, and had completely destroyed the nerve-fibres; it was evidenced by a considerable amount of delicate fibrous tissue, with, in parts, many nuclei. This sclerotic change appeared in no way to differ from any other descending degeneration; the chief point of importance about it being that it was not complete, for several healthy nerve-fibres could be seen.

Sections were made of both recurrent laryngeal nerves. The cross section of the right was much less than that of the left. Staining with logwood made it evident that there was a considerable sclerotic change in the right nerve, whilst there was none in the left; it consisted of a delicate fibrillated tissue springing from the epineurium and endoneurium. This partial degeneration of the recurrent laryngeal nerve is seen in the accompanying figure, which shows to the left a bundle of nerve-fibres, all of which have taken the osmic acid stain well, whilst to the right is another bundle, of which rather less than

half have taken the stain, whilst the remainder is occupied by a delicate fibrillated tissue. All the sections prepared with osmic acid showed this change, and distinguished the two parts of the nerve most



Osmic acid-preparation showing two bundles of nerve-fibres from the right recurrent laryngeal nerve; that on the left shows no degeneration, that on the right shows sclerosis of more than half the bundle. Hartnack, Obj. 3, Oc. 3.

beautifully, whilst all parts of sections prepared in the same manner from the left recurrent laryngeal nerve took the osmic acid equally and perfectly; thus this mode of preparation, demonstrating partial degeneration of the left recurrent laryngeal nerve, is seen to confirm that of logwood.

We have, therefore, traced a descending degeneration from the brain, by means of the right vagus and recurrent laryngeal nerves, to the right laryngeal muscles, which have consequently atrophied; but the two halves of the thyroid body are healthy. Now, were all the fibres of the right recurrent laryngeal diseased, this case would directly contradict those published on August 22nd, for they were cases in which the left recurrent laryngeal was pressed upon, and the thyroid body was atrophied; this of course may have been a coincidence, but seemed to point to the fact that the recurrent laryngeal nerve had some trophic influence on the thyroid body. It is, indeed, just possible that the left recurrent laryngeal nerve has some influence on the thyroid body not possessed by the right, but this is extremely improbable. The fact that so many of the fibres of the right recurrent laryngeal in the case now under consideration were healthy, whilst the rest were completely sclerosed, shows that that nerve contains many fibres which do not proceed from the brain; the right vagus also contained some fibres that were not diseased, but as it was not carefully noted, at the *post mortem* examination, what part of the vagus was put aside for inspection, one cannot say where these are added. If further investigation should show that the recurrent laryngeal nerve is the trophic nerve of the gland, this case will assume great importance, for it will prove that, whilst the motor fibres for the laryngeal muscles proceed from the brain, there are trophic ones in the recurrent laryngeal nerve, namely, those which in this case are undegenerate, which have not a cerebral origin, and must, therefore, be superadded somewhere between the brain and the recurrent nerve.

CONICAL CORNEA.

By CHARLES HIGGINS, F.R.C.S. Eng.,
Ophthalmic Surgeon to Guy's Hospital.

THE operation I have always performed for conical cornea was, I believe, introduced by Mr. Bader. It consists in the removal of an elliptical portion from the apex of the cone, and is easily performed as follows.

The eye being cucaïnised, the lids are fixed open by a speculum, and the eyeball well steadied by fixing forceps. A thin Grafe's extraction-knife is then passed through the cone from side to side, entering the anterior chamber, and made to cut its way out either upwards or downwards, forming a minute flap. The aqueous humour, of course, escapes. The flap is then seized with iris-forceps and cut off. The result is a sloping sided horizontal notch in the cornea. A drop of solution of eserine is then applied; both eyes are strapped up and covered with small pads of wet lint, secured by a bandage. Neither eye is opened for ten days. At the end of that time, both are examined. If the aqueous humour be retained, the eye which has not been operated on is left uncovered; but if the wound be still open, both eyes are kept bandaged until it has closed. Healing is often tedious. In the result, a small central opacity, with or without anterior synechia, remains; the cone is reduced, and vision is greatly improved. Failures are extremely rare. The following cases the last I have done, will serve as illustrations.

CASE I.—Emma W., aged 29, was admitted January 16th, 1885. She first noticed her sight failing twelve months ago. The left eye was worse than the right. An operation was performed on the left eye, and vision was much improved by it. On admission, she had conical cornea, well marked in both eyes. Iridectomy had been performed in the left, and there was a dense corneal opacity. The patient had never learned to read, and was very stupid. As far as could be ascertained, she counted fingers rather better with the right eye than the left.

January 19th. An elliptical piece was removed from the apex of the cone in the left eye, a 2 per cent. solution of cucaïne having been applied three times in ten minutes immediately before the operation. No pain was experienced; both eyes were strapped and bandaged.

January 29th. The eye was examined; the wound was leaking; the bandage was reapplied.

February 2nd. The wound was healed. There was no synechia.

February 9th. The right eye was operated on in the same manner. A drop of solution of eserine (4 grains to an ounce) was placed between the lids.

By February 27th, the wound had firmly healed, but there was an anterior synechia.

March 9th. There was nearly central corneal opacity in both eyes. She could see to thread a large sewing-needle with each eye.

CASE II.—Mary A. J., aged 15, was admitted on May 27th, 1885. Sight had been failing for years. On admission, she had well marked conical cornea in both eyes. The right eye read Jäger 8, a word here and there at two inches. The left eye read Jäger 4 badly at three inches.

June 1st. Cucaïne was applied, and the apex of the cone removed in the right eye. The lids were closed with strapping and bandage.

June 10th. The eye was opened; the wound was healed.

June 22nd. The left eye was operated on in the same manner; and the same treatment was adopted. Ten days later, the wound had healed.

July 21st. In both eyes, the pupils were circular and active; there were small nearly central leucomata. In the right eye, vision was $\frac{2}{3}$, not improved by lenses; it read Jäger 6 at six inches badly. In the left eye, vision was $\frac{1}{2}$ C-36 $\frac{1}{4}$; it read Jäger 2 at ten inches easily.

ABSCCESS OF THE LUNG, PRODUCED BY SWALLOWING A PIECE OF GRASS: RECOVERY.

Read before the York Medical Society.

By RICHARD PETCH, M.D., York.

THE following case, which I believe to be unique, will doubtless be interesting.

S. M. P., a girl, aged 3½, was subject to attacks of bronchitis, but otherwise strong. On June 29th, 1883, she was walking in the fields with her mother, when the latter heard her coughing violently, and crying out that she had something in her throat. Turning quickly to see what was the matter, she found the child gasping, and apparently on the point of choking. On looking in her mouth, she saw what she took to be a piece of grass behind her tongue; but, owing to the child's struggles, she was unable to get hold of it, and it seemed to disappear, being, as she thought, swallowed. For the rest of the day, the child coughed a great deal—an irritable dry cough—and complained of her throat hurting her. This continued two or three days, and she also complained occasionally of a pain, as she said, in her stomach. The cough continued, but became less frequent and severe; there was no expectoration. She began to fall off in health, lost her appetite, was thirsty, had headache, and became thinner.

I saw her first on July 13th, when I found her suffering from fever (102°), frequent quick pulse (130), and accelerated respiration (30). On examining the lungs, I found, on the whole of the left side posteriorly and laterally, slight *râles*, and indistinct dullness, with impaired expansion; the right lung was normal. A few days later, she began to expectorate muco-purulent sputum, without blood. The sputum quickly became entirely purulent, and more copious; it also became offensive, and was brought up with a good deal of retching. Her breath became very offensive, permeating the whole room; and, after a coughing spell and ejection of horribly smelling pus, it was almost impossible to stay in the room until fumigation and a widely opened window had cleared off some of the odour.

August 5th. She spat up a small piece of grass.

August 11th. We noticed a projection between the fifth and sixth left ribs in the axillary line: it was very painful, and respiration was absent over it. It gradually increased in size, and, on August 16th,

burst, and let out, along with a good deal of offensive pus, a piece of grass, which seemed to be the flowering axis of one of the graminaceæ. It was about an inch and a half in length. After this, the abscess gradually diminished in size, the pus became less, and, by August 25th, had ceased running, the wound being apparently healed. She had no cough, pain, or fever; she began to eat, and slept well.

August 28th. She was not so well, complaining of pain over the site of the abscess on movement.

August 29th. The abscess was found to be filling again.

August 30th. The abscess burst, discharging a large quantity of healthy sweet pus, with no grass. After this, she continued to improve in health, but the abscess also still continued to discharge slightly, and, as it seemed to make no progress towards healing, on September 15th I gave her chloroform, and, exploring the sinus, found the probe pass to the depth of three inches into a cavity with rigid walls, giving the impression of the cartilaginous walls of one of the larger bronchial tubes. I advised her removal to the sea-side, where she improved immensely in health, the pus diminishing, which it continued to do until the end of November, when it ceased, and the wound finally healed.

I saw her in January 1884, when I found her perfectly well; and, on examining the chest, found respiration, etc., perfectly normal over the whole lung, and no shrinking of the chest-walls.

REMARKS.—This case strikingly illustrates the *vis medicatrix nature*, upon which we have so frequently to rely, and with such well merited confidence, especially in children. It appears that the piece of grass, having been drawn by inspiration into some small bronchial tube, set up inflammation in the tube and surrounding pulmonary tissue, and general hyperæmia of the lung. The localised inflammation, passing into abscess, and tending towards the surface, happily excited adhesive pleuritis, thus shutting off the pleural cavity from the entrance of pus, and consequent disastrous consequences.

Recovery, though tedious, but not excessively so, considering the disease, seems to be perfect; for over the site of the abscess, as indicated by the scar, respiration is perfect. I presume there is a narrow cicatrix of the lung occupying the site of the abscess, and that the surrounding lung has expanded so as to fill up its former situation.

Treatment, at first, when precise diagnosis was uncertain, merely symptomatic, consisted, when the nature of the affection was plain, of abundance of nourishment, assiduous poulticing and fomenting of the side (to which I ascribe no inconsiderable share in the favourable result), a free supply of fresh air, and aerial disinfection by, and antiseptic inhalations of, sanitas oil.

The employment of the trocar to evacuate the abscess was considered, and mentioned to the parents, who strongly objected to any interference; and I did not at all press it upon them, as, seeing the continued favourable progress of the disease, I was inclined to trust to nature, and further, was doubtful whether I should be enabled by the trocar to withdraw the grass, the *fons et origo mali*, without which the operation would be useless. For the former reason, I was still less inclined to the use of the knife, although doubtless in some cases it would be the better treatment.

SEQUEL TO A CASE OF TREPHINING.

By GEORGE WHERRY, M.C., F.R.C.S.,

Surgeon to Addenbrooke's Hospital, Cambridge.

THIS was a case of comminuted depressed fracture of the right parietal bone in a man aged 25, who was struck on the head by a lunatic with a carpenter's mallet.

Trephining for removal of the fragments was performed by me six days after the injury, when hemiplegia and fever had supervened. An account of the operation and the progress to recovery will be found in this JOURNAL, April 21st, 1883, p. 767. The patient passed through many vicissitudes, including left hemiplegia, convulsive movement of the right side, severe headaches, fits of an epileptic character, and a period of undoubted insanity; nevertheless, he made a perfect recovery from all these evil symptoms, and followed farming pursuits during about two years. There was always an unfortunate difficulty in making him abstain from stimulants. In May, 1884 (more than two years after the injury), he had an epileptic fit, was violent at times, and had insane delusions. He rallied so far as to continue his farming business, but was thought to be weaker both in mind and in body. On July 6th, he attended some village sports. It was a hot day; he partook of beer, and walked home about two miles. Next morning, the fits came on. He passed into the epileptic state of continually recurring fits, which lasted six days, until he died on July 13th, 1884.

The family-history is remarkable. The patient's brother died in the epileptic state, said to have been brought on by drink, and his father committed suicide.

At the *post mortem* examination, there was an oval deficiency found in the skull-cap, between the right parietal eminence and the sagittal suture. The scalp corresponding was adherent to the dura mater, which membrane was thick, strong, and everywhere adherent to the edges of the gap. The brain-matter beneath, to the depth of a quarter of an inch, was almost in a purulent state, and, deeper, was discoloured and softened. The portion of skull showing the repaired fracture is preserved in the Cambridge Museum.

This account is from information kindly given me by Mr. De Lisle, of the Three Counties Asylum at Arlesley.

REMARKS.—At the time of the operation, it was noted that, except in connection with the superior longitudinal sinus, the dura mater was not torn; but the bone-fragments were driven in so deeply, that the brain-tissue beneath must have been badly damaged; and this, it seems probable, never recovered nor healed soundly, but remained of low vitality, and slight provocation broke down its softened tissues, and inflamed the regions round about.

A second operation, to relieve the injured brain-surface of inflammatory products, might perhaps have given another period of apparent health; but a tendency to drink, and hereditary disposition to brain-disorder, would have made a good result improbable. After head-injuries, it is especially necessary to avoid all stimulating drinks; and exposure to the sun seems certainly, in some cases, to have determined a fatal attack.

THERAPEUTIC MEMORANDA.

ON DYSPŒA PRODUCED BY PELARGONIUM GROSSULARIODES.

This plant, which has been introduced from South Africa, now grows in a semi-wild state in the hill-station of Ootacamund (the chief town on the Nilgiris), where, at an elevation of 7,500 feet above the sea-level, it enjoys a semi-temperate climate. Its favourite habitats are dry-earth fences; and, when moist with dew or rain, it gives out a strong balmy odour, which can be perceived at some distance. To most people, this smell is agreeable, but, in the case of a lady who came under my observation, it immediately produced marked dyspnoea. At first, as the plant was in flower, I was disposed to think that this disagreeable effect might be due to the specific influence of the pollen-grains, as in hay-fever, but subsequent observation led me to conclude that it was purely the result of the effluvia of the leaves. Thus, when some of the plant not in flower was brought into the verandah of the room in which the lady was sitting, the usual effect was produced as soon as the smell made her aware of its presence. On several occasions, specimens were brought in without giving her any warning, and always with the same result. It further occurred to me that the dyspnoea could not be due to pollen or any very permanent particles, as the effect was transient, ceasing in about a minute after the removal of the exciting cause. While it lasted, the attack was rather sharp, and attended with a feeling of anxiety about the precordia. Her great susceptibility to the smell was also remarkable, as she would often, when driving or walking, announce the proximity of her enemy, when the plant was not visible to the eye, and when its odour was not noticed by others till their attention was directed to its presence. This is, therefore, a fresh example of an idiosyncrasy of olfaction, of which numerous others are on record.

G. BIDIE, M.B., C.I.E.,

Deputy Surgeon-General, East Nook, Madras.

OBSTETRIC MEMORANDA.

ON SUPRAVAGINAL EXTIRPATION OF THE UTERUS.

WHILST congratulating Mr. Jennings on his successful case of the above (which is noted in the JOURNAL of November 14th), and looking forward with interest to the detailed account promised later on, I venture to protest against this operation being performed for cancer of the cervix.

In a paper which I read before the Obstetrical Society last January (a short abstract of which appeared in the JOURNAL of February 7th), I proved that vaginal extirpation had a mortality of 28.6 per cent., whereas supravaginal amputation had a mortality of only about 7 per cent., and that the ultimate results of the two operations were precisely alike; namely, that 32 per cent. were free from recurrence two years later. Now, looking at these facts, and seeing that in the very im-

portant debate which ensued (and which had to be adjourned, as many Fellows wished to speak) there was a remarkable unanimity of opinion adverse to extirpation in cancer of the cervix, expressed by such men as Braxton Hicks, Priestley, Graily Hewitt, Playfair, John Williams, Sir Spencer Wells, Sir William Mac Cormac, Galabin, Knowles Thornton, and Doran, is it not a matter of regret that any surgeon in this country should have felt he was acting in the best interests of his patient by performing this particular operation? In conclusion, I will make two abstracts bearing on this important subject; the first (a) consists of the sentence at the end of a leading article on Extirpation of the Entire Uterus, in the *Lancet* of March 14th; and the second (b) comprises the concluding words of my paper above referred to, which will be published in *extenso* in the forthcoming volume of the Obstetrical Society's *Transactions*. a. "The facts known unequivocally condemn total extirpation for cancer of the cervix, and are decidedly unfavourable to its practice for cancer of the body of the uterus." b. "But in all cases of cancer affecting the portio vaginalis, and, *a fortiori*, when there is the least implication of the vaginal walls, it appears to me to be an unjustifiable proceeding for us to subject our patients to the immense immediate risks which total ablation of the uterus entails, when we can positively gain quite as good ultimate results from an operation (that is, supravaginal amputation), the immediate risks to life from which are four times less."

WILLIAM A. DUNCAN, M.D., F.R.C.S., Harley Street.

RETENTION OF BROKEN GLASS IN THE VAGINA FOR SEVEN MONTHS.

ON October 19th, I was called in to see Mrs. F., aged 47, who informed me that about five years ago, when in London, she consulted a physician, who told her that some displacement of the womb existed; but, under the treatment adopted then, relief was soon obtained.

Menstruation having ceased for the last six months, and some slight return of the old symptoms being felt, she requested me to make the necessary examination. On introducing the forefinger of right hand into vagina, it came upon a hard round body lying to the right and posterior side of the cervix uteri. It felt firmly fixed, but, after some patient manipulation, became dislodged, and, to my astonishment, proved to be the broad perforated end of a broken glass female syringe.

The patient was amazed, and, upon my questioning her with regard to it, said that, about seven months ago, she broke a syringe when using a vaginal injection, but, hearing her husband coming upstairs, put the fragments into the chamber-utensil, and thought no more about it.

Copulation has been performed many times since then, the husband complaining of feeling some obstruction. The position of the foreign body had become exactly reversed, as the sharp point was lying upwards in the posterior vaginal wall, the convex blunt end of the syringe, with its numerous perforations downwards, and, as mentioned before, being moulded to the right posterior side of the cervix. How such a sharp pointed body became reversed and worn so long without injury to the vagina, and comparatively little discomfort, is most singular.

J. ACWORTH ANGUS, M.R.C.S., etc.,

North Ashfield, Newcastle-upon-Tyne.

SURGICAL MEMORANDA.

THE PLACE OF EXPLORATORY INCISION IN ABDOMINAL SURGERY.

IN THE BRITISH MEDICAL JOURNAL of November 14th, two men of acknowledged eminence, Mr. T. Pridgin Teale and Mr. Lawson Tait, regard exploratory incision as a safe proceeding. There is, moreover, a consensus of opinion that it is so. This being so, I venture to bring before the profession a suggestion that has for long occupied my mind. Is it not a fact that, in all cases of abdominal or pelvic tumour, calling for operative interference, no one—not even a Keith, a Tait, or a Wells—can be sure, until the exploratory incision has actually taken place, what the state of things will be, and what steps, after the incision, will be necessary? Therefore, is it wise, and is it doing full justice to the patient, to go to the attack practically blindfold?

Let me put the question in another way: Is not the peace of mind of the surgeon, on approaching an operation of magnitude, and during its performance, in the exact ratio of the time—hours or days—he has

had to consider each step of that operation beforehand? Is it not the ability of dealing with complications at short notice, or no notice at all, that produces such men as those I have mentioned?

My proposal, founded on the above considerations, is this: Why should we not make our exploratory incision one day, and complete the operation next, in all but the most simple and straightforward cases? The debit side of such a course would be the administration of an anæsthetic once oftener than at present, and the insertion of a second set of sutures—not in all cases, but in those cases deferred. The credit side would be the dexterity of hand, and the peace of mind begotten of twenty-four, or even eighteen, hours' full mental view of the difficulties to be encountered, and the ways and means of overcoming them.

What should we think of a general who was accustomed to ignore his "intelligence department," and attacked strongholds about which he was utterly ignorant, except the appearance of their outer walls?

Unless it were the lowered resisting power of the incised surfaces to septic influence, there is nothing to prevent our removing the sutures, and, with a sterilised blunt instrument, opening the previous day's incision; and going to work, as I have said, not only with the proper tools, but with the steadiness of hand and ease of mind which a thorough thinking out of the required steps gives us in other important operations.

WILLIAM FEARNLEY, L.R.C.S. Edin.,

1, Leinster Place, St. Elgin Road, W.

CLINICAL MEMORANDA.

FATAL CASE OF PEMPHIGUS.

AMEROSE B., aged 33, a Spanish-American and man of colour, was seen at his home on August 15th. He had been under the care of a homœopathic practitioner for three weeks. His condition was as follows. There were numerous sores, covered with scabs, on his face and scalp; each eyelid was occupied by a sore with free discharge; his neck, chest, thighs, legs, and arms were covered with bullæ in various stages; one long narrow bulla on the left forearm looked as if caused by the application of a hot bar to the skin. The majority of the bullæ were rather smaller than a threepenny piece, of dark red colour, and contained some discoloured serum; they were situated on very slightly inflamed bases; others had burst and formed scabs. The friends said that the bullæ had appeared in successive crops. The eruption began first on the inner and upper part of the thighs. The whole of the back was raw, large bullæ having been formed and burst. The attack was preceded by rigors and vomiting. The pulse was 124, and temperature, 99.4° Fahr., and the patient was in a very weak state. The following day he was removed to the hospital, and placed on a water bed, the sores being dressed with boracic ointment, and a mixture was given containing iodide of potassium, liquor arsenicalis, and bark. On the 17th, he said he felt better, though much troubled with flatulence. Temperature, morning, 101.6° Fahr.; evening, 102.4° Fahr. On the 18th, he had rather severe diarrhœa, the stools being copious, pultaceous, and light coloured, resembling those of typhoid fever. Temperature, morning, 102° Fahr.; evening, 101.6° Fahr. At midnight, a change for the worse took place; his pulse became irregular, fluttering, and too quick for counting, but after a dose of brandy it was 136. The bowels continued freely open; he gradually sank and died at 5 A.M. on August 19th. No post mortem examination was allowed. He was said to have suffered from disease of the lungs, but no examination of them could be made in the state in which he was. There was some cough.

REMARKS.—This case seemed to be one of acute pemphigus of very severe character, with typhoid symptoms at the last. There had been a case of typhoid fever in the same house at the time that he was taken ill, and therefore the blood-poisoning was probably of a typhoid nature. There was no history of syphilis.

T. G. PARROTT.

VACCINATION: DELAY IN DEVELOPMENT OF VESICLES.

AN infant, 6 months old, was vaccinated in four places on October 27th. On November 2nd, it was inspected, and no sign of any vesicles was found. It was therefore revaccinated in four places on the same arm. On the third day following, I noticed three out of four vesicles commencing to develop on the site of the first vaccination-punctures. They continued to run the ordinary course until November 9th, when they appeared as well marked circular vesicles, with depressed centre and surrounding areola. In the meantime, the vesicles of the second vaccination commenced to show in succession, and on November 9th presented two well developed vesicles with slightly depressed centres,

about the size of an ordinary vesicle on the sixth day, and the two other points with vesicles just developing. The child is in excellent health.

H. J. LOTT, M.D.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

CUMBERLAND INFIRMARY, CARLISLE.

REMOVAL OF THE TONGUE AND PART OF THE FLOOR OF THE MOUTH FOR EPITHELIOMA BY WHITEHEAD'S METHOD.

(Reported by CHARLES A. MORTON, House-Surgeon.)

GEORGE B., aged 52, was admitted on December 17th, 1884, with a painful growth in the tongue of three months' duration. On the under surface of the left side of the tongue was a large ulcer, with thickened edges, an inch and a half in length, extending slightly to the right of the frænum at the tip. The tissue around the ulcer was indurated. The floor of the mouth between the lower edge of the ulcer and the lower jaw on that side was thickened and superficially ulcerated. There were no enlarged glands.

On December 20th, the tongue was removed under chloroform. The patient was kept on his side the whole time, and so, although the bleeding was severe, the air did not enter the trachea.

The operation was performed in the way Mr. Whitehead has described. After the removal of the tongue, that portion of the floor of the mouth which was involved in the malignant growth was dissected away; and, in doing this, the jaw had to be exposed up to the alveolar edge. The hæmorrhage was very considerable, much blood being lost during the division, where the growth on the tongue was continuous with the ulceration in the floor of the mouth.

One lingual could not be easily tied, and was twisted, and the other was twisted without any attempt at ligation. The patient was rather collapsed from the loss of blood during the operation. He was fed by the rectum for the first three days, and then began to take fluid food by the mouth. His recovery was rapid. The temperature was only very slightly elevated for a few days after the operation. About ten days after the operation, a gland under the right side of the lower jaw began to enlarge. It was hoped that this might be an inflammatory enlargement due to the irritation of the wound; but it increased in size and hardness as the wound healed, and when discharged on January 14th, it was still there.

When seen early in February, there was a return of the disease in the floor of the mouth, and the gland was slightly larger.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 24TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

On the Distribution of *Bacillus Anthracis* in the Human Skin in Malignant Pustule.—By ARTHUR E. J. BARKER, F.R.C.S. The basis of the observations was a case in which excision on the tenth day after the appearance of the first pustule was followed by rapid and complete recovery. The case was that of a young, healthy man, a brush-maker, who noticed a small pustule on his neck on May 28th, 1884, which he squeezed with his nails. This became very sore, and increased rapidly in size, while at the same time he began to feel very ill, with insomnia, thirst, malaise, pains in the bones, and, later on, rigors, anorexia, and headache. On admission to University College Hospital, on June 7th, he was found to be suffering from a large so-called malignant pustule on the left side of the neck. This consisted of a central dark-brown eschar, surrounded by a zone of flattened pustules, and outside these a hyperæmic zone; beyond the latter the whole side of the neck was oedematous, with an intensity of hardness rarely seen. The treatment consisted in excision of a portion of skin, about 3½ by 2½ inches, including the whole area of vesiculation and a margin outside this about half an inch broad. The base of the wound was cauterised freely with the actual cautery, dressed with iodoform, and covered with iodoform wool. The recovery was rapid

and complete. The distribution of the bacilli in the skin about the centre of inoculation, was then discussed; the main conclusion arrived at regarding this point being, that the organisms displayed a remarkable predisposition for the most superficial parts of the dermis, and only penetrated into the deeper parts very slowly, and in relatively small numbers. Enormous colonies were found spreading over the surface of the papillæ, causing vesiculation of the epidermis, while in the bodies of the papillæ, and in the deeper parts of the cutis, only a few scattered bacilli were found: none could be detected in the vessels of the skin anywhere; under the eschar the active growth of the organisms appeared to have been arrested. That the disease remained essentially local for a considerable time appeared a justifiable opinion from these observations; while the history of the case, together with the result of operation, pointed to the same conclusion.—The President felt he ought not only to thank Mr. Barker for his paper, but also to congratulate him most sincerely on the successful treatment of his case.—Mr. DAVIES-COLLEY observed that he had been a little surprised that more cases were not noticed in London; for, in the three years since he had written a paper on Malignant Pustule in *Guy's Hospital Reports*, he had met with seven cases of the disease, five of them in the last year. He thought Mr. Barker had described it as more local, or rather local for a longer time than it had been in his experience. He took it to be local for only a day or two, and after that, swelling of glands, vomiting, fever, and other constitutional symptoms appeared, and the bacilli anthracis were to be found in the sputa, urine, sweat, and feces. In the only case under his care, which had ended fatally, there had been cerebral symptoms, and meningitis had been found after death, along with some small black sloughs, widespread throughout the oedematous mucous membranes. But even in the cases which recovered, he had found evidence that the disease had spread into the general system, and he considered that the secondary colonies were not nearly so vigorous as the primary, and consequently could be subdued by the natural strength of the patient. There were very few cases of internal anthrax found in London, which was a contrast to the conditions of the disease at Bradford, where it was almost always internal, and resembled an obscure pneumonia or intestinal disease. Only one such case had been found at Guy's Hospital, where a man had headache and abdominal pain during life, ending in convulsions and coma. The *post mortem* examination had shown meningeal hæmorrhage and sloughs in the intestine, due to anthrax.—Dr. CHARLEWOOD TURNER remarked on the agreement of all the descriptions and specimens in showing that the bacilli were limited to the surface-layers. A line might be drawn not far below the surface, above which the tissues were hazy, and the bacilli in the necrotic serum very numerous, whilst below it the tissues were quite clear, and hardly a bacillus could be found. The bacilli spread especially along the sheaths of hairs, growing on the necrotic elements of their follicles.—Mr. BARKER asked if Mr. Davies-Colley had found that cases in which there was very wide distribution of the bacilli recovered?—Mr. DAVIES-COLLEY said that he had only met with this very wide diffusion in one case, and that had recovered.

A Case of Acute Tubercle of the Liver agreeing completely with the so-called Actinomycosis. By JOHN HARLEY, M.D. Lond., F.R.C.P.—The author related the case of a man, aged 30, who was under his care, and died, after a year's illness, of abscess of the liver, secondary abscess in the right loin, and lobular pneumonia. The liver-abscess, which formed a pale prominent projection of the left hypochondrium, was incised, and remained open up to the time of his death, ten weeks after admission. Very small quantities of thick creamy pus were constantly discharged. The patient presented the usual aspect of tubercle, and the tongue became aphthous soon after admission. He died of exhaustion, but experienced only slight pyrexia throughout. The incised abscess communicated with a large pale shaggy mass, about the size of an orange, in the left lobe of the liver; and scattered throughout the gland were numerous more or less spherical masses of pale, almost white, deposit. Two were of the size of oranges, and had begun to soften at the centre. The incised tumour was but little diminished; it was purulent, but the pus could not be evacuated, being retained in a remarkable felt-like close-woven stroma. The smaller masses were formed of aggregations of a few yellow tubercles, seen on the surface to be surrounded by congested liver-tissue, and resembling caseous tubercle in hepatized lung. The lungs were similarly affected, but to a very limited extent. There were evidences of a previous attack of pericarditis. On examining sections of the liver, it was found that, in the morbid areas, the lobules were wholly replaced by leucocytes and central granular masses, which exhibited very distinctly the characters described as actinomycosis, a development, as it was stated, of *Actinomycosis bovis*, a hyphomycetous fungus. The stroma

of the tubercular tumours was shown to be formed of the interlobular vessels and the connective tissue surrounding the lobules, the latter being completely excavated, and converted into sacs one-twenty-fifth to one-eighth of an inch in diameter, communicating with the interlobular network by many apertures. These cavities in the general network were occupied by the radiated granules. After giving a full description of the morbid products, and describing the formation of the tubercles, the author concluded by referring to the question of its vegetable origin. He unhesitatingly answered this in the negative. "I am bound," he said, "to admit that the case which I have described agrees in every particular with most of the typical cases of actinomycosis that have been recorded, and my figures correspond exactly with those of Lebert, Israels, and others; and yet I am perfectly satisfied, and hope to prove to the Society, that there is no fungus whatever associated with my case. If this be so, then much, if not all, of the so-called actinomycosis, must be relegated to its old, and, as I believe, its proper place—namely, tubercle." The author gave a full account of the concretions which had been described as actinomycoses, and he showed, by microscopical, physical, and chemical processes, that the striations which were assumed to be the asci of the plant were nothing more than the earliest indications of that calcareous degeneration to which tubercular deposits were liable, and which had no more connection with fungus-growth than a gall-stone had.—The President, after thanking Dr. Harley for his paper, called attention to the many excellent specimens placed under the microscope in the room.—Dr. SHARKEY thought he ought to explain at once the reasons which had obliged him to differ from Dr. Harley, and to join with Dr. T. D. Acland in bringing forward specimens from Dr. Harley's case, with a view to showing that it was not really a case of tubercle, but of actinomycosis. The naked-eye appearances were very unlike those of tubercle of the liver; for the growths were not minute, such as tubercles of the liver generally were—often too minute to be seen with the naked eye—but unlike anything he had seen before; some very unusual form of suppuration, as it seemed on first view. Dr. Bristowe, who was present at the *post mortem* examination, admitted that it was unlike anything he had seen before. Dr. Harley at the time had judged it tubercular. It had afterwards been used as a class-specimen by himself and Dr. Acland, to demonstrate the characters of actinomycosis. The central parts of the growths were in the condition which Dr. Harley described as caseation in every case, even in the smallest of them; but the condition neither was caseation, nor had any real analogy to it. The microscope showed the growth of button-shaped masses of mycelium, which spread like rosettes in all directions, and took stains as fungi took them. In the actinomycosis of the tongue of a cow, there was more resemblance to tubercle; there were collections of leucocytes and chronic inflammation. In chemical tests, he had come to results very different from those of Dr. Harley. Dr. Harley had described how the striation of the central mass had disappeared under the influence of acids, and had brought that forward as proof that there was no mycelium there. He had himself found, on the contrary, that, after four days' soaking in glacial acetic acid, the central striæ were clearer than before, and showed more distinctly the character of mycelium. The upper surface of the liver had been adherent to the diaphragm, which was inflamed; and there was some inflammation of the lower part of the lung also, which looked like a lobular pneumonia. A microscopical examination of this showed the radiating masses of mycelium, as in the liver; it was, in fact, an early stage of the disease. He could not help concluding, in fact, that they had to do with an actinomycosis, though he thought it very possible it might not be identical with the actinomycoses *bovis*. The excellent specimens which had helped his argument he owed to Dr. Acland's skill.—Dr. T. D. ACLAND had to thank Dr. Harley for prompting him to take up the subject, though he did not come to the same conclusions. He explained three sketches of the radiating growth of the bunch of mycelium and the central degeneration which followed from the inability of the central parts to get at the nutrient tissues, which were being constantly eaten up and encroached upon by the periphery; for the growths were perpetually growing outwards at the edges, after the fashion of "fairy rings," and in the centre was left, in the last stage, a softened mass containing a little fat and carbonate of lime. He had only attained to a clear view of the mycelium two days ago. The club-shaped ends of the threads were difficult to show in man, but easy to see in the ox. He had made experiments upon solvents apart from Dr. Sharkey, but had come to the same results, notably in the clear fine threads of the mycelium visible after treatment with acids, either acetic or nitric (30 per cent. solution). It was true that the fungous character of the growths had not been demonstrated by the most positive test, namely, cultivation; but the microscopic

evidence he considered almost sufficient to prove that there was fungus, and that the fungus was the cause of the disease, for it was present too universally to be accidental. Israel, in his admirable essay on Actinomycosis, in Virchow's *Archiv*, reported that he had succeeded in some cultivation of it, but that it was difficult, owing to the very slow growth of the fungus outside the body.—Dr. PERCY KIDD, after an examination of the specimens could have little doubt of the fungous character of the growth; that it was, in fact, an actinomycosis. He could not detect any tubercle, and thought the absence of the tubercle-bacilli an important fact in the evidence.—Mr. WATSON CHEYNE agreed in thinking the case was one of true actinomycosis, on the evidence of specimens which he had seen nearly a year ago, as well as what were shown that evening; and, even if there were not a fungus present, or if it were not actinomycosis, he would not follow Dr. Harley's reasons for calling it tubercle rather than by various other names, for example, a sarcoma, which he believed had been the name originally given to these growths. He should be glad to learn exactly what Dr. Harley meant by tubercle.—Dr. JOHN HARLEY, in reply, said that he would not undertake, at that late hour in the evening, to follow Mr. Cheyne's suggestion of discussing all the distinctive points of tubercle. He understood Mr. Cheyne and Dr. Sharkey to consider bacilli, caseation, and some obscure microscopic changes, as essential to tubercle; and from that he dissented, for he did not think the bacilli were essential. As for caseation, he thought there were some clear instances of it in his specimens, and he described its origin in minute foci. The patient from whom the specimens they were discussing had been taken had died a year previously; Dr. Acland had not been able to find any mycelium till a day or two ago. He admired his microscopic preparations, and fully admitted that they showed mycelium, but was inclined to consider it a *post mortem* product.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 23RD, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

Sarcoma after Injury.—A paper on the development of sarcoma shortly after injury, founded on three cases recently observed, was read by Mr. A. PEARCE GOULD. The first was that of a girl aged 16, who, three months after she had struck her forearm, noticed a swelling of the upper end of the radius, which enlarged rapidly under observation till it involved the upper third of the bone. Puncture of a fluctuating area with an aspirating needle resulted in the withdrawal of some bloody fluid. The patient made a good recovery. The tumour was found to consist in great part of a large blood-cyst. On microscopic examination, its structure was seen to be that of a myeloid sarcoma. The second case occurred in a woman aged 26, who, three months previously, had struck her thigh. Two months later, a swelling was apparent and steadily increased, so that, when first seen, the whole bone was involved, and the tumour had attained a large size. The tumour was situated on the outer side of the bone, but, on section, was seen to extend into the medullary canal. It contained several blood-cysts, and was in part ossified. The limb was amputated by a modification of Mr. Furneaux Jordan's method. Soon after amputation of the thigh, recurrence of the growth occurred in the groin. The secondary tumour was excised, but the disease had recurred in the stump. The third patient was a man aged 70, who, on October 29th, 1884, struck his arm and elbow. He was admitted into Hackney Infirmary, and treated for contusion. On November 18th, he was discharged, but was readmitted in February on account of pain and swelling of the arm. The humerus was greatly enlarged and broken. It was put up in splints; but the swelling rapidly increased, and the limb was amputated. Mr. Gould quoted a considerable number of cases where sarcoma appeared soon after injury, recorded by various writers. It was important, he said, to class separately those cases in which growths followed, not after repeated slight injuries (irritation), but a single injury. He confined his remarks to the first class of cases, and observed, in the first place, that the relation between the injury and the growth was not accidental, though the injury itself was not the all-sufficing cause. To state that the patients were predisposed to the growth of such tumour did not account for the fact that such patients had previously received many injuries—perhaps in the very same part—without the development of a tumour. The cases occurred most frequently between twenty and forty years of age, an age when injury was most frequent, and in those bones which were most exposed to injury.—Mr. HARRISON CRIFFS referred to three cases already recorded, where sarcomatous growth followed directly on injury; in all the cases there was bruising,

and he thought that bruising of the tissues was an invariable antecedent of the development of tumour in these cases. He thought that pyæmia afforded an analogy to these circumstances; the most striking clinical difference was the greater length of these cases of so-called traumatic malignancy; the most striking pathological difference was that, in pyæmia, the new cells being rapidly formed broke down, whereas, in sarcoma, the newly formed material did not break down, but was more or less organised. He suggested that, in these cases of malignant traumatic sarcoma, an infective organism might play some part in the origin and dissemination of the disease.—Mr. DAVIES-COLLEY related the case of a boy, aged 15, who sustained a fracture of the thigh; two months later, a swelling appeared, and the union of the bone was found to be imperfect. As the swelling was fluctuating, it was incised; bleeding continued for some time; the limb was amputated, but the patient succumbed. The amount of new growth was very small in the bone and the muscles around, but there were secondary growths in the lungs and kidneys. He praised Mr. Furneaux Jordan's method of amputation.—Mr. GEO. LAWSON said that injury was a frequent antecedent of new growth, and he made no doubt that sarcoma, scirrhus, and epithelioma might follow directly on injury.—Mr. BARWELL said he believed that he was the first to apply the term traumatic malignancy to this class of cases. He had seen six cases in which there was an extreme tendency to keloid growth, in connection with acne punctata, and quoted one in which one of these small keloid tumours enlarged rapidly, and was found on removal to be sarcoma. He adopted the theory of the existence of tumour diathesis, or predisposition to the formation of new growths. He thought Mr. Furneaux Jordan's method of amputation gave good results.—Mr. R. W. PARKER considered that Mr. Furneaux Jordan's method of amputation was very advantageous in children. He thought that, in the causation of these cases of sarcoma after injury, the existence of a predisposition must be admitted. He had frequently observed the development of sarcoma in connection with blood-clot, and suggested that the growth might have its origin in the leucocytes of the blood-clot.—Mr. ROYES BELL dwelt on the difficulty of diagnosis. He quoted several cases where mistakes had been made. Sir Joseph Lister's method of amputating by a long oval incision was a very satisfactory operation, though rather tedious.—Mr. J. BLAND SUTTON related a case, where sarcoma of the tibia occurred ten years after an injury inflicted by a spent cannon-ball, and observed that it was only in cases where there was some special circumstance serving to fix the injury in mind, that the connection could be ascertained. Sarcoma was very frequent in animals, from fish to men; the situation in which the growth occurred in various species varied with the species, but always occupied a situation which, in that species, was peculiarly liable to injury. The clot formed after contusion might organise perfectly or imperfectly, or remain ill-formed tissue to the end, or it might act as what Cohnheim called a tumour-germ, and might be the starting-point of a generalisation.—Mr. GOULD, in reply, said that his method of amputation differed from Mr. Furneaux Jordan's, in that he made a circular incision as for amputation through the upper third of the thigh, and tied the vessels; then he made an incision upwards to the trochanter, and enucleated the head of the bone.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, NOVEMBER 20TH, 1885.

T. R. JESSOP, F.R.C.S., President, in the Chair.

Case of Sarcoma of Forehead.—Mr. JESSOP showed a girl, aged 20, upon whose forehead was a large nodulated sarcomatous growth, involving partly the right eye, and extending down the left side of the neck. The patient was admitted to the infirmary six weeks previously, with a small nodule, resembling a node, on the centre of the forehead.

Case of Depressed Fracture of Skull, Treated without Operation.—Mr. JESSOP exhibited a man, aged 50, who was admitted into hospital with compound depressed fracture over the right parietal region, and with a slight temporary numbness of the left arm. The wound was treated antiseptically, and the man made a good recovery.

Atrophy of Brain Depending on Old Hemiplegia.—Dr. ALLAN showed a brain with a deep depression in the region of the fissure of Sylvius and island of Reil. He had had a hemiplegic attack, fifteen years previously.—Dr. ALLAN also showed another brain with a deep depression, or sulcus, on its surface.

Peritoneal Calculus.—Dr. ALLAN exhibited a small calculus found in the peritoneal cavity.

The Use of Electricity in Diseases of the Larynx.—Dr. ERNEST JACOB recommended the endolaryngeal use of the faradic current in

cases of functional aphonia, pareses of laryngeal muscles after catarrhal affections, and in diphtheritic paralysis. He described several cases, where some difficulty was found in restoring the voice. In one there were frequent relapses, in another case an hysterical attack followed the use of the battery. In a third there had been a syphilitic affection, followed by aphonia.—The PRESIDENT called attention to the difficulty of treating such cases in middle-aged women.—Dr. DOBSON spoke of the value of moral and hygienic treatment in such cases.—Mr. HEWETSON related two cases where there was hoarseness after diphtheria, with complete paralysis of accommodation, both recovering under the use of tonics.—Dr. GRIFFITH spoke of the frequency of relapses in hysterical cases.—Dr. JACOB, in replying, said that hygienic and moral treatment was most to be relied on in preventing relapses, but that the larynx itself should always be treated.

Treatment of Syphilitic Keratitis by Syndectomy, without Medicinal Administration.—Mr. HEWETSON said that, having been much dissatisfied with the tedious progress and frequent relapses of cases of interstitial keratitis, he had had recourse to the old operation of syndectomy; the object being to cut off the blood-supply to the vascularising cornea as perfectly as possible. He had performed the operation sixty-eight times in all, in cases of interstitial keratitis; and he considered the operation more satisfactory and rapid in its action than the usual plan, and quite devoid of danger. The cornea was thus protected by a strong cicatricial band against the recurrence of inflammation, and rapidly lost the salmon-tint it acquired by the action of the inflammation.—The PRESIDENT thought that constitutional measures should not be neglected.—Mr. HARTLEY considered that the use of atropine in Mr. Hewetson's cases had some share in the good result; but he recommended syndectomy in cases where the cornea was very vascular or easily irritated.—A number of cases illustrative of this form of treatment had been shown at the previous meeting.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, NOVEMBER 12TH, 1885.

TO DR. T. S. BYASS, M.D., President, in the Chair.

Caries of Femur.—Mr. WILLOUGHBY FURNER showed the lower end of a femur, deeply carious, removed from a man, aged 50, after having been affected for nearly thirty years, dating from a local injury. He had seen two other analogous cases, and remarked on the difficulty, if not impossibility, of cure by any means short of amputation.—Mr. BLAKER had also noticed the extreme obstinacy of bone-disease occurring in the popliteal space.

Sarcoma of Stomach.—Mr. BLAKER showed, for Dr. RUTTER, a stomach with numerous sarcomatous nodules on the inner surface. The patient, a man, aged 34, was said to have had good health till a few weeks ago, when some partial paralysis of face and ptosis suggested cerebral hemorrhage. After death, which occurred from pulmonary congestion, a gelatinous growth was found near the third nerve, and malignant disease in almost every organ.

Fracture of Skull.—For Mr. HUMPHRY was read the case of a child, aged 4, who had fallen and cut the outer side of the left orbit. There were no serious symptoms, but a star depressed fracture of the frontal bone was found an inch above the superciliary ridge. Under anaesthesia, four pieces of bone were elevated, and three of them removed. The dura mater was healthy; hemorrhage was slight. The wound was washed with carbolic lotion, and partly closed. Three grains of calomel were given. Two days afterwards, three convulsions occurred at short intervals, affecting most the right arm, leg, and face. Temperature, 102° to 103° Fahr. The child was said to be subject to "fits" occasionally. A full dose of calomel was ordered, with six leeches, and drop-doses of tincture of aconite every four hours. Under this active treatment the child improved, but relapsed in a week, when four leeches were applied, and a grain of calomel given every four hours for some days. All bad symptoms subsided, and the child was well in a month.

Compound Fracture of Skull.—Mr. BLAKER showed a boy, aged 4, admitted into hospital seven weeks before with compound fracture of the skull, about an inch and a half above the left frontal eminence, resulting from being run over. A probe detected bare bone and a deep fissure. There were no cerebral symptoms. Under chloroform, the trephine was applied at the edge of the fissure, and loose depressed fragments of both tables of bone removed; the dura mater was uninjured. The boy recovered without a bad symptom. The site of the wound was healed, and could be seen pulsating.

Periostitis after Typhoid Fever.—Mr. BLAKER showed a youth, aged 16, admitted in apparently the third week of enteric fever under

Dr. Hollis. Periostitis showed itself first on the upper part of the sternum, but subsided without suppuration; afterwards it appeared in succession on the outer side of the left thigh (which place supplicated), on the outer side of the right femur, and the outer end of the right clavicle, where matter also formed. The patient was now improving, but had a strumous appearance, and a history of bone-disease previously.

Multiple Exostoses.—Mr. BLAKER showed two patients, father and son, with numerous bony exostoses, roughly symmetrical. In the father's case, the inner side of each tibia was affected; also the heads of the fibulae, the crests of the ilia, the shafts of the radii, the grooves in the humeri and the ribs. He had had these enlargements since childhood, and they continued to grow till he was 17. He had no pain or tenderness, but had been hoarse in voice for two years, presumably from some exostoses pressing on the laryngeal nerves. In the son, the parts affected were the inner side of the tibiae, the outer side, the fibulae and femora, there being altogether twenty-three exostoses. He was otherwise healthy.

Impacted Fracture of Femur.—Mr. BLAKER also reported a case of impacted fracture of the femur in a woman, aged 57, illustrating the good result of extension. After falling down, she was admitted with pain over the great trochanter and eversion of the limb, which, however, she was able to raise from the bed; there was shortening by an inch and a half. Under anaesthesia, crepitation could be felt. Much force was used for extension, which was continued till the limb was of normal length, when it was fixed with Liston's splint and a ten pounds weight. In a month's time there was good recovery, without shortening.

SUNDERLAND AND NORTH DURHAM MEDICAL SOCIETY.

THURSDAY, NOVEMBER 19TH, 1885.

G. S. BRADY, M.D., F.R.S., President, in the Chair.

President's Address.—Dr. BRADY, in his address, contrasted the practice of medicine of to-day with that of thirty years ago. He remembered how common it was for rustics to call at his father's surgery to be bled, thinking it only right to have some blood taken from them every "spring and fall." He pointed out the difference in the prescriptions of those days and of the present time; how elaborate and gigantic were the prescriptions then; how simple now. He thought the greatest real advances in therapeutics were in two directions—in the application of antiseptic remedies, both within and without the body, and in the supplementing of natural digestion by artificially prepared ferments. He concluded an interesting address by referring to the great increase of our knowledge with regard to the actions of many drugs, especially ergot, belladonna, aconite, and nux vomica.

Hydatidiform Mole.—Dr. SQUANCE showed a specimen of this disease.

Melanotic Sarcoma.—Mr. HOPGOOD exhibited a melanotic sarcoma from the orbit, having grown from the stump of the optic nerve, three years after enucleation of the eyeball.

Papers on the following subjects were read.

Dr. LOW: Strabismus as a Cause of Blindness.

Dr. SQUANCE: Sponge-grafting, with illustrative cases.

Mr. HOPGOOD: Corneitis.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, NOVEMBER 7TH, 1885.

WALTER WHITEHEAD, F.R.C.S., President, in the Chair.

Polypus Uteri.—Dr. WALTER showed a specimen of an unusual kind of uterine polypus.

Fracture of Patella treated with Wire Suture.—Mr. HARDIE showed two cases, and referred to other two, of recent fracture, treated according to the method of Sir J. Lister. Within four months after the operation, all were able to walk without the slightest limp, and to bend the knee to an acute angle. One of the cases shown had walked over twenty miles a day, for ten consecutive days, within three months of the operation. Mr. Hardie referred also to a case of comminuted fracture which he had similarly treated the previous day, and expressed his conviction that Lister's operation, "one of the finest examples of modern high-class surgery," ought to be the routine treatment for this accident. This was all the more the case, inasmuch as, when it was performed as a secondary operation, the difficulties attending it were much greater, and the results much less satisfactory.

Case of Paralysis of Several Cranial Nerves.—Dr. ROSS showed a case of intracranial growth, most probably of syphilitic origin. The patient suffered from paralysis of both the external and internal rect

muscles of the right eye, the other muscles of the eyeball being unaffected. He also had neuralgic pains and some degree of anæsthesia in the region of distribution of the three branches of the right fifth nerve, including half the tongue and mucous membrane of the mouth. In addition, the patient had suffered from a severe attack of neuroparalytic ophthalmia, and a slight degree of relative atrophy and paresis of the masseter muscle on the right side. The muscles supplied by both the upper and the lower branches of the left facial nerve were paralysed, and the patient was consequently unable to close the left eye, or to arch or knit the eyebrow. The most remarkable feature of the case, however, consisted in loss of taste in the right lateral half of the tongue. The patient was at one time almost completely unable to appreciate the taste of quinine on the posterior part, and salines and sugar on the anterior part of the right half, of the tongue; while the sense of taste was very acute on the posterior and anterior parts of the left half. This case, like one reported by Dr. Gowers, seemed to show that the gustatory fibres both of the glosso-pharyngeal nerve and the chorda tympani were derived from the fifth nerve. Dr. Ross thought that the lesion in this case was more likely to be situated in the posterior fossa of the skull in front of the pons than in the substance of the pons.

Paper.—Dr. ASHBY read a paper on the Joint-Lesions complicating Scarlet Fever.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 11TH, 1885.

Special Committees.—It was unanimously agreed to appoint committees for the purpose of carrying on original investigation on two subjects: Diseases of the Placenta and Malformations of the Fœtus *in Utero*.

Deformed Fœtus.—Dr. ROBERT KIRK showed a deformed fœtus which was complicated with face-presentation, rupture of the uterus, and death of the mother. The child was still-born. There was a malformation of the knee, which flexed backwards instead of forwards; there was much distortion of the trunk. The most interesting point, however, was a great rigidity of certain of the muscles.—Dr. T. F. GILMAN showed a very peculiar malformed fœtus, the trunk from the lower half of the spine being rotated antero-posteriorly. There was also a sacculated protuberance in the region of the insertion of the umbilicus. Both specimens were held over for dissection and further report.

Treatment of Labour delayed by Obstruction at the Pelvic Brim.—Dr. S. SLOAN read a paper on this subject. He combated the views of the late Sir James Y. Simpson, and endeavoured to prove that his powerful advocacy of version as an alternative for craniotomy was to a disastrous extent the rule in midwifery-practice. Dr. Sloan attempted to substantiate his position by an appeal to actual cases met with by him in hospital and private practice.—The discussion was adjourned till next meeting.

REVIEWS AND NOTICES.

VON ZIEMSEN'S HANDBOOK OF GENERAL THERAPEUTICS. Vol. I.

Translated from the German by EDWARD F. WILLOUGHBY, M.B.
London: Smith, Elder and Co. 1885.

THIS work, which is to comprise seven volumes, the present being the first of them, is designed to be a compilation, and, in some sort, a review, of the progress which has been accomplished in the various branches of the science of therapeutics during the last forty years, and, by placing this before the reader, to enable him to realise what has been done in the past, and, we may add, what remains to be done in the future. Each part is contributed by a German authority, eminent in his own department of practice, and forms, so to speak, a work apart.

We have in the volume before us an introduction by Von Ziemsen, where the object and general plan of the work are explained; a treatise on the dietary of the sick and dietetic methods of treatment by Professor J. Bauer; and one on the koumiss cure by Dr. Stange. In the section on diet, the question of the value of the peptones is carefully discussed, and the details of numerous experiments are given to show that animals may gain in weight when fed upon peptones in lieu of albumen. It has been asserted that the albumen taken into the body in the form of peptones is metabolised, and does not contribute to tissue-formation; but though this is open to question, it is, from the nature of things, difficult to disprove. It has generally been assumed that albumen must necessarily be changed

into peptone before diffusion could take place; but this view is not correct; some unchanged soluble albumen does find its way into the circulating fluid, and, from its undergoing metabolism, with difficulty may be reserved for tissue-reparation and formation. In this case, the rôle of the peptones would be to economise that portion of the albumen available for tissue-changes, by themselves undergoing the metabolism rendered necessary by the maintenance of animal heat.

The action of fat and carbo-hydrates in lessening metabolism, and so reducing the waste of the organism, is very carefully proved and explained. As regards glycerine, which has been advocated as a substitute for cod-liver oil, the author says: "Experiment has, however, shown that the albumen-sparing actions of the fats do not belong to this body, for it raises the waste of albumen with increase of diuresis. In larger quantities, glycerine is eliminated with the urine."

The principal articles of food are discussed with reference to their dietetic value and digestibility, in health and disease, and a complete series of analytical tables are furnished of their chemical composition.

The details of the different methods of preparing nutritious food for the sick are very full, and may be studied with advantage; the more so, as the culinary department is not one with which the average practitioner is too well acquainted, although it is recognised as having an important bearing on the progress, favourable or otherwise, of the patient.

The physiology of digestion is very carefully gone through, and most elaborate series of tables are given, showing the various dietaries adopted in hospitals, prisons, etc., with their theoretical value. The labour involved in tabulating these figures must have been enormous, and they render the work extremely valuable as a book of reference. The variations in the requirements of the body under changing conditions of health and disease are put into figures as nearly as the subject admits of, and the general principles deduced from prolonged and careful observation are formulated clearly and intelligibly. Special chapters are devoted to the diet in particular pathological conditions, while the departures from the normal digestive and assimilative functions in fevers, the diatheses and diseases of the scurvy-type, together with the peculiar exigencies of gout and diabetes, are treated *seriatim*.

The dietetic treatment of obesity will be read with interest by many professional men who have patients whose sole complaint is that of "waxing fat." There is nothing unknown on the subject heretofore to English readers; but there is a careful summary of the different systems, followed by a few remarks on vegetarianism. While the "dry cure" is favoured with a long notice, out of proportion to its merits, the "milk-and-whey cure" scarcely meets with the attention that a mode of treatment deserves which has been recognised as being very useful in certain conditions. The space allotted to the "koumiss cure," by Dr. Stange, of St. Petersburg, is even more markedly out of proportion; it extends over more than fifty pages; yet the inference is unavoidable, that the good effects alleged to result from the ingurgitation of large quantities of this alcoholic preparation of mares' milk are to a large extent due to the collateral conditions of the so-called "cure." The air of the steppes is acknowledged by nearly all the writers on the subject to bear markedly on the beneficial effect of the koumiss, although this is attributed by some to the difference in the composition of this drink if prepared from even the approved breed of mares when fed elsewhere than on those dreary plains of Central Russia. These good effects are, indeed, by no means constant in their appearance, according to the results here published; and physicians appear to be very divided as to its mode of action. Postnikoff characterises it in three words—*nutrit, roborat, alterat*. Polonbensky, even more vaguely, says: "It accelerates metabolism, and favours the elimination of waste products from the body." Carrik gives, as contra-indications, plethora, hyperæmia of the brain, liver, and spleen, overfilling of the pulmonary circulation, etc.

The translation has been carefully done, and leaves little to be desired. This work will, when complete, go far to fill what has, so far, been a gap in the therapeutical department of medical literature.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, ESPECIALLY IN WOMEN. By S. WELSH MITCHELL, M.D. Second edition. Pp. 283. Philadelphia: Lea Brothers and Co. 1885.

THIS little work consists of a series of seventeen lectures, which deal with some interesting points connected with that protean disorder included under the term hysteria. This condition is not treated systematically, but each lecture discusses a special symptom, or those

phenomena which for the most part receive little notice in ordinary text-books on the subject. Dr. WEIR MITCHELL has devoted much attention to the investigation and treatment of maladies of a so-called functional nature, which diseases, if not as a rule dangerous to life, are undoubtedly the source of great physical and mental suffering. The method of cure which this physician advocates, and to which his name has been attached, is now a well known addition to our system and nomenclature of treatment, and, from its sound principles and unquestioned success, has gained the favourable consideration of the medical profession.

The book before us discusses in detail a number of questions in the clinical history of hysteria and nervous debility, which are frequently met with in practice. Each of these is illustrated by the cases, comments, and suggestions of the author, which bear evidence, not only to his large and matured experience, but to his minute study of the phenomena under observation and to the large and scientific view he has taken of their import. Various phases which occur in the course of this form of nervous perturbation are described and discussed with much felicity, and the means of distinguishing between them and those symptoms due to organic disease are indicated. In this way, certain forms of paralysis, spasmodic affections, tremors, vaso-motor disturbances, and other abnormal states, are referred to. There is an interesting chapter on the mimicry of disease, with an attempt to explain physiologically many of the apparently inexplicable phenomena often met with in practice. Another lecture is devoted to disorders of sleep in hysterical persons, and describes several remarkable nocturnal functional peculiarities of those suffering from an unstable nervous system.

At another portion of this work, a most important question is debated, namely, the relation which exists between functional and organic disease; and the author seems inclined to the view that the severe and long continued presence of the former may lead to the production of the latter, although he admits that this, as an actual fact, is of rare and of doubtful occurrence. The discussion on this subject is surrounded with numerous difficulties, and much will depend upon the definition given to the terms functional and organic. There are many who altogether deny the existence of what is usually understood by functional disease, maintaining that all such disorders are represented by tissue-change, although it may be incapable of demonstration. This is doubtless true; and it may be admitted that no functional effort, whether in health or disease, is effected without corresponding molecular alteration. At the same time, for practical purposes, it seems convenient to recognise both a clinical and a pathological distinction between these two groups of disorder, neither of them, it may be, strictly defined; one of which, for the most part, consists of modifications of healthy acts, temporary in degree, capable of rapid recovery, and not accompanied by a perceptible morbid lesion; the other developing abnormal phenomena, usually of a permanent or incurable nature, and associated with demonstrable organic alterations. The whole life-histories of these two conditions are so different in origin, progress, and termination, as to warrant a practical distinction between them. Although such clinical separation may be conveniently made, it is not impossible to imagine that the dynamic alteration of the one, if severe and persistent, may ultimately result in the gross pathological changes of the other. Apart from the hypothetical molecular, circulatory, or nutritive abnormalities, which are supposed to underlie the production of so-called functional disease, which may directly cause permanent alterations in the nerve-centres, the prolonged perversion of natural function and physiological activity may of itself lead to the same result. Thus, what at first may have, for convenience, been termed functional, may drift into well marked organic disease. This somewhat theoretical argument, although plausible, has not been positively confirmed by facts, and we have yet much to learn on this important practical question. At the same time, many observations have been made which seem to favour the hypothesis. As a contribution towards the elucidation of this problem, Dr. Mitchell submits the results of eleven cases of chronic hysterical patients, all of whom had been bedridden for at least twenty years. In five of these, there was permanent rigidity and contraction of the leg, and in two there was evidence of chronic organic central disease, as evidenced chiefly by the existence of the reaction of degeneration on electrical testing of the muscles of the affected parts. Assuming that in these last cases, there was organic disease of the anterior cornua of the spinal cord, there will always remain a doubt as to whether this was secondary to the functional disorder, or representative of a primary change complicating the pre-existing ailment. Errors in diagnosis are readily made, and until quite recently a distinction between many nervous affections was impossible, and even now, in many instances, is uncertain; a poliomyelitis, for example, is frequently confounded

with hysteria, unless great care and much technical knowledge be employed in its investigation. Before, therefore, any decided conclusions can be arrived at concerning the possibility of organic change resulting from functional disorder, a larger experience is necessary than we at present possess; and further observations conducted by the light of modern revelations in neurology are urgently demanded to illuminate the subject.

Somewhat in connection with this question is the opinion hazarded by Dr. Mitchell that, in the hysterical subject, signs and symptoms which would appear to indicate organic disease, assume a different form, and pursue a different course from that which might be expected in cases of spinal lesion in which no hysteria is involved. In illustration of this point, the writer gives in detail the case of a young woman who developed the definite phenomena of a gross lesion of the spinal cord of a serious nature, following and accompanying hysterical manifestations, and who ultimately completely recovered. From this he infers that organic maladies, occurring in profoundly hysterical people, do not always present exactly the same types as exist in patients not hysterical. On this subject we have also yet much to learn, and extended and patient observation is still required to establish the truth.

The treatment of hysteria and allied affections the author has made a special study, and he has much valuable information to give on the question, and the "Weir Mitchell" system in the management of such cases is now widely recognised. Although other practitioners have for long worked on the same lines, and with similar results, especially in hospital-wards, to Dr. Mitchell, is undoubtedly due the credit of bringing his method prominently and systematically before the profession, and rendering it popular with the public, especially in private practice. He has given a detailed account of the procedures he advocates in a work entitled *Fat and Blood*, which has already been reviewed in this JOURNAL. Its main principles consist in improving the general health of the patient by means of rest and high feeding, the ill effects of which are counteracted by artificial exercise, which is effected without fatigue by means of systematic massage and electricity. To this are added moral persuasion, and the breaking up of all unwholesome mental associations by seclusion. Under such treatment, thin and delicate women take large quantities of nourishment, and rapidly lay on flesh. Their blood improves in quality, and their varied morbid nervous manifestations disappear.

The chief drawback to the vigorous and systematic carrying out of this system of treatment is the trouble it involves, the length of time it requires, and, above all, the great expense it incurs. The isolation of the patient demands costly accessories, both in private and hospital practice, expensive food, special nurses, prolonged operations of the *masseur*, not to speak of the frequent visits of the physician. When, however, circumstances permit this method and treatment to be applied to a complete extent, there can be little doubt as to the success which will attend it in the larger number of suitably selected cases.

Dr. Mitchell, while devoting attention to the phenomena and treatment of hysteria, makes no attempt to explain their pathology. His views on the subject may be summed up in the sentence, that "we now know nothing of what constitutes the physical basis of the disorder." It is, perhaps, prudent, under the circumstances, thus to confess want of knowledge.

DISEASES OF THE LARYNX. By Dr. J. GOTTSTEIN, Lecturer at the University of Breslau. Translated and added to by P. McBRIDE, M.D., Lecturer on Diseases of the Ear and Throat, Edinburgh School of Medicine, etc. Edinburgh and London: W. and A. K. Johnston.

THIS book is carefully written, and no less carefully rendered into English; and, so far, there is no reason to complain, but the excuse for its appearance is not so apparent as the translator would have us to suppose. The adaptation of the metric to the English system of measures would, under the circumstances, have been better left undone. There is a prescription, on page 160, which is either incomprehensible, or else very erroneous; while in certain other instances the translator seems to have given up the attempt in despair, and left the reader to work out such arithmetical problems as .015 of a gramme (15.43 grains). It would be interesting to know, too, why the word "scarlatina" is systematically spelt "scarlotina," seeing that it is derived from the French "scarlatine." The translator has added an appendix on laryngeal innervation, and on Charcot's laryngeal vertigo, and has, as far as possible, repaired any omission by the author throughout the book. The book has its merits; and no doubt

will be read with interest and profit by those who make diseases of the larynx a special study.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SERVICE'S MILK-SALT CONFECTIONERY.

It is argued that the great drawback to the use of most articles of confectionery is that, although they are commonly consumed in large quantities, they are deficient in salts, and do not contain those bone- and tissue-forming materials which play so important a part in the growth and nutrition of the young. In the milk-salt confections, an attempt has been made to remedy this defect, whilst retaining the ordinary form and appearance of sweetmeats. These lozenges, which are palatable and attractive in appearance, contain no less than one and a half per cent. of ash, consisting of phosphate of lime, sulphate and chloride of soda, with traces of iron and magnesia. When we consider that phosphate of lime and carbonate of lime together constitute no less than 62.3 per cent. of the weight of bone, the importance of supplying these substances in adequate quantities is at once apparent. There can be no doubt that these lozenges will be found useful in the treatment of rickets and a number of allied affections. They are prepared by Messrs. Robert Service and Co., of Glasgow.

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BYNIN.

MESSRS. ALLEN AND HANBURYS have called attention to the fact that the great objection to the use of extract of malt as a therapeutic agent is, that it is so viscid and consistent that it can be poured out of the bottle only with the greatest difficulty. In some cases, an attempt has been made to remedy this defect by the plentiful addition of glycerine and other materials, a practice which cannot be too strongly condemned. A ferment or ferment-containing substance which has the power of completely converting, at the temperature of the body, a certain definite weight of starch into a readily assimilated sugar, must of a necessity rank high as a curative agent. "Bynin" is very palatable, and is recommended as a remedial agent, not only in phthisis, but in other allied or associated diseases. It is suggested that it may be advantageously administered in conjunction with cod-liver oil; and, speaking from considerable experience, we have no hesitation in saying that combinations of malt and oils are of the greatest service in the treatment of many affections, both functional and organic, and that they often succeed after the failure of more orthodox and conventional remedies have failed. Messrs. Allen and Hanburys may be congratulated on the successful production of a liquid malt.

HYDROLEINE DISINFECTANTS.

NOTHING is more difficult, and few things are of greater importance, than to obtain a thoroughly reliable disinfectant, which can be employed in the sick-room without annoyance or disadvantage of any kind. It is a problem which constantly presents itself to the physician in active practice, who gladly welcomes each successive candidate for public favour. Carbolic acid is undoubtedly a powerful deodoriser, possessing in a pre-eminent degree the power of preventing the decomposition of albuminous fluids; but its disagreeable odour, and, above all, its poisonous nature, are disadvantages which cannot be obviated, and are not readily forgotten. The preparations of hyroleine disinfectants just issued seem to us to be of much importance, and to merit more than a passing notice. It is impossible to give a positive opinion without a prolonged trial extending over some months; but we entertain no doubt that they will soon come largely into use, and that they will in time rank as general favourites. The plan of supplying them in small boxes and tins, which can be purchased by the poor for a few pence, is certainly worthy of recognition. The laundry-powder is especially valuable, and cannot fail to be fully appreciated; whilst the disinfecting powders, and preparations for cleansing brushes and sponges, are most useful. We have been much pleased with the results of our examination, and have much pleasure in recommending a trial of the hyroleine disinfectants. They are prepared by Messrs. J. Harrison and Company (Limited), Leicester.

BRITISH MEDICAL ASSOCIATION. SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 28th, 1885.

WHAT BECOMES OF MEDICAL STUDENTS.

It would be very interesting to be able to ascertain, with a reasonable approach to accuracy, how many of the young men who annually enter on the study of medicine finally attain their goal. With reference to this question, which has always been very difficult to answer, a report recently presented to the General Medical Council affords some curious, and perhaps some instructive, facts. The report contains statistics for the year 1871 in full, and some summaries for succeeding years, which will, we are encouraged to hope, be expanded in future reports.

The first difficulty which arises in attempting to find an answer to the question stated above, is to set a limit to the period beyond which students are little likely to qualify. The report affords a fairly trustworthy answer to this question, for the statistics indicate unmistakably that but few of the students who do not qualify within eleven years of entering will ever qualify; still, a few do qualify even after thirteen years. From the statistics for the year 1871, with which those of subsequent years will probably closely agree, it would appear that 30 per cent. never registered any qualification, that nearly 9 per cent. registered only a single qualification, while 61 per cent. registered two qualifications. No doubt, the true figures would be rather better than these, for a certain small number of those who obtain a qualifying diploma never register, and some who have registered one qualification are deterred from registering a second qualification by the difficulties thrown in their way by the General Medical Council. The statistics showing the interval allowed to elapse between registering a first and a second qualification are, for this reason, absolutely valueless, and might be omitted in future reports.

The remedy is in the hands of the General Medical Council. The funds vested in its name are considerable; its revenue derived from the large registration-fee of five guineas is great and increasing; the accuracy of the *Register* is a matter of public importance, and the first duty of the Council. Is it not then a paltry piece of grasping economy to mulct every man who desires to register a second qualification of a second fee? The fee, it is true, is small, but the principle is wrong.

The injurious influence on the profession in this country of the imperfect qualification to practise until recently given by the Royal College of Surgeons of England, is shown by the lamentable fact that 11.5 per cent. of the English students who qualified rested content with that one qualification. The influence of the Royal College of Surgeons of Ireland was similar, though less marked

England, indeed, is remarkable for the large number of men who registered only a single qualification, for while in Scotland 93 per cent., and in Ireland, 91 per cent., registered double qualifications, in England only 82 per cent. registered double qualifications.

The average length of time passed in *statu pupillari* varies very little in the three kingdoms. In Scotland it is about five years and two months, in England almost exactly five years, in Ireland a few weeks shorter. A conspicuous difference, however, appears between the length of time taken by students who eventually obtain a double qualification, and those who rest satisfied with a single qualification. In the former class the average interval between registration as students, and registration as qualified practitioners, was about four years and eight months, while in the latter class the average interval was about five years and ten months. A study of certain of the tables containing figures for the whole decennium, appears to prove that the length of the curriculum tends to increase. The tables might, in future, easily be made very much more instructive on this head, and, at the least, the proportion borne by the annual totals, to the total eventually qualifying, ought to be shown; the percentages given, which are the percentages on the total number of students, are of far less value. So far as they go, however, they tend in the direction above indicated; in 1871, 54 per cent. of the English, and about 50 per cent. of the Scotch and Irish students qualified before the end of their sixth year; in 1879 only about 38 per cent. of the English, 45 per cent. of the Scotch, and 44 per cent. of the Irish students qualified within the same period. Taking the whole United Kingdom, we find that, whereas in 1871 nearly 35 per cent. qualified within five, and nearly 52 per cent. within six years, in 1879 less than 30 per cent. qualified within five, and only a little over 48 per cent. within six years. This lengthening of the curriculum cannot, we are told, be regarded as otherwise than beneficial to the profession and to the community at large, and though this reflection may afford but little consolation to students and their parents, yet it affords still further support to the contention, supported by many other events of recent years, that the period of study must soon be officially recognised by all corporations, as extending over at least five years from the time when the study of the biological sciences is commenced.

Why is it that so many English students go to Scotland to obtain their diplomas? A certain small number go to the Scotch universities in order to graduate as M.D.; but the large majority of these students, who, like certain migratory birds, make a passage through the southern parts of Scotland during stated seasons of the year, go thither to seek and obtain the diploma of the Royal College of Surgeons or Physicians of Edinburgh. To the students registered in 1871, these two corporations have since granted no fewer than 342 diplomas; 37.4 per cent. to English, 30.7 per cent. to Irish, 31.8 per cent. to Scotch students. Further than this, 160 English, and 111 Irish students, registered as such in 1871, eventually obtained one or other, or both their licences to practise, in Scotland; on the other hand, only thirty Scotch and thirteen Irish students qualified in England, and only fifteen English and two Scotch students qualified in Ireland. Having obtained their diploma or diplomas in Scotland, it appears that they made haste to turn their faces southward, and were accompanied by a goodly contingent of genuine Scotch students; for, whereas Scotland is to be credited with supplying a qualification to no fewer than 365 of the students of 1871, only 187 remained to register their diplomas in that country, and the names of but 66 are to be found in the Scotch

Register for 1885. With regard to university degrees, the case is different, for 87 per cent. of those who registered such degrees as qualifications were Scotch students, 11.5 per cent. were English, and 1.5 Irish.

These figures do not touch the question as to how many English youths are annually sent to study medicine in Scotland, and register as students there; but, so far as they go, they afford a striking proof that certain corporations in Scotland have a singular attraction for a large number of English students. There is no reason to suppose that it is the excellence of the teaching alone that attracts them; for, if that were the case, they would surely enter one of the universities, and, being so excellently taught, would doubtless obtain the much coveted degree of M.D. Further, if the excellence of the teaching were the attraction, would not the Faculty of Physicians and Surgeons of Glasgow show as large a number of English students as Edinburgh, whereas it grants diplomas to only a very small proportion, when compared with the Edinburgh corporations?

It is important to note a source of fallacy lurking in all the statistics with regard to the English schools, which goes far to vitiate inferences drawn from them. It is this: that 16 per cent. of the students registered in England during the ten years 1871-80 were not studying at any medical schools. The number thus registered greatly increased in the last three years of the decade—from $5\frac{1}{2}$ per cent. in 1871 to 26 per cent. in 1880. In Ireland, only 5.4 per cent. were not studying at any medical school when registered; and in Scotland, only .4 per cent.

One other fact comes out very clearly in the report, and as to its accuracy there can be no question. The number of medical students and of registered medical practitioners is increasing out of all proportion to the increase of population. The increment may be thus expressed. For every 100 people living in the United Kingdom in 1871 there were 110 living in 1881; whereas for every 100 medical students who registered in 1871, 168 registered in 1880. The increment has been greatest in England, and least in Scotland. Whether the proportion of students who eventually qualify has remained the same throughout the decennium is of course not yet known; but the figures tend to show that the percentage is rather tending to increase than to decrease. This is no doubt to be expected, for with improved teaching and closer supervision the standard of proficiency is gradually rising; the pressure brought to bear on "chronic" students by the authorities of their schools becomes yearly greater; and while the result of this pressure in certain cases is that the medical career of some of these gentlemen is brought to an abrupt termination, yet the general result must be that an increasing number do obtain qualifications.

As to the ultimate destiny of the 877 students of the year 1871, who obtained qualifications, the report furnishes some trustworthy information. The roll now numbers only 779, for 61 are dead, and the names of 37 have been removed from the register; 128 practise in London, and 376 in the rest of England and Wales; 66 practise in Scotland, 67 in Ireland, 73 are serving in one of Her Majesty's Services, and 69 are at sea or resident abroad. Roughly speaking, this means that, out of every thirteen students who entered in 1871, one is dead, one is abroad, one in the public service, one in Scotland, one in Ireland, two in London, and six elsewhere in England.

MEDICAL MAGISTRATE.—Dr. Francis O'Reilly has been appointed justice of the peace for the county of Meath.

THE MECHANISM OF "BEARING DOWN."

IN a recent number of Virchow's *Archiv*, Dr. A. Lawrentieff, of St. Petersburg, has contributed an important paper, entitled "Zur Frage von der Kraft und Wirkung der die Bauchpresse bildenden Muskeln." It consists of a series of mathematical calculations of certain factors associated with the direction of the action of the muscles which are immediately concerned in pressure on the abdominal cavity, especially during childbirth. Dr. Lawrentieff also enters into a minute description of the muscles of the abdominal walls. Sixteen muscles share in the process of diminishing the dimensions of the abdominal cavity, some directly, the remainder indirectly through forming fulcra for the former. To the first set belong the pairs of external and internal obliqui, transversales, recti, pyramidales, and quadrati lumborum, the diaphragm, and the levator ani, the two muscles of that name being taken as one. The two erectores spinæ, when in a state of contraction, act as a fulcrum for the preceding muscles. We may here add that many authorities attribute the same office to a large number of muscles which fix the trunk during straining efforts. The author describes at length an ingenious process by which he was enabled to make his calculations, muscles from the fresh subject being subjected to very careful measurement.

Dr. Lawrentieff briefly recapitulates the opinions of others upon his subject. Scanzoni looks upon the expulsive power of the abdominal muscles as a purely reflex act, which accompanies the pains, especially towards the end of the process of expulsion of the fetus, though he ascribes to it not only a considerable expulsive action, but also the power of stimulating uterine action. Labs is also of opinion that the contracting power of the abdominal muscular apparatus depends upon that of the uterus, and acts in precise accordance with the latter. Kehrer also considers the expulsive action to be purely reflex, and quite independent of the will in the second stage of labour, and describes the muscles which take part in the process individually, without noticing their action as a whole. Kûneke lays great stress on the expulsive power of the abdominal muscles, but considers, as do Schatz and the above-named writers, that they still play the second part in the act of expelling the fetus. Most of the authors of systematic German works on obstetrics admit the great power of the abdominal muscles, especially when there is resistance in the pelvic region, but allow that our knowledge of the subject is still incomplete. Professor Haughton, whom the author recognises as a most trustworthy authority in animal mechanics, differs from the above-named authorities in declaring, as a result of calculation, that, in the second stage of labour, the abdominal muscles exercise ten times more force than the uterus.

The precise nature of the action of the abdominal muscles itself is also disputed. Schatz speaks of it as being effected by an apparatus which lessens the capacity of the abdominal cavity, and consists of two parts, the muscles of the parietes and of the lumbar region, which have their fixed point at the vertebral column, and the diaphragm, which covers the cavity like a dome. Haughton, in his *Principles of Animal Mechanics*, confines himself to a description of the action and power of the muscles of the parietes, without considering the nature of pressure from above. The general anatomists, like the systematic obstetricians, speak little of the combined action of the abdominal muscles, describing those structures chiefly in detail. Henle treats the quadratus lumborum as though it were a muscle of the lower extremity, whilst he ascribes to it a trifling share in movements of the

vertebral column. On the other hand, Luschka calls it the rectus abdominis posticus, and classes it amongst the abdominal muscles.

Dr. Lawrentieff concludes the long account of his calculations with a summary, a luxury very grateful to the reader, especially in such a subject as the present, and not always to be found in the learned contributions to the *Archiv*. It deals almost purely with the mechanical aspect of the question, and cannot be made intelligible without the valuable series of diagrams which accompany the paper. It is proved that the obliquus internus is the most powerful of the three lateral muscles in the parietes. For mechanical reasons, the muscles which share in the expulsive action are, thanks to the wide resisting surface which they present, capable of prolonged action, when they gain in force what they lose in precision and velocity. The tendinous inscriptions on some of the muscles increase the extent of their power as resistant surfaces. The laws of physics prove that the diaphragm acts from above downwards and forwards, the muscles of the parietes from before backwards and downwards. The expulsive force acts parallel to the axis of the pelvic brim, and not at an angle to it, as Schatz has asserted. The changes which take place in the dimensions of the abdominal cavity during pregnancy, under normal circumstances, alter the curves of the broad muscles of the parietes in such a manner as to allow those muscles to exert their expulsive force with far greater effect than before pregnancy. It will be seen that Dr. Lawrentieff is inclined to attribute to the abdominal muscles a great, if not a predominant, share in the second stage of labour. He does not neglect to refer to the other purposes to which the expulsive action of the abdominal muscles may be applied. As his monograph is highly important, yet, from its philosophical and mathematical character, very difficult to read without an accurate knowledge of the German language, it is much to be desired that it may be translated into English. In association with Landau's recent work on movable liver and pendulous abdomen, it will represent an addition to our knowledge of the physiology of the abdominal walls, which must not be overlooked. Lastly, just as some anatomists overlook mechanics, it must be borne in mind that too profound a devotion to the physics of the abdominal muscles may also lead to error. We must judge between the Quains, Cruveilhiers, and Hyrtl, on the one hand, and the Haughtons, Humphrys, and Lawrentieffs, on the other.

THE "BRITISH PHARMACOPEIA."

WITH every re-issue of the *British Pharmacopœia* a great number of new drugs are made official, while comparatively few are removed. It is certainly prudent to exercise such a wise conservatism while advancing with the times, but the result is that the present *Pharmacopœia* contains an immense number of bodies that are rarely used, save by a few antiquated practitioners. In the judgment of numerous authorities, the *Pharmacopœia* would be improved by the omission of these bodies; but, as opinions are widely divergent, the Committee are, in a manner, to be commended for exercising so much clemency towards many familiar but decrepit old preparations. No examining board, certainly, could demand, with any degree of fairness, more than a mere superficial knowledge of such a mass of matter. Surely, therefore, it would be better to insist on an accurate knowledge of certain only of these numerous drugs; and it would accordingly, in every way, be of great advantage to the student if some such principle governed examinations in materia medica.

The progress of medical science is now so great in every direction,

that we must diminish the requirements in less useful kinds of information if the student is at all to keep pace with modern advances, and learn all that is really of value. It should be remembered, too, that a knowledge of the physiological action of drugs, of which formerly comparatively little was known, is now also required of the student. In materia medica itself even, he is therefore overweighted in comparison with what used to be the case.

We are sure that in making the preceding statement we are merely giving expression to a widely spread opinion among the profession at large on this subject—an opinion moreover which, it may be said, is held by some of our best lecturers on this subject, and which, very lately, has been forcibly set forth in some of the introductory addresses at the recent opening of the medical schools.

As it is taught in too many instances at present, we are inclined to think that materia medica is one of the most cordially disliked subjects in the curriculum; and yet this cannot altogether be regarded as the lecturer's fault, for he is bound to provide for the student's requirements.

As a matter of course, however, many of the drugs in the *Pharmacopœia* might be rejected with advantage in favour of their active principles. From a chemical point of view, such a practice would constitute a vast improvement in pharmacy; since, instead of using tinctures, decoctions, and pills, of uncertain composition, and made from plants which differ in constitution from one month to another, and vary somewhat in the strength of their active principles, and even in their physiological characteristics, according to the climate, season, and amount of sunshine under which, and the soil in which, they have grown, why should not their pure active principles themselves alone be used, in which the same variability is unlikely to occur? These latter would further possess the decided advantages of being always alike, easily assimilable, and capable of being accurately measured, according to the requirements of the patient. And what a gain it would be to the practitioner to have his drugs in such a portable form! His dispensary might then, for all practical purposes, be contained in a cabinet of moderate size. Indeed, there can be no doubt that the requirements of even the most intelligent practice might be sufficiently met by a few score of these active principles; and they would combine the superior merits of ready solubility, ease in administration, and rapidity as well as certainty of action. With our more accurate knowledge of therapeutics and of the physiological action of medicines, we are in a better position to employ these active principles of drugs than formerly; and this is only what we should expect, when we take a retrospect of the history of therapeutics. Galenical polypharmacy was, not so long ago, the general rule; and even yet we are not so simple in this respect as we might be. The truth is, we have not yet arrived at so perfect an acquaintance with the action of medicines as we expect soon to possess; and, till then, polypharmacy must flourish more or less. But we have no doubt that, in the no very distant future, the administration of opium even itself, for example, will not be so generally resorted to as at present; in fact, that its administration as such will not be regarded as scientific practice. Instead, one or other of its various alkaloids, which are known to differ much in their properties, will be given, in accordance with the exact requirements of the case. Further, it may even be affirmed that, on the ground of greater safety alone, the alkaloids, in proper doses, are often to be preferred to the crude substances from which they are extracted. Thus, the wild foxglove, when given as a powder

or infusion, is not so safe to administer as its active principle, digitalin. In many points, indeed, the dosimetric system of therapeutics of Dr. Burggraave, which acts upon some of the principles just stated, is worthy of praise; for resort is had chiefly to the alkaloids or other active principle of drugs, and care is taken that these are given in a soluble and pleasant form.

Pharmacy, indeed, we are obliged to confess, does not fulfil all its promises; but the more extensive use of the alkaloids especially, when guided by an accurate knowledge of their physiological action, will, in time, do much to render this fulfilment more general. To bring this result about, however, a closer acquaintance would be needed, not only with the action of drugs, but also with the requirements of the diseased condition; and to many this would possibly be more difficult of attainment than much of the present "case-shot" system, which goes on the principle of some of the contents reaching the enemy.

Simple remedies should therefore, we think, be sought for in the active principles of both the vegetable and mineral kingdoms, and their use almost exclusively resorted to. Tedious and expensive pharmacopœial preparations would thus become less and less necessary to the comfort and advantage, not alone of the patient, but also of the medical attendant himself.

DR. HARE, of Gonville and Caius College, and formerly Professor of Clinical Medicine at University College, and Physician to the hospital, has been appointed Assessor to the Regius Professor of Physic, Cambridge.

A BOULOGNE correspondent writes: "The Havre Town Council has voted a sum of £1,000 to M. Pasteur, as a mark of gratitude for his services, and as a contribution towards the expenses of his philanthropic investigations."

WE are gratified to learn that the Queen has announced her intention to confer the honour of knighthood on Dr. James Sawyer, Senior Physician to the Queen's Hospital, Birmingham, in recognition of his long and faithful services to that institution, and his devotion to the best interests of the medical profession in the Midlands. Dr. Sawyer is the President of the Birmingham and Midland Counties Branch of the British Medical Association.

SURGEONS WANTED FOR THE WAR.

THE Servian minister has received from Belgrade an official telegram, to the following effect. "The Servian Government would thankfully receive the medical services of English surgeons and doctors. All desiring to offer their services to the Red Cross, are requested to address their offer to the Chief Commissioner of the Red Cross, Colonel Dr. Sava Petrovich, Belgrade."

LINKED HOSPITALS: URBAN AND SUBURBAN.

THE Jaffray Suburban Hospital, which is to be opened by the Prince of Wales today (Friday), has been erected at Gravelly Hill, near Birmingham, through the munificent generosity of Mr. Jaffray. The new hospital, which contains fifty-two beds, in two wings, one for men, the other for women, is pleasantly situated on rising ground. It is specially designed to relieve the Birmingham General Hospital, by receiving chronic cases, and so permitting a more rapid passage of patients through the central hospital. The principle of linked hospitals, an urban hospital for acute cases linked to a suburban hospital for chronic or slight cases, is one which has commended itself to many experienced hospital-administrators, and there is every reason to believe that it will work thoroughly well.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

THE Gulstonian Lectures at the Royal College of Physicians will be delivered by Dr. Seymour J. Sharkey, who has chosen for his subject "Spasm in Chronic Nerve-Disease." The Croonian Lectures will be delivered by Dr. P. W. Latham, of Cambridge, and will be devoted to "Some Points in the Pathology of Rheumatism, Gout, and Diabetes." Dr. W. H. Stone, who will deliver the Lumleian Lectures, takes for his subject "The Electrical Conditions of the Human Body: Man as a Conductor, Condenser, and Electrolyte." Reports of these three courses of lectures will, as has been customary in previous years, be published in due course in the *BRITISH MEDICAL JOURNAL*.

HOSPITAL SATURDAY FUND.

THE Board of delegates of this fund met at their office, on November 21st, Mr. S. Fuller presiding. Mr. R. Frewen, the secretary, reported that the workshop and street collections, combined, then amounted to £10,700, which was slightly in excess of the entire sum realised last year. After payment of all expenses, £9,500 was divisible among the hospitals, dispensaries, convalescent homes, and surgical appliance societies of the metropolis, being £500 more than was awarded in 1884. The distribution committee reported concerning complaints which had been preferred as to the nursing staff of University College Hospital being limited to one particular religious sect, and other matters, that they had instituted a thorough inquiry into the allegations made. The result was that (1) they had no reason to doubt the efficiency of the nursing staff; (2) they found that the expense of that staff was not greater than that at other metropolitan general hospitals; (3) that persons wishing to be taught nursing at University College Hospital were not subjected to religious tests. Hence the right of this hospital to participate in the awards of the fund was not in any way affected by the result of the committee's inquiry.

SPECIAL HOSPITALS AND CLINICAL STUDY.

It has long been a matter for regret that the advantages, in the matter of clinical experience and practice, which hospitals for the treatment of special diseases afford, should be allowed to be to a large extent lost, partly owing to the prejudice with which these institutions have been regarded, and partly to the absence of any facilities for prosecuting such studies. There is good reason, however, to hope that, as the utility of these institutions gradually becomes recognised, this waste of material may be prevented. The willingness of members of the profession to avail themselves of these means to acquire some special knowledge of diseases of particular organs, together with a familiarity with the use of the instruments employed in their diagnosis and treatment, is seen in the large attendance at "ophthalmological evenings" and meetings of a like nature. At the first of a series of lectures on diseases of the throat and their treatment, which was delivered last week at the Central London Throat and Ear Hospital by Mr. Lennox Browne, the attendance was so much greater than had been anticipated, that the work of the evening was considerably interfered with. This is an encouraging sign; and, if these institutions continue on this line, and justify their existence by systematically assisting in the diffusion of a knowledge of their special departments, it may safely be assumed that their work will secure a larger share of public and professional esteem than has sometimes been their lot in the past.

THE MEDICAL DEPARTMENT OF THE EGYPTIAN ARMY.

THE annual report of the Medical Department of the Egyptian army for 1884 shows that, under the able direction of Surgeon-Major Rogers, of the English Medical Staff, very great improvements have been carried out. Under the old arrangement there were no hospitals, and no adequate supervision or training of the medical officers. The regimental system, which had worked ill, was replaced by station-hospitals. The first hospital, with 200 beds, was established at Abbasieh, near Cairo. At Suakin and at Assouan other hospitals

were subsequently opened, but it was found necessary to abandon that at the latter place, on account of sanitary defects, and to replace it by a hospital-steamer. South of Assouan, Indian pattern E. P. double fly-tents were used. The health of the army is stated to have been, on the whole, excellent. The most fatal diseases were continued fever (including enteric fever), dysentery, and diarrhoea. The largest number of admissions were due to diseases of the eye. At Suakin, ulcer of the cornea was very common, and special reference is made to the frequency with which Egyptian conscripts seek to escape military service by causing blindness of one eye; this is effected by introducing a piece of quicklime under the eyelid, the resulting inflammation running on to sloughing of the cornea. Renal calculus was found to be very common, twenty-two cases being admitted during the year; five cases of vesical calculus were successfully treated by lithotripsy. An outbreak of scurvy occurred at Suakin in August, as large a proportion as ten per cent. of the troops showing symptoms of the disease at one time. Isolated cases were also met with on the Nile; and the occurrence of the disease is attributed to the difficulty of victualling troops on active service, who have religious scruples as to eating canned foods. A very large proportion of the troops were infested by *Bilharzia hæmatobia*, but neither in military nor in civil life does the presence of the parasite seriously interfere with the comfort of the host, except in a small minority of cases. In three cases, where the parasite infested the rectum, the symptoms were mistaken for dysentery, until microscopic examination of the motions revealed the existence of large numbers of ova. Surgeon-Major Galbraith, who was in charge at Suakin, states that there was no oppressive heat until June, but in July and August it was intense, the temperature rising in double Indian tents as high as 125° Fahr. Surgeon-Major Rogers speaks hopefully of the future of the service. If the great reforms which he has been able to inaugurate be carried out, if the general standard of education among the native medical officers be maintained, and if the hospitals be not allowed to fall into a bad sanitary condition, this country will have conferred at least one inestimable boon upon Egypt.

INTERNATIONAL COLLECTIVE INVESTIGATION.

THE Collective Investigation Committee of the International Medical Congress have framed a question-paper and memorandum, which will shortly be sent out to medical men in the various countries represented upon that Committee. A copy of that to be forwarded to practitioners in Great Britain and Ireland has been printed. It relates to the prevalence of the following "diathetic" diseases, namely, rickets, acute rheumatism, chorea, cancer, and urinary calculus in different regions; and the medical man is therein asked whether these diseases are common in his district, about which (the district) he is desired also to furnish certain particulars, as well as to give information on any special feature of the dietary of the children and adults resident therein. The questions are of the simplest character, and can cause but very little trouble to those answering them, and it is much to be desired that all practitioners may fill up the replies, and return the paper at once. It will be found that the name of the official (varying in different districts) to whom the paper is to be returned, is, in all cases, printed on the back, so as to curtail, as much as possible, the labour involved in sending in replies. The Secretaries of the Collective Investigation Committees of the various Branches of the British Medical Association will circulate the question-paper among the members of their respective districts; whilst Professor Humphry has most generously offered to make the inquiry complete by extending it, at his own cost, to the remaining members of the profession in the United Kingdom. Thus, altogether, about 21,000 copies of the paper will be sent out. The etiology of the above-named diseases still requires to be investigated over a wide field of observation, that the questions relating thereto may be worked out. The Committee, by this paper on the geographical distribution of these maladies, hope to ascertain in what towns, or parts of towns, or in

what country districts they are most and where least frequent. The replies will enable the Committee to lay down the first outlines of a nosological map, and furnish a guide for further more definite inquiries. All practitioners are, therefore, earnestly invited to aid the undertaking by giving a reply. In the United Kingdom, the original home of Collective Investigation, it is specially to be desired that the papers may be returned, duly filled up, by all who receive them, and our credit for consistency thus maintained.

THE PROFESSORSHIP OF BIOLOGY IN MADRAS.

MR. A. G. BOURNE, D.Sc.Lond., F.L.S., Assistant-Professor of Zoology in University College, London, has been appointed by the Secretary of State for India to the Professorship of Biology in the Presidency College, Madras. Professor Bourne is the author of a monograph on *Leeches*, and, among others, of an interesting paper on the fresh-water jelly-fish found in the Botanical Gardens in Regent's Park.

BACTERIOTHERAPY.

IN a recent number (BRITISH MEDICAL JOURNAL, August 29th, 1885) we gave a short account of Professor Cantani's experiment in "bacteriotherapy," in which a phthisical patient was subjected to inhalations of bacterium termo. The result was, that bacillus tuberculosis disappeared, and the condition of the patient was wonderfully improved. Dr. Salama, of Pisa, reports another case of the same kind. In a case of phthisis, with a cavity in the apex of the left lung and various patches of consolidation, Koch's bacillus disappeared within about a fortnight after the inhalations of the bacterium termo were commenced, all the other symptoms improving at the same time. Dr. Maffucci, Professor of Pathological Anatomy at Pisa, who verified the diagnosis, prepared the bacterium-culture. A few drops of spring-water were added to a sterilised solution of gelatine in meat-broth with peptone. After a day or two, colonies of various micro-organisms made their appearance, and amongst them was the bacterium termo. Under the microscope, a sterilised platinum needle was dipped into this, and then introduced into another portion of the gelatine-preparation. After two days, this was found to be a pure culture of the bacterium termo. The contents of one test-tube prepared in this way served for one day's inhalations, being mixed with a meat-broth made from 150 grammes of beef to 200 grammes of water, and left for eight or ten hours, according to temperature. If left too long, the putrefaction became insupportable to the patient. Broth so prepared was given by Siegel's spray-producer every day in divided doses. Sufficient time has not yet elapsed to show whether the improvement was permanent. It is not quite certain that the bacterium was the sole agent of amelioration here. It is possible that the meat-broth may not have been without its effect; and it is just within the range of supposition that the bacterium has a psychical influence on physician as well as on patient, not less important than its alleged bacillicide properties.

THE RELATION OF INTELLIGENCE TO THE SIZE OF THE BRAIN.

AN interesting article on this subject has been published in the last number of the *Revue d'Anthropologie*, by Dr. Adolphe Bloch. He studies the question from two points of view, dealing, in the first part of his paper, with anatomical observation, while, in the second part, he describes the different conditions inherent in the individual, or independent of him, which regulate the development of the intelligence. The conclusions he arrives at are as follows. 1. There is no absolute relation between the intelligence and the volume of the brain, since very intelligent individuals may have small brains, while, on the other hand, very ordinary persons may have large brains, as is well known. In certain races of low intellect, cases are to be met with where the brain or cranial capacity is relatively of considerable size. 2. The causes which lead to the brain being of larger or smaller size are numerous, since the volume of the encephalon may be in propor-

tion to the stature or to the weight of the body, or to the muscular power of the individual. Finally, the brain proper may become voluminous in a race or individual proportionately with the degree of intellectual activity. 3. The most important factor in determining the degree of intelligence of the individual is the quality of the cerebral cells. That quality is constituted by the weaker or stronger impressionability or excitability of the cerebral cells, they being considered the substratum of the intelligence. That impressionability of the cells may be native or acquired. The former is the mark of a superior intelligence; the latter can be produced by continued work; it can also be produced by certain neuroses. 4. In a race, there are influences not dependent upon the individual, but acting upon the whole race, which contribute towards the improvement of the intelligence and the selection of remarkable men. The nature and the degree of intelligence also vary according to race, but nowhere does the volume alone of the brain constitute the principal factor of the intelligence.

EXTENSOR TENDONS OF THE FINGERS.

BESIDES some interesting researches on the synovial sheaths under the posterior annular ligament, Dr. Wenzel Gruber has recently described in Virchow's *Archiv* a tensor ligamenti carpi dorsalis, not hitherto observed. It existed in both fore-arms of a woman. It was short and fusiform, and arose from the ridge of the ulna between the extensor ossis metacarpi and the extensor secundi internodii pollicis, lying between them, above and between the former muscle and the short extensor of the thumb lower down. It ended in a short ribbon-like tendon, which was mostly lost in the posterior annular ligament, but some of the fibres were attached to the bony ridges which bordered the broad groove for the radial extensors. Dr. Gruber has also described a case where a peculiar arrangement of the extensors of the fingers existed. He had previously noted that an extensor digiti quinti et quarti proprius existed in about 10 per cent. of several hundred subjects under his inspection, though often unilateral. In this case, both the special muscle existed and also a distinct division of the muscular part of the common extensor, supplying a tendinous slip to the ring-finger in the left hand and another to the little finger. As those fingers also received a tendon each from the main part of the common extensor, they were unusually well supplied. The supernumerary extensor, springing from the common extensor, ran in a special sheath under the posterior annular ligament. In the language of the English dissector, there were in this case two tendons supplied to the ring and little fingers from the common extensor, whilst the extensor minimi digiti divided into two tendons, one going to the ring, the other to the little finger. A tendinous band ran from the first metacarpal bone to the back of the capsule of the metacarpo-phalangeal joint of the index-finger.

THE CRICO-HYOID MUSCLE.

MR. WALSHAM, in an article on Anatomical Variations, published in the *St. Bartholomew's Hospital Reports*, vol. xvii, described a crico-hyoid muscle, consisting of a slip composed of two muscular bellies, intervening between three tendons. It arose from the lower border of the cricoid cartilage, just external to, and to the right of, the median line, and was inserted into the lower border of the hyoid bone, near the median line. The muscle was tendinous at its origin, but at the upper border of the cricoid cartilage it became muscular, and at the lower border of the thyroid it again became tendinous. Its insertion was tendinous. A second muscular portion, of about three-eighths of an inch in length existed in the tendon, opposite the middle of the thyro-hyoid membrane. Dr. Wenzel Gruber, of St. Petersburg, recognises the fact that Mr. Walsham was really the discoverer of the crico-hyoid muscle. He found this muscle in a male subject, dissected in October, 1884. After a minute description of the specimen under his observation, he admits, not only that it agreed in origin, course, and insertion, with that described by Mr. Walsham, but that he and the latter anatomist only have discovered a true and distinct muscle

properly called by the above name. Zagorsky's crico-hyoid, described in 1809, was simply a separate slip of the thyro-hyoid, lying on the inner side of the main part of that muscle. A true crico-hyoid cannot be said to exist unless the thyro-hyoid be well developed and undivided, and the crico-thyroid also free from any anomaly.

DIPHTHERIA IN ISLINGTON.

THE report of Dr. Meymott Tidy, medical officer of health, on the epidemic of diphtheria in the neighbourhood of Andover Street, Upper Holloway, is not a very satisfactory document. The etiology of diphtheria is no doubt obscure, but to say that it is a doubtful question whether diphtheria arises from such a cause as defective drainage is to make the obscurity very black. Granted that the connection between diphtheria and imperfect domestic sanitary appliances is not as well established as in the case of enteric fever, yet the probability is very strong; and, unless Dr. Tidy have some better alternative theory to propose, than a suggestion as to some obscure alternating relation between scarlet fever and diphtheria, it would be better perhaps to omit all controversial points from reports made to lay authorities, which are never too ready to take action. The simple question is this, Is diphtheria a preventible disease? Few epidemiologists would be prepared to answer this question in the negative.

THE SERVO-BULGARIAN WAR.

THE sufferings of the wounded Servians, during their retreat from Bulgarian territory, have added another terrible chapter to the long list of the miseries produced by war between nations, without money or material to provide an adequate sanitary service. The Bulgarians, much as they may have suffered, have, at least, fallen among their own people. The Queen of Servia has made noble efforts to succour the Servian wounded, and now has the efficient assistance of Baron Mundy, and the splendid ambulance-train of the Austrian League of the Order of St. John of Jerusalem. It is now announced that the British National Society for Aid to the Sick and Wounded in War has, in response to an appeal, received through the Foreign Office, from Her Majesty's Minister at Belgrade and Consul-General at Sofia, decided to send out Major-General Laurie, and Mr. Barrington Kennett, as Commissioners to Belgrade and Sofia respectively. It is impossible not to regret that this step was not taken at an earlier date. War has grown to be a much more swift and decisive business than in the time of the Crimean War, and it behoves a great national society to be ever ready to go to the aid of the wretched victims of our modern holocausts; as it is, Mr. Mac Coll is in the field asking for subscriptions for his favourite Bulgarians some days before the National Aid Society finds it consistent with its dignity to move. Now, however, that it has committed itself to action, there is every reason to suppose that its help will be effective and prompt; the two terms are, in fact, interchangeable. The office of the Society is at 5, York Buildings, Adelphi, W.C.

EARLY CASES OF OVIARTOMY IN LONDON.

SOME doubt has been raised by the following passage in Dr. Wilks's address, published in the JOURNAL of November 21st, as to the date of the first successful case of ovariectomy in a London hospital. "In one of the earliest recorded cases of ovariectomy, in the year 1837" (the organ removed is now in Guy's Hospital museum) "the surgeon tapped the cyst, then turned it out, tied the peduncle, replaced it in the abdomen, sewed up the wound, and in a few days this had healed, and the patient was well." Some of our readers, not without some reason, have understood that this case was operated on in Guy's Hospital; but it was not so. Dr. Wilks has informed one of our correspondents that the surgeon who operated was Mr. West of Tonbridge. The operation was performed in November, 1836, and was very interesting on account of the intraperitoneal treatment of the pedicle; but it does not affect the accuracy of Sir Spencer Wells' published statements, that the earliest cases of ovariectomy in Guy's

Hospital by Mr. Morgan in 1839, and by Mr. Key and Mr. Cooper in 1843, were all fatal, and that the first successful case in any London hospital was Mr. Caesar Hawkins's case at St. George's in 1843.

ROYAL COLLEGE OF SURGEONS.

WE publish, this week, a full report of the extraordinary meeting of the Council of the Royal College of Surgeons, where the two resolutions, carried at the meeting of the Fellows and Members, on October 29th, were set aside. A committee was appointed to consider and report on the desirability and practicability of conferring, in conjunction with the Royal College of Physicians, a degree in medicine and surgery. It is noteworthy that the expression "degree," and not merely "the title of Doctor," was employed. Our opinions on the two important questions discussed at this meeting are well known, and we reserve our comments for the present. Meanwhile, it must be borne in mind that a meeting of Fellows and Members will be held at the College on Thursday, December 17th, at 3 P.M.

SCOTLAND.

PROFESSOR ALEXANDER OGSTON has received a military medal for his work in the recent Soudan campaign. The medal bears the Soudan clasp. We believe that this is the first case in which a medical officer from an university in Britain has been decorated with a medal from Her Majesty.

To Surgeon Major-General

ABERDEEN UNIVERSITY DEBATING SOCIETY.

PROFESSOR HAMILTON gave a very interesting address to this Society, on November 20th, on "Work." He contrasted the work of Crabbe Robinson with that of Darwin, comparing the "recording" and "creative" kinds of mind, of which these two were examples.

VOLUNTEER AND AMBULANCE MOVEMENTS IN THE UNIVERSITY OF ABERDEEN.

A VERY considerable amount of military fervour is being manifested by the students of this University. The proposal to have an ambulance-corps amongst the medical students is now likely to take form. Surgeon-Major Evatt and Mr. Cantlie visited Aberdeen last week, and explained the nature of the movement. Professor Alexander Ogston is willing to throw himself heartily into the movement. A battery of artillery confined to students has been formed, and Professors Stirling and Trail have agreed to act as officers. There can be no doubt that these are admirable movements, and they will do much to promote good feeling amongst the students, and weld more closely, even than at present, the relation between professor and student. We cordially wish both movements success.

BURNETT LECTURES IN ABERDEEN.

PROFESSOR STOKES, of Cambridge, delivered the third and fourth lectures of this course in Aberdeen last week. He treated of the "Eye and Vision," dwelling chiefly upon the compensation for spherical aberration, and the absence of such compensation for chromatic aberration in the eye. The fourth and concluding lecture treated of the doctrine of design and certain theistic bearings of the subject of light, according to the theme prescribed by the testator. Professor Bain, the Lord Rector, in moving a vote of thanks, gave a short historical account of the design argument, and generally justified the choice of the trustees in selecting Professor Stokes as the first Burnett lecturer. These lectures are very valuable from a money point of view, as the lecturer receives something like £240 for four lectures. The trustees may appoint their next lecturer to lecture on any of the following subjects: natural science or biology, the history of religions, and archæology.

COMBE LECTURES IN ABERDEEN.

PROFESSOR STIRLING, in his present course of lectures on Foods, gave a very interesting account of the newer methods that are being used in the preparation of foods, especially for military purposes. He showed a beautiful collection of compressed vegetables, as made by Chollet and Prevet, of London, and also a number of new dietetic products which are being manufactured by the Normal Company, of Aberdeen, under the superintendence of Mr. Sahlstrom. He referred especially to the greatly improved solid pea-soup as prepared by this firm, it being greatly superior, both in flavour and dietetic value, to the famous "Erbswurst" or "Iron-ration" of the German army. He also showed and commented upon fish-extract, which is similar in nature to flesh-extract, and also upon a new method of preparing an extract from vegetables, which forms an excellent basis for giving flavour to soups. Amongst the new soups shown was "whale-soup," which is an extremely palatable article of diet. Altogether a new departure is being made, and we look forward to much valuable material being converted to use for human food, which previously, for want of proper methods of preparation, was valueless.

EDINBURGH UNIVERSITY MEDICAL STAFF CORPS.

SURGEON-MAJOR EVATT, of the Army Medical Department, delivered an address to a large gathering of medical students in the surgery class-room of the Edinburgh New University. Professor Annandale presided, and was accompanied by the Lord Advocate, Professor Chiene, and Surgeon-Commandant Cantlie, of the London Volunteer Medical Staff Corps. Each student was supplied with a plan of an army in the field, and various arrangements for the treatment of the wounded were explained by the lecturer, who spoke of the numerous improvements that had taken place in that direction since the Crimean war. The Army Medical Service at present only numbers 800 men, and what is wanted is a proper Red Cross organisation. There are in London 366 medical students under the command of Mr. Cantlie; and if civil medical men would take up the question of army hospital administration, it would, Dr. Evatt said, be for the interest of England. If they had ambulance corps attached to all the volunteer corps, they would get more men to volunteer their services in the time of war; and there should be an ambulance-corps in each county who would learn to do hospital-work, and medical students would be the future officers of such corps. Mr. Cantlie, in the course of his remarks, said it was probable the Government would allow two companies to Edinburgh University in the spring, and perhaps Glasgow and Aberdeen would supply the other two companies of sixty men each. The Lord Advocate, Mr. J. H. A. Macdonald, said that, if such a company referred to were formed in the University, and attached to his brigade, he should be glad to lend them the necessary apparatus. During the day, Surgeon-Major Evatt and Mr. Cantlie called on the Lord Provost, with the view of getting his lordship to call a public meeting to promote the volunteer ambulance movement in Edinburgh. The Lord Provost, who expressed his approval of the object in view, referred the gentlemen to the Lord Advocate, as colonel of the Queen's Edinburgh Rifle Volunteer Brigade, to talk the matter over.

EDINBURGH HEALTH-LECTURES.

THE sixth session of the Edinburgh Health Society was opened last Saturday with a lecture delivered by Dr. Byrom Bramwell on "Disease: some of its Causes and their Prevention." Dr. Bramwell said the causes of disease might be divided into two great classes; first, the direct exciting causes; and secondly, the indirect and predisposing ones. The lecturer pointed out how many diseases were due to the imperfect and unsanitary arrangements of our houses and towns, and to the fact that air, water, and food were liable to be contaminated by gaseous impurities, while even the persons we came in contact with were eminently hurtful and injurious. Exposure to cold and the constant variations in temperature were among the important exciting causes of disease; therefore proper clothing of the body required

special attention and a sufficient supply of food to keep the body in the condition of health to maintain its heat and temperature at a fixed point, notwithstanding the variations in the external temperature-conditions to which it might be exposed. Dr. Bramwell also spoke of the prevailing ignorance in many quarters as to the magnitude of the evil in not exercising proper precautions against the spread of such infectious diseases as scarlet fever, and pointed to the necessity for isolation and of attention to ventilation and drainage, and the advantages of such a fever-hospital as Edinburgh possessed. The lecture was brought to a close by votes of thanks to the lecturer and to the Lord Provost for presiding.

IRELAND.

VACCINATION.

ACCORDING to the returns of vaccination for the third quarter of the year, there were 27,203 persons successfully vaccinated; in 2,710 cases, the operation was postponed, and 63 children were reported as unsuceptible of the operation. The deaths of 1,359 unvaccinated children under three months old were registered during the quarter, making a total of 31,335 children with regard to whom particulars as to vaccination were ascertained.

DUBLIN UNIVERSITY BIOLOGICAL ASSOCIATION.

THE opening meeting of the Society for this session was held on Thursday evening, the 19th instant, in Trinity College. Dr. Charles B. Ball, the incoming President, delivered an inaugural address on Recent Improvements in Intestinal Surgery, which was listened to with interest by a large audience, composed of members of the profession and students of the university and other medical schools.

BELFAST ROYAL HOSPITAL.

THE ninety-third annual meeting was held recently, presided over by Sir Edward Harland, Bart., Mayor of Belfast. With reference to the contributions from the working classes, the chairman said he could not speak with too great force. Year after year, their working population had freely subscribed. This was chiefly due to a desire to do their part to contribute somewhat to the funds of an institution founded almost exclusively for their benefit, yet he was sure that one motive which animated them was the desire to do their duty, and they were often an example to those who had fared better in the good things of this world. The report stated, among other matters, that the withdrawal of the laundry from underneath the fever-wards was a great advantage, and made it possible, if the necessary funds were forthcoming (£1,000), to devote the whole building to fever-patients, and secure a more perfect isolation than was possible under the late arrangements. The receipts for the year were £10,460, which included a sum of nearly three thousand pounds from the bazaar held in aid of the hospital. During the year ending August 30th last, 2,160 intern patients were treated, and 119 died. Two hundred and thirty-seven surgical operations were performed, with a mortality of 10, or a death-rate after operation of 4.22 per cent. Chloroform was administered 82 times, methylene 12, the A. C. E. mixture 31, and ether 3. Clinical instruction was given in the wards to 173 students during the winter, and to 92 during the summer session. The medical board recommend the appointment of a pathologist, so as to further increase the efficiency of the staff. The report was adopted, and the proceedings terminated.

QUEEN'S COLLEGE, CORK.—The following scholars and exhibitions have been awarded in the Faculty of Medicine. Fourth Year: Anatomy, Physiology, Practical Anatomy, and Surgery: J. A. Keogh. Exhibition: Charles R. Leader. Medicine, Midwifery, and Medical Jurisprudence: J. R. T. Connor. Third Year: I. Edmond R. Hennessy; 2. William McSweeney. Exhibition: William Kelleher. Second Year: 1. Joseph V. Ryan; 2. J. W. Wolfe.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An extraordinary meeting of the Council was held at the College on Tuesday, November 24th. The minutes of the last extraordinary meeting, held the previous Tuesday, were read and confirmed. It was resolved that the following statement by the President and Vice-Presidents, received and adopted at the last extraordinary meeting of Council, respecting the resolution carried at the meeting of Fellows and Members, be submitted to a meeting of Fellows and Members to be convened on the 17th day of December for the following purpose. "To receive a statement from the Council in reference to the resolution carried at the meeting of Fellows and Members on October 29th, 1885." We understand that, at the meeting to be held, discussion will be confined to the subject comprised in that statement, so that it will be well for Fellows and Members to make themselves acquainted with it before the meeting.

Report, dated November 16th, 1885, from the President and Vice-Presidents.

At a meeting of Fellows and Members of the College, held on October 29th, 1885, the following resolutions were carried, namely:

"1. That the Council of the Royal College of Surgeons not having accepted the principle that Members, as well as Fellows, should take part in the election of the Council, in the opinion of this meeting, steps should at once be taken to memorialise Parliament and the Crown, so as to secure, in the interest of the public and of the profession, the right to representation in the administration of the affairs of the College for its sixteen thousand five hundred legally qualified Members.

"2. That, in the opinion of this meeting, no alteration in the constitution or in the relations of the College or in any of its by-laws or ordinances shall be effected without the consent of the Fellows and Members convened to discuss the same."

On these resolutions being reported to the Council, on November 12th, 1885, the following resolutions were unanimously adopted by Council, namely:

"1. That the Council think it not desirable to diminish the privileges of the Fellowship of the College, by depriving Fellows of the exclusive rights of electing to the Council, and of being eligible to become members thereof.

"2. That, in the opinion of the Council, it is quite impracticable to act on the proposal contained in the second resolution adopted at the meeting of the Fellows and Members."

Statement prepared by the President and Vice-Presidents, in pursuance of the resolution of the Council of November 12th, 1885, in reference to the resolutions carried at the meeting of the Fellows and Members, held on October 29th, 1885, and in explanation of the views of the Council.

With reference to the first resolution of the meeting,

The Council have carefully considered the question which some Members of the College have recently raised; and it does not appear to the Council that the main argument which these Members advance to support their claim, that all the Members should be entitled to vote in the election of Members of the Council, is a valid one. It is founded on the analogy which is assumed to exist between the payment of a fee for examination and the diploma and the payment of taxes. The statement is in effect this: that, inasmuch as the payment of taxes by an individual confers on him the right to a vote in the choice of a representative, so the fee which is paid by a candidate to the College, when he receives from it a diploma which gives him the legal right to practise, also carries with it a right to a vote in the election of the Council.

The Council are of opinion that the two cases are not alike. The only advantage which the taxpayer secures by the payment of taxes is derived from the outlay of the money which is thus raised, and it is therefore reasonable that he should have some voice in the manner in which it is spent. But, for the fee which a candidate pays in becoming a Member of the College, he receives the full value in his diploma. Nay, it must be said that in his diploma he receives far more than the equivalent of his money in the rights, privileges, and immunities which he thereby acquires. Moreover, there can be no doubt that the Membership of the College carries with it, beyond the right to practise, professional and social advantages which are directly derived from the College itself.

The argument that the Members of the College, being more numerous than the Fellows, are consequently entitled to vote in the election of the Council, is to be met by referring to the Charter of 1843, by

which a constituency of Fellows only was provided. The Council would point out (1) that Members of the College, prior to the date of that Charter, are eligible for election as Fellows; (2) that Members of a later date can become Fellows by passing the required examination; and (3) that the Council already possess the power of electing annually two eminent Members, of twenty years' standing, to the Fellowship; a power which has been, and may at any time be, exercised.

The College of Surgeons has of late been often spoken of as if it were only a corporation, and the Council had no responsibility or relation, except to its Fellows and Members. It is a corporation, but it is something more; and the Council are not only the representatives of the Fellows, and have not only responsibilities to the Fellows and Members, but the College holds an important relation, and its Council have grave responsibilities, to the whole profession, the general public, and the State.

The Council cannot regard the Members of the College as mere taxpayers to a corporation, and they cannot discover in this view, which appears to them inadequate, any support to the claim which is now urged by some Members.

Moreover, this claim could not be conceded without serious interference with the privileges of the Fellows. The exclusive rights of electing Members of the Council, and of being eligible for a seat on the Council, are among the chief advantages which the College itself confers on the Fellowship. It appears to the Council neither wise on behalf of the College, nor just to the Fellows themselves, to deprive them of this distinction.

The Council passed the resolution unanimously, as they are strongly of opinion not only that the existing rights of the Fellows should be preserved, but that their rank in the College of Surgeons should be fully recognised; for they are anxious, in the highest interest of surgical education, to encourage Members of the College to obtain the Fellowship.

In reply to the second Resolution of the meeting—

The Council regret that they cannot assent to the terms of the second Resolution of the Fellows and Members. In their opinion, the conduct of the business of the College would be liable to serious hindrance if, for instance, no change in a by-law or ordinance could be effected without the consent of a general meeting of the Fellows and Members. This would often create inconvenient delay, and, in the event of any great difference of opinion between the meeting of Fellows and Members and the Council, lead to complete obstruction. For the Council cannot admit that the Fellows and Members in general can be such competent judges of what is required in this respect for the welfare of the College as the Council themselves, who, from their opportunities and experience of the business of the College, must be much better qualified to consider such questions when they arise. Moreover, it is certain that any general meeting convened for the purpose would consist only of a small fraction of the whole body of Fellows and Members; and neither by this, nor by any other means which could be devised, would the Council be able to obtain satisfactory information as to the opinion of the majority of the Fellows and Members.

It may be added that no by-laws can be made and ordained or abrogated and annulled without recourse to a most deliberate process (see Section III of the by-laws), involving several references to a Committee, not less than four meetings of the Council, consultation with the legal advisers of the College, submission of the formulae to the Secretary of State, and, under recent enactment, in special cases, to the Privy Council for approval, and finally ratification by two of Her Majesty's Judges.

With the larger questions which more rarely arise, such as those which concern the constitution of the College, the case would be different. On these questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members.

The following report of the Committee of Delegates of the Colleges was received and entered on the minutes.

Report, dated July 7th, 1885, of the Committee of Delegates, appointed by the Royal College of Physicians of London and the Royal College of Surgeons of England to consider the question of the advisability and practicability of granting the title of "Doctor" to persons who have received the diplomas of the two Colleges.

The Committee reported that they had fully considered the question referred to them—namely, the advisability and practicability of granting the title of Doctor to persons who have obtained the diplomas of the two Colleges.

They had also considered the memorial, signed by more than 600 teachers, practitioners, and students in medicine, and referred to them, advocating the amalgamation of the two Colleges into one Royal

College of Medicine, for the purpose of granting degrees in medicine and surgery.

After careful deliberation, the Committee unanimously agreed to the following resolutions as expressive of their opinion on the subject.

"1. That it is desirable that persons examined by the Royal College of Physicians of London and the Royal College of Surgeons of England conjointly, and found duly qualified, should, in virtue of that examination, have a degree in medicine and surgery conferred upon them.

"2. That the curriculum of study and the examinations to be undergone for the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England are equal to those required by most of the universities for degrees in medicine and surgery."

In conclusion, the Committee are of opinion that, should the two Colleges approve the foregoing resolutions, means could be found for giving effect to them.

The resolutions passed by the College of Physicians on this report were also received and entered on the minutes.

Mr. MARSHALL moved, and Mr. DURHAM seconded, that it be referred to a committee to consider and report to the Council whether it be desirable that persons who have become qualified under the Conjoint Examination of the Royal College of Physicians of London and the Royal College of Surgeons of England, should, after an additional re-examination, have conferred upon them, either by the two Colleges, or by a graduating body in London of which the two Colleges shall form an essential part, a degree in medicine and (subject to further consideration and ultimate approval by the Council) a degree in surgery also. To this an amendment was moved by Mr. THOMAS SMITH, and seconded by Mr. MACNAMARA, that the report of the Committee of Delegates be approved and adopted. This amendment was lost by a considerable majority. A further amendment was moved by Sir JOSEPH LISTER, and seconded by Sir T. SPENCER WELLS, that it be referred to a committee to consider and report to the Council whether it be desirable, and, if so, under what conditions, that degrees in medicine and surgery should be given by the two Colleges in combination. This was carried as a subsequent motion. Sir James Paget, Sir Joseph Lister, and Messrs. Marshall, Hulke, Hutchinson, Durham, and Macnamara, were appointed as a committee along with the President and Vice-Presidents, who are *ex-officio* members of all committees.

The motion of which Mr. Hutchinson gave notice at the last extraordinary meeting of Council was postponed to the next ordinary meeting to be held on December 10th.

Mr. MACNAMARA gave the following notice of motion. "That it be referred to the Court of Examiners to consider and report to the Council whether any, and, if so, what means they consider would best be calculated to extend the scope of examination for the Membership of the College in clinical surgery."

MEDICAL HISTORY OF THE NATIVE EGYPTIAN ARMY IN 1884.

A copy of the medical report for the year 1884, furnished to the officer commanding the Khedive's Egyptian army by the principal medical officer, Surgeon-General Rogers, has been sent to us for observation. Its chief interest consists in the account it gives of the thorough reform which has taken place in the medical arrangements of the army, under the influence of British supervision and control. If the British were to quit the country of Egypt to-morrow, we can hardly believe that the beneficial results of the reorganisation of the military medical service would cease to be felt. Nothing could be worse than the hospital administration appears to have been prior to the changes introduced by British interference. The native Army Medical Service broke down completely in 1883, under the strain to which it was subjected by the cholera which prevailed among the Khedive's soldiers, equally with the civil population, in that year. The hopeless confusion during the cholera period led to the temporary employment of European supervision while the epidemic was in force, and eventually to the permanent appointment of an English medical officer—Surgeon Major T. G. Rogers, as Principal Medical Officer of the Egyptian army.

The state in which this officer found the establishment charged with the care and treatment of the sick and wounded soldiers of the native army, is remarkable. There was no organised military hospital in the whole army. For the treatment of the sick there was set apart, in the barrack of each battalion, a special ward or detention-room; and this room was provided with a few stock drugs, and some so-called "elixirs," obtained from the civil hospital of the place. The medical

officers were ignorant of the composition of these "elixirs." There was a dearth, or total absence, of the most ordinary medical and surgical appliances. The orderlies sent to attend upon the sick were obtained from the ranks of the regiments, and, being constantly changed, took no interest in their work.

The sanitation of the detention-rooms, like that of the barracks, was deplorably bad; they were dirty, and the privies were unventilated cesspits which communicated direct with the interior of the buildings. The water-supply was liable to constant contamination, and the drainage was extremely defective. What the amount of disease was in the army under the old arrangements, it is impossible to ascertain, as no records or statistics were kept, or, at least, none but what were contained in the admission and discharge book belonging to each detention-room; and this was kept in such a way which showed that accurate diagnosis was considered unnecessary. On the medical officer visiting the detention-room, which he seems to have done when and how he liked, any case which he considered serious, so far as the barracks in Cairo and its neighbourhood, where the troops were concentrated, were concerned, was sent to the large civil hospital of Kasr-el-Ain, when it passed out of his hands, and was usually lost sight of by the military authorities. One medical officer, and one apothecary to assist him, were appointed to each battalion, but all the medical officers were of an inferior stamp. The remuneration was so small that the service presented no attraction, and none of the better educated Egyptian medical men, who had studied at Paris or elsewhere out of the country, could be induced to engage in it. The central authority was vested in a "Médecin en Chef de l'Armée," under the Minister of War; but very little administrative interference or supervision seems to have been expected from him, and certainly very little seems to have been exercised.

The first step in reorganisation was to abolish the regimental detention-wards, and, in their stead, a suitable room was selected and properly furnished, where the sick of each brigade could be seen every morning, and detained, if necessary, for observation, during a period not exceeding twenty-four hours. At the same time, a general hospital, capable of accommodating 200 patients, was established in a suitable building at Abassieh, where the barracks of nearly the whole Egyptian army were then placed. This hospital was opened for the reception of sick at the end of October, 1883. An Egyptian medical officer was appointed to each of the two brigades of infantry, and one to the cavalry and artillery, who were regarded as a third brigade. The hospital medical staff consisted of five Egyptian surgeons and three apothecaries, under the daily supervision of the English principal medical officer, while the medical officers attached to the brigades were encouraged, and, in some cases, directed, to attend the hospital practice. One medical officer and one apothecary remained on duty for twenty-four hours, during which time they were not allowed to leave the hospital, where quarters were provided for them. A staff-sergeant of the British Medical Staff Corps was appointed chief steward of the hospital, and a native hospital-corps was trained, and placed under the medical officers for disciplinary purposes, on the same system as in the British medical service. The diet-sheets, and the forms of returns for statistical purposes, which were made as few and simple as practicable, were printed in Arabic and English. Everything was in fair working order at the beginning of the year 1884, and the Egyptian medical officers and hospital-attendants were beginning to gain experience in the new system, when, in the spring of the year, the Egyptian troops were called upon to take part in the military operations up the Nile and in the Soudan. A large increase in the number of Egyptian medical officers became necessary, and, as it was not considered advisable to send the battalions that were officered by British officers away to Suakin and along the Nile without some English surgeons at hand, the appointment of three additional English medical officers was sanctioned, one for duty at Suakin, one for duty with the Nile forces, and one to take executive charge of the General Hospital at Abassieh. In March, a hospital for sixty patients was opened at Assouan on the Nile, and in April a hospital of forty beds at Suakin for the sick of the Soudan Egyptian force; and by December of the same year, in addition to these two, there were nine other separate hospitals in working order between Assouan and Dongola. The satisfactory results that attended the new organisation, considering the constant movements of the troops, and the great strain thrown on the recently established Egyptian medical department, owing to so many fresh hospitals having to be opened, are sufficiently exhibited in the professional returns which accompany Surgeon-General Rogers's report.

We can only spare sufficient space for glancing at one or two of the topics embraced in the medical part of the report. The average annual strength of the Egyptian troops is shown to have been 6,450.

Out of this number, there were 3,709 admissions to hospital, or 575 per 1,000; the deaths in hospital were 35, or 5.4 per 1,000 of the strength; the deaths from injuries out of hospital, 13, or 2 per 1,000; while the number invalided and discharged from the service was 297, or 46 per 1,000. The health of the Egyptian troops at Suakin was exceptionally good, the ratio of sick never exceeding 3.5 per cent. even in the hottest weather. An outbreak of scurvy occurred among them in August, and a large proportion of the troops suffered from it in a slight degree; but it was controlled, and at last overcome altogether, by the issue of lime-juice and extra rations of beef and vegetables. The heat was extremely great during the last two weeks of July and the month of August. The temperature in double Indian tents rose as high as 125° Fahr.; and in what were considered to be cool places on board ship, to 110° Fahr. The nights also were most oppressive, owing to the absence of wind. Notwithstanding this great heat, which proved very pernicious to Europeans, the Egyptian troops, as mentioned above, remained free from any grave sickness. In the whole Egyptian force of 6,450 men at Suakin and on the Nile, the average number constantly sick was only 155, or 24 per 1,000. Enteric fever and dysentery were the diseases which entailed the greatest number of fatal results. Eye-diseases, especially among the troops who were working on the borders of the Nile in heat, glare, and dust, many of whom had previously suffered from ophthalmia, led to numerous admissions into hospital. Some of these cases were supposed to be self-inflicted, for the purpose of escaping military service. Among special maladies, there were forty-four admissions into hospital for Bilharzia hæmatobia. In three cases, the rectum was infested by the parasite, and the symptoms led to the supposition that the men were suffering from dysentery, until microscopic examination of the dejecta revealed the existence of large numbers of the ova of this form of distoma. The disease proved very intractable to treatment. At first, all cases were invalided; but experience proved this to be unnecessary. In civil life, the disease is so common that the natives take little notice of it; and, when it became known among the men of the army that they would not be sent away as invalids, hardly any more men came to hospital on account of it. Wounds received in action caused seventeen admissions into hospital, and among these there was one death. The few cases of wounds treated, and the few deaths out of hospital, lead to the inference that the Egyptians were not much engaged as combatants in 1884.

MEDICAL DEFENCE ASSOCIATION AND THE CASE OF DR. COLLIE.

At a meeting of the Council of the above Association, held on Saturday, November 14th, Dr. Richardson, F.R.S., President, in the chair, the following memorial was drawn up and ordered to be signed by the President and Secretary for presentation to the Presidents of the Local Government Board and the Asylums Board.

"Sir,—We are directed by the Council of the Medical Defence Association to present to you the following memorial on the case of Dr. Collie, Medical Superintendent of the Eastern Hospitals in London.

"Your memorialists, who are constantly having under their consideration evidence relating to public medical duties and offices, have carefully studied all the points of evidence in the above case; and beg, with much respect, to submit the following conclusions.

"1. That Dr. Collie appears to have been at fault in four directions: *a*, in regard to the supervision of the diet-sheets of the hospital; *b*, in failure of keeping the record of cases; *c*, in neglecting the records of destroyed clothing; *d*, in supervision of expenditure relating to the above.

"2. That much of this error was due to the circumstance that, at the time of its commission, Dr. Collie was being subjected to a degree of physical and mental strain which was unexampled, and sufficient to account for and excuse a large amount of the omissions with which he was charged. The facts, that he personally attended over 16,000 cases of fever and small-pox during his residence at Homerton; that he was engaged in the inspection of sites and buildings which constantly took him away from the immediate sphere of his proper duties; that his daily work for a long time included the imposition of attendances at three hospitals, one of which was five miles away; and that he had to organise, at briefest notice, other hospitals; are sufficient, as all medical men will keenly feel, to account for an inevitable neglect of duties purely clerical, in favour of distinct professional work and responsibility.

"3. That, in regard to the charges themselves, the Council are forced to the conclusion that, while many other persons are deeply at fault, Dr. Collie is the only person upon whom any punishment has been directly visited.

"4. That in no instance can any moral or professional charge be brought against Dr. Collie during the whole period of his tenure of office, nor up to the close of fourteen years' service any charge whatever.

"5. That the previous labours of Dr. Collie have been of extreme value in various professional and public directions; that his medical duties, as the Local Government Board has stated, have been efficiently performed; and that he has successfully exerted and distinguished himself in ambulance-organisation for the conveyance of infectious cases to hospital-ships and hospitals.

"From all these considerations, we are of opinion that to throw Dr. Collie out of office, and practically make a wreck of his career, would be a hardship altogether out of proportion to faults which we would not for a moment extenuate,

but which we feel were the necessary results of a bad system, rather than errors pertaining to one particular and grievously overtaxed medical officer.

"We pray, therefore, with greatest respect, that Dr. Collie's suspension may be removed.

Signed, on behalf of the Council of the Medical Defence Association,
BENJAMIN WARD RICHARDSON, M.D., F.R.S., President.
GEORGE BROWN, M.R.C.S., Honorary Secretary.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

SECOND SESSION 1885.

Thursday, November 19th, 1885.

SIR HENRY ACLAND, President, took the chair at 2 P.M.

Conduct of a Registered Practitioner.—After the reply of the President to a question put by Dr. Heron Watson with reference to a registered medical practitioner, a member of the Royal College of Physicians of London, which was reported in a short notice of this day's proceedings in the JOURNAL of November 21st, p. 990, the Council resolved itself into a committee of the whole Council for the consideration of the report on Standing Orders. This having been concluded, the Council resumed.

Annual Publication of Erasures from the Register.—MR. SIMON moved that Dr. Scott Orr's resolution, passed by the Council on November 18th (JOURNAL, p. 989) be rescinded. He questioned the legality of the measure, which, in any case, inflicted and repeated too severe a punishment on men whose offences were, in some instances, extremely remote.—MR. MARSHALL seconded this motion.—DR. SCOTT ORR sympathised with Mr. Simon's principles, but thought that such an appendix was needed for the information of the medical authorities, and also for use in courts of law. It might not perhaps be published annually, but it was needed for purposes of reference, for the profession ought to know who the black sheep were.—In reply to a question from Mr. Teale, MR. FARRER (Solicitor to the Council) said that he did not think that the Council was placing itself in a legal difficulty by publishing the list as at present simply for the information of the licensing bodies, but it ought not to be published in the *General Register*. At present, the list was merely a confidential communication sent round to the various licensing bodies and others, who might readmit these gentlemen for examination if they were not aware that their names had been erased from the *Register*. He doubted whether it would be right, in point of law, to insert it in a general publication.—After further discussion, Mr. Simon's resolution, rescinding that of the previous day, was carried by 13 votes to 4.

Conduct of a Dental Surgeon.—As announced in the JOURNAL of November 21st, p. 990, the Council considered the case of Mr. H. F. Partridge, whose diploma as Licentiate of the Royal College of Surgeons in Ireland had been withdrawn through his having, in violation of his undertaking given to that College, resorted to advertising in connection with the Ladies' Dental Institution, South Kensington. It was moved by MR. MACNAMARA, and seconded by DR. SCOTT ORR: "That Mr. Partridge's qualification in question be removed from the *Dentists' Register*."—MR. SIMON moved as an amendment that the case be referred to the Dental Committee, and DR. HERON WATSON seconded the amendment.—DR. QUAIN pointed out that if this question were referred to the Dental Committee, it would have to inquire into a case which had been already decided by the Royal College. The Council should be content to leave the responsibility with the licensing bodies, and to accept their decisions. After a long discussion, Mr. Simon's amendment was carried.

An Unqualified Dentist.—A communication was received from the British Dental Association, asking the consent of the Council for the prosecution of John William Blake, of Sheffield, for an infringement of the *Dentists' Act*. Mr. Blake, who was not on the *Dentists' Register*, practised, it was stated, as an ordinary dentist, and described himself in advertisements as a dental graduate of Philadelphia. On the motion of DR. STORRAR, seconded by DR. BANKS, permission was given as asked by the Dental Association.

Report on Medico-Legal Cases.—DR. LYONS, by leave of the Council, withdrew his motion standing in his name for the appointment of a judicial committee to consider and report upon all medico-legal cases coming up for consideration at the Council.

The Irish Queen's Colleges.—The report by the Preliminary Examinations Committee with reference to the matriculation-papers

furnished by the Queen's Colleges of Belfast, Cork, and Galway, was then considered. The report stated that the Committee, having examined the papers and considered the standard of percentage of pass-marks, were of opinion that the Council should replace these examinations on the list of examinations recognised by the Council.

Dr. HUMPHRY moved, and Dr. BANKS seconded, a resolution that the Preliminary Examinations of these Colleges be again recognised.

Dr. LYONS moved, and Dr. AQUILLA SMITH seconded: "That this General Medical Council expresses its regret that the Executive Committee considered itself compelled to overrule a decision arrived at by the General Medical Council on a subject of importance in regard to certain colleges in Ireland; that, while disposed to condone this act in view of the urgency of the questions involved, they trust it will not be drawn into a precedent which would be of evil example in the future, and likely to lead to much inconvenience and irregularity."—Dr. HUMPHRY said that in this case the recommendation, in the report of the Committee concerning the non-recognition of the Preliminary Examinations of the Queen's Colleges of Belfast, Cork, and Galway, depended chiefly on the ground that they were superseded by the matriculation of the Royal University of Ireland, to which the Colleges were now affiliated. If it had been stated that they were not so affiliated, of course they would not have been removed by the Council. The Council, in short, acted unjustly with regard to those Colleges, upon wrong information. The Colleges then reported to the Executive Committee that the information was wrong. Therefore, it was the obvious duty of the Executive Committee to exercise the power assigned to it by the Council of restoring those Colleges. It did not do so fully; it simply, in view of the representations made, allowed the Colleges to remain on the list till the meeting of the Council. If the Committee had not acted in that way, they would certainly have deserved blame of the Council; and, supposing such circumstances to again arise, he thought, instead of the Council preventing the Executive Committee doing such a thing, they should, on the contrary, encourage it.

A long discussion followed, and in the result Dr. Lyons, by permission of the Council, withdrew his motion.

The Council then adjourned.

Friday, November 20th.

SIR HENRY ACLAND, President, took the chair at 2 P.M.

Names restored to Register.—Mr. COLLINS referred to the case of two gentlemen who were removed from the Register in 1875, and restored in 1877, but whose names remained in the "Black List," as it was called, up to the present time.—The REGISTRAR declared that the names had been retained on the strong opinion of the late solicitor to the Council, Mr. Onvry, that it would be better for the men themselves if the fact of their having been restored was recorded.—Dr. MATTHEWS DUNCAN supported the removal of the names from the list.—Leave was given to bring forward a resolution on the subject at a later stage of the session.

Sanitary Improvements in the Council-Room.—Dr. QUAIN, on the part of the Treasurers, reported that, under the direction of the Executive Committee, steps had been taken to remedy the inconvenience felt in regard to the ventilation of the Council-room. The room was formerly the lecture-theatre of the College of Chemistry, and the disagreeable smells that had been noticed were traced to rags, decayed wood, fungi, and other such substances, found under the floor. There was also a pool of water, derived from a leakage in a pipe. This had all been remedied; the ground had been covered with cement, fresh air had been admitted, and an out-cast shaft provided. Furthermore, the ventilation had been greatly improved. Arrangements had also been made which were intended to promote the convenience of the gentlemen who attended on behalf of the press. During the alteration, the foundation-stone of the College of Chemistry, laid by the Prince Consort, was exposed. It remained in its original position undisturbed. The sewers, etc., had all been examined and put into proper order. A vote of thanks to the Treasurers, for carrying out these improvements, was moved by Dr. HERON WATSON, seconded by Dr. CHAMBERS, and agreed to.

Complete Registration of Qualifications.—Dr. MATTHEWS DUNCAN asked the President if he would state how far, in the different divisions of the kingdom, arrangements had advanced with the object of securing that all registered qualifications were complete and not partial.—The PRESIDENT, in reply, referred the Council to the minutes of their meeting in October, 1884, when it was resolved: "No person should be granted a degree, diploma, or licence to practise, registrable under the Medical Act, unless he has proved his competency in medicine, surgery, and midwifery, by passing examinations in those sub-

jects at one or more of the licensing bodies; and that this resolution be communicated to the several licensing bodies, with an expression of the hope of the Council that each licensing body will use its best endeavours to give effect to it." The Royal University of Ireland, the Apothecaries' Society of London, the University of Dublin, and the University of Durham, replied to the communication. The Council had the power of informing the Privy Council if any licensing body did not observe that Recommendation.

Complaints Against Practitioners.—The report on the Standing Orders relating to complaints against registered medical practitioners, and to removal of names from the *Medical Register*, as amended by the Council in Committee was, on the motion of Mr. SIMON, seconded by Sir HENRY PITMAN, adopted.

The Society of Apothecaries.—Dr. HERON WATSON moved: "That the letter from the Assistant-Secretary of the Local Government Board, asking whether a person holding the diploma of the Apothecaries' Society only was entitled to practise both medicine and surgery, be referred to a committee, to be appointed by the President, for consideration and report at the next meeting of the Council." The Council had hitherto practically refused to interfere in deciding such matters, and Dr. Watson was of opinion that once more they must decline to pronounce an opinion upon a case which was a purely legal question.—Dr. SCOTT ORR seconded the motion.—Mr. SIMON proposed, and Mr. BRADFORD seconded, the following amendment: "That, in answer to the letter of the Local Government Board of May 30th last, the Registrar be directed to bring under notice of the Local Government Board certain resolutions already passed by the General Medical Council, and to state that the Society of Apothecaries, in having added surgery to the previous subjects of examination for its licence, has acted in conformity with the law, and with those resolutions of the Council; and, lastly, to point out that the claim of the Society of Apothecaries is akin to that which was recognised in 1862, when the Royal College of Physicians first adopted surgery among the subjects of examination for its licence, and moved the Poor Law Board thenceforth to recognise the licence of the College as comprising a qualification in Surgery, and that the course then adopted by the Poor Law Board towards the licence of the College of Physicians, seems a precedent applicable to the question now raised before the Local Government Board as to the licence of the Society of Apothecaries; and to observe, finally, that the surgical branch of the Apothecaries' examinations, and equally with all examinations of the all licensing authorities, is subject to the supervision of the Medical Council, and that, if the examination should prove inadequate, it would be the duty of the Council to represent it in that light to the Privy Council, with a view to the making of such order as might, in the circumstances, be judged right."—Mr. SIMON thought that the Apothecaries had an unanswerable case of a right to include surgery within the scope of their examination, and, consequently, within the scope of their licence.

Dr. MATTHEWS DUNCAN spoke strongly in defence of the Apothecaries' Company, with whom he felt much sympathy. There was no truth in the insinuation that they were actuated by unworthy motives or their own interests.

Sir HENRY PITMAN thought it very undesirable to postpone a reply to the letter of the Local Government Board till another meeting of the Council. With regard to the mode in which it should be answered, he thought they were not the body to discuss the question. It was purely a legal question, and it was no part of their duty, under the Medical Act, to interpret what was the value of qualifications held by different persons.

Mr. MACNAMARA thought the Council would get into very much of a false position if they adopted either the resolution or the amendment. He did not think anything would be gained by referring the matter to a committee, neither did he approve of the amendment, which tended in the direction of constituting another authority for the purpose of conferring medical and surgical degrees. In fact, it was giving entirely all the labour that they had been for years bestowing on the subject of conjoint examinations. If the Council endorsed this application from the Apothecaries' Society, they would immediately be deluged with similar applications from other bodies. The College of Surgeons in Ireland would certainly send an application, and it could not then be refused.

The debate was then adjourned.

Saturday, November 21st.

SIR HENRY ACLAND, President, took the chair at this, the last sitting of the Council for the present session, at 2 P.M.

The Society of Apothecaries.—Mr. MARSHALL, in resuming the debate, gave an historical sketch of the various schemes that had been

tried for the consolidation of the corporations. He then spoke of the conjoined scheme, and asked if a conjunction of the two Colleges with the Apothecaries' Company would have added to the utility, the stability, or the dignity of that union. Mr. Marshall also thought the Council would be travelling out of its lines if they attempted to give what was really a legal opinion in a very difficult matter.—Dr. HUMPHRY said that, in the case of a body which had been recognised by law as giving a qualification in one branch of the profession only, it would be a very serious position for the Council to recognise the giving of another qualification by that same body. If it were done, it should be done under the responsibility of the law, and not of that Council.—Dr. QUAIN thought the best reply that could be sent would be to the effect that the licentiates of the Society of Apothecaries were competent to practise medicine, surgery, and midwifery.—Dr. STRUTHERS said he had no sympathy with the Apothecaries' Society. It had lost its opportunity of becoming the Pharmaceutical Society of the country, and that was its only chance of life. He should vote against Mr. Simon's amendment. After some further discussion, the amendment was put to the Council, and lost by fifteen votes to three.

Mr. MACNAMARA then moved, and Mr. COLLINS seconded, as an amendment to Dr. Watson's motion: "That this Council, in accordance with widely diffused public and professional feeling, having devoted its best attention to consolidating professional examinations, feel a difficulty in recommending the Local Government Board to accept as a complete qualification in medicine and surgery the licence of any single corporation not hitherto legally possessed of such right."

After a short discussion, the amendment was negatived.

Another amendment was then moved by Mr. TEALE, and seconded by Dr. STRUTHERS: "That, in answer to the letter from the Local Government Board, the Council beg leave to state that they have been informed that the Apothecaries' Society of London have added the subject of surgery to their examinations; but whether the Society can thereby render their licence a legal qualification is a legal question on which the Council is not competent to pronounce an opinion."—Mr. BRADFORD said, with reference to what had been stated about the examinations at the Society of Apothecaries, he might state that two very eminent members of the Royal College of Surgeons had been selected for the duty of examining for the qualification of surgery, and were carrying on that examination in a thoroughly efficient and proper manner.

Dr. STORRAR asked whether Mr. Teale would be willing to substitute for his amendment another, declaring that the Local Government Board be informed that the Society of Apothecaries' certificate has hitherto been considered by the Council to be a qualification in medicine only, and that the fresh point involves matter on which they must decline to pronounce an opinion, as they regard it as a purely legal question.

Mr. TEALE said he was quite willing to withdraw his amendment in favour of Dr. Storrar's. By leave of the Council, Dr. Storrar's amendment, seconded by Mr. Marshall, was then substituted, and, on being put to the Council, was agreed to. It was also put as a substantive motion, and agreed to.

Elementary Mechanics.—On the motion of Mr. MACNAMARA, seconded by Dr. HERON WATSON, it was resolved: "That the operation of Resolution 8, passed on October 15th, 1884, namely, 'Elementary mechanics to be passed before registration,' be referred to the several Branch Councils to inquire and report to the General Medical Council, at its next meeting, upon the feasibility of enforcing at the present time this regulation in the several divisions of the kingdom."

Erasurc-Lists.—It was moved by Mr. COLLINS, and seconded by Mr. MARSHALL: "That names which, after erasure from the *Medical Register*, have at some subsequent time been by order of the Council restored to the *Register*, and also the names of those of whose death sufficient evidence has been obtained, be not in future included in the *Erasurc-Lists* issued by the Council, and that the title of future *Erasurc-Lists* be adapted to this intention."—Dr. WATSON asked by what means sufficient evidence as to death might be obtained.—The REGISTRAR said there was practically no method of ascertaining whether a person had died, and, for anything the Registrar knew, the first twenty in the list might be dead. The resolution was agreed to.

This concluded the Session of the Council.

DR. DUNCAN HILSTON, having been promoted to Deputy Inspector-General of Hospitals and Fleets, has been presented with a handsomely enamelled travelling-clock by the officers and staff of the Royal Hospital, Yarmouth, of which he had been in charge for eight years.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HEMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 P.M. Gentlemen who propose to read papers, etc., are requested to signify their intention to the Honorary Secretary, A. W. Nankivell, Esq., St. Bartholomew's Hospital, Chatham, not later than November 24th.—A. W. NANKIVELL, Honorary Secretary, November 2nd, 1885.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting will be held in Ashton-under-Lyne, on Wednesday, December 16th. Gentlemen wishing to show cases, or read papers, will oblige by communicating with the Honorary Secretary, without delay.—CHARLES EDWARD GLASCOCK, M.D., Honorary Secretary, 33, St. John Street, Manchester.

STAFFORDSHIRE BRANCH: ANNUAL MEETING.

THE twelfth annual meeting of this Branch was held on Thursday, October 29th, at the Bell Medical Library, Wolverhampton. Dr. E. T. TYLECOTE introduced the President-elect, Mr. J. H. HARTILL, who took the chair. Twenty-one members were present. Dr. Sawyer, the President of the Birmingham and Midland Counties Branch; Mr. Harries, the President of the Shropshire and Mid Wales Branch; and Dr. Pike, the President of the Worcester Branch, were invited as guests.

Vote of Thanks.—Dr. LYCETT proposed: "That the best thanks be given to the retiring President, Dr. E. T. Tylecote, for his services during the past year." This was seconded by Mr. ACTON, and carried unanimously.

Report of Council.—Mr. VINCENT JACKSON read the annual report, as follows.

"Your Council have to report that three ordinary general meetings have been held during the past year. The meeting at Stoke was exceptionally interesting, not only on account of the great importance of the subject discussed, namely, 'The Radical Cure of Hernia,' but also because an opportunity was afforded of practically demonstrating the cure by the exhibition of numerous successful cases, in which the performance of the operation had restored to health and comfort individuals who would otherwise have been obliged to lead almost useless and certainly miserable lives, and whose existence would have been one prolonged effort to guard against the risks of acute strangulation, or the series of small ills which enormous herniæ always produce. The able paper of Mr. Spanton, and the speeches of Mr. Mitchell Banks, Mr. Folker, Mr. Vincent Jackson, Mr. Alcock, Mr. F. Marsh, and Dr. Eddowes, convincingly proved that the operative treatment for the radical cure of hernia is not only a justifiable, but an established and successful, surgical procedure.

"At the general meeting at Stafford, Dr. Reid read a valuable report upon the employment of Cascara Sagrada as a therapeutic agent, and Dr. Isambard Owen opened a discussion upon Chorea and Acute Rheumatism.

"At the general meeting at Wolverhampton, Mr. Folker read the notes of an instructive Case of Strangulated Umbilical Hernia, and Mr. Vose Solomon made a most valuable communication upon 'The Prevention of Blindness from Infantile Purulent Ophthalmia among the Indigent Poor.'

"The following members, in addition to the above mentioned, have, by their contributions at the meetings, earned the thanks of the Council: Dr. McAlldowie, Dr. Hatton, Dr. Davidson, Dr. Crutchley, Dr. W. G. Lowe, Mr. J. H. Hartill, Dr. C. Smith, Dr. Balthazar Foster, Mr. J. G. U. West, Dr. E. T. Tylecote, Dr. Totherick, Dr. Lycett, and Mr. Clendinnen.

"In the month of August, the President received many of the members at a garden party. The weather was propitious, and the enjoyment of the visit, as well as the kindness and hospitality of the host and hostess, will not soon be forgotten. Your Council desire cordially to thank Dr. E. T. Tylecote and Mrs. Tylecote for their pleasant and successful entertainment.

"The number of members is 120."

The adoption of the report was moved by Mr. CROCKETT, and seconded by Mr. PHILLIPS.

President's Address.—The PRESIDENT gave an address, the subject of which was, "Sixteen Years in General Practice: Thoughts on the Past, Suggestions for the Future." He referred more particularly to the progress made in the science of preserving health since the Public Health Act of 1872 became law; pointed out how recent Acts of Parliament had led to frequent underground systematic supervision of mines, and had thereby diminished the frequency and severity of accidents to colliers; showed how, by inadvertence, another Act, designed to abolish the part payment of wages by goods, had destroyed the organisation by which miners, when injured, received surgical aid, and had driven them to the workhouses and hospitals for help; spoke in broad outline on certain distinct features which had marked the progress of curative surgery and medicine; referred to the position which medical men ought to occupy and contend for with regard to the lunacy-laws; advocated the payment of medical men for the examination of every lunatic or supposed lunatic, whether sent to an asylum or not; summarised the results of the vaccination of 12,000 persons, and of the part he had taken in 1,800 confinements, including most of the difficult cases of 2,000 other confinements; and, lastly, expressed his views on the means to be adopted to encourage a reconstitution of medical examining boards and examinations for entrance into the profession. He suggested an extension of the laws relating to water-companies, so as to enforce constant pressure within the mains.

Sanitary authorities should not be allowed to pass plans for the erection of new houses in which water-closets were to be fixed until provision had been made for the waste-pipes to pass down the outside of the walls, and for the continuance of them to a point at least as high as the roof. Great care was required in the condemnation of meat supposed to be diseased, as thousands of sheep which suffered from fluke in the liver had been eaten without any injurious effects. Government should compel every retailer to put a label on tinned foods, showing how, to a great extent, purchasers could judge of the condition of the food purchased, as by bulging outwards of the top or bottom of the tin. The informant, on compulsion, of contagious disease should not be the medical man. The Education Act, by multiplying schools, had multiplied centres of infection; and it was desirable to keep infected persons from school for at least six weeks, as well as all children living in the infected house. Every town of importance should have its public mortuary. There was much need for an effective organisation to secure a certainty of speedy surgical assistance to miners. The establishment of private hospitals in Birmingham for the surgical treatment of a certain class of cases was a distinct gain to the community. Great advance had recently been made towards the radical cure of hernia. Medical men in the near future must insist on the lunacy-laws being altered, so that every certifying surgeon should be deemed to express his own opinion only, and neither civil nor criminal liability should be incurred by the expression of it. The closure of licensed houses from 10 P.M. to 10 A.M., and all Sunday, except for out-door trade, would, in most towns, be a boon to a large section of the people. Englishmen should, in England, be granted equal facilities with Scotchmen or Irishmen to obtain degrees in medicine. Some of the anomalous regulations of examining boards should be expunged. Medical men should press for "such alterations as would render the University of London more popular and more able to move with the times," whilst still desiring to maintain, in its most essential parts, "the standard and scientific character of its medical degrees;" and that, failing this, they should give all the assistance in their power to some other corporate body or bodies to organise into one harmonious whole the various educational institutions of London.—On the motion of Dr. TOTHERICK, seconded by Mr. SPANTON, an unanimous vote of thanks was given to Mr. J. Hartill for his address.

Financial Statement.—Mr. J. G. U. WEST read the statement of accounts for the past year, which showed a balance of £32 1s.

Next Annual Meeting.—Dr. C. SMITH proposed, and Mr. CLARE seconded, that the next annual meeting be held at Burton-on-Trent.

Officers and Council for 1885-86.—The following were elected: *President-Elect:* Dr. W. G. Lowe. *Vice-Presidents:* Dr. C. Orton; Dr. E. T. Tylecote. *General Secretary:* Mr. Vincent Jackson. *Financial Secretary:* Mr. J. G. U. West. *Auditor:* Mr. Folker. *Representative in the Council of the Association:* Mr. Vincent Jackson. *Representatives upon the Parliamentary Bills Committee of the Association:* Dr. C. Orton, Mr. W. D. Spanton. *Council:* Dr. Arlidge, Mr. Bolders, Dr. Reid, Mr. J. J. Ritchie, Mr. Gray, Mr. H. M. Morgan, Dr. McAlldowie, Dr. Totherick, Dr. Lycett, Dr. Elkington, Mr. J. W. Wolfenden, Dr. J. H. Wynne.

Votes of Thanks to the Auditor, Secretaries, Representative in the Council of the Association, and Representatives upon the Parliamentary Bills Committee of the Association, were proposed, seconded, and passed.

Dinner.—As guests, in addition to those previously mentioned, the Mayor of Wolverhampton (J. Annan, Esq.) and the Chairman of the Willenhall Local Board of Health (J. C. Tildesley, Esq.) were invited. A most agreeable evening was spent.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

AN ordinary meeting of this District was held at the Royal Isle of Wight Infirmary, on November 3rd; Dr. BEATON, President, in the chair. There were present eleven members and three visitors.

President-elect.—The Secretary read a letter from Mr. Lloyd, apologising for absence, and accepting the office of President-elect.

Next Meeting.—Ventnor was proposed as the next place of meeting. The Secretary reported that Dr. Isambard Owen, the Secretary of the Collective Investigation Committee, had promised to initiate a discussion on the Etiology of Phthisis at that meeting.

Death of Mr. Beckingsale.—The Secretary reported the death of a member, Mr. Beckingsale, of Newport. Mr. BARROW moved, and Dr. WATERWORTH seconded, a vote of condolence.

Case of Pleurisy.—Dr. BUCK read notes and showed a case of pleurisy, in which the heart was much displaced towards the right side. Drainage was carried out by means of Southey's cannula. The patient had made an excellent and rapid recovery.—A discussion ensued.

Treatment of Hectic Fever.—Dr. ROBERT ROBERTSON opened a discussion on this subject. He said that hectic fever was always found associated with progressive morbid action in some organ or tissue of the body, but explanations of the mode of causation of the increased body-temperature were so far only speculative. From its effects on the patient, and from its tendency to continue and to become aggravated, active treatment of the symptom was necessitated. Cases divided themselves sharply into two classes in this respect: 1, those in which local interference with the diseased structures was practicable; 2, those where local interference was impracticable or useless, and treatment of the general condition had to be relied on. The effect of operative treatment in the former class was aptly illustrated by charts of renal abscess and empyema shown, the pyrexia disappearing speedily after operation. In the latter class, the measures available were proper regulation of air-supply, of exercise, and of diet, aided by antipyretic medicinal remedies; and, of such, salicylate of soda in cases of moderate hectic range, and antipyrin for more severe cases, seemed at present commendable. The drawback of the salicylate treatment was the intolerance of the remedy by the stomach in certain cases, and of the antipyrin the necessity for increasing doses to maintain the effect, and the severe and irritable rash which sometimes followed its use.—A discussion followed the reading of the paper.

The members were afterwards invited to dine with Mr. Barrow at his residence, Southlands.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Alcoholism, and How to Control it.—*Prophylactic against Pulmonary Phthisis.*—*The Sanatorium at Argeles.*—*An Epidemic of Rabies in the Department of Var.*—*Bromhydrate of Pelletierine.*—*Lesions of Peripheral Nerves in Typhoid Fever.*—*Cranial Surgery.*

At the last meeting of the Académie de Médecine, M. Lancereaux read statistics on alcoholism which he had collected in hospitals in the interval from 1860 to 1875, a period of fifteen years. They show that the patients addicted to excessive drinking admitted into hospitals are mostly people from the provinces where pure brandy is largely consumed. M. Lancereaux divides alcoholic drinks under three headings: Cider and beer; wine and wine brandy; brandy extracted from cereals, potatoes, and liquors made from different extracted principles. Cider, according to M. Lancereaux, is a healthy drink. Even when it is indulged in to excess, it produces only transitory drunkenness, not followed by any pathological accidents. The consumption of beer also increases; and M. Lancereaux says that this is not to be regretted. Beer is not an unhealthy drink; it encourages obesity and slight disturbance of the digestive organs, but does not produce more serious troubles. Wine contains more alcohol, and produces various ill effects. There is rapid stimulation of the nervous system, and the excess absorbed determines organic lesions of nerve-centres and liver. Alcoholism resulting from over-indulgence in wine, according to M. Lancereaux, is favourable to the development of tuberculous meningitis. He has had several opportunities of observing this disease in very young children to whom wine was habitually given. Children of vinous drunkards do not inherit the vice, but this misfortune overtakes those whose parents indulge in alcoholic drinks manufactured from cereals and potatoes. These drinks determine cerebral and vaso-motor disturbance, and impair the intellectual faculties. Succeeding generations degenerate, and acute diseases, under such circumstances, become intensified. Liquors manufactured with these alcohols and different essences determine similar conditions, and especially an exaggerated reflex excitability of the sole of the foot, and on each side of the body where the nerves emerge. The descendants of these drunkards have an unconquerable craving for alcohol; they are frequently idiots, and, after the second or third generations, they become shorter in stature. Rigorous investigations made in France and Switzerland, where these manufactured alcoholic drinks are most largely consumed, demonstrate the accuracy of these details. M. Lancereaux said that Government will be guilty of a grave fault if it do not legislate for the present state of things with regard to alcoholism. In a country where manhood suffrage exists, the enforcement of regulations to prevent alcoholism is always neglected. M. Lancereaux suggests that all drinks that are harmless, or only slightly dangerous, should be allowed to be sold without restraint, provided they are not falsified and are of good

quality. Under this class he includes cider, wine, and beer. He also suggests that the manufacture of cognac from cereals, beetroot, and potatoes, should be under strict superintendence; that rewards should be given for the discovery of means of improving these liquors either by removing from them injurious substances or by transforming them into others less dangerous, and thus rendering their effects similar to those of vinous alcohols. He also desires that brandy should be burdened by a heavy tax, according to the place where it is sold; that the sale of this drink should be limited; that the sellers should be liable to severe rules and penalties; and that only those who are well known for their good conduct should be granted a licence. All responsible drunkards, according to M. Lancereaux's code, should be punished; houses of refuge should be provided for those who cannot control their habits.

Ten years ago, Dr. Douillard pointed out that the valley of Argeles was remarkably well suited for a sanatorium, where children of parents who had succumbed to phthisis should be treated. A few years later, the town of Argeles offered a building-site for this purpose. The sanatorium now receives, yearly, twenty children, between the ages of 5 and 12, all orphans of phthisical parents, and presenting symptoms of the same disease; they all improve in condition. The sanatorium is situated at an altitude of 450 metres, on the highest ground in Argeles. The temperature resembles that of Amélie-les-Bains, but it is less exposed to the east and west winds. The hygro-metric condition is excellent. The climate is most suitable to the torpid forms of tuberculosis.

M. Leblanc read, before the Académie de Médecine, the report drawn up by the commission appointed to judge of Dr. Chassinat's book on an epidemic of rabies, which prevailed in the department of the Var, from October, 1884, to April, 1885. Fifty dogs were attacked with hydrophobia, and four people died from being bitten: one at Toulon, one at Roquebrune, two at Hyères. A young man was bitten in the hand, on the same day as his brother, and their servant was bitten on the face. They were treated in the same way; but the one bitten on the hand died, and the two others recovered. M. Leblanc recommends that the mayor and municipal agents should be obliged to enforce the law enacted July 21st, 1881. The prefect allowed six months to elapse before he took this step in an instance where it was necessary; in other departments the same dangerous negligence exists. In Paris, also, the prefect of police does not enforce the laws. Thousands of dogs wander about the streets of Paris, and constitute a source of danger to human life, and an element of contagion for the canine race. The report furnishes statistics on hydrophobia, from January, 1880, until October, 1885. These show that it greatly increases at periods, when the prefectural laws are negligently applied. M. Leblanc drew attention to the fact that Berlin has been entirely free from hydrophobia during the last twelvemonths, and the Duchy of Baden since the last two years. These two instances prove that when the police regulations are strictly enforced, hydrophobia disappears.

M. Galezowski read a paper before the Académie de Médecine on the action of pelletierine on the motor nerves of the eye. His researches are based on the ocular disturbance which occurs in subjects who absorb pelletierine; they are affected with diplopia. The observance of this fact induced M. Galezowski to prescribe pelletierine when there is paralysis of the third and sixth pairs. Iodide of potassium and blisters have failed where pelletierine has cured; the preparation used is syrup of pelletierine, 1 gramme per 120 parts of syrup. From three to six doses were administered. Unfortunately, this substance is excessively dear. M. Galezowski hopes to meet this difficulty by administering pelletierine in subcutaneous injections.

MM. Vaillard and Pitres have on former occasions demonstrated that, in typhoid fever, peripheral nerves may present diffused lesions resembling parenchymatous neuritis, breaking up of the myeline, proliferation of the nuclei of the interannular segments, and more or less complete atrophy of the nerve-fibres. These alterations have been observed in three patients dead from typhoid fever; they all died without presenting any symptoms of nerve-lesions. At the necropsy of one, the brain-meninges, spinal cord, and the roots of the spinal nerves, were healthy. The musculo-cutaneous nerve, the internal brachial, and the terminal branches given off by the ulnar nerve, presented lesions somewhat limited in superficial area, but extending deeply into the substance of the nerve. At the necropsy of the two others, the nerves of those of the lower limbs, and some of one of the upper limbs, presented serious and extended lesions. In a fourth subject, the superficial nerves were attacked with parenchymatous neuritis.

At the Surgical Society, M. Gillette mentioned the case of a patient who, subsequently to erysipelas and repeated abscesses of the scalp,

had cerebral disturbance and facial hemiplegia, and died. "At the necropsy, a collection of pus was found under the dura mater and in the sphenoidal region, which could have been easily emptied. M. Ferrier advocates the practice of American surgeons, who, after making incisions in the dura mater, make two punctures in the brain with a blunted stylet in order to find the purulent area. Cases successfully treated by this method have been published.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

The Owens College Dinner.—Meeting of the Pathological Society.—Candidates for the Chair of Medical Jurisprudence.—Sir Henry Roscoe.

THE Owens College dinner, which took place at the Queen's Hotel on the 13th instant, was a great success; nearly one hundred were present, including visitors, professors, lecturers, and past and present students, under the genial presidency of Mr. Lund. University College, Liverpool, was represented by Dr. Davidson and Mr. Mitchell Banks, and the Yorkshire College, Leeds, by the Principal, Mr. Bodington. The toasts were limited in number, and the speeches, if few, were excellent; the principal attractions of the evening being the songs and recitations given by members of the staff and students.

A joint meeting of the Manchester Pathological and Microscopical Sections of the Liverpool Medical Society was held at the Owens College on November 11th. The visitors mustered strongly, and included Mr. Paul, Dr. Alexander, Mr. Ero Hamilton, Dr. Barron, and Dr. Briggs, all of whom showed specimens of interest. The Liverpool Society have invited our members to their meeting on December 11th, when Professor Hamilton, of Aberdeen, will give a demonstration of his methods of preparing large sections of the brain, the rest of the evening being devoted to specimens illustrative of tumours of the nervous system. These joint meetings having been now successfully inaugurated, are likely before long to become of much importance. The amount of pathological material to be obtained from the various institutions in South Lancashire is very great; and, as the railway-communication between the two principal cities is exceptionally good, there is no reason why much more should not be done than has hitherto been attempted to utilise so promising a field.

There are already several candidates for the vacant lectureship of Medical Jurisprudence at the Owens College, amongst whom may be mentioned Dr. Dixon Mann, Mr. Dacre Fox, Mr. A. Boufflower, Dr. A. Edge, and Dr. Harris. Dr. Dixon Mann is well known for his electro-therapeutic and other scientific researches, and Mr. Dacre Fox is a police-surgeon of considerable experience.

I fear the College is likely to lose part, at least, of the services of one of its most distinguished professors, namely, Sir Henry Roscoe, who is a candidate for Parliamentary honours, and is, I believe, likely to be returned for South Manchester. Everyone would view the severance of his long connection with the College with great regret, and it is to be hoped that, in some form or other, his services may be retained. At the same time, no more useful or practical scientist could be sent to Parliament, and his success would be a great accession to the strength of the not too large band of representative scientific men likely to be in the House. He is opposed by Dr. Peter Royle, who has for a long time past taken a prominent part in public affairs in this city.

Mr. Erichsen, last week, addressed his supporters here, graduates of the universities of Edinburgh and St. Andrew's, whose suffrages he is seeking.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—Having been requested, by the Association of the Members of the Royal College of Surgeons, to reply to the letter by Dr. W. A. Duncan, which appeared in your last issue, I have to crave your indulgence a second time.

Several of Dr. Duncan's statements require refutation, and luckily are easily refuted. His opinions are his own—those of a very young F.R.C.S., an uncompromising admirer of the Council, etc.

In the first place, the action of the Fellows present at the meeting of October 29th, whether belonging to the Association or not, was not preconceived with the Association of Members. Many of the Fellows who are not connected with the Fellows' Association, including distinguished hospital consulting surgeons and surgeons, amongst them past and present members of the Council, are anything but "content

with the present management." Our Association is, and was, and, personally, I trust always will be, quite independent of all others.

Secondly, the meeting was not "a packed one." We sent out copies of our resolution to our own and some other members, perhaps 10 per cent of the whole; a justifiable step, which the Council was open to have taken, if, indeed, it did not send out a "whip." But sending out a whip is a very different thing from "packing a meeting." The Council, I believe, habitually sends out its notices to all the Fellows, and they are chiefly paid for out of our moneys; often to our detriment; while we only send out cards to a percentage of the Members, and at our personal charges and risks. Only about a third of those present belonged to either of the Associations; the vote, therefore, was most significant, and cannot truthfully be said to "go for little or nothing." Nor could we have "packed" the meeting had we wished it. As to the "vituperation" charged by him, the only speeches for which our Association was responsible, were those of Mr. Gangsee, Dr. Collum, and myself, and we were scrupulously courteous. Dr. Joseph Rogers spoke as an individual Member, though he happens to be a member, and, I may add, a valued and trusted one, of our Committee; that a man so widely known and respected should have felt it a duty to speak such hard truths, is of itself a proof that very plain speaking was necessary. Strong language was used by Fellows also, but none of a "vituperative" character by either Fellows or Members, till it was discovered that the Council had clandestinely closed our library against us.

Perhaps Dr. Duncan will explain what he means by "Queen's English." Does he mean that it is his own? Because if it employs such grammar as "they paid a fee to the College for their examination," I admit that Mr. Gangsee does not use "Queen's English;" and as an old Westminster Queen's scholar, I was taught to be grammatical. His questions founded on the charge of "vituperation" fall to the ground.

His views of our claims to elect to and sit on the Council need no comment; they suggest that it would be well if Dr. Duncan had supplemented his education by elementary courses of logic as well as grammar.

I cannot, however, allow his amazing dogma that "the Members of the College of Surgeons" seem to forget that they are represented by the Fellows, who are also Members, and whose interests are identical," to pass as current coin.

How can men not elected by the Members represent the Members, even if most (not all) are Members? and how can their interests be identical with ours? Dr. Duncan's letter shows such strange ignorance of the history of the College and its charters, the policy and acts of the Council and examiners, and the feelings and inter-relationships of Members and Fellows during the last fifty years, that his statements need no refutation if addressed to men of age and experience, whether Fellows or Members. He can find the facts simmered down in a letter addressed by me, on April 19th, 1883, to the then President of the College, a copy of which I sent to the Privy Council. As it was sent to the College officially, any Fellow may demand a perusal; and being compiled from the published reports of the Council and calendars of the College, its facts are undisputable. Although an elaborate indictment of the policy and acts of the Council and Fellows, it is, I trust, neither vituperative, undignified, nor ungrammatical. It is most amusing to mark that Dr. Duncan closes his very dogmatic letter by an appeal to the Council and Fellows to do the very thing of which he accuses us, namely, to combine and send out a whip, a hint which I hope will not be lost on the Members and Fellows opposed to and ashamed of the Council and their misdeeds, past, present, and projected. If they do not throng to vote on December 17th, they may peril the results of the glorious victory won by us on October 29th.

I close this by saying that, in common with many Members, I have no ambition or intent to become a Fellow, and look with great scorn on the attempts already mooted "to enlarge the scope of the Fellowship," or, in plain English, bribe and corrupt those whose action is felt to be destructive to an organised system of tyranny and malversation.—I have the honour to be, sir, your obedient servant,

Grosvenor Road, S.W.

KENNETH CORNISH,

Chairman of the Petition Committee of the Association of Members of the Royal College of Surgeons of England.

SIR,—It was with great pleasure I read the letter by Dr. Duncan in the JOURNAL of November 21st.

I am quite convinced that many Fellows of the College joined the Association of Fellows under the impression that they would have their interest specially guarded in the event of any such attempt to usurp their position as was made by the Members a fortnight ago.

The claims of the Members are simply out of all reason. Will they find in any other College that Licentiates or Members have the powers they are asking for themselves? Where will be the advantage of working and spending money for the higher qualification, if Members be allowed equal privileges? If the Council of the College will maintain the same dignified firmness in the future treatment of the affair as they have in the past, they will receive the entire support of ninety-nine out of every hundred Fellows.

Mr. Hutchinson proposed a resolution, at the last meeting of the Council, which is now under their consideration, "that proposals should be entertained for widening the basis upon which the Fellowship is obtained." If by widening the basis be meant a lowering of the standard of the examinations, or an increase in the numbers elected, then the respected position the Fellowship has so long held will soon disappear.—I am, sir, yours faithfully,
Sunderland.

J. WHITEHOUSE.

SIR,—I should not consider it necessary to trouble you with any reference to the letter of Dr. William A. Duncan, which appeared in the JOURNAL of November 21st, had not his expressions exhibited some very remarkable misconceptions of the relative position of the Fellows and Members of the College.

Dr. Duncan admits that the interests of the Fellows and Members "are identical;" at the same time, he makes the extraordinary assertion "that the Members of the College are already represented by the Fellows," and then utilises it as an argument against giving the Members the privilege of participating in the election of the Council. Surely this notion involves a slight misconception of the mutual relation of the two classes of licentiates. It would be interesting to know on what authority Dr. Duncan claims to be a representative Fellow. Is he an elected representative?

Dr. Duncan is intensely desirous of maintaining "the just rights and privileges of the Fellows." He considers that the Members have no claim to a voice in the affairs of the College, and that they ought to be satisfied "with the very big *quid pro quo* they have obtained, seeing that they have become qualified, and are permitted to go forth with the means of earning a livelihood." He then offers them the comforting assurance "that every ambitious Member may become a Fellow, provided he has the necessary amount of brains."

Now, sir, I desire very courteously to assure Dr. Duncan that I heartily regret—not that I supported the resolutions of the Association of Members at the recent meeting—but that there is a Fellow of the Royal College of Surgeons who can find any satisfaction in thus parading and magnifying the intellectual distinctions of his order. It appears to me that Dr. Duncan has yet to learn that the kindest and most generous dispositions, together with the highest surgical attainments, are often exhibited by members of the profession without any relation whatever to titles and educational distinctions. Some of the most brilliant and original workers in the fields of surgical science have been quite contented with the honourable diploma of Member; and, throughout the length and breadth of our professional ranks, the Members of the College of Surgeons are universally acknowledged to be both able practitioners and cultivated gentlemen.—I have the honour to be, sir, your obedient servant,

J. WARD COUSINS,

Southsea. Senior Surgeon to the Royal Portsmouth Hospital.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS' COMBINED SCHEME.

SIR,—In the BRITISH MEDICAL JOURNAL, of October 17th, I note a letter from "Verus Amicus," and I, for one, fully endorse his statement of the facts. Opinions may differ as to the time of the chemistry and materia medica examination, but no difference can be expressed as to the vagueness of the synopsis. The subjects are wide, and something ought to be done to limit the scope, for a thorough knowledge of the subjects cannot be gained in three months, and no one knows more about this than the examiners themselves. The knowledge is not for examinations alone, but for life.—Yours truly,
THOROUGH.

THE COLLEGES AND THE TITLE OF DOCTOR.

SIR,—You will have observed that, at a recent meeting of the Fellows of the College of Physicians, the propriety of providing a diploma in medicine for English students, was recognised by a formal and almost unanimous vote, and directions were given to prepare a scheme whereby this end might be attained. We are thus entitled to hope that the basis of such a scheme will shortly be laid before the profession.

I am, however, informed on good authority that the measure is in no sense to be retrospective; and, in view of the flagrant injustice which would result to those of us already qualified from the omission, it behoves us to unite to urge upon the United Colleges the propriety of making our admission part of the scheme.

I beg, therefore, to propose that a committee be formed for the purpose of organising a petition to this effect, the expenses connected with which could be met by a small subscription (5s.?) from gentlemen who are prepared to adhere to the programme. Such committee would meet at an early date, and settle the *modus operandi*.—I am dear sir, yours faithfully,

ALFRED S. GUBB, L.R.C.P., M.R.C.S.

THE FELLOWSHIP EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—About ten years ago, Sir J. Paget brought forward a motion, which was supported by Mr. Erichsen and other influential members of the Council, to the effect that Members of a certain standing should be admitted to the Fellowship, after passing an examination in surgical anatomy, pathology, and the science and practice of surgery. I see that Mr. J. Hutchinson intends to propose a somewhat similar resolution, and it is to be hoped that his proposition will not only be carefully considered by the Council, but that it will not meet with the silly outcry from some of the Fellows with which Sir J. Paget's motion was greeted.

There are many Members, metropolitan and provincial, who have done good surgical, pathological, or anatomical work, and are a credit to surgery, and who, from having joined the profession before the present rules came into force, are debarred from taking the fellowship, because they cannot now spare the time to get up matters which, when learned, are of next to no practical moment in their professional work. According to the regulations then in force, Members had to wait eight years before being admitted to the Fellowship, or go to school again and pass a preliminary examination. Now things are much easier, and a young man may pass his primary fellowship examination at once, or shortly after the primary for the Members' qualification. Senior Members did not enjoy this privilege, and this seems to me another reason for being fair to them, and for instituting a thoroughly practical examination for Members of, say ten or fifteen years' standing.

The statement that the value of the Fellowship will be lessened, seems futile; for are there not honorary Fellows already, and several of these not even known to surgery? Moreover, it must be borne in mind by those who advance this argument, that, as regards the comparative value of the qualification, the younger Fellows are, theoretically, superior to their seniors, for the character of the examinations has much improved of late years. Thus, it will be seen that already there are grades among the Fellows; and if the new examination be, as it should be, a good one, the argument as regards injury to existing Fellows falls to the ground. But should the majority of the Fellows be oversensitive on this point, it would be easy to enter in the College calendar those who pass under any new rules, as M.F. = Member (or, if preferred modified) Fellow.

Really, these petty jealousies are ridiculous, and originate, in small minds, totally oblivious of the fact that a man may honour his degree or qualification by the good surgical work he may do, but that it is no great honour to hold a qualification which any other man, with time and average brains, may take.—I am, sir, yours truly,

A HOSPITAL SURGEON.

THE LIGATURE IN OVARIOTOMY.

SIR,—It appears from Mr. Tait's remarks about the ligature in ovariectomy, that I did not bring out what is the special advantage which the cautery possesses over the ligature. It is this: immediately the cautery clamp is removed, vessels will be seen entering the compressed part of the pedicle, if there is to be hæmorrhage. Should the part, which was between the blades of the clamp, remain clear, the pedicle may be allowed to drop back into the pelvis, with the certainty that there will be no bleeding. On the other hand, hæmorrhage after the ligature has been improperly applied, does not usually commence until some time after the abdomen has been closed. Mr. Tait's results with the Staffordshire knot are perfect, and he has no call to change; but the fact, that among his earlier cases he had an accident, shows that the point is worth the consideration of those who have not become accustomed to one method.

I do not wish Mr. Tait to suppose that I shall never "explore" the abdomen. However, it is too often done; and, although there may

be almost no mortality when experts do it, yet the general death-rate for simple exploratory incision is much too high. The anxiety of the patient and of her friends is forgotten. The public has not yet been educated to think that the operation is quite a simple one; although the stage of twenty years ago, when my father heard himself described as "the brute that opened our Jeanne" is now past. "Jeanne" was recovering from ovariectomy.—I am, sir, yours, etc.

Edinburgh.

SKENE KEITH.

PERINEORRAPHY.

SIR,—Nothing can excel an operation that gives the maximum of cures, and a universally splendid result; and in my hands, as well as in those of others I could name, this is obtained by what I consider to be Langenbeck's operation, as excellently described in Baker Brown's *Surgical Diseases of Women*, and which I am surprised to find Mr. Tait imagines to have long since been discarded.

Mr. Lawson Tait's operation, which is so difficult to describe that it requires to be seen in order to be understood, cannot do more; and although he says that "it is almost essentially the opposite in every particular to Langenbeck's," we are told at page 785 of the *BRITISH MEDICAL JOURNAL*, 1885, "that the operation consists in splitting the recto-vaginal septum," and at page 836 of the same *JOURNAL*, that a plastic perineal operation described by Dr. Jamieson, was a Tait's operation because it "consisted essentially in the splitting of the recto-vaginal septum, which was the main factor in Lawson Tait's operation." It seems certain that, in like manner, had Dr. Langenbeck described his operation in the year 1885 instead of in 1854, he too would have been told (perhaps not by Mr. Tait) that it was a Tait's operation, since it consists essentially in splitting the recto-vaginal septum.

Be this as it may, it is evident that the recto-vaginal septum cannot be split in so many different ways to arrive at the same result. I am not surprised that Mr. Lawson Tait's surgical genius should have enabled him, with the same materials, to work out another problem so different and yet so like.—I am, etc.,

Seymour Street, W.

PERCY BOULTON.

THE VOLUNTEER MEDICAL SERVICE.

SIR,—No volunteer surgeon who has taken any interest in ambulance-work can agree with the remarks of Acting-Surgeon Crockwell, under the above heading, in Saturday's *JOURNAL*, page 998, regarding the Regimental System; and I may be permitted to point out that it is in the power of every volunteer surgeon to make himself efficient by passing the necessary examination to qualify him to do duty with an army corps, and also to instruct in ambulance-work a certain number of his men who, on being qualified, would receive the War Office "certificate of proficiency" (Army Form E 596, countersigned by the principal medical officer of the district) to act as "recognised stretcher-bearers of the corps" (see "Volunteer Regulations"; also "Army Circulars," May, 1884). "The training of officers and men of the regular and auxiliary forces in ambulance-drill and first aid to the wounded will be carried out under the orders of the general officers commanding and principal medical officers of districts." "Commanding officers will afford medical officers and others undertaking the duty every facility for the formation and instruction of classes, and will detail a competent non-commissioned officer to assist the medical officer in drill, and take charge of equipment and appliances used in instruction," etc.

By this it will be seen that it is not the fault of the authorities, nor of the "Regimental" system if "volunteer surgeons" would be next to useless, should this country be invaded, and if each volunteer surgeon did his part (which the authorities expect of him, though not compulsory), the regimental medical system would not be found wanting in case of need.

In Liverpool we have not been idle, and I understand that several London corps are active with their ambulance-instruction; and much useful work has been quietly carried on in many of the volunteer corps throughout the country.

The 15th L.R.V. (1,005 strong) has had, for about six years, its ambulance-class, its qualified hospital-sergeant and bearer-detachment and appliances, and the work is being carried on at present.

In 1880 I remember one of the examining surgeons stated that our ambulance-men "were quite fit to work side by side with the men of the Army Hospital Corps," and I feel sure the same might be said for many others.

While maintaining that the regimental system is not half so "faulty" as your correspondent imagines, I believe that the Volunteer Ambulance Corps, as advocated for a considerable time by Surgeon-

Major Evatt, A.M.S., and frequently alluded to in your *JOURNAL*, is most desirable, and deserves the hearty support of the medical profession.—Yours faithfully,

THOMAS M. WILLS, Surgeon 15th Lancashire R.V.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty during the past week. A. F. HARPER, Surgeon, to the *Ganges*; FRANCIS MOORE, Surgeon, to the *Indus*; W. A. ALGIE, to be Surgeon and Agent at Port Patrick.

ARMY MEDICAL SERVICE.

MR. G. B. CURRIE, M.A., M.B., has been appointed Acting-Surgeon to the 4th Volunteer Battalion of the Gordon Highlanders (late the 4th Aberdeen Volunteers).

Surgeon S. W. SUTTON, M.D., has resigned his commission in the Volunteer Medical Staff Corps, to which he was appointed on the 13th of June last.

Surgeon A. A. PEACHELL, M.B., doing duty at the station-hospital at Toulgouo, is directed to do duty with the Medical Staff at the station-hospital, Bangalore.

Surgeon R. JENNINGS, M.D., doing duty at the station-hospital at Bangalore, is appointed to the medical charge of the station-hospital, Malapuram.

Surgeon D. R. HAMILTON, recently arrived from England, is posted to the Poona Circle, Bombay Presidency; and Surgeon C. T. BLACKWELL, also recently arrived, to the Mhow Circle.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR W. A. GILLIGHAN, Bengal Establishment, Officiating Civil Surgeon at Chittagong, is appointed Civil Surgeon of Durbhanga.

Surgeon-Major J. WILSON, M.D., Bengal Establishment, Officiating Civil Surgeon at Lohardugga, is directed to act as Civil Surgeon at Chittagong, during the absence on deputation of Surgeon-Major R. D. MURRAY, M.B.

Surgeon W. BEATSON, Bengal Establishment, Officiating Civil Surgeon at Patna, is appointed to act as Civil Surgeon at Monghyr, during the absence on deputation of Surgeon-Major E. BOVILL, M.B.

Surgeon-Major H. WHITWELL, Bengal Establishment, Officiating Civil Surgeon of Monghyr, is to act until further orders as Principal Assistant to the Opium Agent at Benares.

Surgeon-Major H. B. PIERCES, Bengal Establishment, Civil Surgeon of the 24-Pergunnahs, is appointed Civil Surgeon of Patna and Superintendent of the Temple Medical School at Bankipore.

Surgeon-Major C. H. JOUBERT, M.B., Bengal Establishment, Officiating Professor of Midwifery, Calcutta Medical College, is appointed Civil Surgeon of Rungpore, and will act as Civil Surgeon of the 24-Pergunnahs, during the absence on deputation of Surgeon-Major J. F. P. MCCONNELL, M.B.

Surgeon-Major J. F. B. MCCONNELL, M.B., Bengal Establishment, Officiating Professor of Materia Medica, etc., Calcutta Medical College, is appointed Civil Surgeon of the 24-Pergunnahs, but will continue to act in his present appointment until relieved by Surgeon-Major R. C. CHANDRA.

Dr. R. A. BARKER, Civil Medical Officer at Serampore, Hooghly, is temporarily appointed to the medical charge of the civil station of Beerbhoom.

Surgeon A. J. O'HARA, Madras Establishment, is appointed to the medical charge of the wing of the 24th Native Infantry at Raipore.

Surgeon D. S. E. BAIN, Madras Establishment, whose services have been replaced at the disposal of the Military Department, is appointed to the permanent medical charge of the garrison surgerency at Bangalore, in the place of Surgeon J. LEONARD, transferred.

The services of Surgeon-Major C. T. PETERS, M.B., and of Surgeons H. B. BRIGGS and W. A. CORKEBY, all of the Bombay Establishment, have been replaced at the disposal of the Commander-in-Chief.

Surgeon-Major W. JACKSON, M.D., Bengal Establishment, in medical charge of the 2nd Punjab Infantry, has obtained leave of absence on private affairs for one year and seventy-one days; and Surgeon-Major G. M'B. DAVIS, M.D., of the same establishment, in medical charge of the 4th Sikh Infantry, has leave for one year and sixty-five days, also on private affairs.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FAMILY DOCTORS AND OBSTETRICIANS.

SIR,—Your reply to "Querist," under the above heading, in the *BRITISH MEDICAL JOURNAL*, of October 17th, requires of me that I should state the view that I took of the case when asked by C. to attend in her approaching confinement; and also that I should add some further particulars with regard to the case, which were not stated in "Querist's" letter.

I was aware that A. had been called in to attend on C.'s family and household from time to time during the past five or six years; and, had C. called upon me to attend any of her family in the ordinary way, I should certainly, have declined to do so without first consulting A. I have always looked upon confinements as quite distinct from the ordinary medical attendance of a family, and when asked by C. to attend her, I had no hesitation in accepting the engagement, as I knew she had never been attended by A. in any of her previous confinements (all of which had taken place in England). I have no pretension to being a "specialist" in the obstetric branch of my profession, but I consider C. had a perfect right to look upon me as such, if she considered herself warranted in doing so.

It is also right to state that C., and family, do not reside in this neighbourhood permanently, and, in fact, have hitherto only come for the summer months. Does the fact of A. having been called in to attend in C.'s family from time to time, while residing here during the past five or six years, constitute him the "family doctor," in your opinion? Having arranged to attend C. m

took an early opportunity of acquainting A. of the fact, and explained to him that I looked upon the attendance as "exceptional." I did not consider I had any right to ask C. why she did not employ A., whom she had known for some years, in preference to B., with whom she had no previous acquaintance; and it certainly did not occur to me that I should suggest to C. the "expediency" of consulting A., whom she clearly did not wish to employ on this occasion.—I am, sir, yours, etc., B.

* While acquitting B. of any wilfully wrongful intent toward A. in the matter of C.'s accouchement, we do not, after careful consideration of his explanatory letter, and review of the case, see any reason for otherwise modifying the opinion expressed in the JOURNAL of the 17th ultimo; an opinion based, as we believe, on sound ethical principle. Is our correspondent unaware of the general belief that obstetrical engagements (excepting in the case of specialists, so called) lead, as a rule, to the family practice?

INFECTIOUS DISEASES AND SANITARY AUTHORITIES.

Sir,—I shall be much obliged if you will kindly give me your opinion in your next impression upon the subjoined case.

A servant is taken ill with scarlet fever in a house, which is a day-school for ladies. The borough sanitary authority is called in, and endeavours (by desire of the principal) to obtain a cottage for the patient; but, as there is not an available one to be found, she is compelled to remain at the school-house. This necessitates the closure of the school until within about a month of the Christmas holidays, and so it is decided by the "Principal" not to reopen until after the vacation. For general loss and inconvenience sustained, she sends in a claim for compensation.

I may add that we provided a trained nurse, and intended to do all we felt we were morally liable for; but, without any intimation to us, we receive application through her London solicitor for a heavy claim.

Are we really legally liable? As I cannot find any Act which compels a sanitary authority to provide a hospital for infectious cases.—I am, yours faithfully, M. O. H.

* We know of no law under which a sanitary authority can be liable to pay compensation in consequence of a person being attacked by an infectious disease. If, however, a serious claim have been made, counsel's opinion had better be taken.

CHANGE OF MEDICAL ATTENDANT.

OUR opinion has been asked on the following case. A. and B. are medical men, practising in a town separately. A. has been medical attendant to Mrs. X. and children. Mr. X., however, has never been attended by A., but consults a physician in London when necessary. B. is called in to attend Mr. X., and finding, on inquiry, that Mr. X. is not a patient of A., he attends him. During his attendance, Mrs. X. becomes ill; and Mr. X. requests B. to attend her, saying that his wife has been intending, for some time past, to change her medical man.

It must be understood that A. is not at the present time attending Mrs. X., or any member of her family. Mr. X. asks B. what he ought to do as regards A., whether it was necessary to write to him? Ought B. also to do anything as regards A.? Both Mr. and Mrs. X. declare that their minds are fully made up.

Although we do not, under the special circumstances related by our correspondent, deem it ethically essential that Mr. X., whose family have not recently been attended by A., should inform the latter of the intention to change their medical adviser, it would, in our opinion, and especially as he is not unwilling to make such communication, be judicious to do so; and it would, moreover, place B. in his true position in the matter, and, at the same time, relieve him of any unjust suspicion that may otherwise possibly be attached to his supersession of A. Such intimation, however, on the part of Mr. X., should not, we think, interfere with B. calling upon his professional friend, A., or otherwise explaining to him his own conduct in the case. It may be well to add that the desirableness of B. offering a personal or other explanation to A., will more or less depend on the degree of intimacy or friendship existing between them.

WEST LONDON MEDICAL AID INSTITUTE.

Mr. PHILIP BIRCH.—We are informed that, about a year ago, a project was set on foot to establish in West Kensington a medical aid institute, to be worked on the same lines as the South London Medical Aid Institute; that the approval of several medical practitioners resident in the neighbourhood was obtained, and that three of these gentlemen and Dr. Robert Lee agreed to form the medical staff; that a circular was sent to a few residents in the neighbourhood asking for support, and promising one ticket for distribution among the poor for every shilling so subscribed; that, with the assistance of the Metropolitan Provident Dispensaries Association, sufficient support was thus obtained, and a Committee formed; that it was agreed that the medical staff should give their services gratuitously until the institute was on a self-supporting footing, but that it was tacitly understood that, when there was a surplus, they should be remunerated. From a circular which we have received, we find that the terms were as follows: Members, 6d. a month. Families, 1s. a month; no member to receive attendance who had not been a member of the institute a full month. Non-members: first consultation at institute, 1s.; further consultations during same illness, 6d.; home-visits, 1s.; no charge for medicines. Upon these facts, we are asked to give answers to certain questions propounded by our correspondent. 1. The institute cannot be correctly called a private dispensary, since there is a mixed committee who manage the business, receive the funds, and will eventually divide the surplus, on the capitation principle, among the medical staff. 2. The means used in initiating the scheme were not, so far as we are acquainted with the facts, unprofessional. 3. As to the question whether such a scheme is a justifiable method of dealing with the question of medical relief of the poor, opinions are very much divided; if the scheme were really a provident scheme, very much might be said for it, but it is not. The sixth annual report of the South London Medical Aid Institute is before us; in 1884, there were 414 members, but 3,083 non-members were attended; the total sum received from mem-

bers was £103 11s. 5d.; from non-members, £544 1s. These figures speak for themselves, and it is no answer to say that, without admitting non-members, such institutes could not thrive; for, if that be the case, there is no reason for their existence, beyond the pecuniary advantage of the medical staff.

ETHICS OF NEW-COMERS.

Sir,—A young man commences practice in a Scotch provincial town where there already reside three practitioners dwelling in the greatest of harmony. The new-comer, week after week, advertises in all the local papers: "Card, Dr. —, from Edinburgh, —." What attitude should those in possession adopt towards him? They do not resent his appearance, but are dubious as to whether they can, in justice to the profession, overlook his breach of etiquette.—I am, yours, etc., M.D.

* The harmony to which our correspondent alludes as happily existing among the professional trio in a Scottish provincial town, will not, we trust, be disturbed by the accession of a fourth practitioner, whose advent has unfortunately been so objectionably announced to the public, through the medium of the press, but who, we would hope, has unwittingly erred from ignorance rather than with wilful intent. Assuming that such is the case, we would suggest to "M.D." that if he, and his brethren, can devise means by which a courteous intimation can be conveyed to the erring brother-practitioner to the effect that, to attempt to acquire practice by advertisement, card, or circular, is a charlatanic expedient, and highly derogatory to the legitimate faculty, they will be doing a kind brotherly act to the offending member, and, at the same time, confer a benefit on the profession at large. If, after such intimation, the reprehensible proceeding be persisted in, the unwise repudiation of a time-honoured medico-ethical rule will justly expose himself to severe condemnation and professional estrangement.

RECTOR.—The facts stated, if not altered, would certainly raise a case of strong suspicion; but possibly the police may be right in thinking the evidence insufficient to secure a conviction. If dissatisfied with their decision, the proper course is to communicate the facts to the Public Prosecutor, Treasury, Whitehall.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PROTECTION OF LONDON AGAINST FEVER AND SMALL-POX.

THE London vestries, the "sanitary authorities" of the several districts of London, having held a meeting at the Mansion House to protest against the expenditure of the Asylums Board in making provision for fever and small-pox, Sir E. H. Currie, at a recent meeting of the managers of that Board, answered some of the allegations, and laid out the steps which had been taken in the interests of the public for the protection of the metropolis. Sir Edmund made his statement, in bringing up a report of the General Purposes Committee, with regard to a reference which the Board had made to the Chairman and Vice-Chairman (Mr. E. H. Galsworthy and Sir Edmund) to attend the meeting in question, combined with a report also as to the proposed action for the Board's undertaking the duties in the care of the non-pauper fever and small-pox patients of the metropolis. The meeting at the Mansion House itself was typical of the ignorance which prevailed regarding the duties and responsibilities of the vestries as the sanitary authorities of the metropolis. Complaint was being constantly made by the vestries, and the complaint was emphasised at this meeting, that the managers spent money unnecessarily in making too much provision for epidemics of fever and small-pox. As a matter of fact, the only excess with which the managers could be charged was through the neglect of the vestries themselves; for between 80 and 90 per cent. of all the patients who came into the Board's asylums were of the non-pauper class, and these patients, for whom provision should be made by the vestries, were sent in as paupers to the asylums. There was, in London, nearly an utter neglect of their duties under the Acts of Parliament by the vestries, who, when the dangers of epidemics were over, raised an agitation against those who had carried out these neglected and responsible duties. Now the beneficial results of the managers' work in coping with this epidemic were to be seen in the fact of the diminished numbers through the lessening influence of the contagion, owing to the rapidity with which the patients were removed from the centres of population; and the effects of this energetic action were recorded in the Registrar-General's report that, for the first time since November 1883, no death from small-pox had been registered in London. The epidemic had been shortened in this remarkable manner owing to the perfect arrangement made by the managers. It had been said that the managers had made too much provision, while the fact was that only 1,500 beds had been provided, in place

of the 2,700 which the Royal Commission considered necessary; and the Royal Commission considered that the managers should make provision for 3,000 fever-patients, 1,500 in London asylums, and the like number in the country; but the managers had made provision for 940 patients with fever in London, and were making provision for 500 convalescents at Winchmore Hill. The managers knew that they could not purchase sites in London for fever-asylums, and, if they obtained compulsory powers to do so, the cost would be enormous; and, in purchasing the site at Winchmore Hill, they had acted in the interests of economy and in the interests of the patients, who would thus have a chance of recovering with less risk of ill consequences than when they were detained in the wards of an asylum, where there were patients in all stages of the disease. The public was told, through the press-reports of the meeting at the Mansion House, that the cost of each patient had risen from £132 to £237, and that these sums represented the cost "per head" in the asylums. Now the fact was, that the managers had treated 30,000 fever-patients, and 50,000 small-pox patients, and the cost "per head" had amounted to £15. Sir Edmund warned the vestries that the managers would no longer be responsible for the duties which the district-authorities neglected to carry out. The Vestry of Kensington, for instance, had refused to contract for the cure of the non-pauper infectious sick, and he declared that Kensington should no longer escape from its responsibilities by sending the non-pauper patients into the managers' asylums as paupers. He concluded by moving that a reference in regard to the contracting with the districts for the reception of non-pauper patients into the asylums, and a reference also as to the "nature, extent, disposition, and classification of the accommodation which should be provided for small-pox patients," should be deferred. The Chairman remarked that, though he was accorded a fair amount of courtesy at the Mansion House meeting, yet he could not but feel that many of those present did not care for the facts. He had shown the meeting that the whole of the extra expenditure was due to extra work; and, if the expenditure was less in the year 1880 than in 1884, the fact was owing to 1880 being a non-epidemic year, while in 1884 the managers had to do the work of the vestries as well as their own in combating small-pox, and this had been done successfully in the interests of the immense population of London. The managers would be glad to hear that Mr. Elliott had been astonished at the statements made, and took the pains to explain to the vestrymen-delegates that small-pox, and the different classes of fevers—as scarlet, enteric, and typhus—could not be treated together, and that the wards reserved for the one class could not be utilised for the treatment of any other type of epidemic disease. The report of the Committee was carried.

HEALTH OF BELFAST.

DURING the four weeks ending October 24th, the total births registered amounted to 525, and the deaths to 350, or a rate of 20.8 per 1,000. The public health of Belfast has been in a more satisfactory condition during the past month than for several of the preceding months. The mortality from the principal zymotic diseases, with the exception of diarrhoea, has been much below the average, and the death-rate from diseases of the lungs has been lower than usual, while no serious infectious disease is now prevalent.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE births registered numbered 2,439, or 27.6 in every 1,000, and the deaths 2,016, or 22.8. Deaths from zymotic diseases numbered 270, or 139 under the number for the preceding quarter, and 124 below the average for the third quarter of the ten years 1875-84. Of these, measles caused only 23 deaths; scarlet fever, 38; fever, 51; diarrhoea and dysentery, 95; and cerebro-spinal fever, 13. Deaths from diseases of the respiratory system numbered 303, and included 181 from bronchitis, and 74 from pneumonia. To phthisis are attributed 276 deaths; mesenteric disease, 59; tubercular meningitis, 46; and cancer, 45. Twenty-four deaths were caused by apoplexy, 110 by other diseases of the brain and nervous system; and 107 by diseases of the circulatory system.

HEALTH OF IRELAND: QUARTERLY SUMMARY.

THE births registered during the quarter ended September 30th last amounted to 28,006, a number equal to 22.7 per 1,000, and the deaths to 18,527, or 15 per 1,000. The birth-rate was 0.6 under the average, and the death-rate 0.1 over the average rate for the years 1880-84. Although the total mortality from all causes shows a death-rate fractionally in excess of the low average rate for the September quarter of the past five years, yet the state

of the public health during the quarter was very satisfactory. There was no remarkable prevalence of any zymotic disease over an extensive area, and the rate shown by the deaths from the principal diseases of this class was lower than that for any previous quarter since the last quarter of 1881. The total number of deaths from the principal zymotic diseases was 1,595, being a decrease of 530 as contrasted with the previous quarter. Two deaths from small-pox took place in the South Dublin Union. Measles, which was very prevalent in the earlier part of the year, only caused 185 deaths; scarlatina, 228; typhus, 144; enteric fever, 129; and simple continued fever, 99. The mortality from whooping-cough was below the average, the deaths numbering 281; diphtheria caused 59 deaths, and diarrhoea 458, or 78 under the average. Two deaths from hydrophobia were recorded. There were 479 inquests reported to the registrars during the quarter, this number being equal to 1 in every 39 of the total deaths registered.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE quarterly return of the Registrar-General, which has just been issued, comprises the births and deaths registered in England and Wales during the third quarter of the current year, and the marriages in the three months ending June last. The marriage-rate showed a considerable decline from that recorded in the second quarter of 1884, and was below the average rate in the corresponding quarters of the ten years 1875-84. The birth-rate and the death-rate were also below their respective averages. The mean temperature of the quarter was below the average, and the weather generally was favourable to the public health.

During the three months ending September last, the births of 218,204 children were registered in England and Wales, equal to an annual rate of 31.5 per 1,000 of the population, estimated by the Registrar-General to be nearly twenty-seven and a half millions of persons. This birth-rate was 2.3 per 1,000 below the average, and lower than in any of the ten preceding corresponding quarters; so low a birth-rate has not been recorded in the third quarter of any year since 1849. The birth-rate last quarter did not exceed 26.0 in Herefordshire, and 26.1 in Sussex, while in the other counties it ranged upwards to 35.6 in Durham, and 36.3 in Monmouthshire. In the twenty-eight large towns for which the Registrar-General publishes weekly returns, the average birth-rate last quarter was 32.5 per 1,000, ranging from 24.5 in Brighton to 43.6 in Cardiff. The births registered in England and Wales during the quarter under notice exceeded the deaths by 104,162; this represents the natural increase of the population during that period. From returns issued by the Board of Trade, it appears that 77,317 emigrants sailed from the various ports of the United Kingdom at which emigration-officers are stationed; of these, 41,215 were English, 6,040 Scotch, and 15,604 Irish. The proportions of emigrants to a million of the population in the three divisions of the United Kingdom were 1,499 from England, 1,546 from Scotland, and 3,173 from Ireland.

The deaths of 114,042 persons were registered in England and Wales during the third quarter of this year, equal to an annual rate of 16.5 per 1,000 of the population; with the single exception of the third quarter of 1879, the death-rate last quarter was lower than in any summer quarter since civil registration commenced in 1837. This low rate implies that nearly 26,000 persons survived the three months who would have died had the death-rate corresponded with the average. The rate of mortality among the urban population of the country, estimated at more than sixteen millions of persons, was equal to 17.8 per 1,000; in the remaining and chiefly rural population of nearly eleven millions, the rate did not exceed 14.4. These urban and rural rates were considerably below their respective averages for the corresponding period of the ten preceding years. The death-rate last quarter in England and Wales among infants was 11.9 per cent. below the average; that of children and adults between one and sixty years 11.0 per cent., and that of persons aged sixty years and upwards 0.7 per cent., below the average. The 114,042 deaths from all causes registered in England and Wales last quarter included 17,116 which were referred to the principal zymotic diseases; of these, 7,777 resulted from diarrhoea, 2,668 from measles, 2,646 from whooping-cough, 1,489 from "fever" (principally enteric), 1,263 from scarlet fever, 912 from diphtheria, and 361 from small-pox. These 17,116 deaths were equal to an annual rate of 2.47 per 1,000, which was considerably below the average of the ten preceding corresponding quarters; this reduction in the zymotic death-rate was mainly due to the low mortality from diarrhoea and from scarlet fever. The fatality of "fever" was also much below the average.

HEALTH OF ENGLISH TOWNS.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,895 births and 3,075 deaths were registered during the week ending Saturday, October 31st. The annual rate of mortality, which had risen in the five preceding weeks from 15.9 to 18.5 per 1,000, declined again to 18.0. The rates in the several towns, ranged in order from the lowest, were as follow: Norwich, 9.7; Bradford, 13.1; Birmingham, 14.0; Sunderland, 14.2; Halifax, 14.8; Portsmouth, 15.1; Bolton, 15.6; Hull, 15.7; Blackburn, 16.7; Nottingham, 17.0; Sheffield, 17.1; Birkenhead, 17.4; London, 17.5; Leicester, 17.6; Wolverhampton, 17.8; Leeds, 18.6; Bristol, 18.7; Newcastle-upon-Tyne, 19.8; Derby, 19.8; Preston, 20.3; Cardiff, 21.0; Salford, 21.2; Oldham, 21.5; Manchester, 21.8; Liverpool, 23.4; Brighton, 23.7; Huddersfield, 23.9; and, the highest rate during the week, 24.0 in Plymouth. In the twenty-seven provincial towns, the death-rate averaged 18.5 per 1,000, against 17.5 in London. The 3,075 deaths registered during the week in the twenty-eight towns included 65 which were referred to measles, 64 to whooping-cough, 54 to diarrhoea, 33 to scarlet fever, 32 to "fever" (principally enteric), 19 to diphtheria, and 6 to small-pox; in all, 273 deaths resulted from these principal zymotic diseases, against 340 and 299 in the two preceding weeks. The zymotic death-rate was equal to 1.6 per 1,000. In London the zymotic rate was 1.4, while it averaged 1.8 per 1,000 in the twenty-seven provincial towns, and ranged from 0.0 in Norwich and in Halifax, to 3.2 in Cardiff, and 4.7 in Preston. The fatal cases of measles, which had been 66 and 62 in the two preceding weeks, were 65 during the week, and had been 66 and 62 in the two preceding weeks, were 65 during the week, and showed the largest proportional fatality in Manchester and Newcastle-upon-Tyne. The 64 deaths referred to whooping-cough showed an increase of 7 upon the number in the previous week, and caused the highest death-rates in Preston, Birkenhead, and Sunderland. The fatal cases of diarrhoea, which had steadily declined in the twelve preceding weeks from 628 to 52, were 54. The 33 deaths referred to scarlet fever showed a considerable decline from the numbers returned in any recent week, and showed the largest proportional fatality in Preston and Leicester. The fatal cases of "fever," which had been 38 and 40 in the two preceding weeks, declined to 32; this disease was proportionally most fatal in Cardiff, Portsmouth, and Plymouth. The 19 deaths referred to diphtheria in the twenty-eight towns showed a marked further decline from recent weekly numbers, and were fewer than in any week since the middle of August: 10 occurred in London, and 3 in Liverpool. Of the 6 fatal cases of small-pox, 4 were recorded in London (exclusive of 5 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), 1 in Nottingham, and 1 in Preston. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined in the twenty-one preceding weeks from 1,389 to 99, had further fallen to 88 on Saturday, October 31st; the admissions, which had been 16 and 11 in the two previous weeks, were 14 during the week. The death-rate from diseases of the respiratory organs in London was equal to 4.6 per 1,000, and was slightly below the average. The causes of 76, or 2.5 per cent., of the 3,075 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

During the week ending Saturday, November 7th, 5,936 births and 3,389 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality, which had been 18.5 and 18.0 in the two preceding weeks, rose again during the week to 19.9. The rates in the several towns, ranged in order from the lowest, were as follow:—Halifax, 13.5; Brighton, 13.6; Sunderland, 15.0; Leicester, 15.7; Hull, 16.2; Birmingham, 16.3; Bradford, 16.3; Derby, 16.9; Huddersfield, 17.9; Salford, 18.1; Leeds, 18.6; London, 19.0; Sheffield, 19.6; Cardiff, 19.9; Nottingham, 20.0; Portsmouth, 20.1; Bristol, 20.3; Wolverhampton, 20.4; Norwich, 20.6; Newcastle-upon-Tyne, 22.5; Birkenhead, 23.5; Liverpool, 24.4; Blackburn, 24.6; Plymouth, 26.1; Oldham, 26.4; Manchester, 27.1; Bolton, 28.9; and, the highest rate during the week, 33.3 in Preston. The death-rate in the twenty-seven provincial towns averaged 20.6 per 1,000, and exceeded by 1.7 the rate recorded in London, which, as before stated, was 19.0 per 1,000. The 3,389 deaths registered in the twenty-eight towns included 286 which were referred to the principal zymotic diseases, against 340, 299, and 273 in the three preceding weeks; of these, 84 resulted from measles, 48 from scarlet fever, 42 from whooping-cough, 42 from "fever" (principally enteric), 38 from diarrhoea, 30 from diphtheria, and 2 from small-pox. These 286 deaths were equal to an annual rate of 1.7 per 1,000. The zymotic death-rate in London was equal to 1.5, while in the twenty-seven provincial towns it averaged 1.8, among which it ranged from 0.3 and 0.6 per 1,000 in Hull and Huddersfield, to 3.2 in Liverpool, 3.4 in Plymouth, and 3.7 in Newcastle-upon-Tyne. The deaths referred to measles, 84, and showed the largest proportional fatality in Manchester, Liverpool, and Newcastle-upon-Tyne. The fatal cases of scarlet fever, which in the three previous weeks had declined from 58 to 33, rose again during the week to 48, and caused the highest death-rate in Leeds. The 42 deaths from whooping-cough recorded in any week since September, 1883. The fatal cases of "fever," which this disease was proportionally most fatal in Portsmouth and Norwich. The 38 from 39 to 19, increased during the week to 30, of which 16 occurred in London, in the twenty-eight towns during the week, 1 occurred in London (exclusive of 4 side Registration London), and 1 in Liverpool. The number of small-pox patients end of May last from 1,389 to 88, were 90 on Saturday, November 7th; the admissions, which had been 11 and 14 in the two preceding weeks, further rose the week was equal to 5.0 per 1,000, and slightly exceeded the average. The causes of 86, or 2.5 per cent., of the 3,389 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,881 births and 3,304 deaths were registered during the week ending Saturday, November 14th. The annual rate of mortality, which had been

18.0 and 19.9 per 1,000 in the two preceding weeks, declined during the week to 19.0. The rates in the several towns, ranged in order from the lowest, were as follow: Nottingham, 12.3; Leicester, 13.4; Hull, 14.8; Birkenhead, 15.1; Bradford, 15.6; Leeds, 15.8; Norwich, 16.6; Huddersfield, 16.7; Brighton, 16.8; Halifax, 16.9; Birmingham, 17.7; Sheffield, 17.9; Salford, 18.7; Newcastle-upon-Tyne, 18.7; Sunderland, 18.7; Bristol, 19.1; London, 19.6; Portsmouth, 20.1; Plymouth, 20.6; Derby, 20.9; Manchester, 22.4; Cardiff, 22.6; Blackburn, 22.7; Oldham, 23.1; Bolton, 23.2; Liverpool, 24.6; Wolverhampton, 25.0; and, the highest rate during the week, 26.5 in Preston. In the twenty-seven provincial towns the death-rate averaged 19.2 per 1,000, against 19.6 in London. The 3,304 deaths registered during the week in the twenty-eight towns, included 85 which were referred to measles, 69 to whooping-cough, 47 to scarlet fever, 38 to diphtheria, 33 to "fever" (principally enteric), 33 to diarrhoea, and 5 to small-pox; in all, 310 deaths resulted from these principal zymotic diseases, against 273 and 286 in the two preceding weeks. The zymotic death-rate was equal to 1.8 per 1,000. In London the zymotic rate was 2.0, while it did not average more than 1.6 per 1,000 in the twenty-seven provincial towns, and ranged from 0.5 in Bristol and in Blackburn, to 2.7 in Leicester, 3.2 in Liverpool, and 3.6 in Brighton. The fatal cases of measles, which had increased in the three previous weeks from 62 to 84, were 85 during the week, and showed the largest proportional fatality in Liverpool and Brighton. The 69 deaths referred to whooping-cough showed an increase of 27 upon the low number returned in the preceding week, and caused the highest death-rate in Brighton. The fatal cases of scarlet fever, which had been 33 and 48 in the two preceding weeks, were 47 during the week; this disease was proportionally most fatal in Leicester. The 38 deaths from diphtheria, in the twenty-eight towns, showed a further increase upon recent weekly numbers, and included 26 in London, 2 in Liverpool, and 2 in Cardiff. The fatal cases of "fever," which had been 32 and 42 in the two preceding weeks, declined to 33, and caused the highest death-rates in Leicester, Bolton, and Newcastle-upon-Tyne. The 33 deaths from diarrhoea showed a further decline from those returned in recent weeks. Of the 5 fatal cases of small-pox during the week in the twenty-eight towns, 1 was recorded in London (exclusive of 2 of London residents from registration London), 3 in Liverpool, and 1 in Bristol. The number of small-pox patients in the Metropolitan Asylum Hospitals, which, at the end of the two preceding weeks had been 88 and 90, had declined to 79 on Saturday November 14th. The admissions, which had been 11, 14, and 21 in the three previous weeks, declined again during the week to 11. The death-rate from diseases of the respiratory organs in London was equal to 5.2 per 1,000, and was below the average. The causes of 69, or 2.1 per cent., of the 3,304 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, October 31st, 855 births and 518 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 19.1 and 17.9 per 1,000 in the two preceding weeks, rose again to 21.2 during the week, and exceeded by 3.2 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 11.6 in Perth, 14.2 in Aberdeen, 15.6 in Edinburgh, 17.4 in Dundee, 17.5 in Leith, 20.0 in Greenock, 25.5 in Paisley, and 27.3 in Glasgow. The 518 deaths registered during the week included 55 which were referred to the principal zymotic diseases, against 59 and 43 in the two preceding weeks; of these, 15 resulted from diarrhoea, 13 from scarlet fever, 9 from whooping-cough, 7 from "fever" (principally enteric), 2 from diphtheria, 9 from small-pox. These 55 deaths were equal to an annual rate of 2.3 per 1,000, which exceeded by 0.7 the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates during the week were recorded in Glasgow, Aberdeen, and Paisley. The deaths from diarrhoea, which had been 21 and 12 in the two previous weeks, rose to 15, but were considerably below the number returned in the corresponding period of last year; 7 occurred in Glasgow and 3 in Aberdeen. The fatal cases of scarlet fever, which had declined in the three preceding weeks from 12 to 7, rose again during the week to 13, of which 9 were recorded in Glasgow, and 2 in Aberdeen. The 9 deaths from diphtheria exceeded the number in any week since August last; and included 4 in Glasgow and 2 in Edinburgh. The 9 fatal cases of whooping-cough corresponded with the number recorded in the preceding week; 6 occurred in Glasgow, and 2 in Edinburgh. The deaths referred to different forms of fever, which had been 8 in each of the two preceding weeks, were 7 during the week, and included 3 in Glasgow, and 2 in Dundee. Of the 2 fatal cases of measles, 1 occurred in Glasgow, and 1 in Paisley. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.1 per 1,000, against 4.6 in London. The causes of 65, or 12.5 per cent., of the 518 deaths registered during the week in these Scotch towns were uncertified.

In the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 782 births and 480 deaths were registered during the week ending Saturday, November 7th. The annual rate of mortality, which had been 17.9 and 21.2 per 1,000 in the two preceding weeks, declined to 19.7 during the week, and was slightly below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 14.5 in Edinburgh, 16.0 in Leith, 16.9 in Greenock, 17.0 in Dundee, 18.4 in Aberdeen, 24.1 in Glasgow, and 24.6 in Paisley. The 480 deaths registered during the week in these Scotch towns included 17 which were referred to scarlet fever, 17 to diarrhoea, 10 to whooping-cough, 10 to "fever," 4 from these principal zymotic diseases, against 43 and 55 in the two preceding weeks. These 61 deaths were equal to an annual rate of 2.5 per 1,000, which exceeded by 0.8 the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns during the week were recorded in Perth, Glasgow, and Paisley. The deaths from scarlet fever, which had been 7 and 13 in the two preceding weeks, further rose during the week to 17, of which 11 occurred in Glasgow, 3 in Aberdeen, and 2 in Greenock. The 17 fatal cases of diarrhoea also showed a further increase upon recent weekly numbers, and included 11 in Glasgow, and 3 in Aberdeen. The deaths referred to whooping-cough, which had been 9 in each of the two previous weeks, were 10 during the week, of which 7 were recorded in Glasgow, and 2 in Paisley. The 10 fatal cases of fever exceeded by 3 the number in the preceding week; 4 occurred in Edinburgh, 2 in Glasgow, and 2 in Dundee. Of the 4 deaths referred to measles, 2 were returned in Glasgow, and 2 in Paisley.

The 2 fatal cases of diphtheria showed a considerable decline from recent weekly numbers. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 5.2 per 1,000, against 5.0 in London. As many as 69, or 14.3 per cent., of the 480 deaths registered during the week in these Scotch towns, were uncertified.

During the week ending Saturday, November 14th, 800 births and 500 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,260,170 persons. The annual rate of mortality, which had been 21.2 and 29.7 per 1,000 in the two preceding weeks, rose again to 20.5, and exceeded by 1.5 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 11.4 in Leith, 16.3 in Dundee, 17.0 in Edinburgh, 18.4 in Aberdeen, 23.3 in Greenock, 24.3 in Glasgow, and 29.0 in Paisley. The 500 deaths registered during the week included 44 which were referred to the principal zymotic diseases, against 65 and 61 in the two preceding weeks; of these, 13 resulted from diarrhoea, 12 from scarlet fever, 10 from whooping-cough, 6 from diphtheria, 2 from measles, 1 from "fever," and not 1 from small-pox. These 44 deaths were equal to an annual rate of 1.8 per 1,000, which corresponded with the average zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic death-rates were recorded in Greenock, Glasgow, and Paisley. The 13 deaths from diarrhoea showed a decline of 4 from the number in the preceding week, and were considerably below the number returned in the corresponding period of last year. The fatal cases of scarlet fever, which had risen from 7 to 17 in the three previous weeks, declined to 12, of which 9 occurred in Glasgow. The 10 deaths from whooping-cough corresponded with the number in the preceding week, and included 9 in Glasgow. The fatal cases of diphtheria, which had been 9 and 2 in the two previous weeks, rose to 6 during the week, of which 2 occurred in Glasgow, and 2 in Edinburgh. Of the 2 deaths from measles, 1 was returned in Paisley, and 1 in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.4 per 1,000, against 5.2 in London. As many as 71, or 14.2 per cent., of the 500 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending October 31st, the number of deaths registered in the sixteen principal town-districts of Ireland was 842. The average annual death-rate represented by the deaths registered was 20.7 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 5.2; Belfast, 18.3; Cork, 16.9; Drogheda, 25.4; Dublin, 24.8; Dundalk, 13.1; Galway, 6.7; Kilkenny, 29.6; Limerick, 20.2; Lisburn, 14.5; Londonderry, 14.3; Lurgan, 20.5; Newry, 10.5; Sligo, 14.4; Waterford, 25.5; Wexford, 21.4. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.4 per 1,000, the rates varying from 0.0 in nine of the districts to 10.3 in Lurgan; the 4 deaths from all causes registered in that district comprising 1 from scarlatina and 1 from whooping-cough. Among the 77 deaths from all causes in Belfast were 2 from measles, 7 from scarlatina, 1 from whooping-cough, and 6 from diarrhoea; and the 26 deaths in Cork comprised 1 from measles, 2 from scarlatina, 1 from whooping-cough, and 2 from diarrhoea; in the Dublin Registration District, the deaths registered during the week amounted to 173. There were only fourteen deaths from zymotic diseases registered in Dublin; they consisted of 4 from scarlet fever, 4 from whooping-cough, 4 from enteric fever, and 2 from erysipelas. Thirty-two deaths from diseases of the respiratory system were registered in Dublin; they comprised 6 from bronchitis and 9 from pneumonia or inflammation of the lungs. The deaths of 12 children under five years of age (including 9 infants under one year old) were ascribed to convulsions. Five deaths were caused by apoplexy, 4 by epilepsy, 12 by other diseases of the brain and nervous system (exclusive of convulsions), and 6 by diseases of the circulatory system. Phthisis caused 27 deaths, mesenteric disease 6, and cancer 4. Two accidental deaths and one case of suicide were registered. In thirty instances there was "no medical attendant" during the last illness.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed the Examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on Thursday, November 19th, 1885.

Freeman, Charles Delamark, 218, Marylebone Road, N.W.
Rendall, Percy John, 20, Ladbrooke Square, W.

The following gentleman passed his examination in the Science and Practice of Medicine, and received his certificate to practise.

Bradbury, John Augustus, Claude Villa, Lone Walk, Denmark Hill.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, November 9th, 1885, and following days, the under-mentioned candidates were successful.

For the Licences to practise Medicine and Midwifery.—A. Brown, Hornick, Lancashire; C. H. Graham, Cheltenham; J. H. Halpin, Wicklow; S. H. N. Harrington, Liverpool; M. C. Kennedy, Dublin; R. Stopford, Wigan, Lancashire; E. H. Tweedy, Dublin; C. J. Urquhart, Grange, Edinburgh.

For the Licence to practise Medicine only.—J. P. Cavenagh, Dublin; W. Frazer, M.D. Univ. Dub., Bournemouth; G. W. Hambleton, Forest Hill; C. G. Hutchinson, Osmaston Rectory, by Derby; W. A. Mahon, Clonskeagh, Dublin; J. L'E. McGrane, Banagher, King's County; G. P. L'E. Nugent, M.B. Univ. Dub., Dublin; H. Pollen, M.B. Univ. Dub., Gisborne, New Zealand; J. N. Robson, Edinburgh; R. J. Sheperd, Dublin; H. Whelan, Limerick.

For the Licence to practise Midwifery only.—R. Thomson, M.D.R.U.I., Bangor, co. Down.

At a special examination for the Licence to practise Midwifery, held

on Wednesday, November 4th, the following candidate was successful.
T. W. Dwyer, M.D.R.U.I., The Ovens, co. Cork.

UNIVERSITY OF EDINBURGH.—The following is the official list of candidates who passed the first professional examination for the degrees of M.B. and C.M. in October last.

R. C. Adamson, M.A., R. D. R. Allison, R. Andrew, E. F. Armour, M.A., R. Arthur, M.A., C. Ayres, B.A., J. H. Aytoun, L. E. Barnett, J. H. Battersby, J. C. H. Beaumont, F. Beecroft, W. E. Begbie, M.A., A. Bentham, W. A. Betts, A. S. Bowes, F. D. Boyd, F. P. Bremner, J. W. W. Bridges, J. Brunton, G. C. Campton, D. Campbell, T. V. Campbell, M.A., S. W. Carruthers, W. J. Cattain, W. R. Chew, J. M. Crawford, H. G. Creelman, A. Dott, T. Duff, E. E. Dyer, H. A. Eaton, T. W. Eden (with distinction), R. Edie, F. A. Elkins, A. Elliot, M.A., W. E. L. Elliott, C. S. Facey, W. F. Farquharson (with distinction), R. H. J. Fetherston, R. A. Fleming, M.A., C. M. Flide, W. Forgyce, M.A., A. W. George, R. J. George, D. Gibb, C. G. Gibson, D. H. M. Graves, A. Gray, R. Griffith-Owen, P. J. B. Haig, A. C. Hall, A. C. Harkness, J. Harvey, J. B. Hawthorn, L. W. Hignott, A. G. Huie, T. A. Hynes, S. Jamieson, C. A. Johnston, T. L. Kennish, E. J. Keogh, A. L. Kerr, W. Kinnear, M.A., D. J. Knys, J. H. W. Laing, M.A. (with distinction), H. C. Lamport, S. M. Laurence, C. B. Lawson, J. Liddell, M.A., F. W. Lyle, A. J. M'Cluskey, J. M'Donald, P. S. L. MacDougall, A. J. MacGregor, J. R. M'Intosh, B.A., A. M. Mackay, D. J. Mackay, C. C. MacKnight, C. C. MacLeod, M.A., W. B. MacTear, F. W. Marshall, R. B. Martin, E. P. Maynard, A. K. Melville, T. Messenger, A. Miles, J. Montgomery (with distinction), T. H. Morgan, R. Muir, M.A., H. T. Mursell, J. J. G. Nasmyth, J. van Niekerk, W. M. Parham, C. P. Parry, T. C. Paterson, B. L. Paton, W. Polson, S. Poole, H. Prain, J. Randle, J. R. Ratcliffe, E. W. Rayment, A. G. Reid, P. M. Reid, F. W. Reitz, W. J. Richardson, A. B. Ritchie, J. Ritchie, M.A. (with distinction), R. I. Robertson, J. B. Robinson, K. Rosie, H. C. N. Sakir, W. G. W. Sanders, C. B. Savory, J. F. Scott, J. A. Scott, W. A. Scott, M.A., J. H. Smith, W. Smith, J. Smuts, W. Smyth, J. Somerville, H. A. Stalkart, J. D. Stanley, J. W. Steven, A. N. J. Story, G. T. Tate, J. M. Thom, J. C. Thomson, M.A., J. M. Thomson, W. T. Thomson, A. L. Turner, G. G. Watson, W. Weir, B.Sc. (with distinction), E. N. K. Wells, L. S. Wells, A. Whyte, M.A., B.Sc., A. W. Wilcox, A. M. Williamson, J. D. Williams, G. R. Wilson, J. Wilson, M.A., J. H. Wilson, C. N. C. Wimberley.

VICTORIA UNIVERSITY, MANCHESTER.—The following degrees were conferred by the Vice-Chancellor of the University, in the Owens College, on Thursday, November 5th.

J. M. Clarke, E. Gordon.

These are the first candidates who, having pursued prescribed courses of study and passed the required examinations, have been admitted to this degree.

MEDICAL VACANCIES.

The following vacancies are announced.

BRISTOL GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum. Applications by December 2nd.

CHelsea HOSPITAL FOR WOMEN, Fulham Road, S.W.—Assistant-Physician. Applications by November 30th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by December 1st.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 7th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Assistant-Anaesthetists. Applications by December 14th.

OWENS COLLEGE, Manchester.—Lecturer on Medical Jurisprudence. Applications by November 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology. Applications by November 28th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Chemistry. Salary, £100 per annum. Applications to G. P. Field, Deans.

ST. MARYLEBONE GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum. Applications by November 30th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Registrar. Salary, £63 per annum. Applications by December 7th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 7th.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer for the Infirmary and Workhouse. Salary, £120 per annum. Applications by November 30th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Ophthalmic Surgeon. Applications by December 7th.

WHITECHAPEL UNION.—Assistant Medical Officer of the Infirmary. Salary, £150 per annum. Applications by December 7th.

MEDICAL APPOINTMENTS.

BROOKHATT, A. A., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

CALDECOTT, Charles, M.R.C.S. Eng., L.S.A. Lond., appointed Resident Medical Officer to the Eastern Counties Asylum for Idiots, Colchester, *vice* Dr. Coombes, resigned.

CROWDY, F. D., M.B. Oxon., M.R.C.S., L.S.A., appointed Assistant House-Physician to St. Thomas's Hospital.

GERAGHTY, James, M.D., M.Ch., appointed Medical Officer to the Bullaun Dispensary District, Loughrea Union.

GODFREY, A. E., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

HAIG, F. M., M.R.C.S., L.S.A., appointed Non-resident Physician to St. Thomas's Hospital.

HUTTON, J. S., L.R.C.P., M.R.C.S., L.S.A., appointed Resident House-Physician to St. Thomas's Hospital.

JOHNSTON, G. D., L.R.C.P., M.R.C.S., appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

KIDD, Cameron, L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

LANKESTER, H. H., M.B. Lond., M.R.C.S., L.S.A., appointed Resident Accoucheur to St. Thomas's Hospital.

LAWSON, R., M.R.C.S., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.

FLOWMAN, S., L.R.C.P., M.R.C.S., L.S.A., appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

RITCHIE, E. D., M.R.C.S., L.S.A., appointed Resident House-Physician to St. Thomas's Hospital.

RELTON, B., M.R.C.S., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.

ROBERTS, W. LAKE, M.R.C.S.E., appointed Honorary Surgeon to the Bradford Infirmary, *vice* Herbert Spencer, M.R.C.S.E., resigned.

ROBERTSON, Robert, M.D., appointed Assistant-Physician to the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor, Isle of Wight.

SAUNDY, Robert, M.D. Edin., M.R.C.P. Lond., appointed Consulting Physician to the Birmingham and Midland Counties Eye Hospital, and Consulting Physician to the Birmingham Dental Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

Pocock.—On the 19th instant, at Broadlands, Effra Road, S.W., the wife of Walter Pocock, M.R.C.S.E., L.S.A., of a daughter.

DEATH.

LYDDON.—On November 16th, at his residence, 37, Exchange Street, Norwich, John Henry Lyddon, L.R.C.S.I., L.S.A. Lond., aged 41 years, deeply regretted by all who knew him.

PRESENTATION.—At the anniversary dinner of the Loyal Flower of Lambeth Lodge, No. 225, Independent Order of Odd Fellows, Manchester Unity, held at Anderson's Hotel, Fleet Street, E.C., on November 14th, an illuminated address, together with a set of surgical instruments, were presented to the Lodge-Surgeon, Mr. F. Blackman, who has held this office for the last twenty-four years. The proceedings were of a pleasant character.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Stephen Mackenzie: On Ulcer of the Stomach. Mr. A. Boyce Barrow: On the Treatment of Varicose.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Gulliver: Stricture of Small Intestine and Hemorrhage into Adrenals. Mr. D'Arcy Power: Two Cases of Osteitis Deformans. Dr. Norman Moore: New Growths in the Heart and Viscera. Dr. Carrington: Malignant Disease of Thyroid Body. Mr. Arbuthnot Lane: Pressure-Changes in the Joints and Extremities. Mr. Hutchinson, jun.: Subperitoneal Lipoma. Mr. Stonham: Two Specimens of Lipoma of the Spermatic Cord. Dr. Haig: Aneurysm in Wall of Left Ventricle. Dr. Hadden: Two Cases of Joint-Affection in Locomotor Ataxy. Dr. Silcock: Syphilitic Ulcerative Tracheitis. Mr. Shattock: Perforation of the Palate by Hypertrophied Upper Incisor in the Rat (card). Mr. Fenwick: Ulceration of the Bladder after Fracture of the Spine (card). Mr. Battle: Portion of Thumb, with Vessel and Nerve, amputated by String (card). Mr. Battle (for Mr. Croft): Bullet flattened by Frontal Bone. Mr. Bruce Clarke: Early Puberty (living).

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Lewers and others. Dr. Arnold W. Thomson: A Case of Protracted Pregnancy. Drs. Matthews Duncan and Thinn: On the Inflammations and the Histology of Lupus of the Pseudum. Dr. H. Roxburgh Fuller: A Case of Spurious Labour.

THURSDAY.—Harveian Society of London, 8.30 P.M. Harveian Lectures, by Dr. T. Buzzard, on Some Varieties of Paralysis dependent upon Peripheral Neuritis.

FRIDAY.—West London Medico-Chirurgical Society, 8 P.M. Mr. H. Percy Dunn: Sac and Adjacent Parts of a Large Omental Hernia; Pendulous Growths from Mucous Membrane of Stomach; Tubercular Disease of Testis; Tubercular Disease of Kidney. Mr. C. B. Keetley: Osteotomy of Hip; Case of Complete Obliteration of One Nostril by Syphilis (congenital); Case of Removal of Whole of Lower Lip for Epithelioma; Mr. Leonard Mark: Drawing of the above case before removal. Mr. J. R. Lunn: Drawing of Case of Epithelioma of Lip. Mr. Dunn, for Surgeon Harold Hendley, I.M.S.: Some Cases of Interest from the late War in the Sudan. Mr. C. B. Keetley: Antiseptic Surgery at the West London Hospital. Dr. Sinclair Thomson: Suez as a Health-Resort, with Notes by the Way.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.—Chelsea Hospital for Women, 2 P.M.

TUESDAYSt. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2.30 P.M.

FRIDAYKing's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London 2.30 P.M.—East London Hospital for Children, 2 P.M.

SATURDAYSt. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F. 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 1.30; Skin, Tu., 1.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 6.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 9.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2. o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. **CORRESPONDENTS** not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE OWENS COLLEGE, MANCHESTER.

In reference to some information regarding candidates for the Professorship of Physiology at this College, contained in the letter of our Manchester correspondent, published in the JOURNAL of November 14th, Dr. J. Theodore Cash begs us to state that he has withdrawn his candidature for the above named appointment.

HYPODERMIC INJECTION OF OIL.

SIR,—Sympathising with "W. F. G." in his anxiety about his patient losing ground in spite of all remedies, including "hypodermic injection of oil," as described in the JOURNAL of November 14th, allow me to ask him if he has tried rectal feeding by defibrinated bullock's blood, as I had a case reduced to the lowest ebb, in which this treatment was followed by great and rapid improvement.—I am, sir, yours truly,
W. M. H., Member British Medical Association.

MATERNAL IMPRESSIONS AND CONGENITAL DEFORMITIES.

SIR,—Dr. Webb's narrative seems undoubtedly to prove that specific impressions will produce specific effects; that a shock from seeing a hare-lip must necessarily produce a hare-lip. I should not be convinced that this was the case if I had not seen some time ago two cases which advanced in pregnancy, namely, three months, living in different villages. They both experienced a severe shock on the same day (Plough Monday), when it is customary for men with blackened faces, dressed up as women, to go about rudely demanding money, rattling tin boxes, and making hideous noises. I attended both these women within a few days of one another; both children were deformed; one had a simple hare-lip, the other a hare-lip and cleft palate. They both attributed the malformation to the shock received on Plough Monday; each was unaware of the other's trouble.

At the end of the third month of intra-uterine life, the mouth is closed; at the end of the fourth month, the mouth is found to be open, so that development is active in that particular region, and a shock received just at that time would be likely to result in an arrest of development there.

None of the men causing the fright to these women had a hare-lip. In my opinion, in Dr. Webb's case, had any other cause of shock happened at that particular time, it would probably have resulted in a hare-lip. Yours faithfully,
ROBERT GIBBS.

Orchard House, Teignmouth, Devon.

SIR,—The following case may be of interest. In 1881, I attended Mrs. —, the wife of a gentleman's coachman in South Kensington. Immediately on the birth of the child, and before the cord had been divided, the patient anxiously inquired if the child was "all right," saying she had grave fears that "something was wrong with it."

On examination, I discovered that the entire roof of the mouth, both soft and hard palates, was cleft, also the lip, and the nasal septum and cartilage wanting. In all other respects, the child was properly developed. There was no difficulty about respiration, but there was inability to swallow, or give utterance to sound, beyond a faint squeaking cry. The child lived about three days. I made two or three unsatisfactory attempts to pass milk into the stomach by means of a flexible tube.

The mother and one of her neighbours informed me that early during her pregnancy she had been much frightened when an accidental witness to a street altercation, one of the most prominent of the disputants being greatly deformed about the nose and mouth. She had from that time, it appeared, constantly expressed fears that her child "would not be right."

One other case in my experience was curious. A child was born minus the left hand. The mother in this case had been greatly upset by suddenly seeing the exposed stump of an arm after amputation below the elbow.

At the time, I looked on the former case as a coincidence only. The latter I ascribed to intra-uterine amputation, due probably to constriction by the cord being coiled round the limb, though not less curious as a coincidence also. How much such cases are due to maternal impression, or whether they are to be considered merely as cases of singular coincidence, I leave to the learned, but the subject is certainly interesting. Both the women referred to were of nervous excitable temperaments.—I am, sir, yours faithfully,
F. DINGLEY PITT, L.R.C.P. Ed.

SIR,—I should like to ventilate a theory about this subject, which, as far as I know, is somewhat novel. There is an approach to the theory in writings on the subject, where blows and kicks on the abdomen, and falls, are mentioned as exciting causes. It is also known that embryologists—especially French—on making experiments with eggs during incubation, such as shaking them and on changing their position, have been able to produce various kinds of deformities in the chick.

Now, is it not possible that, in the early weeks or months of pregnancy, a violent coitus might have the same kind of disturbing effect on the human embryo, and produce all those wonderful and ugly phenomena of arrested development and perverted growths, the classification of which has almost grown into a science of itself? There is much to be said in favour of maternal impressions. I have published a remarkable case myself. In our present want of more light, why should we not admit both causes? If the former theory be accepted, the lesson to be drawn from it is, that, under the circumstances mentioned, the offer to Venus, if made at all, should be made in the gentlest possible manner.—I am, sir, yours truly,
M.D.

THE DANGER OF MIDWIVES.

SIR,—The following case that has occurred to me, whilst acting as locum tenens at Bristol, points out the danger of unqualified midwives to the public, and the necessity for some more stringent law to regulate their practice. I was called on October 19th, to see a woman in labour who was being attended by a midwife, as the friends were becoming anxious as to her condition. I found her perfectly blanched and flooding, and was then informed that she had been more or less in this condition for the past week, as indeed the state of the bed, and other articles of wearing apparel shown to me, proved; that it was merely the waters assuring the woman's friends that all was right, that it was merely the waters coming away. On examination, I found it to be a case of placenta previa, and as the woman was becoming rapidly exhausted, I deemed it necessary, for the safety of both mother and child, to turn and deliver, which I did; but, unfortunately, aid came too late, and she died three hours after delivery, truly the victim of an ignorant woman; for no doubt, had a medical man been called to the case when the bleeding first commenced, no danger would have resulted, at least to the mother. I trouble you with this, as I think such cases ought to be made public more frequently.—Yours faithfully,
C. STACEPOOL.
Salisbury.

GRADUATED BATHS IN ENTERIC FEVER.

SIR.—The practical conclusions regarding the use of baths in high temperatures, with which Dr. Ord sums up his Introductory Address on the "Heat of Fever," published in the JOURNAL of October 24th, induces me to draw attention to their efficacy in enteric fever as a simple means of mitigating the severity of that disease. Especially should their use be recommended to medical officers called to treat such cases in India, where, as a rule, their temperature-range is much higher, complications are more severe, and the mortality is almost double that of the home-type. All of us, I think, who have served in that country, have often realised how powerless were antipyretic drugs to appreciably reduce these temperatures.

During my last year in India, I used a graduated bath in all cases, as a rule, where the temperature reached 102.5° at 3 o'clock in the afternoon, and was rising. I had a special bath made for this purpose, a little over five feet long, and rather shallow. The patient, rolled in a thick blanket, was lifted into it, and the head rested on a pillow in the bath. The water was usually at a temperature of 86° Fahr.; instead of reducing it, it was gradually brought up to 92° and 93°. By this means, when the patient's temperature remained high, I was able to keep them in the bath for an hour or more without much feeling of chilliness. The tendency to the latter was also often obviated by keeping the hands warm. The temperature was frequently in an India-rubber bag filled with hot water. The temperature was frequently taken in the mouth. Many patients, in whom, owing to delirium, the observation before immersion, became quite tranquil in the bath, and the observation was easily made. In this way, I used it in seven very severe cases, in the summer and autumn of 1883, in Bangalore, at the Infirmary Station Hospital; of these, six recovered. In the case which died, it was only used twice, at a time when the bowel, as indicated by the stools, was in a gangrenous condition, and when the case was considered hopeless. When we look at the very early period at which cerebral and intestinal lesions appear in severe cases of Indian enteric, it becomes the more imperative that the bath should be early resorted to, and systematically continued, morning and afternoon, as long as the temperature runs high; a marked fall of two or more degrees will usually occur in three-quarters of an hour in a bath at about 90° Fahr. In other respects, improvement is noted; the dry and parched lips become moist and softer, the delirium disappears, and the intellect clears up. I have no doubt that if the bath-treatment, as laid down in most text-books, or in the way I have briefly noted, were more frequently resorted to, under the careful personal supervision of the medical officer in charge of the case, the mortality of this fever would be very much reduced in India.—I am, etc.,
J. PEDLOW, M.D., Surgeon, Medical Staff.

DYSTOCIA FROM RIGOR MORTIS IN THE FŒTUS.

SIR,—A case which corresponds very closely with that related in the JOURNAL for November 21st, occurred at the General Lying-in Hospital, S.E., two years ago, and will be found fully reported in the *Lancet* for July 12th, 1884 (p. 60). In the case related by Mr. Jones, both from the commencing desquamation of the cuticle, and also from the duration and intensity of the rigor mortis, the death of the fœtus presumably occurred some considerable time before delivery. Any data, however, bearing upon this point would be of interest.—I am, sir, yours faithfully,
ROBERT BONALL.
60, Gower Street, W.C.

A LONG-SUFFERING PATIENT.

SIR,—"F. R. S.," whose letter with the above heading appeared in the BRITISH MEDICAL JOURNAL of the 14th instant, might try the liquor nitroglycerini, or nitroglycerine tablets, every four hours, with fair prospect of success, which, with his highly neurotic patient, would be rendered more probable by the confidently expressed assertion that relief would ensue.

If this fail, I would recommend hypodermic doses of the homœopathic ethereal solution (1 per cent.) of phosphorus, which, although an ordinary physician, I have found a valuable preparation in such doses.

I should also give sulphate of copper or of zinc regularly in the aperient pills.
—Yours obediently,
S. H.

SWOLLEN MOUTH AFTER EATING PINEAPPLE.

SIR,—Can some of your correspondents inform me whether they have ever come across a case like the following? A gentleman about 40 years of age received a pineapple as a present. The fruit had an unusually dark rind. He ate several slices after dinner, carefully cutting off the rind, none of which touched his mouth. Within a few hours, his lips began to swell, the buccal mucous membrane becoming erythematous. The swelling did not disappear for twenty-four hours. The tongue was not affected. There was neither diarrhoea, nor nausea, nor loss of appetite, nor pain, nor any sense of general discomfort.—I am, etc.,
PELOBATES.

PRACTICE OF MEDICINE IN FRANCE.

ALPHA.—Foreign medical practitioners, desirous of permission to practise in France as *officiers de santé*, must present their diplomas to the Secretary of the Faculty of Medicine. If the Council of the Faculty report favourably, the permission is granted. If they desire to obtain the degree of Doctor of Medicine, they must pass the last two examinations, and present a thesis. The examinations comprise Hygiene, Forensic Medicine, Therapeutics, Materia Medica, Pharmacology, Clinical Medicine, Surgery, and Obstetrics, and Pathological Anatomy. Exception may be made in the case of medical men of acknowledged eminence.

THE PROGRESSIVE CHARACTER OF MEDICAL SCIENCE.

SIR,—I am anxious to state all facts correctly; be pleased, therefore, to correct an error in my letter in the JOURNAL of November 11th. The cost of alcoholic liquors per patient on the year 1885 was 10d. each, by Report of the Manchester Infirmary; in all cases where I could, I have taken the figures from the reports. It is due to the Middlesex Hospital to say that they have furnished me with a return showing that, in ten years, they have effected a reduction in beer, wine, and spirits from £1,049 8s. 2d. in 1875, to £547 4s. 7d. in 1884; whilst, in the Manchester Infirmary, they have reduced per patient from 7s. 2d. in 1875, to 10d. in 1884—to a much greater extent than at Middlesex.—Yours respectfully,
Sydenham Hill Road, S.E.
GEORGE STURGE.

PERSISTENT CONSTIPATION.

A MEMBER would be very glad of some hints on the treatment of the above malady in a girl aged 20 years. Various kinds of remedies have been used without any decided relief. Suppositories and enemas have been the most efficacious.

ERRATA.

In the BRITISH MEDICAL JOURNAL for November 21st, page 978, column 1, line 33 from bottom, for "which the finger could move," read "over which the finger could roll." In line 23 from bottom, for "in healing, it," read "in healing, the raw surface."

A CERVICAL COLLAR.

SIR,—In an article published in the *JOURNAL* of October 31st, my friend, Mr. Edmund Owen, describes a cervical collar, the inventorship of which he ascribes to Mr. Spratt, of New Bond Street. This is not quite the fact. Twenty years ago I used a collar, similar in principle, but moulded of tinned sheet-iron. After using various materials later, as improvements, I now use nothing but the twilled saw-dust collars, the commercial value of which barely reach the sum of one shilling each. This is the collar adapted by Mr. R. N. Pugh, and referred to by him in the discussion on Mr. Owen's paper. Mr. Critchley, of 88, Upper Pitt Street, has for some years been the Liverpool maker.—I am, yours truly,
LIVERPOOL.

HUGH OWEN THOMAS.

THE CONNECTION BETWEEN QUINCY AND RHEUMATISM.

SIR,—There is one point upon which Mr. Green and myself perfectly agree; and that is, "excessive muscular or nervous fatigue generally precedes both quincy and rheumatism;" but I cannot give consent to his view, that wet and cold have to do with the production of both these diseases. Quincy is not, as I have said before, the result of local chill; because, if it were, laryngitis would be a much more frequent accompaniment than it now is. It is not the result of general chill, inasmuch as I know, from personal experience, that a second attack rarely occurs till after the lapse of some months, no matter what the amount of exposure may be. If quincy be the product of rheumatic poison, we ought to have it occurring with a rheumatic fever often than it now does, and its progress ought surely to be in proportion to the intensity of the fever.

According to Mr. Green's view, the rheumatic poison may remain in the system for some time, and produce no other indication of its existence, but an occasional attack of tonsillitis. This is certainly a novel idea, and we shall require some further proof of its correctness. My statement as to the conclusion arrived at by the Collective Investigation Committee was made from memory, and I cannot still help thinking this same was put forward in a short subsequent report printed in the pages of the *JOURNAL*, or in a review of the Committee's work.—I am, sir, your obedient servant,
Surbiton.

F. P. ATKINSON.

PRACTICE IN AUSTRALIA.

SIR,—I have had great pleasure in reading the exhaustive and interesting account of Practice in Australia by "A Member," in the *JOURNAL* of October 10th; and I feel sure it will be highly appreciated by many young medical men in the British Isles who think of emigrating to Australia. I have no doubt that great difficulties are at first experienced in opening practice in Australia as well as in other countries, and that energy, perseverance, and a little capital are very necessary qualifications for that purpose. Your correspondent, however, thinks there are openings in country districts for young unmarried men, who would probably make £300 a year, as the country districts are not so overcrowded as the large towns; that is, if they can put up with the other social disadvantages incidental to country life. I am sure there are a great many young unmarried medical men in England who would be glad to commence practice at that income, considering there are hundreds of well qualified men in England who can scarcely get a respectable living, and who have been in practice for years. On looking through the advertising columns of the medical journals, how many well qualified men do we see who are offering their services as medical assistants for the magnificent stipend of £50 or £60 a year, and board and lodging; about as much (according to your correspondent, "A Member's," report) as a groom would receive from a medical man in Sydney, with the difference that the groom insists on butcher's meat three times daily, and the assistant in this country must take what he gets and be thankful.

I know several well qualified men with good testimonials who have tried their utmost to get appointments of any kind, and have failed, in this country, and who have been waiting, like Wilkins Micawber, for years for something to turn up, and with the same result.

Although I have never been in Australia, and therefore am not so competent to speak on the subject as "A Member," who says he is without practice, and, by his own account, he can make £300 a year by living in the country, I have nevertheless had communications from near relatives and friends who have emigrated there within the last three years, and all say they have succeeded in medical practice beyond their expectations. My brother-in-law writes home to say that he has only been wasting his time at home, and wishes he had gone to that colony several years ago. Taking into consideration these reports, the vast tide of emigration continually flowing into Australia, and the great value attached to British medical degrees by the colonists, who prefer British degrees to any others, I still think the chances of success for medical practice in Australia to young medical practitioners infinitely better than practice in England or the British Isles.—I am, etc.,
VERBUM SAP.

THE "PROPELLER BONE."

A CORRESPONDENT makes some laudatory comments on Mr. Bosanquet's comparison of the os innominatum to a screw-propeller (*JOURNAL*, November 7th, page 900). As far as shape goes, the simile is ingenious. But functionally there is no likeness, since a pair of twin-screws are separate, rotate round their axis, and are the immediate motor agents of the ship, whilst the innominate bones are fixed at the symphysis and posteriorly, through the medium of the sacrum, and serve as the attachments of the organs of locomotion. The caudal fin of a fish is a much better prototype of a screw-propeller, though it never rotates completely.

OFFENSIVE URINE.

SIR,—I shall feel obliged if any of your readers can offer me any suggestions as to the treatment of the following case. The patient, an unmarried woman, aged 28, micturates with normal frequency (and quantity) urine of the most offensive description, so much so that she is debarred from disposing of it in the usual way. Chemical investigation proves an absence of albumen and sugar; and the microscope shows no blood, pus, nor casts, but it swarms with bacteria. She is not hysterical, and, with the exception of an occasional attack of dyspepsia, appears perfectly healthy. The urine was examined as soon as passed. It has been offensive for years; she dates its commencement from a bad attack of scarlet fever. She objects to catheterism and vesical irrigation.—Faithfully yours,
Oakhill.

EDWIN DEANE.

F. K.—As a matter of fairness, Fellows of the Royal College of Surgeons of Edinburgh should call themselves "F.R.C.S.Ed." The letter "E" may mean either "Edinburgh" or "England."

ELECTROLYSIS IN STRICTURE OF THE URETHRA.

SIR,—My attention has been called to a short note in the *BRITISH MEDICAL JOURNAL* of October 3rd, in which Dr. Julius Althaus says "that the merit of having proposed an intelligible method of using electrolysis in such cases is not due to any American surgeon, etc." I cannot refrain from taking exception to such a statement. There are more American surgeons than one who have proposed and practised successfully methods of electrolysis for the treatment of urethral stricture. I will mention, for instance, Drs. Prince of Jacksonville, Frank of Titusville, Weiss of Buffalo, Butler of New York, who all have their own methods. I have myself practised electrolysis since 1868, and for fifteen years established my own method, and practised it in hundreds of cases, of which many are on record. This, my method, is now acknowledged and followed with equal success by many practitioners, and must be called an American, if not Newman's method. A description of this method is given in an article in the *Archives of Electricity and Neurology*, May, 1874, in which number Dr. Althaus has also contributed an article. More records and descriptions of the method are related in an article, in the *New York Medical Record* of August 12th and 19th, 1882, entitled *Ten Years' Experience in the Treatment of Stricture of the Urethra*.

In all my articles, I have given due credit to Mallez and Tripiet, Althaus, and others, going back as far as 1847. In the first mentioned paper, page 19, you will find the following: "It is freely admitted that the use of electricity in its diversified forms, with all kind of instruments, for the cure of stricture of the urethra, has been attempted long ago; but the method of electrolysis under consideration, and its availability to cure stricture, hereafter to be more fully described, is of recent date." Mallez and Tripiet deserve credit and praise for their work in electrolysis, and nobody appreciates more than myself their efforts, and gives them full credit for all they have done; but their merit does not deprive me of my claim of having proposed my own *modus operandi*, having modified the method, and constructed new instruments, fully described in my articles, so that now my method is not any more somebody else's procedure or invention.

I claim particularly for my method the following points; 1, weak currents which will absorb, while others used strong currents, which cauterised, destroyed, or made cicatrices, etc.; 2, long intervals between applications; 3, the selection of improved batteries, with a current of moderate intensity, but a fixed potential for each special case; on such depends the result; too high potential is injurious; too weak ineffective; 4, an established electrode-bougie, firm, well polished, with an egg-shaped bulb, a fixed short curve, well insulated except the bulb (others have used a wire covered with an elastic catheter, *vide* Althaus, *Medical Electricity*, 1873); 5, the electrode-bougie tunnelled, in order to combine the electrolysis with the passage of a guide to be used in small impassable strictures; 6, an instrument for emergencies, adapted from principles of Gonley, combining electrolytic bougie, tunnelled sound, and catheter, in order, at the same sitting, with one introduction, to relieve retention, to dilate (absorb) the stricture, and guide the instrument in such a way that false passages are impossible; 7, an unprecedented success of hundreds of cases, no failures, and tabular statistics of 100 cases of cure, in which no relapse occurred as long as they were observed, respectively from three and a half to eleven years.

That the success of the operation depends on the use of the negative pole to absorb the stricture every good operator knows; but that is a law of chemistry and not an invention. To demonstrate my successful method, and introduce it to the profession, I have laboured for fifteen years against the tide and apathy of the profession. Formerly my process was looked at with incredulity, but now, when at last the success is admitted, it looks as if many will claim priority. Pardon me for defending my claim, and asking simply for justice.—I am, etc.,
ROBERT NEWMAN, M.D.

68, West 35th Street, New York.

TREATMENT OF RINGWORM OF THE SCALP.

WE have received the following replies to the query of "A Member" in the *JOURNAL* of November 7th (page 900).

DR. ARTHUR HARRIES writes that, if "A Member" will refer to his letter in the *BRITISH MEDICAL JOURNAL* for January 3rd, page 55, he will find that oleate of copper, properly prepared and properly applied, will do all that is necessary. A considerably extended experience of its action more than confirms the views then expressed.

MR. ALFRED LEACH suggests the application, on three or four consecutive days, of a solution (saturated) of iodoform in eucalyptus oil. If this fail to effect a cure, shave the affected part, and apply, every few minutes, an ethereal solution of iodoform; allow time for complete evaporation, and, when the dry scales of iodoform appear, paint the part with compound tincture of benzoin. Mr. Leach commended this method of treatment about twelve months ago, has given it a severe and extensive trial, and, up to the present time, is unable to record a single failure. He will feel deeply indebted to "A Member" and any other gentlemen who will favour him with their results.

MR. J. G. W. BULLOCK (Rugby) recommends a trial of oleate of mercury with petroleum (10 per cent. will be sufficient). He has found it very efficacious in tinea tonsurans, one or two applications proving sufficient in most cases.

MR. W. DUNCAN (Frome) suggests a trial of goa or araroba ointment, which he has used on many cases of skin-disease, and never found fail to produce a cure. He has, however, never tried it for ringworm of the scalp, not having had an opportunity.

DR. ALDER SMITH, of Christ's Hospital, writes: I notice in the *JOURNAL* of November 21st that your correspondent X. advises a lotion (made by adding one drachm of calomel to the ounce of tincture of iodine) to be applied for chronic ringworm, in answer to a former question in your paper.

MAY I be allowed to warn your readers that the solution so made contains about eight grains of corrosive sublimate (perchloride of mercury) to the ounce of spirit, besides as much red iodide of mercury as the solution will take up. This, in my opinion, is far too strong a remedy to be used without the greatest care and caution, and then only to very small places of ringworm of the scalp as a vesicant. I am afraid some of your readers, not thinking what a potent drug they are employing, may inadvertently use the solution to large places of ringworm, with a result—I am afraid—that will be far from pleasant to the patient.

I am sorry to say my experience teaches me that, at present, we have no means of applying a parasiticide that will cure chronic ringworm of the head in two or three applications (as it is suggested this solution will do) without damaging the hair-follicles, and thus causing bald places. Messrs. Colbyn and Co. have kindly analysed the solution for me, and found it to contain 8 grains of corrosive sublimate to the ounce of spirit.

BABY-FARMING.

THE *Australasian Medical Gazette* of September, 1885, gives details of a case which has brought to light an establishment carried on by a midwife named Mary Anne Baker, at Lane Cove, near Sydney, for the care of children, principally illegitimate, whose parents find their charge inconvenient. One having died, an inquest was held, and it was discovered that Mrs. Baker was in the habit of leaving her establishment to the charge of a deputy. So complete was the state of isolation in which the Lane Cove Branch was kept by the direction of Mrs. Baker, that it appears in the evidence that Charlotte Wells, the deputy, was, with the children in her charge, two days and two nights without fire, she having had no matches, and having been told by her employer on no account to go near her neighbours on any excuse whatever. The cause of the death of the child appears to have been natural, and to such effect was the verdict of the jury, who added a rider stating that the jury recommended that the said baby-farm be suppressed, and attention was also drawn to a former recommendation to the same effect. At the same time, it became known that another child, two months old, the offspring of Charlotte Wells, had died without having been attended to by a medical man. It was buried as still-born, under the authority of the following certificate from Mrs. Baker: "I certify that I delivered Mrs. Wells, of Crown Street, of a mile child, *primæarly*, M. A. Baker, June 15th, 1885." This certificate, by no means unique in New South Wales, did not even certify that the child was dead, much less give any cause for the death, yet it was received and acted on by the cemetery-authorities with the utmost simplicity and faith.

A SMALL INFANT.

SIR,—In the *Obstetric Memoranda* of the *Journal* of November 14th, Dr. S. Jebb Scott has reported a case of a living female child weighing only 2 lbs. 8 oz. at birth; and, as he is anxious to know "whether there be any evidence of so small a child on record, excepting the children of dwarfs," I send the following case which occurred in my own practice.

On the morning of the 12th April last, I was summoned to attend a lady who was at the end of the seventh month of her third pregnancy. On my arrival, I found that she had, without any warning, been suddenly delivered of the smallest living child I had ever seen. The child was a female, and so small was it, that I thought it quite impossible for it to live; however, after it had been washed, I wrapped it carefully in cotton-wool (as it was too small to be dressed), and placed it in bed with its mother, until the arrival of the nurse.

Owing to some superstitious notion, the child was not weighed at its birth, but I feel confident that its weight could not have been more than 2 lbs. At the end of the first month, the child was carefully weighed, when its weight was only 3 lbs. 4 oz. At the end of the second month, it was again weighed, and its weight was then 6 lbs. The child has again been weighed to-day, November 18th, and now weighs exactly 13 lbs. She is now between seven and eight months old, and has just cut her first tooth.

The treatment of the child was as follows. For the first week, it was kept in cotton-wool, either before the fire or in its mother's arms. I also ordered the child to have three drops of brandy in a teaspoonful of milk, two or three times a day. After the third day, it began to suck the breast, the mother being a healthy woman, with a good supply of milk. It is now a perfectly healthy child.

I may add that the nurse, without my orders, rubbed the child with brandy whenever she found it cold or looking blue. The small doses of brandy and milk were given internally for the first six weeks, in addition to its natural food, and then discontinued. The parents are young, healthy, and of average height. —I am, etc.,
T. J. BURROUGHS, M.D. BRUX.
Crandall, Hants.

LEPROSY.

SIR,—Brigade-Surgeon Dr. Carter's memorandum, recently published by the Bombay authorities, must be as interesting as it is important to all residents in countries where this horrible and loathsome disease is prevalent. India, unhappily, is not our only colony where it exists. In the West Indies and Guiana, its ravages are fearful. It is to me a matter of surprise that Government measures of an ætrotic nature are not initiated wherever the disease exists. Dr. Carter says, "so far from leprosy in Norway showing a natural tendency to subside, there is ample evidence of a present activity equal to that displayed by the disease twenty-five years ago." Believing, too, as he does, that "the leper is himself the source of ill to others," how can he reconcile his third protective (?) measure with such a view of the contagious nature of the disease? I think it is an accepted doctrine among the practitioners of British Guiana that, until these leper-colonies are fairly established, under far more rigorous rules and regulations than the local government has ever thought fit to adopt, there is no chance of eradicating the disease, or diminishing it to a far greater extent than at present. Its unhappy victims are the most loathsome and pitiable objects of human affliction it has been my lot to witness.—Your obedient servant,
R. J. W. O.

MEM. BRIT. MED. ASSOCIATION.—Please submit your statement to the other side, in order that we may not have to give an opinion upon an *ex parte* statement. Both sides should be agreed as to the facts. *ED. JOYCE*

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. James Startin, London; Dr. J. W. Moore, Dublin; Our Dublin Correspondent; Mr. Gubb, London; Mr. J. Barr, Liverpool; Mr. S. Smith, Bristol; Messrs. Partridge and Co., London; Mr. R. Mitchell, Selkirk; Dr. P. Horrocks, London; Mr. R. B. Macpherson, Cambuslang, N.B.; Dr. Alder Smith, London; Dr. G. W. Thomas, Haywood; Dr. J. Hamilton Scott, Cambridge; Dr. R. Wade Savage, London; Dr. Tatham, Salford; Dr. Hare, London; Dr. W. S. Robertson, Port Said; Mr. W. Lake Roberts, Bradford; Dr. J. Geraghty, Loughrea; Mr. C. W. Cunningham, London; Dr. B. G. Morison, London; Mr. J. Powell, Weybridge; Mr. T. H. Bickerton, Liverpool; Mr. J. R. A. Douglas, Hounslow; Dr. F. H. Alderson, Hammersmith; Mr. E. Snell, Nottingham; S. H.; Mr. P. H. Kidd, York; Dr. Mackey, Brighton; Mr. C. F. Rideal, London; Messrs. Ody, Hodge, and Co., London; Dr.

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BOOKS, ETC., RECEIVED.

- Transactions of the Academy of Medicine in Ireland. Vol. III, 1885. Dublin: Fannin and Co. 1885.
The Transactions of the Edinburgh Obstetrical Society. Vol. X, 1884-5. Edinburgh: Oliver and Boyd. 1885.
King Solomon's Mines. By H. R. Haggard. London, Paris, New York, and Melbourne: Cassell and Co. 1885.
Treasure Island. By R. L. Stevenson (Illustrated). London, Paris, New York, and Melbourne: Cassell and Co. 1885.
Little Folks. A Magazine for the Young. London, Paris, New York, and Melbourne: Cassell and Co. 1885.
For Fortune and Glory: a Story of the Soudan War. By Lewis Hugh. London, Paris, New York, and Melbourne: Cassell and Co. 1885.
Bound by a Spell, or the Hunted Witch of the Forest. By the Honourable Mrs. Greene. London, Paris, New York, and Melbourne: Cassell and Co. 1885.
The Magazine of Art. Vol. VIII. London, Paris, New York, and Melbourne: Cassell and Co. 1885.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE CLINICAL ASPECT OF GLYCOSURIA.

Introduction to a Discussion in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By F. W. PAVY, M.D., F.R.S.,
Senior Physician to Guy's Hospital.

IN the remarks which I am about to make I shall, in accordance with the intention of those who have framed the course of procedure at this meeting, confine myself strictly to the clinical aspects of diabetes or glycosuria, and of these I propose to take up more particularly certain points.

In the first place, as to the age at which the disease begins; the table presented shows the ages in decennial periods at which diabetes in 1,360 cases set in. The table is compiled from the reports contained in my consulting-room case-books.

Some years ago, I commenced to keep a systematic record of all the cases that came before me in my consulting-room practice, and it is from this source that the figures are derived. The cases, therefore, belong exclusively to the class of patient seeking advice at the physician's residence. The age expressed is that at which the disease commenced, as far as by careful inquiry I could ascertain.

Table showing the Ages in 1,360 Cases of Diabetes at which the Disease set in.

AGES.	Actual Number.			Ratio to total number of 100 per cent.		
	Males.	Females.	Males and Females.	Males.	Females.	Males and Females.
Under 10 years ..	3	5	8	0.22	0.36	0.58
From 10 and under 20 ..	35	22	57	2.57	1.61	4.19
" 20 .. 30 ..	60	28	97	5.07	2.05	7.13
" 30 .. 40 ..	154	70	224	11.32	5.14	16.47
" 40 .. 50 ..	260	79	339	19.11	5.80	24.92
" 50 .. 60 ..	281	137	418	20.66	10.07	30.73
" 60 .. 70 ..	138	44	182	10.14	3.23	13.37
" 70 .. 80 ..	25	9	34	1.83	0.66	2.49
Over 80 ..	1	—	1	0.07	—	0.07
Total ..	966	394	1,360	71.00	28.97	100.00

On inspecting the table, it will be noted that 30.73 per cent., or nearly a third of the cases, occurred between 50 and 60 years of age, and 24.92 between 40 and 50. For these two periods taken together, the cases amount to 55.65 per cent. of the whole. Between 40 and 60, therefore, represents by far the most common period of occurrence of the disease. From this period there is a sharp and increasing fall in both directions. I have no private record of the cases that have come before me in my hospital-practice, but my impression is that the statistics would come out differently, and that the great bulk has consisted of patients of from 15 or 18 up to 35 or 40 years of age. My hospital-experience certainly does not supply me with the number of cases at a comparatively advanced period of life that I am meeting with in private practice.

Of the eight cases enumerated in the table under 10, two occurred at 2 years of age, one at 3, one at 5, two at 7, and two at 9.

Of the cases between 70 and 80, ten occurred at 70, seven at 71, five at 72, three at 73, two at 74, one at 75, two at 76, three at 78, and one at 79. The case over 80 was at 81.

I have the particulars of a case not included amongst the above in which the patient was 12 months and 3 weeks old at the time of my seeing it. I was called to the case by Dr. Finch, of Blackheath, in June 1879. The history given was that, for the past few weeks, the infant had been rapidly wasting, had shown great greediness after fluids, and was passing an excessive quantity of urine which saturated the articles worn, and rendered them stiff on drying. This circumstance had attracted the attention of the nurse before the nature of

the case was recognised. From a letter subsequently received from Dr. Finch, I learnt that the patient continued to grow worse, and died about a month after I saw it.

As regards the family history, there are some interesting points to be noted. There can be no doubt that the disease runs in families. Of this I am enabled to bring forward some remarkable instances. A lady, aged 50, came to me for the first time, in June, 1873, suffering from diabetes. In April of the preceding year, her sister, also then 50 years of age, had already consulted me for the same complaint; and in March, 1879, the eldest sister, 57 years of age, applied to me under similar circumstances. All three patients are living at the present time. I have seen them within the last few months. Both their parents were the subjects of the complaint and had been seen by me, so the daughters told me, a long time previously, in consultation. A gentleman, aged 56, came to see me in August, 1872, with a recent attack of diabetes. He informed me that his brother, aged 60, was suffering from the disease, and that one of his sisters had died of it, aged 41. In January, 1876, a surgeon, aged 32, residing in London, came to me with sugar in his urine; he, too, had lost a sister, aged 10, and a brother, aged 25, from the disease. This gentleman still continues in good health.

Another striking case was that of a lady, whom I saw for the first time in March, 1876, and who had recently become the subject of diabetes. On questioning her, I ascertained that two aunts, on her father's side, and one on her mother's side, had died from the disease. The patient herself was one of a family of five. Of these five, a sister died of diabetes, aged 21, and a brother aged 28; and she had one brother living, aged 35, the subject of the disease, so that four out of five members of the family were diabetical. The remaining sister was healthy herself, but she had lost a child, aged 2 years, from diabetes. I have notes of the case of a lady, aged 56, who consulted me for the first time in May, 1877. She was one of twins, and both she and her twin sister were diabetical, the latter coming under my care in May, 1879. A boy was brought to me, November 14th, 1884, aged 14, just having become the subject of diabetes. He belonged to a family of eight. In 1882, a sister died of the disease, aged 4 years. In 1883, a brother died, aged 11 years, of the disease. Thus diabetes had shown itself in three out of the eight. There was no history of the disease in the family of either of the parents. In April, 1878, a boy of 16, was brought to me, by his father, for diabetes. The patient died towards the latter end of 1879, and in October 1880, the father, then aged 44, became the subject of the disease. Thus the complaint first showed itself in the son, and not till afterwards in the father. Another instance of a similar nature is presented by the case of a lady, aged 42, whom I first saw in May, 1882, and who had then been suffering from diabetes for nine months. A sister became the subject of the disease shortly afterwards, and during the present year the mother has presented symptoms of the complaint, and has been discovered to be suffering from it.

The liability of several members of a family to become the subjects of the disease is strikingly shown by the instance of a patient, aged 46 years, whom I saw for the first time in October, 1878. He belonged to a family of twelve, and five out of the twelve, including the patient, were the subjects of diabetes. Another patient, aged 37, who consulted me in February, 1885, for diabetes, belonged to a family of eight. Three of his brothers had died of the complaint, aged 15, 27, and 43 years respectively. The most remarkable instance touching family history that I have come across, is the following. The mother of five children (four girls and one boy) had died of diabetes, which had carried off her own mother before her. In May, 1877, having occasion to see one of the children, with reference to diabetes, I at the same time examined the urine of four of them. In the other, the opportunity did not present itself. The urine of the eldest girl, aged 16, had a specific gravity of 1043, and contained 58.76 per 1,000 of sugar. That of the second girl was free from sugar, but the fourth girl's urine contained 31.61 per 1,000, and the brother's, 29.89 per 1,000. Three, therefore, out of the five in family were, from my own knowledge, passing saccharine urine, one was not doing so, and in the case of the fifth I had no knowledge of what existed. In February, 1884, this fifth case, which consisted of the third girl, was brought to me, she was then aged 19, and her urine was loaded with sugar. She died shortly afterwards. I was informed, on that occasion, that the other members of the family were then in a fair state of health, and that the eldest sister was just about to be married.

A curious instance with regard to family history, not falling under my own observation was communicated to me by a medical practitioner living in the Canary Islands, who himself formed one of the subjects of the disease. The father suffered not from "diabetes, but from shaking palsy," diagnosed by Dr. Lasègue, of Paris, as due to

disseminated sclerosis. This person had three sons A, B, and C, born of different mothers: A became diabetic at 53, B at 55, and C at 43. There was no history of diabetes on the side of either of the mothers, who all died late in life, of complaints of quite a different nature. There was another child of the same father, of whom, from social reasons, nothing could be ascertained. The fact of all three sons, of one father, becoming diabetic, though born of different mothers, is very remarkable.

From what I have seen of this disease, I think there is reason to believe that it is distinctly more common amongst members of the Jewish race than amongst others, and that it is, moreover, with them, according to my experience, more amenable to treatment.

Now, as to the mode of onset of the disease; in one set of cases this takes place gradually and insidiously, in another, quite suddenly. I do not doubt that in many instances it may exist for some considerable length of time, without exciting any suspicion of its existence. I have occasionally been enabled to prove this in patients living in the country, especially in clergymen and persons who wear clothes of black cloth, through the white stains, which are left on drying, from the urine which has splashed over the trousers, while micturating against a wall or on the ground. Such stains are very troublesome to remove by brushing, and, when found on trousers which may have been put aside and not worn for a few years, as sometimes happens, we are at liberty to assume that the urine at that time contained sugar. I have heard of hotel servants, whose duty it is to brush the clothes, recognising diabetic patients from the difficulty experienced in brushing out these stains. I have noticed that it is especially in elderly people, that we find this gradual onset.

I will now refer to instances where the disease has come on suddenly. In December, 1876, I was consulted by a lady, aged 35, in whom diabetes had supervened quite suddenly, four weeks previously. She was, at the time of the attack, nursing a two months' old infant, when her supply of milk ceased all at once; and, contemporaneously with the cessation of the lacteal secretion, she noticed that she became very thirsty, and passed an abnormal quantity of urine. Four years previously she had sustained a severe nervous shock, with injury to the spine, in a railway collision, which led to her being bedridden for a period of eight months. She was, however, supposed to have recovered perfectly from this accident, and I am, of course, quite unable to say whether it had any bearing on the production of her subsequent illness.

Another instance of the disease coming on suddenly, occurred in a lady, who dated her illness from one evening when she had dined out with friends. Previously to this, her health had been in all respects good. In the course of the evening she became very thirsty, with a thirst that nothing could quench, and she was at once afterwards recognised to be suffering from diabetes. Here the history was very clear; nothing unusual had been remarked during the day, until in the evening the thirst manifested itself.

Then, as to its duration; this varies within very wide limits. It may go on for years without seriously impairing the patient's general health, or it may terminate very speedily in death. Let me first refer to cases where the result is rapidly fatal; such, for example, as that of a gentleman, aged 46, whom I saw in 1870, and in whom the diabetic condition had only been definitely recognised on the previous day. His symptoms were now marked and urgent, and the patient assured me that certainly nothing unusual had existed a month previously. Two days later, I was summoned to Croydon to see him by his medical attendant, and found him dying from diabetic coma.

Again, in July, 1883, I was consulted by a gentleman, aged 39, whose diabetes dated as far, as it was possible to ascertain, from a week previously (he had already lost a sister from the disease); three weeks later, I heard that the patient, who had returned to Liverpool, where he resided, was dead. From the description given me of his illness, I gather that what was in all probability a carbuncle had formed over the parotid gland which had determined the fatal result.

The most acute case I think I have ever known was that of a gentleman, aged 55, whom I saw on April 24th, 1884, at Blackheath, in consultation with Mr. Moore and Mr. Roper. The patient had been under the care of my neighbour, Dr. Russell Reynolds, on account of epileptic attacks to which he had been subject during the last few years. Albumen had been known to be present in his urine for five or six years past. It happened that his urine was examined, both for albumen and sugar, three weeks previously to my visit, and found free from sugar. It may, therefore, be assumed that no diabetes existed at that time. When I saw the patient, the diabetic symptoms were severe in the extreme; the thirst was most urgent, and his tongue, mouth, and fauces were of that bright red colour which so often goes

with a severe form of diabetes. Three days later I was again called in, only to find the patient in a state of diabetic coma, which soon terminated fatally.

The cases which go on for years, the patient meanwhile enjoying a fair state of health, are, as I have already stated, most commonly met with in elderly people, although a similar chronicity is occasionally met with in younger people. I remember a lady, whom I saw for the first time in November, 1871; she was then 48 years of age, and had been suffering from diabetes for ten years. In September of last year, she was still in very fair health, which makes upwards of twenty years that she has been the subject of diabetes. I may state that it is by no means out of the way for elderly people, from time to time, to tell us that they have been diabetic for twenty or twenty-five years past.

With reference to young people, a gentleman, aged 22, fell under my care on June, 1874, having already been diabetic for three years. He continued in quite a satisfactory condition until May 30th, 1876, all the time passing saccharine urine, but the disease otherwise appearing dormant, when suddenly active symptoms declared themselves, and death rapidly supervened.

Another case of long duration occurred in a lad aged 17, who was brought to me from Wellington College in April, 1874. I saw him, off and on, until December, 1879. I have not heard nor seen anything of him since, but he was in a fair state of health when I lost sight of him.

Another case is that of a young lady aged 19, first seen by me in January, 1881, whose mother had died diabetic, and whose aunt, the wife of a medical practitioner, has come to me with diabetes during the last six months. The patient herself had been suffering from the disease for four years previously, but has been doing exceedingly well up to the present time. Here, then, is a case in a young subject, where the disease has been existing for eight and a half years. The patient still passes a large quantity of sugar in her urine; but I saw her only a few days ago, and there is nothing in her appearance which would lead one to suppose that she had anything the matter with her. She is plump, instead of presenting the emaciated appearance of the disease. She married two years since, and her first pregnancy terminated in a miscarriage; she subsequently gave birth to a child at term, which only lived a short time, though whether the diabetes had anything to do with this I cannot say, as there was a history of syphilis on the father's side, and the infant had a rash soon after birth.

Although diabetes, when once developed, generally persists, cases occur where it has disappeared. I have, from time to time, met with these cases in my practice; I do not allude to a mere control of the disease under dietetic management, but a complete eradication. For instance, in May, 1881, I saw a gentleman, aged 41, who was the subject of the disease, and was passing a large quantity of sugar in his urine, which had a specific gravity of 1036, and contained 57 per 1,000 of sugar. This patient was highly neurotic. My last recorded observation about him is dated March 13th, 1884, at which time the sugar had entirely disappeared from the urine, although the patient was not dieting himself in the least, and ate of anything that came before him. Curiously enough, his wife has become the subject of the disease. She consulted me on that account in January, 1884, and I rather apprehend that it will not disappear from her in the same manner that it has disappeared from her husband.

Again, sugar may be only temporarily present in the urine. I referred just now to the red or injected condition of the mouth and fauces that is frequently met with in diabetes; and, some time ago, I was led to examine the urine of a patient because of the intensely red colour of the interior of the mouth, which was also tender; the lips, moreover, were intensely injected, as were also the hard and soft palate. The result of the examination of the urine was that on one occasion I found 4.84 per 1,000, and, on another occasion, 8.91 per 1,000 of sugar. It was, however, only a passing condition; I have seen the patient many times since, and can state that he is not diabetic. About the same time, a gentleman whom I had seen on several previous occasions, and knew him not to be the subject of diabetes, called on me, and I had some urine examined with respect to the question of phosphates. As is customary, a full analysis was made, and the result showed, to my astonishment, that sugar was present. I immediately asked the patient what he had taken for breakfast, the urine examined being passed at the time of consultation in the morning, and he informed me that he had indulged freely in marmalade. To this, no doubt, the sugar in the urine was due, the sugar taken with the food having been beyond the assimilative power existing, since none was found on subsequent occasions, and there was really nothing to lead me to suspect diabetes in him.

It is worthy of notice that diabetes insipidus and mellitus may exist together, and you can prove their co-existence in the following manner. Take, for example, a patient who is suffering from thirst, and is passing a large quantity of urine containing sugar, but in whose case, as shown by the specific gravity and quantitative examination, the amount of urine is out of the usual proportion to the sugar present. Put him upon the ordinary restricted diet for diabetes, and the sugar may entirely disappear, whilst the quantity of urine keeps up. I have seen cases in which, with a disappearance of sugar, the quantity of urine has nevertheless kept up to eight, nine, or ten pints in the twenty-four hours, with a specific gravity of from about 1005 to 1007. The diabetes mellitus has been got under by the dietetic management, but the other has remained. Where the two conditions co-exist, the quantity of water passed is, as I have said, out of proportion to the amount of sugar present. In the ordinary form of diabetes, the amount of urine voided stands in relation to the amount of sugar to be eliminated, the sugar, in escaping, carrying off water from the system with it. A patient whom I saw with Dr. Eustace Smith, in 1876, passed ten pints of urine in twenty-four hours. The specific gravity was 1013, and the amount of sugar 19.10 per 1,000. The case affords an illustration of a great excess of urine without a correspondingly large elimination of sugar.

I will now give the history of a case where diabetes mellitus was followed by diabetes insipidus, the latter ultimately disappearing in its turn. A lady, aged 55, the wife of a clergyman in Wiltshire, consulted me in October, 1881, for diabetes mellitus. It was the ordinary form of the disease, and, under dietetic and medicinal treatment, she so far improved, that, on December 5th, 1881, her urine no longer contained any sugar. On August 4th, 1882, I received a letter from the patient, asking for an appointment, as she was again suffering from thirst, and passing an excessive quantity of urine, and feared the disease had returned. The urine brought for examination, to my surprise, presented the following characters. The night-urine was of specific gravity 1007, no sugar; the morning-urine of specific gravity 1005, no sugar. This lady was at the time upon a restricted diet, but, seeing that no sugar was present, I desired her to take four ounces of ordinary bread *per diem*, and this was unattended with the return of sugar in the urine. In August, 1882, her night-urine was of specific gravity 1015, and her morning-urine of specific gravity 1013, no sugar in either specimen. She was now taking pretty nearly an ordinary diet, so that both diabetes mellitus and insipidus had disappeared. On a subsequent examination (November, 1883), the night-urine was of specific gravity 1031, and the morning-urine 1010, no sugar in either.

In bringing these cases before you, I abstain from offering any exposition of my own ideas as to causation, because that would be trespassing on the domain of pathology; but, in connection with the association of diabetes insipidus with diabetes mellitus, I may refer to a certain other collateral condition with which I have occasionally met. I have seen cases, for instance, where the subjects of diabetes perspired only on one side of the body. One of my patients, a gentleman, presented this peculiarity in a remarkable degree. Large drops of perspiration stood out upon one thigh, whilst the other was quite dry. Another patient, a gentleman aged 48, whom I saw in November, 1876, said to me, "I don't know why it is, but I find that slight mental exertion causes profuse perspiration on the right side of my head, and very little upon the left." I cannot refrain from simply saying, in passing, that I believe the disordered nerve-conditions which may cause these phenomena have some connection with the pathological state at the foundation of diabetes mellitus.

With regard to the physical condition of organs in diabetes, I have, in several instances, found a hypertrophic state of the liver associated with the disease; sufficiently often, in fact, to warrant the supposition that there is some connection between the two. The enlargement of the liver is marked, but I cannot say whether it is the ordinary form of hypertrophic cirrhosis; and, in any case, a patient so affected may go on satisfactorily for years. Some patients presenting this condition of enlargement only pass a moderate amount of sugar, even with some latitude in diet, and, in harmony, do not manifest the ordinary symptoms of diabetes to any marked extent.

Next, as to abnormal conditions of the nervous system; I am perfectly satisfied that certain symptoms of disordered nerve-action, especially spinal, are very apt to accompany diabetes. I have seen so many cases of ataxia associated with this disease, that I have been for some time past led to consider that there is some connection between the two. They sometimes come on together, and sometimes the ataxia precedes the diabetes, or, on the other hand, the diabetes may have existed long before the ataxia shows itself. A patient, a lady, aged 48, whom I saw for the first time in 1871, and who had then been dia-

betic for ten years, presented no symptoms of nerve-disorder till February, 1880. She then began to complain of pains in her limbs, and, by April of that year, she was decidedly ataxic.

The usual account given by these patients of their condition is that they cannot feel properly in their legs, that their feet are numb, that their legs seem too heavy, as one patient expressed it, "as if he had twenty pound-weights on his legs, and a feeling as if his boots were a good deal too large for his feet." Darting or "lightning" pains are often complained of. Or there may be hyperæsthesia, so that a mere pinching up of the skin gives rise to great pain; or, it may be, the patient is unable to bear the contact of the seam of a dress against the skin, on account of the suffering it causes. Not infrequently, there is deep-seated pain, located, as the patient describes it, in the marrow of the bones, which are tender on being grasped; and I have noticed that these pains are generally worse at night. With this, there is the usual loss or impairment of the patellar tendon-reflex.

Sometimes pains and manifestations of perverted sensibility are noticed, without ataxia. It is not always the legs that are affected; the arms may suffer, as happened in the case of a gentleman who had been to see me several times for diabetes. This patient had done very well—better, indeed, than might have been expected, for he had not exercised the care that prudence would dictate he ought to have shown in the matter of diet, having frequently indulged in champagne, sweets, and such-like articles. Within the last year or so, however, he has had these nerve-troubles in one arm. It was put down by the local practitioners to gout; but the skin and flesh were tender, and the bone was painful. There was, moreover, some wasting of the limb. Under the circumstances, I sent him to Dr. de Watterville, to see what galvanism would do for him.

Another disease which I have seen in connection with diabetes is exophthalmic goitre; but I am not in a position to insist on the relationship in this case, as I do with ataxia. A patient, a lady, aged 60, whom I saw in August, 1877, and who was then suffering from moderate diabetes, also presented a distinct systolic *bruit*, a large and throbbing thyroid, and some amount of exophthalmos. Another lady, whom I saw in August, 1883, and who had just arrived from Montreal, had exophthalmic goitre and diabetes, which had developed concurrently.

Now, with regard to what has been called "acetonaemia," I may say at once that I do not believe in the theory involved in the term "acetonaemia." Of course, the coma is not a matter for belief; we all know that patients are very apt to die in a comatose state—a fact I mentioned in my work on *Diabetes*, the second edition of which was published in 1869; and the same observation had been previously recorded by our countryman, Dr. Prout. Why, therefore, it should now be called "Küssmaul's" coma, I cannot conceive, seeing that he only described it in 1874. So far as I am enabled to judge, this comatose state arises from a deprivation of power in certain nerve-centres; and thus fatigue, or anything which tends to throw the patient off his balance, will tend to produce it. I have often met with it in patients who have undertaken a long journey to see me. They were buoyed up by hope on their way to London; but, when they presented themselves in my consulting-room, I have been enabled even then to recognise the first indications of the advent of coma, and the patient has died in the course of a day or two.

I am inclined to consider that the coma depends, as I have said, rather on the exhaustion of certain nerve-centres than on the action of any direct poison in the blood. A simple attack of vomiting may lead to it in a diabetic patient who has not been able to eat anything for a day or two. It is usually ushered in by a rapid pulse, and a peculiarity in the breathing. There is a breathlessness, or out-of-breath condition, not dependent on any impediment to the entrance of air into the chest, but simply as though the patient were unable to get sufficient for his requirements in the peripheral parts of the system. He becomes drowsy, and this deepens into a comatose state, terminating in profound coma and death.

It has long been known that a fatty condition of the blood is frequently observable in diabetes, and this has been suggested as a possible explanation of the coma, through the production of fatty emboli. But I maintain that this fatty condition of the blood is a purely physiological state. Fat exists normally in the blood after the ingestion of a meal containing much fatty matter. When formerly lecturing on physiology, I used to demonstrate this in the blood collected from an animal shortly after the free ingestion of fatty substances, and which, after standing for a little time, presented a well-marked cream-like layer on its surface from the aggregation of the fatty particles. It is, I repeat, only a physiological condition; and its presence in the blood of diabetic patients may be accounted for by the great amount of food they take, and especially from the fatty nature that frequently occurs of a large proportion of it.

Albumen is sometimes present in the urine in diabetes, and may continue for years without being accompanied with any serious results. Not unfrequently, a decided quantity of albumen at the commencement of treatment may decrease and disappear as the patient improves. When present in small amount, I do not attach any significance to it. Other cases, however, exist which pass on to well-marked Bright's disease; and it is to be noticed that, generally, as this condition becomes established, the diabetes shows a tendency to subside. I remember a lady with diabetes who became the subject of Bright's disease, and the sugar entirely disappeared from her urine in a manner that permitted her taking any kind of food without passing sugar.

I trust I have not wearied you with the length of these remarks. They have been founded exclusively upon the information derived from the experience which has been thrown in my way in connection with the disease, and the points touched upon have been those which appeared to me to be the most worthy of being brought forward.

ACUTE FEBRILE GLYCOSURIA.

Read in the Section of Medicine, at the Annual Meeting of the British Medical Association in Cardiff.

By E. MARKHAM SKERRITT, M.D. Lond., B.A., F.R.C.P.,
Senior Physician to the Bristol General Hospital; Lecturer on Medicine at the Bristol Medical School; Fellow of University College, London.

THE following case, which has recently come under my observation, illustrates the occurrence of glycosuria under what, as far as I have been able to ascertain, are exceptional circumstances.

The patient was a gentleman aged 36, who came into my room on May 11th last, looking extremely ill. He stated that, eight days before, he had been suddenly taken with a severe pain at the bottom of the back; this still persisted to a slight degree. Since the beginning of his illness he had been giddy, and had sweated profusely at night. The appetite was bad; he was very thirsty, drank much fluid, and passed about double the usual quantity of urine. This had never been the case before the onset of the present illness. The bowels were obstinately constipated. The patient had always enjoyed good health; but he had been much affected by the death of his mother, somewhat unexpectedly, two years ago.

On examination, I found that the pulse was 120, weak; the temperature was 102.8°; and the tongue was coated with a thick white fur. The urine was straw-coloured, its specific gravity was 1038, and it was loaded with sugar. There was no albumen. There was no evidence of disease of other organs.

I sent the patient home to bed, placing him upon a strict diabetic diet, and prescribing half-grain codeia pills, to be taken three times a day, and an aperient.

Next day, as the temperature was 103° and the other symptoms were unchanged, I ordered salicylate of soda in twenty-grain doses, three times a day, in addition to the codeia; and on the following day the temperature had fallen to 99°, the specific gravity of the urine was only 1028; there was a mere trace of sugar, and the thirst, with the accompanying excessive excretion of urine, had disappeared.

Next day, May 14th, the third day after my first seeing the patient, and the eleventh from the onset of the illness, the temperature was normal, all the symptoms were much relieved, and there was only a trace of sugar present. The salicylate of soda was now discontinued.

On May 29th, a fortnight later, I removed all restrictions as regards diet, except in the case of sugar itself, and ordered the codeia to be taken twice a day; and on June 12th, a month from the date of my first observation, as the amount of urine never exceeded from a pint and a half to two pints in the twenty-four hours, and as there was no trace of sugar, I allowed the pills to be discontinued.

Since then, the patient has remained absolutely free from symptoms of glycosuria; but on June 24th the specific gravity of the evening urine was 1028, and there was a trace of sugar; and on July 20th the density was 1034, a trace of sugar being again detected. On both occasions the morning urine was normal. The total amount of water passed in the twenty-four hours remained at about a pint and a half.

As a precautionary measure, I advised the patient to resume the codeia pills, and to avoid sugar and starch as far as possible, without returning to a strictly diabetic diet. I have not since had occasion to see him.

Glycosuria may be associated with the febrile state in one of three ways.

1. By accident; when fever occurs in a patient who is already the subject of diabetes. This is by far the commonest mode.

2. As a sequel to acute disease.

3. As one of the phenomena of the fever; as in the instance I have related. This is an exceptional occurrence.

When a person in whom glycosuria already exists suffers from a febrile attack, the influence of the latter upon the excretion of sugar is well known to be uncertain. The sugar is commonly diminished in amount, and sometimes it disappears altogether, but in other cases the glycosuria remains unaffected. In the former event, the onset of the formidable condition commonly known as acetonaemia, or diabetic coma, is to be dreaded.

Senator (Ziemssen's *Cyclopadia*, vol. xvi), gives the following account of the influence of fever upon the excretion of sugar.

"The influence of intercurrent febrile diseases upon the behaviour of diabetes is very noteworthy. To a certain extent, namely, all of these diminish the saccharinity and the quantity of the urine, chiefly in consequence of the decrease in the amount of food taken and in the digestive activity resulting therefrom; but partly also because the sugar and water escape from the circulation by other channels than through the kidneys. But, apart from this easily comprehensible reduction of the amount and saccharine character of the urine, very striking variations are shown, which, at present, can scarcely be explained; namely, that, during the continuance of the febrile affections, the urinary symptoms sometimes entirely disappear, even when food is not wholly forbidden, and at other times they continue in considerable intensity. According to existing observations, it cannot be positively asserted that the variety of the febrile disease exerts an influence, but that, in the case of certain diseases, the effect is variable. Thus, according to Popoff, an attack of relapsing fever had no effect at all upon the symptoms of diabetes; whilst Semon relates an instance of the perfect abeyance of the latter as long as the former lasted. Leube witnessed a notable decrease in the excretion of sugar during a pleuro-pneumonia, whereas Petters saw no diminution at all, or only a very slight decrease, in pleurisy, intermittent fever, and varioloid. Other authors, again, have seen the sugar wholly disappear from the urine in small-pox (Pavy, Rayer, De Carvalho); but in this connection it is important to note that the variola always ended in death, which occurrence is, in any case, usually preceded by the disappearance of the sugar from the urine. Typhoid fever, whether ending in recovery (Pavy), or in death (Griesinger, etc.), does not seem to arrest the secretion of sugar. Andral saw the sugar wholly disappear in febrile angina and in severe dysentery."

The occurrence of glycosuria as a sequel to acute disease may be dismissed in a word. It is well known that diabetes may set in after an attack of acute illness, apparently originated by the febrile state, as it may be by other deviations from health.

There remains the group of cases which includes the one that I have briefly brought before you, where the glycosuria appears during the period of pyrexia as one of the phenomena of the fever. Instances of this are rare. Burdel and Seegen quote examples where sugar has been excreted during the course of intermittent fever; Burdel, in particular, stating that he has met with such cases in great number. According to these observers, such instances are illustrations of the transitory form of glycosuria, and are not to be placed in the same rank as cases of true diabetes, which have been occasionally seen to make their appearance after long-continued and obstinate intermittent fever, as well as after many other debilitating diseases.

I have not been able, however, to find instances on record quite similar to that which I have related. The special peculiarity of this case is the association of a febrile attack, possessing no specific features, with a condition of acute glycosuria, in which the characteristic symptoms of diabetes—thirst and the excretion of a large amount of sugar-laden urine—were prominent features. The fever persisted for eleven days, and during this period the diabetic phenomena were pronounced; and with the subsidence of the pyrexia, the sugar disappeared from the urine. As respects the exact relationship of the fever and the glycosuria in this case, inasmuch as there is no reason to believe that the excretion of sugar in itself has any tendency to excite pyrexia, this instance must be regarded as analogous to those cases of intermittent fever to which reference has already been made, in which the glycosuria is directly induced by the febrile state, and where its phenomena disappear when the fever abates.

Asked to give a prognosis when I first saw the patient, I ventured to say that, inasmuch as the glycosuria was associated with an acute febrile attack, it was probable that, with the fall of the temperature, the sugar would disappear, or, at all events, would be reduced to an amount that would not be associated with symptoms. The result was in accordance with my expectations; although the patient returned to his ordinary diet and his usual mode of life, the glycosuria entirely disappeared. As I have noted, however, on two subsequent occa-

sions I have detected a mere trace of sugar in the evening urine, that of the morning remaining free. Time must show whether the condition is altogether evanescent, or whether, on the other hand, it will ultimately prove to have been the starting-point of a permanent diabetes.

ON GLYCOSURIA.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By W. R. THOMAS, M.D.,

Physician to the Public Hospital and Dispensary, Sheffield.

I HAVE listened with great pleasure to the remarks which have been made by Dr. Pavy, and also to those of Professor Latham, and I am glad to find that Professor Latham recognises more than one kind. He has already referred to that dependent on muscular changes. I find that in practice I have to recognise three different kinds of diabetes; namely, hepatic diabetes; cerebral diabetes; and diabetes accompanying or following other diseases, as Bright's disease, epilepsy, etc. The patient who suffers from diabetes owing to hepatic causes is generally a stout man, who has always lived well, and perhaps taken too much stimulants in his time. He is at first florid and firm, but becomes in time pale and thin. These patients have generally a tendency to abdominal obesity, have nearly always been successful in life, and occupy a good position.

Experiments performed with the greatest care by experts in our profession have always demonstrated to us the glycogenetic functions of the liver. Injuries to the liver have been found to interfere with these functions; and, when *post mortem* examinations have been made, certain appearances have been found, although not invariably, pointing to the liver as the organ at fault. These examinations have not been satisfactory, probably because we hardly yet feel sure for what changes we are to look.

Treatment.—I find that in these cases attention to diet is of great importance, of more importance than in the other class. Indeed, the inattention to diet in the past, the indulgence has had much to do with the production of the disease, and I have found attention to diet, and other directions given, have practically cured many such cases, and they have lived to a good old age; but indulgence has always been followed by a relapse, severe or slight. Sometimes, such patients become disgusted with the diet, and it is necessary to be a little more generous occasionally, or the appetite will fail, and the patient will become steadily worse. Remembering that when Verneuil injected syrup into the stomach of a dog, glycosuria immediately appeared, whereas when the same was done with the rabbit, it did not appear, because the rabbit's stomach contained a quantity of vegetable matter, which took up or absorbed the syrup, and allowed it to pass out again, only slowly, slow enough for the liver to be able to act upon it, I have always found it beneficial to allow these patients a reasonable amount of green vegetables to act in this way, that is, to take up saccharine juices.

Exercise in these cases is of prime importance, in my opinion, for, when the muscles of the body are made to act, their glycogenetic functions are more rapidly performed, and the sugar which they receive from the blood becomes more quickly split up into its constituent parts. Exercise also tends to promote a more active circulation through the liver and lungs, and is in this way a most important help to us in our treatment of this terrible disease. Opium is beneficial in these cases, but I give of it as little as I possibly can; of course, in some cases, we are obliged to give it in large doses. It is in this class that I believe alkalies will be found of service, and of these soda and potash are the most useful, especially the soda.

The patient who suffers from diabetes from cerebral or neurotic causes is a thin spare man, who has been an inveterate worker all his life, and worries about every little thing. He has suffered in the past from dyspeptic symptoms, phosphaturia, and oxaluria, and then diabetes crowns all.

Experiment has proved to us that irritation of the floor of the fourth ventricle will produce glycosuria, and section of certain parts of the cord, and of the vaso-motor nerves of the liver, will have the same effect.

Injury to the floor of the fourth ventricle, or the parts around, will have the same effect, and disease of the same parts has been found in diabetes; so all point most decidedly to the influence of certain portions of the nervous system upon the functions of the liver. The exciting cause will, I believe, be found in these cases to be some great

mental trouble—a great loss of money, some family trouble, or the loss of a dear relative.

Treatment.—I have found that, in these cases, mental rest and change are of prime importance in curing. The mischief has been brought on by brainwork of some kind, and removal of the cause will often do much towards promoting a cure. I once had a patient under my care who was in business. Although he worked hard for years he could not make it pay. As he was suffering from diabetes, and was steadily becoming worse every day, I recommended him to give up the business to seek for a situation as manager. He accepted my advice, and although for a considerable time the sugar still appeared in his urine, he at last became quite well. Removal to another place will often act in a marvellous manner. The change of scenery and surroundings tend to divert attention from whatever has been a source of trouble and anxiety.

Remedies.—It is in these cases that I find the bromide of potassium useful, given at bedtime. It tends to produce sleep, and acts beneficially upon the cerebral blood-vessels. Tonic remedies, especially arsenic, are very useful in such cases. Opium I give if obliged to do so, and it certainly does check the excretion of sugar, but I prefer giving as little of this remedy as possible.

Diet.—It is necessary to diet these patients, but I find that they soon become disgusted if we are too strict, and it is advisable often to relax the dietetic treatment.

Exercise is beneficial, as it not only acts well by bringing muscles into action, and stimulating organs, but also diverts from the brain, and supplies it with new, more healthy, and less engrossing subjects to work at.

GENERAL REMARKS.—We do occasionally meet with examples which are combinations of those two varieties, where the patient has been stout and well fed, and has, at the same time, had his share of mental worry; but these, I believe, are not frequently seen, and when they are met with, they render treatment much more difficult. I do not wish to take up any more of your time, so shall abstain from saying anything about the other varieties. I feel rather diffident in speaking on this very important subject before such an authority as Dr. Pavy, to whose opening remarks it has given me much pleasure to listen; but for a considerable time I have found that I have treated these patients quite differently, and I believe that, in the first class of cases, the liver will be found to be the organ affected, and, in the other, the brain.

Dr. LATHAM (Cambridge) wished to call attention to the close pathological connection which, he believed, existed between diabetes, gout, and rheumatism. He considered that there were two distinct forms of diabetes. One was dependent upon modified innervation of the liver, the glucose absorbed from the alimentary canal passing unchanged through the portal vessels into the general circulation. Gout was the analogue of this disorder. The glycochin from the glycocholic acid of the bile was reabsorbed from the alimentary canal, instead of undergoing the normal transformation, gave rise to uric acid, which, acting on an enfeebled portion of the medulla oblongata, gave rise to gout. Another form of diabetes, he believed, had its origin in changes in the muscular tissue, and had its analogue in rheumatic fever. The constituent of the tissue, namely, $\text{CH}_2 \begin{Bmatrix} \text{OH} \\ \text{CN} \end{Bmatrix}$, which, liberated in excess, gave rise to glycochin and uric acid, and in some individuals produced rheumatism, had its oxidation partially interfered with, was hydrated into glycollic acid, which, oxidised, was converted into methyl-aldehyde, by condensation of six molecules of which glucose was formed. If the molecular constituents of albumen fell more completely asunder, and the next higher cyanohydrin $\text{C}_6\text{H}_8 \begin{Bmatrix} \text{OH} \\ \text{CN} \end{Bmatrix}$ in the series were detached in excess—in the one case by rapid oxidation of the lactic acid formed, hyperpyrexia would result. If the molecules were detached, but oxidation interfered with, the lactic acid would be oxidised into aldehyde, and thence into acetic acid, from which, in the laboratory, acetone could be produced. The distinction between the two forms of diabetes was important as regarded the mode of treatment; for, in those originating in the muscular tissue, the use of salicylic acid was of great service, given in doses of forty to eighty grains daily, the diet being only slightly restricted. On the other hand, in those dependent upon modified innervation of the liver, the acid produced no good effect upon the patient. Another point to which he wished to call attention with regard to these cases of diabetes which he supposed to originate in the muscular tissue was, that the urine in these instances contained some substance which dissolved cuprous oxide in a very marked degree, and so interfered in some measure with the use of Fehling's or the copper-

test; and this might possibly help to distinguish between the two forms of disease.

Dr. W. R. THOMAS (Sheffield) made some remarks, which are published at page 1053.

Dr. G. H. SAVAGE (London) said that, in his experience, sugar was very rarely found in the urine of the insane; and the writings of Dr. Dickinson would rather lead one to suppose that he found sugar fairly often among such patients; but Dr. Savage was convinced that an error crept into these examinations, for the urine, with signs of copper-reduction well marked, always contained uric acid in considerable quantities; and that in which the reduction was slight, but yet apparent, contained less uric acid in crystals, but enough to be noticeable. That the uric acid was the cause of the reduction he had little or no doubt, as other series of observations were made which showed, to his mind, that sugar was rare in any important quantity in the urine of the insane, whether the insanity were due to disorder of function or to disease of the brain itself, as in general paralysis of the insane. Sugar was found frequently for a short period in acute cases of puerperal insanity, with suppression—natural or artificial—of the milk; it occurred in a few cases of hypochondriacal melancholia; and it might be present in some forms of senile decay; but these were either temporary or accidental. It was important, then, to recognise as a fact, that in neuroses sugar was rarely present in the urine. But there was a still more strange relationship between the two diseases—diabetes and insanity—in the question of inheritance. Dr. Maudslay had for many years said that he often found diabetic parentage represented by insanity in the children. Dr. Savage could support this; and though he could not say in what proportion of cases this occurred, nor whether the neurosis assumed any special form, yet he was sure of the fact. He had also come across several cases in which there was an alternation between the two diseases, so that the diabetic patient became free from diabetes as soon as insanity developed. When first of all a man was sent to him with a history of diabetes, and when he found neither polyuria nor glycosuria, he assumed that the whole thing was a delusion, and that the patient had deceived the medical man; and in the second case he was of the same opinion, though the patient had been in one of the best of the London hospitals. He believed a careless student had accepted the dictum of a nervous girl who was under treatment for a neurosis of ovarian origin, instead of examining for himself; but of late he had come across several cases in which there was no doubt about the existence of true diabetes before the development of the mental disorder—a diabetes which had lasted for years, and had been treated by many physicians on different plans, and only disappeared with the insanity.

ON THE COMPARATIVE DANGERS OF LEAVING A HERNIA TO THE PROTECTION OF A TRUSS AND OF ATTEMPTING ITS RADICAL CURE; AND ON THE INDICATIONS FOR PREFERRING ONE MODE OF OPERATING TO ANOTHER, ACCORDING TO THE CASE.

Read at a Meeting of the East Anglian Branch.

By C. B. KEETLEY, F.R.C.S. Eng.,
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Surgical Aid Society.

In this paper, it is proposed to attempt answers to the following questions.

1. What are the comparative chances as regards life of, on the one hand, leaving a hernia alone until some accident, such as strangulation, imperatively demands interference, and, on the other hand, endeavouring without delay to effect a radical cure? I mean the expression "leaving alone" to refer only to operative, not to palliative measures, such as the application of a truss.

2. Has each of the different modes of operating for radical cure its own special and appropriate sphere of usefulness? If so, what are the limits of each?

To calculate, even approximately, the fatality of hernia when uninterfered with, very numerous data are required. It is necessary to know the death-rate of a considerable region from all causes, the death-rate from hernia, the proportion of persons suffering from hernia; also the ages at which, respectively, herniae appear, at which those which recover disappear, at which hernia proves fatal, at which other diseases are fatal, and various apparently minor, but still not unimportant, details. Moreover, as the figures will forcibly show, a

distinction must be made between the different kinds of hernia. Round numbers only need be used.

In 1873, an average, and, as I find, a convenient, year to cite, the population of England and Wales was about 25,000,000, and the death-rate about 1 in 45; therefore, about 550,000 died in that year from all causes collectively. In the same year, 1,150 deaths took place from hernia; of these, 100 were in children under five years of age. Now, of the deaths from all causes, considerably more than one-fourth are in children under five years of age. For this reason alone, though there are others scarcely less weighty, these children must be placed in a class apart, and in the rest of the calculation they will be ignored. We then have remaining about 400,000 deaths from all causes, and about 1,050 from hernia: $400,000 \div 1,050 =$ about 380. Therefore, in persons above five years of age, 1 out of 380 deaths is due to hernia.

Now, according to Malgaigne, in whose statistics there is every reason to put faith, the proportion of individuals with hernia throughout the whole population of France is 1 out of every 20.5; the proportion is, however, somewhat less in children under five—namely, 1 in 29, and they constitute about one-eighth of the population. Consequently, the proportion of persons above five who suffer from hernia is about 1 in 18.5 in France, and there is no reason to suspect any material difference in this country. Therefore, of the 380 deaths from all causes (which we have just seen would on the average contain 1 from hernia), $380 \div 18.5 =$ about 20 would, on the average, occur in persons already the subjects of hernia. In other words, the presumption is, that of persons with hernia and not subject to operative interference until there is an imperative need for it, an average of 1 in 20 will, sooner or later, die of hernia.

It will be noted that the year 1878, whence our statistics are drawn, represents a time when antiseptics were coming into general use, and hospital-hygiene as advanced as now; whilst operations for radical cure were still so rare that few, if any, of the whole 1,050 deaths could have followed an attempt at it.

But there are different kinds of herniae. Are they all equally fatal? If not, how do they differ? I have scarcely sufficient material at my disposal at present to deal accurately with umbilical and the rare varieties; but this will not affect the truth of the following comparative estimate of inguinal and femoral.

Femoral hernia is well known to be more dangerous than inguinal. The surgical reports of St. Bartholomew's Hospital for the years 1877 to 1884, inclusive, show a grand total of 87 deaths from hernia. Of these, only 30 were from inguinal, but 53 from femoral; 4 were from umbilical hernia. All the fatal cases were over 5 years of age.

Although 83 seemed a fair number of cases from which to draw the simple conclusion what was the usual proportion of deaths due to femoral and inguinal respectively, I resorted also to the reports of the Middlesex and of St. Thomas's Hospitals. I did not pick and choose the years; I simply took those to which I had convenient access at the time. The statistics of St. Thomas's Hospital were those of the years 1876 to 1881, exclusive of 1878, numbering five years. Those of the Middlesex were the years 1871 to 1878, altogether eight years. At St. Thomas's, in this period, 49 deaths occurred from strangulated hernia. Of these, 22 were from inguinal, and exactly the same number from femoral; 5 were umbilical. At the Middlesex, 25 deaths occurred. Of these cases, 10 were inguinal, 13 femoral, and 2 umbilical. Consequently, the proportion of fatal femoral to fatal inguinal cases, when these statistics are united, is 35 of the former to 32 of the latter variety. They corroborate the statistics of St. Bartholomew's in showing that more deaths occur from femoral than from inguinal hernia; but the disproportion is much less in the former than in the latter collection of cases. Adding them all together, we get 88 femoral to 62 inguinal.

Now, even in patients over 5 years of age, inguinal is at least six times as common as femoral hernia: $6 \times 88 \div 62 = 8.5$. These figures show femoral hernia to be more than eight times as fatal as inguinal. Assuming 700 cases of hernia, some femoral and some inguinal, about 600 should be inguinal, and 100 femoral. Of them all, the probable number of eventually fatal cases would be 35; of these, the proportion of inguinal to femoral should, according to our figures, be as 62 to 38. The 35 cases would, therefore, include about 15 inguinal and no less than 20 femoral. In other words, an average of not less than 20 per cent. of persons suffering from femoral hernia eventually die of it. On the other hand, the same figures and a similar calculation prove that only about 2.5 per cent. of inguinal herniae are eventually fatal.

Turning next to the question, "What is the amount of risk run by a patient subjected to operation with a view to radical cure?" one is confronted and almost dismayed at the outset by the number of different procedures followed by various surgeons. It would be absurd

to lump them together; so let us begin with what is, beyond question, the most popular and the most effective method—namely, that by excision of the sac, combined with ligature of its neck, and, where possible, with suture of the hernial canal. With this may be associated, as belonging to the same class, various operations in which the above elements are only partially present, but which agree in dealing directly with the sac through an open wound.

Mr. John Wood finds that his own practice gives a mortality of 11 per cent. (3 deaths in 28 cases). He also quotes Tilanus of Amsterdam as finding a death-rate of 11 per cent. in 100 Continental cases. Now, it must be borne in mind that Mr. Wood is one of the most experienced of all living operators on hernia, and that Tilanus's was a collection of cases by different operators, and open to the objection that such collections omit to mention many fatal cases, left unrecorded simply because they are fatal.

I am not ashamed to confess, therefore, that in 21 cases of my own, 3 deaths have occurred, undoubtedly due to the operation. Curiously, one of my own colleagues has, out of 7 cases, lost 1.

Dr. Macleod of Calcutta has had 4 deaths out of 33.

So far, therefore, we get a mortality varying from 11 to 13.5 per cent.

On the other hand, Israelsohn's statistics give 71 cases with only 4 deaths; that is, less than 6 per cent. But this also is a collection of records by various surgeons.

I am well aware that some surgeons have done a considerable number of operations, and lost barely 2 per cent. Up to a certain point, I had not lost one patient, and I dare say there are many operators of limited experience who can still show a virgin record; but I believe that 12 per cent. would not be an exaggerated estimate of the deaths directly due to the open operation on the sac for the radical cure of hernia, as that operation is at present practised.

It is sure to be asked, "Is this large mortality necessary and unavoidable?" Theoretically, the answer would be, "Certainly not;" but, practically, the matter is not quite so plain. I can, perhaps, make things clearer by the following instances. Taking my own three deaths, they all occurred in the same class of cases. The first awakened me to their special danger. The second was peculiarly unfortunate. The special danger to which I am referring came on in a most singular and exceptional manner, otherwise I have reason to feel certain it would have escaped; and, with regard to the third, I was, before deciding to operate, face to face with this dilemma: if I let the patient alone, death was almost certain; if I operated, there was the special risk above referred to. Practically, therefore, I was driven to do what, theoretically, I should have avoided if the statistics of the operation were everything.

It must not be forgotten that this open operation is the one which has to tackle the most dangerous cases. Comparison of it with other procedures for the radical cure of hernia should never be made without bearing this fact in mind.

When we turn to inquire into the mortality of the other operations, a new difficulty faces us; not one has come into general vogue. To the statements made by various people concerning the safety of their favourite plans, it is not safe to give full credence. In reading the writings of some of these authors, it is only quite by accident that one comes across the indication that they have had any dangerous or fatal cases at all. It is as though someone spoke to you strongly, and throughout a long conversation, of the merits of a new cook, and just said casually, towards the end, "By-the-bye, never mention Broadmoor before her; that's rather a sore subject, as she was detained there a long time, poor thing!"

There are, however, certain operations, like those of Wood and Spanton, of which the danger is plainly proved to be quite small; and there are others, such as that by injection of small quantities of astringent liquids or of alcohol into and near the inguinal canal, which *a priori* considerations, as well as the statements of respectable surgeons abroad, satisfy us are attended with extremely small risk. I do not cite here my own experience of operation by injection, because it is confined to eleven operations. So far as it goes, however, it tends to prove their safety.

Although I have spoken of the operations involving direct interference with the sac as "more effective" than other procedures, it must not be supposed that the difference in favour of the former is so very great. At the outside, it can scarcely be more than 20 per cent. Moreover, simple injections and sutures of the canal can easily and safely be repeated. Upon the whole, therefore, I have not the slightest hesitation in affirming that the direct operation on an inguinal sac is only justifiable, in the present state of surgery, as a method of treating quite rare and exceptional cases, such as can but seldom be seen in general surgical practice, and not very frequently

even in the experience of a truss-society. I am not now writing of hernia actually strangulated; that is a very different matter, with regard to which I adhere to the opinion I wrote some years ago, namely, that ligature of the neck of the sac greatly increases the patient's chance of recovery after herniotomy.

It may be said that the "present state of surgery," with regard to these operations, is not likely to be changed for the better if surgeons be dissuaded from practising them. I reply that cases of strangulation are sufficiently numerous to give ample opportunity for practice, and that, moreover, the safety of the operation is pretty sure to advance almost *pari passu* with general improvement in antiseptic methods, and, perhaps, above all, with the improved education of surgeons, house-surgeons, and dressers in antiseptic principles and practice. But with regard to such operations as Wood's (when done by himself), and operations by injection, and simple suture of the canal, the case is very different. I have already stated that, even in point of effectiveness, they do not fall so far short of the direct methods as some persons seem to think; and in the matter of danger, they compare not unfavourably with the palliative treatment, according to the figures already given in this paper. Therefore, when an ordinary case of inguinal hernia, reducible, and affecting a person not broken down in health, or past work from age, presents itself, there is no reason why a competent surgeon should summarily dismiss the idea of operating from his mind. Let him not, however, forget that the patient who is killed by a surgical operation, dies now, as it were; whereas, if left to the risks of strangulation, should he eventually perish, it may not be for months, or years, or even the major part of a lifetime.

The importance of the last consideration depends greatly on the individual case; for example, it should entirely deter us from operating on the parent of a young family, unless the indications in favour of operating be very decided indeed.

Passing now to the consideration of femoral hernia, we find a diametrically opposite state of things. I have demonstrated the appalling dangers of that affection. Let not the surgeon or sufferer be deceived by the idea that it is merely a matter of obtaining a good truss. Too many good trusses have failed in their work at the critical moment; and an immense number of femoral hernie are partly irreducible and unable to bear anything but a hollow pad, even if they can endure that. Moreover, the operations by mere suture of the ring or injection, are scarcely applicable to this kind of rupture. On the other hand, the simple character of the femoral sac, and its freedom from all complicated relations and connections, such as those of a congenital inguinal sac with the cord and testicle, make the isolation and suture of a femoral sac exceptionally easy. Therefore, the radical cure should be attempted in most cases of femoral hernia, and the operation to choose is that of isolation, ligature, and excision of the sac.

This paper has already reached an inordinate length, and I must defer dealing with hernia in childhood, and with the rare varieties of hernia, including umbilical and ventral, to a future occasion. I shall then attempt to distinguish between the prognosis of the different varieties of inguinal, and between the different conditions of femoral, hernie.

THE PRACTICAL UTILITY OF ESTIMATING THE AMOUNT OF UREA PASSED DAILY.

Read at the Annual Meeting of the Southern Branch at Ventnor, June, 1885.

By W. E. GREEN, M.R.C.S., L.S.A., Sandown, Isle of Wight,
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FURTHER acquaintance with the natural history of chronic Bright's disease has taught us that it is not always safe to trust to the presence of albumen in the urine as the infallible evidence of kidney-disease.

It has been found that, in the "granular" or "contracting" or "gouty" kidney, albumen is often wanting for long periods; while albumen is, at other times, found in the urine when nephritic disease is not on foot. Consequently, we must cast about for other evidence as to the condition of the kidneys, and the method I wish to bring before you to-day has a distinct value. It is not quite so easy of application as is the test for albuminuria, but the evidence it furnishes is trustworthy and worth the trouble.

It is now a well recognised clinical fact that, in chronic Bright's disease, or chronic gout, two conditions separable rather from their

clinical phenomena than from their pathological data, a certain series of morbid changes are found.

The commencing point lies with the liver, which fails to deal successfully with the albuminoid elements of our food. This is usually the consequence of a too free indulgence in meat. The result is, that products of malassimilation are found in considerable quantities in the blood. The excretion of these waste matters by the kidney leads in time, as Professor George Johnson pointed out, to morbid changes in the kidney, of a chronic character. When an excess of nitrogenised waste is chronically present in the blood, two results follow. Either this waste is cast out by the kidneys, with the result of chronic Bright's disease being set up, or it is retained in the system and gives rise to gout; very commonly the two are found together.

The presence of nitrogenised waste in the blood leads, however, to changes elsewhere than in the kidneys, especially in the circulation. There is a certain contraction of the small arteries and arterioles, which obstruct the blood-flow, and so set up a high arterial tension. This, in time, produces hypertrophy of the left ventricle of the heart to overcome the resistance in the arteries. The condition, when established, involves a distinct hypertrophy of the left ventricle, a tight artery, a loud aortic second sound (from forcible distension of the valves), and a large flow of urine of low specific gravity. In time, the arterial wall becomes hard. The condition involves several distinct complications, and, consequently, as Dr. Milner Fothergill says, "it may be called the 'gouty heart' or 'atheroma of the arteries,' or 'granular kidneys,' or, especially if some albuminuria be present, 'Bright's disease,' widely different names, linked with distinctly separable parts of the system, yet each phrase may have a valid foundation for its use." (*The Gouty Affections of the Heart*).

There is, indeed, a wide-spread series of morbid changes on foot. When the condition is established, to follow Dr. William Roberts, the well known authority on *Diseases of the Kidney*, the urine is of low specific gravity, and copious. He adds, "The normal solids of the urine are all diminished in chronic Bright's disease. The urea, as a rule, is markedly diminished."

This fact it is which gives importance to the remarks I am about to make, as to the daily testing for urea in cases of chronic Bright's disease.

It must be borne in mind that urea is not only derived from tissue-waste, but is also the form in which the excess of the albuminoid elements of our food—otherwise known as the *luxus consumptionis*—is cast out of the body. Consequently, when the excretion of urea is limited, the patients should be dieted accordingly, and as little work as possible be thrown upon the crippled kidneys.

Having made these preliminary remarks, I will now show you Dr. Squibb's apparatus for the approximate estimation of urea in urine, and describe the method of using it. Several methods of estimating the amount of urea are in use, but the one known as the hypochlorite process is most convenient for clinical use. It depends on the fact that a solution of hypochlorite will decompose urea, and liberate its nitrogen in the free state. This nitrogen being collected and measured will, by calculation, give the amount of urea present. To save trouble, a table is supplied with the apparatus, which shows the percentage of urea, and the quantity contained in a sixteen-ounce pint, thus simplifying the calculations.

The urine should be collected for twenty-four hours as follows. Commence at any hour by emptying the bladder and throwing the urine away. The whole urine passed during the next twenty-four hours, evacuating the bladder at the same hour, should then be mixed together, measured, and a sample sent for examination, with a statement of the exact quantity of the product.

You may ask, what is the value of a knowledge of the amount of urea passed? I answer, very great; for it shows us the condition of the kidney, and its capability of getting rid of a waste product, the retention of which in the system will cause great and increasing feelings of discomfort.

Sir Andrew Clark gave an address before the Metropolitan Counties Branch in 1883, upon an affection which he termed renal inadequacy. In this, he stated that there was a large class of patients who suffered from a functional disease of the kidney, in which a smaller quantity of urea was filtered out of the system than was good for it. "The people who have this renal inadequacy are characterised by three things particularly.

"1. First and foremost, they are characterised by a curious inability properly to repair damages done to them either by accident or illness. They repair damages of all kinds slowly, and are peculiarly vulnerable. They are a people, as a rule, who are always catching cold, and who, when they do so, are a long time in getting rid of it.

"2. They are a people who, without apparent cause, are subject to pneumonias, pleurisies, pericarditis, or the like.

"3. You can never be sure of the result of an operation, however trifling, in these cases, as they are likely to be followed by secondary hemorrhage, or other complication."

How are we to know these cases? Well, they are always ailing people; and whenever you get hold of a patient who is ill, suffering sometimes from dyspepsia, or nervousness, having headache, or complaining of malaise and weakness, who cannot sleep, or do his work well, and who feels tired all day, examine his urine; and if you find it of low specific gravity, 1015 or less, although the quantity may be normal, say fifty ounces or more, then examine for urea; and if it be deficient in amount, that is, less than two per cent., then, whether there be albumen or not—and usually there is not, and often is not, even in the most advanced cases—you may know that the kidneys are not doing their duty.

If you would know whether this is the cause of the patient's ailments, give him a liberal diet, and you will find that the urine, instead of increasing in specific gravity, becomes more scanty, and the density lower, and at the same time the symptoms become worse. On the contrary, if you give your patients a meagre diet, and especially in the matter of stimulants and nitrogenised food, and see that all the secretions are properly attended to, then all the symptoms improve.

A person in good health should pass about 500 grains of urea in the course of twenty-four hours, but a large margin may be allowed on either side according to habits, as regards eating, drinking, and exercise; but it may be stated as a fact, that, if the quantity regularly passed be less than 300 grains, that person cannot be in a satisfactory condition of health.

In a conversation held lately with Professor George Johnson, I asked him what he considered was the pathological significance of a constantly decreased excretion of urea. He said that he believed it pointed to a condition of granular degeneration of the kidney. Be this as it may, I believe such cases are frequently to be met with in an advanced stage, where the tension of the blood-vessels is high, where apoplexy is apt to occur, and yet where no trace whatever of albumen is to be found, but only a diminished excretion of urea. In fact, I have such cases in my practice, and in one, I resorted to venesection a few weeks since in order to stave off, if possible, a second attack of paralysis.

I will now relate a few cases in which I have found it useful to be able to have an exact estimate of the amount of urea excreted, and in which you will observe that the symptoms always improved in proportion to the amount of urea passed.

CASE I.—E. P. S., aged 61, has been under my care for about three years, and suffers at times from attacks of gout, or else extreme excitability, almost amounting to insanity.

These attacks had been kept in abeyance for about two years, when, owing to severe family worries, and an untrapped drain, he was prostrated with a serious attack of sewer-gas sore-throat; this being followed by gout, which was many months before it could be subdued, and even then the patient did not recover his former condition of health, but was lethargic, and unable to take active exercise. Towards the end of this illness, a large swelling came in the right lumbar, extending somewhat into the umbilical region, but we could not assign any cause for it.

So matters continued until the end of January in this year, when I was again asked to see the patient, who was found to be drowsy, constipated, with great thickness of speech, a pulse of high tension, and only 40 per minute.

We had the greatest trouble to get the bowels to act, but succeeded with strong aperients, combined with injections; the drowsiness and slowness of pulse, however, increased, and I thought it better to put him upon a mixture containing sweet nitre, spirit of juniper, nuxvomica, and nitro-glycerine, together with Hollands and spruce-beer to drink.

The symptoms gradually, but at once, began to mend; the secretions increased, the pulse quickened, and in less than a fortnight the patient had passed from a condition of great danger to one of comfort. The medicine was continued for at least six weeks, and curiously enough, as other symptoms improved, the swelling in the stomach began to decrease, until it had almost disappeared, and the patient is now as active and bright as he was two years ago.

I had not at this time Squibb's apparatus, but commenced to use it in March, with the following results.

1885.	Date.	Ozs.	Sp. Gra.	Per Cent.	Grammes.	Grains.
March	9th	35	1.018	1.04	73.90	214.5
"	16th	48	1.017	.98	18.90	214.5
"	23rd	47	1.018	1.01	14.05	226.8
"	30th	44	1.021	1.33	16.76	257.8
April	22nd	42	1.024	3.00	29.36	390.5
May	26th	50	1.012	1.54	7.90	123.2
June	2nd	80	1.026	1.82	16.14	349.1
"	9th	48	1.017	1.82	18.15	380.2

By this, you will see that on April 22nd he had got up to a fair average, both as regards percentage and quantity passed; and this upon a diet containing as little nitrogen as possible. On May 26th, however, you will note that the percentage had decreased to .54, and the total amount to 123 grains. This is accounted for in this way; during the five weeks' interval, I had been unable to prevail upon him to send up his urine for examination, because he did not like to trouble me; he had lost two sisters by death, and had experienced severe family home-worries as well; at last I prevailed upon him to let me have another specimen for examination, with the result mentioned.

During all this time the Hollands was taken every night, but the appetite had been a little more indulged, especially with eggs. He was told to take his old mixture again, and you will see that by the end of the week, notwithstanding that the amount of urine had decreased to 30 ounces, the percentage had increased to 1.82, and the total urea to 16.24 grammes, or 249.1 grains.

CASE II.—Mrs. D., a visitor, aged 76, has always enjoyed most robust health, and been a brilliant member of society. She had eaten meat in large quantities until the present time, when she usually ate it three times a day, and ate but sparingly of bread and vegetables. For the last ten years, she had drank about 20 ounces of port-wine daily. The digestive functions appeared to be in excellent order notwithstanding, and the bowels acted daily, the only aperient taken being an occasional dose of compound liquorice-powder.

The arteries were atheromatous, and brain-degeneration had been going on for some time, as evidenced by an excessively irritable temper, decided opposition to all things meant for her benefit, and dislike to old servants, etc.

She had been under numerous medical men, and, as it was thought that she might die suddenly from either apoplexy or failure of heart-power, I was asked to see her occasionally, not to treat, but to certify in case of anything untoward occurring.

She was as before described; and I found, moreover, that, as usual in such cases, she suffered very much from attacks of dyspnoea, and inability to sleep, especially after the early part of the night had passed; a great portion of the time being often spent in a chair. She was very stout, and incapable of helping herself; and, as she was incessantly wishing to get out of bed to micturate, her attendants were utterly worn out with their exertions. Very small quantities of fluid besides the wine were taken, and very little urine was passed. I believed that these dyspnoeal attacks were of an uræmic character. The pulse was 68, and the tension high. She would not take any medicine.

About a month passed, when I was sent for late one evening to see her in a more than usually severe attack of dyspnoea, which was relieved by giving one-minim doses of solution of nitro-glycerine, and one milligramme of hyoscyamine every hour. The relief was most marked, but the old lady's objection to medicine prevented her taking the dose unless the breathing was very bad; it was given, however, occasionally without her knowledge, as the port wine formed a vehicle which quite covered the taste of the medicine. She would not modify her habits in any way, although I told her she might thereby improve both the dyspnoea and the sleeplessness.

About a fortnight later, she complained of always feeling hungry, even after eating, and, as a consequence, ate meat more largely than ever. A few days later, she vomited, but the attack passed away in a few hours, to be followed by constipation, drowsiness, and a pulse of 50. A pill containing one grain each of aloin and jalapin was given, as were also castor-oil, elaterium, etc., but without result; then injections; but it was not until I had injected about two quarts of gruel, with two ounces of castor-oil, through an extra long No. 12 gum-elastic catheter, that we succeeded in getting an action of the bowels. All this time, the dyspnoea was severe, and the secretion of urine only 12 to 14 ounces daily. Fortunately, the appetite became bad, and we were able to keep our patient on a light milk-diet.

One minim of a 1 per cent. solution of nitro-glycerine was given every four hours, and, being tasteless, without the patient's knowledge. Very little stimulant was allowed, and was given in the form of Hollands and spruce-beer.

The condition was precarious for some days, but a gradual and marked improvement took place; the bowels acted freely, with the occasional help of a dose of castor-oil; the quantity and quality of the urine steadily improving, as follows:

Date.	Ozs.	Sp. Gra.	Per Cent.	Grammes.	Grains.
March 1st	12	1.014	.88	3.12	47.7
16th	36	1.012	.74	7.93	122.4
23rd	90	1.016	1.01	8.96	138.4
April 5th	22	1.022	1.96	18.54	286.2

On April 15th, the old lady was so much better, that I was able to take her back to town, and hand her over to the care of her own medical man.

In my practice, I have a large percentage of gout-cases, and find that in all there appears to be a deficient excretion of urea, increasing with the age of the patient. This may be, and probably is, to a certain extent, a result of the patients being kept as much as they will allow upon a non-nitrogenous diet; it may also show that granular mischief is advancing in the kidney, and, again, that a certain portion of the urea has been converted into uric acid, and stored up in the system.

As an instance of the latter, I would mention the following examination of urine in a patient aged 50, who was suffering from a typical attack of gout in the feet.

Date.	Ozs.	Sp. Gra.	Per Cent.	Grammes.	Grains.
May 6th	76	1.012	.40	9.09	140.3
9th	52	1.018	1.49	22.91	353.6

This change for the better took place in three days, under the influence of saline aperients and colchicum, with a corresponding improvement in the symptoms and feelings of the patient.

In all cases where a deficient excretion of urea takes place, it is important to remember that there may be a deficient power of filtering this product of waste tissue and of nitrogenous food from the blood, and that it is therefore a necessity to withhold as much as possible the ingestion of azotised matter, and also to limit the amount of exercise taken.

Saline aperients are valuable, as it has been proved by actual experiment that urea is eliminated much more freely under their influence; besides which, they do not depress patients who take them regularly.

Next, it is important that the skin should be kept freely acting; and for this purpose it is well to take a hot sponge-bath every morning, using a little soap, and a rough towel afterwards. The body should not be exposed to chill, and should be warmly clad, not too warmly so as to weaken the skin, but sufficiently so to protect it from the sudden changes of our climate. Stimulants should be avoided, or if taken, should be freely diluted with water. As a rule, I find that Hollands and spruce-beer are the best; both are good diuretics, especially the latter.

At the present time, I see that nitrite of amyl is being extolled as a good eliminator of uric acid. For four years or more I have known that nitroglycerine was the most efficient means we have of increasing the excretion of urea, and have published cases of uræmic and puerperal eclampsia relieved and cured by its use. In all probability, it acts in the same manner as nitrite of amyl, by dilating the blood-vessels, and so relieving the circulation through the kidney. At all events, I look upon it as the best diuretic we possess in such cases; and all the more so, that it seems to have the power of acting freely upon the bowels at the same time.

Defective action of the kidneys can be compensated by rousing the skin and bowels into compensatory activity; consequently, when the bowels become constipated in renal inadequacy, they should be promptly acted upon. At the same time, it is well to stimulate the sudoriferous glands of the skin.

When a fall in the excretion of urea is disturbing the system, it is well, first, to cut down the albuminoid elements of food; secondly, to increase renal excretion; thirdly, to act upon the bowels and skin. But the only way to ascertain this fall in the excretion of urea, is to test the urine in the manner described daily, or, at any rate, frequently, in all suspicious cases.

ON SEPTICÆMIA.

Read before the South-East Hants District of the Southern Branch.

By JOHN ROBERT KEALY, M.D., A.K.C.,

Physician to Out-Patients at the Royal Portsmouth, Portsea, and Gosport Hospitals.

SOME of us here are old enough in the profession of medicine and surgery to know that in our student days the title or designation of my paper—septicæmia—was an unknown term. Search authors of the period to which I refer, even dictionaries of medicine and surgery, and the term will not be found. Pyohæmia or pyæmia you may find, but not septicæmia. It became a matter of question as to the possible absorption of the pus-cell into the blood-system; and, subsequently, morbid conditions were recognised by which a new pathology made the distinctions of septicæmia and pyæmia different, and not convertible terms. Hence, we now understand septicæmia (the subject of my paper) to be a constitutional, generally acute, disease, due to

the absorption of various putrid substances into the blood, by which the blood is spoiled, so that it cannot fulfil its physiological functions. Certain circumstances are necessary for putrid matter to be taken into the blood of man; such substances are only taken through the healthy skin and mucous membranes when the putrid substances have a destructive or cauterant action, or an active power of penetrating, like fungi or infusoria. Diseased skin or wound-surfaces take up such putrid matters more readily, but even they only do so under certain circumstances; for instance, they do not readily pass through well organised uninjured granulations; the poison is absorbed chiefly by the lymphatic vessels. What is the principal, or even subsidiary, part played in the pathogeny of septicæmia, is as yet undetermined.

Leaving much that might be discussed and illustrated here, we pass on to ask, What characterises the course of septicæmia? We note, as to the nerve-symptoms, the patients are apathetic and sleepy, if not entirely comatose; rarely there is fearful excitement, and occasionally maniacal delirium; at the same time, the subjective feelings are good; the patients usually do not suffer much. The tongue is dry, often as hard as wood, which renders the speech very peculiar; the patients are thirsty, rarely drink, on account of their great apathy. Not always, but very frequently, there is profuse diarrhœa; more rarely, vomiting. At first, there may be great sweating; later, the skin is dry and flabby. The urine is scanty, very concentrated, and occasionally albuminous. As the disease progresses, the patient passes her urine and feces in bed. Bed-sores over the sacrum occur early. The temperature rises high; initial chills are very rare; intercurrent chills may or may not occur.

In the prognosis of septicæmia, the condition of the pulse and tongue are more important than the temperature. A small, frequent pulse and dry tongue are bad signs, while a normal temperature has no prognostic value; very high or very low temperature makes the prognosis worse. Cases occur where the onset of the fever is scarcely marked by an elevation of temperature; and, lastly, some cases run their course without fever, or with abnormally low temperature—for example, old persons with spontaneous gangrene. From what I have stated, and from what I shall show you presently in my case, falling of temperature is of itself by no means a sign of improvement; but the other constitutional symptoms (strength, mental state, pulse, tongue, etc.) must also be taken into consideration. Where the symptoms of the disease are marked, as they were in my case, the prognosis is very bad.

CASE.—Mrs. X., aged 28, tall and slender in form, of bright and hopeful disposition, had had three living children and three miscarriages.

During September, 1884, she considered herself weak from a four months' conception. From the middle of the month, she had a slight reddish discharge *per vaginam*, and sensation of cold and weight about the hypogastrium. I gave her five grains of gallic acid three times a day.

October 8th, at 9.30 p.m., I was summoned hurriedly to visit her. I found her in bed, on her back, with a *pot de chambre* between her thighs. In it was a somewhat putrid embryo, about the fourth month, with a shrivelled funis still connected. I divided the funis, removed the utensil, placed the patient on her left side, and examined for the placenta, which I found at the entrance of the os uteri. The cervix and body of the uterus, as far as felt, were peculiarly soft, as though made up of softened brown paper; I therefore determined not to handle the parts, but leave the placenta to be thrown off *vis a tergo*, rather than by a *vis a fronte*. The placenta was expelled about seventeen hours after the embryo; and, on my second visit, the patient was cheerful, and everything appeared externally well; but her legs were subjectively very cold. Twenty-four hours afterwards, at my visit, she complained of acute pain over the lower half of the right lung. The percussion-note was low, and there were mucous râles. Feeling very ill in the night, when on the commode, she became somewhat insensible, and fell off. The next morbid condition developed was a swollen right shoulder-joint, without any sign of a bruise. At this point of the case, I came to the conclusion that I had to deal with a case of septicæmia. Although no particular smell was observed from the vagina, I ordered injections of carbolic lotion (1 in 40). No tenderness was observed about the pelvis, however hard the pressure.

The temperature on the ninth day of attendance had risen to 102°; pulse 108; respirations 30.

On the next day, the whole of the fauces, with the entire mucous membrane of the mouth and tongue, were covered with diphtheritic membrane.

On the thirteenth day, the patient was greatly depressed, and profuse diarrhœa set in, with a temperature of 103°. The day after this, she had a severe attack of rigors, during which she seemed as though

she would die. These rigors continued twice in the twenty-four hours for some time, and then, at irregular intervals, for more than a month. The diarrhœa continued up to the end of the first week in November. The stools were of a most offensive character until November 4th, when a quantity of curry-like motion came away, and, two days afterwards, a green evacuation; from that time, the motions improved.

In a few days after the swelling of the right shoulder had subsided, the left became swollen, and eventually subsided under the application of iodine, as did the other.

On November 1st, twenty-fourth day of illness, the pulse and temperature suddenly fell; the conjunctivæ were yellow-tinged; the coccyx and sacrum quickly became the seat of bed-sore.

The next day, November 2nd, she had profuse vomiting, and was excessively prostrated. This day appeared to me a crisis; the same condition came on the two following Sundays, only not so severe. Both lungs, from apices to bases, were now involved with râles; she had an incessant cough, with expectoration of an albuminoid character. Improvement not having come as wished, I resolved upon using a grain of iodoform, mixed up with extract of gentian, to be taken every four hours. After twelve doses the effects were marked, the râles ceasing, the cough abating, and the expectoration lessening. She was well fed on tripe boiled in milk.

On November 20th, she had rigors again, anorexia for two days, with most acute pain in the left sacro-iliac joint, succeeding the subsidence of the swelling in the left shoulder. The slightest movement caused agony. No pain was produced by firm pressure over the inguinal region or up to the umbilicus on the same side. The bed-sore improved fast, and ultimately healed. I gave her full diet, and cod-liver oil with hypophosphites. She gained flesh well, and in January, 1885, began to go out; then menstruation occurred in regular order afterwards.

The above case was one of immense trouble and anxiety. The diagnosis turned out from the first correct. At the early stage of the condition, I surmised the possibility of a second putrid embryo, but such proved not to be the case. Then one was much importuned by the friends to stop the diarrhœa; but being a firm believer in nature's work of eliminating disease, I refused. What meant the rigors, so oft and irregularly repeated? What the apparently critical stages on three consecutive Sundays? The temperature ranged between 104.6° and 99°; for the greater part of the illness, 102°. The maximum of pulse was 120; and of respiration 36.

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS PECULIAR TO CHILDREN.

By SIDNEY H. LINDEMAN, M.R.C.S.,

House-Surgeon to the West Norfolk and Lynn Hospital.

No department of medicine or surgery meets with more lay criticism and quackish opposition, than that which has for its aim the setting of bones and the reduction of dislocations. The reason is, I think, easily seen. Medical education was once far different from what it is now. The medical student's career of Bob Sawyer's time consisted in walking round the wards of a hospital, occasionally attending the classes of a popular lecturer, and, finally, just scraping through an examination. It was then that the unqualified bone-setter arose and flourished. The bone-setters of the present day have changed in many ways, but there is no need to describe them or their *modus operandi*. Suffice it to say, that they have become more cautious, and have even, in some instances, been indiscreet enough to take a qualification, forgetting that, by so doing, they lose their standpoint. There is no doubt, however, that they should be things of the past, and they will gradually sink into oblivion. These remarks, which are perhaps rather irrelevant to the subject of this paper, have been made because similar injuries to the one about to be described frequently fall into the hands of the bone-setters, and help to form the rock on which their reputation stands. For, by rapidly and forcibly putting joints through all their movements, they often blindly do the very thing required. No medical man should be, or is generally, forgiven by the public for making errors in the diagnosis of dislocations and the treatment of fractures, which an unqualified man may afterwards rectify. Such errors are the cause of immense mischief, not only to the particular medical attendant, but to the whole of the profession. For it must be remembered that one happy hit, on the part of the bone-setter, is quite enough to outbalance a dozen mistakes which he may make, even though they may lead to incalculable mischief.

Very little has been written about this injury. The late Mr. McNab, of Epping, was the first to draw attention to it in this country (*vide* Heath's *Junior Surgery*); and in Ranking's *Abstract* for 1863, vol. i, there is a paper by Dr. Hodges on the subject. M. Goyrand has also paid it much attention. But great doubt has always been expressed as to whether this injury, in children under five years of age, is a dislocation of the radius at the elbow, or a displacement of the fibro-cartilage at the wrist, so difficult is it in children of this early age to get a complete diagnosis. Following a short article, sent to the JOURNAL in March, 1882, Dr. Sneddon wrote that he had met with several cases. The dislocation has, in every case that I have seen, occurred in children under the age of five, the most common period being between nine months and two years. It is a partial dislocation of the head of the radius, forwards on to the condyle of the humerus, perhaps in some cases reaching the shallow depression above the trochlear surface which goes by the name of the radial depression. It is generally caused by some one saving the child from falling by taking hold of the hand. In elder children, it is caused by nurses swinging them round by the hands, or it may result from a fall. In the first two cases, the tendon of the biceps largely participates in its production. This muscle acts both as a supinator and a flexor of the forearm; but it also flexes the arm on the forearm, when the latter is fixed, as in climbing; and, consequently, any great traction at the wrist causes it to be strongly brought into play, and so tends, by reason of its attachment to the posterior surface of the tuberosity of the radius, to bring the upper extremity of that bone forwards, out of its place. (In adult life, I doubt if this partial dislocation ever occurs, but several cases are reported of complete dislocation forwards. *Vide* Dr. Will, *Lancet*, June 7th, 1879.)

After meeting with the accident, the child is brought evidently in great pain. The injured limb hangs down midway between pronation and supination. The person who brings the child rarely knows where the injury lies; but generally thinks it is in the shoulder. Taking hold of the hand causes very great pain. The elbow is found to be hotter than its fellow, and there can always be felt an unnatural prominence on the outer side of the joint. Flexing the arm to a right angle and complete pronation can be accomplished; but, in attempting to flex more, or to supinate, some resistance is felt.

Reduction of the dislocation is accomplished by taking the hand of the child in the opposite one and strongly supinating, at the same time that the thumb of the other hand presses on the head of the radius. Before complete supination has taken place, a distinct "thud" will be heard, and the head of the radius felt to slip back. One of the peculiarities of these cases is, that the child, a few minutes after the reduction, will move the hand and arm, and will even grasp anything that may be offered to it, without apparently suffering any pain. These dislocations have a great tendency to recur, especially if not reduced early in the first instance. I have seen more than one case in which permanent enlargement of the elbow-joint has resulted, through the dislocation not having been diagnosed and properly treated in the first instance. After the reduction, it is necessary for the joint to be kept at rest by a rectangular splint, the small tin ones being the most suitable for the purpose. The injury most frequently occurs in children of the strumous type, with large ends to the bones. Previously to the last two years, no notes were taken of cases seen. Since doing so, twenty-four examples have come under my observation.

I think that a slipped tendon of the wrist, to which children are rather liable, may have been mistaken for a dislocation, and so led to the confusion, which has previously occurred, concerning injuries to the fore-arm in children of this age.

OBSTETRIC MEMORANDA.

STRYCHNINE IN POST PARTUM HÆMORRHAGE.

DR. WALKER calls attention to the influence exerted by strychnine over *post partum* hæmorrhage, and I can corroborate his observation. My father first informed me of its use, and I have been in the habit of giving this remedy (during the last eighteen or twenty years) in all cases where flooding has been expected or has occurred in previous labours, with most satisfactory results. I have no notes of cases, but have in my memory several instances where there was a previous history of flooding after labour, but where, when strychnine had been given beforehand, no hæmorrhage came on. Strychnine has, no doubt, a marked influence in preventing *post partum* hæmorrhage. I usually give five-minim doses of the liquor strychnie in tincture of orange-peel three times daily for a month or six weeks before the expected time, and I cannot recall any case of flooding where it had been given in this way. JOSEPH THOMPSON, L.R.C.P. Lond., M.R.C.S. Eng.

UNUSUALLY SMALL CHILD AT ALMOST FULL TERM.

OUT of numerous cases on record of viable children weighing less than 2 lb. 8 oz. at birth, I need only refer Dr. Scott to one reported by Dr. Barker, of Dumfries, in the *Medical Times*, 1850. This child weighed 1 lb., and measured 11 inches, and was alive three and a half years after, when it weighed 29½ lbs. The remarkable circumstance in Dr. Scott's case is, that the child only weighed 2 lb. 8 oz. "at almost full time," this in my experience being the normal weight at twenty-eight weeks of utero-gestation. It would be interesting to know whether the membranae pupillares were present or absent; and, if a boy, whether the testes were in the scrotum. The best method of keeping such an infant warm, is Auvard's couveuse or nest (*see Obstetrical Transactions*, 1884). Hearson's or Christy's hydro-incubators would be less costly, and easily adopted for the purpose. If the expense be insuperable, the child should be wrapped in cotton-wool, and kept in a covered basket near a fire. PERCY BOLLTON, M.D.

CLINICAL MEMORANDA.

QUINSY FOLLOWED BY RHEUMATISM.

THE following case, recently under my notice, may have some interest as bearing on the discussion in recent numbers of the BRITISH MEDICAL JOURNAL, as to the connection between quinsy and rheumatism.

I was called, on November 7th, to see Mrs. M., aged 60, married, and with family. I found her suffering from a severe attack of acute tonsillitis; her left side was chiefly affected, and she had pain in the left ear. This quickly yielded to treatment by tincture of aconite, fomentations, and brushing with astringent solution. The right tonsil then became implicated, and on the following morning the tongue was severely and acutely inflamed. The tongue was lanced, calomel was given, and the patient was nourished with enemata. The mouth was washed out frequently with eucalyptol in solution, and also lotion of chlorate of potash. In two days the tongue and throat were quite well, but a peculiar huskiness of voice remained. The right shoulder now became very painful, and was found red and swollen; a liniment of soap and opium, with liquor epispasticus, was applied with benefit, and nourishment was given every two hours. A slight acid sweating was present; the pulse varied from 115 to 126; the temperature never rose above 100°, except on one occasion, when the thermometer registered 101°. The arthritis gradually improved in the shoulder, but attacked the sterno-clavicular joint and the corresponding end of the clavicle. The action of the heart gradually became feebler, and the patient quietly sank on the evening of November 14th. For many years past she had been subject to slight pain in the right shoulder in the morning, disappearing during the day. Whether this acute attack was owing to the cause or causes which originated the quinsy, or whether the quinsy was the cause of the acute arthritis and glossitis, I am not prepared to say. The heart's sounds were normal; the lungs and kidneys were unaffected.

N. F. H. FITZMAURICE, L.R.C.P. and S. Edin.,
Dunning, Perthsh., N.B.

THERAPEUTIC MEMORANDA.

TREATMENT OF TINEA TONSURANS.

ON September 5th there was published, in the JOURNAL, the paper which I read at the Cardiff meeting, on the treatment of "Tinea Tonsurans." Since that time, I have received a great many letters relative to my mode of procedure; and, as there seems to be a great deal of misunderstanding on this point, I shall be much obliged, and it may, in anticipation, reply to those who might in future be correspondents, if I may be allowed the opportunity of explaining that, inasmuch as the No. 1 solution contains caustic potash, it must not be applied to the scalp for more than a few minutes at one time. I have been making further experiments, and I can now recommend, for most cases, a modification of the first solution; namely, mixing liquor potassæ, and spirits of wine (methylated does very well), in equal proportions, the quantity of the iodide of potassium being the same; namely, half a drachm to an ounce of the mixed solutions.

I find there are very few scalps which will not bear this strength; but cases which have been under active treatment in other ways, should not be put on my plan until they have been allowed to rest, for a time, free from any active remedial measures. I apply this solution pretty freely, either by dabbing on with cotton-wool soaked in

it, or by soaking a pledget of lint and applying it to the scalp for three or four minutes at a time. When this has been done two or three times, according to the size of the patch and severity of the complaint, at intervals of two or three days, I next use No. 2 solution, and I apply it the first time in ten minutes after using No. 1, and then reapply No. 2, two or three times at two days' interval.

I have also modified the composition of my second solution. I now make it by dissolving four grains of mercuric chloride in equal parts of spirit of wine and water, to make an ounce. After having applied the two solutions, I wait a few days, without using any remedy, unless it be a little cacao-butter, to facilitate the removal of any scabs which may have formed, and then commence the treatment over again; with this difference, that now I apply the potash solution once, and follow it up with the mercuric one, very often using them both at the same sitting, with an interval of ten minutes between.

I never had the head shaved, but I keep the hair short, not exceeding half an inch in length. In severe cases, the head must be divided out into sections. My experiences of the treatment are very satisfactory.

ALF. JAS. HARRISON, Clifton.

TOXIC ACTION OF CUCAINE.

In the JOURNAL of November 21st, I notice a short article on the "Toxic Action of Cucaine." Some months ago I applied to the eye of a man, in whose cornea a foreign body was impacted, three drops of a four per cent. solution of cucaine; the pupil soon became dilated, and the conjunctiva insensitive. While I was removing the impacted particle, the man suddenly became pale, the head and neck broke out into a perspiration, the breathing became embarrassed, and he seemed on the verge of fainting. The window was opened, his neckcloth loosened, and a stimulant immediately administered, but it was some minutes before the circulation became regular, and complete consciousness was regained. He was a strong healthy farmer, of middle age, and had never previously had any symptom of syncope.

In reference to this comparatively new remedy, while strongly deprecating all exaggerated notions as to its efficacy, I would still venture to suggest that a careful study of its action will probably prove that its range of usefulness is much wider than has hitherto been imagined. I have of late been making many trials of it in various cases, and hope shortly to publish the results of my observations, which in some instances have been really very striking.

F. H. V. GROSHOLZ, Towyn.

GRAVES' DISEASE CURED BY GALVANISM.

DR. LESLIE PHILLIPS is to be congratulated on the results of his treatment of exophthalmic goitre. Galvanisation of the cervical sympathetic has been used for several years in the treatment of this disease, and is perhaps the best remedy. Dr. Phillips reported in this JOURNAL some time ago a case cured by duboisin. It would be interesting to know whether there has been any relapse in that case, or whether the cure was permanent. I have notes of several cases, all of which have been improved by treatment, but I have not seen a case cured. I believe there is a natural tendency to improvement with time, but that the disease, in the great majority of cases, is incurable.

C. W. SUCKLING, M.D., M.R.C.P., Birmingham.

SURGICAL MEMORANDA.

URETHRAL DISCHARGE IN SECONDARY SYPHILIS.

I HAVE recently treated a case of this rare affection. In a man, aged 35, there occurred a profuse purulent discharge from the urethra, about two months from the appearance of the chancre, and three months after the last sexual connection. There also existed, at the time of the appearance of the urethral discharge, a large mucous patch on the left tonsil, and a plentiful eruption of papules over the body. The discharge rapidly became profuse and purulent, and lasted for about six weeks. It had a most weakening effect on my patient, who suffered from night-sweats and great debility. There was also an irritable state of the bladder set up after the discharge had lasted three weeks. The nature of the discharge was similar to that of gonorrhoea, but there was at no time any inflammatory symptom or any redness or swelling of the meatus. There was never any pain in passing urine, nor chordee.

I have occasionally seen, during the course of secondary syphilis, a slight muco-purulent discharge proceeding from mucous patches within the urethra; but, in my experience, I have never seen before

such a profuse discharge of pus as in this case. From the large amount of pus, it is probable that the urethra was affected by an extensive erythema.

The patient has now entered on the fifth month of the disease. The urethral discharge has ceased, the tonsil is sound, and the eruption rapidly disappearing. The general health is excellent. As is my usual custom, no mercury has been given.

FRANCIS CADELL, M.B., F.R.C.S.Ed., Edinburgh.

AVULSION OF TOE-NAIL UNDER CUCAINE.

A YOUNG man recently came under my care at the Western General Dispensary, with ingrowing of the nail of the great toe. I determined to divide the nail, in the usual way, and avulse the offending part. I thought this would be a good case for testing the value of cucaine as a local anæsthetic. I first sponged the small ulcerated area and adjacent parts with a 10 per cent. solution of cucaine, and then hypodermically injected five minims of this solution under the part of the nail to be removed. After waiting a few minutes, I proceeded with the operation, which was completed without any flinching or other manifestation of pain on the part of the patient. He afterwards stated, however, that when the point of the scissors was thrust deeply under the nail, he felt some pain. Considering the exquisitely painful nature of the operation, I regard this as a most successful result.

ROGER WILLIAMS, F.R.C.S.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

RADCLIFFE INFIRMARY, OXFORD.

INTESTINAL OBSTRUCTION: GASTROTOMY: DEATH.

(Under the care of Dr. COLLIER.)

[From notes taken by Mr. E. RICE, M.B.Lond.]

ANTHONY W., aged 13, was admitted on September 11th, 1885. Ten days before, after lifting a small bag of barley-meal, he was seized with a sharp pain in the abdomen, and vomited. His bowels had been opened in the morning before the pain came on, but had not acted since. The abdominal pain and vomiting continued, and the patient had been in consequence confined to his bed. A week before admission, he was first seen by a medical man, who gave him medicine in a dose of castor-oil; three days later, an enema was given, but without effect.

When admitted, his expression was anxious, and he was evidently in great pain. The temperature was 99° Fahr.; the pulse was 120, and of fair volume. The urine specific gravity 1022) was alkaline, but contained no albumen. The tongue was moist. He retched constantly, and occasionally vomited a small quantity of greenish-yellow fluid, with a sour non-fæculent odour. The abdomen was distended; there was marked tenderness over the whole of the left side, and in the left iliac region a distinct hardness, with a feeling of resistance. Nothing abnormal was detected on rectal examination. An enema of thin gruel was administered, which returned almost immediately without giving any relief. One-quarter of a grain of opium powder, combined with one-sixth of a grain of extract of belladonna, was ordered every two hours. Small quantities of iced milk were given by the mouth.

He passed a very restless night. The pain and vomiting continued, and the tongue became drier. The temperature was 98°; the pulse 120, small and weak; and the general condition decidedly worse. The hardness in the left iliac region was more distinct. An enema of about one pint of warm olive-oil was given; the pelvis was well raised, and the oil was allowed to flow gradually in from a vessel suspended several feet above the patient. A few hours after, a second enema of about one and a half pints of soap and gruel, was administered, but in both cases without effect.

A consultation was now held, and, as the patient's general condition was rapidly becoming worse, it was decided to proceed to operate. Chloroform was administered, and, under antiseptic precautions, Mr. Winkfield made a vertical incision at the median line, about three inches in extent, immediately below the umbilicus.

On opening the abdomen, there was an escape of very foul foetid gas, followed by nearly a pint of purulent fluid, possessing a very feculent odour. A second incision was now made from the upper end of the first, and at right angles to it, in the direction of the left iliac spine. On examination, the small intestines in this region were found to be matted together by inflammatory lymph, much discoloured, and very soft and friable. No source of intestinal obstruction was discovered. A large drainage-tube was introduced, and the edges of the wound brought together with sutures. The patient never rallied, and died eleven hours after the operation.

Necropsy.—The great omentum was covered with flaky lymph, and firmly adherent to the intestines beneath. The coils of intestine were extensively adherent to each other, and a considerable quantity of pus was present in the abdominal cavity. The signs of inflammation were especially marked on the left side of the median line. From a small round perforation in the posterior wall of the upper portion of the descending colon, about the diameter of a No. 5 shot, a small quantity of fecal matter exuded. The large intestines exhibited patches of great discoloration and congestions, and its walls were in parts extremely soft and friable. They were distended with fecal matter, mixed with oil, the latter having penetrated as high up as the commencement of the cæcum. On examining the inner surface, the edges of the perforation mentioned above were sharply defined, and there was no appearance of local inflammation or ulceration at this point, or at any other part of the intestine. A few of the mesenteric glands were enlarged, and rather hard. All the other organs were healthy.

REMARKS BY DR. COLLIER.—The symptoms, coming on as they did immediately after lifting a heavy weight, and continuing in spite of treatment, with the condition of the patient, led those who saw and examined him to believe that he was suffering from a partial twist of the large intestine, in the region of the sigmoid flexure of the colon. The necropsy would suggest the following sequel of events: a strain of the abdominal structures, giving rise to local peritonitis, and, in consequence, paralysis of the intestinal walls, accumulation of feces in the large intestines, with perforation. The date of the perforation was doubtful. The quantity of purulent fluid in the abdominal cavity possessing a strong fecal odour would suggest a perforation of some standing; while the condition of the parts, and the absence of all signs of inflammatory action round the edges of the wound, led one to regard it as of recent date. The difficulty of making a correct diagnosis in this case will be apparent to all.

GENERAL HOSPITAL, BIRMINGHAM: OUT-PATIENT DEPARTMENT.

THREE CASES OF UNUSUAL DISEASE OF THE TONGUE.

(Under the care of Mr. GILBERT BARLING, B.S., F.R.C.S.)

1. *Multiple Fatty Tumours.*—The patient, a man aged 75, first noticed some enlargement of the edges of his tongue about twenty years before he was seen at the hospital; this continued, and increased, but without causing him any further inconvenience than occasionally getting somewhat in the way during mastication, and producing some indistinctness of speech. The existence of the tumours was discovered accidentally by Mr. Holdsworth, under whose care the patient was as a "medical casualty." The tumours, four in number implicated the anterior part of the organ, two, each about five inches in diameter, being on the right margin, and two on the left margin; of the latter, one was more than an inch in diameter, and the remaining one of the size of a small nut. Each of the tumours was elastic, but not fluctuating, and the yellow fat showed through the mucous membrane, which was smooth and thinned over it. The centre of the tongue was not affected, and presented a healthy appearance. The patient, having suffered so little, was not at all inclined to have the tumours interfered with; and, seeing that there was no ulceration over the growths, and that he was 75 years old, and feeble, an operation was not urged.

Fibroma (Congenital).—A baby, 18 months old, was brought to the hospital, on account of a lump on the tongue. The mother had noticed it soon after the infant's birth, certainly within the first month of life, and it had slowly increased in size. There was a nodule almost exactly in the middle of the dorsum, about half an inch long, and raised about a quarter of an inch above the level of the adjacent parts but quite sessile. After watching it for about a fortnight, during which time it increased in size, the tumour was removed with scalpel, invading somewhat the muscular substance of the tongue, from which there was smart oozing; this, however, was easily stopped by three rather deep catgut sutures. The tumour was three-quarters of an inch long, and about a quarter of an inch thick; it appeared to

have originated in the mucous membrane. Its structure was pure fibrous tissue.

Cleft Tongue, with Median Lobe, and Cleft Palate.—The patient with this deformity was a male infant, aged ten months. The tongue was bifurcated as far back as its middle, the two halves diverging, and leaving a V-shaped gap, at the apex of which, as well as to the floor of the mouth and inferior maxilla, the median lobe was attached. The bulk of the lobe, which was as large as the end of one's thumb, projected between the lips, dragging with it the end of the tongue proper, so that the lips could not be closed, and the child had of necessity been spoon-fed. This outgrowth, which consisted of muscular tissue, was removed, and the tongue has since retreated within the mouth; but any plastic operation on the organ itself has been deferred, as the infant is very feeble, and the cleft tongue may not interfere with articulation. The cleft in the palate implicated all the soft and most of the bony vault, but the præmaxillary bone was of good size, and in proper position.

REGIMENTAL HOSPITAL, 5TH BENGAL LIGHT INFANTRY. PROGRESSIVE PERNICIOUS ANÆMIA.

(Under the care of ANDREW DUNCAN, M.D., F.R.C.S.)

BHYROO, a sepoy of the 5th Bengal Infantry, was admitted on September 2nd, 1885, on return from sick-leave. On March 28th, 1885, he had been admitted into hospital for six days for "colic;" on April 12th, he was again admitted for the same cause for eight days; after which, it was thought that a dilatation of the abdominal aorta existed, for which he was invalided on June 7th for a period of three months. During his service of twelve years, he had been treated in hospital on ten different occasions for "ague," once for dengue, and once for syphilis.

When admitted on September 2nd, on his return from sick-leave, he presented one prominent symptom, an intense continuous abdominal pain in the epigastric and right hypochondriac regions. The slightest pressure elicited tenderness; whilst deeper pressure elicited an increase of the continuous pain. He stated that the pain had never left him since he departed on sick-leave. His countenance was expressive of his statements, being careworn, and that of a man suffering from some internal abdominal complaint. The mucous membranes were pale for a native. Deep pressure over the abdomen discovered no sign of any tumour, nor any sign of dilatation of the abdominal aorta. Indeed, at this period, the pulsation of the aorta was less evident than usual. The liver-dulness was not enlarged; nor was that of the spleen. The urine was normal. There was no jaundice, nor dropsy. Nothing abnormal was perceptible on auscultating the spinal column, nor was there any pain on percussing the vertebrae. The heart and lungs were normal. There was no pain down the legs, and the femoral pulses were equal. During the next few days, careful examination could elicit no cause for the continued pain, which never left the patient. The pain was not paroxysmal, but continuous.

On the sixth day, however, after admission, oedema of the feet and ankles came on; and, about the twelfth, the conjunctivæ became icteric. At the same date as the icteric taint was noticed, physical examination of the abdomen revealed spasmodic contraction of the right rectus abdominis. Meanwhile, the patient was treated with hydrocyanic acid, opium, and belladonna; but the pain, the jaundice of the conjunctivæ, and oedema of the feet, remained much the same.

On the twenty-second day after admission, a sudden exacerbation of the abdominal pain seized the patient, and lasted for two hours, when he became unconscious, and died shortly afterwards.

The opinion formed of the case was that a tumour, probably malignant, was situated deep in the epigastric region, and gradually exercised pressure on the vena cava, solar plexus, and bile-duct.

The *post mortem* examination was made four hours and a half after death, and completely upset the diagnosis. Nothing was revealed but intense general anæmia. The heart's muscular substance was perfectly pale; both sides were empty, except that there was a small *post mortem* clot in the right ventricle. The lungs were more anæmic than Dr. Duncan had ever observed them to be in any former case. The liver, spleen, kidneys, pancreas, and adrenals were all normal, except for their pallor; there were about two teaspoonfuls of bile in the gall-bladder. The bile-ducts were perfectly patent. The stomach and intestines exhibited the general pallor. The inner surface of the former was quite normal, except for its anæmic condition. The solar plexus was normal. The abdominal aorta was normal, and with no signs of degeneration. On opening the cranium, the membranes were found participating in the general anæmia, the vessels of the pia mater being very indistinct. The cut section of the brain exhibited no red points, and its general surface was abnormally white. There was no

cerebral tumour. The spinal cord was not examined, but there was nothing abnormal as far as the bones were concerned. The blood in the vessels was everywhere thin and fluid.

REMARKS BY DR. ANDREW DUNCAN.—The nature of this case, if it had occurred in a European, would have presented some difficulties in diagnosis; occurring in a native, I believe I have some excuse in not recognising its nature. Moreover, Dr. Bristowe states that, during life, cases of this nature "are liable to be mistaken, at any rate for a time, for visceral cancer." In this case, to support the diagnosis of visceral tumour, we had the long and persistent pain (accompanied by vomiting in his two former admissions for "colic"), the onset of oedema and slight jaundice, and the spasm of the right rectus which was unmistakable. The oedema of the feet, and icteric tinge in the conjunctivæ are, of course, easily explained, the oedema being the oedema of anæmia, and the jaundice being hæmatogenous. As regards the abdominal pain, I imagine we had here a neuralgia of the solar plexus (neuralgia cœliaca), due to its starved and anæmic condition. The pain, however, was continuous and not paroxysmal. The previous dilatation of the aorta was evidently due to the anæmia. There are, in addition, two other points of interest in this case. It is not often that opportunity offers itself in a native regiment for obtaining a *post mortem* examination. Now, this man's medical history-sheet informed us that during his service of twelve years, he had been ten times admitted into hospital for "ague." Did the *post mortem* examination show any signs of former malarial fever? Not one. The spleen and liver were of normal consistence, remarkably pale, with not a trace of pigmentary deposit, and no thickening of the capsule. "Ague" is frequently in India, and with writers on Indian medicine, a generic term which covers a multitude of diagnoses. No matter what the nature of it, if any case of fever be admitted in this country, a native hospital assistant will, invariably describe it as "ague," unless he be corrected; whereas, from my experience in Afghanistan, the Punjab, and the North-West Provinces, "fever" in the large majority of cases is simple continued fever, and not malarial fever at all. The temperature-charts are not those of malarial fever, and the patients recover perfectly on placebos, whilst enlargement of the spleen is not a clinical feature, except very rarely. The hospital-assistant, however, of a native regiment, may quote Sir Joseph Fayrer, who, in his treatise on *Fever in India*, thus puts the matter. He first quotes (p. 19) from the Thirteenth Annual Report of the Sanitary Commissioner of the North-West Provinces for the year ending December 31st, 1880, as among the chief causes of death "fevers, total deaths, 987,220," and then remarks, "Nearly a million of people (987,220) died in 1880 of malarial diseases." As the Sanitary Commissioner reported the number as being that of the mortality of "fevers," it is somewhat difficult to see on what grounds they can be said to have died from "malarial diseases." As a matter of fact, I can safely say that, in 1880, not one quarter of a million, or anything approaching that number, died of malarial fever in the North-West Provinces. The second point of interest relates to the entry for "syphilis" in the medical-history-sheet of the patient. His entry for it is in 1877, or eight years ago. There was not a sign of syphilis shown by any of the glands or viscera. He was in hospital for one month; and we may say, with certainty, that he had an ordinary soft venereal sore, since, for the eight years subsequently to the attack, he never had any further entry for syphilis.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

CASES OF ALBUMINURIA TREATED SUCCESSFULLY BY FUCHSINE.

(Under the care of Mr. W. MITCHELL ROOCROFT.)

[Reported by A. T. BARNARD, M.R.C.S., L.R.C.P., Junior House-Surgeon.]

WILLIAM R., aged 49, a collier, was admitted on May 8th. He had never suffered from any previous illness, and said that he had been a moderate drinker.

There was extreme anasarca of the head, face, and legs, and ascites; the tongue was coated, the breath very foul, and the skin hot and dry. On inquiry, he said he had been working for some time in water in the pit. He complained of pain in the lumbar region. The urine, on examination, was of a pale straw colour, and acid reaction, of specific gravity 1015; there was a slight deposit, and it became almost solid with albumen on boiling; under the microscope, granular casts were found. The quantity of urine passed was three to four ounces on the day after admission. The following treatment was adopted: a vapour-bath was to be taken three times a week, and a drachm of compound jalap powder every second morning. He was ordered: R. Tinct. digitalis $\text{m} \times$; tinct. ferri perchloridi $\text{m} \times$; aq. chloroformi

ad \mathfrak{zj} ; to be taken three times a day. His diet was ordered to consist solely of skimmed milk, eight pints daily.

This treatment was continued until July 16th, with the exception that the jalap powder was discontinued on June 15th. During this period, the ascites and anasarca diminished, the amount of urine passed daily varied between sixty and seventy ounces, the amount of albumen also varied between one-half and one-third.

As he did not seem to improve under this treatment, a grain of fuchsine (in the form of pill made up with compound tragacanth powder and extract of gentian) was prescribed to be taken three times a day, and he was allowed ordinary diet.

On July 20th, the dose of the drug was increased to two grains three times a day, the amount of albumen when the fuchsine was commenced being one-third, the urine containing crystals of uric acid and waxy casts. The urine (owing to the drug) now assumed a pinky-red colour, and the feces were also coloured.

In ten days, the albumen was reduced to one-sixth, and on August 13th, there was a mere trace, which continued until he was discharged (at his own wish), and made an out-patient, still continuing the fuchsine, which was now reduced to three grains in the day.

His urine was examined every week or ten days, and on the last three occasions there was a total absence of albumen, and nothing microscopically, the fuchsine being reduced to one grain in the day.

On September 30th, the patient was discharged, and intended to recommence work.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 27TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Gastrostomy.—MR. BARWELL reported a case of malignant stricture of the œsophagus, remarking that in such cases, unlike traumatic or syphilitic stricture, the operation of gastrostomy secured the patient against death by starvation, but could not prevent the fatal progress of the disease. Emily P. was admitted into Charing Cross Hospital under his care, March 19th, 1885, for malignant stricture of the œsophagus. After due precautions, exploration with the bougie showed the stricture as commencing six inches and a half from the upper dental arch, that is, a little distance below the upper border of the cricoid. Only a bougie, of the size of No. 14 catheter, could be passed. A good deal of induration without swelling was detected on the left side of the thyroid cartilage; it appeared to be a hardened portion of the gland. On the 25th, a funnel-ended tube, No. 10 catheter-gauge, having been procured, was passed and left *in situ*. After a few hours, the resultant irritation ceased, and she was so much relieved that she went out at her own request on April 4th. On the 11th, she returned in much distress. The tube, which had been cleaned only the day before, was clogged with thick muco-pus, and had been ejected during a fit of coughing. She had a rigor the same evening, and the temperature rose to 103.2°. Some deep fluctuation was detected on the left side of the thyroid. April 15th.—An exploratory trocar, and then an incision, let out a quantity of very fetid gas and pus. She was fed entirely *per rectum*. A few days afterwards, she was told to swallow a little milk. Very little, if any, passed the stricture; but some came through the abscess-opening. 25th.—Gastrostomy was performed (first stage). The stomach was found retracted under the liver. It was drawn down with the finger and thumb, and, by means of straight Glover's needles and Chinese silk, an inner and outer ring of the stomach sewn to the abdominal walls. This was followed by neither pain nor fever. Highest temperature, 98.4°. 28th.—The stomach-wall was punctured, a No. 7 catheter introduced, and four ounces of the strongest soup passed into stomach. It was ordered that no meal should exceed four ounces. Nutritive enemata were continued. May.—The allowance of food was slowly increased. She took, during the last three weeks of this month, four pints daily of the strongest soup, arrowroot, eggs, and brandy. In June, she had eight pints of the same nutriment, and was gaining flesh; but the enlargement at the side of the trachea increasing, she had occasional attacks of dyspnoea. Examination with the laryngoscope by Dr. Mott showed the arytenoid cartilages to be motionless. July.—The dyspnoea became distressing. On the 21st, Mr. Stedman, House-Surgeon, performed tracheotomy. In consultation, extirpation of the larynx and neighbouring parts was rejected, partly because the disease seemed too extensive, partly because the patient was not in a condition to bear so severe an operation. September 18th.—The patient had continued in

much the same state. She had probably gained rather than lost flesh, and on the 15th of this month seemed fairly well, but either that night or the following appeared to catch cold. Bronchitis of a very rapid character caused her death on September 18th. *Post mortem examination.*—In removing altogether the tongue, larynx, trachea, and œsophagus, the mass of neoplasm had to be cut through. It extended back to the spine, and all but filled the œsophagus from a little below the cricoid cartilage to a level with the tracheal bifurcation; it had also grown into the trachea opposite the fourth cervical vertebra. In both lungs were secondary deposits. Around the gastrostomy-wound, the parietal peritoneum was firmly adherent to that of the stomach, and to a small extent to that on the left lobe of the liver. There was no trace of peritonitis elsewhere. The stomach-wound, looked at from within, was barely perceptible. The body was thin, but by no means emaciated. The immediate cause of death was purulent bronchitis. Mr. Barwell said that gastrostomy was never undertaken with the object of curing a disease, but simply, by preventing death by starvation, to permit that disease to run its course. In the case just narrated, that course was inevitably towards death. The wide-spread ravages of the destructive neoplasm showed how fully the object aimed at was obtained. The author, therefore, claimed for his operation complete success. The irritation, inflammation, and abscess resulting from the use of the funnel-shaped tube showed that this device would not supersede gastrostomy. [Mr. Durham, in his article in the *New System of Surgery*, vol. i, p. 804, had expressed the conviction that the use of such tubes would cause gastrostomy to be employed very exceptionally.] It might be that the high position of the stricture had something to do with these results. On the other hand, it must be considered how much more serious they had been if occurring within the thorax. Gastrostomy had been performed very much oftener than appeared to be known in England. The latest edition of the work above quoted gave only 63 cases. A recent article by Dr. Zesas (*Archiv für Klinische Chirurgie*, vol. xxxii, heft 1) recorded 163 cases—namely, 129 for carcinomatous, 32 for traumatic, and 2 for syphilitic stricture. Of the first category, 111 died; of the second, 20; and of the third, both. But, among other cases overlooked by Dr. Zesas, was one recovery from syphilitic stricture (Mr. Davies-Colley). In abstracting the results, Mr. Barwell must differ from Dr. Zesas's method, since it appeared incorrect to count such as had died from spread of malignant disease, from phthisis or other alien cause, three months or more afterwards, among deaths due to the operation. The author also added certain other cases. Thus, of 166 cases of all classes, 107 died chiefly of exhaustion or collapse (43), and of peritonitis, 26. These numbers might teach a great lesson, if taken with the following consideration. Before the period of antiseptics, and before the invention of the two-stage method, 31 cases afforded but 1 recovery; since that epoch, 135 cases had yielded 58 recoveries—that is, 3.22 and 44.5 per cent. respectively. He submitted that, if one took from these numbers the hint that gastrostomy was not so formidable an operation that it should be postponed until the patient was exceedingly weak, surgeons might save a large proportion of the deaths ascribable to exhaustion; and that far more favourable results might be hereafter obtained.

Gastrostomy in a Boy, aged 4.—Mr. JOHN H. MORGAN described this case. The patient, on March 1st, swallowed some caustic alkali. The mouth and fauces were burnt at the time, and he vomited phlegm for some weeks following. No solid food could be swallowed for fourteen days. Ten weeks later, he was admitted into the Hospital for Sick Children, under the care of Dr. Cheadle, in a poorly nourished and pallid state. He could then swallow only very small quantities of fluid with difficulty, often followed by vomiting of muco-purulent matter. Though given nutrient enemata from the first, the emaciation increased, and an attempt to pass a catheter down the œsophagus was unsuccessful. For a few days the powers of swallowing improved; but this was only temporary, and the emaciation became so extreme that, after failing to pass a catheter under chloroform, the operation of gastrostomy was performed on August 17th. The stomach was secured with thirteen sutures, and was not opened until thirty-one hours later; when this was done, on account of the very feeble condition into which the patient had sunk, some beef-tea and brandy were immediately introduced through an empyema-tube. Nourishment was administered every two hours, and, on the fourth day, he passed a healthy motion. He remained feeble and irritable for the first seven days, at the end of which time he showed a decided improvement; but it was not until three weeks had passed that he began to increase in weight. He had continued to gain weight and strength, and now looked well nourished, and weighed the same as at the time of his admission. No attempt had been yet made to dilate the œsophageal stricture, but coloured fluid had passed from the mouth into the stomach.

Gastrostomy.—Mr. C. T. DENT recorded this case. The patient, a man, aged 44, had suffered, for about four months, from symptoms of malignant disease of the œsophagus. When admitted, he could only swallow fluids with difficulty, and had occasional attacks of vomiting. A bougie, passed a long way down, met with an obstruction, and struck against something hard. Gastrostomy was advised, but the patient did not consent to the operation till nearly two months later. The first stage of the operation was performed by means of a curved incision in the left linea semilunaris; the stomach was easily recognised, and the part lying beneath the wound was attached to the surface. This part was subsequently proved to be rather near the pyloric end. The stomach was opened on the fifth day. For the first few days subsequently the man improved, but then the stomach became very intolerant of food, and constant thirst was complained of. The patient died on the eighth day after the second operation. *Post mortem examination.*—Extensive malignant ulceration was found, seven inches and a half below the thyroid cartilage. A large part of the wall of the œsophagus was destroyed, and the edges adhered to the spine. The right bronchus and the lung were involved. Lower down still, a second malignant growth completely blocked the œsophagus. There was no trace of peritonitis. The author remarked that in this case the operation probably neither accelerated nor retarded death. Gastrostomy for malignant stricture was not, in his opinion, justifiable as a "last resource," and could only be advocated in the hope of prolonging life. This it would do if performed very early. The occurrence of vomiting was a very valuable guide, perhaps the most important, as indicating the advisability of gastrostomy. The author cited another case where the œsophagus was affected at two distinct points, and pointed out that such instances were not unfrequent, and formed an additional argument against œsophagotomy in cases of malignant stricture. Finally, it would be better to enlarge the abdominal wound if necessary, so as to attach a part of the stomach to the surface, remote from the pylorus and near the large curvature.

Jejunostomy.—Mr. C. H. GOLDING-BIRD furnished this communication. The case upon which he founded his remarks was that of a man, aged 46, who had had symptoms of pyloric obstruction for ten months. When admitted into Guy's Hospital, a tumour could be felt at the seat of the pylorus, and the man's general condition was one of extreme emaciation, through the inability to retain the food he took, and his voluntarily abstaining from eating on account of the pain he suffered. After three weeks' treatment, under Dr. Carrington, by drugs and washing out the stomach, he passed into Mr. Golding-Bird's hands; and, when all the risks had been explained to the patient, and all methods of palliation had failed to improve his condition, arrangements were made to explore the diseased parts, and remove them if expedient. Mr. Golding-Bird, therefore, on October 25th, 1885, cut down on the pylorus with a view to performing pylorotomy, following the lines laid down by Billroth; but, finding the tumour adherent to the liver, determined to go no further in the radical operation, but to convert it at once into a palliative one by opening the jejunum, in other words, by performing jejunostomy. The jejunum having been seized two inches from the duodenum, it was held up on a pair of tongue-forceps, whilst the wound in the parietes was united; to the lower or right end of this wound the jejunum was now stitched by interrupted sutures. The patient suffered in no way as the result of the operation. He was fed partly by rectum, partly by the mouth, until the third day, when the bowel was opened, and food administered solely through the fistula. It was observed that as long as the meal amounted to a pint, or nearly so, the patient, each time he was fed, had a severe attack of indigestion, but that this ceased when the meal did not exceed ten ounces. On this the author founded the suggestion that some cases of indigestion were due to the pylorus allowing too free passage of chyme, rather than to anything wrong with the gastric or pancreatic secretions. Everything went on perfectly well till the ninth day, the patient putting on flesh; but on that day, through an error in feeding him, some food passed into the peritoneum, and he died in twelve hours. The *post mortem* examination showed such adhesion to, and infiltration of, the liver and cancerous pylorus, that pylorotomy could not have been performed. Except the narrow track made by the probe, and along which the food passed into the peritoneum, the adhesions of the bowel and parietes were perfect. The author then reviewed the operation of pylorotomy, speaking in favour of it in suitable cases, and the operation of gastro-duodenostomy, as performed by Wolfier, and pointed out the great drawback in this operation, that the stomach was not relieved of its physiological duties at all, the pylorus not being required to act. For the operation of jejunostomy, as he termed the one that he detailed, he claimed that, whilst it

possessed the same disadvantage as gastrostomy, in that the patient had to be fed through the fistula, it was, otherwise, the best palliative operation for pyloric cancer, inviting less risk than gastro-enterostomy, and requiring less interference, in its performance, with the other viscera. By duodenal digestion, he also pointed out, full nourishment could be assured, and there was, for physical reasons, less chance of regurgitation of food, than after gastrostomy; regurgitation, in these cases, being a serious drawback to that operation in oesophageal constriction.—Dr. CARRINGTON said the medical grounds for seeking surgical aid in the case reported by Mr. Golding-Bird were, the age of the patient, 46 years; the absence of marked emaciation; and the early confirmation of the diagnosis of cancer. The principal satisfactory feature, however, in this connection was the mobility of the tumour and its freedom from adhesions to surrounding structures. He considered that there was dilatation of the stomach, thus differing somewhat from Mr. Golding-Bird. There was no evidence of secondary deposits, and the liver was not enlarged. Relief was afforded first by drugs and by ablation of the stomach; but as, notwithstanding, but one end to the case was possible, an operation was decided on. At the *post mortem* examination, a secondary growth was discovered, thus upsetting the diagnosis made during life.—Mr. JESSERT urged that statistics were unfavourable to the operation of gastrostomy as a means of prolonging life, and especially those collected by Gross, of Philadelphia, according to which the average period of survival was but thirty-three days. He himself had collected thirty-five cases, of which one lived five months; the average duration, however, being only thirty-three days. The operation should be preceded by all other possible means of prolonging life, and the treatment by funnel-ended tubes passed into the stomach offered a very promising method. Oesophagotomy could only be entertained in cases of clearly localised cancer high up; and even in these, danger was incurred by operating so close to the seat of disease. The mortality was also worse than after gastrostomy. The most satisfactory results in the future would probably follow the operation of gastro-enterostomy.—Mr. HOWARD MARSH insisted on the importance of settling the question of the commonest situation of oesophageal cancer, and thought all surgeons would agree that oesophagotomy could only be adopted in particular cases where the disease was high up. In a case operated on by Mr. Willett, he remembered having seen the innominate vein exposed. He himself did not approve of gastrostomy, since it was not a mode of treating the disease, but was simply an operation resorted to for prolonging life until death was brought about by the primary affection, and only rarely was any considerable period of time so gained. Moreover, patients subjected to the operation underwent a great deal of misery, and it could not be defended unless it offered the prospect of benefits impossible to be otherwise secured. He felt very grateful to Mr. Durham for the suggestion of treatment by tubes passed to the stomach, and he had recently treated an old man in St. Bartholomew's Hospital on this plan, much to the patient's relief, in which case the effect produced by the tube was to enlarge the passage holding it, so that the patient could at will transmit food either through or alongside of the tube.—Mr. PEARCE GOULD related the history of a case of cancer of the pylorus, which came under his care during the latest stage of the disease, as indicated by constant vomiting, wasting, etc. Early in September last, he cut down upon the jejunum, and stitched it to the wound. The patient became rapidly weaker, and died two days and a half after the operation, though an attempt was made to rally him, by opening the intestine and supplying him with food by this channel. As the result of his experience on this occasion, and that gained while assisting at a pylorectomy, more recently, he gave a decided preference to jejunostomy. Possibly, however, the operation of gastro-duodenostomy offered good prospects of successful results; and Mr. Golding-Bird's case sufficiently demonstrated that no evil consequences need be dreaded from escape of the pancreatic secretion. He was inclined, from his own experience of several gastrostomies, to endorse the opinion expressed by Mr. Marsh in regard to the operation. With regard to the treatment by tubes, he found that in some cases they produced so much discomfort that the patient declined to submit to them, while in others favourable results attended their employment. In performing gastrostomy, which, on the whole, was not a difficult operation, he had occasionally encountered the same trouble in piercing the lax mucous membrane, as was complained of by Mr. Morgan. He thought, however, that cases suitable for early gastrostomy, in which alone it offered chances of success, could be readily treated by tubes, so that no necessity for the operation existed at all.—Dr. ANGEL MONEY said the child that was the subject of Mr. Morgan's communication had for a time been under his care, and he ventured to take credit to himself for the improvement in its general state, and its increase of weight, to which reference had been made. He

observed that it did not seem to make headway after the operation, and attributed this to the highly nitrogenous nature of its food; he supplied it with a due proportion of carbo-hydrates, and the result was as described in the paper.—Dr. HALE WHITE instanced an example of pyloric tumour which, on microscopic examination, proved to be non-malignant. He suggested that cases of reported cures might be of this character.—Mr. HOPKINS mentioned a case of his own in which malignant tumour was diagnosed. On *post mortem* examination, it was found to be due to thickening caused by embolism.—Dr. HUGHES BENNETT regarded the debate as affording important evidence of the advances made by surgery within the past ten years. Long ago, he had under his care a man on whom a tumour of the pylorus existed. In that case, he suggested the propriety of surgical interference; but the idea was at once scouted as impracticable. The patient died of starvation; and, after death, the tumour was found to be due to fibrous thickening following ulceration.—Mr. BARWELL, on rising to reply, passed around a portrait of Trendelenburg's celebrated patient, who continued to enjoy life feeding himself through a tube passed into the stomach, the food being previously masticated by the patient himself. Mr. Barwell said he had, as the result of experiments on the gastric juice supplied by his patients, found that the secretion retained its powers for as long as a month outside the body. He agreed that patients capable of being treated by the tube-method were unfit subjects for gastrostomy; but he strongly insisted that it was a first duty of the surgeon to prolong life; and gastrostomy ought to be a successful operation, regarded in this light.—Mr. DENT deprecated any employment of force in the attempt to pass a tube into the stomach; and he insisted on the necessity for early performance of gastrostomy when necessary.—Mr. GOLDING-BIRD, after having had the care of all the patients treated on the tube-plan by Mr. Durham at Guy's Hospital, and one private patient, had come to the conclusion that gastrostomy was to be preferred to such treatment.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 1ST, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Stricture of Small Intestines.—Dr. GULLIVER showed a specimen of constriction of the ileum by a band one inch above the ileo-cæcal valve. The gut above the stricture was dilated, and its wall thickened, and in parts excoriated. Below the constriction, the ileum was normal. The constriction was due to a band of fibrous tissue, probably of inflammatory origin. The specimen was obtained from a boy, aged 10, who had suffered from abdominal pain and tenderness since an attack of "suppressed chicken-pox" a year before. The abdominal symptoms had been aggravated for six weeks. He had vomiting and diarrhoea before death, but no symptoms of obstruction at any time. The liver and spleen were tubercular. There was a hæmorrhage into the right suprarenal capsule, which also contained a caseous mass. There was a mass of cherry and grape-stones and other undigestible material above the stricture.—The PRESIDENT said that, some years ago, he had shown a specimen from a case of stricture of the small intestine, where death was due to perforation produced by undigestible material impacted above the stricture.—Dr. GULLIVER said that, in his case, there was no perforation; death appeared to be brought about by enteritis.

Osteitis Deformans.—Mr. D'ARCY POWER showed two specimens of osteitis deformans. 1. A femur found by Dr. Taylor amongst a number of bones collected by his predecessor, an old practitioner in Trowbridge, and, in all probability, not less than forty years old. The shaft of the bone, which was well developed, and had belonged to an adult, presented a marked antero-posterior curvature, and was flattened from before backwards; the lower half was more affected than the upper. The shaft was greatly thickened, its circumference, two inches above the adductor tubercle, measuring six inches; this increase was due to a deposit of bone as dense as ivory beneath the periosteum. The surface was roughened as in chronic periostitis. The medullary canal was enlarged, and the bone immediately surrounding it was porous, as though a process of rarefaction had been going on. The cancellous tissue was coarser than normal. 2. The upper half of a tibia from an old man who had suffered neither from gout nor chronic osteoarthritis. The case was an example of that variety of osteitis deformans which attacks a single bone. It was characteristically curved, and had undergone very considerable thickening; due, in part, to the deposit of dense periosteal bone, and, in part, to a rarefaction of the existing shaft. The Haversian canals were seen under the microscope to have become confluent, and filled with embryonic medulla, and the concentric arrangement of the Haversian systems had been replaced

by a complex system of curving interlacing rows of bone-corpuscles. Numerous osteoblasts, forming lacunæ in the Haversian canals, were present. The lacunæ were small, and without canaliculi.

Malignant Disease of Thyroid.—Dr. CARRINGTON said that malignant disease of the thyroid was extremely rare. The specimen shown was from a man, aged 47, with good family history. The tumour, when the patient was admitted into Guy's Hospital, was enormous, extending from the base of the jaw to the clavicle, but it moved on deglutition. The only symptom from which he had suffered was cough. The cause of death was uræmia, produced by subacute nephritis. The body was fairly nourished. The tumour retained the general form of the thyroid; the retropharyngeal and other lymphatic glands were involved. The right kidney contained two secondary growths. The microscopical appearances were those of encephaloid cancer.—In reply to the PRESIDENT, Dr. Carrington added that he believed the case was an example of primary cancer of the thyroid.—Mr. DUNN was surprised to hear Dr. Carrington say that the disease was exceedingly rare. He had recently met with two cases; both patients were women. In the first case, the left lobe of the thyroid was large; the growth passed between the trachea and the œsophagus, into which the growth made a fungous projection. The growth was a columnar carcinoma, and there were secondary deposits in the lungs having a similar structure. In the second case, the trachea was displaced by a very firm growth containing cysts.—Mr. BUTLIN said that he did not think malignant disease of the thyroid was very rare. In a case now under his observation, the organ had attained a still larger size than in the case recorded by Dr. Carrington; and the patient was suffering from great dyspnoea, and the venous circulation was impeded. A second case was also under treatment at St. Bartholomew's Hospital at the present time.—Mr. SHATROCK said that he had been able to examine the thyroid from a child whose case was one of those described by the late Dr. Hilton Fagge as sporadic cretinism; the thyroid had subsequently become the seat of well-marked malignant disease.—Mr. A. Q. SILCOCK said that he had recently seen a large spindle-celled sarcoma of the thyroid. He drew attention to a case which had been reported on by the Morbid Growths Committee, where both the primary tumour of the thyroid and the secondary growths in other organs had the structure of the thyroid.—Mr. BOWLBY asked Dr. Carrington to state the nature of the cells, as any tumour of the thyroid would probably have an alveolar arrangement. In a case he had recorded, the tumour of the thyroid, though distinctly malignant in its clinical characters and generalisation, had the structure of fibroma.—Dr. T. D. ACLAND had seen a case of primary cancer of the thyroid, in which a secondary cancerous pleurisy, occurring on both sides, masking the symptoms of the primary growth. The latter was a well marked slowly growing cancer, with a fibrous stroma.—Dr. W. B. HADDEN mentioned a case of myxœdema, where the thyroid gland was secondarily involved by a growth taking origin in front of it.

Pressure-Changes in Joints.—Mr. ARBUTHNOT LANE, in continuation of former paper on the changes produced in joints by pressure, stated that, after an examination of the bodies of many old persons, he had been unable to verify the changes described as taking place in the angle of the neck of the femur. He had found that, in the absence of this alteration, the neck of the femur might easily be broken by rotating the femur inwards, and so levering the head against the acetabular margin. Owing to senile degeneration, the weakest point in the bone was at the neck, close to the head. In labourers, owing to the flexion and reduction of the thigh, necessitated by carrying heavy weights on the back, the head of the femur became less limited, and extended down along the anterior and upper surface of the neck; a similar condition was brought about by the flexion of the trunk on the thigh, habitual in infirm old people. Rheumatoid arthritis exaggerated the changes in connection with the hip-joint; and, except when that disease was present, no changes in the knees or ankles had been found. In the cases of displacement of the great toe outward by pressure, he had failed to find the bursa described. He showed two specimens of "hammer toes," the bases of the first phalanges being expanded into broad surfaces, which rested on the dorsum of the metatarsal bones; the extensor tendons were inserted into these bases, and the whole length of the first phalanges, and all the muscles of the foot, had become shorter in consequence of the displacement. The heads of the metatarsal bones had lost their covering of articular cartilage, were altered in form, and projected through the skin of the sole in two instances. He exhibited two instances of alteration in the direction of the glenoid cavity, accompanied by changes in the inner end of the clavicle and its ligament, and in the normal relation of the humerus to the scapula, and of the clavicle to the first costal arch. He attributed the changes to the habit of carrying weights on the head. In old persons, in consequence of the continual and but

slightly opposed action of the flexors, the head of the humerus was displaced upwards, partly on the glenoid cavity. The olecranon fossa became shallower owing to deposition of bone, and the olecranon process thickened at the margin; consequently, the forearm could not be completely extended. He showed a specimen of deformity of the hand in which the bases of the phalanges had been displaced upwards, so as to rest upon the anterior surface of the metacarpal bones. In slighter cases, the inner two or three fingers only were flexed. The hand was adducted, and the lower articular surface of the radius looked more obliquely inwards than normally. Extension of the fingers was prevented by the shortening of the flexor muscles, the displacement upward of the phalanges, and the consequent shortening of the lateral and anterior ligaments. He compared this condition with Dupuytren's contraction, of which he exhibited two dissected specimens, and stated that, after division of all the contracted bands of palmar fascia, the thickened contracted anterior ligament in the latter condition also still prevented complete extension. In Dupuytren's contraction, the contraction was the primary cause of the deformity, while, in the condition he described, it was a compensatory contraction. He also showed a case of fracture of the neck of the femur, with very abundant callus, which formed a strong arthroidal articulation with the anterior inferior spine of the ilium, through which a great part of the weight of the body was transmitted.—Mr. BLACK said that Professor Humphry held that the change in the angle of the shaft and head of the femur was not due to old age.—Mr. J. HUTCHINSON, junr., thought that Professor Humphry held that it was not a constant change in old age.

Subperitoneal Lipoma.—Mr. J. HUTCHINSON, junr., showed two specimens from cases regarded during life as examples of omental femoral hernia. He mentioned a third case, where a patient was admitted with marked collapse; the bowels had not acted for forty hours, and there was a small tumour, which appeared to be a femoral hernia. The patient died, and it was found that the collapse was due to perforation of a gastric ulcer; the femoral tumour was a mass of fat. The fat in these cases was connected with the fat normally present beneath the peritoneum. He had collected notes of twenty-eight cases altogether; impulse on coughing might be present, and thus many of the cases had worn trusses, and two had been operated on for strangulated hernia.—Mr. STONEHAM showed a specimen of circumscribed lipoma of the spermatic cord. He also showed a specimen of diffused fatty condition of the cord, extending up into the abdominal ring.—Mr. C. B. LOCKWOOD had recently seen two cases of fatty tumour of the cord, both situated within all the coverings. He had observed a process of subperitoneal fat, in connection with the cord in the body of a fœtus.—Mr. J. WOOD said that, these fatty tumours might originate in various situations, where they were liable to be confounded with hernia. He had met with one case where the tumour formed in the deeper layer of superficial fascia, and pressed down into the scrotum. Other tumours appeared under the external spermatic fascia; a third variety, derived from the subperitoneal fat, outside the infundibular fascia, and a fourth in the cord itself, within all its investments. Though rare in the inguinal, such processes of fat were not rare in the crural and femoral regions, where they were often mistaken for hernia; the fat in this situation might be derived from the septum crurale, or from the saphenous opening. Little fatty tumours also protruded sometimes by the side of the umbilicus, or along vessels perforating the abdominal wall; absorption of these small fatty tumours occurred in old age, and then a true small ventral tumour might ensue. He had seen one case of lipoma of the labium mistaken for labial hernia.—Mr. BUTLIN had met with one case of labial lipoma mistaken for hernia. He was inclined to think that it was connected with the omentum.

Heart with Two Aneurysms.—A specimen of two cardiac aneurysms was shown by Dr. HAIG. The patient, who had been in St. Bartholomew's Hospital, was a woman aged 34, who died with anasarca and ascites. At the necropsy, the pericardium was seen to be adherent at the base. The heart and pericardium weighed sixteen ounces. The foramen ovale was patent; the mitral valve was diseased; two small aneurysms sprang from the left ventricle, and one opened also into the auricle. The patient had probably had rheumatic endomyocarditis many years before, and in a subsequent attack the damaged walls had probably yielded at the points where the damage was greatest, and so produced the aneurysm.

Joint-Disease in Locomotor Ataxy.—Dr. W. B. HADDEN read notes of two cases of joint-disease in locomotor ataxy. 1. A man aged 50, three years before admission, began to suffer from swelling of the left knee; the swelling, after extending down to the ankle, subsided, but recurred in six months. Two years before admission, ulceration occurred on the under surface of the right great toe.

Symptoms of locomotor ataxy had existed for three years. On admission, in addition to the lesion already mentioned, there was a perforating ulcer of the right foot. The femur was displaced forwards and outwards, the tibia backwards and inwards; the patellar was much enlarged, and there was a bony plate below it; pus was withdrawn from the knee-joint by aspiration. Amputation was subsequently performed; and, after two attacks of secondary hemorrhage, he recovered. Along the margins of the articular surfaces were numerous bony outgrowths, but the head of the tibia was the only part affected by atrophy; in the subsynovial tissue in front of the lower end of the femur was some new bone. The only change noticed in the peripheral nerves was some (doubtful) thickening of the perineurium in the internal popliteal. 2. A man who had suffered for many years from severe gastric crises. Six years before he came under observation, the left shoulder became swollen, and subsequently pus was discharged. When admitted, the patient presented well marked symptoms of locomotor ataxy, and there was atrophy of the anterior group of tibial muscles. The left shoulder-joint was disorganised, and the humerus shortened. About the right elbow and right knee-joints were some bony outgrowths, and the capsule of the shoulder-joint was dilated, and contained some bone. Many pedunculated, cartilaginous, and osseous growths sprang from the interior of the joint, and some were found free in the joint. The head and neck of the scapula had disappeared, and the head of the humerus showed pure atrophy. The spinal cord showed sclerosis of the posterior columns, extending into the lateral columns, and also the anterior root-zone. The posterolateral groups of cells at the level of the eighth cervical nerve on the left side had disappeared, and nearly all the motor cells at the level of the third lumbar pair of nerves. In the first case, the knee was in a condition of osteo-arthritis; the shoulder in the second was typical of Charcot's joint-disease. The poliomyelitis of the lumbar cord was clearly the cause of the atrophy of the tibial muscles; but whether the atrophy of the motor cells in the cervical region was the cause of the joint-lesion, or secondary, was doubtful. The condition of the medulla oblongata lent some support to Dr. Buzzard's theory. —Dr. BUZZARD said that the second case, which had once been under his care, was a most remarkable example of gastric crises. The presence of sclerosis in the medulla oblongata in close relation with the vagus-root, was very interesting, and lent support to the theory he had put forward.

Card Cases.—Mr. W. A. LANE: Suppuration following Separation of Lower Epiphysis of Femur.—Mr. SHATTOCK: Perforation of Palate by Hypertrophied Incisor in a Rat.—Mr. FENWICK: Ulceration of Bladder after Fracture of Spine.—Mr. BATTLE: 1. Portion of Thumb with Nerve attached avulsed by a Piece of String; 2. (for Mr. CROFT): Bullet flattened by contact with Frontal Bone, removed from a Suicidal Wound of Forehead.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 11TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Specimens.—Mr. LAWSON TAIT showed preparations from two cases in which he had performed cholecystotomy.—Dr. EDIS showed a fresh specimen of hydrosalpinx removed from a patient in the Chelsea Hospital for Women. The patient recovered.—Dr. BANTOCK showed fragments of a tumour removed from the female bladder.—Dr. IMLACH showed a new pelvic irrigator.

Oöphorraphy.—Dr. IMLACH read a paper on the treatment of prolapsed ovaries by oöphorraphy. At the Liverpool Hospital for Women, as elsewhere, the satisfactory treatment of prolapsed ovaries, with pelvic pain, irregular menstruation, inability to walk without distress, painful defecation, and frequent reflex vomiting, was an acknowledged difficulty; and he had known removal of the ovaries to be advised even by those who vehemently denounced the operation of removal of the uterine appendages for inflammatory diseases of the tubes and ovaries. In painful prolapse, there was often adhesion of the ovaries in Douglas's space, and some degree of oöphoritis; and in many cases, the pain was chiefly due to the tension and distortion of parts. When the Fallopian tubes were diseased, no treatment other than removal of the appendages was worthy of regard. But pathology, like surgery, must be sober, and should distinguish the varieties of inflammation. It was no deprivation to remove the ovaries when there was abscess, when they were riddled with cysts or pultaceous; but when there was any healthy structure left, and the tubes were unaffected, it seemed somewhat ruthless to take away all chance of child-bearing. Unfortunately, medicines and pessaries generally failed to relieve symptoms. Though chronic ovaritis was no more curable than chronic Bright's disease of the kidney, ovulation con-

tinued, and pregnancy might occur, so long as there was only partial thickening of the parenchyma, and the Graafian follicles were not wholly replaced by shrivelled husks or distended cysts. In young women, when the symptoms were so inveterate as to require surgical treatment, he now performed a suspensory operation instead of excision, oöphorraphy in place of oöphorectomy. In the virgin, the ovaries sloped inwards, forwards, and downwards, and were suspended by the so-called infundibulo-pelvic ligaments or peritoneal folds of broad ligament stretching from the pelvic brim to the infundibula of the Fallopian tubes, and containing the ovarian vessels. But after child-birth, these folds were relaxed, and the ovaries were suspended by the utero-ovarian ligaments. When this relaxation of the infundibulo-pelvic ligaments was exaggerated, which might happen without previous child-birth, the ovaries hung vertically downwards, became congested, and were painfully prolapsed, whether the uterus was retroflexed or anteverted. By the suture of the hilus of the ovaries to the relaxed infundibulo-pelvic ligaments near the brim, the virginal position of the ovaries was restored, the Fallopian tubes folded over them as before, and this was oöphorraphy. Details of fourteen cases were given in which this operation had been performed; in all there had been rapid recovery, and the painful symptoms had been entirely relieved. Where there was retroflexion of the uterus, this condition was also cured by the operation, but apparently anteversion and flexion were not rectified, though the symptoms (when dependent on prolapsed ovaries) were satisfactorily cured.—Dr. BARNES said that, although it was usual to speak of prolapse of the ovaries, it was commonly only one that was concerned. He had made the observation, some years ago, that Douglas's pouch was much deeper on the left side than on the right. This anatomical condition accounted for the fact that hæmatocele and similar collections were commonly most marked on the left side.—Dr. BANTOCK thought Dr. Imlach had scarcely demonstrated the necessity for the frequency with which he had performed the operation.—Mr. LAWSON TAIT said that, where there was really chronic inflammatory disease of the ovary, no such operation could be expected to be successful. Although the details of the operation seemed to him to be original, the idea was one which Mr. Tait had entertained and carried out in another way five or six years ago. His operation consisted in puckering up pieces of the broad ligament in a ligature, and so shortening the ligaments in all their diameters. This raised the inflamed organ to a higher level, but failed to give the relief desired.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, NOVEMBER 19TH, 1885.

R. J. PYE-SMITH, F.R.C.S., President, in the Chair.

Intestinal Concretion.—Mr. W. F. FAVELL exhibited an intestinal concretion, passed from the rectum by a woman, who had suffered from abdominal pains and sickness, but no jaundice. It was of the size of a bantam's egg. It was referred to the Pathological Committee to report upon.

Sacculated Aneurysm of the Transverse Portion of Arch of Aorta.—Dr. PORTER exhibited this specimen, from a patient at the Sheffield Public Hospital and Dispensary. There was a history of syphilis. The symptoms had been those referable to pressure on the trachea and the nerves of the left side of the neck and left arm. The tumour reached, in the course of the left common carotid, as high as the level of the thyroid cartilage; and, latterly, the left clavicle had been dislocated forwards from its sternal articulation. The left carotid pulse had been weaker than the right, and pulsation almost absent from the left facial and temporal arteries, the radials remaining unaffected; leading to the belief, entertained by both Dr. Dyson and Dr. Porter, that the case was primarily one of aneurysm of the left carotid at its commencement. *Post mortem* examination revealed an aneurysm of the transverse arch, filled with well marked laminated clot. Death ensued from gradual exhaustion, and was preceded by delirium.

Malignant Disease of Pylorus.—Mr. GARRARD showed a specimen of malignant obstruction of the pylorus, with enormous dilatation of the stomach. During life, the patient had been much relieved by emptying his stomach, and washing it out two or three times a week with a weak solution of carbonate of soda in warm water, by means of a Maw's siphon stomach-tube of soft rubber.—Mr. PYE-SMITH thought that cancer of the pylorus was usually fatal by its local mechanical effects, and that operation might be considered in most of such cases. Excision of the pyloric growth would, he thought, generally be better than gastrotomy, the latter operation being undertaken with a view to passing a tube through the pylorus.—Dr. DYSON called attention to the purely localised character of these growths, even when the pyloric disease was seen to be microscopically distinctly malignant. This character made them specially suitable cases

for operation. The specimen was referred for report to the Pathological Committee.

Cases of Poisoning by Bichromate of Potassium.—Mr. KNIGHT related this case. A woman, aged 50, had given to her, by the mistake of a chemist's assistant, bichromate, instead of bicarbonate, of potassium. Of this she took fifteen grains, dissolved in half a teacupful of water, at 8.30 A.M. Immediately afterwards, she felt ill, and in a quarter of an hour she vomited. Purging came on an hour after sickness commenced. The symptoms soon became more active, and the patient had cramps in her legs and pain in her body, with frequent copious bloody stools. She became collapsed, with quick, thready, feeble pulse. Chalk, opium, milk, demulcents, warmth to the surface, and, subsequently, nutrient enemata of egg and brandy, with starch and laudanum, gave relief; and, in twenty-four hours, the more active symptoms abated, and she gradually made a good recovery. Mr. Knight said he had been unable to find any recorded case of recovery after poisoning by this drug, in which the dose which caused the active symptoms was mentioned. In his case, he was able to estimate pretty accurately the dose that had been taken.

Sequelæ of Zymotic Diseases.—Mr. ARTHUR JACKSON read a paper on this subject; and a discussion ensued, in which the President, Dr. Keeling, Dr. Dyson, and Dr. Gwynne joined.

REVIEWS AND NOTICES.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1883. Vol. xxv, pp. 277. London: Printed for Her Majesty's Stationery Office, 1885.

SECOND NOTICE.

OF all the foreign stations in which British troops habitually serve, India is by far the most important. The force quartered in that country is second in numerical strength only to that of the force retained in Great Britain, and the troops composing it more than double in number those in the ten other foreign commands in which British soldiers are stationed, when they are all added together. The average annual strength of the troops stationed in Gibraltar, Malta, Egypt, Cyprus, Canada, Bermuda, West Indies, Cape of Good Hope, St. Helena, Mauritius, Ceylon, China, and the Straits Settlements, in 1883, was altogether 27,727; in India alone, the average strength of British troops in 1883 was 56,190. Of this number, 34,395 were stationed in Bengal; 10,612 in the presidency of Madras; and 11,183 in that of Bombay. Among the total number of troops in the three presidencies, there were 73,847 admitted into hospital, or 1314.3 admissions per 1,000 of the strength; and 676 deaths, of which 606 took place in India, and 70 among invalids from India while at sea, or after their arrival in England, being in the proportion of 12.03 per 1,000 of the total strength. The average number of men constantly sick was 3598.29, or 64.04 per 1,000 of the total force in the country. Judging from the relative numbers of men admitted into hospital in the three presidencies, Bengal was the most unhealthy, Bombay next, and Madras the least unhealthy in 1883. The ratio of admissions for sickness in Bengal was 1443.6 per 1,000; in Bombay, 1223.2 per 1,000; and in Madras, 991 per 1,000 of the mean strength. The same fact is shown in the proportions of deaths. In Bengal the proportion of deaths was 12.33; in Bombay, 11.80; and in Madras, 11.31 per 1,000 of the strength. The proportion of men invalidated to England was, however, greatest in Bombay, and in Madras was greater than in Bengal. The invalids sent from Bombay were in the ratio of 37.64 per 1,000; from Madras, 32.70; and from Bengal, 30.50 per 1,000 of the strength of troops. Perhaps there were greater facilities in sending men out of the country at Bombay and Madras than there were at Bengal, owing to their respective geographical positions; and, if so, such an easier, and probably earlier, removal of the sick from the Indian climate may tend to explain the relatively less rate of mortality in Bombay and Madras as compared with that in Bengal. The diseases for which the men were invalidated from the two former presidencies, also appear to have been less advanced, and the patients more susceptible of benefit from change of climate, as the proportions of the invalids from Bombay and Madras, who were finally discharged from the service, were less than they were among the men sent home as invalids from Bengal. Of the Bombay invalids, the proportion that had to be discharged from further service was 10.46 per 1,000; of those from Madras, 11.49; while the invalids from Bengal were lost to the service at the rate of 12.96 per 1,000 of the mean strength. Compared with the results of the treatment in hospital during the previous ten

years—from 1872 to 1882—the results in 1883 showed a marked improvement in all important particulars. While the average proportion of deaths during these ten years in the whole army of India was at the rate of 17.93 per 1,000, the invaliding out of the country, 40.21, and of final removal from the service, 15.88 per 1,000 of the strength, the corresponding rates in 1883 were, of deaths, 12.03; of invaliding, 32.33; and of final discharge from service, 12.19 per 1,000 of the strength.

We will now turn to the statistics of disease in the three presidencies regarded separately. The strength of the troops quartered in Bengal, and the ratios of admissions into hospital, of deaths, and of invaliding in that presidency, have already been noticed. When the ratios of admissions into hospital and the deaths in 1883 are compared with the corresponding rates for the previous year, a decrease of 111.9 per 1,000, is shown in the admissions, and one of 1.60 per 1,000 in the mortality; while in comparison with the similar average rates for the preceding ten years, it is satisfactory to note that the deaths in 1883 show a diminution of 6.75 per 1,000, and the admissions into hospital a reduction of 74.3 per 1,000 of the strength. There was no epidemic visitation of cholera in Bengal in 1883, but 48 cases were admitted into hospital, and these were attended by 32 deaths. These numbers were considerably less than the averages of the previous four years. Forty-one of these cases, and 27 of the deaths, occurred at four stations; namely, Allahabad, Dinapore, Gwalior, and Chunar. Nearly all the cases occurred in the second and third quarters of the year, 18 cases with 13 deaths taking place in the former, and 27 cases with 19 deaths in the latter, period. In the nosological return, in which the hospital admissions and deaths which occurred in Bengal are tabulated, cholera is classified as a disease of the group of general diseases. This group caused a very large number of the admissions into hospital, and also led to a considerable amount of mortality; the number of admissions being 17,069, and of deaths, 145. The largest proportion of mortality occurred under enteric fever, nearly one-third of the cases admitted having proved fatal. The number of admissions for enteric fever was 274, and of deaths, 84. The disease was more or less prevalent at all seasons of the year; but the greatest prevalence, and also the greatest mortality, occurred during the hot and the rainy seasons, 97 cases and 32 deaths taking place in the former, and 96 cases and 37 deaths in the latter season. Every division in the command suffered, but the highest mortality was in the Gwalior division, where the deaths reached 15 out of a total of 27 admissions. In this division also, at Fortress Gwalior, there was the greatest mortality to cases treated; namely, 8 deaths out of 12 attacks. Ten of the 12 cases in this fortress occurred between August 7th and September 5th, and they were attributed to contamination of the drinking water; it was found that there was soakage into the well after rain, and the water became disagreeable, both to taste and to smell. At Lucknow there were 44 cases, with 8 deaths; and the medical officer in charge reports that, of these cases, "35 attacks and 7 deaths occurred in the Derbyshire regiment, which had arrived in India from Egypt, in November, 1882, and was composed principally of very young soldiers. The source of the disease could not be ascertained. The sanitary condition of the barracks and surroundings was excellent, and in the barracks occupied by the regiment, there was no marked prevalence in any one building or locality." At Subathu, in the Sirhind division, where 22 cases with 2 deaths occurred, the medical officer thought that impure milk was the probable cause of the disease. Among the eruptive fevers there were 86 admissions, and 7 deaths from small-pox, giving ratios respectively of 2.5 and .20 per 1,000 of the strength. In the previous year the corresponding ratios were 1.0 and .11 per 1,000. The epidemic of small-pox, which commenced in Bengal in 1882, became augmented in 1883, and the attacks among the troops were most numerous in those stations where the disease prevailed most severely among the native population. In Cawnpore, where 10 cases occurred among the troops, but without any death, as many as 600 deaths from it were recorded among the native population. Paroxysmal fevers led to 12,756 admissions into hospital, but were attended with a relatively small mortality; namely, 14 deaths. Among constitutional diseases, the highest mortality occurred in tubercular diseases, the deaths numbering 43 out of 233 patients treated; while among local diseases, those of the digestive system caused the greatest number of fatal results, the number of admissions being 7,698, and of deaths 68; these included 1,083 cases of hepatic disease, with 40 deaths, 36 being cases of abscess of the liver, which caused 28 deaths. They also included 788 cases of dysentery, with 15 deaths.

There is one part of the medical report on Bengal which is calculated to cause much disappointment to those who have been sanguine respecting the advance of temperance principles and habits among

the soldiery in India. From the medical statistics of the year 1882, the Principal Medical Officer was led to the conclusion that there was more intemperance in that than there had been in the previous year of 1881: and now the statistics of the year 1883 cause him to draw a similar inference, that the drinking habits of the men were greater in 1883 than they had been in 1882. Hence, if the conclusions be correct, intemperance had been on the increase in both years.

Under the head of Poisons, there were 219 admissions into hospital with 8 deaths, giving a ratio of admissions higher than that of 1882 by 5.1 per 1,000, and all but 4 of the cases were due to the effects of alcohol, and to delirium tremens. It is also pointed out that a large proportion of the admissions for dyspepsia, which were 1,617 in number, were due to the abuse of alcohol, and that many of the accidental injuries were due to the same cause.

Injuries, general and local, caused 3,956 admissions, with 36 deaths. Among the deaths from injury were 15 cases of suicide, 1 of homicide, and 2 were judicial by hanging. One accidental death was due to taking a plunge into a bath in which the water was too shallow; fracture of the neck ensued. One death under injury shows how slight a cause may originate circumstances that lead on to a fatal result; the case is returned as death from a "foreign body in the thorax." The man, "while eating barley, swallowed a husk, which stuck in his throat, whence it gradually worked its way into the right pleura, where it caused an abscess, from which he died."

The ratios of hospital-admissions, deaths, and of invaliding in Madras have been already mentioned. The Principal Medical Officer remarks that the health of the British troops quartered in this Presidency had been unprecedentedly good during the past four years, but was especially so in the year 1883.

Although cholera and small-pox were very prevalent among the civil population, there were only 19 cases of the former disease, and 9 of the latter, among the 10,612 troops in the command. Among the 19 cases of cholera, there were 10 deaths; 8 of the cases, with 3 deaths, occurred at Kamptee; 5 cases, all fatal, at Secunderabad; 1 fatal case at Bellary; 3 cases, with 1 fatal result, among troops on the march; and 2 cases at Seetabuldee, both of which recovered. At Kamptee, as soon as the disease showed itself, measures were adopted to prevent its spread by moving the men into camp, and with success, as no more cases occurred among the troops, while it continued to be epidemic in the station. At Secunderabad, the first case was believed to have been contracted near the city; but the second case occurred in a man who was in the military prison, and had been there thirty days, there being no possibility of communication with the outside.

The death-rate for the year was increased by the presence of enteric fever, of which 94 cases were recorded, attended by 29 deaths. The Principal Medical Officer remarks, "It is impossible to give any reliable information on the causes which led to the prevalence of this fever." At Bangalore, 41 cases were treated, with 11 deaths; at Secunderabad, 23 cases with 7 deaths; and at Kamptee, 10 cases with 4 deaths. The medical officers in charge of the station-hospitals at Bangalore were inclined to attribute the disease to impurity of the water-supply; and one of them stated that in June, July, and August, it was "very bad, owing to deficient rainfall." He pointed out, however, that there were no cases of enteric fever among the women and children, who presumably used the same drinking-water. The medical officers at Secunderabad reported that nothing troublesome could be detected in the barracks, and that the only presumption was that the disease was contracted in the bazaars. From Kamptee also it was reported that the fever could not be traced to any sanitary defects. The returns show that the younger soldiers, and those who had served for comparatively limited periods in India, were the most liable to be attacked by the disease. Of the men treated for it, 4 were under 20 years of age, 67 between 20 and 24 years, 18 between 25 and 29 years, and the rest over that age; 37 had less than twelve months' service in India, 26 men less than 2 years, 12 under 3 years, and the remainder more than that time.

Under the head of Poisons, the admissions in Madras were considerably less in proportion than they were in Bengal; while they were 6.4 per 1,000 in the latter command, they were 2.3 per 1,000 in the former. The admissions in Madras were due to delirium tremens in 16 cases, and to alcoholic poisoning in 6. One of the cases terminated fatally. Among local injuries were 12 cases of gunshot-wounds; 6 being accidental, and 6 suicidal. Among the accidental wounds, one, a gunshot-wound of the abdomen, proved fatal; among the suicidal wounds, 4 resulted in death. We thought corporal punishment had been abandoned in the army, but among the injuries of a local character enumerated we observe there were "3 admissions, the result of corporal punishment."

In British Burmah, which forms one of the divisions of the Madras

command, the average strength of the troops in 1883 was 2,033; the number of hospital admissions, 1,933; there were 20 deaths in and out of hospital; and 55 men were invalided home to England. The ratios of admissions were, therefore, 960.65; of deaths, 9.83; and of invaliding, 27.05, per 1,000, of the strength in the Burmah division. Of the 1,933 hospital admissions, 241 belonged to the febrile group of general diseases, and were attended by 1 death; 260 to the constitutional group, with 2 deaths; and 1,452, with 17 deaths, to local diseases and injuries.

The general state of health of the 11,183 troops quartered in the Bombay Presidency in 1883 was satisfactory by comparison with the experience of the previous ten years. The admissions into hospital were at the rate of 1,223 per 1,000; of deaths, 11.80; and of men constantly sick, 56.54 per 1,000 of the strength; and, compared with the similar average rates for the preceding ten years, these figures show a decrease of 342 per 1,000 in the admissions, of 4.28 in the deaths, and of 2.72 in the rate of constant inefficiency through sickness. There was a very considerable decrease in the proportion of admissions for paroxysmal fevers. In 1883, the annual ratio of admissions for these fevers was 378.6 per 1,000 of the strength; showing a decrease of 120 per 1,000 when compared with the ratio of the previous year, and of 415.8 per 1,000 with the ratio of the previous four years. Enteric fever caused 60 admissions and 16 deaths. Karachi, Quetta, and Ahmednagar furnished most of the cases. The outbreak at the last-named station was supposed to have been due to a breach in the aqueduct which was used by the natives for bathing purposes, and the opinion was presumed to have been confirmed by the fact of no further cases occurring on the breach being closed. No cause for the fever was traced at other stations. Cholera caused 15 admissions and 9 deaths in the command. The cases were very widely scattered. Under Poisons, there were 56 admissions and 3 deaths. These cases included 37 of alcoholic poisoning and 16 of delirium tremens, 2 of which terminated fatally. One fatal case, under the same heading, was the result of irritation caused by bee-stings. There were 3 suicidal deaths from gun-shot; in one instance, the man shooting himself through the chest while in a state of intoxication. Among the fatal cases which occurred accidentally was one of a man who was killed at rifle-practice, by a ricochet bullet, while he was marking at the butts.

The Principal Medical Officer of the Bombay Command supplies a table, which shows the relative mortality and invaliding in the three grades of commissioned officers, non-commissioned officers, and privates, for the year 1883 and for the ten previous years. The deaths among the commissioned officers in 1883 were in the ratio of 5.90, among the non-commissioned officers of 13.59, among the privates of 9.94 per 1,000; the averages for the previous ten years being respectively 13.85, 19.07, and 14.27 per 1,000 of the strength. In each calculation, the deaths were highest among the non-commissioned officers, and next among the privates. The rates of invaliding were, among the commissioned officers, in 1883, 61.95, the non-commissioned officers 43.05, and the privates 36.92, per 1,000; the averages for the previous ten years being respectively 53.10, 50.58, and 49.41, per 1,000 of the strength. As regards invaliding, therefore, the averages were highest among the commissioned officers, next highest among the non-commissioned officers, and lowest among the privates.

VON ZIEMSEN'S HANDBOOK OF GENERAL THERAPEUTICS. Vol. II.

Translated by MATTHEW HAY, M.D., Professor of Medical Jurisprudence, University of Aberdeen. London: Smith, Elder, and Co. 1885.

THE second volume of this work is devoted to the antipyretic and antiphlogistic methods of treating disease, together with the epidemic, endemic, and hypodermic administration of medicines. The old ideas on the subject of fever have now died out; the fact has come to be recognised universally that, apart from its causes, fever *per se* may give rise to such changes in the protoplasmic constituents of the tissues, as to cause serious injury, when it does not immediately determine a fatal result. We are no longer hampered by the fear that, by diminishing the fever, either directly, by the abstraction of heat (antithermic treatment), or by means of remedies which diminish heat-production (true antipyresis), we may retain in the body the *materia peccans*, with its theoretical dangers to the patient; but we employ cautiously, and boldly, the means at our command to reduce the temperature, with the assurance that we are relieving our patient of a source of imminent danger. We may hope, in this way, to spare him the damage to his heart and central nervous system, which clinical experience shows to result from a continued high temperature. In proportion as the direct relationship which exists between these conse-

quences and high fever is recognised, so will our system of treatment undergo change in favour of these methods.

Other things being equal, antipyresis proper must necessarily be regarded as the more appropriate method of the two; because, by means of it, the febrile waste is at the same time averted.

The result, favourable or otherwise, of new methods of treatment can necessarily only be arrived at by large and varied clinical experience. Dr. MATTHEW HAY states, in his preface, that in our hospitals the mortality in typhoid fever has been reduced from 16 to 9 or 10 per cent. through the employment of the cold water treatment; but statements like this are of value only in so far as these results are confirmed elsewhere; and this is more especially the case in diseases like typhoid fever, where the mortality varies naturally within wide limits.

The history of the "water-treatment" is an interesting one; and great has been the progress accomplished since James Currie, of Liverpool, in 1756, first applied this method of treatment to typhus and scarlet fever. The movement spread, not only in England, but abroad, and especially in Germany. Until quite recently, however, these means were employed with different theoretical ideas from those which now prevail. Even in 1861, Brand ascribes the value of the water to its stimulating properties, and to its promoting critical discharges through the skin. A large experience, combined with painstaking observation, has demonstrated the groundlessness of the fears which were once—and, indeed, are still—entertained respecting the application of cold in conditions where fever is present. Whether in hospitals or on the battle-field, this method, put to the test, has been found satisfactory; and it is to be regretted that in this country the majority of physicians appear still to cling so firmly to their old prejudices and routine that they have not been able, once for all, to resolve to give this treatment a trial.

Great importance is attached to the fact that, in order to obtain the desired result from the abstraction of heat, the cold bath, or whatever other means is resorted to, must be employed, not once, not twice, not indeed any set number of times, but as often as may be required to effect a permanent reduction in the temperature. If in the intervals between the applications the temperature be allowed to rise to its abnormal height, the good effects of the treatment will thereby be minimised. The human organism resists any attempt at reducing the temperature, and it is only by persisting until this resistance is overcome that it can be achieved. At the same time, the desired effect will more readily be attained by repeating the application at a lower temperature for a shorter time, than by one or two more prolonged applications. Cold affusions, we learn, are distinctly more disagreeable to the patient, while their refrigerant effect is considerably less than that of a bath at the same temperature. They have, nevertheless, their uses in delirium, or where stimulation is our object, rather than the reduction of heat. The "cold pack" occupies an intermediate position as an antithermic between baths and cold affusions, but it has the advantage of being more easily applied, especially in private practice. From numerous observations, it would seem that the effect of the baths, in procuring a permanent reduction of temperature, is greater at night than during the day.

Cold baths are generally taken to be contraindicated when there is any considerable hæmorrhage of the internal organs (especially in the hæmorrhage of enteric fever), and where there is great cardiac weakness.

The action of the various antipyretics, properly so called, is discussed at length, and an attempt is made to furnish an approximate estimate of their value individually. Quinine, the salicylates, digitalis, veratrine, and alcohol, are comprised in this group; but it is rather surprising that aconite should only be favoured with a passing mention. For some remarks on quinine, hydrochlorate of kairine, and antipyrine, we are indebted to the translator, who gives them in the form of an appendix.

The diet and general management of the sick are discussed, but there is nothing particularly new on this subject. As regards the administration of cod-liver oil, we are told that, if it be intended to exercise a real influence on nutrition, about thirty-five ounces a week should be given—rather a large consumption! The desirability of employing external applications and internal remedies at the same time, is insisted upon, if a more or less permanent reduction in the fever be hoped for. As regards choice of time, the night is said to be preferable for cold baths, and particularly between midnight and seven in the morning; and, as a general principle, it is better to employ them at the acme or commencing diurnal fall of the fever.

Under the head "results," tables are given of the mortality with the "expectant symptomatic treatment," as compared with

that since the introduction of complete antipyretic treatment, from which it would appear that, while the mortality in typhoid fever under the old system averaged 27 per cent., that under the antipyretic system is only 8.8 per cent., a very striking result if figures prove anything. In pneumonia likewise, the mortality is alleged to have fallen from 25.3 per cent. to 16.5 under antipyretic treatment.

Venesection as an antiphlogistic is unhesitatingly condemned, notwithstanding its venerable antiquity. The author has never practised it himself, and gives his reasons *seriatim* for considering it useless when not positively injurious. Sundry anecdotes of bleeding in days gone by are given, to show to what an extent the practice was carried; and a series of tables are furnished, indicating the results obtained from experimental bleeding of animals. Transfusion is discussed at great length, and the manner and object of its employment are very fully gone into.

The remainder of the volume is devoted to epidermic, endermic, and hypodermic medication, by Professor Eulenbergh. The doses of the drugs employed hypodermically are given in English measure as well as in grammes, and the translator has added some useful notes bearing on their administration. The quality of the English leaves nothing to be desired, and the translator is to be congratulated on the excellence of his rendering, and the originality and value of his notes.

NOTES ON MATERIA MEDICA AND PHARMACY. By FREDERICK T. ROBERTS, M.D., F.R.C.P., Examiner in Materia Medica and Pharmacy in the University of London, etc. London: H. K. Lewis. 1884.

In this little manual the author has done his best to enable students to master, with as little labour as possible, the dry details of materia medica and pharmacy as distinct from physiological action and therapeutics. The signification attached to the word "pharmacology" as a synonym of materia medica is, however, erroneous, for in the section of the International Medical Congress in 1881, of which Dr. ROBERTS was one of the secretaries, this word was defined very carefully as "the science of the action of remedies, and it deals with the modifications produced in healthy tissues by the operation of substances capable of producing modification. Pharmacology constitutes the chief basis for the application of remedies in disease; it is allied to therapeutics, and constitutes the most important connecting link between materia medica and the art of medicine," etc.

Both the arrangement and the classification bear the mark of an experienced hand, and prominence is given, by means of well-assorted type, to the more important features in each description. The author is evidently conscious of the inutility of lectures in this department of materia medica, which is best learned in the surgery or dispensary, and hopes, by rendering them unnecessary, to have more time at his disposal, for dealing with the more interesting subjects of the physiological action and therapeutic uses of drugs. It is rather to be regretted that it does not include the drugs which have been added to the new *Pharmacopœia*, but with this exception the work is one which can be cordially recommended to students.

THE INFLUENCE OF THE SYMPATHETIC IN DISEASE. By E. LONG FOX, M.D. (Oxon.), F.R.C.P. Smith, Elder, and Co. London. 1885.

In a treatise on so difficult a subject as the influence of the sympathetic in disease, there must necessarily be a great deal which is debateable, because so little is known, not only of the physiology, but of the pathology of this branch of the nervous system. Dr. LONG FOX, in this book, which is an extension of his Bradshaw Lecture of 1882, has done good work in collecting numerous facts, and expounding the various views bearing on this subject. Over 100 pages are devoted to the anatomy and physiology of the sympathetic, a full statement of the present condition of knowledge on the subject being attempted. A great deal of this might have been condensed, with benefit, and a few errors have crept in. The vaso-dilator action of the chorda tympani is said to be differentiated from the secreting, by the action of curare; atropin is, no doubt, intended (page 54). Again, the small arterioles possess contractility, and not elasticity, in contradistinction to the large arteries which possess both (page 57). It is doubtful, also, whether all physiologists would accept the dictum that "every sympathetic ganglion is a vaso-motor centre" (page 32), or the identity of the minute ganglia found near large arteries with the peripheral vaso-motor centres.

The influence of the sympathetic in secretion, nutrition, fever, con-

gestion, oedema, etc., is treated in detail. Of the diseases which are considered to be associated with lesions of the sympathetic, the following may be enumerated: exophthalmic goitre, headache, insomnia, epilepsy, spinal cord lesions (progressive muscular atrophy, tabes dorsalis), sunstroke, epididymitis, angina pectoris, diabetes, visceral neurosis, neurasthenia, and myxoedema. The various views held are discussed in detail, and the author has many observations on the part played by the reflex-action of the sympathetic in the production of disease. Each chapter is followed by a list of authorities quoted, which will prove of much service to future writers on the subject.

NOTES ON BOOKS.

The Asylum Journal. (Berbice, British Guiana, October, 1885.)—Irrespectively of trivial details as to asylum-management, changes, etc., during the month, the journal contains the report of a case, the heading of which speaks of it as "simulating in some respects general paralysis of the insane." The clinical description given is insufficient by itself to enable the reader to say whether general paralysis was present or was only simulated, as is supposed by the reporter of the case. But the necropsy shows that the case was one of general paralysis, with granular kidneys, hypertrophy of the left heart, and mitral and aortic valve-disease.

Jahresbericht über die Fortschritte der Pharmakotherapie. 1er Bd. 2te Hälfte. (By Dr. E. R. KOBERT. Strassburg, 1885.)—The author has, in this year-book, collected the chief papers written on pharmacology and therapeutics during the year 1884. The arrangement is somewhat different from the ordinary, inasmuch as an attempt is made to group drugs with similar physiological action together. Whatever objection may be taken to this is answered by a very complete index. The selection of literature is very judicious, and will be of much service to students of pharmacology; full references are given even where no abstract is appended.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE ANGLO-DANISH TABLE-BUTTER SUPPLY COMPANY.

This Company has been instituted at 33, Great Tower Street, E.C., for the purpose of supplying the very best Danish butter, fresh to the consumer, in covered jars, so as to prevent contamination from the air before it comes to table, and to enable it to retain its freshness for weeks, if necessary. It is a well recognised fact that butter readily absorbs exhalations from the atmosphere by which it is surrounded. We have a good example of this in the process termed enfleurage, as carried on in the valley of the Var. The fresh butter is there placed in contact with jasmine, violets, and other fragrant flowers, and soon becomes faintly scented with their agreeable odours. Butter, however, unfortunately, makes no selection, and is just as likely to imbibe noxious gases, and all the multiple smells of a close shop or ill-ventilated larder. We know that milk and cream only too often act as carriers of the germs of disease, and it is to be feared that butter, if not carefully preserved from contamination, may, under certain circumstances, prove equally dangerous. The new Anglo-Danish butter, from the time it leaves the churn until it reaches the consumer, is treated with the greatest care, and no pains are spared to preserve its pristine purity. It is not touched by the hand, and is carefully secured in jars of white earthenware, the lid being secured by an impermeable label. We have exposed a jar of this butter to most unfavourable influences as regards temperature and atmospheric conditions, and it is still perfectly fresh, and as void of disagreeable taste as the day it was opened. It certainly supplies a want.

HOWARDS AND SONS' EXTRACT OF CINCHONA.

The alterations made by the compilers of the new *British Pharmacopœia*, in the source, origin, and mode of preparation of the cinchona compounds, have directed attention to a subject of much interest, and given a decided impulse to a large and rapidly increasing industry. The fluid extracts of Messrs. Howards and Sons, of Stratford, have a

world-wide and well merited reputation, and all that is necessary is to draw attention to them once again. The new pharmacopœial preparation has been made with great care, and is in no way inferior to its predecessors.

TAYLOR'S PATENT DISINFECTING APPARATUS.

This apparatus, invented by Mr. Hugh Taylor, of Coltishall, Norfolk, is said to be specially designed for use in bed in medical and in surgical cases, and for other purposes. It is simple in construction, and resists acids. The lid lifts up or off, the disinfectant is put in the pan, a small stick is passed through a hole in the top, and it is then ready for use. The handle is made hollow, and is fitted with a cork, so that fluids may be poured out when it is found necessary to clean it. It is not very elegant in appearance, but it is useful, and, when not required as a disinfecting apparatus, may be used as a bed-pan or portable spittoon.

MAORI CIGARETTES.

We have received specimens of Maori cigarettes for the cure of "asthma, hay-fever, chronic bronchitis, colds in the head, whooping-cough, and all forms of tight and spasmodic breathing in the chest." There seems nothing remarkable about them, except that "none are genuine without the registered trade-mark," and that they are prepared only by T. Kennedy Douglas, who describes himself as "M.B., C.M., etc., Edinburgh University."

DIET AND TEMPERATURE CHARTS.

MESSRS. WODDERSPOON AND Co., of Serle Street, Lincoln's Inn, have sent us specimens of Benton's well known diet-charts for use in hospitals and private practice, by means of which the directions of the medical attendant in the matter of the administration of food, medicine, etc., are clearly indicated for the use of the nurse, who is, moreover, required to keep, in the proper space on the chart, a summary record of the patient's condition. Their temperature-chart, on the model designed by the late Dr. Franklin Gould, is already very extensively used. It is marked for both the Centigrade and Fahrenheit scales, and its arrangement permits a rapid reading of the variations in temperature, pulse-rate, etc.

MUSTARDYNE.

MUSTARDYNE (prepared by Messrs. W. Clarke and Co., Holborn Viaduct) is intended as a condiment and stimulant to the mucous membrane of the stomach, and is given to improve the appetite and increase the flow of saliva and gastric juice. It should be taken at meal-times, and is found to be palatable with meat, game, poultry, salad, and other articles of diet. It is an useful accessory in the treatment of atonic dyspepsia, flatulence, constipation, and allied affections.

JOHNSTON'S FLUID BEEF.

SIR,—Having read, in your JOURNAL for August 1st, Dr. Roberts's very instructive address on dietetics, I felt particularly interested in that portion of it wherein he spoke of beef-tea and its congeners, which, he reminded us, took rank as restoratives and stimulants, rather than as nutrients, being devoid of albuminous matter in solution, and that the ingredients which pass into solution are simply the extractives and salines of the meat, and nothing more, except some trifling amount of gelatin.

In March last, I had brought to my notice a most excellent preparation of concentrated meat, known as "Johnston's Fluid Beef," which, I consider, most thoroughly fulfils the long sought-for desideratum for making nutritious beef-tea, it having been proved by some of our ablest analysts to contain about 53 per cent. of albumen and fibrine, and in such a form which is most easy of digestion, highly nutritious, and, what is of great importance, very palatable. To this I can bear testimony, having used it continually among my own family, and recommended it to very many others, including some of our hospital physicians and surgeons, and general practitioners, who have also tried it for themselves and patients with most satisfactory results. I therefore consider it deserves to be more generally known among the members of our profession, who possibly will be glad to know how it is manufactured, which I have ascertained, and will endeavour to explain.

The beef is first treated so as to obtain the albumen and fibrine in a separate and highly concentrated form; then, with the view of securing easy digestion, by presenting a greatly increased surface to the action of the gastric juice, these nitrogenous compounds are reduced to a powder capable of suspension in water, which, added to extract of meat, furnishes the entire constituents of beef in a condition which very weak stomachs can readily digest and assimilate; thus, with the least possible expenditure of vital force, supplying to the blood all that is necessary to impart tone to the nerves, and substantial food for brain, bone, and muscle; so that, in this preparation, we have both the albuminous and extractive principles in a highly condensed and easily assimilated condition.

I find a teaspoonful of the fluid beef to a teacup of boiling water makes a strong cup of beef-tea, and sometimes I add to it a little pepper and salt. It is equally nutritious and palatable spread upon bread or toast, with or without butter, and very suitable for children as an ordinary diet, and for those unable to digest solid meat.—Yours truly,

HERBERT C. WILKIN.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 5th, 1885.

PROFESSOR HUXLEY ON THE PROGRESS OF
SCIENCE.

AMID the crash and hurry of modern life, it is a great relief when some unusual occasion gives a fitting opportunity for a brief rest and retrospect, for without rest we cannot keep ourselves fit for the places we hold, and without retrospect we do not know where we are. Professor Huxley's speech last Monday, St. Andrew's day, on his retirement from the office of President of the Royal Society, furnishes us with the opportunity and the retrospect; it were well to pause a moment to attend to it.

In simple language, weighty because it had been well weighed, Professor Huxley set before the most learned scientific men of England, a sketch of some points in the recent history of the physical sciences, their progress, their difficulties, and their successes, and added some memorable words of advice. Though Professor Huxley is but sixty, yet he is four months the senior of the first railway in the world. There is hardly any fact that seems, to a younger generation, more easy to realise, and yet is more difficult to grasp thoroughly with all its train of consequences. It requires little short of the trained historic sense to enable those who have not seen the earlier state, to picture faithfully the constant and all pervading changes in daily life, which have come from the change in travelling, and means of communication by post and telegraph, that bid fair to break down many barriers between nation and nation. The railway and the telegraph are the two great binding forces which have been won lately by physical science for the modern world. The gain of arms of precision, which Professor Huxley mentioned as a third point, though it alters war completely, yet seems to us a matter for less congratulation; for, even though it puts civilisation out of the reach of destructive barbarism, yet it leaves power more in the hands of wealth. But, fourthly, he spoke strongly of the gain to human knowledge, and to human life, of the more general recognition in theory and practice of a widespread parasitic character in disease. Such a declaration is of particular importance, as coming from a man who, though standing now in the forefront of universal science, yet was trained in a medical school, began life by going out as surgeon to the *Rattlesnake*, in 1846, and has never ceased to take a special interest in the profession of his youth. It is most interesting to see him referring to the recognition of parasiticism, as likely to bring about the greatest practical good since Hippocrates, in the possible prevention of diseases. No one can afford to overlook the modern doctrines of the parasitic origin of tubercle, which have been gener-

ally accepted in that and a few other, chiefly of the less common, maladies, and are making many other claims to recognition. But they have as yet induced very little alteration in treatment from the times when the virus was not believed to be a parasite. We have at present very indistinct grounds for hoping that it may be more easy to extinguish the parasite than the virus. His words, however, include, and are doubtless meant to include, the immense benefits that have resulted from the theory and practice of antisepticism, which has, indeed, been the half-unconscious forerunner of a deep theoretical revolution, which will become more and more practical, and whose issues we have not lived long enough to see.

To any one of the keen intellectual power of Professor Huxley, the recent gains to pure knowledge, or knowledge which is only beginning to bear fruit in practice, cannot help having a peculiar fascination; and in any retrospect, he could hardly omit what, of all men in the world, he is perhaps the best entitled to notice, namely, the theory of evolution, which has been made the dominant conception of the world by the demonstration of the methods of natural selection. A generation ago, he was the Quixotic champion of an almost ridiculous hypothesis; to-day there is hardly opposition enough to keep the luxuriant outgrowths of the theory within healthy limits. And, second only to this, we have to look back on the establishment of that far reaching doctrine of the correlation of forces and conservation of energy, which is the bond of all the physical sciences, fascinating in its simplicity, and in those strange forecasts which it gives us of a far distant future when, in a uniform temperature, the modes of motion which we call life shall have ceased.

The practices in modern life which are based upon science, that is, upon the physical science, have become more numerous, more beneficial, more necessary; the generalisations which science has added to human knowledge have been most momentous; but, "in all human affairs," as Professor Huxley says, "the irony of fate plays a part, and, in the midst of our greatest satisfactions, *surgit amari aliquid*;" we are in the way to be overwhelmed (like Tarpeia, who was crushed by the weight of her reward) by our own too fertile press, and the crowd of almost illimitable detail. It is no longer possible, as it was in Professor Huxley's youth, to study and keep pace with science as a whole. How, then, are we to guide ourselves now in this maze of knowledge? Not by early devotion to specialism, on that Professor Huxley sets down his foot firmly; not by refusing to pay any attention to other subjects, such as literature; "for nothing," he says, "is more important to the man of science than that he should appreciate the value of style;" but by "an organisation and extension of scientific education, in such a manner as to secure, on the one hand, breadth of culture without superficiality; and, on the other hand, depth and precision of knowledge without narrowness." "I think it is quite possible," he adds, "to meet these requirements." There is needed, to begin with, a thorough elementary education in the institutes of mathematical and physical science, and, after that, "a most favoured nation clause must be inserted in our treaty with the educators." Science must be put on the same footing as any other great subject in her opportunities and rewards. "The scientific student must no longer be handicapped by a linguistic (I will not call it a literary) burden. I say this not as a depreciator of literature, but in the interests of literature." It is a matter of some moment that "the educators" should notice this offer of a treaty with a most favoured nation clause from one who, like Professor Huxley, stands at the head

of science, and has felt bitterly in his younger days the want of laboratories and museums, the opportunities of acquiring practical knowledge. He is not timid in his claims, but he claims no more for science than for any other great subject, and he shows wide sympathies with many forms of knowledge, and a refreshing belief in the possibilities of education. It is most deeply to be regretted that he should feel resolved, on grounds of health, to give up his position as President of the Royal Society. However, it is always the best wisdom to do such things before they are necessary, and we may fully trust that, by his retirement into comparative freedom from society, he may be spared an real analogy to Prometheus, to whom, when speaking after dinner he half playfully compared himself, as one who had perhaps brought fire from heaven to men, but on whose liver in recompense the vulture preyed.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE result of the last meeting of the Council of this College has been the entire rejection of the propositions embodied in the two resolutions which were carried at the meeting of Fellows and Members on October 29th. These resolutions have been repeatedly quoted at length in the JOURNAL since that date; so that a brief reference to them will suffice for purposes of criticism, not of the resolutions themselves, but of the unfavourable verdict of the Council.

The meeting pronounced itself almost unanimously in favour of legalising the representation of Members in the administration of College affairs. It was argued that the diploma of Member involved the payment of a fee, a form of tax; that taxation in this country is always understood to include the right of representation; and that, therefore, a Member should have the right of a voice in the administration of the College. The Council deny the force of this argument, insisting that the diploma carries privileges in themselves well worth the fee, and that the fee was not the homologue of a tax. The argument that the Members of the College were greatly in excess of the Fellows in point of numbers, is met by the assertion that the charter of 1843 distinctly provided for a representative constituency in connection with the College, that constituency being nothing more nor less than the body of Fellows. At the same time, facilities were afforded to future and to then present Members for the acquirement of the diploma of Fellow. The Council further deny that the College is a mere corporation. Lastly, it declares that the vested interests of the Fellows must be protected; and that Members must be encouraged to become Fellows, and to obtain, through the privileges of the higher diploma, and not otherwise, a voice in the management of the College. The second resolution urged that the laws of the College should never be altered without a recognised and official consultation between the Council and its licentiates at open meetings. This resolution has been rejected by the Council, on the plea that it would delay and impede legislation. The above decisions of the Council will be submitted to the coming meeting of the Fellows and Members at 3 o'clock on the afternoon of Thursday, December 17th.

It is self-evident that the decision of the Council will give great dissatisfaction to the Members, and it cannot be doubted that this dissatisfaction will be expressed at the coming meeting. In the management of sublunary affairs, what men are reasonably expected to do must be taken into account, as well as what men ought to do, in the opinion of other men. It cannot reasonably be expected that the Members will agree to the logic of the Council regarding the fee

for the Membership diploma as different from a tax. Logic is not always fair play. Nobody denies that the fee involves a diploma which gives the Member a right to earn his livelihood by surgery, and which exempts him from certain inconvenient social duties. The Members will, however, say that the Council, in the course of the above argument on the fee-question, persisted in turning its back on the College itself, and in pointing out privileges in every other direction. This the Members will surely deny to be either logic or justice; they never overlooked the advantages of their diploma; what they urge at present is its deficiencies, which lie in the direction of the College. The Council speak of difficulties in regard to consultation of legal advisers and negotiations with high State officials, but this can be done by the Members independently of the Council; and if the opposition to just claims be long continued, it is possible to conceive that it may be done over their heads. If the College, too, be more than a corporation, this by no means implies that Members should be excluded from a voice in its affairs; it rather signifies that the College is something less narrow and pedantic in its views and actions than what is generally understood by a corporation, therefore it should not be above granting just privileges to those who hold its diploma. The Members must be firm in urging their claims on the Council, and to ensure ultimate success they must be persevering, courteous, and in accord with the leadership of men truly representative of the best aspects of their profession, capable of grasping the pith of every argument which may from time to time be discussed before the Council at future meetings of Fellows and Members, and of meeting it with firmness, judgment, and moderation.

MEDICAL DEGREES FOR LONDON MEDICAL STUDENTS.

THE Executive Council of the Association for Promoting a Teaching University in London had little difficulty in inducing the members of the Association to give them the authorisation demanded. The professors in University College unexpectedly sent a delegate to protest that they would be in no way bound by the reports, or pledged to the scheme of the Executive Council; and Professor Ray Lankester tried to get the discussion adjourned for another three months, in order to give more time for consideration and discussion. This view was met with determined opposition, and it failed for two reasons; first, because the meeting evidently agreed with Mr. Marshall and Sir George Young in thinking that the time already spent in discussion was long enough, and that the matter was becoming more and more urgent; and, secondly, because the object of Professor Lankester's amendment appeared to be mainly to give time to his colleagues at University College to elaborate a scheme of their own for the establishment of a teaching university, which, it is said, they have under consideration. This scheme is at present wrapped in mystery, and the sudden announcement of its existence appeared to excite suspicion, and, indeed, in some quarters, indignation, Dr. Norman Moore broadly hinting that University College wanted to wreck the scheme.

The result is significant, and ought to warn University and King's Colleges against assuming an attitude which will be interpreted as mainly egotistic in its inspiration. Great weight will naturally and advantageously attach to their wishes and opinion, for they are the only complete colleges in existence in London; but they must not be allowed to balk the movement for the organisation of university-

teaching. Criticism is, above all things, wanted at the present moment; the more rival schemes are started, the better for the public which has to choose the best. Tolerance of the differences of opinion is the first duty of all parties. Professor Williamson, speaking with exceptional authority in reference to the attitude of some of his colleagues, and to a certain impatience of criticism which the Executive of the Association is thought to be inclined to show, pointed out that, without a tolerant spirit, it is hopeless to attempt to handle the enormous mass of detail which must be gone through if an university is to be established on a sound basis.

The movement is now thoroughly afoot, and events are slowly developing. Mr. Magnus, who persuaded the Convocation of the University of London to throw out the scheme of Lord Justice Fry's Committee, now comes forward with one of his own, which will be discussed on the 8th instant. The new scheme is as yet in embryo, but important differences between it and its elder brother are not very easy to perceive; the parts at issue are matters of detail. After all, however, what the London Convocation does or does not approve is not the governing consideration. It is the Senate of that body which alone has real power; and the Senate is as likely, or more likely, to be influenced by a strong expression of outside public opinion than by the advice of Convocation. To meet the difficulty in any adequate fashion, however, the University of London would have to make very large and radical changes in its constitution. Small concessions will be useless, or, by diminishing the volume of the movement, worse than useless. The demand of the London medical schools is perfectly simple and intelligible, and must not be lost sight of; it is that every diligent student of average capabilities should be enabled to obtain a degree in medicine; not necessarily the M.D. at once, but at least some degree which shall entitle him, as in other universities, to obtain the M.D. in a reasonable time, that is to say, within two or three years. That so much will shortly be attained, either through the University of London, through the Teaching University, or, as appears more probable, through the united action of the two Royal Colleges, there is now strong reason to anticipate.

THE SUPPLY OF MILK FOR VILLAGE INFANTS.

It is well known that the poor of large cities, and of large towns, do not obtain milk; but, it is the same also with very many of our moderately sized villages. It has recently been reported, by an inspector of the Local Government Board, that, in the ironstone villages of North Lincolnshire, milk is scarcely to be got for the 5,000 and more inhabitants, consisting almost solely of young married iron-workers and their families. It is so, too, even in dairy counties. In Somersetshire, for instance, it is no uncommon thing to see children, for want of milk, literally starving on water-sopped bread. The daily supply in such a county is either sent by train to the large towns, or turned into butter and cheese. No portion of the plenty remains for the poor of the place itself. The milk-supply of our people is a subject of engrossing interest. Milk is the natural food of mammals during the earliest term of life, and it is a well-established fact that, speaking generally of the several orders of mammals, the longer the period during which the new-born obtain maternal sustenance, the better fitted are they for the struggle for existence. Woman, however, in numberless instances, abrogates her natural function; the babe is unnaturally weaned from a life which should be spent in ready assimilation of specially assimilable ma-

terial, to a life reduced by imperfect assimilation of materials, for which its digestive organs are not adopted. This is so of necessity among the hard-worked women of the labouring class, and more markedly in manufacturing towns. Milk, again, is the sheet-anchor of life in times of sickness. The greatest concern, in fact, attaches to the quantity and availability, as well as to the quality of our milk-supplies.

There is one source of milk which is both plentiful and, we should suppose, within the means of the poorest of our population—tinned milk. This valuable food is certainly not rightly appreciated by the poor. There is, indeed, as great a prejudice against it as there is against flour containing the more superficial layers of the wheat-grain. It is to be regretted that these prejudices are rooted with such fixity. Much might be done by medical men, and medical officers of health, to correct this misplaced, though natural repugnance to preserved milk, and other foods, as yet not rightly appreciated. We admit that condensed milk is not to be compared in health-giving properties to fresh milk. It is, nevertheless, highly to be esteemed, and it might safely, and with the greatest advantage, enter very largely into every-day dietary.

There will, however, always remain an urgent demand for fresh milk. It cannot be justifiable for large owners of land to bring together workers from all parts, to turn their mineral-laden soil into pounds sterling, without making every attempt to provide for their essential wants; and of these we hold milk to be one. It cannot be justifiable for large owners of pasture to send away every iota of the product of their dairies, or so to dispose of it that the poor around them are left absolutely destitute of this all-essential food. It is right, however, to say that some landed proprietors are fully alive and equal to what we feel to be a duty in this matter. Some have, indeed, gone so far as to let their land in lots of four to fifteen acres, and to demand of each tenant that he supply the village, in which he resides, with as much milk as is required, before any is put aside for cheese- or butter-making. It is said that the plan pays, and it is, moreover, attended "with marked success, especially with the children, who have improved physically in various ways." It is to be hoped that it may be more generally practised. It is true that the value of condensed milk has yet to be learnt by very many; but it is none the less important that every effort be made to secure to the children of over-worked mothers, and to the sick also, that food, the most useful of all foods, fresh milk.

SIR WILLIAM JENNER and Mr. Erichsen have been made foreign honorary members of the Belgian Medical Academy.

THE royal medal of the Royal Society has been presented to Professor Lankester, in recognition of his important researches during a series of years on embryology and other biological and zoological subjects.

At the last meeting of the Royal Society of Literature, Mr. W. Rendle read a paper on "The History of the Borough Hospitals—namely, St. Thomas's and Guy's." The munificent Guy, the lecturer said, anticipated his age by establishing a hospice for convalescence, but his design seemed rather to have been set aside in favour of a general hospital. A discussion followed the paper, in which the President, Colonel Ibbetson, Mr. C. H. E. Carmichael, and Mr. Highton, took part. A vote of thanks was passed to Mr. Rendle for his able and interesting paper.

THE diploma of Honorary Member of the Royal Medical Society of Munich, handsomely illuminated on vellum, was sent last week to Sir William Mac Cormac. This distinction was unanimously voted at the instance of Professor von Nussbaum. The diploma bears the signature of Dr. Lotzbeck, Surgeon-General of the Bavarian Army, President.

PYRIDIN IN ASTHMA.

IN Professor Germain See's clinic in Paris, Rosenblück (*St. Petersburg Med. Wochenschrift*) has tried the action of pyridin in various forms of asthma. The nervous and emphysematous forms were rapidly relieved; nausea and giddiness being noticed only once. The presence of bronchial catarrh is no contraindication to the treatment, which was carried out by allowing four to five grammes of the liquid to evaporate from a flat dish in a small room, the patients being exposed to the vapour for one hour and a half three times a day.

DEATH FROM INHALATION OF NITROUS OXIDE.

THE Eighth Chamber of the Paris Tribunal have tried M. Duchesne, dentist, for homicide by imprudence. He was found guilty of causing the death of M. Lajeune by the administration without legal authority, of nitrous oxide gas, and was ordered to pay a fine of 600 francs, and 3,000 francs damages. The judgment took note of the fact that, although the business of the deceased had suffered by his death, his family had obtained immediate payment of a substantial sum, the amount of an insurance upon his life.

THE BRADLEY FUND.

As will be seen by a letter published in another column, the proceeds of the generous response which has been made to the appeal on Dr. Bradley's behalf will be publicly presented to him at a medical dinner at the Wharfedale Hotel, King Street, Sheffield, on Friday, December 11th, at six o'clock. The presentation, consisting of an address and a purse of 400 guineas, will be made by Dr. Balthazar Foster, M.P., President of the Council of the British Medical Association, and by Mr. Wheelhouse. Dr. M. Martin de Bartolomé, Senior Physician to the Sheffield Infirmary, will preside.

THE BROWN LECTURES.

THE "Brown" Lectures, 1885, will be delivered by Mr. Victor Horsley, Brown Professor of Pathology to the University of London, etc., in the Theatre of the University of London, Burlington Gardens, W., at 5 P.M. Lecture I, December 7th: "The Relation of the Thyroid Gland to General Nutrition; Function of Thyroid Duplex." Lecture II, December 9th: "The Modern Pathology of the Central Nervous System." Lecture III, December 11th: "Functional Disorders of the Central Nervous System produced by Loss of the Function of the Thyroid Gland and Pituitary Body respectively. The Pituitary Body: its Relation to the General Nutrition of the Hemispheres, etc." Lecture IV, December 14th: "Canine Chorea—another Functional Disorder of the Central Nervous System due to Defective Nutrition." Lecture V, December 16: "Pathological Anatomy of Functional Nervous Disorder."

VACCINATION SHIELDS.

WE have received the following note from the Office of the National Vaccine Establishment. The Medical Officer of the Local Government Board occasionally hears of cases of erysipelas following vaccination, and traceable to the use of old and dirty "vaccination shields." If in any case, as when a dress is worn dyed with a possibly irritative dye, a vaccinator think some means of "protection" to a vaccinated arm to be desirable, he had best define the material and the manner of application of such appliance as he judges to be wanted in the particular case; and it appears to the Medical Officer important that every such appliance should be of a kind to be destroyed and replaced whenever it becomes soiled; and particularly that it should not be of

a kind likely to be kept for subsequent use. The Medical Officer would, therefore, urge on vaccinators to discourage the use of the so-called "vaccination shields."

THE PROPOSED M.D. DEGREE OF THE CONJOINT COLLEGES.

At a meeting of the University College Medical Society, held on Wednesday, November 25th, and attended by one hundred and thirty members, a paper was read by Dr. Sidney Martin, President of the Society, on a Teaching University for London. It was proposed and seconded that the present scheme for granting the degree of Doctor of Medicine, by the conjoint colleges, was detrimental to the progress of medical science; but, though most of the speakers supported the motion, an amendment to the effect that such a change would be welcomed by the greater number of students, was carried by a small majority. This is the first, but probably not the last, expression of the feeling of a body of medical students on this important question.

PROFESSOR REDWOOD.

At a meeting of the friends and former pupils of Professor Redwood, held at the Pharmaceutical Society on November 4th, the President of the Society in the chair, the desire was expressed that some public recognition should be made of Dr. Redwood's long and valuable services rendered to pharmacy and the allied sciences. The following resolution was passed: "That it is desirable that the form of recognition be the foundation of a Redwood Scholarship, to be held in connection with the school of the Pharmaceutical Society; the surplus, if sufficient, to be appropriated for the purpose of painting a portrait of Professor Redwood, to be placed in the house of the Pharmaceutical Society." A General Executive Committee was constituted, consisting of the President and Council. Cheques should be crossed London and Westminster Bank, Bloomsbury Branch, and made payable to Mr. Wyndham R. Dunstan, Honorary Secretary, 17, Bloomsbury Square, W.C.

ON VERY SMALL INFANTS.

SEVERAL cases of very small living infants, born at or about full term, have recently been recorded in the *BRITISH MEDICAL JOURNAL*. The late Dr. Grey collected no fewer than 20,000 observations of the weights of infants at birth, and the lowest he found recorded was 2 lbs. 6 ozs. The infant mentioned by Mr. Jebb Smith weighed 2 lbs. 8 ozs. We are informed that there is now, in the East London Hospital for Children, Shadwell, an infant which, on the sixteenth day after birth, weighed only 2 lbs. 10 ozs.; the weight at birth was 1 lb. 10 ozs. Birth is believed to have been only slightly premature. The nails of the hands are well formed, there is an abundant crop of hair on the head, and the child takes a mixture containing barley, water and milk (one-fifth) freely, without any intestinal disturbances.

HUXLEY ON SCIENCE AND MEDICAL TEACHING.

At a meeting of the Royal Society, Professor Huxley, in an address of remarkable ability and power, on which we comment elsewhere, took leave of the great Society whose presidency he has filled with so much honour, received from and reflected on that high office. He reviewed the progress of biological science, and dwelt especially on the vast accessions to human knowledge derived from the study of parasitism and bacteriology. This he classes as among the most luminous of the recent achievements of science, and one destined to have an increasing effect in throwing light upon the dark places of medical and biological science. He referred to the recent researches during the year of Dr. Klein, Dr. Roy, and his colleagues, into the specific origin of cholera carried out in India and in Spain. Touching upon a subject of especial medical interest, he said:

"As a member of the Senate of the University, I am necessarily greatly interested in such projects, and I greatly regret that I have been unable to take part in the recent action concerning them. This is not the time or the place for the discussion of any

of these proposals, but many of my hearers must be as warmly interested in them as I am myself, and it may not be out of place to submit two questions for their serious consideration. In the interests of science, will any change be satisfactory which does not lighten the linguistic burden at present imposed on students of science and of medicine by the matriculation examination? And, again, in the interests of science, will any change be satisfactory which does not convert the examining university into a teaching university? And, by that last term, I do not mean a mere co-operative society of teacher-examiners, but a corporation which shall embrace a professoriate charged with the exposition and the advancement of the higher forms of knowledge in all its branches. The future both of pure science and of medicine in this country is, I think, greatly interested in the answer which Fellows of this Society, after due meditation, may be disposed to give to these questions."

NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.

ON Monday, November 16th, a party of friends of this institution, under the presidency of Mr. Herbert C. Saunders, Q.C., Chairman of the Board of Management, visited Ventnor for the purpose of inaugurating the new block, for eighteen more patients, which has been built to meet the great pressure of applicants. The principal feature of this hospital is the fact that in it every patient is provided with a separate bedroom, facing the sea, and looking south; and they are distributed in small parties in nine separate houses—thus keeping the associations as home-like as possible. The heating is by fires in the sitting-rooms, supplemented by a system of Gill-boxes, heated by steam, over and through which fresh air is admitted. On the recommendation of Professor De Chaumont, five thousand cubic feet of fresh air per head per hour has been adopted as the standard requirement for ventilation, heated in the coldest weather to 62° Fahr., and the arrangements showed this to be amply provided for. The cost of the new block has been partly met by special gifts; but the general funds of the institution have borne the principal charges, and voluntary gifts are now much needed. It is anticipated that the results of treatment in this new block will be even more encouraging than in the older buildings.

NURSING AT UNIVERSITY COLLEGE HOSPITAL.

THE annual meeting of the Council of the Metropolitan Hospital Sunday Fund was held on Tuesday, at the Mansion House, the Rev. Canon Fleming presiding. Complaints relating to the non-admission of Nonconformists to the nursing establishment at University College Hospital having been referred to the General Purposes Committee, the committee have reported that they had unanimously come to the conclusion that matters relating to the internal administration of hospitals are beyond the jurisdiction of the Hospital Sunday Fund. It could not interfere with such matters without involving itself in insoluble difficulties, imperilling the existence of the fund itself, and exceeding the authority with which the constitution of the fund invests it. The Rev. Dr. Simpson moved the adoption of the report. He believed the functions of the Council had never been more accurately given than in this report; and, as touching the particular case to which attention had been drawn, it was shown conclusively that they had nothing to do with the question raised. The Rev. Dr. Allon seconded the motion, explaining that, although his view concerning the nursing was altogether unchanged, yet he saw they could not meddle with the internal management of the hospitals without breaking up the fund altogether. The report was eventually adopted with unanimity.

LANOLIN, A NEW OINTMENT-BASIS.

DR. OSCAR LIEBREICH read a paper on Lanolin before the Berlin Medical Society, on October 28th (see the *Berliner Klin. Wochens.*, No. 47). This substance is a mixture of cholesterin-fat (from keratin-holding tissues, such as sheep's wool in particular), and water. The pure cholesterin-fat stands, as Berthelot has said, between a resin and a fat, but is capable of taking up its bulk of water. It is perfectly

neutral, and possesses properties which are not shared by the ordinary fats, nor by vaseline. In contrast with ordinary fats, lanolin with difficulty decomposes, and, which is its chief property therapeutically, it is extremely readily absorbed by the skin. It is, in fact, the natural fat of the skin, and of epidermic tissues generally, such as hair, hoofs of horses, feathers, etc., from all of which it has been obtained. As a proof of this high power of being absorbed, a 5 per cent. carbolic acid ointment made up with lanolin, produced a feeling of numbness, without irritation, in the hand, in from one to two minutes after being rubbed in. The presence of cholesterin-fats is easily ascertained by Liebmenn's cholestol test. The fat to be tested is dissolved in acetic anhydride (not glacial acetic acid). The solution gives a rose colouration, passing very quickly into dark blue and green when concentrated sulphuric acid is added. Glycerine-fats do not give this reaction. The advantage of lanolin over vaselin and such paraffin derivatives consists in its ready absorbability. Vaseline, as is well known, greatly hinders the absorption of therapeutical agents. It is an advantage to add 5 or 10 per cent. of ordinary fat or of glycerine to lanolin so that the unctuous character may be better preserved.

DIPHTHERIA AND SANITATION.

THE Vestry of St. Mary, Islington, having drawn the attention of their medical officer, Dr. Tidy, to a report which had appeared, relative to the existence of diphtheria, in an epidemic form, in the neighbourhood of Andover Road, Upper Holloway, Dr. Tidy states that he has had the house examined, where the death occurred of the child on whom the inquest was held, and he cannot find there is any ground for attributing it to defective drainage as alleged. Moreover, he remarks it is a doubtful question whether diphtheria arises from such a cause. He mentions, as a singular fact, that, concurrently with its appearance in the locality, scarlet fever sensibly diminished. It is true, he adds, that the combination system of drainage is in force in the neighbourhood, but he sees no objection to it. As to a statement of the coroner that he had many times called the Vestry's attention to the infected district, he knew but of one occasion, in December, 1884, and then the Sanitary Committee duly considered the complaint, and a reply was sent. It is not thought that the Vestry will take any further action in the matter.

DEATH FROM CHLOROFORM.

ON Saturday last, Mr. A. Braxton Hicks held an inquiry, at the Charing Cross Hospital, concerning the death of Edith Charlotte Ellis, aged 9, who died while under the influence of chloroform at the above institution on Tuesday. We take the report from a daily paper, none having been furnished to us from the medical authorities. Mr. Richard Barwell, Senior Surgeon at the Charing Cross Hospital, said the deceased was admitted with abscesses, which were opened two or three times. When she returned from the country, witness found that the head of the thigh-bone was diseased, and required removal. That was performed, under the influence of chloroform, about the middle of October. The part continued to suppurate to a great extent, and on Friday last Mr. Barwell discovered that a drainage-tube, which had been inserted, required an alteration of position, and he made arrangements to do it on Tuesday. Knowing that the operation would cause considerable pain, he instructed Mr. Wallington to place the patient under chloroform, and, unfortunately, the administration of the anesthetic had a fatal result. But for the fact that the child's lungs were extensively congested, ether would have been employed. There was no reason whatever for anticipating the girl's death. Mr. S. Mills stated that by the coroner's order he made a *post mortem* examination of the body, which was extremely emaciated and attenuated, the result of disease. Death was due to paralysis of the heart through the administration of chloroform. It would have been utterly impossible for any medical man to anticipate the child's death, she having had chloroform on previous

occasions. The jury returned a verdict, "That the deceased died from the effects of paralysis of the heart while under the influence of chloroform," and added that no blame was attached to the hospital authorities.

MEASLES IN CHURCH.

We understand that measles exists, in an epidemic form, at the present time, in Eastbourne. We hear that as many as two hundred cases have occurred within the last few weeks. The rapid extension of the disease is attributed, in some quarters, to the culpable negligence of a patient, who, it is said, attended one of the local churches with the rash fully developed.

SERBIAN HOSPITALS.

THE following extract of a private letter from Belgrade has come to hand this week. "The Serbian losses have been something frightful. There are over 2,000 wounded in this town of 50,000 inhabitants, and hardly any provision made for their housing and nursing, very few surgeons, and no comforts. Hospitals are being organised, but many poor fellows are lying huddled up on miserable beds in small rooms, not having had a change of linen for five days (having travelled 150 miles from the front), with their wounds roughly bandaged as done on the field, nobody to amputate, nobody to re-dress or set broken bones. It is too terrible, and everybody is at their wits' end. They expected a military parade to Sofia, and instead have met with a stubborn resistance; hence, little preparation for the wounded has been made. I went into one small room; there were twelve wounded in it, only one foot and a half between their beds, no women to look after them, no doctors, and several of them have broken bones from bullets, and bad shot-wounds as well. It has completely upset me to see how they suffer. More wounded are expected; and what the town will do, I do not know. It is dreadful. I have given all I can; will you at home do something? Money to the Red Cross Society here will be the best way. Ask all you can if they will give anything. I will hand it over to the Queen, who is the President of the Red Cross Society here. It would be the greatest charity. What will happen if the Serbs are repulsed for good, I do not know."

THE CASE OF DR. COLLIE.

At a meeting of the Metropolitan Asylums Board, to be held to-day (Saturday), the case of Dr. Collie will be considered, when it is to be hoped that the decision of the managers will be to reinstate this hardly used gentleman in the position at the Eastern Hospitals from which he was, as we contend, wrongfully suspended about nine months ago. Memorials to the board on Dr. Collie's behalf have been forwarded; and deputations of members of the Metropolitan Counties Branch of the British Medical Association, of the Medical Defence Union, and of other public bodies, will to-day have interviews with the board, and seek to obtain justice for one who has hitherto failed to secure it. The following is the memorial which the Council of the Metropolitan Counties Branch has forwarded to the board.

"GENTLEMEN,—On behalf of the Council of the Metropolitan Counties Branch of the British Medical Association, a society numbering nearly 12,000 members, of whom about 1,000 belong to this Branch, we, your memorialists, beg respectfully to call your attention to the following points in connection with Dr. Collie's suspension from the office of Medical Superintendent of the Eastern Hospitals of London.

"Firstly, it is charged against him that 'he failed to exercise that supervision over the expenditure of the hospitals which it fell specially within his province as medical superintendent to bestow.' Your memorialists beg to state, in reply, that, whilst the Local Government Board complains of Dr. Collie not having fully performed certain duties of his office, it has overlooked the fact that, besides his normal duties at Homerton Fever Asylum, an enormous amount of extra work was imposed upon this physician, quite un contemplated when he was originally inducted; which extra work comprised the organisation and supervision of hospitals at Hampstead Plaistow, and on the River

Thames; also his frequent visitation of distant localities, to institute inquiries respecting the incidence of small-pox, and the inspection of possible sites for cholera-hospitals, together with the furnishing of reports on these subjects; and that this extra labour, from its very amount, quite prevented Dr. Collie from performing various clerical and financial duties appertaining to his office.

"Secondly, your memorialists beg leave to refer to the very high and well known professional eminence of Dr. Collie, who has in this matter the complete sympathy of his professional brethren, and to the great value to the public of his administrative powers, as evidenced during his fourteen years' tenure of office; to which, in fact, the Local Government Board itself has borne testimony in its memorandum to Dr. Collie on the recent inquiry, wherein it expresses itself as 'satisfied that nothing elicited at the inquiry can be regarded as in any way reflecting on his integrity in connection with the financial business of the managers, and it is prepared fully to admit that his duties, so far as they were strictly of a medical character, were performed with zeal and efficiency.'

"Finally, your memorialists are unanimously of opinion that the mental anxiety and pecuniary loss already sustained by Dr. Collie, by his public suspension from office during the last nine months, far exceed any penalty which his omissions or errors of judgment may have merited, seeing that they occurred during a most trying and protracted period of exceptional labour and professional responsibility.

"It is, therefore, with every confidence that your memorialists pray that Dr. Collie's suspension may be removed; that he may be reinstated in his office; and that his salary and allowances from the date of his suspension may be now restored to him.

"Signed, on behalf of the Council,

"WALTER DICKSON, M.D., Chairman.

"November 30th, 1885."

THE PERILS OF MEDICINE.

ONE of the most distinguished and most promising of the lady-graduates in medicine of the University of London, Frances Helen Prideaux, has been cut down at the commencement of her career by one of those fatal risks incidental to the practice of medicine. We publish elsewhere a record of her life. During this week, also, we have to deplore the death of one of the house-surgeons of St. Thomas's Hospital, Mr. Robert Lawson, who has also fallen a victim to an infectious disease, scarlet fever, caught in the fulfilment of his medical duties. Mr. Robert Lawson had won the affection and esteem of his colleagues and teachers, and had pursued an honourable and distinguished career at the medical schools, having obtained the Cheselden medal as well as the Treasurer's gold medal last year. Two incidents so painful occurring in the same week sadly emphasise the peculiar risks incidental to medical practice. These dangers are always with us; and, even in most threatening form in times of epidemic, or in countries and expeditions, they are braved by medical men with a quiet courage and self-devotion which are part of our professional tradition, and which form recognised claims on public esteem. They strike us with peculiar force, and impress the imagination more vividly, when those who are at the commencement of their career are thus suddenly cut off. But many a man falls unnoticed to his grave the victim of professional duty, and a sufferer from the more commonplace ills, under less romantic circumstances, but none the less a soldier of medicine who has met his death in the performance of his duty.

HYDROPHOBIA.

THE present epidemic of hydrophobia is the most serious which has occurred for many years. Twenty-five deaths from this cause have occurred in London since the beginning of the year; this is four times the annual average, which, for the previous ten years, was six deaths a year. Three deaths occurred lately—one of them, that of a boy, in the London Hospital. We learn, on inquiry, that this boy was one of five bitten by a "mad-dog" in Poplar last August; that one other boy is known to have died of hydrophobia; and that all the remaining three are believed to have died of the same disease. The necessity for enforcing stringent regulations with regard to stray dogs, in the interest, not only of the human, but of the canine species also, must

be evident. The Act now in existence is clumsy and ineffective. As Professor Fleming has pointed out, regulations put in force in Holland in 1875 have practically succeeded in expelling the scourge from the central provinces, the only cases occurring there being in dogs which have been, or are reasonably supposed to have been, imported; while, along the frontiers, a considerable number of cases continue to be met with annually. M. Pasteur's method of preventing the disease by inoculation is at present *sub judice*; and the decision cannot, owing to the uncertain duration of the period of incubation of rabies, be given for many years. Meanwhile, the experience of Holland shows that we have, in stringent police regulations, a simple and effective method of preventing this disease, so terrible to man and his faithful friend.

FRENCH TRANSLATION OF SIR SPENCER WELLS' WORK ON
ABDOMINAL TUMOURS.

DR. KESER, Surgeon to the French Hospital in London, has translated Sir Spencer Wells' last work on the *Diagnosis and Surgical Treatment of Abdominal Tumours*. In the present edition, it appears in the ordinary octavo form, and the woodcuts look even better than in the double columns of the English work. Our Paris contemporary, the *Semaine Médicale*, describes the work as a "model of clearness and precision," and we trust that it will be useful to many who do not read English.

LAGOPHTHALMOS DUE TO DENTAL IRRITATION.

AT a November meeting of the Odontological Society of Great Britain, Mr. S. J. Hutchinson related the following interesting case of reflex nervous disturbance caused by dental irritation. The patient, a lady, was sent to him by Dr. Gowers in October, 1883, with a request that he would examine her teeth, and see if he could discover any probable cause for a spasm of the left eyelid, from which she had suffered for several months. The eyelid was drawn up by a constant spasmodic contraction of the levator palpebræ in such a manner that not only the whole of the iris, but also a considerable amount of the white round it, was always visible. Mr. Hutchinson found the patient's teeth in a bad state. The left second and third molars, both upper and lower, were much decayed, and Mr. Hutchinson extracted all four; but, though the patient no longer suffered from neuralgia, as she had before, the spasm of the eyelid was not in the least diminished. There did not appear to be anything amiss with the other teeth on that side, except that the upper first molar contained a large amalgam stopping; but, as the tooth had never given her any pain, the patient would not consent to its being interfered with. She then returned to her home in the country, and Mr. Hutchinson saw nothing of her for more than a year. When she again presented herself, the eye was in the same condition, and Mr. Hutchinson again failed to find anything in the mouth likely to be a source of irritation, except the amalgam stopping in the left upper first molar. After some persuasion, the patient allowed Mr. Hutchinson to remove this, and he then found a minute exposure of the pulp on which the filling had evidently pressed. Mr. Hutchinson advised the removal of the tooth, and the result was most satisfactory. The patient's appearance at once began to improve; and, at the end of six months, the difference between the two eyes was so slight, that it would not be noticed by a casual observer. It was evident, therefore, that, in this case, reflex irritation of the third nerve had been caused by irritation of a branch of the fifth, and this in the absence of any symptoms referable to the tooth.

A PROPOSED ARMY MEDICAL INSTITUTION.

WE can but regard with great sympathy the proposal to establish an Army Medical Institution, to carry out the same line of work for the medical service of the army as is successfully cultivated and developed by the Royal Institutions attached to the artillery and engineering departments of the army. The suggested institution would be framed much on the same lines. One of its leading features would be the

issue of a journal of the institution, speaking for and discussing the subjects related to the duties and studies of the Army Medical Staff. It would be issued in quarterly or monthly form. There are such journals in existence in other countries; and there is a great deal of technical matter which, it is thought, might advantageously be brought together in a technical periodical. The institution would naturally hold meetings for the reading and discussion of papers, and would have its gold medal. It would assist, it is suggested, to form corps-libraries, and eventually station-libraries. There is, of course, not an universal assent to such a proposition; many medical officers fearing that the limited circulation and class-character of the periodical would lessen its influence, while the existence of such a periodical might loosen the touch of the medical officers with the current periodical medical literature of civil life. There is, however, probably a considerable surplus of military medical reports and debates for which none of the existing medical papers can find space. The whole matter is one for the serious consideration of the Army Medical Service. We can see many advantages in the establishment of such an institute, if the cordial approval and co-operation of the rank and file, as well as of the leaders of the department, can be obtained. Unfortunately, however, there are by no means the same number of wealthy persons interested in the medical as in other departments of the army; and much difficulty may be experienced, under the most favourable conditions, in finding subscriptions and donations adequate to the purpose in view. If the authorities at the War Office regard the proposal with favour, many preliminary difficulties may be surmounted.

RESULTS OF THE PARLIAMENTARY ELECTION.

THE net result of the election will probably be to make a marked and valuable addition to the ranks of medical members of the House of Commons, although, numerically, the reinforcement will not be as strong as at one time there seemed reason to hope. Sir W. Guyer Hunter has attained a seat for a metropolitan constituency, and Dr. Balthazar Foster one for Chester; politically they belong to opposite parties, but both are men who have had considerable experience in administrative questions affecting social, sanitary, and medical interests, and they will form an addition of considerable value to the strength of the House in discussing all such questions. They both occupy important public positions in the profession, and have repeatedly, in their career, given evidence of that kind of capacity which, combined with knowledge and public spirit, never fails to ensure a hearing in the House of Commons. In two other metropolitan constituencies, namely, Deptford and Mile End, Dr. Watney and Mr. Ernest Hart, respectively, have failed to secure seats. In Surrey, there were two medical candidates for one seat; Sir Trevor Lawrence, the sitting member, and Dr. Alfred Carpenter. Sir Trevor Lawrence has retained his seat. Dr. Alfred Carpenter is so well known an authority on sanitary and medical subjects, that it may be hoped that he will, before long, secure a seat elsewhere. Dr. Farquharson wins by a large majority in Aberdeenshire, and Dr. Cameron in Glasgow, so that the net addition is given of two strong medical members. Sir Lyon Playfair, we are glad to see, will resume his parliamentary career as a member for Leeds. No loss would have been more felt in the estimation of those who attach great weight to the presence in the House of Commons of men skilled in the discussion of scientific and sanitary questions than that of Sir Lyon Playfair, whose authority is of the highest in the House of Commons on those subjects. We have not heard that medico-political questions, such as those of vaccination and vivisection, have been brought prominently to the front in any of the constituencies except in Mile End, where Mr. Ernest Hart encountered a severe and continuous opposition from both sections of the agitators opposed to vaccination and to experiments on animals; and in Leeds, where a less severe and marked opposition was made to Sir Lyon Playfair on the same grounds. Mile End was continuously flooded with placards and handbills of a somewhat violent character,

proceeding from the headquarters of the Antivaccination and the Antivivisection Societies. There still remain two medical candidatures to be decided—Mr. Erichsen's for the University of Edinburgh, and Dr. Gordon Hogg's for the Ealing division of Middlesex. It is understood that, practically, Parliament will not sit for legislative purposes prior to February next.

[10] OBSTETRICAL SOCIETY OF LONDON.

ON Wednesday evening, December 2nd, Dr. Lawers exhibited the uterus and appendages from a fatal case of acute double pyosalpinx, occurring in a patient eighteen years of age. The diseased tubes were not, as is usually the case, closed at their funicular extremities, so that their morbid contents readily escaped into the peritoneum. Dr. John Williams exhibited the parts involved in one of the cases described in his paper "On the Corroding Ulcer of the Os Uteri," read before the Society in March, 1884. Drs. Griffith and Campbell Pope read the notes of a case of extra-uterine gestation, and exhibited the uterus and appendages. The nature of the abnormality was disputed, and the specimen was referred to a committee for report. Dr. Galabin showed a double monster. A third memoir on the subject of Dr. Matthew Duncan's so-called "lupus" of the pudendum was read by that obstetrician, and this instalment of a valuable series of observations on an obscure complaint related to the inflammations and histology of pudendal lupus. Dr. Duncan showed that lupoid tissues in the region of the pudendum are very subject to intercurrent attacks of inflammation, and he went so far as to distinguish a lupoid leucorrhoea. He also showed certain relations of lupus to pruritus vulvæ. Dr. Thin had found that the affected tissues did not exhibit the histological characters of cancer, syphilis, cicatricial tissue, or true elephantiasis. Two good communications of the class suited to the average powers of the Fellows of the Society were read in the course of the evening; one was a case of protracted pregnancy, by Dr. W. A. Thomson, of Amptill, labour occurring 317 days after the last appearance of the catamenia, and 301 days after the last coitus; the second was a marked case of spurious labour, by Dr. H. R. Fuller, which provoked an active discussion.

THE BRITISH MEDICAL JOURNAL.

GASTROSTOMY AND JEJUNOSTOMY.

FOUR good papers on these cognate subjects were read and discussed at the last meeting of the Clinical Society, as will be seen by reference to our report of the proceedings published at another page. The features of the disease, for which the operations were performed, varied in each case. In the first three instances, gastrostomy was done to avoid starvation, as there was stricture of the gullet, due in two of the cases to malignant disease, and in the other case (that of a boy, aged 4 years) to the swallowing of a caustic alkali. This last patient, though in a condition of almost impending death when operated upon by Mr. John H. Morgan, has since gained weight and strength. Of the two other cases, one related by Mr. Barwell, and the other by Mr. C. T. Dent, the latter showed how futile the old operation of œsophagotomy would have been, as there were two malignant growths in the gullet, the lower of which completely blocked the tube. In fact, the outcome of all recent discussion would seem to narrow surgical interference in advanced cases of this malady to two chief procedures; either that of introducing the elastic funnel-shaped tubes, devised by Mr. Durham, which the patient can wear, and through which a way to the stomach can be maintained, or else the alternative of gastrostomy. The evidence which has accumulated in favour of the tube-plan is now so considerable, that it seems worthy of being first adopted; since, if the patient can come to tolerate the presence of the instrument, it offers an immediate means of relief. As a last resort, gastrostomy, as at present performed, is doubtless a much less Board procedure than a few years ago it was considered to be. Mr. duties of his office, at the end of his excellent paper, showed that, duties at Homerton Fevers, and of the two-stage method, 31 cases was imposed upon this, originally inducted; whereas, since that epoch, 135 cases had supervision of hospitals at Hampstead and 44.5 per cent. respectively.

These later good results, it is to be expected, will, in the immediate future, be still further surpassed, just as ovariectomy has risen from a position of being almost constantly, thirty years ago, a fatal operation to that of being attended now by a very small percentage of mortality. Then, if surgeons should come to interfere at an earlier stage of the disease, the large number of deaths occurring soon after the operation now ascribable, not to peritonitis, but to exhaustion, might be postponed, at any rate, until a period of many months thereafter. Mr. Golding-Bird's important case of jejunostomy brought to light some of the difficulties which surgeons have to encounter in the operations upon the upper part of the small intestine which disease of the stomach and duodenum entails, if any operative procedure is to be attempted. This case, and that detailed later in the discussion by Mr. Pearce Gould, both point to the conclusion that this operation is decidedly to be preferred to that of pylorotomy, though a larger number of cases than has been hitherto detailed must be published before definite results can be drawn. Apparently, there is scarcely any region in the abdomen now left which has not been appropriated for the performance of some special surgical procedure.

SCOTLAND.

EPIDEMIC OF SCARLET FEVER IN ABERDEEN.

THERE is an epidemic of scarlet fever in Aberdeen at present; and, although it is confined to one district of the town, there are over sixty cases in hospital. It was agreed by the public authority to issue instructions as to the isolation of patients, etc., in hand-bill form, to be posted in the affected district.

RECREATION GROUNDS IN ABERDEEN.

SOME time ago, it was proposed to raise a fund to provide means for establishing a recreation ground in connection with the University of Aberdeen. A grand bazaar is to be held towards the end of December, and the students and their friends are doing all they can to make it a success. There is also to be a "graduates' and undergraduates' ball" about the same time, and the surplus funds of it are also to go to aid the recreation ground scheme.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

THE annual meeting of the Edinburgh Medical Missionary Society was held on November 26th; Dr. William Brown, the President of the Society, presided. The annual report stated that the income from all sources during the past year amounted to £4,730 1s. 5d., and the expenditure to £4,705 7s. 8d., leaving a balance of £24 13s. 9d. to the credit of the Society, besides which they possessed certain sums for the furtherance of special objects. The report also showed they had every reason to be satisfied with the prosperity of the Mission and the work it was doing among the poorer classes in the city, and stated that temperance-associations for both men and women had been started in the Cowgate branch. Sir William Muir was elected vice-president, and Dr. Affleck a director, in place of the late Mr. Findlay Anderson, whose death was referred to as being a great loss to the Society, of which he had been a director for twenty-six years.

EDINBURGH HEALTH SOCIETY.

THE second lecture of the course under the auspices of the Edinburgh Health Society, was delivered last Saturday by Dr. James Ritchie, who took as his subject, "Light in relation to Health." Dr. Ritchie pointed out how minute organisms which were prejudicial to health and favourable to the spread of disease were destroyed by the light of the sun; and, in the cases of hospitals, the percentage of recoveries were decidedly in favour of the sunny side. He hoped the Public Health Committee would continue their good work of shutting up dark, and, therefore, unhealthy houses. Dr. Ritchie also referred to the injury done to eyesight by the very prevalent habit of allowing

children to read in the gloaming, or by firelight, or at the window ; and showed what harm might result to the eyes at the time or in after years. The technical part of the subject of the lecture was illustrated by means of limelight ; and, at the close, Dr. Ritchie received a vote of thanks.

HANDSOME CONTRIBUTION FROM AMERICA TO EDINBURGH ROYAL INFIRMARY.

A PLEASANT contrast, in the way of money sent from America to this country, for public purposes, is afforded this week, in the bequest of 2,000 dollars, to the Royal Infirmary of Edinburgh, by Mr. James B. Hay, of Newark, New Jersey, United States, which is bequeathed in the following terms. "I give and bequeath to the Royal Infirmary of the City of Edinburgh, Scotland, 2,000 dollars, with my best wishes, for it did me good when I was a poor orphan boy. Say this to them, from me, when you send the money." If Irishmen in America would imitate Mr. Hay's example, it would not be more than they ought, considering the large proportion of the patients who are treated in Edinburgh Infirmary who are of their own nationality.

SICK CHILDREN'S HOSPITAL, EDINBURGH.

In the wards of the Royal Hospital for Sick Children, Edinburgh, there were treated, during the month of November, 111 patients, of whom 63 were in the hospital on November 1st, and 48 were admitted during the month. Thirty-five were discharged cured or recovered, and 8 were relieved ; the average number in the hospital during the month was 60. In the dispensary, 445 out-door cases were treated, and 11 children were vaccinated, making in all 456. From the city 165 new cases came ; from Leith, 33 ; and from other parts of the country, 15.

IRELAND.

KINSALE DISPENSARY.

AN election for the post of medical officer, in the vacancy caused by the resignation of Dr. Doonan, took place last week, when Dr. Vickery was elected by a majority of one over his opponent, Dr. Dunn.

THOMAS ANDREWS, M.D., F.R.S.

PROFESSOR ANDREWS died last week at his residence, Fortwilliam Park, Belfast, in his 72nd year. He was educated in Belfast and Edinburgh, where he obtained the degree of Doctor in Medicine. He selected chemistry as a special study, and was elected to fill the chair of Chemistry in Belfast, Queen's College, and retained the appointment until 1879, for thirty years, when he retired. Professor Andrews was Vice-President of the Belfast College for many years.

ENTRIES IN THE DUBLIN MEDICAL SCHOOLS.

THE following figures show the returns made by the registrars of the five Schools of Medicine in Dublin to the Anatomical Committee of the number of students on the roll of each for dissections.

Trinity College ...	...	...	220
Ledwich School ...	...	...	212
Carmichael College ...	...	...	179
College of Surgeons ...	...	...	130
Catholic University ...	...	...	101

There are no means taken, as far as we know, to verify the accuracy of these returns ; but no school likes to show a falling-off in its numbers, and all like to have an ample supply of subjects. The total number returned last year was 791 ; this year it is 842, an increase of 51. The Carmichael College of Medicine shows the largest increase, namely, 62 students more than last year, and the Royal College of Surgeons School has an increase of 19. In the other three schools, there is a decrease, the numbers being 20 in the Catholic University, 9 in the Trinity College School, but 1 only in the Ledwich School.

HOSPITAL FOR CONSUMPTIVES, BELFAST.

THIS institution will be formally opened this week by Mr. Forster Green, its generous founder. The Committee of Management are precluded from expending the funded capital, amounting to £6,000, and can only utilise the annual proceeds arising from this sum. There were certain structural improvements which had to be done, and apparatus had to be erected, and other expenses, for which the committee had no funds ; but the generosity of Mr. Green relieved them from this difficulty. It has been suitably furnished at a cost of one hundred guineas, which has been expended by the Board of Management, who have already received more than half the amount by contributions. In the hospital, there is a department for males and one for females, and the institution contains eight beds for patients suffering from a disease which carries away a large number of people every year in a manufacturing town like Belfast.

PRIVATE SANITARY LEGISLATION FOR NEXT SESSION.

As compared with last year, there is a considerable decrease in the number of Private Bills for consideration by Parliament in the forthcoming session, of which notice has, in accordance with the Standing Orders, been given in the *London Gazette*. In no department is this diminution more conspicuous than in the Corporation Bills, the number of which is hardly one-third of what it was last session. Practically, only five corporations ask for any sanitary powers this year, and the objects they have in view may be summarised as follows.

Ashton-under-Lyne desires to make further provisions for the prevention of the spread of contagious and infectious diseases by enabling the corporation to provide and maintain hospitals and nurses, to provide temporary accommodation for persons suffering from such diseases, to secure the isolation of such persons, to require the notification of such diseases, to charge and recover the costs of removal of such persons, and their maintenance while isolated or removed, to close shops for the sale of consumable articles and clothing, to compel the disinfection of buildings and of persons liable to communicate contagion or infection, and to make better provision with respect to the retention and the removal of corpses. It also wishes to alter and amend some of the provisions of the Public Health Act, 1875, with reference to procedure in regard to new streets, and the recovery of street-improvement expenses, and to make provisions as to various sanitary matters, especially removal and destruction of rubbish and refuse, and purchase of land for that purpose, scavenging, disposal of sewage, drainage, and refuse-matter, urinals, privies, cesspools, nuisances, cleansing water-courses, entrances to courts, brick-burning, and unwholesome food.

Blackpool, which has had, ever since 1879, a system of compulsory notification of infectious disease, now wishes to make further provision with respect to the prevention of infectious diseases, the removal of infected persons, and the supplying, inspecting, and destroying of unwholesome or unsound articles of food or drink, the disinfection of premises and articles, the procuring of accommodation for the persons occupying the said premises, the providing of nurses, and the retention, removal, and burial of corpses. By way of making "further provision for the improvement and good government of the borough, the prevention of nuisances, obstructions, and offences therein, it asks for powers to regulate an amazing number of things, including the construction and regulation of the workmanship, materials, drainage, ventilation, and sanitary arrangements and details of buildings ; the providing and cleansing of urinals, privies, water and other closets ; the compelling houses to have a proper supply of water ; the giving of certificates that buildings are fit for human habitation, and the preventing the occupation of any buildings unfit for that purpose ; the disconnecting waste water-pipes from drains and sewers ; and the height, and area, and situation of rooms used for habitation. It also wishes to extend the definition of the words "house" and "room" in or for the purposes of Sections 35 to 41, 91 to 111, and 120 to 125 of the Public Health Act, 1875, so as to include all buildings, vehicles, and caravans used for human habitation.

Carlisle asks for the following powers. To make further and better provision for detecting and preventing the spread of contagious and infectious diseases, and to require notice of such diseases and of infected premises to be given to the Corporation. To enable the Cor-

poration to provide and maintain hospitals and nurses, and to provide temporary accommodation and medical treatment for persons suffering from such diseases, or infected persons; to secure the removal and isolation of such persons; to charge and recover the cost of removal of such persons, and their treatment and maintenance while isolated or removed. To close schools and places of public resort, and buildings and shops for the sale of milk and other consumable articles, and clothing. To prevent the sale of such articles and clothing from, and the letting or occupation of, infected premises. To require cow-keepers and vendors of milk and others to furnish lists of their customers; and persons engaged in washing or mangling clothes to furnish lists of the owners of such clothes. To compel the disinfection of buildings, and of persons liable to communicate contagion or infection, and the disinfection or destruction of infected articles and clothing. For the inspection of farmhouses, dairies, cowsheds, and milkshops beyond the city. For preventing the letting or occupation of houses and premises requiring disinfection. For prohibiting the retention of dead bodies; for compelling the speedy and proper interment of persons who have died of infectious and other like diseases, and the removal or non-removal and conveyance of corpses, and to prohibit the removal of corpses and persons suffering from infectious diseases in public conveyances. It also desires to make further and better provision with respect to the sale or possession of unwholesome food, and to provide that Sections 116 to 119 of the "Public Health Act, 1875," shall extend and apply to all articles intended for the food of man, sold or exposed, deposited or prepared for sale within the city; and that the medical or other officers of the Corporation may inspect and examine all such articles, and for that purpose open any box or other receptacle containing any such articles, and to empower justices to order such articles, when condemned by the medical or other officer of the Corporation, to be destroyed.

Guildford is desirous to provide for notification to the corporation of the existence within the borough of infectious or other diseases, and for certificates and declarations by medical practitioners attending persons suffering therewith; to provide temporary shelter or house-accommodation for the members of a family in which disease has appeared, and also to provide temporary hospitals or wards; to provide, or contract for the providing of, nurses for attendance upon diseased persons; to compel cowkeepers and others to furnish a list of their customers in certain cases; to empower the corporation either to require any owner or occupier to cleanse and disinfect any house or part of a house, or any articles therein, or themselves to cleanse and disinfect such house, part of a house, and articles, and for that purpose to remove any such articles, and to recover the expenses attending such cleansing, disinfecting, and removal from the owner or occupier, and to make other provision for defraying the expenses thereof; to prohibit, if thought so expedient, the removal of the body of any person dying from infectious disease from any hospital or place of temporary accommodation as aforesaid, except for the purpose of immediate burial, and to provide for the immediate burial of the body of any person dying from an infectious disease, and for the recovery of the expenses thereof; to regulate the removal and the mode of conveyance, for the purpose of interment, of the body of any person who has died of an infectious disease, and for the recovery of the expenses thereof; to prevent the use of public conveyances for the removal of the bodies of persons who have died from infectious disease; to compel, under a penalty, common lodging-house keepers to give the notice required by Section 84 of the Public Health Act, 1875.

The only other Corporation Bill possessing any feature of medico-sanitary interest is that of *Liverpool*, the corporation of which seeks for powers to enable the trustees of the Hospital for Infectious Diseases in Netherfield Road to transfer such hospital to the corporation, on terms and conditions to be agreed upon, or prescribed by the intended act; and to confirm and give effect to any agreement made between the corporation and the said trustees with reference thereto.

The net result of these Bills is, therefore, that three fresh towns (Ashton-under-Lyne, Carlisle, and Guildford) ask for powers of compulsory notification of infectious diseases, with the now familiar corollary of the Selater-Boothian clauses of 1832, as to isolation accommodation, provision of nurses, closing of shops, retention and removal of corpses, and the like. In the absence of the Bills themselves, it is impossible to say how far these corporations have framed their clauses upon what Select Committees have of late come to regard as the only permissible model; and criticisms upon the proposals must, therefore, be for the moment reserved. Were it not that the passion of town-clerks for endless variations of the statutes at large is too strong for the repression of exuberances of legislation, we might be tempted to point out that many of the powers which the corporations desire are already given to them by general Acts of Parliament. Witness, for

instance, the last power asked for by Blackpool, which is already provided for by Section 9 of the Housing of the Working Classes Act of last session.

THE ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY IN LONDON.

The third meeting of this Association was held at the Egyptian Hall on December 2nd. About 100 members were present.

The chair was taken by the President, Mr. JOHN MARSHALL, who said that the Executive Council had not been idle since the meeting in February. The number of members of the Association had now risen to 250, an interim report had been presented, and communications had been entered into with Convocation of the University of London. Pending the decision of that body, on a scheme submitted to it by Lord Justice Fry's Committee, the attitude of the Association was necessarily expectant, but conferences had been held with representative teachers of arts, science, and medicine. The time had now come for further action, and the Association must declare emphatically what it desired, what were the cardinal points on which it would not give way, and what were the points upon which compromise could be allowed. Though the scheme of Lord Justice Fry's Committee had been rejected by Convocation, the minority was important by reason of its composition, which showed that many of the most distinguished graduates sympathised with the objects of the Association. The Senate was the executive, and it was now proposed to approach that body. The movement within the Royal Colleges was increasing in force, and a distinct advance in the nature of the demands made might be noted; for whereas at first it was merely proposed to grant the title of Doctor, there was now a strong feeling that some special test should be imposed. In the end, it might be found that the Colleges would not be obstacles to the success of the scheme proposed by the Association.

Sir GEORGE YOUNG moved that the first report of the Executive Council be received, and the Executive Council be desired to open negotiations with the governing bodies of the University of London, of University and King's College, of the Royal College of Physicians, of the Royal College of Surgeons, of the Council of Legal Education, and the recognised medical schools. He said that the time had not yet come for putting forward a scheme for the embodiment of a University. The object of the Association was the organisation of teaching, not the correction of mistakes in an examination system. Their ideal was not merely to associate teachers in the conduct of a university, not to institute, as had been said, a co-operative society of teachers, not merely to found new chairs, or to complete the equipment of old machinery, but, in the words of Professor Huxley, the institution of a corporation which shall embrace the professoriat charged with the exposition and advancement of the higher knowledge in all its branches. The general result of the conferences was an agreement that the scheme proposed by the Association might fairly form a basis for common action. The scheme might be developed along three lines: 1. Some modification of the existing University of London; 2. An independent organisation, technically within the limits of that University, a dual university; 3. An entirely independent University. The Association would much prefer either of the first two alternatives. The Executive Council had recently been strengthened by the addition of Professors Adams, Curnow, Berkeley Hill, Hudson, Henry Morley, and Gerald Yeo, and Dr. Dyce Duckworth.

Dr. S. WILKS seconded the resolution, observing that it was clear that the Association now enjoyed a large measure of public support.

Professor SCRUTTON said that he had been requested to state that the following resolution had been passed at a meeting of the Professors of University College, held on the previous day. "It is not desirable that the general meeting of the Association, should be left under the impression that the teachers of University College are in favour of proceeding on the lines contained in the reports of the Association or the subcommittees." The resolution was not conceived in any spirit of hostility, but the professors at University College did not wish to be committed to the scheme. They were at present engaged in elaborating a scheme which would be made public in a few months.

Professor CAREY FOSTER considered that the resolution was too strongly worded; the intention was not to condemn the scheme of the Association, but merely to leave their own hands free.

Dr. MATTHEWS DUNCAN said that he would support the resolution; at the same time, he held that what was above all things wanted, was the establishment of an academic influence in London; and he expressed the opinion that the reports of the Association lost sight of

this. If the medical schools were to be under the university, it must have some control over them, and consequently they could not, as the report supposed, retain their individuality. All the medical schools were not of university rank; the teaching at some was very inefficient. He was strongly opposed to the Royal Colleges of Physicians and Surgeons coming into the scheme, as it would be tantamount to their abolition; neither did he favour the scheme to empower them to grant degrees. Such a degree would be, in his opinion, a false trade-mark. He thought that the scheme of the Association so closely resembled the constitution of the University of London, that the latter body ought to have no difficulty in meeting the Association half way.

The Rev. Dr. WACE, Principal of King's College, deprecated any independent movement on the part of a single body, such as University or King's College, and hoped that by mutual concession and compromise a satisfaction of all interests might be attained.

Professor ALEXANDER WILLIAMSON felt the great need of a tolerant spirit. The report was to be received, not adopted, and the Association was not pledged to any one point in it.

Mr. BRUDENELL CARTER thought Dr. Matthews Duncan had spoken too unfavourably of the teaching in any of the London medical schools.

Professor RAY LANKESTER moved, as an amendment, that the further consideration of the report be referred to that day three months, as he thought the Association had not had sufficient opportunity to express an opinion.

Mr. TWEEDY seconded the amendment, as it was not hostile to the objects of the Association.

Sir GEORGE YOUNG pointed out that the reports had been placed in the hands of members last August.

Dr. NORMAN MOORE considered the matter urgent; and the Association was not in any way pledged to details.

Sir GEORGE YOUNG briefly replied in the same sense.

The amendment was then put and lost; the original motion was carried by a large majority.

CHOLERA AND THE LONDON HOSPITALS.

AT a meeting of the Hospitals Association on November 18th, Dr. Steele, of Guy's Hospital, read a paper on the duties of general hospitals during an epidemic of cholera. He first referred to the absence of any sanitary provision in London before the outbreak of cholera in 1832, and pointed out that, as soon as the reforms rendered possible by the strong impression made on the public mind by that epidemic had been carried out, a very notable diminution in the severity of the epidemic when the disease again appeared had occurred. The Metropolitan Sick Asylums Board was now able to command 600 beds in the general hospitals, and 900 in workhouse-infirmaries; it had been arranged that the expenses incurred by the general hospitals should be defrayed out of the common poor-fund; and this, as Dr. Steele was careful to point out, was an entirely new departure in the relations hitherto existing between the general hospitals and the local government. The accommodation in South London was inadequate, and, if an epidemic were to break out there, great confusion would arise. Dr. Steele then referred to the necessity for early removal, and stated that the appliances of the ambulance-corps of the Asylums Board, and the "St. John litters," now employed at all the police-stations, might both be available. He advocated house-to-house visitation during an epidemic, in order to instruct the poorer classes as to the necessity of treating all cases of diarrhoea, and to ascertain the existence of cases of cholera in the early stage; the various district nursing institutions might afford valuable assistance in this work. The hospitals would require a very large staff of nurses, and ought not to undertake the disinfection of the bedding or clothes used by patients before admission; when the patients were admitted into a general hospital, all fomites ought to be at once removed and disinfected by the Metropolitan Sick Asylums Board. Dr. Steele insisted on the advisability of thoroughly disinfecting all excreta. For this purpose, he said that soil-basins were employed in most hospitals, apart from the ordinary closets. These vessels, which nurses insisted on calling sluices, ought to be of copper, large enough to hold a bed-pan, and should have water laid on, and be furnished with a siphon-trap of earthenware, while the soil-pipe continuation should be in direct communication with the external air. Such basins were an absolute necessity in connection with cholera-wards, and each time they received the egesta, some disinfecting material should be thrown down them; it would be necessary also to have an antiseptic put in the collecting vessels before they were removed from the bedside. Carbolic acid, he said, was not so soluble as was usually supposed,

and there was grave reason to doubt whether carbolic acid in the strongest solution it could make with water was thoroughly efficacious. The pure acid, and even the impure, were too expensive to allow a very free use, and were acrid poisons. He suggested sulphate of iron or green vitriol, a soluble salt with powerfully oxidising properties, which for many years had been recognised and employed by chemists and sanitary officers all over the country and in India, but had not made much way as a depurant or purifier in hospital-practice. The reason of its exclusion was its liability to stain linen and cotton fabrics. He had had a box to hold a few pounds of the salt made for Guy's Hospital; it could be fixed over the soil-basin and be furnished with a wooden spoon with a long handle, and the nurse need not fear its coming into contact with her linen. Most people, he said, fancied that a bad smell required an odour equally, if not more, powerful to neutralise it. The sulphate of iron had no smell, but it would be easy to add to the crystals some powerfully smelling substance; probably carbolic acid would answer best, as there was now an universal belief in its antiseptic properties.

THE JAFFRAY HOSPITAL, BIRMINGHAM.

THE opening of the Jaffray Suburban Hospital, founded by the proprietor of the *Birmingham Daily Post* for the reception of chronic and convalescent cases from the General Hospital, was performed on Friday in last week by His Royal Highness the Prince of Wales. The Prince, who was escorted by a troop of Hussars, was cheered continuously from the time he left the station until he reached the hospital at the village of Gravelly Hill. On reaching the hospital, His Royal Highness was accorded a most enthusiastic greeting by a large crowd, which, notwithstanding the severity of the weather (and during the whole of the day it was most inclement), had gathered in front of the institution.

The Prince was presented, by Mr. A. Baker, Chairman of the Hospital Committee, with an elaborately wrought gold and silver key, with which His Royal Highness unlocked the door of one of the wards. Proceeding to a room which had been set apart for the formal ceremony, the Prince was presented by Lord Brooke with an address of welcome, to which His Royal Highness replied.

Two cheques of the value of £1,250 each were handed to Mr. Jaffray, one from a private donor, and the other from the Birmingham and Aston Licensed Victuallers' Association, for the endowment of beds in the hospital. The Prince of Wales gave Mrs. Jaffray a copy of the presentation-key in the form of a brooch, and shortly afterwards the Prince declared the hospital open.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HÆMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PURPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —J. MAITLAND, M.B., Honorary Secretary, Madras.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting will be held in Ashton-under-Lyne, on Wednesday, December 16th. Gentlemen wishing to show cases, or read papers, will oblige by communicating with the Honorary Secretary, without delay. —CHARLES EDWARD GLASCOTT, M.D., Honorary Secretary, 23, St. John Street, Manchester.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 P.M. J. Langston, Esq., J.P., in the chair. The dinner will take place at The Bull Hotel, Rochester, at 5.30 P.M.; charge 6s., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Honorary Secretary of the District not later than December 16th. Papers to be read: 1. Dr. J. V. Bell, Two Cases of Trephining. 2. F. B. Jessett, Esq., Plastic Operations for Restoration of Upper Lip After Removal of Epithelioma. 3. Dr. H. Lewis Jones, Clinical Notes of Empyema. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce friends. —A. W. NANKIVELL, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

The autumn meeting was held at Chichester on Friday, November 20th; Dr. TYACKE in the chair.

Remarks on Sanitary Matters.—The Chairman, in his remarks on sanitary matters, commented on the inefficiency of their administration in consequence of the divided and antagonistic duties of the great majority of the officers of health. He considered that the duties of the latter could not be performed vigorously and satisfactorily whilst the chief transgressors were often those who were their private patients, and with whom rested their appointment and dismissal at short notice. The duties of officers of health were ever increasing in amount and importance, and the recent investigations of M. Pasteur and others as to the connection of micro-organisms with the etiology of disease must add materially to the field of his operations. Dr. Tyacke would, therefore, again draw attention to the recommendations of the Joint Committee on State Medicine, consisting of subcommittees of the British Medical and Social Science Associations, which insisted "that an essential condition of success in any sanitary system must be the employment of a certain number of high class executive officers devoting their whole time to the discharge of their several duties: that to secure such competency, and adequate remuneration for such services, large areas are necessary; that the full value of the preventive functions of the medical officers of health can be realised only when they are freed from the restraints of private practice, so as to enable them to point out defects and suggest remedies without the risk of personal annoyance and loss." Dr. Tyacke further urged that it was very desirable to press forward this subject at the present time, as, whatever the result of the political struggle, it would surely form an important item in the local government changes soon to be considered,

when the opinions of medical men should have their just weight. —Dr. WITHERS MOORE (Brighton) suggested that an officer of State ought to be appointed to look after sanitary affairs. Dr. FULLER (Shoreham) thought the appointment of medical officers of health should be a permanent one.

Collective Investigation.—The Honorary Secretary for the district, Dr. A. E. BUCKELL, made a report on this subject.

Typhlitis.—Mr. G. B. COLLET read notes of a case of typhlitis, caused by the patient bathing when suffering from slight mucocenteritis.

Dinner.—The members afterwards dined together.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held at the Bear Hotel, Lewes, on Wednesday, November 25th, 1885; Dr. CROSSKEY in the chair.

Discussion on Diphtheria.—Mr. SHIRLEY MURPHY, on behalf of the Collective Investigation Committee, opened a discussion on diphtheria. His remarks were mainly directed to the question of the similarity between diphtheria and scarlatina. He also dealt with the peculiarities of the disease in regard to the spreading of epidemics, and the various suggestions which had been made as the mode of its propagation. —Dr. Holman, Dr. Moore, and Mr. Kaye Smith took part in the discussion.

Cases.—Mr. Gravely described a case of Pneumonia, with maniacal symptoms coming on after the chest-symptoms had disappeared. —Dr. Treutler read notes of a case of Injury to the Thigh in a Child.

Dr. Crosskey and the Lunacy Acts.—Dr. HOLMAN moved the following resolution, which was carried unanimously.

"That the members of the East Sussex District of the South-Eastern Branch of the British Medical Association desire to express their deep sympathy with Dr. Crosskey, and to offer him their hearty congratulations on his successful defence in the action of Hillman v. Crosskey. They would desire also to enter on their minutes the emphatic expression of their opinion that the present lunacy laws require amendment, as much in the best interests of the medical profession as for the protection of the public."

Dr. CROSSKEY, in reply, said how grateful he felt that such a resolution should be placed on the minutes of the Association; and he remarked upon the kindness and sympathy he had received from members of the profession in all parts of the United Kingdom. At the same time, he could not but think that the British Medical Association did not do so much as it might in such a case towards assisting one of its members in his anxieties and grave difficulties.

Next Meeting.—Dr. CROSSKEY moved, Dr. TREUTLER seconded, "That the next meeting—if possible, in conjunction with the West Sussex District—be held at Brighton, in March, 1886; and that Mr. Hodgson be asked to preside."

GLOUCESTERSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held at Cheltenham, in the Board-room of the General Hospital, on Tuesday, November 17th, 1885. Dr. NEEDHAM, President, took the chair, and there were an unusually large number of members and visitors.

New President and Council.—The scrutineers examined the voting-paper, and announced that Dr. Gooding (Cheltenham), was elected unanimously as President for 1886. The following members were elected on the Council: Drs. Batten and Bond, and Messrs. Wilton and Ellis. Mr. Cardew was re-elected Honorary Secretary.

Papers and Cases.—Dr. WILSON (Cheltenham) read the notes of a case of Paroxysmal Hæmoglobinuria, together with Symmetrical Gangrene, and exhibited the patient; also, specimens of his urine and blood. —Dr. ISAMBARD OWEN made a few remarks on the boy, whom he had seen in St. George's Hospital. —Mr. ELLIS (Gloucester) described and exhibited an apparatus for the Dry Antiseptic Vapour Treatment of Wounds, by means of which air was filtered through a cotton diaphragm, saturated with eucalyptol, and pumped over a wound. —Dr. GOODING, Mr. LAWSON TAIT, and others, started a short discussion on Antiseptic Wound Treatment. —Mr. BOWER (Gloucester) read a most interesting paper on The Frequent Non-recognition of Glaucoma, and exhibited a boy on whom he had performed iridectomy for recurrent glaucoma.

Supper.—After the meeting, the members adjourned to the Queen's Hotel, and sat down to a supper laid in the Ball-room. At the conclusion of the supper, Dr. Isambard Owen gave a short address on the work of the Collective Investigation Committee, which gave rise to a general conversation on the subject.

New Members.—At a meeting of the Council of the Branch, the following gentlemen were elected members of the Branch: Drs. Bram-

well and Best, and S. E. Gabb, Esq. (Cheltenham); Dr. Hooker (Cirencester); P. D. Hopgood, Esq. (Stow-on-the-Wold); and E. E. Tarleton, Esq. (Ashton-under-Hill). Also, R. T. Richardson, Esq. (Frampton-on-Severn), and H. Ewbank, Esq. (Cheltenham), were elected members of the Association for 1886.

METROPOLITAN COUNTIES BRANCH: HERTFORDSHIRE DISTRICT.

A MEETING of this District was held at Watford on November 18th; WALTER DICKSON, M.D., President of the Branch, in the chair.

Papers, etc.—The following papers were read.

1. Displacement of Pelvic Viscera: Dr. P. Horrocks.
2. Cases of Empyema and Thoracentesis: Dr. W. H. Blake.
3. A case of Reynard's Disease: Mr. C. D. Murray.
4. Osteosarcoma of the Left Knee: Mr. F. R. Webster.

Votes of Thanks.—The meeting terminated with votes of thanks to the President of the Branch for kindly consenting to occupy the chair; also to the several members for their interesting communications.

ABERDEEN, BANFF, AND KINCARDINE BRANCH: NOVEMBER MEETING.

A MEETING of this Branch was held at 198, Union Street, Aberdeen, on November 18th; Professor OGSTON, President, in the chair.

New Member.—Dr. A. Gordon Davidson, of Warth, was unanimously elected a member of the Branch.

Papers, etc.—The following communications were made.

1. Dr. A. Ogston: Operative Treatment of Congenital Dislocation of the Hip-joint.
2. Dr. Macgregor: Tumour of the Pons Varolii and Medulla Oblongata.
3. Dr. Gordon: Unilateral Cerebral Convulsions.
4. Dr. A. Ogston: Dilatation of Kidney with Putty-like Contents.
5. Dr. Macgregor: Sarcoma of Testicle.

An apology for absence was intimated from Dr. Garden, who was to have shown a preparation.

Votes of Thanks were accorded to the gentlemen who had contributed papers and specimens; and a similar vote to the chairman concluded the business of the meeting.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Effect of Double Ovariectomy on Menstruation.—*Pulmonary Complications of Acute Eruptive Diseases.*—*Hysteria in the Male.*—*Vaseline in Pastry not Injurious.*—*Prophylaxis of Hydrophobia.*—*The Supposed Intracellular and Pericellular Sinuses of Adamkiewicz.*—*Function of the Nerve of Wrisberg.*—*General News.*

AT a recent meeting of the Société de Chirurgie, M. Terrier read some clinical notes on the influence of double ovariectomy on menstruation. He has performed the operation twenty-two times. In some of his patients, he has been able to study their condition during ten years after the operation; in others, during one year only. One patient had menstruated from the age of 16 to the age of 22; she was aged 52 when operated on. Two others, whose general state of health was very serious, had not menstruated for several months. All the others, thirteen out of twenty-two, menstruated regularly. The two ovaries were removed, and, in most of the patients, the menstrual flow took place. In one case of single ovariectomy, the menses reappeared three months after the operation, and were regularly repeated until the remaining ovary was removed, and then they disappeared. In another instance, in which the right ovary was removed, the menses continued; the left ovary was subsequently removed, and, during five months afterwards, the menstrual flow took place regularly at the normal periods; later on, the menopause was definitely established. Three patients menstruated regularly during seven years after undergoing double ovariectomy. M. Terrier concludes that ovariectomy is generally followed by suppression of the menstrual flow. This may not occur immediately; sometimes the menses appear once after the operation, sometimes twice during the following year, sometimes four times during the three subsequent years.

M. Broca, demonstrator at the Paris Medical Faculty, in a work entitled *Sur la Pneumonia Lobaire Aiguë Secondaire*, states that lobular pneumonia has been observed in small-pox, though not fre-

quently, but yet more so than in scarlet fever and measles. He cites the following cases. A patient was convalescent after an attack of small-pox, when he exhibited symptoms of lobar pneumonia of a typhoid character. In another instance, pneumonia preceded the variolic eruption. The prodromata were identical with those of small-pox; the next morning, pneumonia was clearly diagnosed. On the evening of the fifth day, small-pox eruption appeared. M. Broca has found one case of pneumonia in scarlet fever on record. Halbey, of Wetzlar, in his statistics, mentions one among 220 cases. According to Rilliet and Barthez, diphtheritic pneumonia is always lobar. M. Vulpian has the same belief. M. Sanné, in his *Traité de la Diphthérie*, says that broncho-pneumonia is a more frequent complication of this disease than lobar pneumonia; nevertheless, this latter is more frequent than many authors admit. M. Broca, after careful clinical study in the hospitals, during his house-surgeonship, comes to the conclusion that, in all acute eruptive diseases, broncho-pneumonia is more frequent than lobar pneumonia, but that this latter is occasionally observed.

M. Rendu, at a meeting of the Société des Hopitaux, showed a male patient, aged 20, attacked with brachial monoplegia of hysterical origin.

Dr. Guichard, of the Maternity Angers, records the following case. A stoker of a railway company had erysipelas of the face, which declared itself on January 15th, and was cured on the 30th. His wife was delivered of a child on January 17th, and died on the 30th of that month from puerperal septicæmia.

M. Dubois, in a communication to the Société de Biologie, stated that, wishing to ascertain whether vaseline is injurious, and its use ought to be prohibited in pastry, he fed two dogs on soup exclusively made with vaseline. The animals did not present any symptoms of gastric disturbance, nor imperfect nutrition. Their excrement was slightly yellow; their weight was not altered; the slight diminution of urea observed in their urine was explained by the absence of meat from their diet. M. Dubois concludes that pastry made with vaseline may not be pleasant to the palate, but that it is not injurious to the health. M. Dubois mentioned the case of a woman who had absorbed a considerable quantity of mineral essence, and afterwards swallowed charcoal, which prevented any fatal consequences from happening.

M. Pasteur was present at a recent meeting of the Conseil de Hygiène. M. Léon Colin, in the name of the Council, made a short eulogistic speech, which M. Pasteur acknowledged. He stated that, since Meister was treated, every day people bitten from mad dogs had appeared at his laboratory to be treated in the same way. M. Pasteur considers that an establishment for the sole treatment of hydrophobia is indispensable. The expense would not be great, but his system must be further tested, in order that a number of successfully treated cases may warrant the organisation of such an establishment. M. Dujardin-Beaumetz said he had noted sixteen cases since last January. The last death was caused by a dog which had previously bitten four other people. M. Brouardel asked if inoculations made a month or six weeks after the bite had been inflicted would be efficacious. M. Pasteur said he believed he could answer in the affirmative, although he had not absolute experimental proof. He had just received a telegram from Algiers telling him that four children have been bitten by a mad dog; one died on November 5th. He was asked if he would treat the two others; he replied in the affirmative. M. Pasteur hopes to save both of the surviving children; but, if one died, it would be easy to determine which virus was the cause of death. In rabbits, hydrophobia occurs on the fifteenth day when the inoculation is made with the virus of a mad dog; on the seventh, when with the virus of preventive inoculation. M. Pasteur had forwarded a letter of thanks to the Municipal Council of Havre for 1,000 francs (£40) forwarded to pay a part of the expenses involved by his researches on hydrophobia. He informed the Council that he intended to devote it to paying the expenses of indigent poor who require treatment after having been bitten.

M. Vulpian read before the Académie des Sciences a note from M. Vignal, in which that histologist denies the presence of the intracellular sinus which Professor Adamkiewicz described in nerve-cells, in a communication presented to the Academy. M. Vignal made several vascular injections with colloid and crystalline substances, and observed that the crystalline substance passed through the walls of the vessels, coloured the neighbouring elements, and especially the cellular nuclei. As to the pericellular sinus which Adamkiewicz described in the same communication, M. Vignal believes that it is produced by the extravasation of the mass injected. If a colloid mass be well injected, all the blood-capillaries are penetrated by this substance, and neither an intracellular nor pericellular sinus is observed in the ganglion-cells.

M. Vulpian's recent experimental researches concerning the func-

tions of the nerve of Wrisberg, prove it to be gustatory vasodilator, also to promote secretion. As well as being a vaso-dilator nerve to the maxillary gland and the lingual mucous membrane, it influences the gustatory sensibility of the soft palate.

An *officier de santé*, practising at Châlon, not receiving his fee for an accouchement, proceeded against his patient. It appears that Mme. Chavanne, a midwife, was engaged to attend Mme. Gibaut. She perceived, when labour commenced, that the delivery would be long and difficult; she therefore begged that M. Vaux should be called. He at once decided that instruments must be used, and that there were great difficulties to overcome. He therefore summoned Dr. Lagrange, an accoucheur of considerable experience; and, in his presence, successfully delivered Mme. Gibaut of a living child. Three years elapsed, and his patient persisted in her refusal to pay. The magistrate decided that M. Vaux, being an *officier de santé*, had no right to use forceps; that he was only M. Lagrange's assistant; that the delivery "was a mere question of strength, not art (*un ouvrage de force et non d'art*); consequently, the delivery could have been accomplished by anybody else." These considerations led the magistrate to fix M. Vaux's fee at ten francs. M. Vaux appealed against this judgment, and Mme. Gibaut was fixed to pay a fee of forty-one francs (£1 14s.), and all expenses.

A few days ago, an old woman died at the age of 125. She was known for many years as the centenarian of Royannais. Everyone who went to the mountains of Pont-en-Royans visited "Mère Girard." She had outlived all her family. She earned her living by selling her own photographs. Her diet, during many years before her death, consisted of several small glasses of brandy daily, and soup. All the octogenarians of the country say that, when they were children, Mme. Girard had grown up sons and daughters.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Representation of Glasgow and Aberdeen Universities.—Volunteer Medical Service.—Health of Glasgow.—Revision of Sanitary Regulations.—Maternity Hospital and Western Infirmary.—Sanitary Protection Association.

As I previously mentioned was likely to be the case, Mr. James A. Campbell, of Stracathro, has been elected parliamentary representative of the Universities of Glasgow and Aberdeen, without a contest; so that we have been spared any of the disturbing element that of necessity belongs to a political election. This unanimity of choice in regard to Mr. Campbell is, I think, entirely due to the feeling that he possesses all the qualities that are desirable in an university member; and that, on many of the questions of university reform that must soon come up for discussion and legislation, he is in full sympathy with the views of the majority of his constituents. Should any new University Bill be brought forward in the new Parliament, his influence is sure to make itself felt in the drafting of it.

In response to a circular issued by the Volunteer Medical Association to all the volunteer surgeons in the Glasgow military district, a meeting was held some days ago in the Hall of the Faculty of Physicians and Surgeons. There was not a very large attendance. From the terms of the circular, it seemed that the desire of the Executive Council of the Volunteer Medical Association was to establish in Glasgow a branch of the Association, with the object of better organising the volunteer medical service. A good deal of discussion took place; but it was felt that the terms of the circular were too vague to admit of any definite steps being taken in the matter; and, for the present, the question is postponed until further information is obtained. I hope the subject will not be lost sight of, as our volunteer force—at any rate, in Scotland—does not possess any effective medical service, either as to ambulance material or trained men. No doubt, in many cases, individual energy has done a good deal in some of our regiments; but there is a want of coherence between the individual units that calls for more organisation.

The mortality in Glasgow for the week ending November 28th was at the rate of 27 per 1,000, the number for the corresponding week of last year. No fresh cases of small-pox have occurred among the hair-workers (where the disease first broke out) since the 10th of last month, so that the outbreak is regarded as at an end within the works. One unusual feature in Dr. Russell's last report is the large number of cases of typhus fever, as many as forty-eight having been registered within one fortnight. Such an occurrence as this has not taken place in Glasgow for many years. The disease made its appearance in an industrial school for girls, in October, and, not being recognised, made

headway among the inmates, of whom forty-two became affected. Nothing definite is known as to the origin of the disease.

It has very properly been decided that the appointment of the new sanitary inspector should be marked by a revision of the code of regulations and instructions that are laid down for the health-department of the city. Since these were passed, about fifteen years ago, many modifications and amendments have been deemed necessary, and it is only right that these should be formally recognised, so as to let the city have the benefit of the present improved state of sanitary knowledge.

During the past week, the annual meetings of some of our local charitable institutions have been held, such as the Maternity Hospital and Western Infirmary. In the case of the former, Dr. Sloan was able to present a very favourable medical report, both as to the amount of work accomplished and the results obtained. It is clear, though, that there is a steady increase in the work to be got through, and it is satisfactory to see that the directors are instituting changes calculated to ensure the efficient working of the institution. The recent hearty response of £7,000 to the appeal of the directors of the Western Infirmary for funds enabled the meeting of the supporters of that hospital to come together with lighter hearts than they otherwise would, for the accounts showed a deficiency of over £5,000. It is satisfactory to have this met, and something to carry forward towards next year's expenses; and it is to be hoped that such straitened circumstances may not be felt again; but a larger list of annual subscribers, and, perhaps, the abolition of subscribers' lines, under which the Infirmary guarantees to give for one guinea what generally costs it five pounds, might inaugurate a healthier state of the finances. The total number of indoor-cases treated last year was 3,215, being a decrease of 244, while the death-rate was 2 per cent. less than last year, being reduced to 6.4 per cent. It is only right to state that, though there have been fewer indoor-cases this year than last, the number of beds fully occupied is five in excess of the previous year, owing to the prolonged residence of many of the patients.

Our Sanitary Protection Association is still fighting somewhat of an uphill battle, and, yet it scarcely ought to be in that position, for a perusal of the work that it has done in our midst during the past twelve months should strongly recommend it to all classes for support. If there is anything brought out by what its last report tells, it is that no new house should be entered without previous inspection of its drainage, and further, the absolute necessity of having every house periodically examined, not waiting until illness reveals some defects.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—It is much to be regretted that Dr. Duncan, whose letter appears in the JOURNAL of November 21st, should believe that the dignity of the College of Surgeons is to be upheld by the uncompromising manner in which the Council has ignored the interests of its Members. The so-called just rights and privileges of the Fellows are an injustice to the Members, whose demands are, I may say, as equitable and reasonable as those whom Parliament has lately enfranchised. Will anyone deny that their claims are not infinitely more justifiable? The reasons given for the large majority with which the resolution of the Members was carried are incorrect; for, firstly, the mass of the Fellows are not satisfied with the way in which the College affairs are administered. As a proof thereof, I draw attention to the existence of the Association of Fellows of the Royal College of Surgeons; to Mr. T. Holmes's late speech, reported in your JOURNAL; to Mr. Keetley's remarks at the meeting of the East Anglian Branch in July last; and also to the fact that, although a great many were present, only a minority of ten voted against the resolution, whilst the majority consisted of the more prominent of our metropolitan and provincial surgeons. Is Dr. Duncan aware that, even on the Council itself, there are gentlemen to be found sympathising with this movement?

Secondly, the meeting was not a packed one; only a few of the Members resident in London being asked to attend. A notice certainly appeared in the papers, but that afforded Fellows of Dr. Duncan's opinion an opportunity of opposing the resolution. Are we to understand that there were only ten men willing to appear at the College that day to support the Council? Those Fellows who supported the resolution did so after the speeches had been delivered; and I have no doubt that, although those gentlemen disapproved of much that was said, yet they could not refuse to the Members their

just claims because a solitary irresponsible individual had erred. On November 7th, a letter appeared in the medical papers from the Members, expressing their disapproval of some of the language used. It was impossible to prevent such a speech from being made, but it is grossly unfair to make us all responsible for the unwise action of one person. It should be remembered that only two or three out of the very large number present spoke at all, which clearly shows that the majority felt that Mr. Gamgee had most ably and thoroughly expressed their views.

Again, Dr. Duncan is incorrect in stating that most of the speakers used "vituperative and scurrilous language." If the readers of your JOURNAL will refer to your report of that meeting, they will be able to judge for themselves, and they will be surprised to find that Dr. Duncan refuses to place the franchise in the hands of Mr. Gamgee; Dr. Joseph Rogers, who has done more for his medical brethren than any surgeon living, and has received a testimonial in proof thereof; Dr. Danford Thomas, coroner for Middlesex; Mr. G. Brown, editor of the *Students' Journal*, Dr. Ralph Gooding, Mr. Jabez Hogg, and many other influential men of like character. In the interests of the public and profession, I assert, even on Dr. Rogers's evidence alone (which is true), that the Members show good cause why they should be granted representation on the Council of the College.

Our Association is too strong for me to trouble to discuss on what grounds we claim to represent the Members generally. The next meeting will conclusively prove our power. We could have carried our resolution on October 29th by a majority of over a thousand had we considered it necessary.

Our success has encouraged the members of the Glasgow and Edinburgh Universities to follow our example. The members of the Royal Veterinary College have done the same. It has become apparent to all, that their interests can only be protected and advanced by their being duly represented. Societies or associations formed for these objects are useless. Power must be placed in the hands of each individual member of the profession. The interests of the general medical practitioner and the London consultant are not identical, neither are the interests of the Members of the Royal College of Surgeons with the Fellows, and they will certainly not be so as long as there exist Fellows who write in the strain in which Dr. Duncan opens his letter. But a large number of the Fellows cordially agree with us, and will not, I feel assured, respond to the appeal to unite together against the members. We are in earnest, we have the power to carry out the reforms we seek; we shall succeed; it will be well for the welfare of the College if the Council will consider seriously if it be not most unwise to again refuse to grant our claims. This question cannot be shelved; reform must, and assuredly will, come. But it would be better if the Council would grant it now, rather than that steps should be taken by the Members to enforce their claims.

I cannot conclude my letter without acknowledging the support we have received from you. The medical practitioner owes much to the medical press, and the Members of the Royal College of Surgeons will in future years say that the battle was half won for them by the assistance they received from that quarter.—I have the honour to remain, sir, your obedient servant,

WARWICK C. STEELE.

1, Florence Terrace, Ealing.

SIR,—Kindly allow me to assure Dr. Ward Cousins that nothing was further from my intentions (when I wrote the words "given the necessary amount of brains") than either to parade and magnify the intellectual distinctions of the Fellowship, or to disparage, in the slightest degree, the professional attainments and surgical ability of the vast majority of the Members of the Royal College of Surgeons. It is well known that, whilst examinations for degrees and the higher qualifications are necessary evils, it by no means follows that the possessors of these distinctions are men with more scientific knowledge or greater surgical skill than they who simply hold the M.R.C.S. Eng.; sometimes the reverse is the case. But surely it is unnecessary for me to remind Dr. Cousins that a very large percentage of those Members who endeavour to take the Fellowship fail to pass the examinations. This is what I meant to convey in a sentence which would, probably, have been better expressed as follows: "Let me remind every ambitious Member that, at any time after he has been in practice two years, he may present himself for the Fellowship examinations, and thus, 'if successful,' legitimately obtain what he is now vainly clamouring for." With regard to your correspondent Mr. Kenneth Cornish, whilst I have no intention whatever to enter into a discussion with him, and leave your readers to form their own opinions as to the value of his statements and criticisms, let me remark that it would be interesting to know whether any of those present at the meeting on October 29th

could conscientiously endorse the assertion that the language used by Messrs. Gamgee and Cornish on that occasion was scrupulously courteous, for in my ears it sounded exactly the opposite; but then, unluckily, it has never been my good fortune to be a Westminster Queen's Scholar.—I am, sir, yours faithfully,

Hayley Street, W. *Ward Cousins* WILLIAM A. DUNCAN.

THE CASE OF DR. BRADLEY.

SIR,—At a medical dinner, which will take place on Friday, December 11th, at 6 p.m., at the Wharfedale Hotel, King Street, Sheffield, a purse of four hundred guineas, and an illuminated address on vellum, will be presented to Dr. Bradley. The presentations will be made by Dr. Balthazar Foster, M.P., of Birmingham, and Mr. Wheelhouse, of Leeds. Any member of the profession wishing to attend, should communicate with Simeon Snell, Esq., 17, Eyre Street, Sheffield, not later than December 8th.—I remain, yours faithfully,

Eastwood House, Chesterfield.

RICHARD JEFFREYS.

P.S.—The price of the dinner will be 7s. 6d., including coffee and dessert, but exclusive of wines.

THE MEDICAL DEFENCE UNION.

SIR,—I regret exceedingly that I should have to trouble you with further correspondence in reference to the above Union, and will, therefore, endeavour to render my letter as brief as possible. I can well afford to receive Mr. Brown's little playfulness, in describing his visit to 17, Bedford Row, in much the same spirit that it is given, for it cannot possibly have any influence on the subject at issue. I am sorry, however, that I was not there to receive him, for I fancy that a friendly talk upon, and a personal explanation of, the formation and objects of this Union, as against his own Association and criticism, would have outweighed his zeal, and been quite sufficient to have prevented his hurrying into publicity. Mr. Brown admits (though not very graciously) one misstatement, "that the Defence Union emanated from a firm of solicitors." I should like to point out for his contemplation several other misstatements, which I am sure a little better knowledge of the Union's surroundings would have prevented him making. First, he says that the Union emanated outside the profession. I am not disposed to call myself an outsider, although I am not a member, and my experience, my connections, and my interest in it, do not place me second even to Mr. Brown; but if it had thus emanated, I have yet to learn, sir, that the profession is so narrow-minded that it would reject a feasible solid project simply because one of itself did not originate it. The proposal to form the Union was submitted to at least a dozen very prominent men before a line of the prospectus was printed. Their opinions, coupled with the cordial support the movement is receiving, convince me that it is a necessity, and can be successfully carried out; therefore, I shall continue to do my utmost until its objects are fully attained. Second, it is said that I invited Mr. Brown to become a member. A glance at my previous communication shows that I simply state "that if Mr. Brown really had the interest of the defence of the profession at heart, he would welcome and assist instead of," etc. Third (an inference), the management and appointments of officers, executive, etc., are not in the power of the members. I most distinctly state that they are. Come, Mr. Brown, be as critical as you please, but be fair, and confess! Did not your own association emanate from a solicitor's office in John Street, Bedford Row? and were not your circulars sent out from the same place? Then why raise that which you did yourself as an argument against this Union? Medical defence is unquestionably a legal matter; where, then, better than in a solicitor's office could its business be transacted? Surely, you do not really consider *impediments*, to which you so facetiously allude, necessary evidence of the respectability and standing of a solicitor? I shall be the last to state that Mr. Brown's Association has not done effective work (it has my sincerest wishes to continue doing good) as far as its ideas go, but it does not go far enough. The British Medical Association, preferring to devote itself to the science and to the general tone of the profession, declines, and will not. What neither of these perform, the Medical Defence Union will do. Where, then, is the rivalry Mr. Brown seems to feel? I cannot understand why this gentleman should display so much feeling against the Union, simply because it, in its objects, happens to be more comprehensive, is firmly established on a sound and legally constituted basis, fulfils a general want, is self-supporting, and incurs no uncertain pecuniary liability upon its members. I cannot resist contrasting Mr. Brown's feelings in the matter with those of Mr. J. Page Hentsch, the present Secretary, Mr. R. H. Carpenter, the present Chairman, and for ten years the past Honorary

Secretary, and Dr. Joseph Rogers, one of the Vice-Presidents of the Medical Alliance Association (which also has done an useful work); these and very many other gentlemen, whose interest in medical defence cannot possibly be gainsaid, sink personality, adopt a broader spirit, and join the Executive and General Councils of the Union for the sole purpose of effecting an united and thorough system of defence. Mr. Brown's own words to the Solicitor of the Union, "that there was no reason to quarrel, for there is plenty of work for both societies," bear a little inconsistency when compared with his letters and expressions. Cordially soliciting any fair criticism, I beg to remain, sir, obediently yours,

CHARLES F. RIDEAL, Secretary.

17, Bedford Row, W.C.

THE VOLUNTEER MEDICAL SERVICE.

SIR,—It is with much interest that I have noticed the recent correspondence in your JOURNAL with reference to the Volunteer Medical Service.

The subject requires ventilation, and nothing will be more conducive to the improvement of that particular branch of the service than a little free discussion in your columns.

Your correspondent, Surgeon Wills, has taken exception to the remarks of Acting-Surgeon Crockwell in your issue of November 21st, but it is obvious that both of them look forward to some improvement in the system; and perhaps the meaning of Surgeon Crockwell has been misapprehended. At any rate, Surgeon Wills' communication ends with a sentence which supports the very system which Surgeon Crockwell wrote about, namely, the one proposed by Surgeon-Major Evatt.

In many instances, volunteer surgeons have worked hard, and have accomplished as much as lies in their power at present, towards the improvement of the medical and ambulance-service of their respective regiments. As Surgeon Wills points out, it is not unusual now for a volunteer corps to have its ambulance-class and bearer-detachments; and perhaps some volunteer-surgeons are fairly familiar with the duties of a surgeon of the Army Medical Department. But this is not enough. Much must yet be done to fit the Volunteer Medical Service for active work. What would be the state of affairs at the present time if we found ourselves in front of an enemy? The immediate requirements of the wounded could certainly be attended to, but afterwards what could we do? Even had we sufficient bearers (which is not the case) there would be no regulation hospitals to which the wounded might be conveyed.

It would hardly be convenient to "put up" fractures and amputate limbs on the field of action, and it would be worse still if the patient had to remain there for his wound to repair. But, certainly, as our service is at present constituted, there would neither be bearers enough to convey the wounded, nor hospitals, with authorised surgeons, to which they might be removed.

A much more comprehensive Volunteer Medical Service is required. There should be more surgeons and more bearers. We should have ambulance-wagons, tents, field and base-hospitals, etc., and further opportunities should be afforded to acquaint ourselves with other duties of the Army Medical Service.

The scheme suggested by Surgeon-Major Evatt, which is in operation in London, appears to overcome all difficulties, and Surgeon Crockwell is not too soon in recommending it.

Volunteer surgeons are jealous to make themselves and their department of the auxiliary forces as efficient as possible, and many of them would do all in their power to carry out Surgeon-Major Evatt's proposals.—Yours faithfully,

WILLIAM COATES,

Acting-Surgeon, 20th Lancashire Rifle Volunteers.

THE PRELIMINARY SCIENTIFIC EXAMINATION.

SIR,—In the letter which you published from me in the JOURNAL of November 21st, a wrong statement is made, which I desire to correct. The number of candidates for the preliminary scientific examination who entered at Burlington House last July, as having been wholly or partially educated at Guy's Hospital, is really sixteen, and not fourteen, as I previously stated. I thought I had taken every precaution to be correct by inquiring at the University; but, since the publication of my letter, I have been differently informed. Of the sixteen, twelve passed; and, though the result is not so good as I thought, it is still sufficiently good to support the object of my letter, that is, to show that there is more than one institution in London at which candidates can be efficiently prepared for the preliminary scientific examination.—I am, sir, yours faithfully,

FREDERICK TAYLOR, Dean, Guy's Hospital Medical School.

St. Thomas's Street.

THE "SECONDARY EDUCATION" OF ARMY MEDICAL OFFICERS.

SIR,—The importance of the subject raised in my letter of September 5th as to the "higher or secondary education" of the army medical officers, fully justifies your according to it a leading article. No more serious question has been raised in your JOURNAL for some time past, as far as the medical service is concerned.

I wrote to claim for army-surgeons returned from foreign service the opportunity of a second or *postgraduate* course of instruction in London, after the eighth or tenth year of service. I said we become rusty when away on foreign stations, and medicine advances so rapidly now-a-days, that we need to be kept abreast of it.

I said that, owing to our being a sanitary preventive service, we are often in friction with commanding officers, just as health-officers in towns are in collision with owners of unsanitary property. This is a very old fact; I refer to it not as a new one, but to explain why military officers are often prejudiced against us as causing trouble and raising questions.

My proposition begins really at the fourteenth line of my letter, namely, that we need more State teaching. I repeat that less is done for us after we leave Netley to develop our knowledge than, for any other body in the army. The sapper or engineer officer receives eighteen months' instruction at the State expense. The whole of the engineer officers, without exception, are taken to visit either the great iron foundries, or great docks, or on the Continent to see military battle-fields, at Government expense. They can go through a musketry course, a signalling course, a veterinary course, or compete for the Staff College, and get two years' special teaching at the cost of the State. They have a special instruction with periodic lectures, they have a State-paid secretary as editor of a special corps journal, and they combine to develop libraries at their garrisons.

The artillery officer has, after leaving Woolwich, a short course, a long course or advanced class (two years), a firemaster's course, and recently they got up a class for old officers (colonels) in heavy artillery. They can have signalling classes, and veterinary courses, in addition. They have a special paper and a special State-paid editor, and they combine to pay for classes in any garrison at which they may be stationed. In the infantry, there are musketry courses, signalling courses, engineering courses, veterinary courses, garrison instruction classes, and, finally, a Staff College course, all to aid the officer to develop himself. Officers are sent yearly to attend foreign manoeuvres; we are never sent. We, with a far more intricate, scientific, and more rapidly developing profession, receive no State aid after leaving Netley.

You are, I think, wrong in saying we have the same means of improving ourselves as ordinary civil practitioners. If they have bad cases, they call in consultants; they run up to London, and see specialists; they have medical societies; they have annual meetings; by all of which they learn. We are constantly isolated and alone in foreign garrisons; and a man needs not the bewildering records of conflicting theories in the journals, but definite seeing with his own eyes the cases under treatment. Our isolation is greater than that of any other medical service in the world; hence we need secondary instruction more than any other, and we have less.

The Royal Warrant (Paragraph 432) foresaw this want, and says we may receive special leave to visit civil hospitals. This clause is never put in force. It now remains for us to vivify it.

An army medical officer never has time to study at any foreign school, owing to his being almost constantly on foreign service, and owing to his receiving only sixty days' leave at home per year. The members of the Indian local service are far better off, and frequently employ their long furlough in visiting hospitals at home and abroad.

I have entertained this idea of secondary instruction for some time, and discussed it with many people. Without exception, they all approve the idea. You are the first dissident.

One word only as to Netley. I say hospital accommodation is not scientifically and definitely taught there. If it be, where is the text-book? It is very good of Surgeon-General Longmore, who is a professor of surgery, to go out of his way by giving a summary of our field system of working, but this is not a course of teaching in medical administration in peace and war.

Do you think for one moment that, if a regular professor of military administration existed, he would have allowed us to go through Netley, believing our field-hospitals were really organised for work, when the campaign of 1882 plainly disclosed the fact that they were hopelessly undermanned, and completely unprovided with subsidiary administrative staff? Ask Sir James Hanbury, and his gallant officers and men who served under him in the painful campaign of 1882, if thirty-seven men

can work a 200-bed hospital when neither watermen, nor washermen, nor conservancy men, nor messengers, are provided.

If to-day we get thirty-four orderlies for every 100 sick (Regulation, 1885), how can we imagine that thirty-seven men could work a 200-bed hospital? Medical administration was not, and is not, taught at Netley, and never can be taught without a special teacher. It includes a general idea of military organisation as a whole.

The organisation of the Medical Corps.

" " of the Militia Medical Reserve.

" " of the Volunteer Medical Service.

The relations of the Red Cross societies.

The relations of the Medical Department to other army departments.

The mobilisation of the hospitals.

The training of the nursing orderlies.

The details of the interior economy of hospitals in nursing, washing, cooking, conservancy, military law.

The organisation of the foreign medical services, and numerous other matters.

I look upon £8,000 as very easily obtained from the State. It only needs a good cause to get it at once. The pessimism of army medical officers is so great, that they think the money will not be given.

It has only to be properly explained to the country that we want more scientific teaching, and the money will surely come. If we continually think that we will not get money, then we will never succeed. The proper way is to confess our need of teaching, and ask for the means to be given to us to improve ourselves.

Self-help and self-reliance sound beautifully, but give me State help. We spend three-fourth of our military life away from England, isolated as no other service is. Let England give us six months' teaching in the centre of life and light in London, and we will well repay any expense it costs. We must make the army generally our supporters in this movement, and the money will soon be forthcoming. Nobody need suffer that I can see, and only good can come of the work. Why should you be the lion in the path? Postgraduate training for all medical men is looming in the distance. There is not a general practitioner in the kingdom who does not need it, and would not gladly accept it if he could. But they are tied down by private practice, and by want of leisure and funds.

It is for us, the State paid official medical men of England, to make England pay for our after-teaching; when we gain it, as we surely shall, we then establish the precedent for Poor-law medical officers, and all other State or municipal officials to get it. But we must lead, because we are the most progressive body in the profession. Alas! that you should oppose us. We are the only medical service in Europe completely excluded from the metropolis of our country with its scientific life, and immense opportunities of study; we want to get into that centre. We have no journal of our own, being the only service in Europe which is without one; we have no military medical institution for the development of technical knowledge. The isolation from the civil profession is more complete than in any other European country. All these points need to be dealt with, but foremost amongst them all is the need for personal secondary education.

We come back from our foreign stations to find that medicine has made progress while we were away, and surgery, which we rarely see in peace, to-day advances by leaps and bounds, and we need to be levelled up to it.

That you should oppose our farther instruction is very strange; nevertheless, it must come.—Yours truly, I. V. R. C.

THE CRICO-HYOID MUSCLE.

SIR,—In an annotation in the JOURNAL, of November 28th, it is stated that Dr. Wenzel Gruber, the well known anatomist of St. Petersburg, "recognises the fact that Mr. Walsham was really the discoverer of the crico-hyoid muscle." Mr. Walsham's description was published in 1881, in the *St. Bartholomew's Hospital Reports*, vol. xvii. In the *Journal of Anatomy and Physiology*, vol. viii, 1874, I described a specimen of this muscle, quite distinct from the thyro-hyoid, and, with the crico-thyroid, free from any abnormality, and this must have escaped the notice of those anatomists.

I should attach but little importance to the history of the observations on this muscle, did I not consider that, after a re-perusal of Zagorsky's paper, in the *Mémoires de l'Académie Impériale des Sciences de St. Petersburg*, for October, 1806, he had described a true example of the muscle he thus named, and not, as he himself appears to have thought, a mere variety or fasciculus of the thyro-hyoid. By thus referring to it, he appears to me to have misled such an authority as Professor Gruber.—Yours faithfully, JOHN CURNOW.

King's College.

MR. ERICHSEN AND THE CONJOINT UNIVERSITIES OF EDINBURGH AND ST. ANDREW'S.

SIR,—I trust you will permit me to urge on all Poor-law medical officers, whether resident in Great Britain or in Ireland, if they be graduates of Edinburgh or St. Andrew's, that they should vote at the forthcoming election for Mr. Erichsen. We bid fair to be absolutely swamped by the lawyer element, and it is all important that we should have one intelligent voice that will protect our interests, especially as questions of great moment will probably be brought forward in the Parliament now in process of formation, such as Reform of the Lunacy Laws, Amendment of the Superannuation Act, and other matters vitally affecting the status and emoluments of 4,500 medical men.—I am, sir, yours obediently, JOSEPH ROOSES, M.D.

31, Montague Place, W.C.

NAVAL AND MILITARY MEDICAL SERVICES.

THE VOLUNTEER MEDICAL SERVICE.

SIR,—I must congratulate Liverpool upon the high state of proficiency of its volunteer medical service, as, from the letter of Surgeon Wills, published in to-day's BRITISH MEDICAL JOURNAL, we must conclude that it is almost perfect, and that nothing further can be wished for; at any rate, it is quite certain that there are still some who would lead us to believe that our branch of the volunteer force is quite ready to take the field at a minute's notice.

I am very much obliged to Surgeon Wills for pointing out to me "that it is in the power of every volunteer surgeon to make himself efficient by passing the necessary examination to qualify him to do duty with an army corps." Had he referred to the *Army List*, he would have found that I have passed that examination, and, I may also add, the examination for combatant officers of the artillery volunteers.

The 16th L. R. V. (1,200 strong) have had a well trained bearer-detachment for some years, and I assisted to prepare a number of men in ambulance work this year, of which thirty or forty gained certificates of proficiency; and still, for all this, I consider that we should be useless on the battlefield, with the exception of rendering first aid to the wounded. To illustrate this, take the following example. Our regiment is out skirmishing (not one of us being mounted); forty or eighty men are badly wounded; we are ordered to take up a new position ten or fifteen miles away, surgeons as well. What is to become of the wounded? who is to remain with them? or where are the surgeons and equipments for the formation of the dressing-stations and field-hospitals?

If the regimental system is so good in its results, why was it replaced in the army by the present departmental system, and why should Surgeon-Major Evatt and others, who have a far better knowledge of the subject than we volunteers, exert themselves, like they are doing, to bring about a different state of affairs? All that I can say is that, after having been connected with the volunteers for upwards of fourteen years, I consider our position in the service, as at present constituted, nothing less than a complete sham, and if our brothers in Liverpool are satisfied with it, we in Manchester are not.—Faithfully yours,

W. H. B. CROCKWELL, Acting-Surgeon 16th L. R. V.

THE NAVY.

The following appointments have been made at the Admiralty during the past week. J. B. B. TROGS, Surgeon, to Jamaica Hospital; W. H. O'MEARA, Surgeon, to the *Urgent*; SAMUEL BARNFIELD, Fleet-Surgeon, to Chatham Dockyard; B. P. S. M'DERMOTT, Fleet-Surgeon, to the *Sultan*.

Staff-Surgeon THOMAS CONRY, of Clonry, Waterford, died on November 15th, at Melville Hospital, Chatham, at the age of 45. Mr. Conry entered the Royal Navy, as Surgeon, December 1st, 1865, and became Staff-Surgeon, September 6th, 1877.

ARMY MEDICAL SERVICE.

SURGEON W. C. BEEVOR, M.B., has been appointed Surgeon to the Scots Guards, *vice* R. F. Cumming, deceased. Mr. Beevor joined the service on the 2nd of August last year, and was stationed at York. He has since been engaged in Egypt and at Suakin, from whence he recently returned to York.

Mr. G. C. SEARLE has been appointed Acting Surgeon to the 1st Devon Artillery Volunteers.

Surgeon and Honorary Surgeon-Major ROBERT CROSS, M.D., has resigned his commission in the 13th Middlesex (Queen's Westminster) Rifle Volunteers, with permission to retain his rank and uniform.

Mr. W. S. SIMPSON, who was appointed Acting Surgeon of the 2nd Sussex Volunteers on the 6th of June last, has now been made Lieutenant in the same corps.

INDIAN MEDICAL SERVICE.

SURGEON E. TULLY, of the Bombay Establishment, is appointed Superintendent of Vaccination, Western Gojerat Circle, *vice* Surgeon-Major J. T. Welsh, retired. The services of Surgeon-Major K. P. GUPTA, M.B., Surgeons D. BASU, J. SYKES, T. R. MULRONEY, M.D., W. DEANE, J. A. CENNINGHAM, M.D., and D. A. J. D. GRANT, all of the Bengal Establishment, are temporarily placed at the disposal of the Military Department.

The services of Surgeon G. P. THOMAS, Madras Establishment, are placed at the disposal of the Chief Commissioner of British Burmah.

Surgeon G. M. NIXON, Bengal Establishment, officiating in medical charge of the 7th Cavalry, is appointed to the civil medical charge of Baraitch.

Surgeon G. S. ROBERTSON, Bengal Establishment, Second Class Civil Surgeon, is transferred from Baraitch to Roy Bareilly; and Surgeon-Major E. MULVANY, of the same Establishment, from Roy Bareilly to Setapore.

The services of Surgeon D. M. JACK, Bengal Establishment, Civil Surgeon of Sultanpore, are temporarily placed at the disposal of the Government of India, Home Department, for duty with the forthcoming camp of exercise.

Surgeon-Major H. ALLISON, M.D., Madras Establishment, Assistant-Physician, General Hospital, is appointed to act as Port Surgeon, Fort St. George, with port

and marine duties, and Medical Inspector of Seamen at Madras, and also as Professor of Anatomy in the Medical College, during the employment of Surgeon-Major Sibthorpe on other duty.

Surgeon H. A. F. NAILER, M.B., Madras Establishment, Civil Surgeon, Chingleput, is appointed to act as Resident Surgeon, General Hospital, during the employment of Surgeon Dymott on other duty.

Surgeon-Major S. B. HUNT, Madras Establishment, is appointed to act as Professor of Pathology in the Medical College, and also as Surgeon to His Excellency the Governor, without prejudice to his own duties as Surgeon, 3rd District, Madras.

Surgeon-Major T. W. JACKSON, M.B., serving under the Bombay Government, is posted for duty at the Station Hospital, Aden.

The undermentioned gentlemen have obtained leave of absence for the periods specified: Surgeon-Major K. M. DOWDIE, M.D., Bengal Establishment, Medical Officer of the 29th Native Infantry, for 182 days, on urgent private affairs; Surgeon J. BLOOM, Bengal Establishment, Civil Surgeon, of Khorree, for one year, on medical certificate.

Surgeon-Major JOHN LLOYD, M.D., of the Bengal Establishment, died at Seetapore on the 11th of August last. He entered the army as Assistant-Surgeon, October 1st, 1869, and attained to the rank of Surgeon-Major, October 1st, 1881. He does not appear to have seen any war-service.

Surgeon-Major J. C. SHAW, Bengal Establishment, died at Patna recently. He dated as Assistant-Surgeon from October 1st, 1860, and as Surgeon-Major twelve years thereafter. He was engaged in the Bhootan Expedition in 1865-66, and had the medal and clasp for the campaign.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A QUESTION OF SLANDER.

THE case of Tully v. Macgill has been decided this week in the Queen's Bench Division. The facts, as adduced at the trial, that the plaintiff had been assistant to a medical practitioner at Poplar; and the defendant, who was also a medical man in the same neighbourhood, issued a circular imputing to the plaintiff that he was carrying on the profession of a medical man and surgeon, although utterly unqualified; and that he had no licence in midwifery. He had also written a letter to the Medical Council, but no action had been taken upon it. The alleged slander was a statement said to have been made to one of the plaintiff's patients. The plaintiff admitted that he had no medical or surgical diploma; but he submitted that the circular was libellous, as it imputed that he was not qualified to act in midwifery cases, while in such cases no legal qualification was necessary. For the defence, the circular was justified, on the ground that the plaintiff had been fined under the Apothecaries' Act for an offence under the statute. The jury gave a verdict for the plaintiff for £250. The verdict is one which it is important to note.

SERIOUS CHARGE AGAINST A SURGEON.—Dr. G. Danford Thomas concluded an inquest on Tuesday, as to the death of Charlotte Louisa Clifford, aged 18, late a barmaid at the Boston Tavern, Junction Road, Holloway. The Crowndale Hall, St. Pancras, where the investigation was held, was densely crowded, chiefly by medical practitioners.—Jonathan H. Oldfield, bookbinder, said he had lodged with Mr. Turnbull, surgeon, of Hampstead Road, for twelve months. The witness knew Mrs. Nottage, who acted as Mr. Turnbull's housekeeper, and was a nurse. Mr. Turnbull was in the habit of taking in patients.—Thomas Bannister, inspector in the Criminal Investigation Department, stated that he called, with the father of the young woman, shortly after her death, on Mrs. Nottage, and the witness then narrated the conversation which he had with her. The witness afterwards saw Mr. Turnbull, who said there was a great row about nothing—simply a case of typhoid fever.—The coroner asked Mr. Turnbull and Mrs. Nottage if they had any observations to make, but each declined to make any statement.—Dr. Thomas then summed up, and the jury, after technically stating the conditions under which the young woman died, added "That William Turnbull, surgeon, and Mary Nottage, midwife, are chargeable with causing such death."—Mr. W. Turnbull, of 146, Hampstead Road, together with Mary Nottage, described as an accoucheuse, residing at the same place, have been remanded by the magistrate, at Marylebone Police-court, without bail, charged with having caused the death of the young woman by an unlawful act.

PRACTICE BY CIRCUIT.

SIR,—Would you kindly inform me whether there would be anything objectionable, in a professional point of view, to a medical man taking a room at villages in the neighbourhood of his residence, and visiting these villages on certain days, putting on the door, or windows, of the room, the days and hours on which he visited in the different villages. If you would inform me on this matter I should be much obliged.—Your obedient servant,

"* The step suggested by "Outis" is generally considered to be "objectionable in a professional point of view," but entails a loss of public and of self-respect. It would therefore tend to prejudice his future prospects as a medical

practitioner. Such an itinerant system of practice would probably lead to a further loss in the matter of mileage fees, an eventuality which our correspondent will do well not to ignore in his calculations of an anticipated increase of practice by such a proceeding.

MEDICAL AND HOSPITAL ETIQUETTE.

SIR,—Would you kindly answer, in your next issue, the two following questions: 1. I attended a lady for a medical friend; on his return, I left the case in his hands. For her next confinement, she engaged me: was I justified in attending her? 2. Is it considered etiquette, or is it a course usually adopted in hospitals, that a patient should be examined by the medical staff without the knowledge of the medical officer in charge of the case?—I am, etc., A. B.

In answer to "A. B.'s" first question, he should, in our opinion, have been guided by the principle laid down in the following rule, extracted from the *Code of Medical Ethics*, page 95, rule 5. "When a practitioner is consulted by a patient whom he has previously attended as the officiating friend of another during sickness, or absence from home, he should act in strict accord with the principle laid down in rule 9, and decline attendance, except in consultation." We would also refer him to our remarks on the same subject, in the *JOURNAL* of October 17th, page 764, under the head of "Family Doctors and Obstetricians." To the second question we reply, that "the examination of a patient by the medical staff without the knowledge (or invitation) of the one under whose care the patient is," is, so far as our own hospital experience extends, an exceptional proceeding, and regrettable, moreover, in so far as it is calculated under such circumstances, to engender distrust and disturb the harmony of the hospital staff.

MILEAGE AND MEDICAL EVIDENCE.

SIR,—Will you tell me to what sum I am entitled for the following services: I attended petty sessions, held 150 miles from home, at request of a solicitor by telegram, who by letter had guaranteed all expenses and fees being paid, and gave evidence. This involved leaving home at 4.30 p.m. on a Thursday, being detained all Friday, and reaching home midday on Saturday. I attended at assizes upon the same case, and nearly as far from home. I left home on Thursday, attended court on Friday. I was told on Saturday morning that the case would not be taken until Wednesday. I returned home, and stayed until Tuesday, when I again started, attended court on Wednesday, gave evidence, and was discharged from further attendance in time to reach home the same night. The directory to which I have referred states only that a sum not exceeding threepence per mile each way may be allowed for travelling. Can the sum of threepence per mile each way be enforced, or is it at the discretion of the officials? I am, sir, your obedient servant,

P.S.—The number of days for which the usual fee of one guinea per diem is payable is not disputed. The allowance to witnesses, of whatever profession, according to the authorised scale, is "a sum not exceeding threepence per mile each way." For other witnesses, the allowance is "second class railway fare, and in case the journey cannot be performed by railway, then a sum not to exceed threepence per mile each way." Nothing is laid down about extra journeys to and from the court made for the convenience of a witness himself.

OBITUARY.

MR. T. JOLIFFE TUFNELL, F.R.C.S.I.

WE regret to announce the death of this well known surgeon, which occurred at his residence in Dublin on the 27th ult. There was, perhaps, no more familiar a figure or striking a carriage than his to be met with in that city, where his honest straightforwardness, good fellowship, and heartiness, secured him troops of friends and admirers. Six weeks ago, Mr. Tufnell developed symptoms of a continued fever of a low type, with considerable gastric and hepatic disturbances. He progressed, however, favourably, and, at the expiration of three weeks, was almost convalescent, when, owing to an unfortunate dietetic indiscretion of his own, a relapse occurred. There was also considerable cardiac weakness, and it was apparently owing to this cause that the sudden syncope which proved immediately fatal was due.

Mr. Tufnell, although resident in Dublin forty years, was an Englishman, and was first an apprentice of Mr. Samuel Luscombe, of Exeter, the senior surgeon of the Devon and Exeter Hospital. Subsequently, he studied at St. George's Hospital, London; and in May, 1841, at the age of 21, took the M.R.C.S. The following month, he obtained a commission in the army as assistant-surgeon, and proceeded to India. While proceeding up country to join the regiment to which he had been gazetted, the 44th, news came of its having been almost entirely massacred at Cabul, one officer and seven men alone remaining of the corps. Returning almost immediately to Ireland, he was transferred to the 3rd Dragoon Guards, and, a short time afterwards, to the medical staff at Dublin, which he soon left, on obtaining the appointment of Surgeon to the Dublin District Military Prison. This appointment proved a great thorn to the military and medical authorities. It was granted originally to Mr. Tufnell for

life; but, when alterations were made in matters affecting the administration of the military prisons and the Army Medical Department, his appointment stood in the way. Only for Mr. Tufnell's characteristic determination, he would have fared very badly with the authorities; but, after a long and persistent battle, he succeeded in securing his rights.

Mr. Tufnell was, we understand, the first gentleman who obtained the Fellowship of the Irish College of Surgeons by examination (1845). He instituted lectures the following year on Military Surgery, which were shortly afterwards recognised by the Directors-General of the Army, Navy, and Ordnance Medical Department, as well as by the East India Company, as equivalent to a six months' course of surgery in the qualifications of candidates for each respective service.

During the Crimean war, Mr. Tufnell spent a few months on the shores of the Danube, and at the immediate seat of war itself. But his personal experience of military surgery, as testified by himself in a remarkable trial at Dublin, was not great, nor could it be, considering the brief period of his military service. However, after his return to Dublin from the Crimea, a Chair of Military Surgery was established in the Royal College of Surgeons in Ireland, and Mr. Tufnell was made Regius Professor. He was for many years an Examiner and also a Member of the Council of the College, and in 1874 filled its presidential chair. Mr. Tufnell was Surgeon to the City of Dublin Hospital for twenty-two or twenty-three years, and at the time of his decease was the Consulting Surgeon to that institution. He had the character of being a good surgeon and a neat operator; but his chief reputation will rest upon the plan of treating internal aneurysms by the method which bears his name.

Mr. Tufnell's funeral took place last Tuesday at Mount Jerome Cemetery, and was attended by a large number of private and professional friends.

FRANCES HELEN PRIDEAUX, M.B., B.S. Lond., L.K.Q.C.P.I. THE London School of Medicine for Women has carried on its work for eleven years without losing by death any of the now considerable number of students upon its register; but, at last, one has been taken away, perhaps the most brilliant and widely known among them.

Educated at Queen's College, where she obtained scholarships that almost defrayed the cost of her training, Miss Prideaux, in 1878, passed the General Examination for Women (equivalent to matriculation) of the London University, her name appearing second in honours. At the Preliminary Scientific in the following year, she passed in the first division, taking second class honours in Chemistry, and at the Intermediate Examination in Medicine in 1881, she gained the scholarship and gold medal in Anatomy. Her successes at the final examinations for the M.B. and B.S. degrees in 1884 are still in the recollection of all; they were, sixth in the first class honours in Medicine; third in second class honours in Obstetric Medicine; second in second class honours in Forensic; and first in third class honours in Surgery, an all-round performance which is not often excelled. This week she hoped to have entered for her M.D., for which she was most fully prepared. At the London School of Medicine for Women, a very large proportion of school honours fell to her share, and before her final M.B. she held, with much credit to herself and advantage to the school, the posts of demonstrator of Physiology and Demonstrator of Anatomy.

Before and after her M.B., to obtain special experience, Miss Prideaux attended, for considerable periods, at the London Fever Hospital, Moorfields, the Great Ormond Street and Shadwell Hospitals for Children, the British Lying-in Hospital, and the Bethlem Royal Lunatic Hospital; and we believe that, at almost all the above institutions, she earned, by her ability, earnestness, and modesty, the sincere regard of the physicians who admitted her to their practice.

Recognising her rare value, the Committee of the New Hospital for Women, Marylebone Road, appointed Miss Prideaux one of their assistant-physicians directly she was qualified. In order to obtain the training and closer association with patients afforded by a resident hospital post, she entered in the March of this year as candidate for the post of house-surgeon to the Paddington Green Children's Hospital; and, though she failed in her first application, she was elected in October, and entered on her duties on November 2nd. These duties she discharged with skill, energy, and most scrupulous conscientiousness. Her new work afforded her the opportunity which she had long desired, of intimate clinical study, and enabled her, also, to show her peculiar fitness for dealing with the sufferings of children. The staff of the hospital, we believe, were perfectly satisfied, and we know that there was not the slightest hitch in the

nursing and domestic arrangements, a fact which reflects much credit upon both house-surgeon and matron.

But her happiness was shortlived. On Saturday, November 21st, she woke early, with the symptoms of acute tonsillitis, in spite of which, she insisted on doing all her hospital work.

On Sunday, an abscess probably broke. On Monday, Mr. Watson Cheyne, Senior Surgeon to the hospital, found cause to suspect diphtheria, and sent her home. On Tuesday the nature of the disease was declared. Mr. Cheyne then, for twenty-four hours, employed the most energetic local treatment, with strong corrosive sublimate lotions, with such success, that all visible patches were destroyed, and up to Thursday he hoped that the disease was arrested. At midnight, severe spasm of the glottis occurred, almost necessitating laryngotomy. It was followed by free separation of old membrane, and there were no signs of extension below the glottis till Friday evening, when a cast of the trachea was expectorated. Tracheotomy, with a view to removing membrane and applying antiseptics directly to the trachea, was then discussed and negatived. After this, strength failed rapidly. Laryngotomy became necessary early on Saturday morning, to relieve urgent dyspnoea, and was followed by a slight rally during the day, in response to feeding by mouth and nose, which now became possible; but in the evening the pulse failed utterly, and for several hours before her death, at 3 A.M. on Sunday, her sufferings were terrible to witness. How the fatal disease was contracted is quite unknown; no case of recognised diphtheria has been at the hospital lately.

Throughout the case Mr. Watson Cheyne was unremitting in his care, never quitting the house, night or day, after the first spasm of the glottis had occurred, without leaving his colleague, Mr. Stanley Boyd, in charge. Dr. Broadbent saw the patient twice daily, and gave Mr. Cheyne the benefit of his great experience; and towards the end Mr. R. W. Parker brought his special knowledge of tracheotomy to bear in the discussion of its advisability, and in the treatment after laryngotomy had been performed.

Miss Prideaux was never a mere student of medicine, still less a book-worm, and, in the midst of her medical work, never failed in the more important part of a woman's life and duty. None who knew her will ever forget the quiet charm of her appearance and manners, her bright intelligence, unfailing courtesy, and quick sympathy, her tact, sound judgment, and absolute conscientiousness. Not less remarkable was the rare union of strong self-reliance with entire modesty.

For these high qualities she was well known; but she possessed others, which were never more clearly revealed than during her fatal illness. Hard as she felt it at first to bear the cutting off from her work and final examination, she speedily bent herself with admirable patience to bear the suffering. Although acutely conscious of her condition almost to the last, she felt no alarm, but, with a self-control, courage, and determination which were wonderful, she assisted in carrying out all the treatment, no matter how painful. No complaint of her great sufferings escaped her; and she was full of care to the last for the safety of those about her, even though by this she almost cut herself off from those she loved best. In death, as in life, she showed the entire self-sacrificing power of the love which she bore to the few whom she really admitted to the inner chamber of her heart.

Miss Prideaux was above all things womanly. A woman's strength of faith and love, purity, patience, gentleness, and keen direct sense of right and wrong, were in her carried to a high degree, and, combined with unusual moral and physical courage and a fine intellect, made up a character the loss of which is not limited to the medical profession, but extends to the society in which she would have moved.

SAMARITAN FREE HOSPITAL.—A dramatic recital will be given on Saturday, December 12th, at the Steinway Hall, by Mrs. Newton Phillips, in aid of the funds of the Samaritan Free Hospital.

PRESENTATION.—Mr. Harry Harlock, the house-surgeon of the Brecknock Infirmary, who attended a great number of children in the recent outbreak of measles at Llanfaes, has been very much gratified at a visit by three of the parents, as a deputation, who presented him with an electro-plated ink-stand, a gold pencil case, and an address, with the names of the subscribers. The ink-stand bears the following inscription: "Presented to Dr. Harry Harlock, by a few inhabitants of Llanfaes, Brecon, in recognition of kind and ceaseless attention rendered to children and others during an outbreak of measles, September, 1885."

UNIVERSITY COLLEGE, LIVERPOOL.—The Lyon-Jones Entrance Scholarship of twenty guineas per annum for two years has been awarded to Mr. Knight.

INDIA AND THE COLONIES.

SÉLANGOR.

SÉLANGOR is a native Malay State under the "protection" of Great Britain; but it may be doubted whether even that omniscient person, Macaulay's "ordinary schoolboy," would know much about its physical peculiarities or natural products. It is gratifying, therefore, to find that Dr. A. W. Sinclair, the surgeon in charge, is turning his exile in that remote region to good account. Reports, such as one which has been recently received from him, are of great value, as affording trustworthy facts with regard to the distribution of disease; we are grateful for the statistics and observations supplied, and venture to hope that in future years further details, and tables more thoroughly worked out in certain respects, may be presented. As the staff consists of only one surgeon, two apothecaries, five dressers, and one apprentice, who have to serve three hospitals at Kwala Lumpur, and two at Klang, it would be unreasonable to ask for elaborate statistics. A small-pox hospital has been erected in consequence of a recent epidemic, and a leper-ward has also been provided. The method of disposing of excreta, and the water-supply, which have been very defective, are now both engaging the attention of the Government.

One of the most important diseases for which the hospitals have to make provision is beri-beri. The number of cases under treatment in the State Hospitals in 1884 was greatly in excess of the number treated in 1883, but this is attributed to the natives having come to appreciate more highly the advantages presented by treatment in hospital by a European physician. The following table shows the number of cases of beri-beri under treatment, in the hospitals and gaols, where the result could be ascertained.

<i>Hospitals.</i>						
Year.	Total.	Cured or Transferred.	Died.	Percentage of Deaths.		
1883	166	68	98	59.0		
1884	245	177	68	27.75		
<i>Gaols.</i>						
1883	84	61	23	27.39		
1884	29	26	3	10.34		
Grand total....	524	382	192	36.64		

The great decrease in the death-rate in hospital, taken along with the still more striking decline noticed in the gaol-population, and the fact that the natives show a greater readiness to put themselves under treatment, seems to lend support to the view that this mysterious disease, at any rate in its chronic form, is very amenable to treatment when resorted to early. Of the 57 fatal cases which occurred in 1884 in the Kwala Lumpur General and Pauper Hospitals, 8 were under treatment one day or less, 14 for two days or less, and 38 one week or less. Unfortunately, the tables before us do not show the total number of cases of beri-beri under treatment in these two hospitals, and how long the patients who succumbed had been suffering from the disease. A table showing the relation between the mortality and the duration of the illness before treatment would be a valuable addition to future reports. That beri-beri must have a very important influence on the death-rate, is shown by the fact that nearly half of the total deaths in the State Hospitals in 1884 are attributed to that disease. The total number of patients for whom the result of treatment could be ascertained in 1884 was 1,361; the total number of deaths was 148, while the number of deaths from beri-beri was 68; that is to say, the general death-rate in hospital was 10.87 per cent., while the rate from beri-beri was 5 per cent. The total number of cases of beri-beri treated in 1884 was 245, or 18 per cent.

Dysentery caused 18 deaths during the year, and paludal fevers 1 (a Malay). In the table showing the total number of cases, however, dysentery and paludal fever are lumped together under the head "cases due to a malarial origin." The general death-rate from all causes in the State Hospitals is stated to have been 18.271 per cent. in 1883, and 9.511 in 1884. "The small percentage of death," says Dr. Sinclair, "shows a better result than I anticipated, owing to the overcrowded state of the wards throughout the year."

CENTRAL LONDON THROAT AND EAR HOSPITAL.—On November 19th, Mr. Lennox Browne commenced a series of lectures on diseases of the throat and larynx at the hospital in Gray's Inn Road. After a few introductory remarks, the lecturer explained the use of the various instruments, and showed a number of typical cases illuminated by the oxyhydrogen light. Mr. Coxeter attended to give any explanations as to the instruments.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE GUARDIANS OF THE OUNDLE UNION, THE LOCAL GOVERNMENT BOARD, AND MR. A. S. STOKES.

WE have had forwarded to us by Mr. A. S. Stokes, of Weldon, Oundle Union, a letter, giving the facts connected with the administration of medical relief in the Weldon district of that union, which merits some consideration.

From Mr. Stokes's statement, it would appear that, from October, 1880, to 1883, the medical officership of this district of the union was confided to the charge of an unregistered medical practitioner, notwithstanding repeated representations to the board of guardians that such was the fact, the said officer being either unable or unwilling to produce to the guardians any certificate of qualification whatever.

In 1883, he succeeded in getting his name restored to the *Register*, but, some few months afterwards, resigned, and left the country. Upon this occurring, the board of guardians appointed Mr. Stokes; but, as the salary (little enough at any time) was £10 less than that of the unregistered predecessor, Mr. Stokes resigned, and a non-resident medical man, living eight miles away from the village, was appointed, and still holds the office.

Mr. Stokes having discovered that he was thereupon called in to all cases of urgency, and that without any prospect of payment, wrote to the guardians, offering, in self-defence, to take the post at the reduced salary, or for nothing at all, if they so resolved. The offer was declined; and, on an appeal to the Local Government Board, the department, in deference to the views of the guardians, permitted the non-resident medical officer, eight miles distant from the village, to be reappointed for twelve months.

The letter from Whitehall is so characteristic that we will give a brief epitome of its contents.

"The guardians have unanimously resolved that, taking into consideration the very satisfactory manner in which Mr. Thomas Pink has discharged his duties, etc., they are desirous that his appointment should be confirmed. The board are further informed that you are the only medical man residing in the district; that you resigned the office; and that they (the guardians) do not consider that the distance at which Mr. Pink resides causes any inconvenience to the poor, as he has a surgery in a village in the centre of the district. Under all the circumstances, the board have consented to the appointment of Mr. Pink for one year.

"(Signed) COURTENAY BOYLE, Assistant-Secretary."

Mr. Stokes has also forwarded to us the history of two cases requiring prompt and immediate attention, which could not by any possibility be obtained from a medical man, however zealous (even with a surgery in the centre of the district), who lived eight miles away.

There are, however, one or two facts in connection with this story that are instructive. It will be seen that the guardians appointed and retained in office, in spite of remonstrance from Mr. Stokes, an unregistered medical man, and that the Department sanctioned the payment of his salary during three years, though, in a somewhat parallel case in the Bingham Union, Nottingham, where a medical officer had unwittingly had his name removed from the *Register* (through inadvertently omitting to apprise the Secretary of the General Registration Office of his change of residence), the Local Government Board resolutely refused to allow the quarter's salary, earned whilst he was unregistered, to be paid to him. Again, it will be noted how scant is the consideration shown to the interests of the sick poor, when the Department, in deference to the views of the Oundle Board of Guardians, sanctions the reappointment of a non-resident and distant medical man, because the would-be holder has had the courage to decline holding an office to which a clearly inadequate salary was to be awarded.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

At a meeting of the Council of the above Association, held at their rooms, 3, Bolt Court, Fleet Street, on Tuesday, December 1st, 1885, the case of Dr. Collie, the Medical Superintendent of the Eastern Asylum Hospitals, was again considered, when it was unanimously resolved:

That this Council, having carefully gone through the evidence that was tendered at the recent official inquiry into the management of the Eastern Asylum Hospitals, fails to discover any sufficient pretext for the suspension of Dr. Collie from his duty as superintendent of such

hospitals, seeing that the most that could be brought against him was the neglect of certain clerical requirements, which, having regard to the multifarious and onerous duties he was called on to discharge by the managers, should, as requested by Dr. Collie, have been remitted to some subordinate official; and further expresses its regret that the Poor-law inspectors to whom was entrusted the conduct of the official inquiry should have failed to recommend to the President of the Local Government Board the removal of his suspension.

That the best thanks of this Council be given to the general and medical press, and especially to the *Times*, for the support they have given to Dr. Collie under the trying circumstances in which he has been placed.

Signed on behalf of the Council,

JOSEPH ROGERS, M.D., President.

J. WICKHAM BARNES, F.R.C.S., Honorary Secretary.

THE CONWAY UNION BOARD OF GUARDIANS AND MR. T. DAVIES.

WE learn from the *Liverpool Daily Post*, of the 31st ultimo, that the Conway Board of Guardians has taken a new departure. Foiled in the effort to get rid of Mr. T. Davies, the medical officer of the Creuddyn district of the union (whose treatment by the chairman of the board and the guardians who support him, has been frequently referred to by us, and was the subject of a question in the House of Commons), the board has decided to dissolve the district altogether, subject to the assent of the Local Government Board. Out of this district, it is proposed to form two fresh ones, for which two medical officers would be required; one of whom should live at Llandudno, and be paid £40 a year, inclusive of extras; and the other should reside at Colwyn Bay, and receive £45 a year, inclusive of extras—the conjoint amount making up the salary now paid to Mr. Davies, with £10 additional, the sum they offered to give him in lieu of expensive medicines, and to which that gentleman refused to agree.

It was also proposed that Mr. T. Davies be written to, and his assent asked; and, in the event of his refusal, that the Local Government Board be written to, and their consent requested, determining his office after six months' notice. This, if agreed to by the Department, would effectually dispose of Mr. Davies, by driving him from his office. That such was the object of the mover of the resolution, may be reasonably imagined, as he brought forward no reason why such a change would be advantageous to the poor or economical to the ratepayers. Indeed, the chairman said he did not oppose it, as it would not cost any more money. Unfortunately for Mr. Davies, Parliament is not sitting; otherwise, by a question in the House of Commons, the Board might be again foiled in the endeavour to displace Mr. Davies.

MEDICAL TREATMENT IN WORKHOUSE FEVER-WARDS.

SIR,—Permit me briefly to lay before you the following facts, which have recently taken place, hoping that, as they are of some importance not only to me, but probably also to other members of the profession, you will kindly state your opinion regarding them in an early issue of the *BRITISH MEDICAL JOURNAL*.

A. is a gentleman of this town who has a young family, and whose wife is again about to be confined. B. is, and has always been, the family physician; and on being summoned a few days ago to see one of the servants, he found that she was suffering from scarlet fever. It was evident that, in the circumstances, the immediate removal of the patient was of the greatest consequence; and A. accordingly used every effort to obtain lodgings for her in the town, but without success. There is no hospital of any kind here, except the fever-wards attached to the workhouse. Application was then made to the clerk to the guardians, who gave a letter, countersigned by the relieving officer, authorising the admission of the patient to these wards; it being understood that A. was to pay whatever her residence there might cost the guardians. A. then called upon B. and requested him to superintend the removal of the patient from his house to the fever-wards and there to attend her during the course of her illness. B. accordingly saw her suitably accommodated, and afterwards sent a bottle of medicine for her use. This medicine was, however, returned, with a message from the medical officer to the guardians saying that the patient was now under his care, and that no other medical attendant would be permitted to interfere. To this resolution he adheres, in spite of remonstrance, and notwithstanding that on two previous occasions patients had been attended by B. in these wards under parallel circumstances, while he made no objection; and it is to the present action on his part that I now invite your attention.—I remain, yours etc.,
M.D.

* * A medical officer of a workhouse is within his right in claiming full medical responsibility for all the patients under his care in such a workhouse. As we understand the case, the fever-wards are an integral part of the workhouse in question, and are under the jurisprudence of the poor-law guardians. If the fever-wards had been turned over to the rural sanitary authority under the Poor-law Act of 1879, and that authority had chosen to allow, as is done in some places, every medical man to follow his patients into hospital and attend them there, the case might have been different. The fact that, on two previous occasions, patients, have been attended by B. in these wards under parallel circumstances without objection by the workhouse medical officer, certainly puts the latter's present conduct in a somewhat unfavourable light; but there may be reasons for his conduct, of which we are ignorant.

CONVEYANCE OF INFECTION OF ENTERIC FEVER.

SIR,—I write to ask you kindly to give me your opinion of the following case. Mrs. C., of — Street, is suffering from gastric fever, and in compliance with the Act, I have reported the case to the health-authorities, who have sent the enclosed form to the school, at which the sick woman's children are educated. I wrote to the schoolmaster saying there was no danger of infection, even if the children did attend the school.

I ask your practical opinion; is it possible for any person to convey infection of enteric fever from one individual to another? Has such a conveyance of infection ever been known? My reasons for asking you these questions is, that owing to the course taken by the authorities in cases of enteric fever, individuals are prevented going to work, and children going to school. I refer solely to enteric fever. I need not say that much unpleasantness has occurred between my patients' friends and myself, in cases where I have reported the disease to the authorities.—I am, sir, yours faithfully,
GEO. H. PINDER.

98, Gt. Clowes Street, Broughton, Manchester.

"General Health Department, Salford, November 16th, 1885. The Sanitary Inspector for your district reports that enteric fever is present at No. — Street, Broughton, which I am informed is the residence of M. C., one of the pupils in attendance at your school. I would suggest, in the interest of the public health, that you should not receive into your school any pupils from this house until it has been certified free from infection.—I am, sir, yours faithfully, JOHN TATHAM, M.D.—To the Schoolmaster of St. Ann's School, Silk Street, Salford."

* * 1. We do not think the infection of enteric fever can be conveyed from the sick to the healthy by a third person, unless the latter, or his clothes, should become soiled by the patient's excreta. 2. We have never heard of such an occurrence; the experience of fever-hospitals is opposed to such a view. The notice is very likely an office-error which would be explained by the medical officer of health. We note that the name is lithographed.

LIABILITY OF AN URBAN SANITARY AUTHORITY FOR THE NON-PROVISION OF A SANATORIUM.

M. O. H.—Section 131 of the Public Health Act empowers, but does not compel, a sanitary authority to provide a hospital for the reception of cases of infectious disease. No action for compensation could, therefore, lie against the local board because it had omitted to provide such a hospital.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed the Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 26th, 1885.

Dewsnan, William Frederick, M.R.C.S., 1, Theresa Terrace, Hammersmith.
Edye, John Simpson, M.R.C.S., 21, Elgin Road, St. Peter's Park, W.
Ellis, William Gilmore, M.R.C.S., Raustead Asylum, Surrey.
Ware, George Stephen, M.R.C.S., Devon Villa, Harrow.
Winterburn, Joseph Williamson, 12, Cabul Road, Battersea, S.W.

MEDICAL VACANCIES.

The following vacancies are announced.

CITY AND COUNTY LUNATIC ASYLUM, Stapleton, near Bristol.—Second Assistant Medical Officer. Salary, £150 per annum. Applications to the Chairman of the Committee of Visitors, Council House, Bristol, by December 11th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 7th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Assistant-Anaesthetists. Applications by December 14th.

EAST LONDON HOSPITAL FOR CHILDREN.—Resident Clinical Assistant. Applications by December 10th.

KENT AND CANTERBURY HOSPITAL. Assistant House-Surgeon and Dispenser. Salary, £50 per annum. Applications by December 11th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Assistant Medical Officer. Salary, £150 per annum. Applications by December 17th.

PADDINGTON WORKHOUSE INFIRMARY.—Assistant Medical Superintendent and Dispenser. Salary, £100 per annum. Applications by December 16th.

SHEFFIELD FRIENDLY SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary, £170 per annum. Applications to Mr. C. Belk, Fulten Road, Sheffield.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Registrar. Salary, £63 per annum. Applications by December 7th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 7th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Senior Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon on the In-Patient Staff. Applications by December 21st.

WHITECHAPEL UNION.—Assistant Medical Officer of the Infirmary. Salary, £150 per annum. Applications by December 7th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Ophthalmic Surgeon. Applications by December 7th.
WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Salary, £130 per annum. Applications by December 15th.

MEDICAL APPOINTMENTS.

CULHANE, F. W. S., appointed Medical Officer to the No. 3 District, and Public Vaccinator to the No. 2 District, Hastings Union.
HORNE, Thomas, L.R.C.P., L.R.C.S.Ed., appointed Medical Officer and Public Vaccinator to the Stockton Union, *vice* Arthur E. H. Trotter, M.R.C.S., deceased.
MARTIN, Sidney H. C., M.D.Lond., B.Sc., M.R.C.P., appointed Physician to the Dispensary for Foreigners.
SPREAT, Frank A., M.R.C.S.Eng., appointed Registrar to the North-West London Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

CASH.—On November 30th, at Drumeau, Earlsfield Road, Wandsworth, S.W., the wife of J. Theodore Cash, M.D., of a daughter.

MARRIAGES.

MACGLASHAN.—McGLASHAN.—At Woodville, Falkirk, on November 26th, by the Rev. William Begg, minister of the parish; Rev. A. D. Campbell, Free Church, Lockerbie; and the Rev. J. A. Johnston, Dryfesdale, Lockerbie, brother of the bride, James Macglashan, M.B., C.M., Lockerbie, youngest son of the late Thomas Macglashan, M.D., Rothesay, to Barbara Gibson, widow of the late J. B. Macglashan, and youngest daughter of the late Archibald Johnston.

WRIGHT.—DENTON.—On November 12th, at Christchurch, Southport, Lancashire, by the Rev. C. H. Hatfield, M.A., Gaskoin Richard Morden Wright, L.R.C.P.Lond., M.R.C.S.Eng., of Manchester, eldest son of Morden Wright, M.R.C.S.Eng., etc., of London, to Catharine Elizabeth, elder daughter of Francis Denton, Esq., of Southport.

DEATH.

PRIDEAUX.—November 20th, at 22, Woburn Square, W.C., of diphtheria, after a week's illness, aged 80, Frances Helen Prideaux, M.B. and B.S. London, and L.R.C.P.L., Assistant-Physician to the New Hospital for Women, Marylebone Road, and House-Surgeon to the Children's Hospital, Paddington Green.

DR. GEORGE WILKS has been appointed by the Duke of Edinburgh to be Physician in Ordinary to His Royal Highness.

VACCINATION.—Mr. Henry Longford, public vaccinator for the Knayton district, has received a vaccination grant in his district.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Clinical Evening.—Living Specimens at 8 P.M. Mr. J. Astley Blosam: 1. Case of Trephining; 2. Case of Compound Comminuted Fracture of the Skull. Mr. A. Boyce Barrow: Cases of Radical Cure of Varicose. Dr. C. E. Beevor: Case of Anyotrophic Sclerosis. Mr. E. H. Fenwick: Case of Descending Testis in an Adult. Dr. Maguire: Case of Mixed Paralysis of Great Britain. S. P.M. Casual Communications by Messrs. W. St. George Elliott, Felix Weiss, and George Cunningham. Mr. F. S. Eve: Some Points in the Pathology of Cystic and Encysted Solid Tumours of the Jaws.

TUESDAY.—Royal Medical and Chirurgical Society. Mr. Savory: A Case of Destruction of a Portion of the Axillary Artery by Sarcoma. Mr. T. Bryant: Amputation at the Knee-joint by Disarticulation, with Remarks on Amputation of the Leg by Lateral Flaps.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Dr. E. J. Edwards: Report of the German Vaccination Commission.—British Gynaecological Society, 8.30 P.M. Specimens will be shown by Dr. Edis, Dr. Savage, and others. Dr. Edis: On the Exploration of the Uterus in Hemorrhages. Hunterian Society. Dr. Hughlings Jackson will read a paper. Mr. Symonds will exhibit a case of Stricture of the Oesophagus, under Treatment by "Tubage," also Lardaceous Disease stained with Methyl-Violet.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living Specimens at 8 P.M. Mr. E. Nettleship: 1. Diabetic Retinitis; 2. Removal of Chip of Iron from Vitreous by Magnet. Dr. W. A. Bailey: 1. Case of Hemorrhagic Glaucoma without Increase of Tension; 2. Retinitis from Lardaceous Disease; 3. Peculiar looking Retinal Detachment relieved by Scleral Puncture. Mr. G. Hartridge: Small Lenses (Congenital). Mr. W. H. Jessop: 1. Case of Retinal Hemorrhage; 2. Case of Detachment of Retina. Communications, etc.—Dr. Samuel West: A Case of Double Optic Neuritis after a Fall; Perfect Vision throughout; Recovery. Mr. E. Nettleship: A Case of Fatal Meningitis after Excision of the Eyeball. Mr. C. Higgins: Neuro-paralytic Ophthalmia. Mr. W. H. Jessop: Note on the Fields of Vision in a Case of Diphtheria.—Parkes Museum of Hygiene, 8 P.M. Mr. Eric S. Bruce: Health and the Electric Light.

FRIDAY.—Clinical Society of London. Sir Andrew Clark: On a Case of Desquamative Prostatitis accompanied by the Discharge of Hyaline Tube-Casts. Dr. de Havilland Hall: Aneurysm of the Ascending and Transverse Portions of the Arch of the Aorta, Pressure on the Trachea and Bronchi, on the Left Recurrent Laryngeal Nerve and (2) the Vagus. Dr. Barlow and Mr. Rickman Godlee: On a Case of Perforation of the Vermiform Appendix treated by Operation. Living Specimens.—Dr. T. D. Savill: A Case of Myxodema. Dr. Stephen Mackenzie: 1. A Case of Symmetrical Morphea; 2. A Leprosy-like Syphilide.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.—Chelsea Hospital for Women, 2 P.M.

TUESDAYSt. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2.30 P.M.

FRIDAYKing's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London 2.30 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ...St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 6.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W. 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A MECHANICAL ELEMENT IN TENDON-REFLEX.

SIR,—The problem of knee-jerk and kindred phenomena involves a mechanical element which cannot safely be omitted from consideration. If a rigid rod or tense string be pulled at one end, the other end is affected instantaneously, no matter how long or how short the rod or string may be. If a tense string be laid upon a long table, a pull at one end of the string will affect a bell at the other end instantaneously; but if there be a few inches of slack, so that the string meanders a little, a pull will be felt first at one meander and then at the next as the slack is straightened out, and a sensible time will elapse between the pull at one end, and the effect on the bell at the other. Now, some measure of the same thing must happen when a long muscle like the rectus femoris is pulled at the distal end by percussion on its tendon. If the muscle be perfectly tense, the pull will be felt throughout its length, from insertion to origin, instantaneously.

In dealing with tendon-reflexes this fact is important, especially in such matters as measuring the time which elapses before the response succeeds the percussion. If the percussion be on the patellar tendon, the time required for an impulse to travel thence to the spinal centre and back again seems, but erroneously, to be the minimum interval that must elapse before the commencement of the reflex movement at the knee. It is truly the minimum interval before that movement may end, but not before it may begin, and the movement may have a very discernible duration. In fact, the circuit from the patellar end is the longest, and the circular from the acetabular end is the shortest, through which a nerve-impulse from the rectus femoris will have to travel.

The muscle being supposed tense as an iron rod (an extreme limit which may never actually be reached), the pull caused by percussion at the patella is felt throughout its length instantaneously. From the inch of muscle nearest the origin, and from the inch nearest the insertion, and from all intermediate inches, nerve-impulses start for the cord simultaneously. The inch at the origin, being in the shortest circuit, will feel the reflex first, and will be the first to contract its fibres; and this contraction at the origin (the muscle being assumed tense) will take effect at the insertion instantaneously. The second inch will be in the second shortest circuit, and will receive the reflex second quickest, and be the second to contract, and influence the insertion; and so on through all intermediate inches to the last one, which, in the case of a perfectly tense muscle, will be the latest in contributing its share to the jerk or swing of the leg which represents the total reaction. Hence the time between percussion and the beginning of the jerk, would be that which is required for an impulse to travel from the origin of the rectus, through the lumbar plexus, and back again. An observer who measured the distance implied by this time, not from the origin, but from the point of percussion, would have to place a hypothetical reflex centre somewhere about the middle of the thigh, the return of the impulse being too quick to allow it to have gone further. It is the interval between percussion and the end of the jerk that would be equal to the time required for the longest circuit, that, namely, from the insertion of the muscle to the spinal centre, and back again.

All this is true only of a muscle which is perfectly tense; but, when the muscle is lax and flaccid, exactly the reverse may be expected to happen. A pull on the patella would not, in that case, act throughout the muscle instantaneously. The distal inch will be the first, not the last, to be affected; and, as the "gathering up of slack" continues, first one "meander" is straightened by the pull, and then the next, until the pull itself is exhausted, which, of course, may happen when little or none of the reflex-jerk has been produced. The distal inch will have received its reflected impulse back from the cord, almost before that from the next inch has started; and thus the several inches of a lax muscle are affected in an order the exact reverse of what happens in a tense one. The slow mechanical process of gathering up of slack, as I have tried to express it, would occupy a sensible time, and thus a lax muscle would be under a weaker, but more protracted, succession of influences, which seems likely to cause a reflex action of the foot, slow and tardy when compared with that of the tense muscle, but with much greater amplitude of motion because the duration of impulse is longer. But, in the tense muscle, the impulses would all start simultaneously, and be returned in very quick succession, causing a sharp, brisk, response, but of too short duration to cause much amplitude of motion. The case of the lax muscle agrees well with Dr. Althaus's "cerebral type" of reflex described in *BRITISH MEDICAL JOURNAL*, p. 870, as having the swing "ample," and the speed of response "moderate." The case of the tense muscle agrees with Dr. Althaus's second, or "spinal type," where the swing of the foot is "not extensive," only a quarter of the other, but the speed of response is "exceedingly quick." Intermediate cases would, of course, be intermediate in manifestations.

If the foregoing theory be true, the way to increase a weak reflex or revive an absent one (see Dr. Buzzard's words on page 368) will be to increase the muscular tension, and there is no ready way of unconsciously braiding one set of muscles than by strenuously exerting another set, so that (see Dr. Buzzard as before) "to link the fingers of one hand into those of the other, and pull energetically," will be a very direct method of increasing knee-jerk.

One would like, if possible, to regard tendon-reflexes as of quite the same order as other reflex actions. If the hammer be brought down on a man's toe, the whole leg will be caught up; but if the percussion be limited to a single tendon, only those muscles will be caught up which are attached to that tendon; and the catch-up will vary in quality according as the tension, tone, and irritability of the involved muscles and nerves be above, at, or below, the normal quantity.—Yours, etc.,
A. CHUDLEIGH.

Wimborne, Dorset.

MATERNAL IMPRESSIONS AND CONGENITAL DEFORMITIES.

SIR,—Having seen some correspondence under the above heading, I thought it would not be uninteresting to give you my experience.

A few years ago I confined a woman twice successively of a headless child; in each case she had been frightened by a man's head suddenly appearing around the corner of her house. Both confinements occurred in the early stage of pregnancy. Quite recently I attended Mrs. S., a primipara, whom I delivered of a male child with a well marked hare-lip. The father has one, but in a very modified form, so much so that it is hardly perceptible. At no period of gestation did her mind revert to her husband's physical defect; but, immediately after delivery, she asked me if the child's lip was "all right," and this was the first thought she gave to it. Would this not, therefore, be a hereditary transmission rather than a maternal impression?—Yours faithfully,
GEORGE HARVEY.

Wirksworth.

MR. J. T. KNIGHT'S question is not intelligible in its present form.

THE "LAMP-BATH" AND THE LATE DR. W. B. CARPENTER.

SIR,—As it has gone the round of all the papers, including the *BRITISH MEDICAL JOURNAL*, that the late Dr. W. B. Carpenter lost his life from an accident whilst taking a lamp-bath, permit me to point out that that valuable remedy (of whose efficacy he was well aware) is in no way to be discredited in consequence of the accident.

It would appear that an open gallipot was used to hold the spirits of wine, and that this was upset when he endeavoured to rise from the chair. Those who are accustomed to administer such baths use tin lamps with a broad base, which are difficult to upset, and are, moreover, provided with a wick and cover, and some with hot water vessels placed over the lamps. The best contrivance for this purpose, which I have often used myself before I constructed a Turkish bath in my own house, is the Malvern lamp (invented by the late Dr. J. M. Gully and Mr. Hamsher, of Great Malvern). It is made like a school-ink-stand, with a movable top, which is removed when the spirit of wine, or methylated spirit, is poured in, and which subsequently serves to regulate the height of the flame. The hot water vessel will be found unnecessary, as a can of hot water left open and placed between the feet will answer all practical purposes, thus preventing congestion of the head, and shortening the process by its contribution of warm vapour. The extinguisher should be placed on the lamp by an attendant before the patient attempts to rise. Those who desire to use the genuine article can obtain it from Messrs. Coxeter and Co., of Grafton Street, W.C., whom I persuaded to keep it in stock some years ago. When skillfully used, it will be found (when not contraindicated by obvious considerations) to act like magic in many blood diseases, and very often to cure the patient "cito, tuto, ac jucunde."—I am, yours faithfully,
EDWARD HAUGHTON, M.D.
Spring Grove House, Upper Norwood, S.E.

DRUGGING IN THE DARK.

SIR,—Judging by their own letters, many of your correspondents administer drugs in what seems a reckless and unscientific manner. Others must remark this as well as I. Strychnine, arsenic, digitalis, and aconite, are favourite remedies in all sorts of diseases. Upwards of forty years' experience has convinced me that most cases recover, not on account of, but in spite of the drugs administered. Pills and mixtures containing many poisonous drugs are commonly prescribed, even when the practitioner is quite in the dark as to what the cause of the disease may be. With some the rule is, when the cause is unknown, to mix a great many poisonous stuffs in the hope that one of them may possibly hit the enemy. A wiser and safer course would be, when the diagnosis is uncertain, to give in the name of remedy something that cannot possibly injure the patient. A little ventilation of this subject cannot possibly do harm; although I am quite aware that, in writing as I do, I expose myself to the charge of heresy.—I am, sir, yours,
DUNCAN MACKAY, M.D.
Inverness.

PROFESSIONAL TITLES, ETC.

SIR,—As the question of professional titles and qualification is now uppermost in the minds of the profession, I should very much like to have solved through your columns the following point, which seems to have been overlooked.

The General Medical Council is composed of delegates from all the various licensing bodies in the three countries, namely, England, Ireland, and Scotland, and is the acknowledged governing body of the whole profession. Why, then, if such is the case, are not the various legal diplomas so recognised as to admit of *ad eundem* diplomas being granted upon payment of fee, and following out the practice of all the important teaching universities in the United Kingdom?—Yours obediently,
M.R.O.P. Ed., and M.R.C.S. Lond.

* * One of the great obstacles in the way of any thoroughgoing reform of existing regulations is, that the minimum standard of knowledge required by the various corporations is not identical. If uniformity in this respect be ever brought about, it may be possible to allow *eundem* diplomas. As matters at present stand, would it not be unjust to members of such corporations as impose a severe examination, to allow members of other corporations where the standard is lower to come in by a side wind?

INCOME-TAX AND PROFESSIONAL PROFITS.

SIR,—Will some member kindly inform me how I should make up my income-tax returns? I see the profits are to be calculated on the average of three years. Are the expenses to be calculated in the same way? I suppose I am entitled to deduct for keep and cost of horse, carriage and harness, man's wages, tax on man and carriage, farriers, and veterinary charges, suit of livery for man, medical books and periodicals, drugs, instruments, etc. In case I am not satisfied with the decision of the local commissioners, have I any appeal?—Yours truly,
OVER-TAXED.

* * Income-tax is payable on the "balance of the profits, gains, and emoluments of a profession" upon a fair and just average of three years. Expenses incurred in earning a professional income, of course, have to be deducted, in order to ascertain what is the balance of profits. Such items as rent of house, or part of house, used for professional purposes only, are, therefore, proper deductions; but expenses which are not solely professional, such as carriage used sometimes by a medical man to visit his patients and sometimes by his wife for her own amusement, cannot be deducted. There is an appeal to the commissioners for general purposes. Notice of their sittings has to be posted on the church doors. For further information as to this, see the Act 5 and 6 Vict., c. 35, ss. 118-130, or consult a solicitor.

CHARTERIS'S HEALTH-RESORTS.

M. HAS pointed out various typographical errors which, unfortunately, occurred in a notice of the above work (*JOURNAL*, November 21st). For "Althaus," read "Althauside," for "Guise," read "Gais," for "Appareil" read "Appanzell," for "Eaux-Chaudes" read "Eaux Chaudes," for "Canterets" read "Canterets." M.'s correct statement, that St. Sauveur is referred by the author to the class of indifferent thermal springs, and that Eaux Bonnes is mentioned under the therapeutics of sulphur waters, does not affect the accuracy of the writer of the notice. He says that, in the alphabetical list of places, the complaints cured at Eaux Chaudes and at Canterets are specially mentioned, while those treated at Eaux Bonnes and at St. Sauveur are not; this is not disputed.

LIFE AT PORT ELIZABETH.

Sir,—Would any of your readers kindly inform me of the prospects, fees, etc., of a general practitioner who wishes to commence in Port Elizabeth or Cape Town? I should be greatly obliged for the above information.—Yours truly, J. M.

HOME FOR INCURABLES.

Sir,—If Mr. H. S. S. Robinson will write to the secretary, Mauldeth Hall, Heaton Mersey, Manchester, he will get the regulations whereby patients may be admitted to the Northern Counties Hospital for Incurables.—Yours truly, The Poplars, Ockbrook, Derby. J. ASPINALL HUNT.

THE MEDICAL DEFENCE UNION.

Sir,—As I find that Mr. Brown has mentioned me in this discussion, will you kindly allow me to state that it was entirely due to the solicitation of Mr. Rideal, the secretary, that I undertook the necessary legal work for the incorporation of the union, and that I have too much confidence in Mr. Rideal's probity and in the success of the movement to trouble about any further notice of Mr. Brown's statements. My standing in the legal profession is sufficiently well established to warrant me feeling perfectly indifferent to any statements which he as a gentleman must, in calmer moments, be compelled to confess are incorrect and uncalled for.—I am, yours obediently, 17, Bedford Row, London. JOHN F. S. GIDLAND.

THE LATE DR. GRAHAM, OF LIVERPOOL.

Sir,—Kindly insert the following additional subscriptions to the fund which is being raised for the family of the late Dr. A. F. Graham, of Liverpool. Further contributions to this charitable fund will be thankfully received by any member of the committee, or by your faithfully, JAMES BARR, Hon. Secretary. 1, St. Domingo Grove, Liverpool.

	£	s.	d.
Dr. Barnardo, Southport	1	1	0
Dr. Caton, Liverpool	1	1	0
Dr. H. D. Farnell, Eastbourne ..	1	1	0
Dr. Thomas Scott, Ilkley	1	1	0
Dr. E. T. Davies, Liverpool	0	10	6
K., Taunton	0	10	0

PALLIATIVE TREATMENT OF CANCER OF TONSIL.

Sir,—I have a patient who suffers severely from malignant ulceration of tonsil and pharynx. Opium internally only give partial relief. How would cocaine do in such a case? If so, what would be the best way of using it? Any information as to this, or any other medicine for continued use, that will alleviate pain, will much oblige. Operation is out of the question.—Yours truly, A SUFFERER.

COMMUNICATIONS, LETTERS, etc., have been received from:

Our Dublin Correspondent; Dr. C. J. Symonds, London; Mr. P. M. Davidson, Congleton; Dr. James Neil, London; Mr. J. Chalmers, London; Dr. R. Lord, London; Mr. J. Hughes, Oswestry; Dr. Inlaah, Liverpool; Mr. Bruce Clarke, London; Mr. G. B. Collet, Worthing; The Honorary Secretaries of the Epidemiological Society; Mr. C. J. R. McLean, Anstruther, Fife; Mr. F. A. Spread, London; Mr. E. East, London; Mr. W. G. Black, Newcastle-upon-Tyne; Mr. W. F. Haslam, Birmingham; Mr. F. Taylor, London; Dr. Tatham, Manchester; Dr. Edwards, London; Mr. Gubb, London; Sir W. Mac Cormac, London; Dr. Bourneville, Paris; Mr. Dundas, Fakenham; Mr. E. White Wallis, London; Dr. J. A. Calantarients, Scarborough; Dr. J. A. Philip, Rotherhithe; Mr. E. Head Moore, Falmouth; Dr. W. A. Duncan, London; Mr. W. H. Fenton Jones, London; Mr. G. Williams, Port Isaac, Cornwall; Mr. A. W. Nankivell, Chatham; Dr. Sidney Martin, London; Dr. Tibbits, London; Our Glasgow Correspondent; Mr. W. H. B. Crockwell, Manchester; Dr. J. Farrar, Morecambe; Mr. R. Humphreys, Liverpool; Mr. H. A. Allbutt, Leeds; Dr. H. D. Didama, Syracuse, New York; Mr. J. Mason, Windermere; Mr. J. Redmond, Stockton-on-Tees; Dr. Duncan Mackay, Inverness; Dr. Idelson, Berne; Dr. Henry Lingford, Thirsk; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. T. Jenner Verall, Brighton; Dr. Beaven Rake, Trinidad; Mr. F. W. Hampshire, London; Surgeon-General Stewart, Lymington; Mr. F. O. Hodson, Bishop Stortford; Dr. J. Woodman, Exeter; Dr. Macpherson, London; Mr. J. T. Knight, Carlton, Nottingham; Mr. G. Brown, London; Mr. G. Harvey, Wirksworth, Derby; Mr. Dent, London; Messrs. Raphael, Tuck, and Sons, London; Mr. W. F. Jebb, London; Dr. M. R. O'Connor, Limerick; Messrs. Cassell and Co., London; Dr. Fishbourne, Norwood; Miss A. S. Ballin, London; Mr. J. D. Tratt, Dublin; Dr. Ross, London; Dr. E. Haughton, Upper Norwood; The Secretary of the British Lying-in Hospital, London; Mr. W. C. Steele, Ealing; Mr. C. J. Rideal, London; Mr. J. Thompson, Nottingham; Dr. J. Norris, Manchester; Mr. C. Rothwell, Bolton; Mr. Reginald Harrison, Liverpool; Dr. Lindsay, Belfast; Mr. T. C. Montague, London; Mr. T. Wood, London; Miss A. M. Yorke, Chiswick; Mr. Frederick Pollard, Chulmleigh; Dr. M. Charteris, Glasgow; Dr. A. M. Sawyer, Edgbaston; Mr. R. N. Lipscomb, Brighton; Messrs. Woollams and Co., London; Mr. D. Hepburn, London; Dr. Grailey Hewitt, London; Dr. J. Curnow, London; Mr. J. Bell, Kingston; Dr. C. R. Drysdale, London; Mr. Shirley Murphy, London; Mr. F. A. Bevan, London; Mr. S. Smith, Bristol; Mr. W. L'Heureux Blenkarne, Buckingham; Dr. R. J. Banning, Bushey; Mr. William Coats, Manchester; Mr. Victor Horsley, London; Dr. Martin, London; F.R.C.P.; Mr. Thomas Davidson, Thornhill; Mr. H. Cripps Lawrence, London; Mr. R. Jeffreys, Chesterfield; Our Aberdeen Correspondent; Dr. J. S. Bristowe, London; Mr. T. Davis Pryce, Nottingham; Mr. F. S. Barber, Kidderminster; Mr. F. Vicars, London; Mr. J. Foreman, Sydney, New South Wales; Dr. Andrew Wilson, Edinburgh; Mr. J. Marshall, Dover; Mr. E. Crockett, Wolverhampton; Mr. H. Leslie Bates, St. Alban's; Dr. F. T. Henston, Dublin; Mr. Warrington Haward, London; Mr. Mitchell Banks, Liverpool; Dr. Suckling, Birmingham; Mr. P.

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BOOKS, etc., RECEIVED.

- The Master's Likeness. By Joseph Johnson. London: Religious Tract Society. 1885.
 Turning Points. By L. C. Silke. London: Religious Tract Society. 1885.
 Norwegian Pictures. By R. Lowett, M.A. London: Religious Tract Society. 1885.
 The Leisure Hour, 1885. London: Religious Tract Society. 1885.
 Hymns of the Present Century. By Rev. John Kelly. London: Religious Tract Society. 1885.
 Child's Companion Almanack, 1886. London: Religious Tract Society. 1885.
 People's Almanack, 1886. London: Religious Tract Society. 1885.
 The Child's Companion and Juvenile Instructor. London: Religious Tract Society. 1885.
 The Penny Almanack, 1886. London: Religious Tract Society. 1885.
 The Pocket-Book Almanack, 1886. London: Religious Tract Society. 1885.
 The Young People's Pocket-Book for 1886, with an Almanack. London: Religious Tract Society. 1885.
 The Scripture Pocket-Book for 1886. London: Religious Tract Society. 1885.
 Bible Pictures and Stories. By James Weston. London: S. W. Partridge and Co. 1885.
 Her Saddest Blessing. By Jennie Chappell. London: S. W. Partridge and Co. 1885.
 Master Lionel: That Tiresome Child. By E. M. Waterworth. London: S. W. Partridge and Co. 1885.
 Wait till it Blooms. By Jennie Chappell. London: S. W. Partridge and Co. 1885.
 Kenneth McAlpine. By Gordon Stables, M.D., R.N. London: S. W. Partridge and Co. 1885.
 Pretty Pictures for Tiny Pets. Stories and Verses. London: S. W. Partridge and Co. 1885.
 The Young Folk's Picture-Book. By James Weston. London: S. W. Partridge and Co. 1885.
 Birds and their Nests. By Mary Howitt. London: S. W. Partridge and Co. 1885.
 A Clinical Note-Book for Hospital and Private Practice. Edited by F. R. Fairbank, M.D., etc. London: John Smith and Co. 1885.
 The Physician's and Surgeon's Visiting-List, Diary, Almanack, etc., for 1886. (Fortieth Year.) London: John Smith and Co. 1885.
 Milton's L'Allegro and Il Penseroso (Illustrated). London, Paris, New York, and Melbourne: Cassell and Co., Limited. 1885.
 Cassell's Family Magazine. London, Paris, New York, and Melbourne: Cassell and Co., Limited. 1885.
 Lightning Conductors (Illustrated). By R. Anderson, F.C.S., F.G.S.
 A Box of Cards from Raphael, Tuck, and Sons. London. 1885.
 Book of Fruits and Blossoms for Painting. London, Paris, New York, and Melbourne: Cassell and Co., Limited. 1885.
 Gout, and Its Relations to Diseases of the Liver and Kidneys. By R. Roose, M.D. London: H. K. Lewis. 1885.

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THE BRADSHAW LECTURE

ON ANTISEPTICS IN SURGERY.

Delivered at the Royal College of Surgeons of England, December, 1885.

By JOHN WOOD, F.R.C.S. Eng., F.R.S.,

Senior Vice-President of the College; Surgeon to King's College Hospital; and Professor of Clinical Surgery in King's College.

THE appointment to the Bradshaw Lectureship, which has brought with it my present duty, I estimate as the expression of a confidence which is most grateful, though I am bound to consider it as also flattering, to me. To follow in the steps of eminent masters in the art of didactic expression, not less than in the faculty of thinking, who have preceded me in this function, cannot but be a valid reason for feeling somewhat abashed, as well as for the exertion of my best efforts to justify the choice.

In selecting the subject of my lecture, I have been led to the consideration of the practical methods now in vogue of employing antiseptics in surgical cases, both because I judged it to be a subject well within the range of the objects of the founder of the lectureship, and because it was one in which for many years past I (in common with surgeons generally) have taken much interest; and have by this time acquired a very considerable experience. It has also the advantage of being a subject of ever-growing importance and improvement.

The tests of time and experiment have been applied to a sufficient extent to confirm or to disprove the value of many methods, at first highly approved and much lauded. Can we yet discern the difference between the good wheat which stays and nourishes, and the chaff which flies away and vanishes with the searching winds?

In endeavouring to answer this question with such exactitude as the present state of knowledge will permit, I propose to confine my remarks chiefly to the external application of antiseptics, to the exclusion of theories of causes and origin which belong rather to science than to the art of surgery, and which time will not allow me to discuss in this lecture.

Let us first consider the agencies which more or less accelerate or retard the healing of wounds. In doing so, we must bear in mind that every method of treatment has some basis of fact or theory which enables it to resist immediate extinction, and to maintain its ground for a certain time. Each of them has some sort of title to theoretical consideration which contributes to form an argument for its support. If the theory be disproved, the practice at once fades away into the limbo of exploded schemes, which has swallowed up a multitude of medical and surgical notions.

The foundation and support upon which all alike rest, and which give to all a large proportion of such success as they may meet with, is the reserve fund of recuperative vitality which lies in what was called by Cullen the *vis medicatrix nature*. This I shall accordingly place first in order and in importance.

The vigour and intensity of vital force pervading all the tissues, from the highest nerve-structure to the humblest forms of protoplasm, together with the exact balance of compensating functions which are found in perfect health, endow the individual possessing them with the means of resistance to disintegrating influences, and to overcome the tendency to dissolution. They enable him to pass through the dangers of infection, and often to set at naught unhealthy surroundings. Such persons walk through the fiery furnace of contagion unscathed as the three Jewish children, without even the smell of fire coming upon them. But a great degree of this power is sometimes found in those who are by no means examples of perfect health. A scrofulous subject will frequently undergo severe operations, long suppuration, and tubercular infection, without showing symptoms of either pyæmia, erysipelas, or other forms of blood-poisoning, to which others, stronger than they, succumb. Wherein does the resisting power reside in these? Are they protected by hereditary or acquired peculiarities, which, like vaccination, render them not susceptible to these particular kinds of tendency to dissolution? If we argue, from the bacterian theory, that they do not furnish the suitable nidus or nourishment for the cultivation of one particular form of microbe, we only push the question one step backward, and

again inquire, What are those suitable conditions? and why does one possess them, and not another? The bacteria, which are said by Beale to lie latent in all the tissues even of the healthiest animals, seem to cause no mischief. But even the more active microbes seem in many cases to be rendered powerless by the vitality and conserving force of the tissues or secretions which they inhabit. Klein considers that such a theory of general vital inhibitory force is not tenable, and proposes the explanation that the inhibitory force is due to the presence of a chemical substance produced by the living tissues.

This looks like a recurrence to the old chemical, as distinguished from a particulate, agency. Is it not possible that this chemical agent may be the oxygen formed in the vital processes? In the form of ozone, it is a powerful antiseptic. Can it be said to inhibit putrefactive forces out of the living body?

Dr. Burdon Sanderson has advocated the theory that the really poisonous property of the bacteria resides in the zoogloæ, which is the result of their propagation, a theory which rests upon the experiment of the injection of filtered bacteria into the flesh of living animals without poisonous effects. The formation of this zoogloæ, following the general analogies of such procreation, takes place most readily in tissues most easily decomposed. From this point of view, these may be the cause, rather than the consequence, of the invasion of bacteria.

But other lowering causes, such as bad hygienic atmosphere, may so depress the patient, that his tissues are no longer able to resist the decomposing forces. Accumulating doses of particulate animal poisons, absorbed by the vessels of an abraded surface from external sources, may at length overcome the internal inhibitory resistance; and pyæmia, hospital gangrene, or erysipelas, may then result, corresponding to the external irritation or stimulus. And such irritation may possibly be produced by microbes, otherwise harmless, which have gathered infective properties from other animal bodies, as flies are known to carry infection from one patient to another.

Another question arises, Do microbes cause suppuration without the previous production of putrefaction? We are in some danger of forgetting that abscesses commonly form, and necroses occur, in deeply placed tissues, and in bones, without any communication whatever with the external atmosphere; and that, when first opened, the pus in these abscesses is usually sweet, and without the least trace of putrefaction.

If microbes be the cause of this suppuration, how do they reach the spot on which they exercise their injurious influence? Are they the resident microbes developed to the power of active propagation, or foreigners introduced from without? Again, there must be, in some cases, inhibitory influences preventing the full and complete result of their pernicious development, even when introduced from without. Bone-caries, with open sinuses, may continue its slowly destructive course for years, without setting up blood-poisoning.

I have lately seen a scrofulous female, aged 60, who had had carious disease affecting the bones of the foot, and slowly destroying them one after the other, with constant discharge of pus, without producing constitutional symptoms, for twenty years. And yet, in other cases, an apparently closed abscess may be putrid when opened, and contain multitudes of bacteria. It is supposed, however, that these have, at some time, had communication with the external air, since they are usually found near mucous channels, the rectum, urethra, mouth, and throat, closely exposed to foul and putrefying agencies. All these problems still await solution.

The protective and inhibitory power of the system is clearly indefinite in its strength and quantity, variable and indeterminate in its efficiency. It may be expressed by the algebraic sign x as a factor in the vital processes, whose value is unknown in any given case with which the surgeon has to deal. It may be improved, fortified, and conditioned, to some extent, by previous treatment, by feeding, tonics, and healthy hygienic circumstances; but these are often necessarily wanting in various emergencies and accidents. It may be probed and fathomed, to some extent, by a careful medical examination of all the functions and organs of the body; but it is by no means capable of anything approaching to exact measurement, or of any closer estimate than the shrewd guesses of the practised surgeon. It may be said to form a limited liability bank, upon which all methods of treatment draw for successful results. It is well not to overdraw the account.

That which I shall place as next in importance for the satisfactory progress and healing of wounds, is a healthy atmosphere surrounding the patient, both before and during the period of healing. It is in very great measure owing to the remarkable advance in this particular that so much improvement has taken place, in longevity, in the rate of mortality, in the shorter duration of surgical complaints,

and in the less fatal results of surgical operations during the last twenty years.

The successful results of segregation of patients, and of the open air and under canvas treatment of surgical pneumonia and hospital gangrene (brought about by the enlightened views and energetic advocacy of the army medical officers, and their influence upon the officers in command in the choice of sites for encampments and hospitals), show what has been done towards the prevention and cure of these diseases on purely hygienic lines.

I have long thought and taught that success in surgical operations depends, in great measure, upon the previous treatment of the patient, and his emplacement within the range and under the influence of good hygienic surroundings, in all cases which admit of some delay before operating. There are, of course, cases of accident and disease which do not admit of such delay, and others in which such influences are impossible or uncontrollable; but it is too often the case that change of air and place come after, instead of before, the operation, when convalescence might be best promoted by the latter course.

As a striking instance of the effects of a pure and well-oxygenated air, I may here allude to a fact, stated by Mr. Stavelly Hill, in his interesting volume *From Home to Home*. Speaking of Montana and Manitoba, in North-West America, through which he journeyed, he says: "The way in which in this climate a gunshot-wound, or other flesh-injury, heals, is truly astonishing. Of course, a good deal is owing to the abstemious and healthy life which the people live, but something is due also to the excellence of the air, and the dryness of the atmosphere. Even in hot weather, meat will keep for almost any length of time. I have carried beef with me in the waggon for three weeks, as good at the end of that time as at the beginning. So long as it is kept from the flies, no change seems to take place in its quality." As a consequence, the people, even of both sexes, regard little the infliction of pistol-shots upon each other.

An interesting illustration of a purely natural and simple antiseptics came under my notice last year, while enjoying my holiday among the hills of Cumberland. I was about leaving Wastdale Head in the evening, after a pleasant ramble about Scaw-fell, when a messenger brought the news that a dreadful accident had befallen a tourist, while climbing the rocks at the side of that mountain. After some delay, caused by the difficulties of bringing down the insensible patient, I found that he had fallen a distance of about one hundred feet, while turning the corner of a perpendicular rock-face. The fall was broken at a distance of seventy feet by a rough rock slope, over which the unfortunate man slid and rolled with great velocity; and then over another precipice of thirty feet; finally, alighting on soft turf. Along the rock-slope, the integuments of the head and face were scraped and ground fearfully. They were damaged to an extent exceeding anything of the kind I have ever before witnessed. The scalp and integuments of the forehead and face were hanging in tatters over the ears and eyes. The nasal and superior maxillary bones were denuded of covering, indented, and bruised. The lips and chin were in rags; the eyelids torn and livid, and all the soft parts covered with a sandy grit imbedded into their substance. He was in a state of semi-coma from shock and hæmorrhage, with two ribs fractured and a deep laceration on the buttocks; but, fortunately, there was no fracture of the skull. I had no appliances but pure cold water, and no instruments but a common sewing-needle and some silk. After carefully picking, scraping, and wiping the parts with a clean rag, dipped in the mountain stream, I stitched the different parts of the skin together with numerous and close sutures, pressed up into shape the indented nasal bones, and bound up the head and face with a wet bandage. There was no other treatment but cold water and simple diet. The wound healed throughout by primary union, and, as I recently learned from the patient himself (an Edinburgh medical graduate, who lately called to thank me), with no suppuration whatever, and leaving extremely little disfigurement. Even with the advantages of a good constitution, which the patient possessed, and recent mountain training, I doubt whether the results would have been so perfect in a large town.

The open method of treatment, without any dressing at all, and allowing the wound to scab over, has been practised by some surgeons, in the hope of good results such as these. Closely allied to this plan is the dry method, with simple lint or absorbent cotton or wood wool applications. Both methods express the surgeon's reliance upon the unaided recuperative power of the tissues and the innocuousness of the atmospheric envelope, providing only that the means employed were effectual in carrying away the decomposing discharges. But the dangers of unrestricted primary and superficial adhesion are obviously those of pent-up matter, forming subsequently deep secondary abscesses. There are also the risks of contagious affections, such as erysipelas and hospital-gangrene, reaching the wound.

Chief among the measures of surgical hygiene, I would place the more intimate agent, strict and absolute personal cleanliness; and in this term I include not only clean linen, towels, and sponges, and cleanliness of the patient's person, but pure hands in the dressers and nurses, as well as in the surgeon himself, pure instruments, and last, but not least, pure water. I have seen jugs of water professedly clean, after exposure in a ward for a few hours, covered with a film of dust, the composition of which largely included dried particles of living protoplasm which had floated in the air. The origin of this, no doubt, was from the shaking of bed-clothes, dusting of furniture, and from ledges and crevices in the walls and flooring. It must have contained, sometimes, particles of infective secretions. With the water, this witch-broth is often conveyed to the surface and sinuses of an absorbing wound, with the usual disastrous results. The same effect would result from the use of impure lint, wool, and vessels used for the dressings. To insure against this, some surgeons have used the spray-distributor, with simple water as the agent of purity. But this water, itself supposed to be pure, may carry the infective matter. The same remarks may be applied to the use of cotton or other wool, exposed for a time to the air of the ward before using. When this is freely applied and kept on (in the belief that it will absorb the discharges) for several days, the mischief is manifestly intensified.

The care and foresight required to obviate these lurking dangers are so great, and the precautions required to prevent them are so minute, that the use of other antiseptic applications are, in my opinion, imperative, to defend effectually every unguarded avenue to the citadel of life, whose unaided garrison may not be a sufficient defence against the enemy.

A well known provincial surgeon, who is said to use no antiseptic measures beyond extreme cleanliness, scalds all the sponges he uses with boiling water, using fresh sponges for every case. Other ovariotomists, remarkable for their success, simply soak the new sponges well, in 1 in 20 solution of carbolic acid, and wash their hands and instruments in the same. Dressings of antiseptic carbolic gauze are sometimes used instead of sponges, and burnt directly after using.

These precautions of extreme cleanliness have, among the London surgeons, been supplemented by the use of carbolic acid and other antiseptics, ever since Pasteur wrote (in 1860) on germs in the air, and Lemaire (in 1863) on the use of phenic acid. In all this it is manifest that the training and intelligence of surgeons, dressers, and nurses, have almost as much influence on the progress of the case as those of the operator himself, and a great deal of the vastly increased success of cases in late years must, in fairness, be attributed to these sources. But it is not always that the operator can command this able assistance. Then he must do as best he can, with imperfect help, and often with imperfect appliances. And it is in these cases that a simple and yet effective mode of proceeding becomes highly valuable, and passes into general use for all cases.

The proper application of drainage has, in my experience, prevented many of the disastrous results, such as tension, abscesses, and burrowing of matter, which formerly were common in hospital wards. Chassaignac's rubber tubes seem to me to supply all that is needed for this purpose. Less perfect substitutes are found in rolls of oiled silk, gauze, or bundles of horse-hair, and softened fowl's bones. The drainage openings left by the operation should be placed as far as possible at the most dependent point, in the position in which the patient is placed after operation, and it is best to have two or three of these arranged for alternating or changing positions. They should also be placed as far as possible remote from contaminating matters, and from the mucous outlets of the body. The packing of gauze or wool should be accumulated more thickly at and around the drain-openings. If old sinuses be included, they should be well scraped with a sharp spoon, and cleansed thoroughly with a strong solution of chloride of zinc, or sulphate of copper lotion. I have been accustomed so to arrange the incisions as to include such sinuses, and open them freely up, without regard to the lines of incision usually made for the operation. Absolute cleanliness is, of course, more imperative in cases in which antiseptics are not used, and frequent dressing and careful syringing are required in all cases in which excretory orifices are concerned in the operation. In small and superficial wounds, these precautions are less imperative, and frequently drainage is disregarded successfully, even in cases where serous cavities are implicated. In such operations, however, more constant watchfulness for possible tension and retention of discharges is required.

In default of pure air, careful hygiene, and absolute cleanliness, we can assist Nature in resisting suppuration, putrefaction, and their concomitant dangers, by the use of antiseptics, or prevent these accidents from occurring, in the way of prophylaxis, or remove them if already present.

To prevent misconception, I should state that I employ the term *antiseptic* to mean the local use of applications calculated to prevent suppurative and putrefaction, and to promote quick healing. By the term *aseptic* I mean a condition of wound and dressings absolutely free from these changes, whether or not micrococci be found in the outer portion of the dressings, for these can be rendered innocuous by the application of antiseptics superficially. I believe that I am right in asserting that the opinion of a great majority of surgeons at the present time is, that the safeguards against blood-poisoning may be much increased by the local use of antiseptics, and that the question of the hour is what is the best, most powerful, least irritating, and most convenient and economical antiseptic for general use? A great number have been tried, and many have been found wanting in one or other of these requirements. In many, there is little positive certainty that they aid the vital inhibitory force, or diminish the antagonistic agencies, which vary in almost every case.

After the publication of Lemaire's work on the use of phenic acid, in 1863, this substance was employed by many surgeons (the late Mr. Callender among them) in the form of carbolic oil, and by Sir Joseph Lister as carbolic putty, in cases of compound fracture. Although this substance fulfilled the requirements of cheapness and general usefulness, its absolute microbicide and antiseptic power is comparatively small, namely, 1 in 31 (Miguet). It was soon found to be irritating to the tissues, and apt to produce carbolic poisoning. Although the limits of dilution and efficiency had been sketched out by Lister (1 in 20 to 1 in 40), patients vary so very much in susceptibility, that both they and their surgeons often experienced the penalty of exceeding the limits. Its volatility, while rendering it more efficient in the deeper recesses and sinuses of a wound, caused it to lose a good deal of its efficacy superficially, by its want of persistence and staying power. This was partly, but not entirely, overcome by Lister's gauze, which, again, was expensive and uncertain.

Chloride of zinc, in the form of Burnett's fluid, had been used long before this at the Middlesex Hospital by the late Mr. De Morgan, to destroy cancer-germs in wounds; and it was found, when applied strong, in a saturated solution, to be a good antiseptic. Its microbicide power, however, is not so great as many other substances, namely, 1 in 52. In combination with solution of carbolic acid, 1, with many others, found, and still find it a valuable application to sweeten, and to keep sweet, wounds.

The sulphates of copper, iron, and zinc had been long used for what was called their detergent properties, which, I take it, meant nearly the same thing as antiseptic. The former two of these salts have an effective microbicide power of 1 in 110; that is to say, they destroy microbes when diluted to that extent, which is twice the dilution of carbolic acid nearly.

Iodine has a still greater antiseptic power (as high as 1 in 400), and has been used by Messrs. Savory and Bryant in solution as a wash to recent wounds with good effect, in the proportion of 1 in 1,000. To stop the putrefactive process when once formed, Mr. Savory uses it in the proportion of a drachm of the tincture to half a pint of distilled water. As a sedative as well as antiseptic dry dressing, its compound, iodoform, has been found very useful.

Condy's fluid, or permanganate of potash, with an antiseptic power less than, though nearly approaching to, that of carbolic acid, is inconvenient, from the discoloration which it causes. Like alum, boracic acid, and salicylic acid and its salts, the antiseptic power is not sufficient to make it a reliable application where sepsis is already present. Nearly all these substances, when more or less strong solutions are used, have the drawback of blunting and corroding the instruments used in operating and dressing, except boracic and salicylic acids.

In the choice of an antiseptic agent, it must be borne in mind that a much weaker solution suffices to prevent putrefaction than to destroy it when it has once commenced, and that the potentiality of antiseptics may be modified by any sort of dilution to any extent; so that, the greater the power of a given antiseptic, the more generally useful, and the more economical it is, within the limits of its market price and its supply.

Solubility, a degree of volatility, no irritative property when applied to the living tissues, and no effect upon the system by absorption, seem to be the criteria of a good antiseptic. Some antiseptic applications combine the advantages of absorbent dry dressings. This gives to the treatment by salicylic wool, sanitas, wood-wool, etc., a preference with many surgeons. These substances possess also the advantage of close and comfortable packing; so that, although not highly antiseptic, they exclude the air, absorb the discharges, and so prevent the beginnings of putrefaction, and keep the wound aseptic for a greater or less time, according to the amount of discharge.

Salicylic wool is a very convenient dressing, and is at present much used. Eucalyptol, at first much lauded, has not fulfilled the expectations of practical surgeons, and is now dropping out of use. In default of more powerful remedies, the compound tincture of benzoin (Friars' balsam) is a good primary application to slight wounds, excluding the air, and antiseptic to a considerable degree. A good deal of the power of these and other aromatic substances of the like kind has been lost by partial and imperfect modes of application.

The introduction by Sir Joseph Lister of the carbolic spray, by means of Siegel's spray producer, and its combination with the carbolic gauze and the judicious use of Chassaignac's drainage-tubes, improved the results of antiseptic surgery, especially in the treatment of compound fractures, and large spinal and other abscesses. The good effect of this combination, and the greater attention to the cleansing and surgical purification to which it led in the continental hospitals, was plainly shown in the vastly decreased mortality in the practice of Volkman and Nussbaum in Germany. It led, also, to greater care in all the details of hygiene; and in this way, in no small degree, effected this beneficial change.

In large towns, and in crowded, poverty-stricken districts, the free use of antiseptics is rendered more imperative by the lowered vitality and dirty habits of the patients, as well as by the depressing effects of impure air. Accidents happen, and operations must continue to be needed, even in these unhealthy circumstances. And here I think the carbolic spray is useful to purify the air, and clothing, etc., which it does to a considerable degree; and the experience recorded by Mr. T. Holmes, at Wimbledon, shows that even pure air, great cleanliness, and favourable surroundings, do not entirely prevent erysipelas and pyæmia from being carried by infection.

(To be continued.)

A CLINICAL LECTURE ON RECENT ADVANCES IN ABDOMINAL SURGERY.

Delivered before the Pupils of the Medical Department of the Focksbury College, October 28th, 1885.

By C. G. WHEELHOUSE, F.R.C.S.,
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I AM here this evening to fulfil the promise I made to you last spring, that, if I were spared until the coming of another session, I would resume the subject I was then unable to complete, and would continue the story of the advances made in abdominal surgery in recent years; and that I would endeavour to show you in how entirely different a light we are able to regard the subject now, from that in which we saw it, even in so recent times as those in which, forty years ago, I took my seat upon the benches of the Leeds School of Medicine.

I have already told you that, in that day, intraperitoneal surgery, except under the direst necessity, was unrecognised; and that, save only for the relief of hernia, or some other necessarily fatal accident, the abdomen was a region yielded almost entirely to the physician.

If you will refer to the text-books and surgical works of fifty years ago, you will see the verification of this statement: and you will note that not only were the great operations I have already brought to your notice unknown, but that of those, concerning which I am now about to speak, no inkling had taken possession of the surgical mind. Indeed, had things which are now done every day been so much as even hinted at then, the hints would have been considered to be simply the thoughts of the enthusiast, and any attempt to carry them into effect would have been regarded as insane.

Thus, all the operations on the pelvic organs are the triumphs of men of comparatively recent days; and it is only the encouragement afforded by their unexpected success that has led on to others of equal, or almost equal, brilliancy.

I have already said all that I desire to say concerning the surgery of the uterine and pelvic organs; and I was engaged, when last we met, in the discussion of the surgery of the alimentary canal.

I had spoken of gastrotomy, as an useful and justifiable proceeding for the relief of those terrible forms of starvation arising from strictures of the pharynx, œsophagus, and cardiac orifice of the stomach; and had expressed an opinion that, in this operation simply

or in this operation combined with dilatation of the orifices of the stomach, as advocated by Professor Loreta, of Bologna, we had developed a means of affording relief, though not of cure, for a class of diseases, the agony of which, ere their course was run to its unaided bitter end, was beyond description, and oftentimes beyond all the strength of human endurance; and had found for the sufferers a form of euthanasia, at any rate, which enabled them to die in peace, and which robbed death of its supremest terrors.

I had shown you that, rather than submit to such indescribable torture as is entailed by these conditions, men, and women too, had been found, who would even accept the risk of such an operation as pylorotomy; and that surgeons had been found sanguine enough to advocate the ablation of the pylorus, and even to hope that, in "favourable cases," they might occasionally thereby save, or at any rate prolong, an otherwise doomed life. But I mentioned these cases as surgical rarities, and as possibilities only; as not being likely ever to become otherwise; and as not unjustifiable in cases of dire and extreme necessity.

I had spoken, too, of the surgical treatment of obstruction, as occurring in the intestinal canal, and had given you my view as to the present position of the surgical aspect of that question. I had shown you that in some—the acute forms—such internal obstructions gave rise to symptoms so like strangulated hernia, that, if any external manifestation were present, a surgeon would feel bound to explore it, and that he was none the less bound, because it was internal, to open the body, search for the obstruction, and, if possible, remove or overcome it; that in some, more chronic in their general conditions, but with acute symptoms suddenly added, he had also a reasonable though considerably diminished prospect of successful operative intervention; and that there still remained a large class of cases, purely chronic in character, which, almost to a certainty, would be found to depend upon irremediable conditions, and in which, therefore, each man must be left to form his own opinion, and to act upon it; and in which, practice, and the results obtained, would probably continue to vary, as they have varied from time immemorial, and to depend upon the greater or less surgical bias of the mind of the attendant.

This, then, brings me to a review of other cases in connection with the intestinal canal, in which the aid of the surgeon may be invoked, and concerning which I have something new to tell you. Let me put before you a case of wound of the abdomen, complicated by a wound of the intestine also, and consider the best way in which to deal with it. If, through a wound in the abdominal wall, unwounded intestine be found to protrude, the rule of treatment is clear enough. See that the intestine is thoroughly cleansed; return it, carefully, well within the abdominal cavity; and so stitch the wound in the latter, under antiseptic precautions and dressings, as to place it in the most favourable conditions to heal and become sound again, and you may reasonably hope that the case will end successfully.

Clearly, therefore, if the intestine is found to be wounded, as well as the abdominal wall, our object should be to imitate, as closely as we can, the case in which it is not; and, before replacing the bowel, to remedy the wound, if possible; and then, having made it leak-tight, to restore it, as in the former case.

Now, whether the wound be large or small, it is fortunate that we have it in our power to do this, if only time and sufficient care be bestowed upon the doing of it; the great secret, we have learned, is not to be content simply to stitch the edges of the peritoneal coat, but, turning the peritoneal coat well in, so as to bring together a fair amount of peritoneal surface, to sew the rounded edges so firmly together as to insure their withstanding the pressure of even liquid contents in their passage through the canal; and that a case so treated will also generally make a favourable recovery.

But, let us suppose that this successful closure of the wound in the bowel has not occurred, then one of two things must happen: either the contents of the canal will be poured through the wound into the peritoneal cavity, and death must necessarily and speedily follow; or the edges of the wound in the intestine may, by good fortune, have adhered to the edges of the flesh-wound in the abdominal wall, and the contents be thus permitted to escape, forming what is called a faecal fistula.

As I write these lines, two cases of this kind come vividly to my remembrance—not only because of the distress and suffering to which they gave rise, but also because of their intractable character, and the persistency with which they resisted all my endeavours to close them.

Picture to yourself a patient, otherwise healthy, but the subject of such a wound, with the liquid contents of the small intestines perpetually streaming away; the wound, and the surface round it for a long way, kept excoriated and raw, and all efforts futile to stop the dis-

charge; and you will realise the state of mind in which, time after time, I saw those two cases: and all this, not because nothing was done; but, in spite of everything that was done, or could be thought of. The edges of the wound in both the intestine and the abdominal wall were pared, and were most accurately and carefully stitched together, only to burst open in the course of comparatively very few hours. Plastic operations of all kinds were resorted to, with no better success; plugs, pads, trusses of all kinds, and all sorts of external contrivances, one after another, were tried, and failed.

Once, in early life, I had succeeded in curing such a case by the use of Dupuytren's enterotome; and in one of these, though very nearly at the cost of the patient's life, the enterotome was unsuccessfully tried; and, finally, both were abandoned to their fate.

Of one of them I have heard no more; he was an old man, and would probably not long survive his discharge from the hospital; but, of the other, I have heard a good deal, and have lived to rejoice, in his case, at seeing a success attained in other hands which I had failed to accomplish. He was a young man, and was drafted from the hospital into the workhouse; and there, with the prospect of a long life before him, he would of necessity have remained, had it not been for one of the great advances in abdominal surgery, of which I am endeavouring to-night to give you an idea, and which has been fraught with incalculable blessing to him. Many consultations had been held upon his case, and I believe that every member of the staff had contributed all he knew in the way of suggestion for his benefit; and I am not wrong in saying that, if the failure to cure the case was primarily mine, inasmuch as the man was under my especial care, so also was it a failure on the part of my colleagues, whom I had called repeatedly to my assistance.

Such was the state of surgery at the time that, as we believed, we had exhausted all our resources. Neither I nor they saw anything more that could be done; and so, as I say, the poor man was reluctantly abandoned to his fate.

Not long after this, a similar case came under the observation and care of Mr. Jessop; and, to my great satisfaction, I heard that he had succeeded in completely curing it.

I need not say that I immediately became all alive to ascertain how this had been done; and, in answer to my inquiries, Mr. Jessop gave me the following information: that he had made a free incision in the abdominal wall; had fully exposed the attachment of the wound in the intestine to its edges; had separated these completely; had cut out (across its entire calibre) the injured portion of intestine; had very carefully sutured together the severed ends of the bowel; and, having restored the direct channel through the intestine, had returned it into the abdomen; had then refreshed the edges of the external wound, and brought them together by interrupted sutures; and had been rewarded by complete success.

The fame of this case speedily reached the ears of the surgeon to the workhouse; and he laid it before my old patient, who, so great was his perpetual discomfort and distress, no sooner heard of it than he cheerfully undertook to submit again to anything that offered him a reasonable chance of recovery—submitted, and was also cured. Am I not therefore justified in speaking of this as a veritable advance?

No doubt, the doctrine that a wounded intestine, after careful stitching, may with safety be returned into the abdominal cavity, has been recognised and acted on for generations past; but is it not a novelty in surgical practice and doctrine that diseased, wounded, ulcerated, gangrenous, and otherwise damaged portions, may be cut wholly away, and the healthy edges of the severed intestine be so securely and accurately joined and sutured, that the ablated portion will never be missed? I could recall to mind no other recorded case in which this had been done; and, as it seemed to me to open up a great prospect for the future of abdominal surgery, I sought, not un-naturally, to learn from Mr. Jessop what had led him up to so great a success. With a courtesy and grace which I would gladly see as general in the profession at large as it is in Leeds, Mr. Jessop at once wrote me a letter, and gave me therein all the information he possessed, by placing this pamphlet in my hands.¹ Until he did this, I was fully under the impression that the improvement was the outcome of his own thoughts; and, had I not communicated frankly with him, I fear that I should not only have claimed it for him, but that I should have somewhat seriously misled you also.

If you will consult the thirteenth volume of the *St. Thomas's Hospital Reports*, you will find "A Case of Artificial Anus treated by Resection of the Small Intestine, by G. H. Makins;" and you will not only learn all the details of the procedure, with its bibliography, but you will also see that its initiation in this country is entirely due

¹ Extract from *St. Thomas's Hospital Reports*, vol. xiii, containing report of case by Mr. G. H. Makins.

to Mr. Makins. The case he there relates is so exactly like my own in everything (except its cause); in its nature, its position, and in what had been done, unsuccessfully, both by himself and by others, for its cure—that, in reading it, I could almost have believed that he had had my very patient himself in hand, and had cured him after all.

I pray you to study carefully the thoughtful and truly scientific paper which Mr. Makins has published; and if, in your after-life, it should fall to your lot to be entrusted with the management of such a case, you will feel that you are armed at all points to meet it.

In like manner, I now desire to bring to your notice another novelty in connection with the surgery of the intestines, which has only come into practice within very recent times.

For some years past, the subject of the radical cure of hernia has been before the profession. Introduced originally by Mr. John Wood, of King's College, modified—shall I say improved upon?—by Mr. Spanton and others, the proposal has had a chequered existence; and, though attempted by many others—ourselves amongst the number—it has not made much progress, nor, except by its originators, has it been very largely practised.

The reasons for this are not very far to seek. First, the operation itself is a most complicated one, and its details are very difficult to comprehend and carry out; secondly, its results, even when successful, are by no means certain, or certainly permanent; and, thirdly, it is not unaccompanied by very considerable risk.

And yet, when a hernia which—it may be for many years—has been a source of discomfort, trouble, and danger, has at last become strangulated, and an operation has become necessary to save life, it has come about, not unnaturally, I think, that many operators have had it in their minds not only to remove the present danger, but, at the same time, to do something, if possible, to lessen that of the recurrence of the strangulation, and also for the cure or more permanent relief of the condition.

Now, gentlemen, if there be one thing more dangerous for a surgeon to do than another, it is to claim priority of discovery in any surgical procedure. No one was ever the first to do anything new in surgery or medicine, or to invent any new surgical instrument or appliance. We in England claim that Harvey was the discoverer of the circulation; the Italians say no, and claim the honour for Cæsalpinus. To Sir James Simpson is usually accorded the discovery of chloroform as an anæsthetic; and yet only the other day I saw his claim disputed, and read the assertion that he had only pieced together other men's ideas, and was not himself the true discoverer.

Whatever, therefore, in any similar case, your belief may be, never profess or claim to be the first to have done a thing, or especially to have invented anything. Have you thought out some new contrivance, or some novel instrument? For the sake of your happiness, make no public claim to it. Enjoy the use of it yourself; let all your friends enjoy it, too; but do not call it yours. Some one else, you may be quite certain, has been in the field before you, and has forestalled you; your instrument has a tap which turns one way, and his only differed in that his tap turned another; or it may be that, though yours was brought before the public on a given day, he had made his known a few days earlier, and you are nowhere, except in a wearisome correspondence, of no earthly moment to yourself, or anyone else, about a matter which interests no one in the world except yourself and your competitor.

Now, if I were to say to whose sagacity I believe the endeavour to combine the operation for the radical cure of a hernia with its relief from strangulation to be due, I think I should say that we owe it to Dr. Mitchell Banks, of Liverpool; and yet I might retain a lingering doubt in my mind whether we in Leeds had not been working in that direction almost as early as he. At any rate, I have a very distinct recollection of the first case in which it entered into my mind—without the aid of any previous suggestion—to attempt the two together. I had been operating upon a very large hernia, in which the coverings of the sac were very difficult to identify; and I had, in trying to identify the sac itself, unconsciously stripped it a good deal from its connections. When I had released the hernia, and had returned the contents of the sac into the abdomen, I was puzzled how best to deal with the sac itself; and, finding that I had no difficulty in continuing the stripping I had begun, I readily cleared it to its neck, and, putting a stout catgut ligature around that part, I cut away all the rest, and I never had a case that made a better recovery.

Moreover, when recovery was complete, and the man came to apply his truss again, he found that his hernia, which had been most difficult to command before, was now retained with ease, and seemed to him to be cured. Mentioning this to my colleague, Mr. Teale, I found that he had already done exactly the same thing a little while before; and it was not long before I received from Dr. Mitchell Banks

a pamphlet containing a full account of this as a regular method of procedure with him. Therefore, if I had been presumptuous enough to claim priority for my procedure, how sad and undignified would have been my fall.

Nevertheless, the procedure has taken root; and whereas I, when I was of your age, was taught that it was my bounden duty, wherever I found it possible, to relieve a strangulated hernia without opening the sac at all, I venture to predict that you will not unfrequently see the sac not only opened, but taken altogether away, when once its contents have been safely replaced in the abdomen.

To this procedure some surgeons now add that of stitching together the pillars of the opening through which the hernia has protruded; but of this I have no personal experience; and as it is only yet on its trial, in the hands of others, I will leave it to them to tell you hereafter what results they have obtained, saying only at present that where I have seen it done, it has seemed to me to involve great additional complication, and has added to the operation, necessary for the relief of the strangulation, an amount of further risk which would have caused me to hesitate in its adoption.

And now, gentlemen, before I take leave of the alimentary canal, I desire to say a few words on the subject of lumbar colotomy; an operation which, though by no means of a novel character, has come, at any rate in my experience, into so much more frequent use of late than in former years, that I should not deem it right to pass it over without a word of comment. In my early days, colotomy was looked upon as one of the rare and difficult operations of surgery, and was only resorted to in cases of extreme obstruction, the actual presence of which could be detected, and demonstrated within reach of the fingers or of some instrument in the rectum. In proof of the rarity with which it was undertaken, I may say that I never saw it performed by any one of the surgeons to this institution during the whole of my pupilage, and only once, by the late Mr. Teale, in all the enormous practice of the then acting staff of this great hospital. Now, you will see it done time after time; will come, I doubt not, to regard it as one of the common and more ordinary operations of surgery, and will wonder why it was so rare in former days. It could not be because of any inherent difficulty in the performance of the operation; for the proceeding is, indeed, as a rule, a simple and straightforward one, the only difficulties being, first, the uncertainty of finding the colon, and, secondly, the danger of opening the peritoneal cavity by missing the points of reflection of that membrane from the sides or back of the intestine. The first of these Mr. Bryant has cleared out of the way, by the very precise manner in which, as the result of repeated dissections, he has shown the normal position of the gut; and of the second we have ceased to have somewhat of our former dread, since we have learned that, even should the accident occur to us, it is not irremediable, but that, if the opening unintentionally made be carefully closed by accurate suture, it need not interfere with the successful issue of the case. In both these matters, experience, when you come to acquire it, will show you that accidental circumstances play a very large part.

If the obstruction have been complete, and the colon be greatly distended, you will think the operation amongst the easiest you have ever undertaken; but if, on the other hand, the gut be empty, the mesocolon long, and the patient greatly attenuated by starvation, you may have such difficulty in finding the bowel as to reduce you to the verge of despair. To meet this difficulty, however, we have recently received a common-sense hint from our American friends, for which we owe them much gratitude.

As the patient lies upon his belly to expose the flank for operation, an empty colon naturally falls forward into the abdomen, especially if its peritoneal attachment be loose, and is very difficult to find. I have seen it inflated from the rectum with air to bring it into view. I have seen it injected with water for the same purpose, and I have seen both these procedures fail to effect the object in view; and though I have never seen it, I know that surgeons of the highest manipulative skill have, under such circumstances, been compelled to abandon the operation.

The American solution of the difficulty is this: do not abandon the operation; only delay its completion for a little. Turn your patient over on to his back, let the gut fall backwards, by gravitation, instead of forwards, and then, if with well nibbed forceps you will seize whatever has fallen into the wound, if that have been accurately made, you will find, in a large majority of cases, that you have seized the uncovered back of the intestine of which you are in search.

And now, I have only one other hint to give concerning this operation, but it is a clinical observation of which, though I have seen no authoritative mention of it in surgical works, I think I have made myself fairly certain, namely, of its great value as an aid in

the cure of syphilitic disease of the rectum. It is by no means easy, at all times, to say positively whether a given case of obstructive disease of the rectum be malignant or syphilitic in nature. In either case, if the obstruction be such as to render life miserable, I would urge the performance of colotomy. If the disease be truly malignant, you will give your patient great relief, and will materially smooth his passage to the grave; and if it be syphilitic, by placing the parts physiologically at rest, you may be enabled, by constitutional treatment, to cure the constitutional disease; and you will then see the opening in the loin slowly contract and close, as the local disease in the rectum passes away, and the gut resumes its normal function. I have seen such instances, and I know that they have been noted by my colleagues also.

[To be continued.]

REPORT TO THE SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

A NEW METHOD FOR THE QUANTITATIVE ESTIMATION OF URIC ACID.

By JOHN D. HAYCRAFT, M.B., B.Sc., F.R.S.E.,
Professor of Physiology, Mason and Queen's Colleges, Birmingham.

WISHING to continue a research upon albuminoid metabolism, and having been much disheartened by the unsatisfactory nature of the processes used for the estimation of uric acid, I determined, if possible, to introduce one which should be at the same time exact and easy of application.

The method of Heintz is certainly not very reliable, and is not applicable when small quantities of the acid are present in the urine. Salkowski's modification, although certainly more reliable, is far too laborious, and is not free from other objections. The same may be said of a somewhat similar process introduced by Fokker. Other methods, depending on the power which the acid has of reducing certain metallic salts, or upon the decomposition of the uric acid, and the collection of its decomposition products, I have tried, but soon had to give them up. Inasmuch as uric acid forms some salts more insoluble than itself, and as some of these are with metals easy of estimation, it occurred to me that it might be possible to precipitate it as a salt, as of lead, barium, or silver; and then, by estimating the metal in the precipitate, to calculate the uric acid in combination with it.

Many experiments were undertaken with the uric acid salts of barium, mercury, and lead; their solubilities in various acids, etc., were tested; and endeavours were made to separate (in these forms) the acid from solutions of mixed salts and other compounds found in urine, and likely to interfere with the process. One or two rough methods were devised, but were soon discarded from their want of accuracy. An attempt to separate out uric acid as a silver salt was more successful.

Urate of silver is, as is well known, very insoluble in water. I find it to be very soluble in 20 per cent. nitric acid, and in somewhat stronger sulphuric acid. It is insoluble in ammonia, and almost insoluble in strong acetic acid.

After a futile attempt to separate out the uric acid from the phosphates of the urine, after acidulation with acetic acid, I succeeded in elaborating the following process.

The fact that urate of silver is insoluble in ammonia water is a very curious one, inasmuch as this is a solvent for nearly all the silver salts—for example, the chlorides, phosphates, and oxalates. On adding a solution of silver nitrate to a solution of acid urate of sodium, I found that, instead of a precipitation of silver urate, an immediate reduction occurred, the black precipitate not redissolving in ammonia water. If, however, the solutions be previously rendered ammoniacal, a white gelatinous precipitate of the urate at once forms. The silver, however, becomes partially reduced before it is possible to collect and wash it. I find, however, that the previous addition of bicarbonate of sodium prevents this reduction. The same obtains with the acid urate of sodium normally present in urine, the chlorides and phos-

phates remaining in solution, the urate of silver alone falling on the addition of the ammoniacal nitrate. In order to estimate the silver in this precipitate of the urate, the latter was collected in a filter, and washed with distilled water. Taking advantage of its ready solubility in nitric acid, it was dissolved in that reagent.

A method not long introduced by Volhard,¹ and one which is available for the estimation of silver in an acid medium, was used as the final step of the process.

The only difficulty that occurs is in filtering and washing the precipitate of urate of silver. It is gelatinous, and clogs up the filter. It is imperative to use a Sprengel's pump, and a properly made asbestos filter is advisable. In this case, the whole process may be completed in little more than half an hour. The filter should be prepared in the following way. A small funnel is half filled with broken glass. A sufficient quantity of asbestos is shaken in a flask with water until all the fibres have separated, forming a uniform pulp. This is poured on the glass, and should form an uniform felt, one quarter of an inch thick. The filter can be used again and again for several analyses.

DESCRIPTION OF METHOD.

Solutions Required.—1. Centinormal ammonio sulphocyanate. Dissolve about 8 grammes of crystals in a litre of water, and adjust it to decinormal silver solution. Dilute with 9 volumes of water. One cubic centimetre is equivalent to 0.00168 of uric acid.

2. A saturated solution of potash-alum.

3. Pure nitric acid (20-30 per cent.). Dilute the commercial acid, boil and preserve from light in a blackened flask.

4. Strong ammonia.

5. Ammoniacal silver solution. Dissolve 5 grammes of nitrate in 100 cubic centimetres water, and add ammonia, until the solution becomes clear.

Process.—Measure off 25 cubic centimetres of urine in a pipette, and place it in a small beaker, with about 1 gramme of bicarbonate of sodium. Add 2 or 3 cubic centimetres of ammonia, which will produce a precipitate of ammonio-magnesium phosphate. On adding 1 to 2 cubic centimetres of the ammoniacal silver solution, the uric acid falls as a white gelatinous precipitate of urate of silver.

This is collected on the asbestos filter, and carefully washed, until the washings give no trace of silver, with a drop of salt-solution. The urate is then washed through the filter, by the aid of a few cubic centimetres of the nitric acid, and the silver in this solution estimated by Volhard's method.

Add a few drops of the saturated solution of potash-alum, which is the indicator, and drop in the centinormal solution of ammonio sulphocyanate. A white precipitate will form, and, with a reddish coloration, which latter disappears as soon as the red colour is permanent, the process is at an end.

It is easy to calculate the uric acid, which will be the number of cubic centimetres of the sulphocyanate used multiplied by 0.00168.

If the urine contain albumen, this should previously be removed. If uric acid or urates be present in such quantity as to cause turbidity, the secretion should be warmed and diluted. In order to test the accuracy of the process, I prepared several solutions of acid urate of sodium of known strength. To these, I added various quantities of common salt, sulphate of magnesia, and phosphate of soda, in order to imitate, as far as possible, the urinary secretion. On estimating the uric acid in these solutions, I obtained wonderfully correct results, as the subjoined tables will show. In all cases, a quantity not much more than a milligramme was lost during the process, and may be simply accounted for by the fact that no salt of uric acid is absolutely insoluble.

	Experiment 1.	Experiment 2.	Experiment 3.
Uric acid present as urate ..	0.0486	0.0469	0.0211
Uric acid found	0.0470	0.0487	0.0198
Loss during process	0.0016	0.0022	0.0013
	3 per cent.	5 per cent.	6 per cent. loss.

In order further to test its accuracy, 50 cubic centimetres of urine were divided into two equal portions; to the first, 25 cubic centimetres of a solution of acid urate of sodium of known strength were added; to the second, 25 cubic centimetres of water were added.

When estimated, the two fluids should shew a difference equal to the quantity of the salt added.

	Experiment 1.	Experiment 2.	Experiment 3.
Uric acid found (a).....	0.034	0.026	0.041
Uric acid found (b).....	0.0144	0.0105	0.0254
Difference	0.0196	0.0155	0.0156
Uric acid added	0.021	0.016	0.0160

The above figures show how delicate the process is, and what accu-

¹ Die Anwendung des Schwefelcy ammoniums in der Maassanalyse. (Liebig's Annalen, Band xc, p. 1.)

rate results may be obtained from its use. This depends, in the first case, on the great insolubility of the silver urate; and, secondly, on the great delicacy of the final estimation of the silver by the ammonio sulphocyanate. It may be objected to this process that there may be other substances present in the urine which may form compounds with the silver-nitrate, thus vitiating the result. Xanthin, as is well known, combines with silver. This substance may be present in small quantities, but its silver compound is, I find, insoluble in nitric acid. I am aware of no substance present in urine normally, or likely to appear as an abnormality, which forms a combination with silver both insoluble in ammonia and soluble in nitric acid. I should probably have tried much sooner the separation of the uric acid as a silver-salt, but for a statement of Salkowski's.²

This distinguished chemist analysed the precipitate which forms after adding ammoniacal nitrate of silver to urine. He found a variable quantity of both silver and magnesia, and concluded from this that the uric acid precipitates out, both as an urate of magnesium and an urate of silver. In this case, I could not, of course, use the silver process for its estimation. His facts may otherwise be explained. As is well known, ammonio-magnesium phosphate separates out slowly. Salkowski, immediately after the addition of ammonia, filtered off the ammonio-magnesium phosphate, and then added silver-nitrate. Probably, with the urate of silver, a small and variable quantity of the double phosphate came down, for this would probably be not yet entirely precipitated. As to the variable quantity of silver, this is easy to account for. In my own investigations, I attempted at one time to estimate the uric acid by its reducing action on silver (a method which was quite unsatisfactory), and I found that the same quantity of urate reduced a very variable quantity of silver, depending upon two factors, time and temperature. With prolonged boiling, as many as four parts of silver are reduced by one of the urate. Now, in Salkowski's investigations, the reduction of the silver was disregarded (for he speaks of the black precipitate on the filter-paper). The amount of the reduction would not be the same in my two experiments. In my own method, all reduction is prevented by the addition of the bicarbonate of sodium. I have since added to urine large quantities of magnesium-sulphate, without interfering with the accuracy of the results.

This method was elaborated during the year 1883. I have much pleasure in expressing my indebtedness to the Scientific Grants Committee of the British Medical Association for assistance in the shape of a grant to cover my expenses.

TWO OPERATIONS FOR THE RADICAL CURE OF UMBILICAL HERNIA.

By ARTHUR E. BARKER, F.R.C.S.,

Surgeon to University College Hospital, and Teacher of Practical Surgery and Assistant Professor of Clinical Surgery at University College.

PRIMARY operations for the radical cure of umbilical hernia in the adult having been hitherto little practised, it seems desirable that all cases, in which the procedure has been resorted to on definite lines, should be recorded. Much of the hesitation to operate for this condition is disappearing, under the ever increasing confidence in the adequacy of our antiseptic methods to prevent contamination of the peritoneal cavity, when opened. But we are still in want of definite and tried methods by which we may be guided generally, and in special cases, so as to reduce the risks of the operation to a minimum, and secure the maximum of stability in the barrier erected against the recurrence of the hernia. In short, the whole procedure requires still to be formulated; and, as an attempt to help in this direction, I record my experience in what may be regarded as two fairly typical cases of umbilical hernia, in which I operated on a definite plan. That a large and most useful field is here opening up to the surgeon, is clear to any one who considers, on the one hand, the frequency with which the condition is met, and its great inconvenience and danger; and, on the other, the inadequacy of all our milder measures for its relief. And I cannot better justify the remark, that but little has hitherto been done in this direction by operation, than by pointing to the experience of so high an authority on these matters as Mr. J. Wood, who states that, out of over four hundred operations for the radical cure of hernia, he has only dealt with five umbilical ruptures. These were, however, operated on by the subcutaneous method.

In the subjoined cases, I aimed at three points primarily.

1. On opening the sac, to reduce the bowel out of the way at once, and clear the ring.

2. Thereupon, to close the neck of the sac immediately before proceeding to clear away adherent omentum, and redundant sac and skin.

3. To bring as much tissue to unite over the opening as possible.

A short sketch of these two cases will best indicate to what extent these aims were achieved.

CASE 1.—The patient was a woman, aged 42, healthy, and the mother of eight children. She was hard-working, and had to do much lifting and carrying. In 1879, she first noticed the commencement of the umbilical hernia, but it gave no trouble until 1884. At this time, it began to be painful, and produced sickness and retching, and these symptoms had been increasing in frequency and severity ever since. In December, 1884, she had a very severe attack, lasting four days, and requiring careful treatment throughout in bed.

At the time of operation, the tumour, when fully distended, was about the size of the two fists closed, and could be made out to contain adherent omentum with reducible bowel. The skin over it anteriorly was very thin, and marked by extensive abrasions, and scabs with underlying pus. It was much increased in size on coughing, by the descent of a considerable amount of bowel.

The operation was done April 1st, 1885, in University College Hospital. The first point attended to was to thoroughly disinfect the whole tumour, which was not only generally very unclean in the wrinkles of the skin, but was covered by scabs and abrasions. This cleansing was effected by prolonged soaking in strong carbolic lotion. The operation itself was performed under the spray, and with all the most careful antiseptic precautions. The next step was to make two elliptical incisions, one on each side of the sac, from above downwards, including between them the ulcerated skin. Both of these penetrated down to the omentum at once. Although I had previously apparently reduced the bowel completely, I was cautious in dividing the omentum, especially as it was much matted together by old adhesions to all parts of the sac. But, on clearing it away from the neck, the latter was found to contain no gut, and to be about three-quarters of an inch in diameter. At this stage of the operation, I thrust a small sponge into the abdomen, and kept it closely applied to the ring by a cord passed through its centre. In this way, all entrance of blood into the peritoneum was prevented. The edges of the ring were then united with four silk sutures, which were not tied, however, until all four were in place and the sponge had been withdrawn. They were then immediately tied, and thus the abdomen was closed, the rest of the operation being in this way converted into an extraperitoneal procedure. This consisted in simply cutting away the whole of the redundant sac and skin included within the two first incisions, and taking away with these the adherent omentum. When this was done, I inserted a row of stitches through the anterior layer of the sheath of the rectus on each side, at about a third of an inch from the edge of the ring. On these being drawn together, a considerable fold of fibrous tissue was inverted and brought into contact in the middle line, over the first row of stitches which closed the ring. By this means, I hoped to give strength to the cicatrix in the abdominal wall proper. A very small drain-tube having been inserted between the two rows of stitches at their lower angle, nothing remained to be done but to unite the skin along the middle line with silk sutures. The wound was then sprinkled with iodoform, and covered with salicylic wool firmly bandaged to support the part.

The patient was very sick after the operation, apparently from the effect of the chloroform, and this sickness lasted more or less for a couple of days. On April 3rd, as the temperature had risen to 100°, the wound was dressed at 10 A.M., and some pent up serum was allowed to escape, the tube being readjusted. An hour and a half later, the patient felt much better in every way, but the temperature was somewhat higher (101.2°). After this, however, it fell and remained nearly normal to the end of convalescence. The wound was dressed on the 6th, and on the 7th the drain-tube was removed finally, as also the superficial stitches. On the 12th, the patient vomited and had headache, but there were no other symptoms, and notably no rise of temperature. After the bowels had been moved, she seemed to get quite well again. On the 19th, one of the deep silk stitches came away. On the 28th, the patient got up and seemed very well. In fact, throughout the treatment of the case, the general condition was most satisfactory. When, at the end of April, she left the hospital, she was very comfortable, and much pleased with the result of the operation. There was then one small spot at the lower end of the skin-wound still raw, but it yielded no discharge. A broad body-bandage was to be worn for some months to support the cicatrix.

I have recently seen this patient, and she is more than ever pleased with the result of the operation, the wound being quite sound, and there being no tendency to any return of the rupture, even when she strains or coughs hard. She still wears the body-bandage. It re-

² Über die Bestimmung der Harnsäure (Pflüger's Archiv, Band v, p. 210).

mains to be seen, of course, whether this cure will be permanent or not, but I have great hopes that the double row of stitches still lying in the abdominal wall will render it so. The simple union of the two edges of the ring would, I apprehend, be insufficient in most cases to prevent a recurrence of the hernia, and the method employed above offers a means of adding to the security of the cicatrix. Other more elaborate procedures might be tried, but I am disposed to think that this very simple measure will be successful.

CASE II.—M. T., aged 46, a healthy but very fat and flabby woman, was admitted into University College Hospital on September 1st, 1885. She had heard of the result of the last case, and, having a very similar umbilical hernia, was desirous to have it operated on for a radical cure. The hernia had appeared ten years before, and had gradually grown to its present dimensions. It had always been irreducible, and appears to have been a simple epiplocele from first to last. Its dimensions were three inches by four inches. There were no special symptoms referable to the rupture.

The operation was performed, with the same precautions as to antiseptics, on September 2nd, and varied very little from that just described. As there was no bowel in the sac in this case, I proceeded at once to ligature the pedicle of the omental mass, which was done in portions, with eleven separate fine silk threads thoroughly carbolicised. The mass was then cut away, and the stump was reduced within the ring. A sponge on a cord was immediately thrust in after it, and was drawn against the ring until the latter was ready to be closed. This closure was effected by five silk sutures, introduced through the edges of the opening by means of a long-handled needle. When ready to be drawn close, the sponge was pulled out and the threads were knotted, bringing the serous surfaces together. The sac and redundant skin having been now removed, a second row of silk stitches was inserted, drawing the cut edges of the neck of the sac and the loose tissue outside of it together over the first row. Then the skin was united with chromic catgut. A few strands of this material were now placed in the lower angle of the wound for drainage, and, having first dusted the latter with iodoform, I dressed it with carefully adjusted strips of salicylic wool. Over this a mass of ordinary wool was placed for padding, and the whole dressing was secured in place with a many-tailed bandage.

The night after the operation was a restless one, and the patient vomited twice as the effect of the chloroform. On the following day, there was nothing worthy of note, except that the temperature rose to 101.4°, and fell again; the general condition appearing very satisfactory. On the fourth day, the conjunctiva and surface of the body were noticed to be jaundiced, and the temperature rose to 100.4°. The stools were very pale, and the urine gave the reactions of bile. The patient, however, "felt quite comfortable." This condition remained unchanged, the temperature being usually below 100°, until the seventh day, when the patient complained of rheumatic pains in the wrists and legs. She made light of these, although severe, as she had had similar attacks in past years. During the three or four days in which she suffered in this way, the temperature was almost normal, only once rising to 100°. The abdomen was soft, and quite painless on deep pressure, from the beginning to the end of the case. On the ninth day, I raised the lower border of the dressings for the first time, and found a little escape of odourless bloody serum from the lower angle of the wound. Nothing was done, except to dust this spot with iodoform, and leave the dressing *in situ*. This was not disturbed for some days longer; and, when it was at last removed, everything was perfectly quiet about the wound. The skin had united almost completely; but at one or two points the edges were separated by a clot, as was also the loose skin (part of that formerly covering the sac) from the subjacent tissues. This clot was left undisturbed from the beginning to the end of the case, as it was quite unaffected by the least trace of decomposition. It delayed the final union of the wound, I have no doubt, but, beyond this, had no significance. After the sixteenth day, the wound was looked at daily, and dressed. It will save time to say that its deeper part quietly shrank upon the clot, and healed without suppuration at any time. On the sixteenth day, the patient was noticed to have some hypostatic pneumonia on both sides, which improved when she was allowed to sit up in bed; so that, on the twenty-fifth day, resolution was well advanced. On the twenty-seventh day, there was fresh pneumonia at the right base; and the temperature, which had been almost normal, rose to 101.4°. This, however, soon passed away, and the patient made a steady convalescence.

During the attack of pneumonia, her condition was such as to give rise to considerable alarm for a time. The respirations were very rapid; there was much prostration and sweating; and the pulse was very frequent, though, as a rule, fairly strong; but the temperature

was usually below 100°, rising only twice or three times above 101°; it only once touched 102° at this time. On the whole, the patient's condition was very peculiar. I was in no anxiety about the state of the wound, however; and, as soon as the patient was able to sit up, with the abdomen well supported, her general condition improved rapidly. She left hospital with the wound firmly healed, and otherwise convalescing well, on October 18th. I have since heard that her strength is improving.

I hope to have an opportunity, in recording subsequent cases, to report upon the ultimate results as to permanence of cure of the hernia in these two operations.

THE BLOOD IN A CASE OF SPLENIC LEUKÆMIA.

By V. D. HARRIS, M.D. Lond., F.R.C.P.,

Physician to the Victoria Park Hospital for Diseases of the Chest; Demonstrator of Practical Physiology at St. Bartholomew's Hospital.

THE patient, the notes of whose case are given below, was admitted into St. Bartholomew's Hospital, first of all, under the care of Mr. Morrant Baker, and then for a time was transferred to the care of Dr. Andrew. By the kindness of those gentlemen, I was enabled on several occasions to examine the blood of the patient, who was, as will be seen below, suffering from a very enlarged spleen, as well as from a chronic ulcer of the leg. The blood presented considerable deviation from the normal, a short account of which I propose to give.

On admission.—A. S., aged 20, general servant, was admitted into Lawrence Ward on October 15th, 1884 suffering from a chronic ulcer of the leg. She had been previously treated in hospital for the same complaint in the preceding May. She was a strumous-looking, anæmic girl, not well nourished, but, except for an ulcer on the inner aspect of the left leg, apparently in a fair state of general health. On examination of the abdomen, however, a large tumour was discovered, situated on the left side, reaching down as far as the crest of the ilium in the axillary line, and then rounding off; forwards it reached almost to the middle line, being about one inch to the left thereof; it extended under the ribs. The tumour had a well defined edge, and was hard. The patient stated that she had noticed this tumour for four years; that it grew slowly, and has not enlarged for nine months; that it increased after a meal, and then gradually resumed its usual size. The patient complains of pain in the region of the tumour, and a continual nausea.

In about ten days' time, the ulcer had considerably improved, and the tumour was examined under ether, and made out to be a greatly enlarged spleen.

From that time until December 14th, she continued much in the same condition. She was then transferred to a medical ward, where she continued only until December 23rd, when she was discharged from the hospital, to return after Christmas, but, up to the present date, has not done so.



She suffered slightly from bronchitis; had an anæmic murmur, loudest at the left base; and a trace of albumen in the urine. Temperature was normal or subnormal, except on one or two occasions, when it rose to 102° or 103° for a day or so. No enlargement of lymphatic glands was noticed. The blood was examined on several occasions; the corpuscles were counted; the coloured corpuscles were estimated as 2,800,000 per cubic millimetre, and the colourless as four or five times as numerous as they ought to be. On nearly every examination, in addition to the ordinary colourless corpuscles, were seen large protoplasmic masses, about three, four, or five times the size of the ordinary corpuscles, exhibiting amoeboid movements. These were seen in blood undiluted, as well as blood diluted with a solution of sodium sulphate, of specific gravity of 1025. In several of the masses were seen two or more coloured corpuscles. I say, in the masses, for as such they appeared to me; but I ought perhaps to add that one of my colleagues considered that they were not in, but upon, the protoplasm. In addition to these abnormal constituents, there were a few nucleated coloured corpuscles. On several occasions, too, blood was examined

for hours on a warm stage, and, in one instance, off and on, for two days; and we found that, with a temperature of 28-40° Cent., the proportion of the "quiet" colourless corpuscles—that is to say, those which remained spherical—to those exhibiting amoeboid movement, was about one to five. The difference between these quiet corpuscles and those actively moving was almost at once evident; and, on the careful observation of them for hours, no movement was seen. At a temperature under 20° Cent., as one would expect, a much larger proportion was motionless. As regards the movement of the larger corpuscles, Mr. McLean, who kindly assisted me in the observation, states in his report: "During the extension of the processes of protoplasm, a number of granules became visible, which seem to coalesce when the processes are retracted, and form one large granule, apparently like a nucleus in the body of the cell; the corpuscle seems to move with a jerky movement when the processes are retracted." In addition to these constituents, were observed a large number of blood-plates, as well as some small bacilli.

REMARKS.—The interest of this case appears to centre in the frequent observation in the blood of the large protoplasmic masses, as well as in the absence of amoeboid movement from a certain proportion of the colourless corpuscles. The former appear to be distinct from the so-called "granular masses" of Max Schultze, which are nearly always to be found in healthy blood, especially after it has been diluted with a saline solution. These masses, I am informed by Dr. Klein, are present in much larger numbers in the blood of certain individuals, particularly when in a condition of debility, than in that of others. They are looked upon by many as being aggregations of disintegrated colourless corpuscles. (Stricker's *Histology*. New Sydenham Soc. Trans., vol. i, p. 415. Max Schultze.) I have myself observed them in my own blood, and have no doubt that they are always present in normal blood, but in small numbers. The corpuscles above described, as observed in this case, however, seem rather to resemble those large colourless corpuscles which have been described as existing in the blood of the splenic vein and in some other parts, and which "are supposed to be pale corpuscles which have taken in some of the red corpuscles, a process which appears to occur normally in the spleen." (Schäfer in Quain's *Anatomy*, ninth edition, vol. ii, p. 32.) I am, however, inclined to suggest that they are rather marrow cells, with coloured corpuscles developing within them, than degenerating corpuscles. It is very extraordinary how these large corpuscles can circulate in the capillaries, as they are much larger than the diameter of the capillaries. From a considerable experience of the examination of healthy blood, as indeed of blood from patients suffering from various kinds of disorders, one is strongly inclined to look upon the appearance of these large corpuscles as very rare; and, while acknowledging the possibility of their kinship to the granular masses above described, one cannot believe in their exact identity with them.

As regards the absence of amoeboid movement of some of the corpuscles, Dr. Cavafy (*Medico-Chirurg. Trans.*, vol. xlv, pp. 30-40), in an extremely instructive paper, read before the Royal Medical and Chirurgical Society in November, 1880, has described the absence of amoeboid movement in many of the colourless corpuscles in a severe case of lympho-splenic leukaemia; but he has not laid much stress on the appearance of the large protoplasmic corpuscles, although, as far as can be gathered from his paper, he must have observed them; for, in describing the three kinds of corpuscles present, he says, about the third variety, that "they were large, strongly granular cells, with the granules usually accumulated at one side of the periphery. Of these large cells, only one or two were seen occasionally."

In examining, therefore, a case of suspected permanent disorganisation of the blood-producing tissues—that is to say, of the spleen, the medulla of bone, and the lymphatic glands—it appears to be quite as important to notice any abnormality in the shape, size, and properties of the pale corpuscles, as to note the increase in numbers of the colourless, or the diminution of the coloured corpuscles. Immature corpuscles must indicate that the proper manufactory of corpuscles is not being carried on properly; excess of degenerated corpuscles may mean improperly developed corpuscles; and the absence of amoeboid movement may indicate either that the corpuscles are dead, as has been suggested, and as is most likely the case; or, again, it may mean that they are immature from imperfect manufacture.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Friday, November 20th; Mr. Joseph White, President, in the chair. Mr. Macmillan read a paper on neuralgia. Mr. Anderson showed a liver infiltrated with encephaloid cancer. Dr. Handford showed microscopic specimens of the Bilharzia hæmatobia.

PURE TEREbene IN THE TREATMENT OF WINTER COUGH.

By WILLIAM MURRELL, M.D., F.R.C.P.,

Lecturer on Pharmacology and Therapeutics at the Westminster Hospital; Examiner in the University of Edinburgh and to the Royal College of Physicians of London.

THERE are few complaints which interfere so seriously with the duties and pleasures of life, without actually incapacitating the sufferer, as chronic bronchitis. The disease is essentially chronic in its course; and the patient, if a resident in London, is rarely free from his enemy for more than a few weeks in the height of the summer. With the first fog or the first touch of cold east wind, the cough returns with its attendant discomforts, not to depart until the following spring is far advanced. Year by year, it comes back with tantalising punctuality, and lingers on with all the pertinacity of an old friend or a poor relation. During the last five years, I have employed a method of treatment which yields excellent results. I have before me notes of 114 cases of winter-cough, some taken at the Chest Hospital, others at Westminster, and others again in private practice. They were all treated with pure terebene, a substance prepared by the action of sulphuric acid on oil of turpentine. It is an agreeable remedy, being a clear colourless liquid, with an odour like that of fresh-sawn pine-wood. It will not mix with water, but, as the dose is small, it can readily be given on sugar. It is not the same as the patent medicine sold under the name of "Terebene." The best method of indicating its sphere of action and illustrating its utility will be to give a brief abstract of the notes of one of the cases. This, it should be said, is a fair average case taken quite at random.

R. N., aged 43, a commercial traveller, stated that he had been subject to cough every winter for twelve years. His work was against him, and he was a good deal exposed to wet and cold and the inclemency of the weather. His cough used to trouble him badly only in the winter, but, year by year, it seemed to be coming on earlier, and now he was hardly ever free from it. It came on in fits, which shook him to pieces, and it was always very bad the first thing in the morning, often making him retch and vomit. There was a great deal of phlegm, thick and yellow when he was in the country, but speckled all over with black in London. It was difficult to get up, unless he could get some hot tea or something to loosen it. The shortness of breath was worse than all, for it prevented him from going about, and interfered with his business. He had never spat any blood worth speaking of, but there were at times streaks after a severe bout of coughing. He became no thinner, generally losing a little in the winter, and picking up again in the summer. He had had a great deal of treatment, and mixtures, lozenges, and liniments, without end. On examining the chest, it was found to be emphysematous, and there was a loud bubbling rhonchus at the base of each lung. On November 1st, he was ordered ten drops of pure terebene on a piece of sugar, every four hours. In three days, he returned, and said there had been a marked improvement; the cough was easier, the phlegm was lighter in colour and not so thick, and the breathing was decidedly better. The dose was increased to twenty minims every four hours; and, a week later, the patient wrote to say that he was better than he had been for years, and was almost able to do without the medicine. I saw nothing of him again until January 6th, when, being in town, he came to see me. There had been some return of the old symptoms, and he was anxious for further treatment. I ordered him a small Maw's spray-diffuser, holding about an ounce, and instructed him to use it with the terebene as an inhalation several times a day. A fortnight later, he wrote, saying that he bought a larger apparatus, and that his complaint was more amenable to treatment than it had ever been before. The terebene-spray eased the cough, brought up the phlegm, and, above all, relieved the shortness of breath. On his long railway journeys, when he was unable to use the spray without inconveniencing his fellow-passengers, he rubbed the terebene on his moustache and beard, so that it might slowly diffuse, and, as he said, "softened the atmosphere."

One of the great advantages of pure terebene is, that it is not a bulky medicine. An ounce bottle, carried in the pocket, will last for days, and is always ready for use. It is best to begin with five or six drops on sugar every four hours, and gradually to increase the dose to twenty minims. This is, for most people, the maximum quantity, but the drug has little or no toxic action, and one patient was so enraptured with his remedy that he insisted on taking a teaspoonful every four hours for a week. The only disadvantage I have ever noticed from its employment is that it gives a peculiar and characteristic odour to the urine, a circumstance which patients never fail to mention. When used as a spray, from one to two ounces should

be diffused and inhaled every week. In some instances, I have tried giving it mixed with an equal quantity of olive-oil flavoured with oil of peppermint. In twenty-five cases I gave the terebene in the form of an emulsion, made, if I remember rightly, by mixing it with a little tragacanth powder, adding water and shaking well. Each ounce of the emulsion contained a drachm of the terebene, and it was usually given in half-ounce doses four times a day. The results were excellent, but not better than with the simple terebene itself, and I saw no reason for continuing the use of a more expensive preparation. In every case of winter-cough in which the terebene-spray was used systematically, there was a marked improvement. In many instances, it was noticed almost immediately; but in other cases, especially the very chronic ones, the patient had to continue using his remedy for some weeks. Even when there was marked emphysema, with little movement of the chest-walls, some benefit was experienced. I treated eighteen cases of phthisis by the same method, and the results were certainly most encouraging. It did most good when there was old consolidation, when no active mischief was in progress, and especially when there was no elevation of temperature. I have also used it as a dry antiseptic inhalation on the cotton-wool of a respirator in phthisis, and have been much pleased with the results. In one case, that of a young lady, the respirator was worn almost continuously night and day for nine months; and the right lung, which was breaking down, cleared up, the temperature becoming normal, and the cough and other symptoms subsiding. I have no doubt that pure terebene would be useful in checking hemorrhage from the lungs, but on that point I have no experience.

Many sufferers from winter-cough also complain of acidity and flatulence. I soon found that the internal administration of pure terebene was an excellent remedy for this combination of symptoms. It checks the formation of flatus so quickly, and is so efficacious in expelling any that may remain in the stomach or intestines, that I constantly employ it in cases of dyspepsia when flatulence is a prominent symptom. Patients like it, and often continue taking it for months or years. It acts as an antiseptic, probably in much the same way as glycerine, oil of cajuput, and oil of eucalyptus. I am surprised that it has not come more largely into use in the treatment of flatulence.

Pure terebene is of such value in winter-cough, that I rarely experience the necessity of resorting to other remedies. This year, however, I have tried a combination consisting of equal parts of pure terebene, oil of cubebs, and oil of santal wood, mixed with liquid vasoline. This I use in an atomising apparatus invented by Mr. W. F. Semple, of Ohio—an apparatus which is somewhat complex and difficult of description, but may be said to consist essentially of a jar in which the medicated fluid is finely atomised by a blast of air propelled by a rubber-ball. A nose-tube is attached, and the fine spray is inhaled either through the mouth or nostrils. It is certainly one of the best forms of spray-apparatus ever invented, and, when used with a eucaine-solution, will be found wonderfully efficacious in the treatment of hay-fever and coryza. The formula I have given yields excellent results, not only in winter-cough, but also in post-nasal catarrh. I have made some observations on this point, in conjunction with a well known tenor, and have been astonished to note what a marvellous difference there is in the tone of his singing-voice after using it for only a few minutes. It is a powerful expectorant; and, if inhaled the first thing in the morning, when the mucous membranes are covered with thick viscid secretion, will give very great relief. Pure terebene is a valuable remedy, and will in time come largely into use.

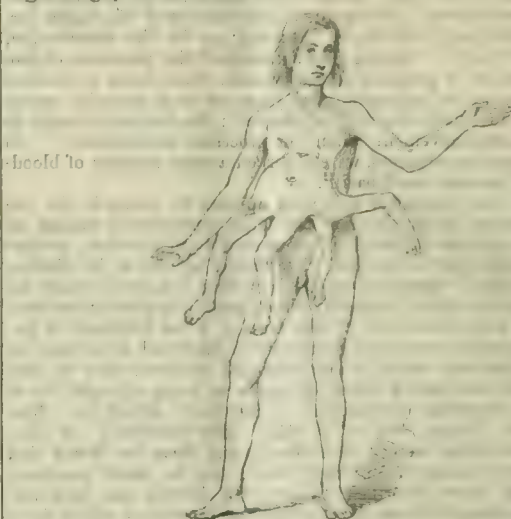
CASE OF POSTERIOR DICHOTOMY.

By SHIRLEY DEAKIN, F.R.C.S. Eng.,
Surgeon, Bengal Service.

IN the JOURNAL of August 29th (p. 404) reference is made to a Hindoo monster which must, I think, be the same that I saw when exhibited in a small tent in the park facing the Bombay railway-station in March last. The rough sketch annexed, copied from one made at the time, will give an idea of the condition. It will be evident, however, that "each set of limbs could hardly work together," and "perform the same offices at the same time."

The subject of the deformity was an up-country Hindoo lad, aged 12, a bright intelligent boy of fair development for his age; his genital organs appeared to be well and normally formed, penis and scrotum. The four limbs and the lower part of the trunk which formed the abdominal appendage of the lad, were much smaller and imperfectly developed. The lower anterior part of this trunk presented what

appeared to be female genitals; there was a long foreskin attached to what were probably the corpora cavernosa at the upper end of a sulcus into which opened an urethra; there was no vaginal orifice, neither was there any anus. Hence, though the being passed urine from both halves, the lad only defecated. I do not know whether there were two bladders, but this is probable from the configuration of the monster. There was a sore (parasitic eczema) on the inner side of the right thigh, as shown in the sketch.



As far as I could make out from a cursory examination, the spinal column of the affixed body was connected with the lower part of the sternum of the boy. The lad was nervous and bashful at first when I asked to be allowed to examine him more closely. A similar monster, who lived to adult age, was exhibited in Great Britain and various other countries during the first half of the seventeenth century. A description and drawing are contained in a lecture by the late Sir James Y. Simpson in the BRITISH MEDICAL JOURNAL of March 18th, 1869.

BLADDER DISTENDED WITH 464 OUNCES OF URINE.

By DE FOREST WILLARD, M.D., Philadelphia,
Surgeon to the Presbyterian Hospital.

AN article in the BRITISH MEDICAL JOURNAL of June 20th, 1885, by Lund, upon extreme distension of the bladder, recalls a case that came under my notice nearly twenty years ago, and upon which I have a few notes that have never been recorded.

A squalid female, 40 years of age, was admitted to the Philadelphia Hospital in a delirious typhoid condition, with dry tongue and extreme depression. Pulse 160; temperature 104°. The only history obtainable from a companion was that she had been treated by various physicians for dropsy, pregnancy, etc., while one had advised an ovariectomy.

The abdominal cavity was filled with a large tumour, which extended upward to the ribs, and was larger than is usually seen at the full term of pregnancy. Its globular and movable character, and central position, contraindicated an ovarian cyst; and, while it was intensely sensitive, it was tense, and had distinctly fluctuating contents. Dribbling of urine had been constant for five or six weeks. On vaginal examination, an enlarged retroverted uterus was discovered.

Believing the so-called tumour to be a distended bladder, a catheter was introduced; but, after filling cups, basins, and pails, the flow was checked in order to permit contraction of the bladder-walls. During the following twenty-four hours, 464 ounces were withdrawn, with the effect of entirely reducing the enlargement.

On the second day, a partially decomposed four months' fetus was passed, and, after the replacement of the retroverted uterus, comfort was obtained, although the woman was unable to void her urine naturally for three weeks. The bladder did not entirely regain its tone for three months. The misplaced organ had been caught beneath the promontory of the sacrum, and, as it distended by pregnancy, had pressed sufficiently upon the vesical neck to check any escape of urine, until overdistension had necessitated overflow.

CASE OF "MORBID SOMNOLENCE."

By P. J. CREMEN, M.D., M.R.C.S.,

Physician to Union Hospital and North Infirmary, Cork.

THE particulars of the following case, rare, indeed, if not unique, in the history of the disorders of the nervous system in this country, seem specially worthy of being placed on record just now, when many obscure psycho-somatic conditions are attracting wide-spread attention.

Jeremiah S., aged 55, was admitted to the Union Hospital, under my care, on May 10th, 1885.

Previous History.—On his admission, towards evening, he made no special complaint of illness, merely stating that he had walked thirteen miles that day, and was fatigued from the exercise; adding that he had but recently returned from America, where "some drink had been given him which affected his head," for which he sought admission to hospital. At the time, however, nothing particular was noticed about him, nor could any further facts be elicited from him. When the hour arrived, he retired to bed; and, on the following morning, the ward-attendants found him in a deep sleep, from which they utterly failed to arouse him.

Condition in the Somnolent State.—On my attention being directed to him, at my morning visit, he presented the appearance of a person in a sound sleep, or under the complete influence of an anæsthetic; and all ordinary measures were unavailing to awake him from this trance-like condition. The limbs, when elevated, remained so on being released; the pulse and respiration were tranquil; the eyelids were firmly closed, and, on being raised, the eyes were found up-turned, and the pupils contracted; the jaw was tightly clenched; the temperature stood at 96°. Next day, I made a minute examination into the condition of the nervous system, the patient being still in the same deeply somnolent state.

There appeared to be complete analgesia over the entire surface of the body, pins piercing the skin in any part causing no movement of withdrawal, nor any indication of pain. Some bread, milk, and meat were then brought, and I loudly directed him to take his dinner; but he took no notice of what I said. The drinking-cup was then placed in his hand, and he was ordered to drink, which he then did, raising the cup to his lips, and swallowing the milk freely; the eyes still, however, remaining tightly closed. He was then requested to take some meat; and, in response, he groped about for a piece, picked it up, and masticated and swallowed it. He was then about to feel for another piece, when he was told to take a piece of bread instead, which he did, in the same automatic way. On

several subsequent occasions, I saw him eating his dinner with knife and fork, he being in the same somnolent state, with the eyes closed; but, after he had continued for a while, he ceased, and required to be urged to induce him to recommence eating. It is clear from this that tactile sensibility was not lost; and it illustrates the influence which the sense of feeling, combined with habit, exerts in the production of unconscious or semi-unconscious cerebration. *Muscular Sense* sometimes appeared to be diminished whilst in the "profoundly" somnolent state, as when a drinking-vessel full of fluid was placed in his hand, with the request that he should drink, he raised the vessel above his nose, and poured it over his face. The superficial reflexes were abolished; the patellar reflex exaggerated. Ankle-clonus was absent. The condition of the special senses was tested as follows. *Sense of Smell.*—When strong liquor ammoniac was held to the nostrils, it caused the eyes to

water, and induced a fit of coughing; but there was no other indication of his having been conscious of the presence of the pungent fluid. *Sense of Taste.*—When quinine was placed on the tongue; there was no difference observed in his features or actions from those when sugar was used instead. *Sense of Hearing.*—When the drinking-vessel was placed in his hand, and afterwards removed and set on the ground, with the request that he would raise it therefrom and drink, he did so, after much groping about to find it, his eyes being tightly closed all the while. This indicated that hearing was not in abeyance. *Muscular Rigidity* during the somnolent state. On being placed between two chairs, as represented in the illustration, taken from a photograph, the tip of the shoulder resting on one chair, the heel of the left foot on the other, and the right limb bent at a right angle to the trunk, a weight of forty pounds was supported on the rigid chest, without causing the slightest yielding or movement from the position described until muscular relaxation took place. He remained in this cataleptic state often for four or five days at a time, sometimes even for a longer period; and the only method which would effectually arouse

him to consciousness was a strong current from a magneto-electric machine, which made him start up, crying out lustily; but, if this were not kept up for a time, he often sank back again into the somnolent state.

Condition in the intervals.—When questioned, he answered with hesitation and diffidence. He was sometimes bright and cheerful, singing and joking with the other patients in the ward; at other times he was gloomy and depressed, and asked to be sent home. When requested to walk up and down the ward, he did so in a perfectly straight line, from which he would not deviate, no matter what obstacle might be placed in his way; for instance, on a small table being moved into the path he had chosen, he walked right against it that



this was not due to any defect of vision, was evidenced from the fact that, when directly told to walk round the table, he did so, and then, when interrogated as to why he at first walked against the table, replied that "he wished to do everything exactly as he was told." This condition, termed by Hammond *Synginostic* (συγγινώσκω, to agree with), is strongly marked in his case, as, if requested to stand on his head, he would actually attempt to do so. The somnolent or hypnotic state could be induced at will, when he was awake, by closing the lids, and pressing on the eyeballs for about two minutes; but it could not be brought about by Braid's method of holding a bright disc before the eyes, neither could it be produced by suggestion.

REMARKS.—Dr. D. Hack Tuke, in writing of artificial somnambulism, as induced at the Salpêtrière, under Charcot, says there are three distinct types or states: (1) the cataleptic; (2) the lethargic; and (3) the somnambulistic. The case above recorded does not appear to belong to either of these types exclusively, presenting a combination of symptoms that I have not yet seen described. In speaking of the cataleptic type, Dr. Tuke says that it is produced by a loud or unexpected sound, by a bright light flashed across the eyes, or by staring at an object, according to Braid's method. None of these methods were effectual in producing the condition of somnolence in the case of J. S. Dr. Tuke further states that, in the cataleptic state, the eyes are open, the gaze fixed, the features expressionless; in the present instance, the eyes were firmly closed during the somnolent condition, and the features composed as in deep sleep. In the lethargic type, Dr. Tuke says that the somnolent condition can be induced by pressure on the eyelids for ten or fifteen minutes; in this, my patient's susceptibility is somewhat analogous, but, once in the hypnotic state, his condition is quite different. In the lethargic type, when the eyes are closed, there is a constant quivering of the lids, while the body is powerless, and the muscles flaccid; the limbs, if raised, falling heavily, if not supported. With J. S., there is no quivering of the eyelids, while the muscles are intensely rigid, the entire body appearing, while he is in the somnolent condition, as if made of one piece; neuro-muscular super-excitability, which has been found to be a fundamental character in the lethargic condition, is here quite absent, and none of the alternations between the different types, effected in Charcot's and Richer's experiments, can be produced. From the somnambulistic type, J. S.'s condition differs in the character of the rigidity; with him, when the immobile limbs are bent in another direction, no resistance is offered, while in the somnambulist the muscles are distinctly rigid, considerable resistance to the deflection or movement of the limbs being observed. J. S.'s condition is undoubtedly morbid; of the genuineness of the phenomena, there can be no question. The somnolence partakes in some degree of the nature of that designated by American neurologists "narcolepsy," which is the expression of a distinct neurosis. What the pathological substratum underlying the condition may be, it is difficult to determine; taking many of the symptoms into account, it is possible that it depends on a disturbance, nutritive in character, of the vaso-motor system of nerves.

THE TREATMENT OF LATERAL CURVATURE OF THE SPINE.

By E. NOBLE SMITH, F.R.C.S. Edin., L.R.C.P. Lond.,
Surgeon to the All Saints' Children's Hospital.

THE treatment of lateral curvature of the spine has too frequently been described as if all cases were similar in their nature. From time to time, new systems of treatment are introduced, or more often old systems are reintroduced, dressed in new garbs. An universal remedy for a class of cases so varied individually as those under consideration cannot really exist; and it should be remembered that the selection of any one means of treatment, however valuable in itself, to the exclusion of all others, is liable to lead its exponent into serious errors of practice. The following cases may be interesting to the reader, as illustrating the principles thus briefly expressed.

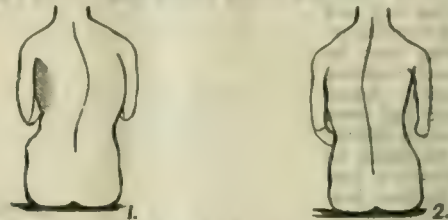
CASE I.—In April, 1884, I was requested by Dr. M. Handfield Jones to see a lady whose age was about 80. Her spine was curved as shown in Fig. 1. This patient suffered considerable pain at times, and felt a constant sense of weariness in her back, which was affecting her general health, the latter being otherwise remarkably good. Her exercise consisted almost entirely in walking from her bedroom to her sitting-room in the morning, returning at night, and an occasional walk about the room she occupied by day; nor was it thought desirable by Dr. Jones, considering the patient's age, that she should do more.

By building up a cone of pillows upon her sofa, and placing her in

such a position that she supported the most prominent part of the curve, the weight of the upper part of the body was brought to bear upon the convex side, and so relieved the excess of pressure which had before existed on the left side. The patient felt decidedly more comfortable. I directed that she should rest in this position as much as possible, and I heard from Dr. Jones afterwards that the result was perfectly successful.

In some such cases, when, from age or other circumstances, the patient's time is chiefly spent in recumbency, a special couch may be desirable, constructed so as to afford the necessary support. I found this the best way of giving relief to an old lady suffering from osteitis deformans.

CASE II.—A young lady, aged 13, sent to me by Dr. Hare (September 14th, 1885). The spine was curved as shown in Fig. 2. The left



shoulder was very rounded, and the right ribs depressed below the scapula. The whole thorax was much more twisted than can be shown by this sketch. The condition was undoubtedly the result of a deficiency (congenital) of the right upper extremity.

No forearm existed, consequently the child had always used the rudimentary member by pressing it against her side, even holding and using a knife in this manner. This action bent her side inwards, and consequently curved the spine to the left. The excessive use of the left arm for writing and other occupations tended, moreover, to increase this condition, a fact which was clearly demonstrated when the patient placed herself in the posture she usually assumed for such occupations.

The treatment consisted in the prohibition of further use of the rudimentary arm by pressure against the side; the use of a leather case attached to the arm, to the end of which a knife or pen can be attached; the avoidance of all stooping postures, and the use of a light apparatus to assist in bringing the spine into a straight position. The latter, judging from the rapid improvement which has taken place in six weeks, will only be required for a few months at longest. A prone couch is also used with great benefit. The child's work at school is not much interfered with, a not unimportant matter.

It should be understood that the curve, as shown in Fig. 2, is not one which is temporarily assumed by the patient, but that it requires very strong pressure with the hands to lessen it in the least. Yet, by keeping up this pressure mechanically, the actions of the body are repeatedly brought to bear in straightening the spine, although there is no interference with the use of the muscles.

CASE III.—Upon the advice of Dr. George Rice, of Derby, a little boy, aged 6½, was brought to me with a curvature as shown in Fig. 3.

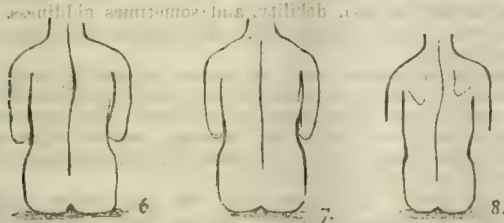


There was rather severe torticollis, and also a considerable depression of the anterior part of the thorax on the left, the result of empyema. To the latter conditions the curvature was chiefly attributed; but as the torticollis was undoubtedly an important factor in the maintenance, at least, of the deformity, and also on its own account demanded relief, I operated upon the sterno-mastoid soon after seeing the child for the first time. The result of the operation was found, after a week's rest in bed, to be not only a perfectly upright head, but also an almost perfectly straight spine. In another fortnight, the head remained perfectly normal in position, the neck could be moved freely and strongly in all directions, and scarcely a trace of the curvature remained. It might be thought that, in this case, the curvature

could have been temporarily removed by altering the position of the child; but, on attempting to do so, I found the spine much too firm to be much altered, and I must own that, for this reason, I did not expect so rapid a cure. (Fig. 4.)

CASE IV.—Miss T., aged 15, was brought to me in July, 1883, upon the advice of Dr. Fancourt Barnes. Here there was a severe lumbar curve to the right, as shown in Fig. 5, with great depression on the left side, as shown by the shading. The curve was caused by the efforts of the patient to throw forward her left leg in walking, this leg was entirely paralysed (from infantile paralysis, during the first year of life). It had developed gradually from the time of her first efforts at progression. The only use that could be made of the left leg was as a prop; and, as the ankle was the only joint which was supported mechanically, the limb was very inefficient, even in this limited capacity. The paralysis included the flexors of the thigh, so that in progression, after each step forward with the right leg, the left had to be swung forwards by the pelvis, thus causing the patient to tilt the pelvis laterally on the spine, and produce the curve. This patient had been treated by the "movement cure" for three years, not only for the benefit of the leg, but with a view to straightening the spine. That exercises could accomplish the latter, while the cause remained, could hardly be expected, unless, indeed, all attempts at progression were suspended. The treatment I advised consisted in mechanical support of the leg, to prevent so much of the effort in walking from being thrown upon the spine. With some variations in these mechanical arrangements to suit the case as it progressed, the ultimate apparatus consisted as follows. The leg was made into a more perfect prop, by extending the instrument to the thigh, and so supporting the flail-like knee-joint. This joint was made stiff for walking, but could be released for sitting down. A firm pelvic belt was applied, and an India-rubber band extended from the front of the right groin to the knee of the paralysed (the left) leg. This elastic band took the place of the paralysed flexors and helped to draw the leg forwards in progression. (It is not a new plan.) The result of this treatment was excellent, both as regards lessening the curving of the spine, and giving comfort to the patient, the former effect being observable directly the apparatus was applied. The movement cure (?) occupied three years of continuous treatment; and, beyond improvement in the general physique of the body, no benefit was derived; neither improvement of the powers of the leg, nor permanent improvement of the curved spine. Nor could any other result be reasonably expected.

CASE V.—Mr. C., of Newcastle, aged 25, consulted me on March 15th, 1883, for a curvature, as shown in Fig. 6. He was strongly



built and of active habits. The curvature could not be removed by pressure. The left leg being a quarter of an inch shorter than the right, I directed that this difference should be compensated in the boots. For direct treatment of the curve, I advised him to exercise with an elastic cord night and morning for five minutes, upon the principle laid down in my small work on *Curvatures of the Spine*. This consisted in bringing into action the muscles which connect the right arm to the spinous processes of the vertebrae involved in the dorsal curve, with the object of rotating the vertebrae back into their normal position. On the left side, the pectoral muscles were to be exercised with the view to counteracting the forward projection on that side. On October 16th, 1884, this patient called upon me again (Fig. 7), and I found no trace whatever of the curvature. Gymnastic exercises are very valuable in the treatment of some cases, but are by no means necessary or suitable to all.

CASE VI.—Miss R., aged 8, brought to me in February, 1884, upon the recommendation of Dr. Robert Barnes, presented a sigmoid curvature, of which the apices of the curves were each one inch from the centre line, as in Fig. 8. Moreover, in profile, the back bulged out in one big bow, and she was quite unable to sit up straight. The right shoulder was decidedly higher than the left. This child was extremely delicate, and had been reared with great difficulty. Her weakness was so great when a baby, that it had been thought impossible she could live. Exercises fatigued her to quite a remarkable degree. I advised more rest, and my treatment was aimed at sup-

porting the back when resting, instead of allowing it to bulge out. Perfect freedom of action of the muscles when the child was playing, about was advised, and it was therefore enjoined that the clothes were to be quite loose (a recommendation which is necessary in all cases). The use of Verrall's prone couch, by which the weight is taken off the spine, and the latter encouraged to fall into a natural position, was recommended for resting upon, and the general health was especially attended to.

In three months time the spine was quite straight, and the child could sit up with perfect ease. The general health had improved. During the treatment I found that the malpositions of the scapula did not depend entirely upon the curved spine. The elevators of the left shoulder were extremely weak in action, and the right scapula was held up in an abnormal position by muscular contraction. The small rhomboid was so shortened that it occupied a perfectly level position between the spine and its attachment to the scapula, and was very tense. The trapezius, and perhaps the levator anguli scapulae, are possibly involved, but the rhomboid is decidedly the chief offender.

The muscles of the left shoulder were restored to action by rubbing with stimulating liniments, and subsequently by gentle faradisation. The condition of the right shoulder, I believe, cannot be altered, except by section of the contracted muscle.

Fig. 9 shows the spine as it now appears, perfectly straight, but the right scapula not extending lower than the upper border of the fifth rib.

CASE VII.—Mrs. W., aged 60, consulted me April, 1883, upon the advice of Dr. Knaggs, of Huddersfield. She had been obliged of late years to wear special corsets to relieve her from the pain caused by a slight lateral curvature, dorsal to the right, and lumbar to the left. The stays she had been wearing hurt her very much from the pressure of crutches which they possessed, and did not give sufficient support to the spine.

I had a corset made reaching to the level of the top of the shoulders, with shoulder-straps, but without crutches, and with two flexible steels in the back, one upon each side of the spine. This apparatus gave her perfect comfort, a result which, I found a year afterwards, had been maintained. It is very rare that corsets are desirable, and in young patients they should always be avoided.



CASE VIII.—Miss K., aged 11, was brought to me, November, 1882, for treatment of a severe lumbar curvature to the right, as shown in Fig. 10. The right knee was ankylosed in a bent position, the result of disease of the joint, but the patient walked tolerably well on the front of the foot. It was thought that the bent knee caused about two inches of shortening, but when the foot was raised to this extent the curve in the spine was not much altered, and therefore the father (a medical man) thought that something more was required to cure the spine. I found that the shortening was greater than he had thought, and that it required five inches raising of the foot to place the pelvis in a normal position. This at once straightened the spine (see Fig. 11) for permanent changes in shape had not taken place, although they would have doubtless done so in time. A peg attached to the sole of the boot answered the purpose excellently, and moreover the patient has been able to get about more comfortably than before.

Shortness of one leg, either from original conformation or from disease, is a frequent cause or a complication of lateral curvature. I have found a difference of a quarter of an inch or more in 35 per cent. of cases. In some of these, a restoration of the level of the pelvis, by varying the thickness of the soles of the boots, suffices to cure the deformity; but, in the majority, further treatment of some kind is necessary.

I could add very considerably to this paper; but the above instances will probably suffice to show that cases must be treated according to their individual peculiarities, and that to deal with them upon any one plan of treatment is not in accordance with sound surgical principles.

Whatever be the nature of the case, I think it is of very great importance that our treatment should interfere as little as possible with

the ordinary occupations of the individual. The schooling of children, for instance, should be interfered with as little as possible; and recumbency, when necessary, should not be enforced for certain periods of the day, but should be advised to be carried out whenever rest is required, and in place, as much as possible, of sitting upon a chair.

In conclusion, I would sum up what I have urged above by saying that I think we should rather shape our treatment in accord with the requirements of the case and the circumstances of the patient, than try to adapt the patient to the kind of treatment to which we may happen to be most attached.

NOTE ON TWO CASES OF SUBCUTANEOUS EMPHYSEMA DUE TO LABOUR.

By A. C. MILLER, M.B. Edin., Banff, N.B.

I READ with much interest, in a recent number of the JOURNAL, Dr. Hunter's account of a case of "Emphysema during Labour." Two similar cases, occurring in our practice here, have come under my notice within the past year. As the condition they illustrate seems unfrequent, and is one, moreover, not referred to in the ordinary textbooks, it may be well to record them.

Both patients were primiparæ. In the first, labour was preceded by rupture of the membranes, and, as usual in such cases, progress was very slow till completion of the first stage. Pains then became more frequent; and, as the head pressed down upon the perineum, they assumed a severe downbearing character, with little, if any, intervals between. Suddenly, however, a change came; the pains subsided almost entirely, and the patient was observed to be gasping for breath, and much collapsed. Her face was very swollen, and deeply congested; respirations extremely rapid and irregular; pulse weak and fluttering. Stimulants were at once administered, with good effect, the patient rallying somewhat, and the pains recurring with former frequency, but without expulsive power; delivery was therefore effected by means of the forceps. Embarrassment of breathing still continued, but otherwise the patient felt relieved. In the second case, labour was in every respect normal and satisfactory till near its termination, when the patient's face became much swollen, the eyes being represented by sunken slits in the general puffiness of the cheeks and forehead. After delivery, rapid respiration continued.

In both cases, emphysematous crackling was easily obtained on palpation; the areas affected being the parietes of the thorax, the neck, face, and forehead. In neither case did the emphysema *per se* give rise to trouble during the puerperium, beyond a tendency to dyspnoea on the slightest exertion. In the way of treatment, nothing further than the observance of strict rest in the recumbent posture was required. The effused air gradually became absorbed, and in about ten days all trace of it was gone. Coincidentally with the subsiding of the emphysema, respiration returned to its normal rate.

It will be seen, in considering the above cases, that interstitial emphysema, as a complication of labour, may not be of serious import; but, on studying the course taken by the air in its passage to the subcutaneous cellular tissues, it does become evident that severe cases may be attended by serious results. The emphysema was no doubt caused by rupture of one or more air-vesicles into the interlobular connective tissue of the lung. The air following the meshes of this tissue found its way to the hilum, and thence into the three mediastina, which, we know, communicate with each other. Creeping along the sheaths of nerves and blood-vessels connected with these spaces, and underneath the pleura, it is understood how the air thus ultimately became diffused throughout the cellular tissues of the neck, face, and thorax.

Now, the risk in unfavourable cases is, that the air, by pressure upon blood-vessels and nerves (as, for instance, the phrenic and pneumogastric nerves), may seriously interfere with the functions of respiration and circulation; or, by direct pressure upon the pleura and pericardium, mechanically impede the action of the lungs and heart. Fortunately, the tissues soon absorb the foreign element; but, so long as pressure upon structures in the neighbourhood of vital organs exists, so long must care be exercised in the treatment. The first and essential object is to ensure perfect rest, so that the least possible exertion from heart and lungs shall be required. Labour should be speedily terminated after the condition is diagnosed, in order to prevent further extravasation of air into the tissues. In cases where great embarrassment of breathing exists, the emphysematous tissues should be punctured or incised, to allow the escape of the air, and thus to relieve pressure; and in extreme cases, threatening cardiac failure

from right-heart engorgement, it might even be necessary to have recourse to venesection.

Apart from the maternal risk, the danger to the child must not be overlooked. Interference with the circulation in the mother—improper aëration—will certainly react upon the child, and, if not quickly relieved, will produce death of the fœtus. Hence an added necessity for speedy delivery, after diagnosis of the complication.

A CASE OF HODGKIN'S DISEASE.

By PERCY BOULTON, M.D., M.R.C.P. Lond.,
Physician to the Samaritan Free Hospital, etc.

CASES of lymphadenoma are sufficiently uncommon to be worthy of record, and the successful treatment of so troublesome an affection cannot be without interest.

Miss M. H., aged 19, consulted me in July, 1884. She was of distinctly scrofulous cachexia, and had suffered for seven years from swollen glands in the neck. Lately, these had so much increased that the contour of the lower face was lost in what was not unlike a large



dewlap extending from ear to ear. The posterior auricular glands were affected also, but there was no enlargement of those in the axilla; and the spleen, liver, lungs, and kidneys were all healthy, the disease being limited to the glands of the head and neck, which were not inflamed or tender on pressure.

There was no increase of white blood-corpuscles in the blood, showing the case to be one of lymphadenoma, and not one of leukaemia; There was marked anæmia, debility, and sometimes giddiness. The catamenia were regular, but scanty. The tongue was large, pale, flabby, and furred.

The great disfigurement was, of course, especially trying to a girl of this age. I urged that it would be a case for patience and perseverance, and ordered linimentum potassii iodidi cum sapone to be gently rubbed on the neck night and morning; and the following pill to be taken three times a day: Phosphori. gr. $\frac{1}{2}$; strychniæ gr. $\frac{1}{32}$; acidi arseniosi gr. $\frac{1}{4}$; ferri redacti gr. 4.

The usual autumn holiday, both last year and this, was spent at the sea; and the patient had every advantage that money could procure, the result being that she is now convalescent.

The question might be asked, seeing that for seven years previously there had been a history of simple lymphoma of one or two cervical glands on each side of the jaw, was this a case of lymphadenoma, or only simple lymphoma? My answer would be, that it is rather extraordinary for a simple hyperplasia of two or three glands, after remaining stationary for seven years, suddenly to become active, and to involve most of the other glandular structures about the neck; so that what had previously been unnoticed became in a few weeks a hideous disfigurement. At the same time, it was not of that malignant type of this disease which might more properly be called lymphosarcoma.

The Netherlands Union for the Study of Mental Diseases held its autumnal meeting at Utrecht, on October 21st and 22nd, in the Hospital for Nervous Diseases. Most of the medical officers of similar institutions in Holland were present; whilst the evening meeting was attended by Professor Donders and the Secretary-General, Mr. Hubbrecht. The vacancies amongst the directors were filled up; Dr. Van der Swaale being appointed President; Dr. Moll, Vice-President; Dr. Pompe, First Secretary; Dr. Cowan, Second Secretary; Dr. Van Persign, Treasurer; and Dr. Wellinborough, Librarian.

VACCINATION.—Dr. William Robert White, medical officer and public vaccinator for the Wadhurst district of the Ticehurst Union, has received from the Local Government Board a gratuity for the efficient manner in which he has personally carried out his duties in the latter office.

ON THE INFLUENCE OF THE POSITION OF THE BODY ON THE POSITION OF THE HEART AND ON INTRACARDIAC PRESSURE.

By C. J. BOND, F.R.C.S.,

Honse-Surgeon to the Infirmary, Leicester.

THE following account is a brief statement of the results which have been obtained, and the suggestions to which they have given rise, in the course of a somewhat prolonged but by no means complete investigation into the effect of variation of bodily position on the position and movements of the heart in the thorax, and on the blood-pressure in the auricles.

In the healthy man in the erect or sitting position, the heart of course lies on the diaphragm—suspended, however, a little by its base, which is attached by the great vessels and the structures on the spinal column. Owing to this arrangement of the parts, it would seem, therefore, probable that variations in bodily position, or in the position of the diaphragm, might act through gravity on the suspension of the heart, either lengthening it, by allowing it to fall from its attachment, or shortening it, by pushing it up and back, as it were, on its base, and thus would affect the thin-walled auricles situated at the base, favouring, or rendering more difficult, their dilatation. Hence the blood-pressure in the auricles and in the great veins would be diminished or increased respectively; and this, favouring or impeding the filling of the heart in diastole, would produce the effects on the circulation which are daily evidenced by the orthopnoea of cardiac disease, or the cardiac oppression of upward diaphragmatic pressure, etc.—effects hitherto attributed to pulmonary influences, and to interferences with respiratory movements.

First comes the question, Does the heart change its position at all during variation in bodily position? and, if so, to what extent? It is, of course, well known that the forcibleness of the apex-impact against the chest-wall varies thus in the healthy adult man. It is felt most easily by the hand placed on the thorax when the body is lying prone and a little on the left side, and least when lying on the back and right side, the vertical position coming between these two extremes. Moreover, it is rendered less evident during the descent of the diaphragm in forcible inspiration, and also during a voluntary contraction of the diaphragm, with the glottis closed, probably by the tightening up of the pericardium attached to the central tendon.

In animals, as dogs, with a deep narrow chest, the apex-beat is felt least distinctly when the dog is lying on its back, and more dis-

tinctly, now on one side, now on the other, as the animal is rolled from side to side, owing, probably, to the V-shape of the thorax. In some animals, especially rodents, the diaphragm is transparent throughout the greater part of its central tendon, and through it direct observations of the movements of the intrathoracic viscera can be made. The first thing that strikes one, in looking at the under surface of the diaphragm in the rabbit or guinea-pig, is that, unlike man, the bases of the lungs are capable, during deep inspiration, of expanding over the whole surface of the diaphragm; and, as the pericardium is a thin loose membrane attached at only one point to the central tendon, they meet beneath the heart, obscuring it from view. Thus it happens that, in these animals, the action of the diaphragm in descent is very materially to widen the bases of the lungs, without materially acting on the heart.

But careful observation of the surface of the left ventricle visible (during expiration) through the diaphragm in the diamond-shaped area between the bases of the lungs, shows that this varies with the position of the animal. Thus, in the normal standing position, it is to the left of the middle line, and only separated from the thoracic wall by a small portion of lung; whereas, when the animal is placed on its back or right side, this ventricular surface approaches the middle line, and recedes from the chest-wall. These changes in the position of the ventricle can be also felt through the diaphragm.

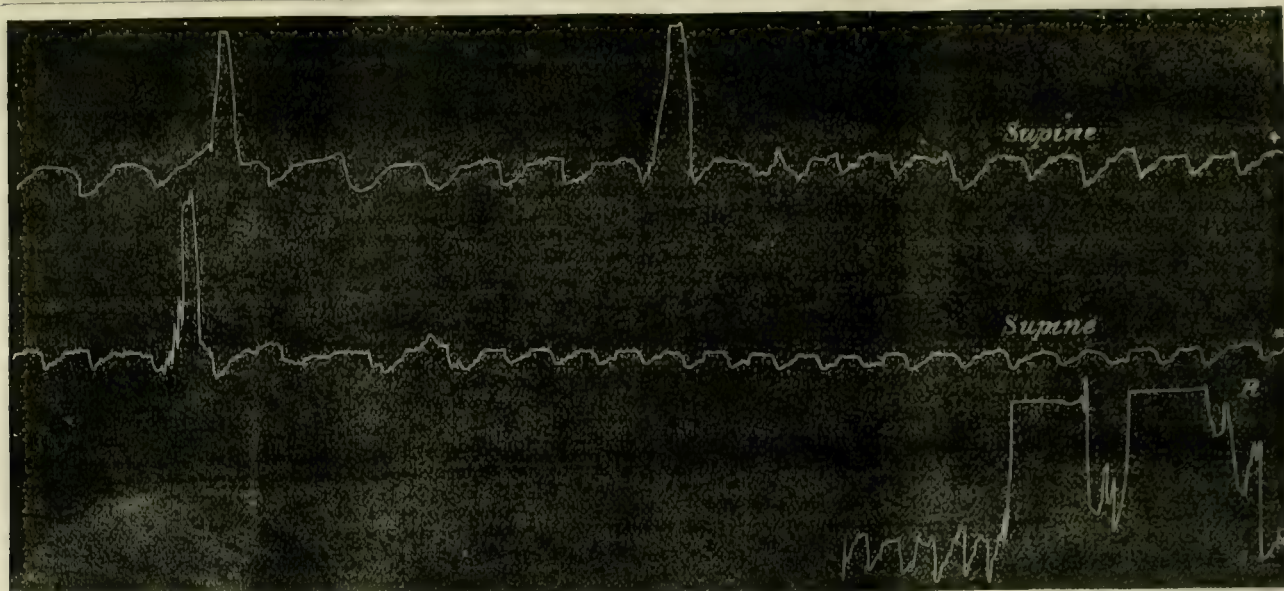
The next evidence as to variation in cardiac position is obtained by investigating, by means of the following instrument, the changes which occur at the base of the heart, as registered through the oesophageal wall. A tracing of the cardiac movements is obtained by means of an air-tampon, made by surrounding the lower end of a gum-elastic catheter, or oesophageal tube, perforated with holes, with a bag of thin India-rubber tissue, connected by tubing with an air-tambour, fitted with a lever, which writes on smoked paper stretched on a revolving drum in the usual way.

The tampon is passed down the oesophagus until the cardiac movements are most distinctly seen, showing that it rests against the base of the heart (*see photograph*), and the whole apparatus then slightly distended with air.

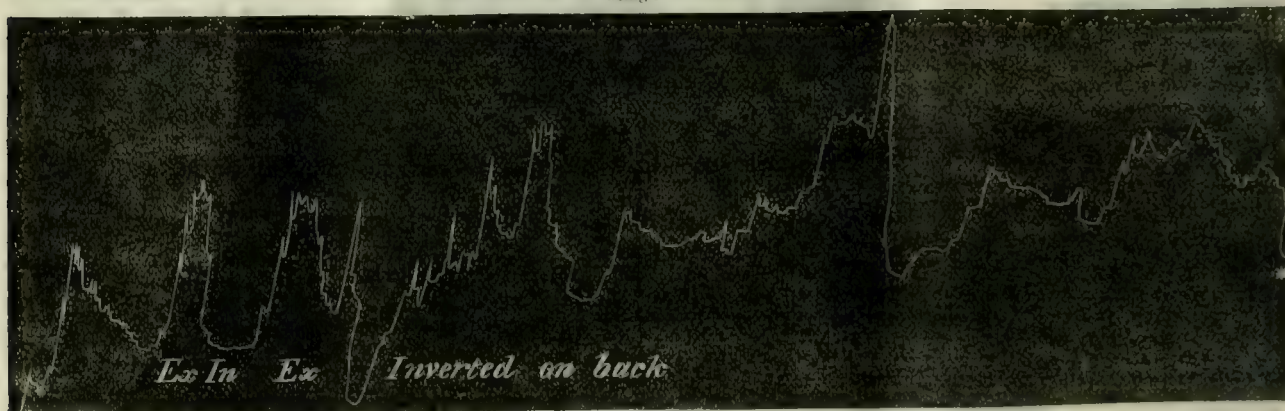
The graphic record thus obtained is somewhat complicated, for, in the anaesthetised animal, there is to be seen, first, a well marked and sudden rise, maintained at the same level for about one or two seconds, and then followed by a sudden fall. These large waves, which recur at irregular intervals, are due to the contractions of the oesophagus itself. The respiratory curve is next in size, consisting of a rather rapid rise, followed by a more gradual descent. This curve, of course, varies with the degree of anaesthesia, as will be described subse-



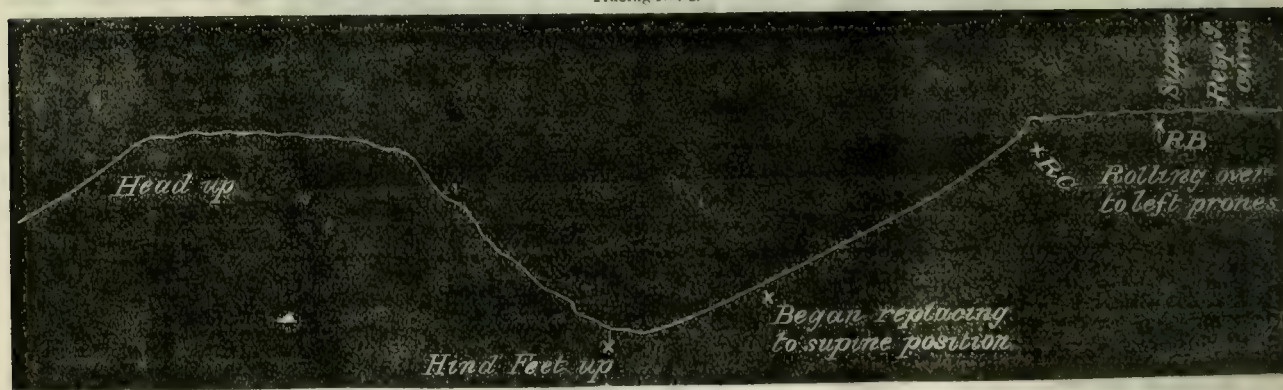
Engraving from photograph of vertical section of heart. Piece of wood passed down oesophagus shows its relation to left auricle and pulmonary artery.



Tracing No. 1.



Tracing No. 2.



Tracing No. 3.

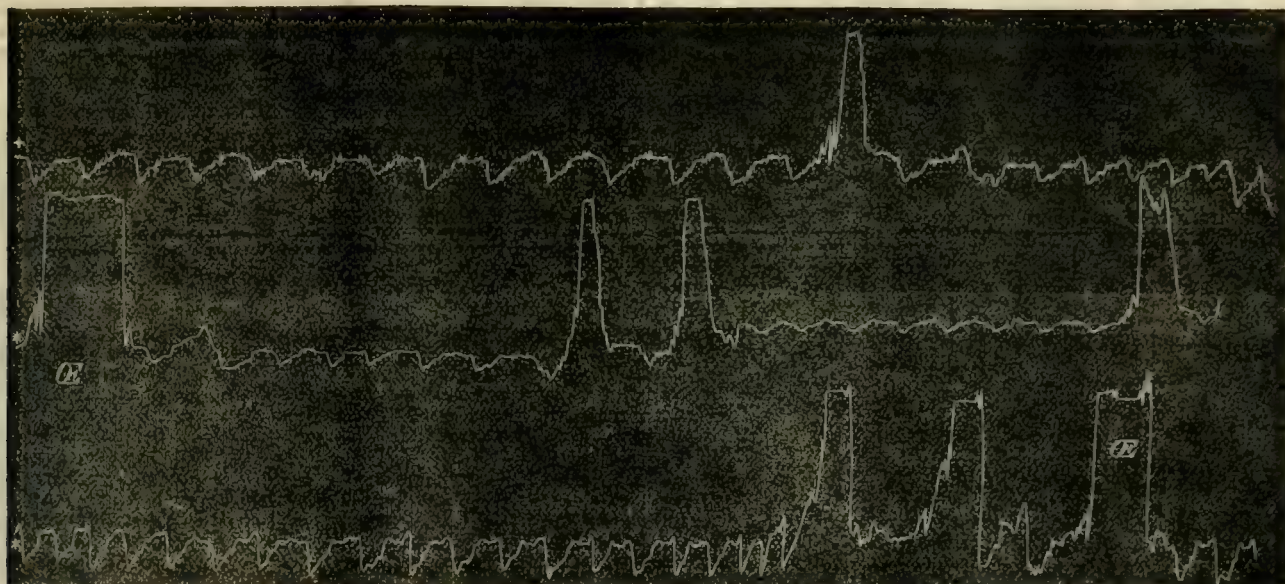
Tracing No. 1.—From right to left, cesophageal tampon. Anaesthetised sheep. Shows the curves due (1) to cesophageal contraction (the tall square topped waves); (2) the respiratory curve; and (3) the smaller and frequent cardiac oscillations on the summits of the larger respiratory waves.

Tracing No. 2.—From left to right. Tampon passed down writer's cesophagus. Shows cesophageal contractions, respiratory movements, and cardiac curves. The latter more marked during expiration, and during inversion, and on back; absent in sitting and prone positions.

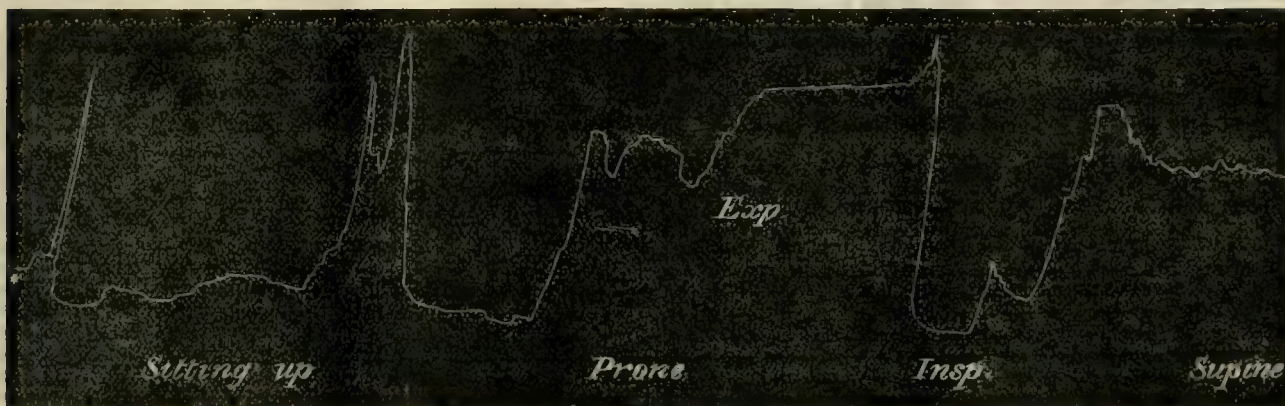
Tracing No. 3.—From right to left. Shows intra-auricular pressure-curve; falling during and after prone position, gradually rising in supine and inverted positions, and falling again when head and thorax are raised.

quently; and, thirdly, on this respiratory curve are to be seen a series of small waves, due to the cardiac beats; it is to these latter, and to their variations, that attention will now specially be directed. These cardiac waves are best shown in Tracing No. 11; here the tampon was passed down my own cesophagus, without anaesthesia; and, after some practice, I was able to retain it, without any attempt at vomiting, for a quarter of an hour at a time.

In following the trace from left to right, we notice, first, that (unlike the case of the anaesthetised animal) the respiratory curve is



Tracing 1.—(Continued.)



Tracing No. 2.—(Continued.)

irregular; also (and this is very important) that the smaller frequent rises are more marked during expiration than inspiration, owing to the heart falling back towards the spine during expiration; further, that these cardiac curves are very marked, especially on the summits of the expiratory rise at the left end of the tracing, while I was lying on my back, with the head and shoulders depressed, and legs and pelvis raised; while they almost disappear in the sitting up and prone positions, to reappear at the right hand end of the tracing in the supine position.

Now, in interpreting this tracing, we must remember that the base of the heart is in close contact with the oesophagus, and loosely connected to it in the following way. It passes vertically down behind the left auricle, about midway between the right and left pulmonary veins, and is also in contact (the pericardium intervening) with a portion of the base of the left ventricle.

That this cardiac tracing is really due to the movements of the base of the heart, and not to pulsation in the pulmonary artery or large vessels, is shown by the fact that it varies with inspiration and expiration, and ceases entirely when the heart is drawn up a little from the spinal column by a sharp hook thrust into the apex. Now, the fact that this cardiac curve varies in intensity constantly with alterations in bodily position shows that the base of the heart (the amount of suspension, in fact, of the organ) is influenced by bodily position. The base, in fact, is pushed back or squeezed in inversion, the supine position, and in forcible expiration, while it is released in standing, the prone position, and in full inspiration. Further, the rise of the lever in this, the "base-beat" of the heart, is synchronous (as shown by direct observation, the pericardium being opened) with the ventricular sys-

tole; showing, in fact, that, as at the apex, so at the base, the heart at systole communicates a shock to the structures in contact with it; and, as this is transmitted through the left auricle, it favours Fick's view of the function of the auricles—namely, to keep the venous flow constant, the intra-auricular pressure only rising appreciably at the ventricular systole by communication of shock and tension. At any rate, the fact of this "base-beat" being synchronous with the apex-beat seems to show that, partly by the tilting of the heart, an impulse is produced during systole at both base and apex, and that, consequently, the base of the heart does not descend or pass forward from the spine during systole, to any great extent, in consequence of the elongation of the large vessels, as has been supposed.

Having thus proved that the heart moves on the base in the thorax as the body alters its position, we have next to consider whether this movement of the heart exercises any influence on the intracardiac blood-pressure, and if so, to what extent.

A flexible tube, filled with solution of carbonate of soda, was passed down the external jugular vein of a dog (fully narcotised with ether) into the commencement of the right auricle, and connected with the tambour system above described, also filled with the solution.

Tracing No. 3 shows the results obtained, starting on the right, with the animal lying on its back. As it is rolled over to its left side, the intra-auricular pressure gradually falls, as shown by the descent of the lever; this fall continues for a little time after the animal is replaced, but rapidly rises when the animal is held with the hind parts raised, and falls again when the pelvis is lowered, and the fore part of the body is elevated.

This effect varies constantly with bodily position, and is not due to

any alterations in blood-pressure produced by the anæsthetic. It occurs, too, after the inferior vena cava has been ligatured, and is not therefore due wholly to reflux of venous blood. It occurs also in the dead human heart, as I have found by means of a like instrument, passed not only into the right auricle, but also into the left auricle. It seems, therefore, certain that it is due to the mechanical effect of gravity acting on the heart, which falls back, compressing its base in the way described above.

This fact, namely, that the intra-auricular pressure, and consequently the circulation, is affected mechanically by alterations in bodily position and respiration, has, I think, important bearings. First, physiologically. The heart, slung as it is from the great vessels above, and in man resting on the diaphragm below, has, it must be remembered, no power to fill itself, for the pressure in the great veins is slight, or often a minus pressure. This filling is due, of course, chiefly to the aspiratory influence of the thoracic movements of inspiration, and partly to the elastic tension of the lungs acting on the thin walled auricles, while the above facts would suggest that it is also partly due to the fall of the heart, since it follows the descent of the diaphragm in inspiration, thus allowing its base to fill by the mechanical aspiratory influence of its own weight. The alterations in the arterial circulation known to exist in the standing or lying postures may be partly produced by cardiac gravity.

Secondly, pathologically; this mechanical theory seems to me to explain the peculiar position of cardiac dyspnoea. The patient who suffers from backward venous pressure—from any disease, in fact, cardiac or pulmonary, which impedes the filling of the auricles—naturally sits up in bed, turns on his left side, or bends a little forward, not only because respiration is thus more easy, but also because the heart in this position can fill better, owing to diminished intra-auricular pressure. In fact, the early stage of many such diseases is impeded cardiac diastole, which is thus mechanically overcome. Also it has been found that, in the feebly acting heart of partial chloroform-syncope, the best treatment is to roll the patient gently on to his left side in a semi-prone position. Inversion (Nélaton) acts at first beneficially, of course, by increasing the blood-pressure in the anæmic central nervous system; but, if long continued, its heart-impeding effects soon become manifest.

Further, the peculiar cardiac embarrassment produced by upward pressure of the diaphragm, from whatever cause, is thus explained by its acting, not only on pulmonary respiration, but also directly on the position of the heart. From the anatomical relations of the base of the heart, the right pulmonary vein passing behind the right auricle, being connected to it by pericardial folds, to reach the left auricle, any overdistension of the right side would excite unequal pressure on the pulmonary veins, and thus perhaps suggest an explanation of the more frequent occurrence of pneumonia on the right side.

The death of animals, especially sheep when "cast," accompanied, as it is, with all the signs of pulmonary and cardiac engorgement, may be partly due to the supine position acting unfavourably on the heart, as well as on the lungs and the diaphragm; for in quadrupeds, it must be remembered, the heart is more vertically slung from the spinal column, and they never, for any length of time, lie on their backs. This difference between man and animals in the mechanical effect of position on the heart, owing to the erect position in the former, is a problem of considerable interest, especially when looked at as a process of development.

In conclusion, I have to thank Professor Victor Horsley for his great kindness in performing the experiments at the Brown Institution.

THERAPEUTIC MEMORANDA.

DIPHTHERIA CURED BY TOLU VARNISH.

M. O. L., AGED 13, complained at 2 o'clock on November 10th of malaise. She was in bad spirits, owing to the death of one of her schoolfellows from diphtheria. A saline aperient was ordered, and taken in the evening. Next morning, at 7 o'clock, she said she felt "all right," but complained of sore-throat.

On examination, a thick, well-formed, greyish looking patches, rather smaller than a florin but of oval shape, with gangrenous edges, was seen over the right tonsil, and on the right posterior pillar of the fauces. At 5 o'clock in the afternoon the patch had somewhat increased, and two small patches were seen on the other side. The diphtheritic spots were covered with tolu varnish, as recommended in Dr. Morell Mackenzie's work. Tincture of perchloride of iron, with glycerine and chlorate of potash was prescribed as a constitutional

remedy. The patient expressed herself greatly relieved by the varnish, and I applied it twice a day, instead of once, as advised by Dr. Mackenzie. In about forty-eight hours from the time when it was first seen, the membrane began to disappear, and, on the evening of the fourth day, not a trace of it remained.

I may add that it is important that the fauces and tonsils should be first well dried with blotting-paper. The solution can be most conveniently applied with a camel's hair-pencil fixed into a long wooden penholder, as supplied by Messrs. Maw. The method of treatment which I have found so successful in this case being, I believe, little known, I think I shall be doing a service to my brother practitioners in placing it on record. RICHARD LORD, M.D., Notting Hill.

CUCAINE IN MORPHINISM.

In connection with the toxic effects of cucaine, it may be interesting to place on record the following facts with regard to the case of a patient for whom it was prescribed in order to counteract the effects of morphinism. Eight grains and a half of the drug were taken in three days, commencing with a dose of one-eighth of a grain, and increasing up to two-thirds of a grain. No appreciable toxic effect was produced; and the only physiological one was exaltation of the nervous power, followed, in three hours afterwards, by corresponding depression. Two or three small doses of morphine only were administered during this period, after which the patient progressed without a bad symptom. The patient had been in the habit of taking from five to ten grains of morphine daily for three years. I may mention that the cucaine was bought in two parcels, and from different druggists.

ROBERT J. BANNING, M.D., The Hall, Bushey, Herts.

CLINICAL MEMORANDA.

A CASE OF SNAKE-BITE.

M., a Hindu, aged about 30, was seen by me in River Estate Hospital, at 7 p.m., on October 29th, 1885. About five hours previously, she had been bitten beneath the right toe-nail by a coral snake (*Elaps corallinus*). I found her with a temperature of 98°, and a pulse of about 100, almost uncountable. She was speechless; the respirations were shallow and gasping; and she was constantly retching, but only bringing up a little frothy fluid. The heart-sounds were inaudible. She had been in this collapsed condition about two hours. I gave her a drachm of aromatic spirit of ammonia by the mouth, and, a few minutes after, injected twenty-five minims subcutaneously above the right ankle. The bitten flesh was excised, and strong nitric acid applied. The pulse improved almost immediately, and she spoke. She was ordered a drachm of the ammonia, with half an ounce of brandy, every two hours. She was up next morning. Whether the result had any anything to do with the treatment is, of course, a question.

BEAVER RAKE, M.D. Lond.,
Government Medical Officer, Trinidad.

VACCINATION: DELAY IN DEVELOPMENT OF VESICLES.

AN instance of this is reported, in the JOURNAL for November 28th, by Dr. Hott. On May 1st of the present year, I vaccinated a lady in three places with calf-lymph; the seats of puncture bled rather freely. There was no sign of successful vaccination till May 14th, when the patient noticed some itching about the site of vaccination, and, the next day, two vesicles began to develop. These matured in the usual manner. The areole became very much inflamed, and the axillary glands were enlarged and painful. The patient had been vaccinated when a child.

MORDAUNT G. DUNDAS, M.R.C.S., etc.,
Fakenham, Norfolk.

SURGICAL MEMORANDA.

THE TREATMENT OF FRACTURED PATELLA BY WIRE SUTURE.

IN speaking the other day, at the meeting of the Manchester Medical Society, of several successful cases, Mr. Hardie recommended that this should become the routine treatment in all cases of fracture of the patella. I venture to doubt whether, without further information on the subject, it would be wise to adopt Mr. Hardie's recommendation; for, although a great many successful cases have been reported during the

last two years, yet there must have been some failures of which it would be desirable to know something.

Seeing that, under the old methods of treatment, many cases recovered almost perfectly, most cases with useful limbs, and all with limbs of some kind, it would be well for any one proposing to operate to contemplate the possibility of a disaster, too serious to be compensated by many successes, as the following case that came under my notice some time ago will show.

A. W., a collier, aged about 40, was admitted to the Cottage Hospital here on April 27th, 1884. Four months previously, he fractured the patella, which was sutured in the manner, and, I believe, with the precautions, recommended by Lister. This was followed by extensive suppuration, etc., and he was sent to me for amputation of the thigh. On admission, the fragments were three inches apart, and necrosed; the knee-joint was destroyed; the femur was considerably thickened, as high as the trochanter; there was a free discharge of unhealthy pus from the knee, and two large abscesses in the thigh; extensive bed-sores were found over the sacrum and trochanters; pulse 130; temperature 103°; and the urine and feces were passed involuntarily. Amputation was deemed out of the question; but he was kept in the hospital for about a month, in the vain hope that some change in his condition might take place that would admit of an operation being performed; and, at the end of that time, he was removed to a work-house, where he shortly afterwards died.

P. M. DAVIDSON, Congleton.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LONDON HOSPITAL.

A CASE OF HYDROPHOBIA.

(Under the care of Dr. SUTTON.)

For the report of this case, we are indebted to Mr. F. J. SMITH, M.B., House-Physician.]

HARRY L., a schoolboy, aged 12, was sent to the London Hospital, November 25th, 1885, from the Poplar Hospital for Accidents. He was admitted to the ward about 7.15 A.M.

The family history contained no point of interest, unless it were that he lost two brothers in infancy from fits, a fact which might tend to show a neurotic taint in the family, though such a theory was strongly condemned by the robust health of all the other members of the family. The patient had lived in Poplar all his life, and was always an active and cheerful boy, but very nervous and easily frightened.

Four months before admission, he was bitten in the face by a dog. Four other boys were bitten by the same dog; one of them has undoubtedly since died from hydrophobia, and the other three are believed to have done so. The patient was taken at once to Poplar Hospital, and the wound was cauterised; it did not bleed. It is said that the patient did not worry about the bite, which healed up successfully.

He felt no ill effects from the accident until November 22nd, when he complained of headache, especially over the forehead, and he said the wound felt like "pins and needles." His face was flushed, he complained of great thirst, and was extremely restless. His mother said that, on the night of November 23rd, when these symptoms had lasted about thirty-six hours, he only slept about a quarter of an hour.

On November 24th, the restlessness and headache became worse, and he had several "fits" in the course of the evening; in consequence, he was taken to Poplar Hospital, and thence sent on to the London Hospital.

When seen on the morning of November 25th, in the receiving room, he seemed very jerky and incoherent, but there were no very definite symptoms of the disease, and he walked quietly enough to the ward, and remained fairly quiet in bed. About 11.15 A.M. he was seen by the house-physician. The chief noticeable feature then was an appearance of terrible anxiety on the face; when his shirt was removed, to allow auscultation, he at first submitted to examination very readily, but in a few moments became very restless, and insisted

upon getting out of bed. He had no fits of absolute violence so long as he was allowed to stand up, but became very excited when anyone tried to replace him quietly in bed; he was perfectly sensible, and expressed no horror of water. His breathing and pulse were quite quiet, and he had no spasms of the glottis. When asked if he would take some medicine, he replied, "Yes, I will try." Twenty grains of chloral-hydrate were given, in about half an ounce of water; he took the glass, and with several spasmodic jerks of the arm, raised it to his lips and swallowed the draught without much apparent effort; in a few moments, however, he was sick, and vomited about two ounces of bloody mucus. It should be mentioned that previously he had been coughing up at intervals this same dirty bloody mucoid material. As it was believed that he had brought up all the chloral, a hypodermic injection of morphine, one-sixth of a grain, was given. In a few minutes he lay down quietly, and said he could sleep, so he was left with a nurse to watch him. The morphine lost its effect in a short time, and at 1 P.M. he was standing on his bed, with the same look of anxiety on his face. He then said he wished to go home, and rushed off the bed as though to do so. Chloroform was then administered, and he was brought under its influence at 1.15; at 2 P.M. a hypodermic injection of curare was given; in a few minutes he was allowed to recover from the chloroform, to see if the curare had taken effect. It was found not to have done so; the chloroform was therefore resumed, and at 2.30 P.M. another hypodermic injection of curare was given, one-quarter of a grain (this second injection was 3 minims of a 1 in 12 solution, kept in the receiving room for cases of strychnia-poisoning; the first injection was a solution of one of the dried tablets kept in the dispensary). After a quarter of an hour, it was found that this second injection had been as useless as the first; the chloroform was therefore again resumed. At 4.15 P.M., Dr. Sutton saw the patient. He advised that he should be bled pretty freely, and the chloroform discontinued; he was, accordingly, bled to fifteen ounces. This seemed to give him some relief, and for an hour or so he seemed fairly quiet. Between 5 P.M. and 6 P.M., he had two large enemata (one pint) of soap and water, all of which was completely retained. At 6 P.M. he was still restless and excited, but evidently dying from failure of the right heart, the lungs being choked with fluid. He continued to live for an hour or more after this, the respiration and circulation becoming more and more laboured, until at 7 P.M. they finally ceased. No *post mortem* examination was allowed.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.

EXTENSIVE FRACTURE OF SKULL, WITH DEPRESSION: OPERATION: RECOVERY.

(Under the care of Mr. PAUL SWAIN, F.R.C.S., Surgeon to the Hospital.)

[From Notes by Mr. BUCHAN, House-Surgeon.]

M. C., aged 14, was admitted on September 9th, having on that morning fallen from a verandah two stories high, pitching on her head on the kerbstone. She was picked up insensible. On admission, she was perfectly unconscious, but constantly moaning. Over the left parietal bone, there was a large fluctuating swelling, through



which the edge of the bone could be distinctly felt. There was no external wound. The left eyelid was puffy and slightly discoloured. There was no paralysis. Respiration was normal. The pupils were

dilated, but equal. There was no vomiting. Her head was shaved, and ice applied.

On September 11th, she was in much the same condition. The temperature had fallen from 100.2 Fahr. to normal.

On September 12th, the right pupil was dilated, and the left contracted. The temperature was rising, and the coma was deeper. Mr. Swain determined to make an exploratory incision. An extensive conical incision was made over the parietal swelling, and a large quantity of blood-clot removed. There was then found to exist a very extensive fracture of the parietal bone, indicated in the woodcut. The posterior portion of the bone was jammed down on the dura mater. The large oblong portion of bone, also shown in the cut, was quite separated from the surrounding bone, and deeply depressed. Some portions of bone having been removed with the bone-forceps, room was made for the insertion of the elevator, when the parietal bone was lifted into position, considerable force being required to accomplish it. The loose portion of bone was then elevated, and removed entirely. There was no wound of the dura mater, but a large clot was found between it and the skull; this was removed. Considerable hæmorrhage took place from the surface of the dura mater, and was only arrested by the use of the actual cautery. The wound was then syringed out with carbolic lotion, and the skin carefully adjusted and sewn together with numerous carbolised gut sutures. A drainage-tube was inserted, and the whole dressed antiseptically.

On September 14th, she was more sensible. The pupils were equal, and slightly responsive to light. The temperature was normal.

On September 19th, she for the first time recovered her speech; she talked with the nurse, and quite understood what was said to her. The wound, which had been dressed antiseptically, was now healed.

On November 14th, the patient was quite well, and complained of no symptoms, with the exception of slight frontal headache.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 8TH, 1885.

BERKELEY HILL, F.R.C.S. Eng., Vice-President, in the Chair.

A Case of Destruction of a Portion of the Axillary Artery by Sarcoma. By W. S. SAVORY, F.R.S.—This paper recorded the case of a man, aged 33, who was admitted into St. Bartholomew's Hospital with a large tumour beneath the pectoral muscles. The mass was soft, and manifestly increased in size during the fortnight the patient was under observation. An attempt was made to remove the growth by a free incision along the lower margin of the pectoralis major, where it presented, through the fat of the axilla, a well defined outline. That part of the tumour which lay below the vessels was easily removed, but no attempt was made to detach the portion which was found, during the operation, to have grown around those structures. Whilst securing some insignificant arteries, which had been divided in the lower part of the axilla, the hæmorrhage, which up to that stage had been but slight, began to be exceedingly copious. In searching for the seat of the bleeding, it became evident that it proceeded from where the axillary artery should have been, though that vessel could nowhere be found. The hæmorrhage was afterwards arrested by means of pressure-forceps. The patient lived for a week after the operation, when there was suddenly a violent gush of blood, and, before it could be arrested, he died. *Post mortem* examination showed that the part of the axillary artery involved in the tumour was completely broken up. A note by Mr. D'Arcy Power, on the histological appearances of the artery at a point immediately below the rupture, was appended. A detailed account of the *post mortem* state of the other vessels was also added.—Mr. BERKELEY HILL had listened with great interest to Mr. Savory's paper, which had stated the case very vividly. The continuance of circulation in the arm when the arterial walls were so completely destroyed, was a circumstance to which he knew no exact parallel. He had not gathered from what part Mr. Savory considered the tumour to have grown.—Mr. BRYANT remarked that Mr. Savory had been most fortunate to see the process of arterial destruction by malignant growth in a most unusual stage, when the arterial walls were destroyed, but the lumen not blocked up, as he imagined it would have been a few days later.—Sir W. MACCORMAC asked what was the condition of the circulation in the arm after the axillary vein had been tied in the operation.—Mr. SAVORY said that he could only guess from what tissues the sarcoma had started. The artery had suffered most, and it was quite possible that it had started from that.

He had not felt any misgivings in tying the vein, as he would have done some years ago; and the circulation was very fairly carried on by collateral channels. The pulse was smaller, but there was no risk of gangrene.

Amputation at the Knee-joint by Disarticulation; with remarks on Amputation of the Leg by Lateral Flaps. By THOMAS BRYANT, F.R.C.S.—The author said that removal of the leg by disarticulation at the knee-joint, was first practised in England by Mr. S. Lane, in 1857, and had been advocated by Messrs. G. D. Pollock, Pick, Stephen Smith, Markoe, Brinton, Staples, and the author. It was still regarded with some suspicion, and was not frequently resorted to; amputation through (or just above) the condyles being generally preferred. The operation by disarticulation required for its success that the disease or injury be confined to the leg, that the condyles of the femur be uninvolved or very slightly affected, and that there be a sufficiency of healthy soft parts, below the knee, for the formation of a good flap. If these conditions were not present, some other method of amputation must be adopted. The author gave tables of his thirty cases, with the results, namely, 1 death in 19 pathological cases, and 6 deaths in 11 traumatic. Where there was no sloughing, no trouble was experienced with the articular cartilage on the condyles of the femur, and after healing the soft parts moved freely over the end of the femur. The cicatrix was always placed well behind the femur. The patella was preserved, its removal being found to be quite unnecessary. The steps of the operation, after three different methods, were then described: namely, that of Pollock by the long anterior flap, Pick's plan by lateral flaps, and Stephen Smith's method by lateral hooded flaps; and illustrations of the steps of the last operation accompanied the paper. The author endorsed completely the remarks of the American surgeon upon the value of his method of procedure, and strongly urged its application to cases of amputation in the leg also. The muscle-substance was generally included in the flap, in thin subjects, but not in others. The resultant stumps in the leg thereby obtained were excellent. The method of Stephen Smith for amputation at the knee-joint was to be preferred to either of the two other plans already mentioned, as it gave a better covering to the condyles of the femur, and the flaps were less prone to slough than was the long anterior flap of Pollock. One case in five of the former sloughed, and rather more than half of the latter class of cases. Smith's method also placed the cicatrix entirely behind the condyles, and out of harm's way; whereas, by Pick's method, the cicatrix came to lie in the intercondyloid notch. Moreover, Smith's plan permitted no bagging of fluids, the stump being in the best position for drainage. The author advocated the leaving of the semilunar cartilages *in situ*, as of great advantage to the case, the soft parts being thereby all held well in place, and the fascial relations preserved. Dr. Brinton, as early as 1872, also advised this plan of practice. Finally, the author summarised the advantages of this form of operation over amputation through the thigh in the following words: 1, the lessened shock of operation; 2, the lessened section of tissues, and the non-exposure of the muscular interspaces of the thigh; 3, the escape from the necessity of sawing the femur, with attendant risks; 4, the preservation of the attachments of the thigh-muscles, and consequently the greater mobility of the stump; 5, the useful character of the resulting stump.—Mr. BERKELEY HILL thought Mr. Bryant's paper of great value in showing how some important practical advantages could be obtained, and congratulated him on reviving the practice of keeping the cartilages.—Mr. PICK agreed with Mr. Bryant that there was some unnecessary prejudice among surgeons against amputation by disarticulation and the non-removal of the cartilages. Syme and Fergusson had always recommended that they should be cut off. He had himself operated for some time by disarticulation and a long anterior flap, but he had found some sloughing in the flap in sixteen cases out of twenty-nine, and hence it had fallen into disfavour. He had tried a long posterior flap once, but that did not allow sufficient drainage, and dragged on the edge of the wound. He thought the lateral flaps decidedly the best, but it mattered little after what pattern they were formed; he held his own pattern the best, undoubtedly, but he recognised that that was probably only because it was his own. He had tried it at first by accident on a boy with comminuted fracture, who had no healthy skin left wherewith to make a long anterior flap. The operation differed from that of Mr. S. Smith in the position of the cicatrix and removal of the patella, which, he thought, was sometimes in the way of an artificial limb. The position of the cicatrix was not important, so long as it was not pressed upon; but his main objection to Mr. S. Smith's form of flaps was, that they tended to bagging and accumulation of matter.—Mr. HOWARD MARSH said that he quite agreed with Mr. Bryant and Mr. Pick, that there was no danger in

leaving the cartilages untouched; there was no objection felt to it at St. Bartholomew's Hospital—in fact, it was often done in Symes' operation. He brought forward, as a specimen, the stump of a child's leg, on which amputation, by disarticulation and a long anterior flap, had been performed by Mr. Holmes, at the Great Ormond Street Hospital, in 1864. There had been no sloughing; the patella was left, but was not in the way; the stump was as perfect as possible; the synovial membrane was found strong and healthy when the child died, six months after the operation, owing to measles. Had Mr. Pick really found the patella practically inconvenient in the stump?—Mr. PICK admitted that his objections to it were chiefly theoretical.—Mr. JAMES HARDIE (of Manchester) had practised amputation by disarticulation at the knee for the last six or seven years, and had come to prefer making his flaps by an oblique circular incision. There was no operation more satisfactory, he thought, unless it was Syme's operation at the ankle. The parts to be cut through were most suitable, no large mass of muscle, a minimum of vessels, and no bone. The elliptical incision, he advised, might be considered a fourth method in addition to the three Mr. Bryant had described; and it had one good point in tending less to slough, owing to the absence of any notch between the flaps. He was struck by Mr. Bryant's suggestion to leave the semilunar cartilages, and was inclined to adopt it.—Sir W. MAC CORMAC agreed with Mr. Bryant and others in thinking the cartilages might safely be left. He had found, in fact, that they restrained the retraction of the skin. He should consider the oblique circular incision good, but not so easy an operation as by nearly equal anterior and posterior flaps, such as he generally used.—Mr. G. D. POLLOCK observed that he preferred as a rule to leave the patella, because that involved less dissection, and because that interfered less with the attachment of the muscles. A stump was thereby secured which was much stronger, and could be thrown forward in walking after the ordinary manner of a sound limb. He thought it very possible that his method of a long anterior flap might be improved upon, and inclined to an oblique circular or elliptical incision, which he had not yet had an opportunity of trying.—Mr. HOLMES was much obliged to Mr. Howard Marsh for bringing forward the result of an operation of his done more than twenty years ago, and thought it showed a nearly perfect stump as its result. Amputation by disarticulation certainly left most power of mobility to the stump. A bricklayer on whom he had practised it thought his stump powerful enough to support him in his old work of going up and down ladders. Mr. Holmes had tried, however, to dissuade him. It must be admitted that any of these operations with long flaps were much more dangerous than those with shorter ones, and that was one argument for cutting the lower condyles of the femur. The objections to leaving the patella were not merely theoretical, for he had seen the patella drawn half way up the thigh after amputation. In amputation by disarticulation, there was a tendency to suppurate in the synovial pouch, and also in the tissues running up the thigh. He had sometimes regretted having done it, and found it led ultimately to a second operation a few inches higher up. If the stump healed rapidly, the patella was of much use as giving greater strength and movement. Mr. Bryant had admitted that there was sloughing in many of his cases, and he thought there was decidedly more than in amputation through the lower third of the femur. He should advise, therefore, a consideration of each special case on its merits, rather than the universal application of a general rule. The objection to leaving cartilage in the wound was quite antiquated; he had seen it quite exposed after sloughing of the anterior flap, but causing no inconvenience. He was inclined rather to some such shape of flap as Mr. Hardie had described, objecting to the lateral ones as generally too long to avoid the danger of sloughing.—Mr. BARWELL supported amputation by disarticulation, and reported less sloughing in his nine cases than Mr. Bryant had met with.—Mr. W. H. BENNETT thought that there were two points in regard to amputation by disarticulation which had not been mentioned, and were worth notice. First, that it had a special tendency to secondary hæmorrhage, and then the flaps nearly invariably sloughed; secondly, that it led to the stump becoming distended, even by a very slight effusion. The second point had led him to make unusually long lateral flaps, and he thought that by so doing he had avoided this dangerous tension. In looking back at the cases at St. George's Hospital, he found that, out of 24 made with a long anterior flap, there had been sloughing in 11 of them, and secondary hæmorrhage in 4 of these; the sloughing had been of the anterior flap alone in 8 cases, of the posterior alone in 2 cases, so that he thought the blame attributed to the anterior flap alone was hardly deserved. He admitted that operation by disarticulation gave the best stump for powers of mobility; it might sometimes be inconveniently long for a man who sat up against a desk, like a watchmaker on whom he had operated.—Mr. POLLOCK remarked,

incidentally, that his experience had never shown him such cases of inconvenience; it was unnecessary that the knee of the stump should project further than the knee of the other leg.—Mr. BRYANT said he had been glad to find the operation was so common. He admitted that it was open to criticism. Though one-fifth of his cases had had some sloughing, it had been exceedingly trifling in some. He should be quite satisfied with Mr. Hardie's mode of shaping the flaps, but made the theoretical objection that it would be nearly impossible in that way to get them big enough to cover the large condyles of the femur. He was surprised that Mr. Pick still wished to remove the patella; he had never found it in the way, or drawn up, as Mr. Holmes had described. He should meet Mr. Bennett's objections by advising early and complete drainage, and that was particularly easy with lateral flaps. He had seen one case heal in five days. As to secondary hæmorrhage, he had only found it in one exceptional case among thirty, and when it did occur, he did not consider it caused the sloughing, but rather that both were due to some third influence.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 30TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

On the Difficulties of Diagnosis in Ulcer of the Stomach.—A paper was read on this subject by Dr. STEPHEN MACKENZIE, who said that, while the diagnosis of ulcer of the stomach was common enough, occasions of testing its correctness were comparatively rare. It had to be borne in mind that cases presented themselves where an ulcer did exist, without giving rise to any particular or characteristic symptoms; and, on the other hand, there might be a complete clinical picture of gastric ulcer, without any such ulcer being discoverable at the necropsy. Dr. Mackenzie read the history of various cases exemplifying the uncertainty of the commonest symptoms, and the errors to which they might give and had given rise. Patients suffering from *apepsia nervosa* might conduct themselves in every respect like one suffering from genuine gastric ulcer. This condition was one, he said, characterised by absolute incapacity of the stomach to retain and digest food due to nervous causes. The author insisted on the fact that, in cases of nervous origin, any kind of food would probably be alleged to cause pain, even milk; and this, he said, was not generally the case in true gastric ulcer.—The PRESIDENT said that, after Dr. Mackenzie's paper, he was inclined to think that cases of *apepsia nervosa* were pretty common. He asked whether the craving for peculiar aliments, often of an eccentric kind, such as Dr. Mackenzie had mentioned in one of his cases, had any diagnostic importance. Dr. ORD said he had been struck by the disproportion which so often existed between the lesions and the symptoms to which they gave rise; extensive lesions sometimes causing but slight symptoms, and at other times insignificant lesions would set up quite a grave train of symptoms.—Dr. C. H. F. ROUTH said that the temperature of the food afforded a valuable diagnostic sign; that in gastritis and ulceration cold drinks were soothing, whereas in nervous cases only warm drinks had that effect. He thought, too, that the increased tenderness over the site of an ulcer, on passing an electrical current, might be turned to account.—Dr. SANSON mentioned the case of a medical man where an ulcer of the stomach which caused death was diagnosed as commencing pleurisy, owing to the absence of definite symptoms pointing to the stomach as the organ affected.—Mr. JAMES BLACK and Dr. W. H. WHITE quoted cases bearing out Dr. Mackenzie's views.—Dr. THEODORE WILLIAMS insisted on the very localised tenderness in gastric ulcer.—Dr. ANGEL MONEY suggested that the condition of *apepsia nervosa* should be regarded as the disease present in all cases, and that the ulcer should be considered accidental. The diversity of results would thus be explained.—Dr. T. STRETCH DOWSE thought inquiries should be made with the view of ascertaining whether there existed any connection between cases of gastric ulcer and ataxia.—Dr. FOWLER said that many cases diagnosed as gastric ulcer were attributable to organic disease of the heart.—Dr. MACKENZIE, in reply, said that no symptoms could be regarded as pathognomonic. He did not think that gastric ulcers had any connection with ataxia, nor could he admit the probability of Dr. Angel Money's ingenious suggestion.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, DECEMBER 3RD, 1885.

W. A. GARRARD, M.R.C.S., Vice-President, in the Chair.

Extra-uterine Fœtation.—Mr. C. ATKIN showed a specimen of extra-uterine fœtation, the rupture of which had caused death in sixteen hours. The woman was 32 years of age, and it was her fifth preg-

nancy. Menses were noticed a week before and the morning of her death. Her symptoms led the druggist who was called in to treat her for poisoning. Mr. Atkin laid stress on the importance of diagnosing internal hemorrhage, and the urgent necessity of operative interference in such cases, cold and hemostatics being perfectly useless. —Remarks were made by Dr. LAW and Mr. GARRARD.

Pseudo-hypertrophic Paralysis.—Dr. DYSON related two cases of pseudo-hypertrophic paralysis. The first patient exhibited was a boy aged 11, who had had symptoms since he was 5 years old; measles and scarlet fever were the supposed causes. The gait, attitude, mode of getting up from the floor, and the enlargement of the calves and buttocks, were characteristic. The progress of the case had been slowly downwards, notwithstanding the treatment, which consisted of electricity, nerve-tonics, and exercise. The other case, aged 12, was more advanced. Heredity was a factor in the causation. He was now unable to stand, and there was much atrophy about the upper extremities. The same treatment as in the first case was of no avail. In both cases, the mental condition was very good.

Progressive Muscular Atrophy.—Dr. PORTER exhibited a case of progressive muscular atrophy, of which the chief features were atrophy, beginning in the muscles of both shoulders and both scapulae, wing-like projection of the scapulae, lordosis, and coldness and blueness of the hands; the temperature of the surface over the affected deltoids being 4° Fahr. lower than that of the axilla or mouth. Latterly, the hands had begun to assume the *main en griffe* form. Speaking of the lordosis, Dr. Porter said that Duchenne had described two varieties of curve in the spine, differing according as to whether the extensors or flexors of the trunk were principally involved. The case before the Society seemed to bear out this view as to the causation of the lordosis. The curve resembled the variety attributed by Duchenne to atrophy of the flexor muscles; and, whereas the patient could recover the erect posture after stooping, he was unable to rise from a recumbent, to a sitting posture without assistance, owing to failure in the flexor muscles. Dr. Porter alluded to the absence of the characteristic fibrillary contractions in his case, and stated that such was the case in at least one-fifth of the patients suffering from this disease. —Dr. DYSON, Dr. S. ROBERTS, Mr. PYE-SMITH, and Dr. GWYNNE made remarks.

Tibia on which Sequestromy was Performed Many Years Ago.—Dr. GWYNNE showed a tibia which had become the subject of osteitis about twenty years ago, and from which a sequestrum of bone, six inches long, had been removed. Two other pieces of dead bone, about three inches long, had been subsequently removed. The sinuses, after discharging more or less for five years, gradually closed up, leaving a fairly useful limb for about fifteen years. The patient (a woman) afterwards falling into low health through nursing weakly children, became subject to severe attacks of periostitis, with intense pain, which necessitated amputation, which was performed through the condyles of the femur. The specimen showed most of the shaft to be formed of dense callus, with obliteration of the central canal. The bone was abnormally thick, and there was a small sequestrum of dead bone, about two-thirds of an inch long, occupying its centre.

Double Palsy of the Third Nerve and Myosis.—Mr. SNELL introduced patient with double palsy of the third nerve, associated with contracted pupils.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, NOVEMBER 18TH, 1885.

A. OGSTON, M.D., President, in the Chair.

Operative Treatment of Congenital Dislocation of Hip-Joint.—Professor OGSTON gave an interesting communication on a case of this deformity. After describing the external appearances, and the state of parts incident to the condition, Dr. Ogston described the operation proposed and practised by Dr. Mangary, of Turin, last year, of resection of the hip-joint. Dr. Ogston's patient was a strong, healthy, and fine-looking young man, aged 20, in whom both upper ends of the femur were dislocated upwards on the dorsum ilii; there were marked distortion, and the waddling gait peculiar to such cases. The chief characteristics were the great projection over the hips, and the flattened appearance of the abdomen. Both hips were resected, and, as usual, no head of femur or cotyloid was present. The projecting ends of the femora were sawn off, and the ends of the bones applied closely to the position of the cotyloid cavity. The wounds healed readily; the distortion was almost gone, and the gait distinctly improved.

Tumour of Pons Varolii and Medulla Oblongata.—Dr. MACGREGOR read notes of a case of the above lesion, and showed the excised brain. The patient was a little girl, aged 7, and the first symptom to attract

attention was inability to articulate clearly. This was soon followed by paresis of the right lower extremity, and, a few weeks later, of the upper extremity of the same side. The muscles of mastication became affected, and swallowing a matter of great difficulty. She was admitted into the Hospital for Sick Children in August, and then the symptoms pointing to an affection of the pons were well marked, namely, paralysis of the fifth, sixth, and facial nerves of the left side; partial paralysis of the same nerves on the right, and right hemiplegia. The paralysis of the limbs varied from day to day, and, towards the end, the limbs were often in a state of tonic spasm. Ophthalmoplegia, more or less complete, was a striking symptom. She died in October, six months after the first symptoms were observed. At the *post mortem* examination, the lesion was found to be confined to the pons and medulla. They were much increased in size, and presented a tuberoso appearance. The pons measured two and one-eighth inches at its greatest breadth, and one and three-fourth inches from above downwards, the medulla one inch from side to side. The rest of the brain seemed healthy, and the appearance of the tumour was that of a sarcoma.

Unilateral Cerebral Convulsions.—Dr. GORDON described a case of unilateral convulsions which had occurred in a child 18 months old. The child was well nourished, and there was no history of injury. After severe and prolonged vomiting, convulsive movements, beginning in the left eye, extended over the whole of the left side of the body, and eventuated in death after a few hours. No cause for the attack could be elicited, and a *post mortem* examination was withheld.

Dilatation of Kidney with Putty-like Contents.—Professor OGSTON showed a kidney which he had some months previously removed from a hospital-patient. The symptoms were swelling over the dilated kidney, vesical catarrh, and pyuria, the urine having a specific gravity of 1012. After its excision, the patient left hospital quite relieved. The kidney was much dilated, the renal substance being destroyed, and it contained a large quantity of putty-like matter, which, under the microscope, was seen to be composed of pus-corpuscles.

Sarcoma of Testicle.—Dr. MACGREGOR showed a large sarcomatous tumour which he had excised from the scrotum of an old man some time ago. The patient was temporarily relieved, but eventually succumbed from ensuing exhaustion.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOVEMBER 25TH, 1885.

ARTHUR UNDERHILL, M.D., M.Ch., in the Chair.

Specimens.—Mr. TAYLOR showed a fibroma of Poupart's ligament removed by Mr. Lawson Tait, and an ovary removed from a patient suffering from well marked secondary syphilis, in which every follicle was the seat of pathological hemorrhage.

Facial Paralysis.—Dr. SUCKLING showed a man, aged 26, suffering from facial paralysis, with inequality of the soft palate and deflection of the uvula. Two years ago, he was thrown out of a trap on to his head. A purulent discharge followed from both ears, some weeks later, ending in absolute deafness and facial paralysis on the right side. The faradic and galvanic irritability were quite lost, the uvula was deflected to the right, and the posterior pillar of the fauces on the left side was much narrower than on the right.

Cases, etc.—Mr. GILBERT SMITH showed a case of hereditary syphilis; and Mr. SIMS forty-four denticles removed from a dentigerous cyst in a boy aged 10.

Gastrostomy.—Mr. CHAVASSE read a paper on cases of gastrostomy, in which the various means of surgically treating epithelioma of the oesophagus were considered; and a male, aged 56, was exhibited, on whom the operation was performed four months ago.

BEQUESTS AND DONATIONS.—Mr. Daniel Higford Duval Burr, of Aldermaston, Berkshire, has given £1,000 to the Hereford General Infirmary, for the purpose of relieving those persons suffering from diseases of the bladder and kindred complaints, it being stipulated that a separate ward or room should be provided for those patients, and that the parishes of Amstead, St. Luke's, and Alvington (in Gloucestershire), and Tiddenhams (in Monmouthshire), should be eligible to receive relief, as well as the inhabitants of the city and county of Hereford. —Mrs. Bridget Margaret Buller, of Bryanston Square, and of Plympton, has bequeathed £100 each to the Sussex County Hospital at Brighton, the Hospital for Consumption and Diseases of the Chest, and the Cancer Hospital. —The Corporation of the City of London have given 100 guineas to the North-Eastern Hospital for Children. —The Worcester Infirmary has received £100 under the will of Miss Wagstaff. —The Great Northern Central Hospital has received £70 from the Amalgamated Friendly, Temperance, and Trades Societies of North London.

REVIEWS AND NOTICES.

A TEXT-BOOK OF MEDICAL PHYSICS. By JOHN C. DRAPER, M.D., LL.D., Professor of Chemistry and Physics in the Medical Department of the University of New York, etc. London: J. and A. Churchill. 1885.

As the author states in the preface, this work "aims to impart a knowledge of the relations existing between physics and medicine in their latest state of development." Dr. DRAPER further draws attention to the slight with which the subject is treated in the medical curriculum of the United States; a condition of things not wholly confined, it is feared, to that country. Medicine and medical science may be said to have a twofold relation to physics: one, in which the laws and phenomena of physics are brought to bear on the explanation of the phenomena of life, as in the circulation of the blood, and in the effects of serous effusion (taking two wide examples); and the other, in which instruments and apparatus are used in demonstrating these phenomena. Though these two relations have an intimate connection with each other, yet in a practical treatise on the subject they ought, for the sake of clearness, to be kept separate. In this work, the author has, on the whole, subordinated the consideration of instrumentation to that of physical law, as evinced in Nature. The book is divided into two parts: I. Matter: Solid, Liquid, and Gaseous; II. Energy, including the Laws of Motion, Acoustics, Optics, Heat, Electricity. The greater portion is devoted to physics proper, and is excellent, being clear and, as a rule, well arranged. Too much space is devoted to this part, considering that the work is meant to bring out the relation of physics and medical science. The chapter on Barometry (p. 172), for example, might well be condensed, as well as that on Radiant Matter (p. 216), which has no practical or theoretical bearing on medical physics. The same remark applies to the Analysis and Synthesis of Sounds (p. 360). The book would undoubtedly gain in usefulness by condensation of these parts. Almost unqualified praise is to be given to the other parts of physics discussed; of special excellence is the section on Matter, though the inclusion of "organised," under the head of "chemical," matter, may be open to doubt. In dealing with the medical aspect of the subject, the author is not quite so successful, and necessarily so, because so much is at present undecided in the application of physical laws to medical science. In many parts, the subject is considered somewhat too discursively and concisely; thus only a short account is given of the part played by the elasticity of the ribs (p. 78), and no mention is made of the difference in disease when this property is lost. The application of Pascal's law (the pressure of liquids equally transmitted in all directions) to effusion in closed cavities is correct in the explanation of some symptoms; but no "torture is suffered in the cavity of a joint when distended with synovia" (p. 89), unless there be inflammation as well, and a dissecting aneurysm extends by the pressure of the heart's contraction, and hardly according to this law. The connection of sulphuretted hydrogen with malaria (p. 111) is at least doubtful.

The mechanical principles of wells and sewage are clearly and concisely explained. The instruments used in determining the velocity and pressure of the blood are only mentioned; and the use of the pneumatic aspirator in medical practice is not mentioned. The suggestion of the author, that captive balloons should be used for giving patients fresh air, is, it is to be feared, more fanciful than practical (p. 167), the nervous effect would perhaps be too great. Plasma, moreover, does not contain "fibrin" (p. 193), but only the precursors of that body.

The physiological and therapeutical effects of compressed and rarefied air are discussed at length, though no mention is made of Dr. Theodore Williams' researches in this direction. An excellent account of "mal des Montagnes," is epitomised from Paul Bert's researches. The results obtained by Vivenot with moderately condensed air might be compressed into a shorter space; and the therapeutic results obtained by Dr. Williams would complete the account with advantage. The excellent results obtained by Junod, Tabarié, and Pravaz, in the treatment of chronic bronchitis, asthma, chloro-anæmia, and passive hæmorrhage, by condensed air, are mentioned, but the risk in the last class of cases is not dealt with. Chronic phthisis, too, is omitted from the list. The whole subject is well treated (pp. 193-215).

Of minor points the following may be mentioned. The influence of bile on the capillarity of oils is omitted (p. 281); music is defined as treating "of sounds in relation to the pleasure it affords," a definition more metaphysical than physical (p. 311); the binaural stetho-

scope is omitted (p. 327), as in the ready contrivance of filtering under vacuum pressure by connecting the "filter-pump" with an ordinary tap. The existence of capillary force as a factor in continuing the circulation in the capillaries (p. 307) is discussed at some length. The author believes in its reality, contrary to the opinion of most physiologists; the arguments he brings forward are by no means convincing, and add nothing new to the subject. The account of the microscope is very good, but that of the agents and apparatus for cutting sections is not up to date. The simple spectroscope, with one telescope (Browning's) is much more useful to the physician than the large chemical one; it is not mentioned. The author details some experiments he made some years ago on the effect of cold on the temperature, pulse, and respiration of man; they are very interesting, and accord with what is known on the subject.

Under Electricity, the introduction of a full account of the motor points has displaced valuable matter which might have been introduced, such as the reaction of muscles in health and disease to the ascending and descending current, and the electrical variation of glands during secretion. The medical aspect of the book has been discussed at some length, because it is that part the arrangement and application of which to physics is the more original. Though the book is not as satisfactory as it might be, Professor Draper has done excellent work in bringing the subject in such a readable form before the medical profession.

CLINICAL LECTURES ON DISEASES OF THE LIVER, JAUNDICE, AND ABDOMINAL DROPSY. Including the Croonian Lectures on Functional Derangements of the Liver, delivered at the Royal College of Physicians, in 1874, by CHARLES MURCHISON, M.D., LL.D., F.R.S. Third Edition. Edited by T. LAUDER BRUNTON, M.D., Sc.D., F.R.C.P., F.R.S. The Section on Tropical Diseases, by Sir JOSEPH FAYRER, K.C.S.I., LL.D., M.D., F.R.C.P., F.R.S. London: Longmans, Green, and Co. 1885.

The last edition of Dr. MURCHISON'S widely-read Lectures on Diseases of the Liver was published in 1877, and it has doubtless been owing only to his untimely death that a new edition was not earlier issued. A perusal of the third edition will serve to convince the reader that the work has been able to stand the test of time, and has required modification only where increased knowledge has given greater precision to arguments previously put forward tentatively, or where the improved resources of modern surgery permit a bolder and more effective line of treatment to be adopted.

Dr. Lauder Brunton has done his work as editor with great skill, and with a knowledge of the subject which few but he possess. The original has been submitted to a process which may be called inter-linear revision, and all additions and alterations have been indicated by the use of square brackets. Here and there, lengthy additions have been made, such as the article on the mode in which jaundice is produced by toluylendiamine, and that on the surgical treatment of gall-stones; but, as a rule, the alterations have been corrections or expansions of statements in the text. Indeed, the editor seems to have erred, if erred he has, on this side; for it is rather surprising to find the section on cirrhosis with enlargement left almost without any alteration or expansion.

As was to be anticipated, Sir Joseph Fayrer has had occasion to make some important additions and alterations in the part of the volume entrusted to him for revision; indeed, the general tenour of Dr. Murchison's arguments and conclusions has been more altered here than in any other part. This has been necessitated by the large amount of evidence bearing on the surgical treatment of tropical abscess which has accumulated since Dr. Murchison wrote. With the facts then known, he could not do more than show a decided leaning towards an early resort to tapping; whereas now Sir Joseph Fayrer is fully justified in saying that a liver-abscess should be opened "as soon as the presence of pus is detected, and this may be effected by aspiration with the long delicate needle, in some cases, before any physical sign of its presence can be detected." Sir Joseph Fayrer has added some additional illustrative cases, and some highly interesting statistics; some of these have been furnished by Surgeon-Major Don, and others by Professor Maclean, C.B., from Netley.

In conclusion, we may say that, by the revision to which it has been subjected, the work has lost nothing of its individual charm, while its value as a text-book has been fully maintained.

BRISTOL GENERAL HOSPITAL.—The Martyn Memorial Entrance Scholarship of £20 has been awarded to Mr. Thomas Campbell Grey.

NOTES ON BOOKS.

The Extra Pharmacopœia, with the Additions Introduced into the British Pharmacopœia, 1885. By WILLIAM MARTINDALE, F.C.S., late Examiner of the Pharmaceutical Society, etc. Fourth Edition. (London: H. K. Lewis. 1885.)—The fourth edition of this convenient little work, brought up to date, has now appeared. In the author's review of the *British Pharmacopœia*, he very complacently ascribes to himself the credit of most of the innovations therein contained, and tacitly conveys that a good deal of original work has been appropriated by the compilers of the last *Pharmacopœia* without even so much as an acknowledgment. For instance, the error, if error it be, in the solubility of hydrochlorate of apomorphine, stated in the *British Pharmacopœia* to be 1 in 7, is suggested to have been copied from the third edition of this work, also without acknowledgment. The test of the activity of pepsin given by Mr. Martindale, though applied to the official preparation, differs materially from that laid down in the *British Pharmacopœia* for the purpose, where the temperature is directed to be 130° Fahr., and the time of solution thirty minutes, in lieu of a temperature of 98° Fahr., and four hours' solution, according to the directions before us. The book, on the whole, is an exceedingly useful compendium, and has lost none of the brevity and concision which have made it so popular hitherto. As a pocket companion to the prescriber, it must be invaluable.

The Student's Guide to the Practice of Medicine. By M. CHARTERIS, Professor of Therapeutics and Materia Medica, Glasgow University, etc. Fourth Edition. (London: J. and A. Churchill. 1885.)—The fourth edition of this well known little manual has just appeared. There is an unfortunate tendency in this description of book to increase in size at each edition, until the primary object of the book is, to a large extent, defeated. The present edition contains a number of excellent plates, those illustrating urinary deposits being particularly good. Several pages are devoted to electricity, its theory, practice, and application, and these would be perused with advantage by many medical men in practice. The chapter on nervous disorders is, perhaps, the least to be recommended, but the section on diseases of the skin is above the average. On the whole, students will find it an useful work of its kind.

Transactions of the Ophthalmological Society of the United Kingdom, vol. v. Session 1884-85. (London: J. and A. Churchill. 1885.)—The new volume of the *Transactions of the Ophthalmological Society of the United Kingdom* does not fall behind its predecessors. It contains Mr. Jonathan Hutchinson's Bowman Lecture on the relation of certain diseases of the eye to gout; and the report of a committee, consisting of Messrs. Nettleship, Marcus Gunn, and Adams Frost, appointed to investigate the action of the vapours of bisulphide of carbon and chloride of sulphur on the sight and health. The two substances are used together in the process of "vulcanising" caoutchouc; the symptoms produced are at first loquacity, vertigo, drunken exhilaration, and dimness of vision after a day's work; later on, anorexia, insomnia, melancholia, with loss of memory, amblyopia, most noticeable in bright light, with dilated pupils, and a condition of general hyperæsthesia, are the most marked symptoms. The volume contains several other articles of interest to the general practitioner, and many papers and cases on technical subjects. It has been edited by the Secretaries, Drs. W. A. Brailey and J. Abercrombie, with great care. The illustrations, as in former volumes, are of exceptional excellence.

The Regimen to be adopted in Cases of Gout. By DR. WILHELM EBSTEIN, Professor of Clinical Medicine in Göttingen. Translated by JOHN SCOTT, M.A., M.B., Honorary Physician, Manchester Southern Hospital for Diseases of Women and Children. (London: J. and A. Churchill. 1885.)—Professor Ebstein has established his right to be heard on dietetic questions, and, in his work on the treatment of obesity, gave a scientific explanation of the line of treatment which has been generally followed with success, except when, from time to time, some new-fangled method has diverted attention from a rational system of dietetics. The present pamphlet will not add anything to his reputation; it contains a relatively long disquisition on the pathology of gout, which he considers to be due to an increased production of uric acid in anomalous positions and its localised retention. His position, in fact, is very nearly the same as that which Dr. Ord, to whom no reference is made, has long ably defended. With regard to dietary and general regimen, the advice is perfectly sound; a gouty person is advised, not to eat too much, not to work too much with body or mind, to take baths diligently, ("it is unfortunate," we are told, "that, so far as Germany is concerned, baths are generally employed only for medical purposes), to live in a healthy house, and to

keep his bowels open. In the selection of food, he need exclude nothing, but he will do well to take as little alcohol as possible, not too much meat or carbohydrates, and should make use of good butter and other fatty articles of food in moderation. Gouty people are recommended to take their dinner "between 12 o'clock and 2," but no reason is given for this curious, and, so far as the gouty Englishman is concerned, impracticable piece of advice. On the whole, however, Dr. Ebstein's teaching is sound, if not remarkable for novelty; and, as the pamphlet appears to be addressed more especially to lay readers, it will doubtless have an useful career.

CHRISTMAS BOOKS.

WITH Christmas comes to all classes the kindly habit of interchanging gifts, tokens of good-will. Among the most customary forms of such gifts are books and illustrated cards. We have before us some excellent examples of gift-books forwarded for notice, of which it will not be unseasonable to say a few words.

From Messrs. Cassell and Co., we have, first, the admirable annual volume of *Little Folks*, full of stories, illustrations, and good reading for young people (8s. 6d.). An excellent shilling *Book of Fruits and Blossoms* for little folks to paint; has on the one side, good chromolithographs, by Albert Warren; on the other side, corresponding drawings ready for them to colour, an occupation in which they find infinite delight. *King Solomon's Mines* is a brisk story of adventure in Zululand, which will stir the hearts of boys. Mr. Louis Stevenson's *Treasure Island* is an illustrated boys' book from a celebrated hand, which has achieved a considerable reputation. *Fortune and Glory*, a story of the Soudan war, by Lewis Hough, is full of stirring adventure and picturesque description. *Bound by a Spell*, by the Honourable Mrs. Greene, a touching tale of witchcraft, of which girls and boys alike will feel the interest and pathos. The immortal poems of Milton, *L'Allegro*, *Il Penseroso*, and the *Hymn on the Nativity*, are issued by the same publishers in a very elegant form, charmingly illustrated. Messrs. Cassell's *Magazine of Art* for 1885 is the annual volume of the periodical now in its eighth year, and has attained a very high position in the artistic world. Its illustrations are not surpassed by any magazine of this character.

Messrs. Sampson Low and Co. send us one of Harrison Weir's delightful books of *Animal Stories*, *Old and New*, abounding in dog and cat pictures, painted as only Harrison Weir can draw them. This veteran lover of animals has lost none of his artistic skill. The book is full of character, but free from caricature. The translation of *The Archipelago on Fire*, by Jules Verne, brings to English boys incapable of reading the original the work of one of the master-spirits of travel and fiction. It is copiously illustrated. *The Voyage of the Aurora*, by H. Collingwood, is an illustrated book of naval exploration and wild adventure, such as boys revel in. *Keyhole Country* is based on the well known model established by Knatchbull-Hugessen, and is a fairy tale full of fancy and quaintness. *The King of the Tigers*, of which the scene is laid chiefly in India, speaks for itself, and the illustrations alone will thrill the young hunter of the nursery with wild imagination. *Eric and Ethel* belongs to the school of old-fashioned fairy tales, which does not pretend to have any moral, but is simply full of pleasant fancies and pretty pictures.

The Religious Tract Society always produce for each year a series of books, adapted for serious gifts as well as for the lightest and most amusing purposes. Mr. Richard Lovett's *Norwegian Pictures*, drawn with pen and pencil, gives a careful, vivid, and complete picture of the Scandinavian countries, which are more and more visited by Englishmen now-a-days, and which have for us an historical attraction which our modern familiarity with the scenery and habits of the people has only intensified. It is very fully and excellently illustrated, and abundantly supplied with good maps. *Turning Points* is a serious story, with an excellent moral, and issued in a very attractive form, with a flower-painted cover. The *Child's Companion* makes a bright annual, full of short stories and interesting teaching for very young people, and it is already a familiar friend in many homes. The volume of the *Laisure Hour* for 1885 is not one whit behind its predecessors, and makes a large volume, full of excellent reading, at an astonishingly low price. *The Master's Likeness* is a religious tale for boys, by Joseph Johnson, who has already an established reputation. *Hymns of the Present Century*, from the German, is a little "companion for a quiet hour," as to which the title speaks for itself. The renderings are very smooth, and the sources peculiarly interesting.

S. W. Partridge and Co., of Paternoster Row, send an attractive volume of *Bible Pictures and Stories*, illustrated by Sir John Gilbert, W. J. Webb, and others. This is a new edition of a standard book. A companion volume is Mary Howitt's charming little book of *Birds*

and their Nests, with twenty-three full-page illustrations by Harrison Weir. *Pretty Pictures for Tiny Pets* is a little illustrated book of rhymes for very young children, and *The Young Folk's Picture Book* is of the same order, stories and verses, by James Weston. From the same publishers comes *Kenneth McAlpine*, a lonely tale of moorland and sea, brightly written by Dr. Gordon Stables.

CHRISTMAS CARDS.

THESE little tokens of good will are universally used now in public institutions, as well as among friends, as a means of conveying a kindly greeting and offering of good wishes of the season. Among the series before us is the very artistic and cheap sets of cards from Messrs. Davidson, of 9, Jewin Street, with coloured illustrations of all kinds, landscapes, flower subjects and figures, very suitable for public institutions, and for the ordinary greetings which Christmas and New Years' cards are intended to convey.

Mr. Albert Mark, of 22, Jewin Street, issues a very delicate and fanciful series, including some novelties in embossed silk on cardboard, a great variety of floral illustrations, winter scenes, and child pictures, inscribed with verses and greetings. Some of the more elaborate are of considerable size, and make pictorial table-ornaments.

Messrs. Bollen and Co., of Ranelagh Works, Leamington, have a great variety of Christmas and birthday cards, silk-fringed cards, hand painted and ivory cards, illustrated, some of them being also on ivory tablets. Their work is artistic and cheap.

Messrs. Raphael, Tuck, and Sons maintain their reputation in the front place among the purveyors of these pretty trifles. Their printed satin cards belong to a more luxurious order. Some of their designs of cathedral windows are particularly pleasing, and many of their productions are of a high order of artistic merit, some of them being striking in their dimensions, as well as in their art-character. To keep well within the artistic taste of the day, they have issued a very pretty set of four etchings, by E. S. Myers, of Windsor Castle, Conway Castle, Harwich Castle, and Penrhyn Castle, after the originals, painted by David Cox, in the South Kensington Museum. The cardboard tablets, with painted satin facings, belonging to series 1052, may be counted among the very best artistic productions of the season in this class. They are singularly well painted, and very attractive.

To those who delight to unite the two senses of sight and smell, Messrs. Rimmel supply a series of scented cards and satchets, suitably decorated.

ALMANACKS AND POCKET-BOOKS.

AMONG diaries, we have to notice the customary John Smith and Company's Physician and Surgeon's Visiting List for 1886, which is now in its fortieth year, and has undiminished popularity. A little Clinical Note-Book for hospital and private practice, conveniently arranged by Dr. Fairbank, will be found very useful as a pocket-book in private practice. The Scripture Pocket-Book for 1886, of the Religious Tract Society, gives, in addition to the customary matter, notes on the Old Testament revision, tables of the lessons, Church-services, etc., with a text for each day.

WE have received from Mr. John Heywood, 11, Paternoster Buildings, London, and Manchester, a box of Vacher's model bricks, a neat and instructive toy for sick children in hospitals and elsewhere.

REPORTS AND ANALYSES

AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMMISCH'S METALLIC THERMOMETER.

WE have received one of Immisch's patent metallic thermometers for inspection. This instrument is about the size and shape of a ladies' small watch, and the temperature is indicated, very plainly, by a hand revolving on a dial. Tested in the axilla, in the usual way, the result coincided with that obtained by means of a certified thermometer of the shape ordinarily in use, and its sensitiveness appeared, at the least, fully equal to that of the bulb instrument. The shape and solidity of this instrument both offer distinct advantages over the thermometers in general use, the expense of which, in consequence of their fragility, constitutes a notable item in the instrument bills of hospitals and of medical men in active practice.

LITTLE'S SANITARY PREPARATIONS.

MESSRS. MORRIS, LITTLE, and SON, of Doncaster, have furnished us with specimens of their various sanitary disinfectants and other preparations. The phenyle powder is a powerful deodoriser, and will be found useful in sick-rooms and for foul drains, its action being remarkably prompt. It is put up in tins furnished with a single perforated top, a somewhat inconvenient arrangement, as there is nothing to prevent the contents from being wasted should the receptacle by any chance be overturned. The soluble phenyle is an equally valuable preparation, and has been found efficacious not only as a disinfectant, but as an insecticide. The coarse phenyle soap is well adapted for scrubbing floors after infectious illnesses; whilst the toilet-soap is agreeably scented, and will be found useful for washing the hands, especially by those engaged in making dissections or *post mortem* examinations.

PATENT TELESCOPE COUCH AND CHAIR.

THIS couch, introduced by Messrs. Leveson and Sons, of 90, New Oxford Street, can be used as an ordinary invalid's couch, and the back, centre, or leg part, can be raised or lowered to any position, and



then, by a simple telescopic action, the front part slides under the back part, and it becomes an armchair which has an adjustable back.



It is an exceedingly useful invention, as it makes one article answer the purpose of two.

PROPOSAL FOR IMPROVEMENT IN THE HUNGARIAN CIVIL MEDICAL SERVICE.—Dr. Oláh has laid before the Hungarian Minister for the Interior a proposal for the general improvement of the civil medical service. The sanitary districts are to be rearranged, and none of them to be left without a medical officer, whose minimum guaranteed income is to be 600 florins in the smaller, and 800 florins in the larger, districts, which salary is to be paid in advance from the local treasures, the poor districts receiving assistance from the State. The tariff for visits is to be, by day, 40 kreutzers; by night, 80; and when the distance is considerable, from 1 to 2 florins.

DR. FRANCIS T. HEUSTON, Lecturer on Anatomy, Carmichael College, has been elected Chairman of the Anatomical and Physiological Subsection of the Academy of Medicine for the ensuing year.

DR. BALFOUR, of Edinburgh; Dr. Barnes, of London; and Dr. George Buchanan, of Glasgow, were in Dublin last week as visitors, deputed by the General Medical Council to be present at the examinations of the University of Dublin for medical and surgical degrees.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 12th, 1885.

BRITISH MEDICAL ASSOCIATION, 1886.

THE next annual meeting of the British Medical Association will, as has been previously intimated, be held at Brighton. The Association has, during the last few years, wandered far afield, visiting Ireland, Lancashire, the Midlands, and South Wales. For several years, the wish has been mutually entertained that arrangements might be made which would enable the South-Eastern Branch to take part in entertaining the Association at their great quasi-metropolitan centre, Brighton. It is obvious that a town such as Brighton, which claims almost to be considered as the seaside metropolis of the home counties, has rare facilities, and offers great advantages, for such a gathering. The energy, excellent organisation, and large numbers of the Branch, of which Brighton on this occasion becomes the seat, ensure success in the arrangements. The number of resident practitioners, the size and convenience of the place of meeting, its reputation as an unrivalled watering-place, both in extent and situation, combined to add to its attractions, and to increase its powers of providing for the Association a reception of the most promising kind in all its features.

The scientific organisation of the meeting is already complete in its outlines. The President, Dr. Withers Moore, has not only the confidence and good will of the profession in the town and throughout the home counties, but has an established position and reputation in the profession at large, and is well known for his pleasant and judicious mode of conducting business, and the agreeable relations which he is able to maintain with all his fellow-practitioners. Under his guidance, the business of a large meeting, such as the Brighton meeting is sure to be, will be conducted with kindly firmness, and with a genial courtesy, which is one of the most winning qualities that a president can possess, and is always capable of being turned to good account at such gatherings. The selection of readers of addresses is thoroughly eclectic. It is a novel feature in this meeting, and one which will be recognised as of peculiar interest, that on this occasion an international courtesy has been extended to our transatlantic brethren, and that the Address in Medicine has been offered to and accepted by Dr. Austin Flint, of New York. Dr. Austin Flint holds a position of recognised eminence and seniority in America, and has filled with honour the highest professional offices in his country. He is well known at the meetings of our Association, and has won for himself universal esteem and friendship. He is an admirable type of a class of American physicians, and, while retaining the national characteristics, is distinguished for cosmopolitan culture and calmness of judgment. As a clinical physician, his writings are of great weight wherever the

English tongue is spoken, and English books are read. The Address in Surgery is confided to a leading local practitioner, Mr. Humphry, surgeon to the Sussex County Hospital; while the Address in Public Medicine will be given by Dr. Mapother, the well known consulting medical officer to the city of Dublin. There is a full list of Sections: the President of the Medical Section is Dr. Broadbent, while the Surgical Section will have the honour of being presided over by Mr. Erichsen, than whom it would be impossible to find a more weighty or respected exponent of British surgery; Dr. Meadows is the President of the Obstetric Section; Dr. Taaffe, of Brighton, of the Section of Public Medicine; Dr. Clouston, of Edinburgh, of the Section of Psychology; Dr. Dreschfeld, of Manchester, of the Section of Pathology; Dr. Lauder Branton of that of Therapeutics and Pharmacology. For Ophthalmology and Otolaryngology, representatives have been found in the locality; Mr. Oldham, of Brighton taking the presidency of the Ophthalmic Section; and Mr. Hodgson, of Brighton, of that of Otolaryngology.

It will be seen, by reference to the detailed list which we publish elsewhere, that vigorous working of the Sections is ensured in the appointment of secretaries. Considerable importance attaches to the selection for these offices of some of the younger men intimately acquainted with the current progress of science and practice in their respective departments, and possessing the tact and skill, and having the industry and energy, necessary to ensure a good representative selection of work, and an energetic and judicious appeal to those who are most actively engaged in carrying forward their respective branches of medical art and science to bring to the meetings the results of their latest work. Those who have watched the organisation and progress of these annual meetings, and the result of their working, will feel that it is of great urgency that the programmes of each day's work should be carefully laid out, and that the majority of papers should be read by invitation. It is very undesirable to discourage volunteer work, and it has always been one of the features of the meetings of the British Medical Association that they afford the opportunity to men desirous of spontaneously bringing forward the results of their work during the year to have their say. This should by no means be discouraged. It is the very essence of the Association that it seeks to level class distinctions, and to afford to the youngest and to the least known the opportunities of coming to the front. The peculiar interest of these meetings lies very much in the meeting of the more experienced and eminent members of the profession, and of those who have the *prestige* of academic position and high office, with the whole bulk of practitioners throughout the country. The sectional meetings open an arena in which experience, capacity, and even eccentricity, find an opportunity of bringing their respective views and conclusions to the test of an open discussion before a skilled and yet favourable audience. At the same time, they gather together, for the purpose of open conference, men living at the most distant points of the empire. These find themselves face to face in the rooms devoted to such discussions; and many men who have heretofore carried on only a paper discussion, and who have imperfectly gathered the meaning and force of the facts and arguments read in books or papers, are enabled to exchange, publicly and privately, their views *vis à vis*, and thus to form a much more accurate estimate of their respective strength or weakness than could have been obtained by the publication of rival monographs, or the interchange of journalistic discussion. On the other hand, the very facilities which these Secti-

designedly afford to volunteers, are apt to encumber the lists with papers set down on grounds which it would not be easy always to accept as legitimate, or based upon an over-estimate by their authors of the importance of reiterating—sometimes at great length—well known opinions which have long been refuted, or which gain nothing by reiteration. Thus we have records which are relatively unimportant, and of which the publication might have been well altogether omitted. In this way, masses of manuscript accumulate, which are as a matter of easy courtesy forwarded to this office, and which, having been formally accepted with too great readiness by the officers of the Sections, are considered by their authors to have a special claim upon the pages of "Our JOURNAL."

Of the claim thus constituted by the reading, real or nominal, of such papers, whether at annual meetings, or at Branch meetings, we are always disposed to take the most favourable view. But the very mass of contributions which are continuously poured into the JOURNAL, their heterogeneous character, their very diverse grades of merit, their occasional prolixity, constitute elements which must be taken into consideration when the editorial decision has to be made on the subject of their publication. We are keenly alive to the necessity of encouraging, by every means, the activity of the Branches, of strengthening the hands of the officers of the Branches, by the publication of their proceedings, and of serving the annual meetings, by giving the utmost possible facilities for the full report of all that is valuable in them. To meet this end, the largest possible amount of space is accorded, and the JOURNAL has been enlarged at successive intervals, until it has attained formidable dimensions. The additional work thus imposed is cheerfully encountered, in the interests of the Association; but we would impress upon the officers of Sections, as of Branches, the necessity for considering mercifully the responsibilities thus cast upon the JOURNAL, by the difficulty which the local officers encounter in making up their minds to forward to this office, as the easiest way of pleasing their respective constituents, all the manuscripts offered to them. Some principle of selection might, with great advantage, be adopted by the officers of the Sections of the annual meetings both in the first reception of papers and in the ultimate mode of dealing with them. In the end this would lighten their own labours, add to the efficiency and attractiveness of the Section, and save disappointments.

The President, the Vice-President, and Secretaries of each Section form what might be called a natural committee of selection, which, with a little organisation, might be effectively brought into use in order to reduce, within advisable limits, the amount of material presented to and issued from the Sections.

The meeting opens on August 10th, and we are glad to be able to state, on the best authority, that the local authorities will do all in their power to make the gathering a success, and that the Mayor is especially well disposed to dignify his office, and to worthily represent the town of Brighton by the share which he will take in receiving the Association. The whole of the Pavilion buildings have been placed at the disposal of the organising committee, and will be reserved for the use of the Association. The Mayor will give a *conversazione* on the Friday evening; all the places of interest in the town will be open for inspection. It is well known that the drainage-system and the water-works connected with Brighton are on a large scale, and offer features of much interest; they will be open for examination. Among the excursions will be visits to Eastbourne, Lewes

Castle, Hastings, including Battle Abbey and Hurstmonceaux, Tunbridge Wells and its neighbourhood, Arundel Castle, and Chichester. Some of the prominent inhabitants of Brighton will show their sense of hospitality and courtesy to the Association, and no doubt the local medical men resident in the several places to be visited will show their usual kindness to the visitors or excursionists. The South-Eastern Branch and the President will give the usual *conversazione* on a great scale, which is invariably an attractive feature of these annual meetings. More definite announcements will, of course, be made at a later period; meantime, it is sufficiently assured that the annual meeting of the Association at Brighton will offer more than usual attractions to members of the Association, and its central situation and facility of access will ensure a great gathering of medical men.

It is not unwise, we think, to dwell upon the social features of these annual meetings; for, while the gravity of the profession and the serious interests of the Association require that the scientific and purely professional side of the work shall be organised to the utmost, and shall be made as fruitful as possible, there can be no doubt that a large part of the success and of the value of the great annual meetings of the Association consist in the opportunities which they afford for personal interchange of opinions, for the renewal of old, and formation of new, friendships. Their influence is of a kind not easily to be measured by printed works, or to be gauged by any defined and rigid standard. Temporary in their nature, and fleeting in their records, such meetings set on foot influences which overpass the mere limits of a temporary occasion, and which cannot be estimated by immediate outward or visible signs. They form an important element in the strengthening of professional sentiment; they confer, on all who take part in them, a sense of mutual obligation which aids to establish the solidarity of the profession, and gives power and dignity to the efforts of each individual. In the struggle for existence and the freedom of competition, which are among the most marked features of modern life, there are always at work selfish principles and egotistical interests which tend to disintegration. Nothing can so powerfully counterbalance these as the sentiment of association, and the palpable evidence of combined effort for a common purpose, and that purpose a good one. The British Medical Association aims at the reconciliation of individual freedom of opinion and the recognition of personal rights and energies with a sense of duty to the community, and the strengthening of those brotherly ties which give to the profession at large some of the power and of the impetus which a body corporate possesses. It has for a long series of years aimed at the highest objects of combining under a representative constitution professional men of all grades, and living under the most various conditions. It numbers now 11,000 members. Every year adds to its numbers, and the efforts which have of late been made to recast its constitution in such a manner as to make it thoroughly representative, afford a hope that, under so large and elastic a constitution, these constantly growing numbers and widely scattered organisations may be knit together in unity, in concord, and in power. A very large proportion of the members know the work of the Association, and are bound to it chiefly by their weekly JOURNAL. It has been through all these years our aim that the JOURNAL should respond to the great objects of the Association, and should be worthily representative, not only of the individual worker but also of the national and, we may now say, imperial interests.

bound up with the wide spreading extension and constitution of the Association. It is a satisfaction to know that the influence and circulation of the JOURNAL extend even far beyond the limits of the Association. Its annual issues, beyond the limits of the Association, never fail on each occasion to bring a responsive mass of applicants for membership from those members of the profession who have not yet joined the ranks of the Association; and thus it happens that the JOURNAL has for many years been recognised, not only as the cement which binds the members generally into a compact working mass, but also the chief recruiting agent of the Association.

We hope that the present issue will not be less successful than all its predecessors. The programme of the forthcoming annual volumes, which we publish in another place, shows that there is no probability of the next years volumes being of less evident scientific value, and in an administrative and social sense less useful, than their predecessors. The vast extension of the work brings every year new anxieties and growing labours to the editorial department; to these also we shall bend our best energies. The glances which we are able to cast into the future seem to promise that, during the forthcoming year, the progress of the Association will continue unchecked, and its great work will be successfully advanced.

In proportion as the whole profession gathers itself together to express its scientific activity, its social interests, and its political wishes through the organisation of the Association, and by intercommunication through the pages of the JOURNAL, will the profession itself become highly organised, and the weapon which it wields become more powerful and more efficient.

PRECEDENT v. STATE HONOURS TO MEDICAL MEN.

PRECEDENT is a stern taskmaster of society, acting by inexorable rule. It finds a special habitat in the surroundings of Royalty, and an equally congenial one in courts of law.

In the former, it has invested itself with forms and ceremonies so intricate and profound, that they cannot "be understood of the common people," and hence require "boards of green cloth," masters of ceremonies, and various other dignified officers, to interpret and enforce them. It makes both Sovereign and subjects its vassals, and deals with its transgressors as outlaws of society.

Within the realm of law, its rule is not less weighty and absolute. The experience and the good sense of judges must yield to the dictates of precedent, and the decisions of juries be made to harmonise with its decisions. In fact, much of the law of the land is but a record of its rulings, and not the product of the wisdom of our law-makers.

Precedent, in short, permeates society at large, and exercises its authority in every direction we turn. It fastens itself upon us in the shape of accepted usages, of conventionalities, and social proprieties; and may be regarded as a vast and powerful conservative agency, and an inseparable element of civilised society.

Its frequent value and utility cannot be gainsaid; but, like an unreasoning force, its effects for good or for evil are not to be reckoned upon, and its operations are often inexplicable. The dispensation of honours and dignities by the Crown to medical men is a matter to the point. A mystery attaches to it, and, if we seek an explanation, precedent is thrust before us as sufficient.

The copious shower of honours that fell when the two great parties in the State changed sides in the autumn, might have been thought sufficient to have reached some eminent member of our profession;

but no, the refreshing outpour descended only on politicians and party men. The abundance of the shower suggested to our facetious contemporary, *Punch*, the sketch of the meeting of two aldermen, one of whom confesses to the other his nervousness in opening the newspaper, lest he should unawares find himself gazetted "a peer or a barronet."

Yes, so it is; all grades of Her Majesty's subjects may look within the gilded portals of the House of Peers, and to any among them who aspire to enter, no central barrier is reared, provided always, that they eschew the practice of medicine, and are not included in the list of recognised medical practitioners.

Politicians, courtiers, churchmen, lawyers, solicitors, sailors, literary men, or artists, financiers, bankers, merchants, and manufacturers, may be elevated to a peerage, but a medical man is pronounced, by precedent, ineligible.

And, in this matter precedent is purely arbitrary and unintelligible. It dropped out of sight when a poet, innocent of party politics, was called to the "Upper House;" and its veto is unheard in foreign lands, when the medical man has earned, by his labours for the public good, the recognition of his monarch, and receives a patent of nobility.

Is an arbitrary precedent to the exclusion of the practitioners of medicine from the ranks of the aristocracy always to prevail? Must it not be acknowledged that, if precedent has not been set aside, it has, especially in modern times, been much stretched, and found to be considerably elastic? In ancient days, the nobility stood forth as a distinct class of human beings, surrounded by a glamour, and with special privileges and immunities, and few were the avenues for those who sought to rank with them. But now, all this is changed. Occupation in commerce, in trade, in literary work, and, indeed, in all affairs, medicine only excepted, is not held to mar the escutcheon of the peerage, nor to be a bar to its attainment. On the other hand, good grounds may be shown why medical men should be called to the Upper House. They are not wanting in education and intelligence, not incapable of holding a high social position. They have the advantage, during their professional career, of obtaining a wide knowledge of the social condition and wants of all classes, and are consequently good authorities in social problems. And no one can deny the value of their presence in any legislative assembly, where questions affecting the public health must be perpetually under deliberation.

Now, we cannot shut our eyes to the conviction that, in arguing for the fitness of medical men to take their place in the peerage, we are but fighting the air—we have no real combatant before us. There is no one who will deny our premises. Our antagonist is without soul or body, parts or passions—precedent and precedent alone. It is an adversary impervious to reason, but it may be defeated by ridicule, or be annihilated by common sense.

There remains another side of the question. Supposing the obstacle of precedent to be removed, have we within our ranks men who would care for the dignity of the House of Peers? As it at present exists, it involves a large expenditure without gain of corresponding enjoyment to its possessor, and it cripples him in many ways by the conventionalities attached to it.

In these levelling days, likewise, the possession of rank is no "cynosure of neighbouring eyes," but rather a rock of offence to many, and so far subjected to other than pleasurable emotions or unalloyed satisfaction. Nevertheless, tradition tells us that, in past years at least, there have been medical men willing and ambitious to

undergo the transformation into peers; and it may fairly be assumed that like ambition reposes in the breasts even of some of our distinguished contemporaries. At any rate, the contention holds good that, if peerages are the object of ambition among Englishmen at the present day, and are esteemed as distinguished marks of a Sovereign's favour, and of the gratitude of the people for services rendered, they ought to be within the reach of medical men equally with all other classes of citizens.

THE BRADSHAW LECTURE.

ANTISEPTICS in moderation may be said to be the moral of Mr. John Wood's lecture at the Royal College of Surgeons on Tuesday last. He discussed wounds and antiseptic dressings from a surgical rather than from a scientific standpoint. At the beginning of the lecture, some reference was made to the agencies which aided or retarded the cure of wounds, and the lecturer dwelt upon the reserve-fund of recuperative energy which is a factor ever to be taken into account, though ever uncertain. His own case of rapid recovery from a number of severe wounds, evidently due, in great part, to good air, was of high interest, although he wisely referred to a reverse condition, the presence of putrefactive diseases in the healthiest localities.

In connection with the triumphs of hospital hygiene, the claims of our army medical officers were not overlooked. Cold water was doubtless a perfect cleanser, but the cold water kept in the wards of a hospital rapidly became covered with a pellicle of dust. The contents of that dust were only too well known, hence hospital cold water was a treacherous agent by itself. The success of several so-called "anti-Listerian" operators appeared, in the author's opinion, to be due to the care which they took in ensuring the purity of the water and of the sponges that were dipped into that fluid.

Mr. Wood dwelt for some time upon the relative merits of different kinds of antiseptics, naming carbolic acid, chloride of zinc, the sulphates of copper, iron, and zinc, iodine, iodoform, the time-honoured "Friar's balsam," permanganate of potash, eucalyptol, which has apparently deceived the hopes of its former advocates, boracic and salicylic acid, bichloride of mercury, and lastly, the lecturer's new favourite, peroxide of hydrogen. Much was said about the spray; and Mr. Wood demonstrated its manifest advantages in such an operation as the removal of a sequestrum from a carious vertebra, where a large chronic abscess existed. The spray, as an institution, appeared to do much towards ensuring cleanliness in many other respects. Yet the lecturer felt bound to enumerate its disadvantages at length. He had observed, in patients who had been subjected to its influence, nausea, vomiting, intestinal pain, high temperature, and the appearance of an olive-coloured pellicle on the urine. Still he could only recall one fatal case in his own experience, where death occurred on the day after an operation for diseased bone in the forearm. The spray was used, the sinuses were syringed out with a carbolic solution, and no possible cause of death, in his opinion, could be discovered excepting carbolic poisoning. Mr. Wood had seen severe bronchopneumonia and shock follow complete Listerian precautions, and had found that, when putrefaction did happen to take place under the gauze, it was worse than putrefaction under ordinary dressings. Then he spoke of certain well known cases where the health of the operator had suffered, and made mention of the difficulties attending Listerian surgery in the country, its costliness, and the alleged commotion produced in the surrounding air by the gauze,

in consequence of which, according to some authorities, bacteria became drawn into the vortex, and played on to the wound. This latter hypothesis will doubtless be repudiated with scorn by the ardent antiseptic surgeon. Mr. Wood then noted the important fact that carbolic acid was being discarded by its most illustrious advocate, in favour of bichloride of mercury. We understand that Sir Joseph Lister is undertaking or contemplating further important modifications in his method of dressing wounds; though, whatever the modifications may be, they will, we may feel confident, consist essentially not in the discontinuance of this or of that appliance, but rather in rendering wounds still less septic, and in yet more strenuously keeping germs away from parts submitted to operation than before. Towards the end of the lecture, Mr. Wood gave a full account of his method of dressing wounds with peroxide of hydrogen, and this will be found in the full report of the lecture, of which we publish the first part this week.

The lecture was eminently practical and just in its tone to systems as well as to individuals. Many persons forget that, just as it is uncourteous to attack the projectors of a system of dressing, so it is often unscientific to abuse the system in general. Sydney Smith spoke once of a man whom he had heard speak disrespectfully of the equator, and that gentleman was certainly acting wrongly. Nor need anybody abuse water-dressing, nor dry-dressing, nor boro-glyceride, nor "complete Listerian precautions." Let him be first sure that he is not a partisan of one of these systems, and that he has, like Mr. Wood, an intelligent grasp of the whole subject, and, above all, of the aim of a dressing. The caviller may be a careful surgeon, who sees that his patients' wounds are skilfully treated with water-dressing, whilst he occasionally observes an enthusiastic junior chilling a patient inexpertly with the spray. On the other hand, he may be an expert Listerian, who covers up his patient, and even the part in process of being removed, so as to avoid chill; who uses without abusing carbolic lotions, yet who associates water-dressing with layers of dirty lint soaked in pus, a spectacle which he may have observed during a walk through the wards of some institution where assistants are deficient in skill or in sense of duty.

It is clear that skilled operators, with trained and obedient nurses are at present achieving triumphs in the field of abdominal surgery without employing any antiseptic. It is questionable, however, whether the beginner, who cannot be quite so expert in exploring the peritoneal cavity, pulling out clots from its deepest recesses, and pouring in pitchers full of warm water, and baling the water out again with sponges, can safely dispense with the antiseptic solutions, nor even with the spray. The danger of infection lies not so much in what has been done, as in what has been left behind. The beginner is more apt to leave things behind than the expert, and it is in these things that infection is most apt to arise. Antiseptic precautions are especially valuable in preventing infective processes in pieces of clot and lacerated or detached tissues, so that the value of such precautions becomes obvious under these circumstances.

THE Duchess of Albany has formally opened the Princess Frederica's Convalescent Home at East Molesey. The institution, which is for the benefit of poor married women and their infants, has been for about three years in operation, but has been considerably enlarged. The Princess Frederica and the Bishop of Bedford were among those present at the simple ceremony.

IN the General Election of members of the Legislative Assembly of New South Wales, the account of which appeared in the *Sydney Morning Herald* of October 17th, the name of Dr. W. Camac Wilkinson appears at the head of the poll in the department of Glebe (Sydney). Dr. Wilkinson is the son of an eminent Australian judge, and was a distinguished student of University College, and graduate of the University of London. He is now Lecturer on Pathological Anatomy in the Sydney University.

IN the competition under the auspices of the International Society of the Red Cross, held at Antwerp in September last, for a prize given by Her Majesty the Empress of Germany, for movable ambulance-huts, useful in war or during epidemics, open to the world, the model hut exhibited by Deputy Surgeon-General C. A. Innes was awarded the first place in models, and third place in the whole competition out of sixty competitors, including full-sized huts and plans. He has just received a silver medal from Her Majesty the Empress of Germany. We understand that the model is now under the consideration of the Army Sanitary Commission at the Horse Guards.

HYDROPHOBIA.

THE Registrar-General, in his return this week, says that the deaths of two adults, and that of a child, aged 12, were referred to hydrophobia. These raise the number of deaths referred to this cause in London since the beginning of this year to twenty-five, the average annual number in the ten years 1875-84 being six.

THE regulations issued by the Commissioner of the Police of the Metropolis, requiring every dog, not led by some person, to be muzzled, have excited the indignant protests of owners and lovers of dogs; the regulations, however, follow strictly the lines laid down in the Dog Act; and it is unfortunate that, owing to the somewhat ruthless means adopted to carry out the regulations, this indignation has been directed against the police rather than against that obnoxious Act. The provision of the Act with regard to muzzles is cruel and ineffective; a strict enforcement of the dog-tax, the extirpation of vagrant ownerless dogs, are the police-measures which might be at once applied with the most beneficial results. It has been urged that such measures would be useless, because dogs are not the only domestic animals which suffer from hydrophobia; cats have been particularly instanced, and, doubtless, in a minority of cases, infection has been communicated by cats; this, however, does not effect the main fact that hydrophobia is a canine disease, though capable of being communicated to cats, horses, pigs, rabbits, and other animals besides man. In the Isle of Bourbon, where imported dogs are subject to a long quarantine, rabies is unknown; while in the Mauritius, where no such regulation exists, rabies has been from time to time very rife. The practical part for the sanitary administration is that, if rabid dogs can be excluded from a country, rabies does not occur. In this country, probably the most effectual preventive is in the hands of dog-owners; a more general acquaintance with the early symptoms of rabies would lead to the early destruction of infected animals, and so contribute largely to the extinction of the scourge.

A HYDROPHOBIA ASSOCIATION has been formed, with a representative provisional committee, the Secretary being Mr. George Murray, 64, Jermyn Street, S.W. This Society has been formed, as the prospectus tells us, with a view to check the great increase in the number of deaths from hydrophobia which has lately taken place. 1. To enforce existing laws as to the capture and destruction of stray and ownerless dogs. 2. To move Parliament for further legislation in reference to dogs; by an increase of the dog tax; and by making it compulsory to have the name and address of the owner on every dog's collar, and a ticket denoting that the tax has been paid. 3. To obtain all possible information on the cause, symptoms, and treat-

ment of the disease, and to make the conclusions arrived at known to the public. 4. To take all such steps as may be considered necessary to further the objects of the Association.

M. PASTEUR'S HYDROPHOBIA-PATIENTS.

ON Sunday, November 29th, a mad dog ran about the streets of a French village, and bit six people, including a police-sergeant. The preliminary precautions were taken, and the six patients were conveyed to M. Pasteur's laboratory. There are sixty-two people now under M. Pasteur's treatment; they have travelled from all parts of the world after reading his communication to the Académie des Sciences. We are authorised to state that M. Pasteur will receive for treatment anyone who has been bitten by a mad dog, and is in danger of being seized by hydrophobia.

PARISIAN FISH AND PARISIAN GUTTERS.

THE itinerant fishmongers of Paris, in order to supply their customers with well cleaned fish, wash quantities of soles, whittings, plaice, etc., in the gutters, which are plentifully supplied with water. People who have the advantage of residing in the immediate vicinity of a good flowing gutter can frequently observe these sanitary precautions, and are thus forearmed and forewarned. Others, in this respect less fortunately placed, constantly purchase, in confiding innocence, fish cleaned in gutter-water flowing through Paris streets, and devour the same, prepared with that skill for which the French cook is famed, a skill which may conceal bad flavours, but cannot protect the consumer against the evil results of devouring contaminated food.

IS BRAIN-WORK A CAUSE OF INSANITY?

DOES excessive brain-work tend to the induction of insanity? In general, the answer to this query by professed alienists is, that mental work pure and simple does not tend to the induction of insanity. But the proposition is not so fully established but that additional proofs are very welcome. Dr. O. Evert, in the *American Practitioner*, gives the result of his large experience. From this, we give a few facts bearing on the query. From 1870 to 1876, he admitted into the general insane asylum of Ohio 1,204 patients. Of these, but 17 had received an academic education. Only 25 professed to be professional men; of these, 12 were lawyers, 9 were medical men, and 4 were preachers.

SMALL-POX IN MADRID.

THERE is some alarm as to an epidemic of small-pox in some quarters of Madrid, and "rigorous measures" have been called for. The only really effective measure, however, that of compulsory vaccination, though it "has been talked of," is not likely, according to *El Genio Medico*, to be enforced, for fear of interfering with the liberty of the subject, and because "it is known that many medical men do not believe in it." Fortunately, none of the cases up to the present time have proved fatal, though three of them have been confluent.

SPINA BIFIDA.

THE new volume of the *Transactions of the Clinical Society* contains the valuable report by Messrs. R. W. Parker and Shattock on spina bifida. We learn that the Council have issued reprints of the report, the object being to present a copy to all those who have assisted the Committee in their work by contributing notes of cases, giving specimens, and otherwise affording valuable material for the prosecution of the work. We congratulate both the Society and the reporters upon the satisfactory conclusion of so excellent a series of investigations, and trust that the example will be repeated by the Clinical, and followed by other societies. It represents the very best method of utilising the vast stores of pathological material contained in museums in this country, by synthetical work far superior to the tedious accumulation of separate papers by different authors.

ACADEMY OF MEDICINE OF BELGIUM.

AT the session of the Royal Belgian Medical Academy, held on October 31st, the following members were appointed to be presidents of sections: MM. Gluge, Bribosia, Thiry, Desguin, Van Bastelaer, and Degive. No election was made to the post of president of the Academy, but M. Gille was appointed senior vice-president. The following honorary foreign members were elected: Professors Bamberger, of Vienna; Botkin, of St. Petersburg; M. Diday, late chief surgeon of the Antiquaille, Lyons; Sir W. Jenner, of London; Professors Kussmaul, of Strasburg; Leyden, of Berlin; and Erichsen, of London.

IMPERFECTIONS OF PRIMARY EDUCATION IN SCIENCE.

It is not only in connection with the examinations of the University of London that difficulties have arisen, owing to the large number of candidates rejected in the preliminary scientific subjects. Owing to the unusually large proportion of candidates rejected at the examination in the University of Cambridge for chemistry and physics for the first M.B. in June, the examiners were requested by the Special Board for Medicine to state their opinion as to the cause. This opinion is that the candidates showed very little mental training, having small power of expressing clearly either facts or deductions. Professor Michael Foster has taken this report as the text of a letter addressed to Professor Paget, in which he points out that men enter as undergraduates at Cambridge ignorant of chemistry and physics, and with minds undisciplined to receive the truths of experimental science. He advocates such a change in the subjects required at the "previous examination" as shall allow the boy to study these subjects while at school; and, in order that this may be possible, he considers that the subjects must be curtailed in some other direction.

CONGENITAL ABSENCE OF A LUNG.

DR. WENZEL GRUBER has recently published, in Virchow's *Archiv*, notes of two cases of congenital absence of a lung. The first was described by him in the *Oesterr. Zeitschrift für praktische Heilkunde* in 1870. The right lung was absent in a female still-born child. On December 10th, 1884, he found the left lung absent in a female child born prematurely. The child had also an accessory liver, and three accessory spleens. The left thoracic cavity was occupied above by the left lobe of a very large three-lobed thymus, enveloped in a distinct fold of the pleura given off from that membrane as it passed over the left mediastinum. Inferiorly, the heart and mediastinum filled the left side of the thorax. The right lung was large, and not divided into lobes. An accessory liver lay in the ligamentum triangulare sinistrum, six millimètres apart from the main part of the liver. It was oval and flattened, and a centimètre and a half in its longest diameter. The three accessory spleens were, as usual, in the gastro-splenic omentum.

OVERFEEDING IN PHTHISIS.

MANY attempts have been made to arrest the development of the bacilli of tubercle by means of parasitocides, but hitherto without much success. For the last three years, Dr. Debove, of Paris, has endeavoured, by means of a process of "overfeeding," so to improve the general nutrition of the tissues as to compensate for the previous loss from fever, expectoration, etc. For this purpose, he introduces, through an œsophageal tube, a chyme made by suspending meat-powder in milk, with the help of eggs. The meat-powder is thus prepared: several pounds of finely minced beef is thoroughly dried over a fire, and then pulverised. Twice or thrice a day, 100 grammes of this in milk were administered by means of the tube; and, under this treatment, the fever and diarrhoea disappeared, and, though the tubercular disease was not cured, the conditions of life were rendered more endurable. Dr. Peiper has repeated Debove's experiments in Professor Mosler's clinic in Greifswald, but has found himself able to dispense with Debove's irritating œsophageal tube. The quantity of

meat-powder was gradually increased to 300 grammes, which was given at meal-times along with a Hungarian wine or some stomachic. In fourteen cases, the result was very satisfactory, the weight of the patient increasing from five to twenty-two pounds; the cough and expectoration, too, decidedly diminished; and, in one case, the number of bacilli decreased. In three cases, gouty symptoms made their appearance, but there were no gastric troubles. Dr. Peiper attributes the failure of this treatment to effect a complete cure to the fact that all the patients were in advanced stages of phthisis; and he thinks that, if adopted earlier, it might, by improving the general condition, and giving more power of resistance to the lungs, render the poison of tubercle innocuous to the system.

MORTALITY AMONGST RUSSIAN MEDICAL OFFICERS IN THE RUSSO-TURKISH WAR.

FEW persons, in this country at least, have any idea how terribly fatal the last Turkish war was to the medical officers of the Russian armies. A memorial of this fatality has just been erected in the Alexandrovski Square, Sophia, in the form of a pyramid of rough stones, on each of which is engraved the names of several of those who are commemorated. The base is of hewn stone, with the following inscription. "Meditsinskim Chinam Pogibshim v Turetskuyu Voynu, 1877-78." (To the medical officers who died in the Turkish war, 1877-1878.) The number of names is 531.

VERRUGA: A PERUVIAN FEVER.

THE Lima Academy of Medicine has determined to make as many enquiries and observations as possible, in order to elucidate the natural history of a terrible Peruvian disease, known as verruga, which is thought to be identical with the fatal "Oroya fever," which many years ago carried off many of the workpeople employed on the railway across the Andes. Quite recently, a medical student, named Daniel A. Carrion, with ill-advised zeal for the advancement of science, inoculated himself with verruga, in the Dos de Mayo Hospital, hoping to be able to gather some new facts about the disease, for the special purpose of enriching a dissertation he was writing on it for his approaching graduation. Some facts were certainly obtained; but, sad to say, at the cost of the life of the zealous experimentalist, who died thirty-eight days after inoculation, his symptoms being adynamic pyrexia, general dermatitis, and a morbid change in the blood, resembling leucocythemia. The period of incubation was twenty-three days. His self-inoculation was quite unauthorised by his teachers, who naturally deeply deplore so sad a termination to the career of a most promising student.

THE COMING MEETING AT THE COLLEGE OF SURGEONS.

WE think it advisable to remind our readers once more that the meeting of Fellows and Members will be held at 3 o'clock on Thursday next, December 17th. The Council will submit to the meeting a statement in reference to the two resolutions carried at the previous meeting held in October, which read as follows: 1. That, the Council of the Royal College of Surgeons not having accepted the principle that Members as well as Fellows should take part in the election of the Council, in the opinion of this meeting steps should at once be taken to memorialise Parliament and the Crown, so as to secure, in the interest of the public and of the profession, the right to representation in the administration of the affairs of the College for its 16,500 legally qualified Members. 2. That, in the opinion of the meeting, no alteration in the constitution or in the relations of the College, or in any of its by-laws and ordinances, shall be effected without the consent of the Fellows and Members convened to discuss the same. These resolutions the Council have thought proper to set aside entirely, for reasons officially stated at length in the JOURNAL of November 28th, page 1031. The meeting will have the opportunity of discussing freely the opinion of the Council.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS. PREPARATORY to the general meeting of Fellows and Members, to be held at the Royal College of Surgeons, on Thursday, December 17th, at 3 P.M., to receive the answer of the Council, a general meeting of the Association will be held in the Parlour, Exeter Hall, on Saturday, December 12th, at 3.30, to consider: 1. What action shall be taken with respect to the answer of the Council of the Royal College of Surgeons; 2. To consider a basis of united action between Fellows and Members; 3. Other business. The attendance of all members of the Association is earnestly requested at both meetings.

DR. COLLIE.

We publish, in another column, a report of the reinstatement of Dr. Collie by the Metropolitan Asylums Board, subject, of course, to the approval of the Local Government Board; in view of the facts precedent, this can hardly be withheld. Although this act of justice has been effected by only a small majority, the result is a matter of sincere congratulation. Dr. Collie had done excellent professional work for a series of years. He had borne heavy professional burdens, and carried the Asylums Board successfully through periods of great trial, in times of epidemic. He was made the scapegoat of the administrative sins of others, who have escaped, and his reinstatement is an act of justice. Sir Edmund Currie deserves the thanks of all, for the high sense of honour and the courageous spirit with which he combated those who wished to make Dr. Collie the whipping boy for other offenders. The intervention of Dr. Collie's professional brethren strengthened the hands of Sir Edmund Currie, but to him great thanks are due for having borne himself so gallantly in the contest for justice. It is to be regretted that the majority was so small. We must be content with having achieved the desired result.

THE BOROUGH HOSPITALS.

At a meeting of the Royal Society of Literature, a subject of interest to medical readers was introduced by Mr. W. Rendle, F.R.C.S., author of *Old Southwark and its People*, who read a paper, entitled *An Historical Sketch of the Borough Hospitals, St. Thomas's and Guy's*, which is reported in the *Charity Record*. He had already spoken of the first foundation of St. Thomas's Hospital in connection with and within the precincts of the Priory of St. Mary Overy, in Southwark, probably founded in accord with the advice of the Conqueror's Archbishop, Lanfranc, who was fond of erecting hospitals for poor, sick, and unlearned in connection with his great religious houses. This and St. Bartholomew's were founded about 1100, that of Bermondsey a hundred years later. In the great fire of Southwark, in 1207, the Priory, its hospital, and much of Southwark, were destroyed; at once a temporary hospital was built, a little south of the other, and remained in use until 1228, when a more sumptuous building was erected on the site opposite the first one, occupied by the hospital about 650 years. Both the earliest and the later St. Thomas's were built over the remains of elaborate Roman dwellings. Among other possessions noted, were fifty acres of land, now the busiest parts of Newington and St. George's, then let for less than a £10 rental. Southwark was at the time remarkable for fine architectural buildings, residences of great nobles, and dignitaries of the Church. The paper contained very curious and interesting points of social history from the records of St. Thomas's Hospital; for instance, the names and deeds of great merchants, who were its early governors; early methods of treatment, or rather of no treatment, the most scientific methods of the time being mainly quackery or rule of thumb, the medical men competing with old women who attended to plague and other patients, bone-setters, "curers of sore heds," herb-women, and the like. The odd custom was noted of whipping at the post, provided in the precincts, patients cured of diseases from vice, before their discharge; curious and quaint regulations as to matrimony; regulations as to beer, meat, coals, flax for weaving, corn for grinding, and the like; the wages earned going to the hospital funds. In 1766, another great

fire ravaged Southwark, and the hospital barely escaped, the fire was stayed at its gates. Among renowned governors were mentioned, Osborne, the founder of the Leeds family, who sprang into the Thames from his master's house on London Bridge, and saved his daughter; Clayton, the friend of Algernon Sydney, the Ishban of Dryden's *Abraham*; and Slingsby Bethel, the Shimei of the same poem. Thomas Guy now appeared as a governor, and all along showed his princely but careful liberality. A greater race of physicians and surgeons was now noted, Mead, Cheselden, Wells, Akenside, Sir Gilbert Blane, and others. The Borough Hospitals were famous for lithotomy, an elaborate operation done in a few seconds, but anaesthetics were unknown; many interesting particulars were given, also, of the early troubles with anatomy; the rifling of the churchyards, and the struggles to get the bodies of condemned criminals. Thomas Guy, of the Baptists of Horslydown, was more particularly noted, with his Hospital of Incurables, an offshoot of St. Thomas's, built while he lived. Among students at this latter hospital, were Thomas Wakley, founder of the *Lancet*, coroner, reformer, and member for Finsbury; Keats, the poet, playfully named "Junkets," student of Guy's, dresser to Mr. Lucas. Close by was the renowned school of the Grainger's. Here Southward Smith gave his demonstration over the body of his friend, Jeremy Bentham, a patriotic method of paving the way to the better practice of anatomy, and to the mitigation of national prejudices. We understand that Mr. Rendle has written the text of a small volume on *The Borough Hospitals*, which is to be appropriately illustrated, and published at a moderate price, by subscription.

THE PROTECTION AFFORDED BY VACCINATION.

AMONG the many queries which the present extensive revival of vaccination has raised, is the one relating to the effect of vaccination upon one who has already had small-pox or varioloid. The *New York Medical Record* has been somewhat surprised to find that vaccination "takes" with those who have had small-pox, two or three such cases having come under notice. It adds: "Upon inquiring of a physician, whose position at the Board of Health has given him a wide opportunity for observation, he assured us without hesitation that, after small-pox, vaccination will take always, and in the primary form; moreover, that vaccination is a surer safeguard from small-pox than small-pox itself; for he knew of instances where unvaccinated individuals had had the disease two or three times. This information is, therefore, of great importance; for most people who have had small-pox feel that they are sealed with an immunity greater than a lifetime of continued vaccination could purchase for them."

FATAL MISTAKES IN TAKING MEDICINE.

A LAMENTABLE example of this misadventure was once more recorded at an inquest held on December 1st, at Brompton, near Northallerton, before Mr. Walton, touching the death of Mary Ramshaw. The deceased, whilst crossing the street, had been knocked down and injured by a passing conveyance. She was brought home, and medical aid called in, when it was found she had received a fracture of the right thigh. She was ordered a mixture to take, as well as an embrocation. The deceased being in great pain, her daughter gave her a dose of medicine, when she instantly became convulsed, and in the course of about ten minutes died. The daughter, as soon as she had administered the dose, perceived that she had taken it from the wrong bottle, the two standing on the same table. Mr. Lumley, surgeon, said he attended the deceased, and supplied the bottles referred to, the embrocation containing a very strong preparation of belladonna, and he had no doubt the woman died from the effects of that poison. Although the embrocation was poisonous, he did not think it necessary to place any label on the bottle to that effect to warn the persons of its nature. The bottles were of the same shape, and the one containing the embrocation was graduated in tablespoonful doses, the same as that in which the mixture was. It had on it a label, "The embrocation to be used twice or three times a day." After a length-

ened inquiry, the jury recorded as their verdict that the deceased was poisoned by belladonna, administered to her by mistake, and that the medical attendant was not free of blame in the matter. They considered that great care should be used in sending out such poisonous compounds, and that in this case there ought to have been something about the bottle to indicate the dangerous nature of the contents. The recurrence of these terrible tragedies recalls once and again the vast importance of dispensing poisonous mixtures and all external liniments in roughened or fluted bottles, which give mechanical warning of danger; at the same time that the obvious precaution in labelling is adopted. Such a domestic calamity leaves a wound which can never heal.

"THE MEDICAL TIMES AND GAZETTE."

We learn with deep regret that intimations have been issued, to the effect that the *Medical Times and Gazette* will cease to appear after the end of the year. During its long and honourable career, the *Medical Times* has rendered great services to the cause of medical science. It numbers illustrious names upon the roll of its successive editors, and has had the advantages of the services of a long list of distinguished men, both of the present and past generation, among its editorial staff. Its independence of character, its scientific tendencies, its courteous and thoroughly professional tone, have long given to it a high place in medical literature, and a reputation which will not readily be forgotten. On the circumstances and conditions which have led to its falling out of the ranks of successful competition for remunerative favour among the general ranks of the profession, it is not for us to speculate. We feel certain that it can hardly with justice be said to have been less deserving of that favour, on literary and scientific grounds, during the last few years than at earlier dates, when it had to encounter less severe and formidable competition. We can but repeat our tribute of sincere respect and admiration for the work which it has accomplished. It will be sorely missed from the ranks of independent medical journalism, and by none more than ourselves.

SCOTLAND.

ABERDEEN ROYAL INFIRMARY.

DR. J. B. RUSSELL, of Glasgow, and Dr. W. T. Simpson, of Aberdeen, the experts appointed by the managers of this hospital to report on its sanitary condition, have reported that, practically, the existing arrangements of the hospital, from a sanitary point of view, are not what they should be. They go over the items carefully; and, after full consideration, suggest the advisability of having a new hospital altogether.

PROFESSOR MATTHEW HAY.

We notice in the *Journal of the American Medical Association* of November 7th, that Professor Matthew Hay, of the University of Aberdeen, has been offered the professorship of pharmacology in the medical department of the Johns Hopkins University in Baltimore. As yet, Dr. Hay has not indicated what he intends to do; but the journal from which we quote sincerely hopes that Professor Hay will consent to go to America, to teach in what promises to be one of the most thorough medical schools in the world.

EDINBURGH UNIVERSITY PUBLIC HEALTH DEGREE.

THE degree of Bachelor of Science in Public Health is every year becoming more popular among graduates in medicine in the University of Edinburgh. At the recent examination, the following gentlemen passed for the B.Sc. in Public Health: James McLintock, M.D.; T. Goodall Nasmyth, M.B.; Philip Cockburn, M.B.; Caleb Terry, M.B.; and John Warnoch, M.B.

BURSARIES IN EDINBURGH.

THE following bursaries in the Faculty of Medicine in the University of Edinburgh, have been awarded: the Grierson Bursary in Materia Medica and Pathology to John Tillie; the Grierson Bursary in Anatomy and Physiology to J. H. Ross Garson; the Grierson Bursary in Natural History, Botany, and Chemistry, to Robert Muir; and the Neil Arnott Prize in Physics to David Traill, M.A.

EDINBURGH STUDENTS AND THE ACADEMIC ROBE.

IN some of the Scottish Universities, the students still wear an academic costume; for many years, however, the custom has not obtained in Edinburgh. Recently, however, the subject has been the matter of some keen discussion among many of the students; and the Students' Representative Council being appealed to on the subject, undertook, by means of a *plebiscite*, to ascertain the views of the student community. The results are now to hand; but, as we are only concerned with the faculty of medicine, we need only note that, of medical students, 601 voted for both cap and gown, 355 for neither, 46 for cap only, and 5 for gown only. Considering the large number who have not voted at all, and the considerable number opposed to the adoption of the costume, the question can scarcely be looked upon as decisively settled.

EDINBURGH HEALTH LECTURES.

THE third of the series of Edinburgh Health Lectures was delivered last Saturday evening by Dr. P. A. Young, who took for his subject "Milk in relation to Public Health." Dr. Young commenced by explaining the composition of milk, and enlarged on its dietary prominence in health and disease; and pointed out that no single article of diet could in any way approach it as a nutrient agent; and that it could not be too frequently urged upon mothers, and all concerned in the rearing of children, that, until infants were six months old, they should be fed entirely on milk. The lecturer then went on to urge the necessity of the milk-supply of large towns being properly arranged and supervised; and, regarding precautions against adulteration, he urged that, for the ends of justice, and for the sake of the public, some recognised standard as to what constituted good milk should be declared by the authorities, so that medical officers of health and analysts might have some grounds for recommending prosecutions. With regard to certain precautions in the distribution of milk, Dr. Young said he could not too sharply condemn the practice, which prevailed in Edinburgh, of having milk carried in open cans, where the lid was taken off at every door when milk was handed in, exposing it to dust and other impurities; above all, he could not speak too strongly against the custom of dipping the measure into the can each time the milk was given out, causing the hand of the distributor to be introduced into the milk. The danger of communicating skin-diseases and other forms of malady was very evident. To obviate this, cans with taps at the bottom, or wooden barrels with taps, as they had in the west country, would be preferable. At the close, Dr. Young received a hearty vote of thanks for his interesting lecture.

IRELAND.

NEW HOSPITAL FOR CONSUMPTIVES, BELFAST.

OWING chiefly to the generosity of a Belfast merchant, one noted for his charitable donations—Mr. Forster Green—a hospital for the accommodation of consumptive patients was formally opened last week in that town. For a number of years, there has been a great want in Belfast for a hospital where patients in the advanced stages of this disease could be properly treated. Mr. Forster Green came forward in this emergency, and offered £5,000 towards the mainte-

nance of such an hospital, with the proviso that it should be invested, and the interest only applied towards the treatment of patients. The example shown was followed by Mr. Murray, who contributed £500, and by others in smaller sums. The Throne building was selected for the position of the proposed building, and the Board of Management of the Royal Hospital applied to the Master of the Rolls as to their power to use a portion of the building for the required purpose. This being conceded, the necessary alterations were made to separate the new consumptive hospital from the Convalescent Home. This cost £100, which was paid by Mr. Forster Green, and he also supplied the heating apparatus, which came to £135. The hospital was furnished by some friends, and was opened last week for eight patients. Mr. Forster Green deprecated the praise he had received for what he wished to call a miserable beginning, but he trusted that what was now but a nucleus would before long be an institution suitable to the wants of the citizens. He offered, should a sum of £15,000 be obtained, to construct a wing, and calculated that, with this amount, and the £6,000 they already had, an annual sum of £800 would be available, a small thing compared with the population of Belfast, and compared with the immense number who were sufferers from the disease for which the institution was established. The following resolution was unanimously adopted: "That the warmest thanks of this meeting and of the Corporation of the Royal Hospital are due and hereby tendered to Mr. Forster Green and the other donors to the Consumptive Hospital Fund, for the generosity with which they have commenced this munificent movement for the relief of sufferers from consumption, and to enable the Board of the Royal Hospital to inaugurate this great work to-day."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held on Thursday, December 10th. The minutes of the extraordinary meeting of November 24th were confirmed.

The report of the Court of Examiners on candidates recently examined for the Fellowship was received, and it was ordered that diplomas be granted to those who passed the examination.

Messrs. Golding-Bird and Hurry Fenwick were re-elected Examiners in Elementary Anatomy. Mr. Jeremiah McCarthy was elected Examiner in Physiology for the Membership and Fellowship.

A letter was read from Mr. Marshall, as chairman of the Statistical Committee of the General Medical Council, enclosing a report of the Committee on the statistics of medical education, especially relating to the career of medical students, and the different institutions where they pursued their studies.

A letter was read from Mr. Marshall, reporting, as representative of the College in the General Medical Council, the proceedings of that Council at their late session. An unanimous vote of thanks was awarded to Mr. Marshall for his services on the General Medical Council.

Mr. Berkeley Hill was added to the Committee on the Title of Doctor.

The delivery of the Bradshaw Lecture by Mr. John Wood was reported. The Council voted thanks to Mr. Wood, and requested him to publish the lecture.

In reference to Mr. Jonathan Hutchinson's notice of motion, Mr. Hutchinson was permitted to modify it as follows: "That a committee be appointed to consider and report to the Council whether it be desirable in any way to widen the basis upon which the Fellowship is obtained, and, if so, by what methods." This amended motion was seconded by Mr. Bryant, and carried *nem. con.*

The Council then appointed the following as members of the said committee: Sir J. Paget, Mr. Marshall, Mr. Lund, Mr. Hutchinson, Mr. Cadge, Sir J. Lister, Mr. Bryant, Mr. Hulke, and Mr. Berkeley Hill.

The Court of Examiners have already taken steps to increase the time of the practical examination from twenty minutes to half an hour, namely, five additional minutes for the clinical examination, and five for the examination in bandaging and surgical instruments.

Mr. Macnamara's motion (see page 1,032, November 28) was seconded by Mr. Pemberton, but not carried, an equal number voting for and against the same; those who voted against the motion agreed, we understand, with Mr. Macnamara in principle, but, under the above circumstances, did not think the motion opportune.

THE METROPOLITAN ASYLUMS BOARD: REINSTATEMENT OF DR. COLLIE.

THE case of Dr. Collie, in connection with the scandal of mismanagement and gross extravagance of the Metropolitan Asylums Board's Hospital at Homerton for Fever and Small-pox, came before the managers on Saturday, on a report of the Local Government Board, and on motions on the paper proposing to deal with Dr. Collie, who was the Medical Superintendent of the asylums in question, and who was held to be responsible for the performance of lay as well as of medical duties. The interest which the case has excited in the medical profession was shown by the attendance of three deputations—one from the Council of the Metropolitan Counties Branch of the British Medical Association, headed by Dr. Walter Dickson, the President of the Branch; one from the Poor-law Medical Officers' Association, headed by Dr. Joseph Rogers; and the third from the Medical Defence Association, headed by Dr. B. W. Richardson.

Mr. E. H. Galsworthy presided; and, at the opening of the meeting, a letter was read from the guardians of Mile End, urging the Board to dismiss Dr. Collie. This letter was directed to be entered upon the minutes—a course contrary to the usual procedure, which is, that letters should be entered in substance only. Then the Chairman informed the Board that a letter had been received from Dr. Collie, in reply to some of the charges made against him by the Local Government Board respecting the omission to keep books; and the Chairman called upon the clerk to read this letter. Mr. Albert Pell, who had a motion on the paper that Dr. Collie should be dismissed, opposed the reading of this letter; but the Chairman insisted that the plea urged by Mr. Pell—that the managers, or most of them, had a copy of the letter—had nothing to do with the public information; and that the public ought to have a full knowledge of the circumstances upon which the managers were proceeding. The letter, which was dated the 1st instant, was as follows.

"I desire to offer the following observations on the Local Government Board's letter to me of the 4th of November last.

"1. The supervision over the expenditure, which it fell specially within my province to bestow, was as complete as the overwhelming nature of the work imposed upon me permitted; but I could not be minutely supervising diets, extras, and other things for patients at Homerton, and for patients at Plaistow, be at Potter's Ferry and elsewhere, and all over the East End of London, looking after sites and buildings for cholera hospitals. Briefly, I could not accomplish, personally and in detail, several persons' work and be in several places at one and the same time.

"2. I could not check every item on the diet-sheets without making them out myself, and this I could not do under the circumstances; but they were examined and checked (expensive items specially) as far as possible; and that I was careful in this respect is shown by the fact that occasionally several sheets were signed on one day, because they could not be examined on the particular days, and because I would not sign them without examination. The important fact about these sheets is not when they were signed, but whether they were examined before they were signed. Indeed, I was so desirous that they should be correct that, in 1883, I insisted on their preparation by one of the medical officers, thus anticipating by a year and a half a resolution of the Subcommittee of the Managers; and it was only because of the illness of Dr. Phillips from scarlet fever that it was found necessary to entrust the duty again to the Superintendent of Nurses.

"3. The case-books were kept when it was possible to keep them; but, during the great pressure of fever or small-pox, or both, so common at Homerton, it was frequently impossible to do so, and during last year the pressure was greater than at any former time. I reported to the Committee, in 1876, that the case-books could not be kept without additional assistance, which was denied; and since that time the work has greatly increased.

"4. It is true that I did not actually keep a book, in which was recorded the infected clothing which it was necessary to destroy, but a written paper containing the name of the person to whom it belonged was regularly sent to the steward.

"5. The system of supply in existence at Homerton, and which the letter states I 'allowed to grow up,' was, so far as my duties are concerned, the system carried out in accordance with the orders of the Local Government Board.

"6. During the whole period of my office (a period of fourteen years), no committee, auditor, Government inspector, or other person ever called for the books to which so much importance appears now to be attached."

The CHAIRMAN said he thought it was right the managers should be informed that, the Local Government Board not having sent the whole of the Commissioner's remarks in the report upon Dr. Collie, the General Purposes Committee had sent to the Local Government Board, asking that the omission should be supplied. The reply of the Local Government Board was, that the part referred to had not been supplied, because it contained "confidential advice to the Board." Nevertheless, the Local Government Board supplied the part asked for, and the Chairman now read this. It stated that, though the Commissioners did not recommend that Dr. Collie's suspension should be removed, yet, if the managing body desired that it should be removed, the Commissioners would be inclined to recommend that the Local Government Board should "accede to the request." The Chairman then said that there were three deputations waiting for an interview with the Board, one from the Medical Defence Associa-

tion, one from the Metropolitan Counties Branch of the British Medical Association (the largest medical body in the world), and one from the Poor-law Medical Officers' Association.

Mr. ALBERT PELL objected to the managers receiving any deputations from medical bodies. If the managers received any deputations, they should receive them from injured ratepayers; these deputations were not from ratepayers. He moved that the deputations should not be received.

Mr. GOODALL seconded the motion.

The CHAIRMAN pointed out that it had always been the practice of the managers to receive deputations properly introduced by a member of the Board. The present deputations had complied with all the requirements of the managers' by-laws, and surely the managers would not say they would not hear gentlemen of eminence in the medical profession. Moreover, Mr. Pell had no information that these gentlemen were not ratepayers.

Sir E. H. CURRIE, on the motion to refuse the deputations being pressed, indignantly condemned the action which would prevent bodies of gentlemen from coming before the managers.

Mr. TATTERSHALL, the city representative, described the medical deputations as on a par with trades' unions, and urged that, if the Board assented to receive them, reception would have to be given to representative bodies of working men whenever it was proposed to discharge a workman.

Dr. FOWLER indignantly denied that the British Medical Association was a "trades' union" in any way. It was an association of members of the medical profession "for the advancement of science, and the welfare of suffering humanity." These were not only medical men of the metropolis, but they were ratepayers as well.

Mr. ROBINS (St. Saviour's) considered the managers would be acting arbitrarily if they refused to hear a body of medical men—a profession upon which the Board was greatly dependent in dealing with the large body of patients placed in their charge.

Mr. DWARBER (City) considered that the Board would not be acting in a spirit of fairness if refusal were given to hear the deputations.

Mr. STRONG, M.P., held that deputations who came from responsible bodies should be heard by the managers.

A vote was taken, and Mr. Pell's motion was rejected by 27 to 20.

The deputations were then received, and were introduced by Dr. Fowler.

Dr. WALTER DICKSON, who spoke as heading the deputation from the Council of the Metropolitan Counties Branch of the British Medical Association, said that great sympathy was felt for Dr. Collie by his professional brethren. They felt that he had done his duty for many years, not only to the satisfaction of the managers of the Metropolitan Asylums Board and of the Local Government Board, one of which had voted him gratuities and increase of salary, and the other had approved; but to the benefit of suffering humanity and the great advantage of the metropolis, in saving it from the effects of virulent epidemics. Moreover, Dr. Collie's integrity had been vouched for by the Local Government Board after all the investigations which had been held; and if he had not fulfilled all the requirements of his office, in the discharge of the clerical duties, this was due to the overpressure of more important duties in combating fever and small-pox, and in the occupation of his time, at the command of his managers, in advising as to the steps to be taken in providing the metropolis against a cholera-epidemic. It was to be remembered that Dr. Collie gave the managers the means of organising the staffs of the several hospitals which had to be organised in face of the epidemics of fever and small-pox; and the discharge of these duties took him away from the metropolis, to inspect Darent Camp, to see the hospital-ships, and to inspect sites for cholera-hospitals. Under the pressure of these professional duties, it was scarcely to be wondered at that certain clerical duties should be overlooked, especially as these duties, such as the inspection of clothing to be destroyed, could scarcely be regarded as strictly within the province of a skilled medical officer—a man who was regarded by the profession all over Europe as an eminent epidemiologist, and one to whose studies the greatest debt of humanity was due for the knowledge of the etiology of the zymotic diseases. Dr. Collie was well known to all the learned societies connected with the study of diseases with which it was the particular duty of the Asylums Board to deal; and he was as well known in Germany, where he was regarded as a great authority upon all questions connected with the treatment of the patients suffering from these plagues. Dr. Collie had served the Board well for upwards of fourteen years, and his medical brethren trusted that the managers would take a favourable view of omissions on minor matters, in consideration of the strict devotion he had given to duties in connection with the higher functions of the physician.

Dr. JOSEPH ROGERS, speaking for the Poor-law Medical Officers' Association, reminded the members acquainted with the early history of the Board, that he was one of the honorary secretaries of the movement which brought that Board into existence. Dr. Collie's medical brethren, especially those connected with the poor-law medical service throughout the country, felt that his case was an exceptionally hard one, and that to make him responsible for mismanagement with which he had nothing to do was unjust, harsh, and severe. To give practical effect to such a course of action would give a shock and a blow to the managers' service, and such a blow would inevitably lead to the result that the managers would be only able to command the services of second-rate and inferior officers, in place of the best medical talent, which was now at their command. The speaker said that he had had very great experience in the lay duties which Dr. Collie was charged with not discharging; and any one who had any experience of them must say at once that the discharge of such duties was altogether alien to the training of a medical man. The medical man had to study disease; and, coming from the wards where he had seen his patients, he could not immediately bring his mind to the discharge of clerical duties. He trusted that the managers would take a just, and, if necessary, a generous, view of Dr. Collie's position.

Dr. B. W. RICHARDSON, addressing the Board for the Medical Defence Association, said that his two colleagues who had addressed the Board had submitted, with good taste and judgment so much, that little remained for him, as the third speaker, to place before them. He would point out that, as the result of the inquiry at the Eastern Hospitals, not only was the feeling of the medical profession strongly in Dr. Collie's favour—and this in the profession over the three kingdoms—but, also, the public feeling was on the side that Dr. Collie stood in the position of an injured man. Hence the managers would have the sympathies of the public in general, and of the medical profession, in reconsidering the case of Dr. Collie. The medical profession felt that the most industrious member amongst them could not have discharged all the duties which were cast upon Dr. Collie; and, if a man did nothing but work through all the time of existence, he could not have discharged the clerical as well as the physician's duties of Dr. Collie; and he himself felt that, if he had been placed in Dr. Collie's position, he should have neglected the lay duties in attending to the more immediate duties of his profession. The profession of medicine were indebted to Dr. Collie for the results of his varied studies in the important work he had had to discharge; and his devotion to the science had rendered him an ornament of his learned profession. His experiences, if collected, would have a distinct value, and be a mark upon the present age; and his brother professional men, some of whom, like himself, differed from Dr. Collie upon some important points of treatment, came to the Board, and appealed to them to give effect to the value of Dr. Collie's services, and less to the omission to perform clerical and routine duties.

The speakers were catechised by Mr. Albert Pell, as to their knowledge of the Local Government Board's "Orders and Regulations," their knowledge of the details of the inquiry, and other points. It transpired that the deputations were sufficiently acquainted with the details of the inquiry. They laid stress upon the fact that the inquiry had proved Dr. Collie's integrity, and that he had efficiently discharged his duties to the suffering poor. In reply to Sir E. H. Currie, Dr. Richardson said that, as a working medical man, he could testify that it was utterly impossible for any man to discharge the clerical as well as the medical duties of the position under the pressure of the prevailing epidemics.

The deputations then withdrew, and Sir E. H. CURRIE moved the following motion.

"That inasmuch as by the resolution of the Board of March 14th last, Dr. Collie was suspended from the performance of his duties, 'pending the result of the inquiry by the Local Government Board,' and that the Local Government Board, as a result of such inquiry, whilst declining to remove Dr. Collie's suspension, intimated, 'That they are satisfied that nothing elicited at the inquiry can be regarded as in any way reflecting on Dr. Collie's integrity in connection with the financial business of the managers; and that the Board are prepared fully to admit that his duties, as far as they were strictly of a medical character, were performed with zeal and efficiency,' the managers are of opinion that the time has now arrived when Dr. Collie, subject to the approval of the Local Government Board, should be permitted to resume the duties of medical superintendent of the Eastern Hospitals."

He stated that he was willing to add, in order to lessen opposition to the motion, words which were to be found in the Local Government Board's report, passing a censure upon Dr. Collie, and warning him as to the future discharge of his duties.

Dr. BOSTOCK, C.B., moved to add that Dr. Collie, if reinstated, should go back on the ordinary salary of a medical superintendent; in other words, that he should lose £100 a year.

The CHAIRMAN said he could not receive such an addition, as the rules of the Board provided that no motion having relation to the emoluments of an officer should be considered without notice.

Sir E. H. CURRIE, in moving the adoption of his motion, dwelt upon the long and devoted services of Dr. Collie in battling with epidemic diseases in the metropolis. He spoke of the use he had himself made of Dr. Collie's services, in giving advice as to the means to be adopted in dealing with fever and small-pox, and with the expected epidemic of cholera. Sir Edmund said that, if anyone were to blame for the neglect of the clerical duties connected with the asylums it was himself, for he had repeatedly, in face of the powers generously entrusted to him by the managers, in making arrangements for dealing with the rising epidemics of fever and small-pox, called away Dr. Collie to give advice, and that was because Dr. Collie was the most able man who could be found in those emergencies. Then Dr. Collie had organised staffs for the various institutions; and not only had helped to save London from a panic, such as would have been caused by having an overwhelming epidemic in the midst of a population of four or five millions of people, but he had helped to save London from the scourge itself. Sir Edmund made a powerful appeal to the Board to requite Dr. Collie's splendid services to humanity by returning him to the position from which he had been suspended.

Mr. PRIVETT seconded the motion.

The Rev. Mr. HENDERSON and others opposed the addition which Sir E. H. Currie had offered to make to the motion; but the managers, by a majority, agreed to insert the words, and they were inserted.

Mr. J. BELL SEDGWICK said he was one of the majority which had supported the suspension of Dr. Collie in March last, but he objected to this suspension now being made a reason for discharge.

The Hon. A. MAUDE STANLEY also supported the motion.

Mr. PELL made a strong attack upon Dr. Collie, and went over all the points of the reports by the Local Government Board and the sub-committee of the General Purposes Committee, and said these reports showed that Dr. Collie had not had the slightest regard for economy. Mr. Pell, who was precluded from moving that Dr. Collie should be dismissed, warned the elected members that, if they voted for the motion, he should use his influence with the electors (the guardians) to prevent their return to this Board.

Mr. HART (St. Saviour's, Southwark) said he should take the responsibility of voting according to his conscience, and should not be deterred by Mr. Pell's threat. It was a pity that Mr. Pell had not given more attention to his duties at the Board, and, if he had attended, perhaps there would have been no scandal. The fact was, however, that Mr. Pell had not been seen there at all until the scandal had arisen, and then he pressed the suspension of Dr. Collie; and some had supported this, because they thought that Mr. Pell had reason for supposing that that medical officer had connection with the dishonest practices which had disgraced the management of Homerton asylums.

Dr. FOWLER dealt in detail with Mr. Pell's speech, and insisted that Mr. Pell had not hesitated to go beyond the record, in order to make it appear that Dr. Collie was to blame for things for which he was not responsible. The speaker warmly appealed to the managers not to condemn Dr. Collie to disgrace.

Mr. ROBINS thought that the proposal of Mr. Pell to go beyond what even the Local Government Board had proposed was extreme, and said he should vote for the motion.

Mr. STRONG, M.P., held that the managers had no right to be called to give their sympathies to Dr. Collie, as his neglect had given head to the malpractices.

Mr. J. G. TALBOT, M.P., while acknowledging that there had been gross mismanagement at Homerton, thought that Dr. Collie's punishment had been sufficiently great for his neglect of clerical duties, in the painful discussion and in his suspension. The speaker trusted that the managers would give consideration to the many valuable services Dr. Collie had rendered to the Board and to humanity, and pass the motion.

The Rev. G. A. M. How (Poplar) urged that the spirit of extravagance was abroad in the hospital, and Dr. Collie, if he had been aware of it, could not have checked it, with such a combination as was formed there between those who had the lay management.

Mr. COTTRELL (Holborn) confessed that he scarcely knew how to vote; and Mr. LAWRENCE (Chelsea) held that it was the Board's duty to do justice to Dr. Collie, and restore him to his office; otherwise, the managers would be punishing Dr. Collie for the sins of others.

Commissary-General DOWNES, C.B., also held that, under the cir-

cumstances of the case, the Board would do well to adopt the motion.

Admiral OLIVER took the same view; and Mr. SCOVILL (St. Olave's) opposed it.

The CHAIRMAN supported the motion, and commented upon Mr. Pell's threat.

A vote was then taken, and twenty-one votes appeared for the motion, and twenty-two against. A division was called for, and Dr. Bostock, who had voted against the motion, left the room, the chairman calling him back in vain. Mr. Tattershall did not wish to vote, but he was not allowed to escape giving his vote, which was against the motion; and the division-list showed twenty-three for the motion, and twenty-two against. The motion for the reinstatement of Dr. Collie was therefore carried.

CONVOCATION OF THE UNIVERSITY OF LONDON.

AN adjourned extraordinary meeting of Convocation was held on Tuesday evening last; Dr. F. J. WOOD presiding. The business of the meeting was to resume consideration of a resolution and amendment, the former proposing "That the report of the special committee and the scheme therein comprised be received," and the latter demanding that the report should also be referred for consideration to the annual committee. The scheme referred to would alter the constitution of the University by introducing constituent colleges and boards of studies, the ultimate object being to make the University a teaching institution, instead of simply an examining one, as at present.—The Chairman said there was one subject which it was his melancholy duty to mention before proceeding to the business on the paper—namely, the death of Dr. Carpenter. It was thirty years since he first became connected with this University, to which he rendered invaluable service. His great scientific attainments were of the utmost service in framing the curriculum and superintending the examinations, and his world-wide reputation gained for the scientific degrees and examinations of the University a credit which perhaps without him they would not have earned so soon. But for the broad foundations which he laid for the University, his death might have been an irreparable loss to it. Moreover, they mourned him as a good man as well as a great one. Convocation would, therefore, think it right to pass a resolution, expressing their deep sense of the loss sustained by the University in the death of Dr. Carpenter, and their sincere condolence with his widow and family.—This motion was unanimously agreed to, and ordered to be sent to Mrs. Carpenter.

Mr. J. ENRIGHT, opening the discussion on the resolution and amendment, urged that this House ought to say at once, very clearly and distinctly, that there should be no governing body formed in the University which could possibly be interested in lowering the standard of the examinations. There was no use in saying that such a danger did not exist, because the mere attempt to include outside colleges in one teaching university might give rise to it.

Mr. W. J. SPRATLING held that the annual committee should not take the scheme into consideration, because that body was not sufficiently representative. The scheme ought to be referred to some special committee, including representatives of the outside colleges, whence the University drew its candidates.

Dr. WEYMOUTH opposed the acceptance of any scheme whatever at present. They were going a great deal too fast. They had been beguiled into taking some preliminary steps. It was at first whispered that, if they formed a teaching university, it would get a share of the funds held by the London guilds, and would absorb Gresham College. These hopes had, however, turned out to be mere moonshine. They must not allow themselves to be forced along an undesirable course by external pressure, which they knew was the motive power in the present case.

Mr. T. TYLER opposed the reference of the question to any committee whatever.

Mr. H. T. ROUND thought the scheme almost ridiculous. It was intended to throw the government of the University into the hands of the teachers, who had made this insidious suggestion before, and now thought to "rush" it through Convocation. They might not know it, but their object was to lower the standard of the examinations in order to get more pupils in their classes.

Dr. MOXON believed that great reforms were needed in the University. For instance, the Senate had somewhat lost touch of the active phases of teaching in many branches of science; but they ought not to tear the University to tatters in order to meet that defect. The proposition before the House was crude and vague.

Mr. R. W. HINTON said that at first the phrase "teaching university" was supposed to imply a new staff of teachers, and so on; but now it

seemed to be generally regarded as meaning an union of institutions already engaged in the work of teaching. He suggested that the different bodies interested should appoint a joint committee to study the subject thoroughly.

Mr. H. A. NESBITT proposed to withdraw the amendment; but, leave being refused, the amendment was unanimously negatived.

Professor W. C. UNWIN, on behalf of Mr. P. Magnus, moved another amendment, to the effect that the scheme should be referred to a special committee of twenty-five members.

Mr. W. A. TILDEN seconded the amendment.

Mr. COTTON wanted to know why the University should not become a teaching institution without asking the assistance of outside bodies.

Mr. MAGNUS explained a further scheme, accepted by a number of graduates as the one on which the University should be reorganised. They were, he said, purposely vague; but they were intended for a basis upon which the committee now proposed should work. If they were adopted, the University would consist of convocation, constituent colleges, a council of education, and a senate; and steps would be taken to secure a fixed and adequate endowment of the State.

The amendment having been carried by a large majority, Dr. BROADBENT moved the adjournment of the House, remarking that, if his proposal were carried, the proceedings would, as was very desirable, come to nothing.

An adjournment was, however, refused, after which the original motion and amendment were combined, and carried by a decided majority.

The committee to whom the scheme was referred was, after much controversy, finally constituted as follows: Messrs. J. Anstie, Q.C., the Rev. D. Davies, the Rev. R. H. Belcher, Messrs. J. W. Bone, E. H. Busk, M. Collier, W. J. Collins, W. T. T. Dyer, V. Horsley, P. Magnus, R. Martineau, T. B. Napier, P. H. Pye-Smith, A. K. Rollett, S. P. Thompson, W. A. Tilden, R. Wormell, Mrs. Bryant, Messrs. McDowall, T. Ely, F. A. Philbrick, Edwin Johnson, the Rev. R. W. Dale, Messrs. J. J. Rickaby, and Edmund Owen.

The Senate has appointed January 19th, 1886, for the next meeting of Convocation, and has agreed to augment the stipend of the clerk of Convocation by £50.

MEDICAL M.P.'S.

THE final result of the elections will, we are glad to say, add largely to the number of medical men who will have seats in the House of Commons. The list will now include Dr. Cameron for Glasgow; Mr. J. Dillon, for East Mayo; Mr. O'Doherty for North Meath; Dr. Farquharson for Aberdeen; Dr. Balthazar Forster, F.R.C.P., for Chester; Mr. Mitchell Henry for Glasgow; Sir Guyer Hunter for Hackney; Sir J. Trevor Lawrence for Surrey; Mr. Pilkington for the South-west division of Lancashire. Besides these, are Dr. P. Vanderbyl and Dr. R. B. Finlay, Q.C., who have forsaken medicine, the one for mercantile pursuits, and the other for the Bar.

Among the new candidates whose Parliamentary career will be watched with especial interest by members of the profession, are Dr. Foster and Mr. Pilkington. Both are working members of the profession in the provinces. Dr. Balthazar Foster undoubtedly makes a great sacrifice in that narrowing of his disposable time for medical practice, which must follow on his acceptance of political engagements. It is understood that he will be able to devote appointed days to his professional duties, but the sacrifice must none the less be considerable. His official position as President of Council of the British Medical Association gives to his election great value and importance, not only as a representative and leading member of this great Association, but as identified with the larger administrative interests of the whole profession, of which he has great knowledge. He has long pleaded for greater political influence for the medical profession in the Councils of the nation; and his debating power and special knowledge will make him a great acquisition to the new Parliament.

Mr. Pilkington also is a working member of the medical profession, from whose most active preoccupations he has only just withdrawn himself. He is Senior Surgeon to the Southport Infirmary, and was for several years Parochial Medical Officer, as well as Visiting Surgeon to the Dispensary home-patients. He is a true representative of the rank and file of the profession, and quite free from official connection or prepossessions. His political triumph is the more remarkable that he is the only Liberal elected within the wide range represented by a district embracing Liverpool, Birkenhead, Warrington, etc., and which includes about a million of inhabitants. Mr. Pilkington is Mayor of Southport, and extremely popular in the district. His

election is hailed with great satisfaction by a large body of his colleagues; and, as a representative general practitioner, his success will be welcomed by the profession at large.

"BRITISH PHARMACOPEIA" CORRECTIONS.

THE following are the latest corrections in the text of the new edition of the *Pharmacopœia*. We print them for the convenience of our readers who have the new book in question.

Page 109, line 35,	read	As purified by solvents it is a
" 149, " 28,	for	fourteen read thirteen
" 154, " last,	"	drachms " fluid drachms
" 164, " 11,	"	$\frac{1}{2}$ to 2 " $\frac{1}{2}$ to 1
" 176, " 35,	"	eight " seven and a half
" 211, " 14,	"	Root " Rhizome
" 213, " 21,	"	CH ₂ I " CHI ₃
" 230, " 27,	"	17 $\frac{1}{2}$ " 15 $\frac{1}{2}$
" 232, " 3,	"	one pint " 24 fl. ozs.
" 241, " 17,	"	1.407 " 1.407
" 249, " 28-29,	"	insoluble " soluble
" 379, " 27,	"	0.886 " 0.896
" 404, " 19,	"	to " in
" 416, " 10,	"	Root " Rhizome
" " 34,	"	Proof " rectified
" 433, " 29,	"	" " "
" 450, " 18,	"	16 " 191
" 460, " last,	"	8 " 7
" 190, " 6,	add	Glycerine of Alum
" 164, " 16,	omit	in powder.

To Cross References.

Page 4, line 10,	add	Lintum Terebinthine Aceticum
" 34, " 8,	"	Unguentum Hydragryi
" 57, " 17,	"	Liquor Atropine Sulphatis
" 228, " 16,	"	Tinctura Quinine Ammoniat
" 278, " 6,	"	Trochisci Acidi Benzoici
" 316, " 24,	"	Emplastrum Plumbi Iodidi
" " 26,	"	Glycerinum Plumbi Subacetatis
" 144, " 22,	omit	Liquor Ammonii Citratis Fortior
" 115, " 17,	"	Acidum Sulphuricum Aromaticum
" 314, " 27,	"	Glycerini
" 405, " 13,	for	Liquidum read Liquidum (dried)
" 31, " 16,	"	1 read 1 $\frac{1}{2}$ fluid ounce
" 73, " 13,	"	" " "
" 49, " 3,	"	11 " 10
" 80, " 23,	"	6 " 8
" " 26,	"	5 " 4
" 92, " 21,	"	22 " 14 $\frac{1}{2}$
" " 22,	"	" " "
" 115, " 24,	"	11 " 12
" 202, " 30,	"	8 " 10
" 315, " 20,	"	9 " 10
" 331, " 13,	"	4 " 4 $\frac{1}{2}$
" 255, " last,	"	8 " 16

LIVERPOOL.—Rightly to appreciate the meaning of vital statistics for Liverpool, it is necessary to bear in mind that there are as many as 110 persons to the acre in this city, a population that is more than twice as densely aggregated as is the population of London, of Plymouth, or Birmingham; while in Glasgow even the number of persons to the acre is only 85.9, and in Manchester 78.8. It is only when these facts are duly allowed for that a death-rate of 25.2 per 1,000 can be accurately gauged. In this connection, we may note, for the sake of comparison, that last year Glasgow had a death-rate of 26.8, Manchester a death-rate of 26.4, Birmingham one of 21.4, Plymouth 21.0, and London one of 20.3. The death-rate 25.2 is, moreover, the lowest of the death-rates recorded for Liverpool; the average of the ten years preceding 1884 was 27.6 per 1,000. Dr. Stopford Taylor attributes the reduction last year in part to the genial weather. It is, however, to be noted that an epidemic of typhus fever, which commenced in 1881, and which culminated in 1882, gradually declined in 1883, and had so far spent its force, that last year there were, in comparison, but a few (only 77) deaths from this disease. Scarlet fever, again, caused only 197 deaths last year, the lowest number on record for any one year, the average for the last ten years having been 620. The births were, as was to be expected amid our conflicting foreign relations and our home-depression, reduced last year; the birth-rate was 35.2, while the average of the previous ten years was 38.0. Infantile mortality in Liverpool is still formidable—195 per 1,000 of the registered births. Under this heading, it should be mentioned that here, as elsewhere, the unusually great summer-heat was accompanied by an exceptional diarrhoeal death-rate. Sanitary work has been actively pushed forward. Dr. Taylor sets out, in formidable array, list after list of nuisances effectually dealt with during the year. Of these, the lists of houses condemned as unfit for habitation form a large part. There can be no doubt that, with continuance of such reform, Liverpool will continue to present reductions in her death-rates.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

Statement of the Finances of the Society; its Reserves; its Payments to Members; its Stability.

THE monthly meeting of the Executive Committee of this Society was held on Wednesday last, December 9th, at 38, Wimpole Street, Mr. ERNEST HART (Chairman of the Society) presiding. There were present: Mr. Ernest Hart, Mr. S. W. Sibley, Mr. E. Noble Smith, Dr. W. Clibborn, Mr. E. Bartlett, Mr. Major Greenwood, jun., and Mr. F. Wallace.

Letters regretting inability to attend were read from Dr. W. M. Ord, Dr. De Havilland Hall, and Mr. Vincent Jackson (Wolverhampton).

The certificates were produced for a further sum of £1,400, cash balance of reserves, which had been invested in Wolverhampton Corporation Bonds, in the names of the trustees, Sir Spencer Wells, Bart., Mr. J. R. Upton, Mr. Ernest Hart, and Dr. W. M. Ord. This brought the amount of the invested reserves up to £7,174, which had been formed since March 1st, 1884, up to date, a period of eighteen months in all.

The general statement of the affairs of the Society showed a very satisfactory position. There was a steady influx of new members, and the total number who had joined since the foundation (one year and eight months) was 720, while the percentage of lapses was a very small one. The annuity fund was rapidly increasing in its due proportions. The life-assurance fund was also growing. The amount of interest on the reserve fund, periodically added to the reserve, would soon become an important item in the receipts.

The first life-assurance claim had just been received, being for £100. Arrangements were made to pay the claim immediately on the necessary legal proof.

The most active part of the work, however, was that of the sickness-fund, now in full operation. From this, over £1,500 had already been paid on account of a considerable number of illnesses and several accidents. The claimants were of widely varied ages, and living in various localities; amounts having been forwarded to Scotland, Ireland, Wales, and distant parts of England. While this useful work had been done, the fund had been growing rapidly, and had now an adequate and increasing reserve capital of over £4,000. The sickness, too, although more than sufficient to demonstrate the need for, and the beneficent influence of, the Society's operations, was thus far less than that allowed for by the actuary in calculating the tables.

With reference to the stability of the Society—a point of great importance to the members and its well-wishers—that was already fully assured; and, upon the completion of its second year of existence, after having defrayed the whole cost of starting and organisation, there would be a funded capital of £10,000 in hand, bearing interest. While the working expenses of the Society had been much less than were estimated and allowed for, the interest secured on the reserves was better than that anticipated in the tables. While 3 per cent. only was counted upon, the actual working produced nearly 3½ per cent., on first-class securities, approved by the trustees. The financial position of the Society was much strengthened by the economy of its management; for, while 10 per cent. of the premium income was allowed for this expenditure, only about half this amount was used, owing to no fees being received by the committee, or payments made for anything but absolutely necessary office-work. The effect of this had been an actual saving of nearly £700 under this head alone, which stood to the Society's credit, and added to its accumulated reserves.

Mr. ERNEST HART said that the evidences of the financial stability of the Association were on the face of the reported facts. The reserves were already very large in amount, and in excess of the actuarial estimate; on the other hand, the claims were within the estimate, and the expenses were much less than those which had been allowed, and were within their financial limit. The invested capital of over £7,000, accumulated within eighteen months, was an eloquent fact; and he was informed that the successful progress of the Society had been beyond ordinary anticipation, and was regarded with great interest and satisfaction among actuaries. The usefulness of the Society to the profession had been signally shown by its numerous payments to sick members. Several members who had been unexpectedly afflicted had been carried through severe trials, which would otherwise have overwhelmed them. One or two, for a merely nominal payment, had, during prolonged periods of complete incapacity from sudden and severe illnesses or accidents, not to be anticipated or guarded against, received as much as £100 each. The extension of the Society afforded to members of the profession, by means of moderate payments, the means of

providing against accident and sickness. The sickness-assurance met a want which no other Society ever touched, and its effect was most beneficial. He directed attention to the value of the annuity and insurance department. The first insurance claim was made this week—a death from typhoid fever, at the age of 39—and was a striking example of the beneficent working of the Society. It was a valuable feature that, under the tables, all payments from members ceased after the age of 65, when earning power was apt to diminish. The Society was in a state of vigorous health.

Full particulars, prospectuses, proposal-forms, and copies of the annual report, may be obtained on application to the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS POWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HEMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 p.m. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of the Branch will be held at the Mechanics' Institute, Church Street, Ashton-under-Lyne, on Wednesday, December 16th, 1885, at 2.30 p.m. The following papers and communications have been promised. Dr. Cullingworth: Two cases of Abdominal Section for the removal of small intrapelvic tumours of the ovaries and adjacent parts. Dr. Imlach: On Pelvic Hematocele. Dr. Dreschfeld: On Alcoholic Paralysis. Dr. Wm. Armstrong will read a paper on the urgent need for Systematic Medical Defence, and will propose the following resolution:—"That, in the opinion of this Branch, it is desirable that a Medical Defence Society should be formed in connection with the British Medical Association." Dr. Ross: On Aphasia, with cases. Mr. G. A. Wright: On some forms of Obstruction of the Nasal Passages. Dr. Walter will also show a Polypoid Growth removed from the Cervix Uteri. Luncheon will be provided at the Wheat Sheaf Hotel by the members of the Branch resident in Ashton from 1 to 2.30 p.m. Dinner at the Wheat Sheaf Hotel, Stamford Street, Ashton, at 5.30 p.m. Tickets (exclusive of wine) 6s. each.—CHARLES EDWARD GLASCOCK, M.D., Honorary Secretary, 23, Saint John Street, Manchester.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of the above District will be held at St. Bartholomew's Hospital, Chatham, on Friday, December 18th, at 3 p.m., J. Langston, Esq., J.P., in the chair. The dinner will take place at The Bull Hotel, Rochester, at 5.30 p.m.; charge 6s., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Honorary Secretary of the District not later than December 16th. Papers to be read: 1. Dr. J. V. Bell, Two Cases of Trephining. 2. F. B. Jessett, Esq., Plastic Operations for Restoration of Upper Lip after Removal of Epithelioma. 3. Dr. H. Lewis Jones, Clinical Notes of Empyema. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce friends.—A. W. NANKIVELL, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the session 1885-6 will be held at the Athenaeum, Camden Road, N., on Friday, December 18th, at 8.30 p.m.; Dr. Dickson, President of the Branch, in the chair. Mr. H. T. Butlin will read a paper on Prevention and Cure of Cancer. A discussion will follow. All members are invited, and may each introduce a medical friend.—GEORGE HENTY, M.D., Honorary Secretary, 302, Camden Road, N.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The next meeting of this Branch will be held at 198, Union Street, Aberdeen, on Wednesday, December 16th, at 8 p.m.; Professor Ogston in the chair. Agenda.—Professor Dyce Davidson: On Congenital Blindness from Pigmentary Retinitis and Optic Atrophy. Dr. Frank Ogston: On some Uses of Ergotine. Dr. Mackenzie Davidson: On some New Ophthalmic Instruments. Specimens by Drs. Williamson, Urquhart, and Mackenzie Booth.—ROBERT JOHN GARDEN, J. MACKENZIE BOOTH, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held on Friday, January 8th, 1886, at the County Hotel, Carlisle. The chair will be taken at 6 p.m. by Mr. C. S. Hall, President. The Secretary will be glad to receive notices of papers, and morbid specimens for exhibition, or patients, without delay. Supper will be provided in the hotel at 9 o'clock. Members from a distance can be taken in for the night by communicating with the Secretary, H. A. LEDIARD, Carlisle.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FOURTH ANNUAL MEETING.

The fifty-fourth Annual Meeting of the British Medical Association will be held at Brighton, on August 10th, 11th, 12th, and 13th, 1886.

President: W. T. Edwards, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

President-elect: Withers Moore, M.D., F.R.C.P., Senior Physician to the Sussex County Hospital, Brighton.

An Address in Medicine will be delivered by Austin Flint, M.D., New York.

An Address in Surgery will be delivered by Frederick Abell Humphry, F.R.C.S., Surgeon to the Sussex County Hospital.

An Address in Public Health will be given by Edward Dillon Mapother, M.D., Consulting Medical Officer to the City of Dublin.

The scientific business of the meeting will be conducted in nine Sections, as follows, namely:

MEDICINE.—*President*, W. H. Broadbent, M.D. *Vice-Presidents*, Frederick Bagshawe, M.D., Hastings; Joseph Ewart, M.D., Brighton. *Honorary Secretaries*, Francis Warner, M.D., 24, Harley Street, London; Henry Seymour Branfoot, M.B., 42, Norfolk Square, Brighton.

SURGERY.—*President*, John Eric Erichsen, F.R.C.S., F.R.S., London. *Vice-Presidents*, Frederick William Jowers, M.R.C.S., Brighton; John Ward Cousins, F.R.C.S., Southsea. *Honorary Secretaries*, William Johnson Walsham, F.R.C.S., 27, Weymouth Street, London; Wiloughby Furner, F.R.C.S., 2, Brunswick Place, Brighton.

OBSTETRIC MEDICINE.—*President*, Alfred Meadows, M.D., London. *Vice-Presidents*, Constantine Holman, M.D., Reigate; Frederick W. Salzmann, M.R.C.S., Brighton. *Honorary Secretaries*, Charles J. Wright, M.R.C.S., Lynton Villa, Virginia Road, Leeds; Alban Doran, F.R.C.S., 9, Granville Place, W.

PUBLIC MEDICINE.—*President*, Richard Patrick B. Taaffe, M.D., Brighton. *Vice-Presidents*, Sir Charles Alexander Cameron, M.K.Q.C.P., Dublin; Charles Kelly, M.D., Worthing. *Honorary*

Secretaries, W. Brown, M.R.C.P. Edin., Carlisle; William Joseph Tyson, M.D., Folkestone.

PSYCHOLOGY.—*President*, Thomas Smith Clouston, M.D., Edinburgh. *Vice-Presidents*, Charles A. Lockhart Robertson, M.D., Brighton; Joseph Raymond Gasquet, M.B., Brighton. *Honorary Secretaries*, Charles Spencer Waller Cobbold, M.D., Earlswood Asylum, Redhill; James M. Moody, M.R.C.S., Surrey County Asylum, Cane-hill, Purley.

PATHOLOGY.—*President*, Julius Dreschfeld, M.D., Manchester. *Vice-Presidents*, James Frederick Goodhart, M.D., London; Heneage Gibbes, M.D., London. *Honorary Secretaries*, John E. Ranking, M.D., Mount Ephraim Road, Tunbridge Wells; John Caldwell Uthoff, M.D., 9, Brunswick Place, Brighton.

THERAPEUTICS AND PHARMACOLOGY.—*President*, Thomas Lauder Brunton, M.D., F.R.S., London. *Vice-Presidents*, John Mitchell Bruce, M.D., London; Edward Mackey, M.D., Brighton. *Honorary Secretaries*, Cornelius William Suckling, M.D., 108, Newhall Street, Birmingham; John Theodore Cash, M.D., Drumearn, Earlsfield Road, Wandsworth Common, S.W.

OPHTHALMOLOGY.—*President*, Chas. Oldham, F.R.C.S., Brighton. *Vice-Presidents*, Louis Tosswill, M.B., Exeter; George Anderson Critchett, F.R.C.S. Edin., London. *Honorary Secretaries*, Frank Henry Hodges, F.R.C.S. Edin., 17, Horse Fair Street, Leicester; Arthur Nicholson, M.D., 98, Montpelier Road, Brighton.

OTOLOGY.—*President*, G. F. Hodgson, M.R.C.S., Brighton. *Vice-Presidents*, Alphonso Elkin Cumberbatch, F.R.C.S., London; Edward Cresswell Baber, M.B., Brighton. *Honorary Secretaries*, Henry Albert Reeves, F.R.C.S. Edin., 6, Grosvenor Street, W., London; Patrick William Maxwell, M.D. Edin., 10, Lower Mount Street, Dublin.

Honorary Local Secretary: Thomas Jenner Verrall, M.R.C.S., 95, Western Road, Brighton.

TUESDAY, AUGUST 10TH, 1886.

2 P.M.—Meeting of 1885-6 Council.

3 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M.

8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3 o'clock.

WEDNESDAY, AUGUST 11TH, 1886.

9.30 A.M.—Meeting of 1886-87 Council.

11.0 A.M.—Second General Meeting. Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

8 P.M.—A Conversation.

THURSDAY, AUGUST 12TH, 1886.

9.30 A.M.—Meeting of Council.

11 A.M.—Third General Meeting. Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH, 1886.

10 A.M.—Address in Public Medicine.

11 A.M.—Sectional Meetings.

4 P.M.—Concluding General Meeting.

8 P.M.—Reception.

SATURDAY, AUGUST 14TH.

Excursions.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Poisoning from Eating Mussels.—Poisoning from Tinned, and from Bad Fresh Meat and Fish.—Boido as a Narcotic.—A New Adhesive Plaster.—Death of M. Rabuteau.—The Secularising of Paris Hospitals.—The Health of Nice.

DR. DUBOUSQUET LABORDERIE has recently published a case of poisoning from eating mussels. The patient was an itinerant dealer in vegetables; he was seized one night with violent pain in the mouth and pharynx, and respiration became difficult. The patient sat up or walked about all the night. The buccal mucous membrane and the tonsils were excessively red, and the tongue was white. Diarrhoea and vomiting set in during the night; the neck became stiff and tender; the heart and lungs were perfectly normal, and all symptoms of gastric disturbance were absent. The patient, two years ago, had an attack of multi-articular rheumatism. The evening before he was taken ill, he had eaten plentifully of mussels. M. Laborderie remembered the connection between urticaria and rheumatism, noted by M. Potain in a clinical lecture, but admitted the possibility that his patient was suffering from urticaria, provoked by eating mussels. He prescribed an emetic, and a draught containing

sixty grains of salicylate of soda. The pains in the mouth and pharynx disappeared, breathing became normal, and an eruption of urticaria covered the patient. M. Potain, in one of his clinical lessons, said that he had twice experienced the same symptoms after eating mussels, and had twice suffered from urticaria as the result of drinking seltzer-water on a very hot day.

La Revue des Sciences Médicales enumerated, in a recent article, a considerable number of cases of poisoning from eating preserved meat. Dr. Guégan, in his doctoral thesis, gives some useful information on this subject. When poisoning occurs from eating fresh meat which has fermented, that meat is generally veal, it being the most liable to undergo changes. A German author, Maas, has observed that ptomaines develop more rapidly in veal than in any other meat. Wyss has studied forty cases of poisoning from veal, resulting in four deaths. This author maintains that diseased meat may produce two separate kinds of disease, gastro-enteritis of varying degrees of severity, and constitutional disturbance of a typhoid character, which may be mistaken for typhoid fever. Schreiber has recorded six cases of poisoning after eating fish which had been macerated a long time in vinegar. The symptoms resembled those of atropinism. Previous investigations demonstrated that fish of any kind, preserved and kept from contact with air, are especially liable to be poisonous. It is known that, if the oxygen of the atmosphere be eliminated from albuminoid substances, a gradual decomposition takes place, and ptomaines are developed. Tinned salmon has, in some instances, been poisonous. *La Revue des Sciences Médicales* recalls the case of Dr. Bertheraud and one of his colleagues who, after eating cod, were seized with vomiting, diarrhoea, collapse, generalised cramps, and a considerable lowering of the temperature. The flesh of the cod was deep red, and was found to contain ptomaines. Dr. Guégan, in his thesis, furnishes the particulars of eleven cases of poisoning from eating some boned tinned meat, two of which proved fatal. The meat appeared perfectly good, though it had been opened six days before it was consumed. Two hundred and twenty-two men fell ill after eating cod in bad condition, but no deaths resulted. Decomposed fish produces a condition which resembles a slight attack of cholera; whereas meat under the same condition produces paralysis. Dr. Guégan thinks that the presence of ptomaines is the cause of these accidents, and that they vary according to the quantity of ptomaines contained in the food. Decomposed fish contains a smaller quantity of ptomaines than does decomposed meat. When preserved food is used, certain precautions should always be observed. It should be previously ascertained that the tin cases do not present bulgings on their sides or covers, a certain indication of the presence of gases. The contents of a tin should be eaten as soon as opened. If preserved cod be pink or red, it is a sure indication of decomposition. When fresh meat begins to decompose, and produces accidents, it frequently happens that its effects cannot be combated by medical treatment, but all practitioners ought to carefully study the symptoms, in order to be able to recognise the cause. Probably many affections not clearly diagnosed, which are apparently of an infectious character, and are attributed to typhoid fever, might thus be explained by their true origin.

Much has recently been written on boldo, but no generally admitted conclusions have been forthcoming. The tincture and wine of boldo were used, when subsequently boldine, an alkaloid, was isolated by Verne and Bourguin. In 1884, M. Chapoteaut extracted from this plant another substance, which, when submitted to the influence of reagents, behaved as glycosides. It was first tested on dogs, and afterwards on patients in M. Magnan's wards. Doses of two, four, six, and eight grammes were given in draughts, capsules, or in rectal injections. It is a powerful narcotic, not producing any disagreeable results. A patient of M. Magnan at St. Anne's Asylum, who suffered from hallucination, and passed sleepless nights in a great state of distress and excitement, produced by her imaginary tormentors, slept soundly when she took two grammes of boldo. This was discontinued during a period of ten days, and her old sufferings returned. She implored to have the capsules given to her again, and she then passed tranquil nights. Dr. Juranville, in a short memoir on boldo, describes ten similar cases. This substance is a hypnotic agent, producing repose similar to natural sleep. There is an absence of anaesthesia; less carbonic acid is exhaled than when awake; the brain is also less congested than during waking hours, when administered to insane patients who had long been worried by insomnia.

A new article for dressing wounds, called Berthault's taffetas, has just been brought out, which is considered to be superior to the adhesive plasters hitherto used. It is as transparent as glass, and as thin as the skin of an onion; the condition of the surface covered by it is as easily seen as though it were uncovered. This plaster is as elastic as India-rubber; it cannot be traversed by fluids, and is un-

affected by change of temperature. Chemically it is inert; neither changed by acids, alkalies, nor the secretions of the human organism.

M. Rabuteau, the well known chemical scientist, died a few days ago, at the age of 49. He especially studied the series of ethers. He has published some important works on therapeutics, pharmacology, and forensic medicine.

Dr. Després has addressed to the Municipal Council of Paris a petition from the patients of the Cochin Hospital, protesting against the proposed "laicisation," or secularising, of that hospital.

In consequence of the reports spread abroad concerning the unhealthy condition of Nice, and the visitation of cholera, the resident doctors, consuls, and sanitary officials have issued a circular containing the following statements. "From August 25th to October 15th a special sanitary condition prevailed at Nice, and deaths from gastric affections increased. In some instances the illness presented a choleraic character, nevertheless Nice was free. There was not in any part of the town a seat or focus of contagion. Since October 15th, the sanitary condition of Nice has been excellent."

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS.

SIR,—None can, I think, find fault with your very impartial summary of the arguments of the Council against accepting the resolutions recently submitted to them as to the rights of the Members; but I cannot help noticing that a very important matter involved in the question has been overlooked; and my experience as a hospital teacher and an Examiner leads me to submit the following remarks and suggestions.

The real matters at issue seem to be (1) the right of all Members to vote for the election to the Council, and (2) the right of Members and Fellows to discuss and give their consent to any alteration in the by-laws and ordinances of the College.

1. Has it ever occurred to the movers in this agitation that, by diminishing the privileges of Fellows in this important item, which, more than any other, affects every Fellow, a serious blow would be given to the inducements for higher education in surgery? Who would care to undertake the extra work and expense of obtaining the Fellowship if the Membership gave an equal right to the only special privilege which the majority of Fellows can exercise? For the election of representatives on the Council is undoubtedly such a privilege. Would the future practitioner think it worth his while? And, up to the present, the increase in the number of those taking this higher diploma has been steady among practitioners. No doubt, certain hospital appointments are open to Fellows only; but will this be inducement enough for students generally to undertake the extra work and spend the extra time in preparing for this higher examination? All do not know what their future will be, and the student who has not availed himself of the steps towards the higher degree may be seriously handicapped afterwards.

It seems that the Members possess privileges not always recognised beyond the practical one of being enabled to practise surgery, and the social one, which is equally important. Members are eligible for the Board of Examiners; Members are eligible for, and have been frequently selected for, the Professorships; Members are eligible for what may be termed the honorary Fellowships; Members have equal rights with the Fellows to the use of the Library and of the Museum. Are these privileges and rights so trivial, that the Members feel aggrieved at not having the power of voting and standing for election to the Council? And is it so difficult for a Member to qualify himself for the privileges which as a Fellow he would enjoy? I think not. Moreover, I know that it is the strong feeling of Fellows that, in future, steps should be, and will be taken, to facilitate the admission of Members who have obtained large surgical experience into the higher rank of Fellows without some of the present hindrances.

Surely the arguments of fancied analogy are feeble. The qualification for the electorate prescribed by Charter is not analogous to the payment of taxes. A certain standard of examination or evidence of experience is the qualification for the right of election to the Council; and the College Council is not analogous to Parliament. The medical Parliament is, if anywhere, the Medical Council. And is so-called analogy any argument?

2. The proposal to discuss the alteration and the necessary consent of a meeting of the members—a body which number 65,000—argues a somewhat unpractical mind in the mover of such a resolution. And does any so-called analogous parliamentary constituency formally con-

sent to changes in the laws before they can be passed? This would be indeed a novel deadlock in progress.

I have written these remarks from the point of view of an independent Fellow not connected with any association, and as one who has been removed from active work and from any possible personal interest in the questions at issue. But I know that many other Fellows feel what I feel, but could not express themselves without the possible imputation of self-interest.

The real opinion of the body of Fellows upon the claims of the Association of Members should, I think, be taken, rather than the opinion of the few who are likely to attend any such meeting as is convened. Would not the Association of Fellows best do this? Their influence would be greater, if they could speak for all or a majority of the Fellows. The Council, as the representatives of the Fellows, ought to know what the opinions of their electors are, and may, I think, be trusted to carry them out. If the Fellows be apathetic when questions of the present kind are being pressed, neither Fellows, Members, nor Council, nor the higher authorities whose interference is threatened, can be expected to form reasonable conclusions. It seems to me, therefore, the duty of Fellows to express their opinions by their presence and voting, or by writing to some official, at the meeting on the 17th. I have so much faith in the intelligence of such a meeting of Fellows and Members, that I should be glad to hear that the speakers were limited to one or two on each side, and the voting completed without delay.

That there remains much to be done by the Council in the way of reform, is evident; and I am one of a large body of Fellows who regret the retirement of Mr. Holmes at a time when his influence in support of the opinions of independent Fellows would have been of special value. Though not by any means in accord with much of the action and inaction of the Council, I recognise it as a representative body composed of some of the most intelligent and independent thinkers in the profession, and, in this matter now before them, feel that Fellows and Members should support them in the interests of professional and educational progress.—I have the honour to remain, sir, yours obediently,

W. W. WAGSTAFFE.

SIR,—I venture to think that gentlemen who disapprove of the action of the "Association of Members" forget that, when a Member has received his certificate to practise, although he may have received his *quid pro quo* so far as the fee and the advantage conferred by the licence are concerned, yet he has received something more—he has been elected a Member of the Royal College of Surgeons of England, subject to its by-laws, and enrolled in its calendar. He is no longer a pupil or undergraduate, but a Member of a recognised society, to the grades and offices of which he may reasonably aspire in due time without further examination. Has an University B.A. no vote? Wherein does the M.R.C.S. differ from the B.A. in training, extent of knowledge, fees for acquiring that knowledge, or length of curriculum?

One writer has asked "what more" a Member wants than the use of the library and museum. Of what use are these to the man in active practice scores of miles off? We poor provincials, says a Senior Hospital Surgeon, must buy up new and expensive books to keep abreast with you London men; and he might have added, because we have no museum and library. Yet this gentleman is not an F.R.C.S.; but his work is as good. The "what more," therefore, a Member wants is to be recognised, not suffered and ignored by the Council, and looked down upon by the Schoolmen-Fellows twice and thrice his juniors in age. As to the difficulty of getting Members, scattered far and wide, to vote, this is a difficulty in the mind of the objector.

The "ambitious Member" who chooses to submit himself to further examination if he have the time, and the "necessary amount of brains," merely undergoes a schoolman's honour examination; it is no test of merit, morality, industry, and dexterity in practice or judgment, for on these should be founded the claim to become F.R.C.S.

The whole system on which the higher diploma is granted appears, in my humble opinion, erroneous. In the first place, the age qualification should be increased to thirty years, so that a man may have settled down to work. In the second, literary honour tests should be abolished. The Council stultifies itself by requiring them at the youthful age of 26, for it has ascertained literary capacity and knowledge before it admitted the man into its Society. But it is very necessary that a Member's practical operative ability and dexterity should be ascertained by a course of operations, both on the dead and the living body, before the F.R.C.S.; for, when a surgeon is appointed to

a hospital, he must show or teach by his acts how his pupils should work in a cleanly and orderly manner, particularly as to holding the knife, how to avoid throwing animal matter on the floor in a jerky way, showing some loss of self-possession, how to use the saw properly, to see the patient is carefully removed, and so forth. In short, a good surgeon must be an approved cabinet-maker. Therefore, when a member of required age, with three local certificates, and three others from eminent hospital surgeons to whom he is personally known for industry, dexterity, and knowledge, desires to become F.R.C.S., he should, after an operative course on the dead body, be admitted to the theatres of several hospitals, where he may show his skill before a class, and explain the method of procedure, and the pathology of the diseased part. Should the examiners be specially satisfied, this might be notified to the class.

Such, sir, is a rough outline of what, I venture to submit, with much diffidence, should be the method of admission to the Fellowship; for, by it, the candidate's knowledge of anatomy, surgery, and pathology would be practically ascertained through operations, and clinical remarks made in public before the most critical class in London.—I remain, sir, yours truly,

CHARLES MOORE JESSOP.

DR. IMLACH'S CASE OF PREGNANCY IN DOUBLE UTERUS.

SIR,—As Dr. Imlach has not replied to Mr. Steele's letter published in the JOURNAL of November 14th, I write to protest against an unjust criticism of Dr. Imlach's successful case of hysterectomy at the full term of pregnancy. The patient was originally under my care. The pelvis was blocked, as Dr. Imlach says in his paper, by a large solid tumour; and the cervix uteri was out of reach. There was no doubt as to the pregnancy, for the fetal heart could be heard, and the limbs felt. The woman was ill; and I sent her into hospital under Dr. Imlach, fully expecting that Porro's operation would have to be performed. While admitting that the tumour might be a fibroid, he suggested, during consultation, the possibility of a solid dermoid cyst of the ovary pressed down into the pelvis, in which I entirely acquiesced. To say the case was mistaken as one for ovariectomy, is far from correct. During operation, it was found that the woman had a double uterus, with a fibroid growth in the right half, which had caused the blocking up of the pelvis; and the uterus, with a large portion of the growth, was removed. To say that "hysterectomy might have been resorted to on a subsequent occasion," is to call in question the judgment of the operator, who is the best authority, and who felt that, to prevent death by septicæmia or hæmorrhage, the operation was imperative. Mr. Steele admits that he was not present. As an assistant to the hospital, he ought to have been. All who were there will bear out my statement that Dr. Imlach's account is fair and accurate. To stay at home and criticise is an easy task; but the value of the criticism would be enhanced by closer adherence to facts.—Yours, etc.,

JOHN BUTLER EDIS, M.R.C.S., L.R.C.P.,

Honorary Assistant-Surgeon to the Hospital for Women.

Liverpool.

VAGINAL EXTIRPATION OF THE UTERUS FOR CANCER OF THE CERVIX.

SIR,—I observe my name quoted by Dr. William A. Duncan, in the JOURNAL, of November 25th, 1885, as one of those who expressed, at the Obstetrical Society, "an opinion adverse to extirpation in cancer of the cervix."

What I said was, that I considered present statistics insufficient to determine the value of extirpation of the uterus for cancer.

GRAILY HEWITT.

INCOME-TAX.

SIR,—The signature "Over-taxed" adopted by your correspondent applies to so many persons who, like him, do not know the rules of the Inland Revenue, that you will perhaps allow me to call attention to a fact but little known. It is, that persons with incomes under £400 a year have a right to repayment, in whole or in part, of income-tax deducted from any source of their income: rent, pay, pension, coupons, dividends, mortgage, interest, etc. The repayment of the tax, by whomsoever deducted, is recoverable from the Inland Revenue, and claims may be made for 1882-83, 1883-84, 1884-85, and soon for 1885-86. Those for 1882-83 should be made at once, as the delay shortly expires. Full directions for making the claims will be found in a small sixpenny pamphlet, *Income Tax: how to get it Re-*

funded, to be had of all booksellers, or of the Income-Tax Repayment Agency, 16, Artesian Road, W.—I am, sir, your obedient servant,
ALFRED CHAPMAN.

MEDICO-LEGAL AND MEDICO-ETHICAL.

WEST LONDON MEDICAL AID INSTITUTE.

IN the BRITISH MEDICAL JOURNAL, November 28th, p. 1041, we commented on certain facts with regard to the foundation of the West London Medical Aid Institute. We are informed that, at a meeting of the Council of the West London Medico-Chirurgical Society, a resolution was passed to the effect that the Institute was a private dispensary. Mr. Philip Birch informs us that he has addressed a letter to the honorary secretary of the Society, pointing out (1) that he has received no notification that his conduct was to be called in question; (2) that as the resolution was not on the agenda, and did not arise from the minutes of the last meeting, it was out of order; (3) that the Council of the Society have reversed their previous decision that the West London Medical Aid Institute was not a private dispensary carried on for the personal gain of the medical staff, and have done this without attempting to ascertain the true facts of the case. He contends that this decision is capricious, as the Committee of the Institute passed a resolution "that the appointment of the medical staff shall rest with the committee alone, who shall have power to regulate the duties of, to add to, or remove any member from, according as the duly considered interests of the Institute shall require; that the services of the medical officers shall remain gratuitous until, in the opinion of the Committee, the finances of the Institute will satisfactorily allow some remuneration to be given, and the committee shall then decide upon the amount and plan of such remuneration. Mr. Birch resigns his membership of the Society, while protesting that he has not broken its laws. The facts do not at all alter the opinion expressed on November 28th. The Council of the West London Medico-Chirurgical Society have apparently acted with some irregularity, and, as Mr. Birch points out, ought to apply this interpretation of their rules impartially to all the members of the Society, for the West London Medical Aid Institute stands upon exactly the same footing as other similar so-called provident dispensaries.

AN ETHICAL QUESTION.

Sir,—Will you kindly give your opinion on the following case? A. and Z. are professional neighbours. M. has been, for ten years or more, a patient of A., and is now, and has been for some weeks, consulting him for more or less chronic dyspepsia. About a fortnight ago, M. called on Z. (with whom he was slightly acquainted), saying he believed he had contracted gonorrhoea, and would be glad if Z. would treat him for it. Z., knowing M.'s relations with A., declines, and advises him to consult his own medical man. M. replies that his private connections with A. are such as to make it impossible for him to consult him in such a matter; and if Z. will not attend him, he must go without treatment. Argument failed to alter his resolution; and, in the end, Z. treated the case, but gratuitously. 1. Was Z. right in undertaking the treatment? 2. If he was, should he have made a charge? 3. In case A.'s suspicions become aroused (as Z. already fears is the case), what may Z. do to justify himself short of betraying M.'s confidence?—Faithfully yours,
LLE EOO.

* The position of Z., under the circumstances related, is undoubtedly an awkward one, and, moreover, difficult to advise on. One point, however, is clear, namely, that the secret confidentially communicated by M. must be alike honourably maintained by Z. In regard to the first question submitted by our correspondent, looking at it in its several bearings, and, at the same time, admitting the motive and intent to have been good, we are, nevertheless, of opinion that Z. erred in undertaking the treatment. To the second question, we reply that, while appreciating the reason why he was induced to "treat the case gratuitously," we think that to dispense with fees from the well-to-do is a default of duty both to the patient and to the profession, and especially in such a case, in which an arrangement might well have been made for a cheque to be sent to some benevolent institution, the British Medical Benevolent Fund, for instance, or a local charity, preferably the former. To effectively advise on the third question, with an imperfect knowledge of the attendant circumstances, is a matter of greater difficulty than we care to attempt, and are, therefore, of necessity constrained to limit our advice to a few suggestions, which we will communicate by private note.

THE ETIQUETTE OF NEW COMERS.

DIFFIDENT.—In replying to "Diffident," we deem it well to remark that the answers to correspondents (the bearing of which he seems to have misunderstood) which have recently appeared in the JOURNAL on the subject of "professional" etiquette, do not apply to one in the position of a retired non-practising fleet-surgeon, in whose case the etiquette of ordinary social life is strictly and solely applicable. "Medical" etiquette differs from that of society at large, in so far as that, on commencing or changing the locality of practice, it entails on such members of the profession the obligation to call upon the duly qualified legitimate medical practitioners resident within a reasonable distance of his own

selected place of abode, and courteously announce his intention to practise in the locality. We would further observe that practising members of the faculty are "not," as incorrectly assumed by our correspondent, "in all cases debarred from making first calls," for, in his own case, it would be right and in perfect accord with medical and social rule for the local practitioners to call upon him in the first instance, as a retired fleet-surgeon. Such we believe to be the simple conventional distinction of "medical" etiquette in the case of acting and retired practitioners.

CHARGES TO WIDOWS OF MEDICAL MEN.

Sir,—Would you oblige me by saying if it is in accordance with professional etiquette for a medical practitioner to charge for attendance on the widow of a medical man who is in business on her own account, and who, in the ordinary course of her business, is in receipt of considerable sums, from the medical attendant?—Yours truly,
DETTA.

* Our correspondent will be able to glean the desired information from the following rule, which was submitted to and approved by the late Sir Thomas Watson and other eminent representative practitioners, and is "extracted from the new edition of the Code of Medical Ethics now in the course of publication."

"1. All legitimate practitioners of medicine, their wives, and children while under parental care, are entitled (not as a matter of right, but) by professional courtesy, to the reasonable and gratuitous services—railway and like expenses, excepted—of the faculty resident in their immediate neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or daughter altogether independent of the father—on the widow and children of a practitioner left in affluent or well-to-do circumstances—should be charged as ordinary patients, unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case, the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined, for no pecuniary obligation ought to be imposed on the debtor, which the debtor himself would not wish to incur."

C. J., M.B.M.A.—The rights of the members of a benefit society depend on the rules of the particular society to which they belong. It certainly seems a harsh proceeding to refuse sick pay to a man because the society's medical officer refuses to give a certificate, and probably a court of law might award some compensation to the man who has been deprived of his pay. It is, however, impossible, without a full knowledge of the facts, to say what proceedings can be taken.

INDIA AND THE COLONIES.

CALCUTTA MILK.—The Calcutta milk-supply appears to be a source of public danger, which should be dealt with instantly. The city is provided with milk, for the most part, from cows kept in the suburbs. While Calcutta is highly favoured in the matter of its water-supply, one of the best in the world, its milk-supply, received from the suburbs, is described as being impure and dangerous, the product of badly fed, badly kept, and often diseased cows, and diluted to the extent of 25 to 50 per cent. with tank-water. Of this tank-water, an eminent chemist recently said "that a good average quality of tank-water may be made by mixing six parts of our present hydrant-water with from one to two parts of the most concentrated Calcutta sewage." The cowhouses are dark, foul-smelling dens, crowded with gaunt filthy-caked cattle, which have barely room to stand, the feeding-tubs full of an ill-smelling fermented wash of chopped straw, oilcake, and spent-wash from the distilleries; the milk standing in smoke-begrimed earthen jars, the surface covered with a drowning struggling mass of carrion flies, the cowhouse bordered on one side by an indescribable filthy pond, whence cattle and milk are alike watered, on the other by a quagmire of liquid filth. Rinderpest, moreover, is seldom absent from suburban cowhouses, and the gowalla mixes the milk from the diseased cattle, as long as they continue to give milk at all, with that from the healthy.

NEW ZEALAND.

HOSPITALS IN NEW ZEALAND.—Dr. Grabham's report on the hospitals in New Zealand reveals a most discreditable laxness in administration, for which the government of the colony appears to be responsible; the number of hospitals has been increased out of all proportion to the wants of the population, with the motive of inducing medical men to settle in districts where they would not be able to reside without a subsidy. As the inspector-general points out, this is a very extravagant way of subsidising a surgeon. Further, he says that the provision by the central government of hospital-treatment, which is practically gratuitous, is pauperising the population; a large proportion of the patients are stated to be not proper objects of charity, and the hospitals are further "encumbered with aged persons, incurable cases, and worthless persons who would find a home in a workhouse in England." The receipts from subscriptions and donations have fallen from £9,200 in 1883, to £7,200 in 1884; in many places charitable contributions had entirely ceased. The receipts from

patients fell from £4,400 in 1883, to £3,900 in 1884. The total expenditure was nearly £4,000 more than in the previous year, and there is little reason to doubt that great extravagance, to use no harsher term, exists in many places. Nearly £2,000 was spent upon alcoholic beverages for about 5,500 patients; and Dr. Grabham says, "I recently noticed a patient, said to be suffering from incurable disease, to be taking wines and spirits to the value of some thirty-two shillings daily, at contract prices." Over £20,000 was spent in salary and wages, and over £4,400 in unclassified expenses; in one hospital, where only 190 patients were treated throughout the year, £232 were spent on drugs, £675 on provisions, £958 in salary and wages, and £1,067 in unclassified or other "expenses." As a set off to these statistics pointing to bad management in certain departments, it is pleasant to find that Dr. Grabham appears to have nothing but praise for the cleanliness of the wards, the kindness of attendants and nurses, and the skill and industry of the medical officers. During the year, 5,019 patients were discharged, and 559 died, which is a mortality of 10 per cent. The most prevalent diseases were rheumatism (464 cases, 14 deaths), heart-disease (145 cases, 41 deaths), phthisis (287 cases, 105 deaths), pneumonia (211 cases, 36 deaths), intemperance and delirium tremens (153 cases, 7 deaths), cancer (132 cases, 47 deaths), and enteric fever (109 cases, 21 deaths).

From one passage in the report, we gather that the attention of the government has already been given to the best means of checking the extravagance noted in certain departments.

PHARMACY IN SOUTH AFRICA.

A MEETING of the executive of the South African Pharmaceutical Association was recently held at Wood's Hotel, Grahamstown, Messrs. J. A. des Vages, M.L.A. (Willowmore), President; A. E. Austen (Craddock), Vice-President; G. E. Cook (King Williamstown), Honorary Secretary and Treasurer; and Messrs. A. Dawson (Kimberley), F. Constance (Port Elizabeth), and E. Fleischer (Humansdorp) being present. Some correspondence was read bearing upon the proposed Pharmacy Act. It was resolved that a Pharmacy Bill be presented in the next session of Parliament, for the protection of the rights and interests of chemists in Cape Colony.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR C. C. READ, of the 1st Battalion of the Coldstream Guards, has gone on retired pay with the honorary rank of Brigade-Surgeon. He entered the service as Assistant-Surgeon, May 13th, 1853; became Surgeon, December 12th, 1868; and Surgeon-Major, March 1st, 1873. He was appointed to the 3rd Coldstream as Battalion-Surgeon in 1874, was transferred to the 2nd Battalion in 1876, and to the 1st Battalion as its Surgeon-Major, November 30th, 1878. Mr. Read served with the Grenadier Guards in the Crimea from November 7th, 1854, and remained there till the fall of Sebastopol; he was awarded the medal and clasp and the Turkish medal.

Brigade-Surgeon F. W. MOORE has been granted retired pay, with the honorary rank of Deputy Surgeon-General. His commissions are dated: Assistant-Surgeon, October 28th, 1853; Surgeon, May 5th, 1863; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, November 27th, 1879. In 1877-78, he was engaged in the expedition against the Jovaki Afreedees, in the North-West Frontier of India; as Principal Medical Officer, was mentioned in despatches for his services; and received the Frontier medal. In the recent war in Afghanistan, he served with the 3rd Division of the Khyber Force, and had medical charge of the 1st and 2nd Division Base Hospitals (mentioned in despatches, medal).

Surgeon-Major FREDERICK FERGUSON, M.D., has been gazetted Brigade-Surgeon from the 18th of June last, in recognition of his services during the recent campaign in the Soudan. Sir Charles Wilson, in his despatch reporting the operations of the Desert Column after Sir Herbert Stewart was obliged to relinquish the command, owing to his severe wound, draws special attention to "the devotion to duty shown by the medical staff under Surgeon-Major Ferguson, M.D., who worked steadily through the night of January 19-20th, though almost exhausted from their want of sleep and their labours after the fight at Abu Klea." Dr. Ferguson was also afterwards mentioned by Lord Wolseley for his services throughout the campaign.

Surgeon WILLIAM MACDONALD, M.D., and Acting-Surgeons RODERICK MILLAR and W. R. GIBSON, have resigned their commissions in the 1st Inverness Artillery Volunteers.

Surgeon JAMES FOWLER, of the 1st Volunteer Battalion of the King's Own Light Infantry (South Yorkshire Regiment), has resigned his commission; he is granted the honorary rank of Surgeon-Major, and permission to continue to wear his uniform. Acting-Surgeon ROBERT BLAIR is appointed Surgeon to the corps.

Surgeon M. E. FITZGERALD, serving in the Madras Presidency, is granted leave to Australia for six months, on medical certificate.

Mr. CHRISTOPHER GREEN, Honorary Assistant-Surgeon to the 1st Devonshire Artillery Volunteers, has resigned his commission.

Mr. THOMAS PHILIP, M.D., has been appointed Acting-Surgeon to the 1st Renfrewshire Volunteers.

Surgeon C. K. MORRIS, of the 2nd Volunteer Battalion of the Lincolnshire Regiment (late the 2nd Lincoln Volunteers), has resigned his commission, which is dated April 15th, 1885.

Mr. WILLIAM STIRLING, M.D., has been appointed Captain in the 1st Aberdeen

Artillery Volunteers; and Mr. J. W. H. TRAIL, M.D., is made Lieutenant in the same corps.

Surgeon-Major W. C. GRANT, M.B., serving in Madras Presidency, is directed to proceed to England by the troopship leaving Bombay on December 26th. He will proceed to Deolali, and report himself to the senior medical officer there not later than December 23rd for duty on board ship.

The undermentioned gentlemen are directed to proceed in medical charge of the corps proceeding from Madras for service in Burmah: Surgeon-Major P. L. KILROY to the 2nd Battalion of the Hampshire Regiment; Surgeon J. ANDERSON, M.B., to the Q Battery, 1st Brigade Royal Artillery; Surgeon M. W. KERR to the 4th Battery, 1st Brigade, North Irish Division Royal Artillery.

Surgeons-Major J. N. STOCK, and H. W. A. MACKINNON, and Surgeons C. WILLIAMSON and C. HEATH are directed to proceed with the Staff from Madras for service in connection with the Burmah Expeditionary Force.

Brigade-Surgeon JOHN MACKENZIE, M.D., serving in Madras, is transferred from general duty Bangalore Division to the Eastern District; and Surgeon-Major F. HOWARD, M.D., is transferred from general duty Eastern District to do general duty with the Hyderabad Subsidiary Force.

INDIAN MEDICAL SERVICE.

SURGEON G. F. A. HARRIS, Bengal Establishment, in joint medical charge of Simla, is appointed to the medical charge of the Headquarters Staff and Establishment remaining at the Station, in addition to his other duties.

Surgeon J. W. RODGERS, Bengal Establishment, Medical Officer to the 2nd Punjab Infantry, has passed the prescribed examination in Pashtu.

Surgeon R. H. CAMA, Madras Establishment, is directed to do general duty under the orders of the Deputy Surgeon-General, Her Majesty's Forces, Eastern District.

Surgeon JOHN HOBY, Madras Establishment, is appointed to the officiating medical charge of the 1st Native Infantry (Pioneers), serving with the Burmah Expeditionary Force.

Surgeons-Major D. F. BATEMAN and C. SINTHORPE, and Surgeons D. F. DEMOTT, M.B., A. P. ADAMS, J. KERNAN, and R. E. S. DAVIS, all of the Madras Establishment, are directed to proceed with the Staff for service with the Burmah Expeditionary Force.

Surgeon P. DE H. HAIG, Bengal Establishment, in medical charge of the 1st Punjab Cavalry, has been granted leave of absence for one year on medical certificate.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE BOARD OF GUARDIANS OF THE CAVAN UNION AND DR. JAMES KENNY.

WE learn from our contemporary, the *Anglo-Celt*, of November 28th, that on the previous Thursday Dr. Woodhouse, one of the Poor-Law Inspectors of the Local Government Board, Ireland, held an official inquiry into the truth of certain charges which had been made by Mr. Thomas T. McCabe, a member of the Dispensary Committee of the Killeshandra district of the Cavan Union, and by one William Tully, a person to whom Mr. McCabe had given a dispensary ticket, and which ticket Dr. J. Kenny, the medical officer, had declined to recognise, accompanying his refusal with abusive language towards Mr. McCabe.

From the statement of the complainant it would appear that, on October 2nd, the man Tully went to Mr. McCabe and asked for a dispensary ticket, which he gave him, and which directed that Dr. Kenny should give medicine and attendance to Tully. It would further appear that, on the morning of the same day, Tully had made application to Dr. Kenny for attendance and medicine, without any ticket, and that Dr. Kenny had stated that he should not give either, as he held that his circumstances were such that he was not justified in applying for gratuitous medical relief. This man, it would appear, with his brother, farmed about twenty-five acres of ground, for which about £16 16s. for rent was paid yearly. On returning to the dispensary with the ticket, he behaved very rudely and offensively, so much so that Dr. Kenny ordered him out of the dispensary, accompanying this order with the remark that Mr. McCabe had only given the dispensary ticket with the object of giving him (Dr. Kenny) trouble and annoyance; some bad feeling having sprung up between the parties, consequent on Dr. Kenny declining to support Mr. McCabe's candidature as a guardian. It further appeared that Dr. Kenny, with the view to prevent a repetition of this man's threats, abusive and even obscene language, had taken proceedings against him at the petty sessions, on which occasion Tully was bound over to keep the peace for twelve months. When Tully again called with the ticket, Dr. Kenny, in consequence of the man's misconduct, at first declined to give him anything. Subsequently he called him in, and gave him a packet of Epsom salts, etc., which evidently the man did not require to take, as he produced the identical packet, in the same condition as when given him about six weeks before, at the official inquiry.

In the defence, Dr. Kenny gave a very clear and connected account of the manner in which Tully behaved on the morning of October 2nd,

when he first made application for attendance, as well as of the offensive language (unfit for publication), his threats of personal violence, and, when served with a dispensary-ticket, he again put in an appearance. He further stated that, finding, under great exasperation, he had given way to unguarded expressions, he expressed his regret, but all to no purpose. Nothing but an official inquiry, which the Local Government Board for Ireland granted, would make atonement; at the same time, nothing could have been more courteous and just than Dr. Woodhouse's conduct of it.

For ourselves, judging from the complainant's own evidence, and that of the witness Tully, whose condition he clearly knew, we are of opinion that Dr. Kenny had fair reason for stating that the ticket had been given with the object of personally annoying him; and this view is further strengthened by the effort that Mr. McCabe made at a dispensary meeting, when he attempted, in this gentleman's absence, to carry a resolution condemnatory of Dr. Kenny, on which occasion the Chairman said: "It was a principle of British law not to investigate a charge against a man behind his back."

But the whole question of the issue of dispensary-tickets requires administrative revision. It is simply monstrous that many small shopkeepers, who get on these dispensary committees, should be invested with the power of indiscriminate distribution to small farmers and others (who probably are their customers) tickets for gratuitous medical relief, whereby the dispensary medical officer's labours are greatly increased, at the same time that he is deprived of the professional earnings to which he is justly entitled. When will the dispensary medical officers combine, so that a stop shall be put to this practice, under which they groan?

Dr. Kenny is to be sympathised with in the persecution to which he has been subjected.

SOOT AND SALT AS A DEODORISER.

SIR,—In your report on Dr. Nicholl's antiseptic closet I see it stated that a mixture of soot and common salt deodorises excreta so thoroughly that no odour is perceptible, even directly after use. I have searched through all my books on sanitation, but have failed to find any allusion to such a mixture: if, however, your statement be correct, and if it be true also, that the fertilising properties of the sewage remain unaffected, the idea seems to me to be most valuable. Every surgeon is constantly having under his care cases of confinement, accident, etc., wherein the use of the nightstool or bedpan is a disagreeable necessity, and in which his patient and all the household would hail the idea of so cheap, safe, and accessible a deodorant. The further question naturally arises as to whether this mixture is disinfectant and antiseptic, as well as deodorant: whether, for instance, we could safely trust to it with the stools of typhoid fever. It would add to the completeness of our theoretical knowledge, and help us in trying it, if you could tell us in what proportions the substances should be mixed.—I am, etc.,

M. B. EDIN.

* We have referred the above to Mr. W. Eassie, C.E., 11, Argyll Street, London, W., who writes: "I can nowhere obtain information regarding soot and salt as deodorising media, or where it is practised. I think that the writer of the query should be referred to Dr. Nicholls himself, who has, doubtless, some ascertained data in respect of experiments. The bulk of the question is of a purely chemical order. As for the proportions in which the substances should be mixed only Dr. Nicholls can speak. I can find no patent thereon."

HEALTH OF ENGLISH TOWNS.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,966,446 persons, 5,783 births and 3,379 deaths were registered during the week ending Saturday, November 21st. The annual rate of mortality, which had been 19.9 and 19.4 per 1,000 in the two preceding weeks, rose again during the week to 19.8. The rates in the several towns, ranged in order from the lowest, were as follow: Bradford, 11.2; Hull, 13.7; Plymouth, 13.7; Birmingham, 17.2; Norwich, 17.2; Oldham, 17.3; Brighton, 17.3; Cardiff, 18.3; Birkenhead, 18.5; Salford, 18.7; Sunderland, 18.7; Sheffield, 18.8; Bristol, 19.1; Newcastle-upon-Tyne, 19.1; Leicester, 19.2; Halifax, 19.6; London, 19.9; Blackburn, 19.9; Nottingham, 20.7; Liverpool, 21.5; Portsmouth, 21.7; Leeds, 21.9; Wolverhampton, 23.7; Huddersfield, 22.9; Preston, 24.4; Manchester, 24.7; Bolton, 25.1; and the highest rate during the week, 27.9 in Derby. In the twenty-seven provincial towns the death-rate averaged 19.7 per 1,000, against 19.9 in London. The 3,379 deaths registered during the week in the twenty-eight towns included 86 which were referred to measles, 79 to whooping-cough, 55 to "fever" (principally enteric), 39 to scarlet fever, 37 to diarrhoea, 32 to diphtheria, and 3 to small-pox; in all, 331 deaths resulted from these principal zymotic diseases, against 286 and 310 in the two preceding weeks. The zymotic death-rate was equal to 1.9 per 1,000. In London the zymotic rate was 2.0, while it averaged 1.9 per 1,000 in the twenty-seven provincial towns, and ranged from 0.6 in Norwich, Huddersfield, and Hull, to 3.3 in Bolton, and 3.4 in Birkenhead and in Liverpool. The fatal cases of measles, which had risen in the five previous weeks from 62 to 85, were 86 during the week, and caused the largest proportional fatality in Salford, Bolton, and Liverpool. The deaths referred to whooping-cough, which had been 42 and 69 in the two preceding weeks, further rose during the week to 79, and caused the highest death-rates in Plymouth and Bolton. The fatal cases of "fever" showed an increase of 22 upon the number in the preceding week, and showed the largest proportional fatality in Birkenhead and Portsmouth. The deaths from scarlet fever, which had been 48 and 47 in the two preceding weeks,

further declined to 39, and caused the highest death-rates in Cardiff and Leeds. The 37 fatal cases of diarrhoea differed but slightly from those returned in recent weeks. The deaths from diphtheria, which had increased from 19 to 33 in the three previous weeks, declined to 32, of which 20 occurred in London, 2 in Birmingham, and 2 in Preston. Of the 3 fatal cases of small-pox, 1 was recorded in London (exclusive of 1 of a London resident from this disease in the Metropolitan Asylum Hospital Ship *Atlas*, outside Registration London), 1 in Liverpool, and 1 in Manchester. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 90 and 79 on the two preceding Saturdays, had further fallen to 74 on Saturday, November 21st; the admissions, which had been 21 and 11 in the two previous weeks, were again 11 during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.8 per 1,000, and slightly exceeded the average. The causes of 83, or 2.5 per cent., of the 3,379 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

OBITUARY.

JOHN GILCHRIST, M.D., Dumfries.

WE regret to announce the death of Dr. Gilchrist at Dumfries, on Tuesday, December 8th. In 1850 he graduated M.D. in Edinburgh University, and directed his attention to the subject of lunacy. He was for some years Medical Superintendent of the Royal Lunatic Asylum, Montrose, and subsequently of the Crichton Royal Asylum, Dumfries, from which latter the state of his health compelled him to retire some time ago. Dr. Gilchrist was widely known and respected by the profession, and equally so by the public. He was devoted to scientific and antiquarian pursuits, and was President of the Dumfries and Galloway Natural History and Antiquarian Society; and such was his enthusiasm, that he conducted a considerable number of courses of instruction in botany and geology, which were free to all.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed the Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 3rd, 1885.

Frost, John Kingdon, Dunfermline, Saltash.

Jolly, Sydney Blake, M.R.C.S., Home Lax, Lansdown, Bath.

Pickthorn, Alfred John, M.R.G.S., 1, Wetherby Terrace, South Kensington, S.W.

The following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received his certificate to practise.

Cossens, William Henry, 37, St. Mary's Terrace, Paddington.

The following gentlemen also on the same day passed their Primary Professional Examination.

Brook, William Frederick, St. Thomas's Hospital.

Sargent, William Gostwycke, the London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by December 24th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Two Assistant Anaesthetists. Applications by December 14th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Assistant Medical Officer. Salary, £150 per annum. Applications by December 17th.

MIDDLESEX HOSPITAL.—Assistant Surgeon. Applications by December 22nd.

PADDINGTON WORKHOUSE INFIRMARY.—Assistant Medical Superintendent and Dispenser. Salary, £100 per annum. Applications by December 16th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Applications by December 28th.

SHEFFIELD FRIENDLY SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary, £170 per annum. Applications to Mr. C. Belk, Filton Road, Sheffield.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Senior Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon on the In-Patient Staff. Applications by December 21st.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Salary, £130 per annum. Applications by December 15th.

MEDICAL APPOINTMENTS.

- CHAPMAN, Paul M., M.D. Lond., M.R.C.P., appointed Physician to the Hereford General Infirmary, *vice* H. G. Bull, M.D., deceased.
- MARSHALL, Gilbert, L.R.C.P. Ed., L.R.C.S. Ed., appointed Medical Officer of the Marketbill Dispensary District, Armagh Union, *vice* J. Pratt, L.K.Q.C.P., J.P., resigned.
- PHILLIPS, Ernest Willmer, M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the Windsor Royal Infirmary.
- RUSSELL, William, M.D., M.R.C.P. E., appointed Tutor in Clinical Medicine in the Royal Infirmary, Edinburgh, *vice* G. A. Gibson, M.D., F.R.C.P. E., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

- DOUGLAS.—At 98, Bonnygate, Cupar Fife, on the 28th ult., the wife of C. E. Douglas, M.D. Edin., of a daughter.

MARRIAGES.

- MURPHY.—MOORE.—On the 2nd inst., at Christ Church, Sunderland, by the Rev. Canon Scott-Moncrieff, M.A., James Murphy, M.D., of Holly House, Sunderland, to Nana, second surviving daughter of the late William Moore, of Herington Hall, Co. Durham.
- PAGE.—CURTIS.—On the 10th instant, at Neath, Glamorganshire, by the Rev. A. F. Mills (Neath), assisted by the Rev. Thomas Jones (Aberdare), Herbert M. Page, M.D., S.Sc. Camb., of Redditch, Worcestershire, to Hannah M. (Annie), elder daughter of Alfred Curtis, Esq., Solicitor, Town Clerk of Neath.

DEATHS.

- PARETTE.—November 29th, at 7, College Green, Bristol, after a short illness, aged 39, James Parette, L.R.C.P., L.R.C.S. Ed., F.C.S., L.S.A. Lond., late Assistant Medical Officer to the Sirhowy Ironworks, Monmouthshire.
- PARSONS.—On December 7th, at 8, Shaw Street, Liverpool, D. W. Parsons, L.R.C.P. Lond., aged 54.

THE TEMPERANCE MOVEMENT IN HOSPITALS.—A correspondent writes: On Wednesday, December 2nd, was celebrated the first anniversary of a somewhat novel institution, namely, a branch of the Church of England Temperance Society, incorporated especially for the staff of the Hospital for Sick Children, Great Ormond Street. This little Society includes 80 per cent. of the hospital staff, and bids fair, by its utility, to increase its hold upon the organisation. After a service held in the beautiful chapel of the hospital, an address was given by the Rev. N. Dawes, a member of the Council of the parent Society, on the Religious Aspect of Temperance. Adjourning to the Board-room, a meeting followed, presided over by the Vice-President of the branch, who was supported by Mr. W. H. Barry, a member of the hospital committee, the Rev. N. Dawes, Dr. Barlow, one of the physicians of the hospital, Miss Ursula Gardner, the Honorary Secretary of the Juvenile Union, Mr. Wyatt, of the parochial branch, and others. The speeches were listened to with much interest; that of Dr. Barlow, from the medical standpoint, should be instrumental in winning recruits to the Society, dealing, as it especially did, with the exceptional work of nursing, and the temptations that might arise in such occupation to seek relief by the use of stimulants. If such societies can be conducted on a liberal and tolerant basis, it seems that much good might be effected. Besides the advantages to the individual in joining such a Society, the influence on the patients in a hospital, many brought there through intemperance, might be very great. We should like to hear that other hospitals have followed the example of that in Great Ormond Street.

EXTENSIVE sanitary improvements are now in progress at the Foundling Hospital, and the children have prudently been removed until the alterations are complete.

VACCINATION.—A Government grant for successful vaccination has been awarded to Mr. George Harvey, Medical Officer and Public Vaccinator for the Wirksworth District of the Belper Union.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY.—Medical Society of London, 8.30 P.M. Dr. Samuel West: On the Treatment of Hemiplegia.
- TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Silcock: Syphilitic Ulcerative Tracheitis. Mr. J. Poland: Internal Anthrax. Mr. Sutton: Diseases of the Circulatory System in Animals. Mr. D'Arcy Power: Endosteal Sarcoma of the Upper End of Femur. Dr. Samuel West: Aneurysm of Mitral Valve. Mr. G. Stoker: A Rhinolith. Mr. Swinford Edwards: Round-cell Sarcoma of Skin of Thigh. Dr. Hale White: Melanotic Sarcoma of Liver. Mr. Lane: Multiple Sarcomata. Mr. E. H. Fenwick: 1. Tuberculous Ulcers of Bladder (card); 2. Contracted Bladder supervening on Atony.—Statistical Society, 7.45 P.M. Mr. Thomas Scrutton: The Preventible Loss of Life at Sea.
- FRIDAY.—Society of Medical Officers of Health, 7.30 P.M. Dr. E. C. Seaton: The Recommendations of the Royal Commission on the Housing of the Working Classes as they affect the Status of the Medical Officer of Health.

OPERATION DAYS AT THE LONDON HOSPITALS.

- MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.—Chelsea Hospital for Women, 2 P.M.
- TUESDAYSt. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
- WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.
- THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2.30 P.M.
- FRIDAYKing's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London, 2.30 P.M.—East London Hospital for Children, 2 P.M.
- SATURDAYSt. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

- CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F. 9.
- GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
- KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.
- LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
- MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
- ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.
- ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.
- ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
- ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
- UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
- WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CAUCINE IN OBSTETRICS.

SIR,—In the JOURNAL of September 5th, Dr. George H. A. Dabbs recommended the local application of caucine in the first stage of labour. His method of proceeding, that of painting the os with a 12 per cent. solution through a speculum, presents, however, many objections, the most important being the necessity of exposing the patient, and giving her the impression that an "operation" is being performed; another objection of some moment, is that in the act of applying the solution, the mucus secreted by the parts, "Nature's lubricator," is removed. To obviate these difficulties, I have had prepared by Messrs. Gale and Co., of Bouverie Street, Fleet Street, hollow cones of theobroma, so shaped as to receive the tip of the forefinger of the examining hand, each cone containing three grains each of caucine and boric acid, which will, I believe, prove of use in the first stage of labour (especially in primipara) and in cases of rigid os. I trust some of your readers may be induced to give the cones a trial and report results.—I am, sir, yours obediently,

Falmouth.

G. HEAD MOORE.

APPENDIX TO THE MEDICAL DIGEST.

SIR,—The time draws near when the manuscripts of the first appendix to the *Medical Digest* must pass into the printers' hands. Dr. Walshe has very kindly accepted the dedication of the work, therefore it is all the more necessary to render it worthy of his name. Will you, therefore, allow me again to beg of your readers to send me at once notice of any errors discovered, and also allow me to return my thanks to those, I regret to say comparatively few, gentlemen who have, up to the present time, acceded to my request?—Yours obediently,

RICHARD NEALE, M.D. Lond.

60, Boundary Road, South Hampstead, N.W.

ERRATUM.

In the JOURNAL of December 5th, page 1082, column 2, line 8 from bottom, for "recurrent" read "secondary" and add at end of sentence, "in a case of mydriasis and cycloplegia following a blow on the head three years ago, glaucoma setting in two years and a half afterwards."

PERSISTENT CONSTIPATION.

MR. L'HÉUREUX BLENKARNE (Buckingham) says that he has found the following prescription most successful in some cases of this complaint. *R* Tinctura nuc. vomic. ℥100; tinctura calumbæ ʒiv; ammonii carbonat. ʒss; spiritus chloroformi ʒss; decoctio aloes comp. ʒj; aq. cataph. ad ʒviij. An eighth part to be taken two or three times a day, the first dose being taken each day about an hour before breakfast. This may possibly require to be taken for a week or ten days before any decided benefit accrues from it; after that time, it may be left off by degrees.

OFFENSIVE URINE.

SIR,—I have met with no case of offensive urine that has not yielded to large doses of boric acid, ten to twenty grains given internally every three or four hours. Of course, were there an intestino-vesical fistula, the urine could not then be rendered inodorous by the use of this drug.—I am, etc.,

RICHARD NEALE, M.D. Lond.

60, Boundary Road, South Hampstead, N.W.

SIR,—Under the circumstances mentioned in his note to the JOURNAL of November 25th, I believe Mr. Deane would benefit his patient by the internal administration of scruple doses of either sulphate of soda or sulphate of magnesia, with spirit of chloroform and infusion of cinchona, given three daily between meals. I have used it on several occasions with success, either alone, or combined with irrigation of the bladder by means of hot antiseptic solutions.—Faithfully yours,

49, Oxford Terrace, Hyde Park.

H. CRIPPS LAWRENCE.

AN OBSCURE NERVOUS AFFECTION.

SIR,—I have received a letter, of which a copy is appended, from a patient of mine in the country, and should be glad to receive suggestions as to diagnosis, treatment, and prognosis. I annex the history of the boy's father and mother. His father is aged 46; he is a non-smoker and a teetotaler. He has been subject to much worry and anxiety, and never feels fresh; he wakes every morning with a start and palpitation. His organs are healthy. His mother is aged 36. She was weakened in India by dysentery, rheumatic fever, floodings, etc. She has valvular heart affection, and now suffers from chronic rheumatism.

"Boy, 6½ years old.—There is something wrong in the connection between his muscular and nervous systems. Several doctors have seen him, but have never seen a similar case, and cannot understand it. The slightest touch to his head, his hair, or his hat, causes momentary insensibility; he loses muscular power, and falls prostrate with great violence, cutting his head, face, etc., frequently. Physically, he is a fine boy, and intellectually as keen as possible. Before birth, his mother suffered some months of great mental anxiety, and, for a year and a half, he was a delicate child; but he appeared to overgrow this. We saw nothing definite of this peculiarity till he was a little over 2 years old, when he had a bad fit. Since then, he has had three or four fits, but only, I think, when his digestion has been impaired. He is a big boy, a great feeder, and we have to be very careful of his food; for, if his digestion be deranged, he falls more readily.

"I should not omit to mention that he is not firm on his legs. He appears to have a slightly defective use of his left arm and leg. We have done nothing but keep him as healthy an animal as we can. He is bold, plucky, intelligent, all one could desire except for this ailment."

Hoping I am not encroaching on your space too largely, believe me, yours, etc.,

13, Surrey Street.

R. W. DUNN.

A CAUTION.

SIR,—I think it right to warn the profession against a person describing himself as Dr. A. Kühnz, Professor of Prague, who is calling upon medical men soliciting charity, and giving the names of gentlemen of high repute in medicine as references. On inquiry, these references have not borne out his statements, and he appears to be utterly unworthy of belief.—Faithfully yours,

EDWARD EAST.

18, Clifton Gardens, W.

Hon. Sec., British Medical Benevolent Fund.

A GUARDED ASPIRATING-NEEDLE.

SIR,—The new guarded aspirating-needle suggested by Surgeon-Major Hodder is ingenious, but surely superfluous. In a set of Dieulafoy's needles, there are generally four with the dangerous pen-shaped points, and three cannulae with trocars, the smallest of the latter corresponding in length and diameter to the No. 2 needle. I can but think that it is most hazardous to use the cutting needles for thoracic aspiration; for it would be scarcely possible to draw off half the serum without wounding the lung; and I suspect that in those disastrous cases of which one occasionally hears, where simple pleural effusion has been converted by aspiration into an empyema, this has been the case. With the cannula, any injury is almost impossible; and, by gradually withdrawing the tube as the fluid lessens, this may be drawn off to the last drop without a stain of blood. As to the procedure itself, I value it more every time—and that is pretty often—I use it; and believe that to wait for absorption to take place is but waste of time. As soon as the thoracic fluid stands steadily at or near the normal, I submit that, if fluid can be detected, it should be withdrawn, and whether the quantity be measured by pints or by ounces, the result will be found equally satisfactory. In three recent cases I have removed, within a week of effusion being evident, six pints, four and a half pints, and seventeen ounces respectively, and in each there was complete convalescence within fourteen days. In reference to the necessity for searching within the chest, I have noted in each case of serum-effusion that the fluid moved freely within the pleural interspace, and, therefore, gravitated as the patient moved; but, in the very few cases of empyema I have seen, the pus was clearly confined within a definite area, but am doubtful if this rule can be looked upon as absolute.

There is one little practical point to which I may refer. As the cannula is its own thickness larger than the trocar, there is some difficulty and most unnecessary pain to the patient in thrusting the little shoulder immediately through the skin; therefore, the point of a lancet should first be pushed just through the integument, and, by the aid of caucine, the little operation should be quite painless. That the needle should be absolutely clean and well anointed with carbollised oil, it is unnecessary to urge.—Obediently yours,

YORK HOUSE, STOURPORT.

G. F. MASTERMAN.

WORMS AND CEREBRAL IRRITATION.

SIR,—In the JOURNAL of October 31st, I see a paragraph referring to cerebral effusion caused by worms. The following case, of which I made a *post mortem* examination, may prove of interest.

A. B., aged 3 years and 10 months, was seized with convulsions and violent diarrhoea, which terminated fatally in twenty hours. The medical man who attended was aware that the child had suffered from lumbrici, and certified the death as due to that cause. Circumstances were present which induced the parents to ask for an examination, which I made in the presence of the medical man in attendance and another doctor. On removing the calvarium, the dura mater on the left side was injected; and, on opening that membrane, a blood-clot about one inch in diameter was discovered just below the squamous portion of the temporal bone. The left hemisphere was much congested, but there was no effusion into the ventricles. No further examination was made, as the cause of death was satisfactorily established. I may add there was a trifling bruise on the helix of the ear, but it did not correspond with the point of effusion, and was considered by my colleagues to be an accidental mark, probably caused by the child knocking its head during the convulsion, and it was so slight as to be scarcely worthy of mention.

I believe a case of rupture of a vessel during an epileptic convulsion is a rare occurrence, also fatal convulsions caused by worms, though I have seen very severe ones occur. In one case, there was marked laryngeal spasm lasting about three hours, together with bile in the urine, which lasted nearly a week, the child eventually passing four worms *per anum*, and vomiting one; after which, complete recovery took place.—I am, yours, etc.,

BOVEY TRACEY.

H. GOODWYN, L.R.C.P., L.R.C.S. Ed.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—The published statement of the Council of the Royal College of Surgeons in reference to the resolutions carried at the meeting of the Fellows and Members on October 29th, requires some examination at the hands of the profession, containing, as it does, the reasons of the Council for altogether setting aside those resolutions. In the first place, it would appear that if Members of the College be not entitled to vote in the election of councillors, simply because they receive value for their fees in the shape of a diploma and a right to practise, equally also, if the College logic be sound, Fellows should not be entitled to vote because, in their diplomas and other privileges, they also receive a *quid pro quo*. Again, the Council state that their diploma of Member gives a right to practise; this is an elementary error that I have found to exist largely amongst medical students, and am surprised that the Council should gravely assert it; it cannot be too distinctly understood that, legally speaking, everyone has a right to practise, whether he be a medical man or not. If a person act as a doctor he renders himself liable to punishment, and the Incorporated Law Society will prosecute him; but the law allows anyone who chooses to practise surgery with impunity, provided he do not call himself a surgeon. The College diploma, therefore, gives no right whatever to practise; the right is antecedent to the diploma. I believe it is doubtful, even, if a Member of the College can legally style himself surgeon if he be unregistered; at any rate, the Council are guilty of a grave error in claiming for the diploma a value it does not possess. Verily, the fly that buzzes round the wheel still believes he propels the coach.

With regard to the second resolution, it seems that the Council cannot admit that the Fellows and Members are competent judges of what is required for the welfare of the College in the way of by-laws, etc.; much better judges, in the opinion of the Council, are the legal advisers of the College, Secretaries of State, Privy Councillors, and two of "Her Majesty's" judges. This crushing weight of outside authority is infinitely superior to the wishes of the profession; and, if taken together with several references to a committee, and not fewer than four meetings of the Council, much less obstructive than meetings of Fellows and Members. Such oblique testimony to the usefulness of the meetings of Fellows and Members is most valuable at the present juncture, and should stimulate us to leave no stone unturned in the maintenance of our just and indefeasible right to govern ourselves in accordance with modern methods.—I am, sir, yours, etc.,

MEDICAL BOOK-KEEPING.

SIR,—Will anyone kindly inform me who is the publisher of the A B C system of medical book-keeping? and from whom I could obtain specimens of other systems?—Yours truly,

M. D.

RIGHT- AND LEFT-HANDEDNESS.

SIR,—The functional asymmetry which makes one hand stronger than the other must have some anatomical basis which ought to be discoverable; but no one yet seems to have detected the cause. Many a time have I gone over the unilateral structures of the body, to consider if any one of them was calculated to influence its own side for good or evil; but I was always accompanied in my search by this baffling forethought, that if I did succeed in finding some cause for a general excess of muscular nutrition in the right limbs, there would be a corresponding excess of nervous nutrition in the right side of the brain; an advantage which, by the decussation of fibres, would be transferred to the left side of the body, and things would be equal again. Yet, in spite of this difficulty, I have been continually haunted by the idea that it is in the innominate artery, if anywhere, that we are to find the solution of the mystery. The innominate secures for its own subclavian and carotid these advantages over the subclavian and carotid which arise direct from the aorta on the other side. A tube of a given calibre is more effective than two tubes of half that calibre; therefore the innominate, besides serving as a kind of funnel-mouth to catch the stream, is a more effective channel than the subclavian and carotid together would be if arising from the aorta as two distinct tubes. Again, the innominate lies rather more in a direct line with the aorta than do the two equivalent vessels on the other side; wherefore the innominate would have the advantage of lying more directly in the set of the stream. And the advantage of being a little nearer the heart, even if infinitesimal, is on the same side. Thus the "bend sinister" of the aorta, and the existence of the innominate artery, tend to increase the blood-supply of the arm and brain on the right side. This fairly accounts for a slight excess of muscular nutrition in the right arm; and a slight excess, by provoking use, would induce further development. But the right carotid has the same advantage as the subclavian; how is it, then, that equilibrium is not restored by an excess of nerve-force being sent across to the left of the body from the right of the brain? When we observe that ponderous muscular power can coexist with a comparatively small brain, as in the elephant and boa, whereas a large brain with small muscle by no means implies muscular power, it seems fair to conclude that an increase of muscle produces more physical effect than an equal increase of nerve-matter, and that consequently the advantages of the innominate tell more on the muscles of the right arm than on the nerves of the left side of the body. But this only accounts for the superiority of the right arm; what can be said about the remainder of the right side? In the first place, not all the right side is superior to the left; next to the arm, it is mainly in the leg that "dexterity" is discernible. In the next place, the superiority of the right leg is not nearly so marked as that of the right arm, and may be due to the fact that a sense of power in the right arm inspires a sense of confidence in all else that is right, whence results more frequent use, and consequent development. Also the advance of the right arm often necessitates the advance of the right foot, as in sword-exercise. But in numerous other cases the left leg, if left to itself, displays a degree of forwardness which excites a suspicion that its inequality is not natural, but induced. I have asked a considerable number of the London Shoe-brigade which foot their customers usually present first, and the replies have been that the left is first presented almost invariably.

The foregoing theory can be easily tested in several ways. Abnormal cases are occasionally noted where there is no innominate artery, the right subclavian and carotid arising directly from the aorta, like their fellows on the other side. I think that one or more such irregularities were observed last year in the dissecting-room of University College, Liverpool. It would be interesting to learn if there were a history of left-handedness in any of those subjects. Also it sometimes happens that the normal position of viscera is reversed, and all the organs are found to have changed sides. One such case is preserved in the College of Surgeons, and within the last few months another was reported from America. Is it possible to ascertain if left-handedness was observed in either of these?

Some of the facts connected with right and left are curious and interesting. If one offer the right hand to an European adult, the propensity to extend the right hand in return is so strong, as to be almost a reflex action. A Bokhara sheik, who suspected Wolff of being a Frank, applied the test of offering him his hand; fortunately for himself, Wolff did not grasp the hand, but responded with a salaam in correct Oriental fashion. But in children, this propensity is either not yet developed, or else is overcome by an innate law of least action. I have tried the experiment of offering my right hand to scores of little children; they invariably give the left, which is nearest, and do not cross the right hand over. If I offer my left, they return the right, again swayed by a law of least action. In sliding on ice, my schoolfellows used to put the right foot forward almost invariably. Though the word Benjamin means Son of a Right Hand, yet the tribe seems to have been notoriously left-handed. The name may have been euhemistic, like Eneumes and Aristera. Von Miklucho Macley says that Papuans are always left-handed. I should very much like to know something about the Papuan innominate.—I am, etc.,

Wimborne, Dorset.

AUGUSTINE CHUDLEIGH.

SIR,—The letter of "F.R.C.S.," in the BRITISH MEDICAL JOURNAL of October 17th, seems to confirm the view expressed in a paper on Left-handedness and Right-headedness, in Dr. Ireland's book, *The Blot upon the Brain*, that left-handedness is probably hereditary, and dependent upon earlier development of one hemisphere of the brain than of the other.—I am, etc.,

Edinburgh. EDWARD DAVIES.

PERINAEOPHAPHY.

SIR,—The war of words in regard to this operation between Dr. Percy Boulton and Mr. Lawson Tait is becoming more amusing than edifying. The former's onslaught was amusingly cutting, and the latter's defence quite admirable. But who is right, and who is wrong? And how are the curious onlookers to judge between the combatants? Every one who may be interested in the question has not Mr. Baker Brown's book, nor Dr. Edis's, in which Langenbeck's perineo-synthesis, and Mr. Lawson Tait's own peculiar and improved modification of it, are respectively described. Nor has everyone the advantage of referring to a circulating medical library. Much less can he rush off to Birmingham, or London, and see these operations performed. Let me, therefore, suggest that both operations be fully described by an unbiased hand, in the JOURNAL, and in parallel columns. We shall then be put into possession of all the points at issue, and can thus judge of the merits and demerits of the two operations—points which are, after all, what we should strive most to get at, if for nothing else but our future practical guidance.—Faithfully yours,

Morecambe.

J. FARRAR, M.D.

COLLODION AS A DRESSING.

SIR,—I shall be glad if you can afford me space for a few remarks on a second case of laceration of the scrotum, described by Dr. Hayden Cox, in reference to one previously reported by Dr. A. Ferguson, of Peebles. I should like to ask Dr. Cox whether he does not think that, after having applied a sufficient number of sutures to keep the edges of the wound together, it would have sufficed to apply a thin layer of wool over the lacerated part, well soaked in flexile collodion. It would then have been unnecessary to keep his patient in bed at all, or, at least, beyond ten hours, the scrotum being well supported with a suspensory bandage; the great object having been healing by first intention, which I presume took place. I will relate a very severe case, also caused by wood, although on a different part of the body, namely, the face; but the force exerted must have been even more severe. A club-patient, while loading a vessel in the Humber, and lifting a weight by means of the capstan and lever, with, I think, the assistance of another, found himself overpowered, and his hold of the lever lost, the capstan swung round in the opposite direction, the lever dealing the man a severe blow in the face, cutting and laying open the cheek, presenting a spectacle almost similar to the operation for the removal of a portion of the superior maxilla. The jaw itself was not injured; there were two or three lacerations, but no part actually detached. On carefully examining the surface of the wounds, they were found to be quite clean; and, with the aid of my partner, all the parts were brought into the best possible apposition, and well secured by a sufficient number of sutures deeply placed, so as to prevent any gaping in any portion of the tracts. A layer of wool was then laid over the wounds, from which all traces of blood had been removed, and the wool was then saturated with flexile collodion. As soon as it was dry, the man, "as is usual," described himself as free from pain. He did not find it necessary to keep his bed a single day, although he remained at home, and in about a week he dined with his club, where I was present, none of the members detecting that he had so recently suffered a severe infliction.

In closing a wound with collodion, I consider it much better to use no other antiseptic; and, if the wound be clean, I refrain from washing it. I speak from an experience of the use of collodion as a dressing extending over twenty years, and could cite cases of lacerated wound by circular saw in which even a portion of bone from the last phalanx of the thumb was removed; and although at first it looked as if amputation were the only hope, the wound healed by first intention.

I lay no claim to this method of treatment, although probably I have used it, in such cases, for as long a period and as frequently as most men; yet I am satisfied that by many, if not most, it is ignored, at least to the extent to which it is applicable; and am fully convinced that, in the treatment of such wounds the result of laceration or incision, it forms the best antiseptic we have, which is proven by the fact that it is rarely necessary to remove a suture; and in the case referred to, the stitches were found adhering to the wool when stripped off at about the end of ten days, and the little mark they had left showed there had been no ulceration of any moment.

The advantages are, first, pain ceases directly the collodion has been applied; secondly, it is rarely necessary to remove sutures; the wound being hermetically closed they do not appear to suppurate; thirdly, about the face and exposed parts the dressing causes very little disfigurement, often a most important point.

I had spent the night at the house of a friend in one of my former localities, and rose somewhat early in the dawn, in order to call upon some friends before they left for the city. While shaving, from what cause I hardly know, I made rather a deep and ugly gash under my jaw, the bleeding from which I found it difficult to staunch. Completing the necessary amount of dressing, I went to the house of a distinguished practitioner, whom I had to call out of bed, asking him to dress my wound, when he at once threatened me with a roll of sticking-plaster, to which I objected, asking him to use cotton-wool and collodion. He stated he had none in his own house, and that it was only a fad of mine, and the other would do as well; but to this I again objected, and found my way to the nearest druggist, where I managed to dress it myself. Before leaving, however, the practitioner had asked me to spend a few hours in the evening over a rubber with a few medical and lay friends. On presenting myself after the appointed hour, I was somewhat surprised to see the whole company rise en masse and stare at me as if I was a spectre. I then learnt they had barely recovered from the surprise of the intelligence conveyed by mine host in the shape of a query whether they had heard the sad news that a man had cut his throat, and they could not then believe there had been the slightest grounds for the report, until they had placed their fingers upon the collodion and wool, which they acknowledged was not skin. Had I been submitted to the antiquated barbarism of strapping, etc., it might have impressed the guests of a decided attempt at *felo de se*; but this the slight show, caused by the wool and collodion nearly resembling the natural skin, probably averted. In cases of erysipelas, especially about the face, with much swelling, I have found nothing to answer equal to collodion, either with or without ten grains to one ounce of nitrate of silver dissolved in it.—Yours faithfully,

GEORGE MUNDIE.

* * * Our correspondent must remember that wounds of the scrotum require far more care in after-treatment than wounds of the face. The part is dependent, and liable to all kinds of injury and irritation, if the patient do not keep at rest till the wound is healed.

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LIPPITUDO.

SIR,—“Rob Roy” will find that his lippitudo will get well with any of his ointments, or with the yellow oxide of mercury, if he first corrects his error of refraction.

W. LANG.

SIR,—May I ask if “Rob Roy” has used the solid stick of nitrate of silver? Of course it is difficult, without seeing the case in question, to recommend any method of treatment; but I have seen the use of nitrate of silver in this form followed by considerable and rapid improvement in such cases. The treatment consists in touching lightly as much of the outer surface of the lids as may be inflamed, care being taken to avoid the conjunctival surface; this should be done about once a week.—I am, sir, yours truly,

HENRY G. O. WHARRY.

THE CASE OF DR. COLLIE.

In our notice of Dr. Collie's case last week, page 1076, we stated that a deputation from the Medical Defence Union had arranged to interview the managers of the Metropolitan Asylums Board. The deputation was from the Medical Defence Association.

FIFTY-FOURTH ANNUAL MEETING, 1886.

THE BRITISH MEDICAL ASSOCIATION.

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The FIFTY-FOURTH ANNUAL MEETING of the Association will be held on August 10th, 11th, 12th and 13th, 1886, at BRIGHTON, under the Presidency of W. WITHERS MOORE, M.D., F.R.C.P.

An ADDRESS in MEDICINE will be delivered by AUSTIN FLINT, M.D., New York.

An ADDRESS in SURGERY will be delivered by FREDERICK ABELL HUMPHRY, F.R.C.S., Surgeon to the Sussex County Hospital.

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Edited by ERNEST HART, Esq.

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Ogston, F., M.D.—Some Uses of Ergot.

O'Sullivan, Stephen, M.D., F.R.C.S.I., Professor of Surgery in Queen's College, and Surgeon to the North Infirmary, Cork.

Owen, Edmund, M.B., F.R.C.S.Eng., Surgeon to St. Mary's Hospital.—**Clinical Reports in General Surgery.**

Parker, Rushton, M.B., F.R.C.S.Eng., Professor of Surgery in University College, Liverpool.—**Contributions to Clinical Surgery.**

Parsons, Charles, M.D., Medical Officer to the Dover Hospital.—**Constipation.**

Philipson, G. H., M.A., M.D., F.R.C.P., Professor of Medicine in the University of Durham, and Senior Physician to the Newcastle-on-Tyne Infirmary.—**Reports of Hospital Cases.**

Phillips, John, B.A., M.D., Physician to the British Lying in Hospital, and Senior Assistant-Physician to the Chelsea Hospital for Women.—**Obstetric Subjects.**

Playfair, W. S., M.D., F.R.C.P., Professor of Obstetrics in King's College, and Physician for Women and Children to King's College Hospital.—**Contributions to Gynaecology.**

Poland, John, F.R.C.S.Eng., Demonstrator of Anatomy at Guy's Hospital.—**Surgical Notes.**

Pritchard, Urban, M.D., F.R.C.S.Eng., Aural Surgeon to King's College Hospital.

Pye-Smith, Philip H., M.D., F.R.C.P., Physician to and Lecturer on Medicine at Guy's Hospital.

Pye-Smith, R. J., F.R.C.S.Eng., Surgeon to the Public Hospital, Sheffield.—**Two Cases of Gastrostomy.**

Reeves, H. A., F.R.C.S.Ed., Assistant-Surgeon to the London Hospital.—**Cases in Abdominal, Orthopaedic, and General Surgery.**

Roberts, F. T., M.D., F.R.C.P., Physician to University College Hospital, and Professor of Materia Medica and Therapeutics in University College.—**Chest Diseases.**

Robson, A. W. Mayo, F.R.C.S., Surgeon to the Leeds General Infirmary, and Lecturer on Operative Surgery in the Yorkshire College.—**Cases in which the Abdomen was Opened for the Removal of the Ovaries or Uterine Appendages.**

Shuttleworth, G. E., M.D., Medical Superintendent of the Royal Albert Asylum, Lancaster.—**Idiocy.**

Skerritt, E. Markham, M.D.Lond., F.R.C.P., Senior Physician to the Bristol General Hospital, and Lecturer on Medicine at the Bristol Medical School.

Spanton, W. D., F.R.C.S.Eng., Surgeon to the North Staffordshire Infirmary.—**Cystitis in Women.**

Suckling, C. W., M.D., Physician to the Queen's Hospital, Birmingham.—**Nervous Diseases.**

Swain, W. Paul, F.R.C.S.Eng., Surgeon to the South Devon and East Cornwall Hospital.—**Cases in Surgical Practice.**

Tait, Lawson, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women.—**Abdominal Surgery.**

Wallace, John, M.D., Obstetric Physician to the Royal Infirmary, and Professor of Obstetric Medicine in University College, Liverpool.—**Diseases of the Uterine Appendages, and their Cure in many instances without Mutilation.**

Walter, Wm., M.A., M.D., Surgeon to St. Mary's Hospital for Women and Children.—**Abdominal and Pelvic Tumours.**

Warner, Francis, M.D., F.R.C.P., Assistant-Physician to the London Hospital.—**Studies of Children in Schools.**

Wells, Sir Spencer, Bart., F.R.C.S., Consulting Surgeon to the Samaritan Hospital; Surgeon to the Queen's Household.—**Castration in Cases of Nervous or Mental Disease.**

West, Samuel, M.D., F.R.C.P., Physician to the City of London Hospital for Diseases of the Chest.

Wheelhouse, C. G., F.R.C.S.Eng., Consulting Surgeon to the Infirmary, Leeds.—**Clinical Lectures.**

White, W. Hale, M.D., Assistant-Physician to Guy's Hospital.

Will, J. C. Ogilvie, M.D., F.R.S.Ed., Surgeon to and Lecturer on Clinical Surgery in the Royal Infirmary, Aberdeen.

Yeo, J. Burney, M.D., F.R.C.P., Physician to King's College Hospital.—**Apical Pleurisy and its Treatment.**

THE BRADSHAW LECTURE

ON

ANTISEPTICS IN SURGERY.

Delivered at the Royal College of Surgeons of England, December, 1885.

By JOHN WOOD, F.R.C.S. Eng., F.R.S.,

Senior Vice-President of the College; Surgeon to King's College Hospital; and Professor of Clinical Surgery in King's College.

[Continued from Page 1097.]

INSTANCES of great success in the use of the carbolic spray and gauze method have occurred to most surgeons who have practised it. One instance occurred in my practice, which I will occupy a few minutes in relating.

A youth, aged 16, was sent to me with an enormous abscess, filling the left abdominal and lumbar regions, and extending under Poupart's ligament as far down as the knee. It was associated with a prominent projection of the third lumbar spinous process. The patient was much emaciated, and very weak, while much hectic fever and depression gave evidence of the approach of a fatal termination.

The tumour was aspirated several times, but a semisolid pulpy mass of *débris*, which would not pass the aspirating tube, always remained, and the pus reaccumulated rapidly. I then, with all the precautions possible, and under the spray, made a free incision outside the prominent lumbar spinous process, evacuated, by gentle sponge-pressure, the pulpy and other contents of the abscess, and found and removed a piece of exfoliated bone from the side of the body of the diseased vertebra. Very little discharge of any kind afterwards appeared. The patient was placed on an inclined plane, with the shoulders lower than the pelvis and legs, a bandage was placed on the leg and abdomen, and double extension was applied to the feet. He recovered rapidly, and the thin discharge which followed was aseptic throughout, without even a sour smell. The patient is now walking about well, with the wound quite healed.

This case illustrates forcibly the remarkable power which carbolic acid possesses in preventing the formation of pus-cells. A similar effect is seen in its action upon granulating surfaces. If continued after cicatrization commences, it retards the progress of healing by destroying (when in a more or less concentrated form) the epidermal nuclei. Then the discontinuance of the carbolic applications accelerates healing. This property seems to be not entirely dependent upon its antiseptic power. Nitrate of silver possesses ten times its antiseptic power, but, as is well known, it promotes the cicatrization of a sore. The sulphates of copper and iron, with four times its antiseptic power, also promote cicatrization. Carbolic acid, especially in the form of spray, but also when the solution is simply injected, has, again, the advantage of giving off its vapour at the temperature of the body, so that it enters and fills abscess and empyemic cavities, sinuses, and burrowing tracks, where putrefaction may be lurking, to spread again aseptic influence.

The more solid non-vapourisable antiseptics, even though more powerful in direct contact, cannot do this. On the other hand, the vaporisable nature of carbolic acid, and of some other antiseptics, makes them more difficult to retain in the dressings. Although, by the use of paraffin and resin, with its jacquennette covering, Sir Joseph Lister succeeded in checking this waste to some extent, these dressings cannot be kept on safely for more than two three or four days, if the amount of discharge be great. In such cases, the advantage of infrequent dressings is to some extent lost. In country practice, and in the army, this loss of efficiency is frequently serious, and putrefaction destroys much of the beneficial effect previously obtained.

There is little doubt that the use of the carbolic spray carries with it a greater certainty that the air of the room, the instruments, the clothing, and the hands of the operator and his assistants, are perfectly pure, and less liable to accidental contamination. The wound is washed, as the operation proceeds, from loose clots and detached portions of tissue. It gives a greater sense of security that the patient has been effectually shielded from septic infection. The carefully packed gauze dressing aids the desired result more or less perfectly. But the discharge is apt to pass *under*, instead of *through*, the packing, along and between the skin and dressing, and to become septic by exposure. The simultaneous use of the absorbable antiseptic ligature is a powerful aid to success, by allowing an entire pri-

mary healing to the deepest parts of the wound. Since I have employed carbolised catgut, and tendon-ligatures cut off short, secondary hæmorrhage has been very rare—I may say, indeed, almost abolished—in my hospital practice; while erysipelas and pyæmia, except in imported cases, are equally seldom seen. Surgeons, I think, agree that the scourge of hospital gangrene has become, since the period of antiseptic practice, quite extinct. Not less virtue do I attribute to the use of free and skilfully applied drainage. With these improvements combined, quick and primary union has been the rule, and there has been very little trouble in the after-treatment.

But these good results of the Listerian combination have not been unattended by drawbacks, some of a serious nature. The picture of the benefits of the carbolic spray and gauze has its reverse side. The most important item on the "per contra" page is the production of carbolic poisoning. I have in many cases had some indications of this injurious effect, evidenced by colicky intestinal pains, nausea and vomiting, olive-coloured, sedimentary, and pellicled urine, and a temperature raised to 101.

A slight degree of these symptoms I do not look upon as at all serious. They can easily be got rid of by diminishing the strength of the materials and solutions employed, and are sometimes coincident with improved symptoms in acute burrowing thecal or other abscesses, or in suppurating cavities. In one case, however, I was strongly led to attribute the fatal result which ensued, to an overdose of carbolic absorption, after the use of the spray and gauze, with injection of carbolic lotion, to purify an old sinus from diseased bone, among the muscles of the forearm. In this case, the vomiting after the operation, beginning on the same night, and accompanied by abdominal pains, was incessant. The operation for the removal of the dead bone was by no means a prolonged or a severe one; there was little or no bleeding, and no symptoms of shock. The patient died the next day from exhaustion. The occurrence of even one such case as this forms a serious objection to the indiscriminate use of the method.

The next item in the array of mischance is the occurrence of carbolic irritation of the wound and skin, in persons with thin cuticle and sensitive integuments. These patients gave few or no previous indications of the peculiarity, and were treated exactly like others, who had no such symptoms, and were dressed in the same manner, with the same gauze and protective. When this has occurred, I have used the eucalyptus gauze, but cannot speak highly of its power as an antiseptic. More satisfactory results were obtained from the salicylic wool, of about 5 to 10 per cent. of strength. When well placed and skilfully packed around the wound, it has proved both efficient and comfortable. Again, if the efficiency of the spray and gauze combination be tested too severely, by being kept on too long, and putrefaction has fairly set in, the stench on removing the dressing sufficiently indicates that the latter end of the case is worse than the beginning. I have witnessed serious symptoms of broncho-pneumonia, with depression of the heart's action and shock, after keeping the patient long exposed to the chilling action of the spray in a prolonged operation, especially in cold weather. This can be provided against, to a great extent, by keeping the patient carefully wrapped in a warm blanket, under a waterproof covering, and his feet covered with warm socks and list slippers. Such an increased necessity for unremitting attention and foresight on the part of the surgeon, who is responsible for the proper treatment of his patient, is an additional, and often a severe call upon his vigour and vigilance.

There are also considerations which become important in the interest of the surgeon himself, as distinguished from that of his patient. It frequently happens, that the spray and carbolic washings and cleansings affect seriously the health of the operator constantly engaged in this work. One well known and remarkably successful ovariologist had his kidneys so seriously affected by carbolic absorption, that he was obliged to give up entirely the use of the spray and gauze method; and it is said that his cases did quite as well as when all the Listerian precautions were carried out. Another eminent ovariologist, after adopting the same precautions for some time, at length reverted to his former reliance (well justified by the excellent results which he had obtained) upon the scrupulous care, cleanliness, and disinfection of his hands and instruments.

A curious question here suggests itself, How it is that, in operations supposed especially to demand the most careful and complete antiseptic arrangements, and a thorough cleansing of the peritoneum, the whole of the strictly Listerian system of precautions have been gradually discarded? The obvious conclusion is, that other antiseptic ways have proved equally effective, and less objectionable in practice, when equally carefully carried out. A minor inconvenience attendant upon the employment of the spray, but one which, I believe, has tended to promote the opposition to, and the neglect of, it in Germany, is its

effect in obscuring the vision in weak and near-sighted operators during the most critical stages of the operations in which they may be engaged, by the condensation of moisture upon spectacles and eyeglasses. Even without these sometimes necessary, but always troublesome appendages, the wavering motion given to the steam and air by the spray-producer tends to perplex and to incommode the operator, until he becomes so much used to it as to be able, in some measure, to disregard it. Again, the ponderous nature of the machinery, the cumbersome materials, and the numerous and minute precautions of the strictly Listerian method, render it difficult to carry them out, and often impossible to continue them, in country practice. Besides the trouble of getting them together in case of a sudden call to operate at a distance from London (which might, by constant practice, be got over), there is the very probable chance that the country practitioner may be so deficient in the management and material of the Listerian methods, that any approach to accuracy or effective completeness is rendered impossible.

The substitution for the spray of a constant dropping of the antiseptic fluid from a sponge or bit of muslin has been quite efficient, when thoroughly carried out by an assistant not more careful of observing others than in attending to his own duty. If the patient be carefully dressed after the operation with a proper amount and thickness of antiseptic padding in the most dependent drainage-tracks, and if there be no great oozing or intermediary hemorrhage, a period of four to five days may be got over without any septic change, and the wound healed so far as to render any want of precision and effectiveness in dressing less injurious to the patient.

It has also been objected to the spray, from a scientific point of view, that the commotion and whirling vortices produced by the steam-spray in the air, are as likely to carry bacteria into the wound or cavity which may be open, as to destroy them therein, or to render them innocuous in the tissues. Considerations like these, together with the uncertainty which prevails as to the extent of the true microbicidal powers of the carbolic acid when diluted with steam, and also as to the extent of the inhibitive influence of the indeterminate vital factor α , before alluded to (aided simply by the excessive cleanliness resulting from the spray), have led to the gradual discontinuance by most surgeons of the use of the spray and gauze. The German and French surgeons seem to have discarded its use for some time. One cause of the discredit into which it has fallen in hospital practice is undoubtedly the great costliness of the dressings of gauze, both carbolic and eucalyptic, rendering it impossible to continue its general use in charitable institutions. And, although this cause may not equally operate in private practice, yet the constant practice necessary to manage it with automatic accuracy by the hands of assistants, dressers and nurses, is only to be obtained in hospitals. Sir Joseph Lister, with that courageous adherence to the truth of his convictions which is his characteristic, has at length himself discarded its use, and has, with the steady perseverance which also distinguishes him, turned his attention and experiments towards the adaptation of the well known antiseptic properties of the bichloride of mercury. This substance has been, for a considerable time past, extensively used, both in this country and on the continent. It has the advantage of cheapness, and is easy to procure in any quantity that may be required. Its insolubility in albuminous fluids renders it somewhat intractable. In the form of gauze-dressing, it was difficult of diffusion, and apt to accumulate irregularly at various parts, and to be wanting altogether in other portions. At the more concentrated parts it set up skin-irritation, and endangered noxious absorption. Solution in spirit of wine and glycerine does not entirely remove this objection, while it greatly increases the expense. The desired unirritating solvent for corrosive sublimate is found in the hydrochlorate of ammonia. The solution of the bichloride of mercury of the *British Pharmacopœia* is the form of preparation most simple, as well as most easily available, for antiseptic purposes. It was known to the ancient and mediæval chemists and alchemists by the name of *Sal alembrothi*. It affords the desired solubility, and an equable and exact diffusibility. It can be taken up by absorbent cotton-wool, and dried with tolerable certainty as to its strength. It can be used as a wash over the wound, by simply dipping the prepared cotton- or wood-wool in pure water, and squeezing it over the wound. Thus it affords a simple, portable, convenient, and readily applied antiseptic. And it possesses the desirable quality of being cheap, and suitable for hospitals, and for army and navy practice. It is a most powerful microbicide, so dilute a solution as 1 in 1425 being sufficient to destroy putrefactive fermentation, and to render bacteria innocuous. It is employed of the strength of 1 in 1000 and of 1 in 500, the first to prevent and the last to destroy putrefaction.

If, on further experience, it be found that this substance is equally

effective in practice as in theory, and is not, when plentifully and habitually used, injurious either to the wound, the general health of the patient, or to the hands and instruments of the surgeon, it will become a favourite mode of dressing wounds. We are thus again furnishing up for active use the old weapon mercury, with which our forefathers did so much execution upon their patients.

I have lately been trying a dressing less open, perhaps, to the suspicion of noxious effects. It is a solution of the peroxide of hydrogen or oxygenated water, a preparation well known for its chemical efficacy, and manufactured in quantities for the purpose of bleaching hair. It is, I believe, absolutely non-irritating, and is very convenient in its application. A piece of absorbent cotton is dipped into the solution, squeezed over the wound as a wash, and then laid upon it as a dressing. Over this a piece of thin gutta-percha tissue or oil skin is laid, and covered with a layer of absorbent or salicylated cotton-wool, and bandaged lightly. In deep sinuses and irregular wounds, it may be used with a syringe or irrigating apparatus and double tube.

As a microbicide, the peroxide of hydrogen is one of the most powerful agents known. So small a proportion as one part in 2000 is efficacious in preventing the beginnings of putrefactive fermentation, and destroying the activity and propagation of bacteria and micrococci of all kinds. It is absolutely innocuous, and is quite free from any suspicion of local or constitutional irritation. Its active properties are due to oxygen in the form of ozone, an agent which is a normal constituent of the healthy blood, and upon the action of which has been founded a theory of the neutralisation of the bacteria present in the tissues of healthy animals, and the prevention of the propagation-changes which they may undergo, rendering them active agents of septic infection under certain conditions of the system, which a plentiful supply of ozone may remedy. It is, however, an unstable and easily decomposed compound, prone to change by easily giving off its supercharge of nascent oxygen. This property is, in many conditions, certainly advantageous; the gaseous oxygen in the condition of change enters all the intricacies and pouches of a sinus, abscess, or joint-cavity, and thus effectually fulfils its antiseptic mission. It has, I believe, a decided and remarkable effect in diminishing and arresting the formation of pus-cells. For clearing suppurating joints, it may be used with great advantage. I have used it of the strength of 1 in 500, or even stronger, for this purpose, by means of an ordinary irrigation apparatus, provided with a double, or entrance and exit, tube. It can be carried in a concentrated form in a well stoppered blue bottle, kept from the light, and diluted with pure water to the required strength. Its weak point is its instability; the ready escape of its effective gas renders it less applicable as a permanent dressing. If so used, it should be well covered with gutta-percha tissue, or associated with a more permanent nongaseous antiseptic, such as sulphate of copper, or chloride of zinc. It is not very costly, being made in large quantities for bleaching purposes, and may become cheaper in consequence of greater demand and easier supply.

When the condition of the wound is such that the hastening of the cicatrisation process is desirable, and antiseptics, such as carbolic acid, are found to retard this by their action upon cell-growth, I have found a very dilute solution of the nitrate of silver useful, both as an antiseptic, as a detergent agent, and to promote cicatrisation. Its power as a microbicide is also very great, as (according to Miquet) so weak a solution as 1 in 1425 is effective in destroying the noxious qualities of microbes. This agent, again, is rather expensive, but its universal use as a solid application (in every surgeon's case) and the very dilute solution required (1 in 1000, or 1 in 500) somewhat diminishes this objection. It is most useful, again, in the latter stages of a case of ulceration. As substitutes, dilute solutions of the sulphate of copper, zinc, or iron, are cheaper for hospital practice, and also affect the granulations favourably, checking suppuration and promoting cicatrisation. The sulphate of copper has as much relative microbicidal power as 1 in 110; while that of the chloride of zinc is 1 in 52, and the boracic acid 1 in 18 only.

It has been said of preventive measures that they are under the disadvantage of never seeming to be less needed than when they have been most successful. This is especially the case with that part of preventive hygiene to which antiseptic remedies may be said to belong. Their good effects can, almost always, be attributed, with more or less of plausibility, to the vital and resisting powers of the constitution of the patient. But, I venture to think that there is at the present time a growing opinion that antiseptics are an intimate kind of hygienic agent, for preventing, and ultimately extinguishing, the causes of blood-poisoning; and, moreover, that there is a possibility that some way of administering them by the mouth, or some other method, may convey them into the circulation of the patient with safe and bene-

ficial effects. And if, in spite of, or because of, an imperfect application of such measures of hygiene, these and similar blood-diseases still occur sporadically, does this mean that active measures of this kind are of no use? Does it not mean rather that hygienic and preventive activity should be redoubled?

The miscarriage of precautions, in some instances, may deter the young surgeon from attempts to improve his treatment by careful experiment, and may tempt him to rest contentedly upon the old ways, and to leave chance and the laws of Nature to settle his patient's matters between them. This fault is natural. It is human. It may almost be said, in some instances, to be humane.

To add more to the already long list of antiseptic applications may, to some, seem superfluous; but we have by no means reached finality. Cases differ, both minutely and widely, and what suits one case may not do equally well for another. The medical practitioner, to be successful, must have a well filled pharmacopœia; and he is obliged, above all things, to be eclectic.

It may happen, on the other hand, that some successful cases have occurred consecutively in his practice. He may form upon them crude conclusions, which come under the category of views; and he may be in haste to publish them, in order to obtain the benefits of priority. This may so influence him that he scarcely takes time or pains to ensure his results, or to know the results of others. Each experimenter may be striving his utmost to avoid the fate which overtakes the hindmost. The dangerous epigram of the French surgeon, "L'audace, toujours l'audace," prompts him, with the immense aid afforded by anesthetics and antiseptics, to risky achievements. He does not, perhaps, keep before his mind that this audacity has its sober limits, as well as its unlimited tendency to mischief.

It is not difficult to be brave at the expense of one's patients. If, in search of notoriety, Empedocles plunged into the crater of Etna, such a foolish act was at least more to his credit than if he had thrown one of his friends into the vortex of a burning question, to decide a point as to the limits of resistance of the living human body to dissolution by cremation.

Sanguine expectations of good results do not justify the imposition of the great risk, incurred by their failure, to the life of the patient, who must necessarily trust implicitly, and who is ignorant of the real amount of the danger which faces him. But, notwithstanding all these considerations, I am not the less assured that the area of surgical relief to human suffering has been enormously increased by the use of anesthetics and antiseptics.

And while I equally believe that the patient has a vastly preponderating chance of escaping the dangers of blood-poisoning, under a careful and well planned combination of hygienic and antiseptic precautions, I do not think that these will absolutely, necessarily, and in all cases, prevent its occurrence. Still less do they render desperate operations justifiable. And yet, I have but little sympathy with the state of mind which sees the chief value of a thing in the fact that it has been, and is, and therefore should continue to be!

Progress is good, if it be sound progress. That it should be good and sound, is pre-eminently a desideratum in the art of healing. This deals with the health and the life of a man, and is of infinitely more value to him than politics or trade. Such proceedings as may lead the public to believe that the surgeon experiments upon the living body of his patient, as the physiologist is thought to do upon that of animals, without due respect for the sanctity of life, and without the authority of necessity, must ultimately produce a deplorable reaction from the high respect and reverence which the medical profession bids fair to obtain in the future, above all other professions. And this cannot but be disastrous, both to the welfare of society and to the influence of the profession upon society.

From the foregoing, among many other considerations, it appears to me that the relative efficiency of antiseptics in different hands, and under varying circumstances, is very difficult, if not impossible, to estimate by the statistical method. Cases vary much; scarcely two are exactly alike. The influences which surround, and act, directly or indirectly, upon them, in other ways than by dressings, render the comparison apt to be variously determined by different minds and from different points of view. Each surgeon will do best, I believe, with the means at his disposal, to compile his own statistics for his own guidance, from his own experience, and from his own standpoint. He may be confident that the wisest questioning will bring the wisest and most direct answer; that his results will depend most upon the care bestowed upon his patient, the exactitude of his record, and the accuracy of his judgment, and that his time will be better spent upon these things than by wrangling over his comparative statistical success with his fellow-labourers upon the same lines. The army of workers in science and art may be compared to a compound amœboid creature,

putting forth feelers in all directions into the mass of Nature's pabulum in which it is involved, and working with slow strivings its way to the light. The feelers will be often withdrawn without the desired result, while another trial will meet with more compensation. Let each strive to find the best and shortest way through this perplexing region, thankful to anyone who can guide us to a better way. We may often find ourselves in a *cul-de-sac*; and we may, as we have seen in the foregoing brief review, sometimes have to retrace our steps; but we shall get upon the right road at last, and even then our horizon will be always in advance of us. Many devious labyrinths and apparently hopeless obstructions will delay us in our progress, and we shall not fail to be reminded many a time of the truth of the celebrated Hippocratic aphorism, "Life is short; but art is long, the occasion fleeting, experience fallacious, and judgment difficult."

The President has reminded me of the fact that in the month of December, 1785, John Hunter first tied, at St. George's Hospital, the superficial femoral artery for the cure of popliteal aneurysm. Two preparations, which occupy a prominent place in the museum which bears his name, were made, according to Sir E. Home, from the first and fourth cases in which he performed that operation, to show the collateral circulation, as it was found after the death of the patient some years subsequently. It seemed but a small thing to shift the site of the operation from the popliteal space close to the aneurysm, where it had been done many times before with fatal results, to a few inches further up the thigh; and yet how great the difference in the success of the operation! And what important principles were enunciated with respect to the safer establishment of the channels for the blood-nutrition of the limb, to the more healthy condition of the artery at the selected point, and to the easier performance and bloodless character of the operation! We, who in this College are surrounded on all sides by the proofs of his industry and genius, and who esteem his memory so highly, cannot let pass the first centenary of this important event, which constituted an epoch in the history of surgery, without giving due honour to one of our greatest men. The difficulties of scientific investigation which we have before us were felt by Hunter and his contemporaries even more; and the moral of the observance will best be found and honoured by patiently and stoutly dealing with them, so that haply we may overcome them as successfully as Hunter did, with more imperfect means and appliances, in his day and generation.

A CLINICAL LECTURE ON RECENT ADVANCES IN ABDOMINAL SURGERY.

Delivered before the Pupils of the Medical Department of the Yorkshire College, October 28th, 1885.

By C. G. WHEELHOUSE, F.R.C.S.,
Consulting Surgeon to the General Infirmary at Leeds.

(Concluded from page 1100.)

By an easy transition, we pass from the surgery of the alimentary canal to that of its appendages; and though I have nothing novel to say of the liver or pancreas, I cannot pass over the gall-bladder, concerning which I have a good deal to tell you. Practically, surgical interference with this organ is of very recent date; and I say practically because, though it is only of recent date that its diseases have come systematically under the knife of the surgeon, such operations have not been unknown in former times. So new an operation is cholecystotomy, that I am very anxious to give you thoroughly reliable information concerning it, and concerning the history of its rise and progress. To do this, and to do it very satisfactorily, I have only to refer you to two sources of information: first, to the *American Quarterly Review* for the current year, in which you will find, in very full detail, all the statistical information that could be given concerning the results of the operation to the time of publication; and, secondly, to a very able article on the subject published by Mr. John Taylor, of Birmingham, in the *BRITISH MEDICAL JOURNAL* of January 31st last. In that article, Mr. Taylor says "the operation of cholecystotomy is one of the latest additions to the art of surgery."

Although mentioned as having been formerly performed, and in one instance, successfully, as far back as 1825, in Good's *Study of Medicine*; as being advised, in suitable cases, by Dr. Thudichum in

1850, and actually performed with success by Dr. Bobbs in America in the year 1867, it was not until 1878 that it became a practical matter seriously engaging the attention of surgeons, when, under the name of cholecystotomy, Dr. Marion Sims published a case of partial excision of the gall-bladder. This was followed the next year by the inauguration of an unbroken series of successful cases by Mr. Lawson Tait, and cholecystotomy became a recognised operation of surgery.

Mr. Taylor then goes on to give the details of his own case, a successful one, not only so far as the operation was concerned, but as concerned its ultimate recovery also; and follows its detail by a series of remarks which, to the student of abdominal surgery, are full of interest and of practical suggestions. To those remarks I must refer you, as containing matter which will abundantly repay you for their thoughtful perusal, and which will be of real value and service to you in after-life.

But let me now tell you of some of the conditions for which this operation may become necessary. The gall-bladder is liable to become enlarged or distended in various ways. By inflammatory swelling of the cystic duct, the mucous membrane may be so thickened as to prevent the free ingress or egress of bile; and, at the same time, the addition to the bile contained in the gall-bladder of the products of inflammation from its own inflamed mucous membrane, may give rise to distension sufficiently great to cause a perceptible swelling or "tumour." Such swelling is generally temporary in character; and its formation is attended by so much of fever, of constitutional disturbance, and pain, as not to lead to the suggestion even of cholecystotomy. Time and appropriate treatment generally suffice to effect a cure. If, however, the inflammatory symptoms run high, such cure may not take place till suppuration has occurred and a true empyema of the gall-bladder has been developed. Even then, if the ducts be not permanently occluded, the pus, on the cessation of the inflammatory thickening of their coats, may find its way into the intestine, and so relief may gradually be obtained.

In former works on surgery, I am inclined to think that such cases were frequently classed with abscesses of the liver, and treated like them, as recommended and practised by the late Sir Dominic Corrigan, by escharotics, followed by incision and evacuation; and often, if not generally, with an unfavourable issue.

But much more commonly, in addition to the inflammatory occlusion, the duct of the gall-bladder becomes blocked by biliary calculi; and then the obstruction becomes much more serious and permanent in character, and calls for aid by more decided surgical procedure. This, by the operation of cholecystotomy, we are now able to afford; and, so far, so great has been the success which has attended the operation, that it may now with propriety be considered as a recognised surgical proceeding. Mr. Lawson Tait, of Birmingham, to whose labours, in many directions, in the cause of abdominal surgery we owe a heavy debt of gratitude, may very truly be regarded as the pioneer by whom this new procedure has been conducted to the successful issue of general recognition. I do not know what number of cases may, up to this time, have passed through his hands; but, in his last publication on the subject which I have seen, he gives the details of sixteen consecutive and invariably successful ones. His lead has, I know, been followed by others in his own town; and his example is not likely to have been overlooked in any large surgical centre.

In Leeds, up to the present time, I have the records of six cases before me in which the operation has been performed in this hospital; and I know of one other which was in the hands of Mr. Robson in private, and as to the propriety of operation in which he did me the honour to take my opinion. So far, unfortunately, we have not reached the measure of Mr. Tait's success; for, of the seven cases to which I refer, death has occurred in three; but, of these, two were hopeless from the first, and the third would probably have been better had it been left untouched (table of cases exhibited). Considering, however, that the operation is of such recent development, and that we have yet to learn almost everything concerning it, except how to perform it, it is not unreasonable that we should expect many failures at first, but failures which, as time goes on, we may hope to learn how to avoid. Thus, we shall presently collect material enough from which to judge as to the best time at which to operate, whether early or late, whether during the presence or otherwise of jaundice; and whether or not to interfere when the disease in the gall-bladder is only part of a greater complication of disease.

One case tending in this direction has already happened to myself, and is worth placing on record.

A female, with an abdominal tumour, was under my care in this hospital last year, and it was very difficult to determine what the

nature of the tumour was. At the time it was before us for consultation, three different opinions were advanced. By some, it was thought to be an enlarged and diseased kidney; by some, as more likely to be a malignant disease of the omentum; and by some, the suggestion was offered that it might be an enlarged and distended gall-bladder. At any rate, one conclusion was alike arrived at by us all, and that was, that the only way to clear up the difficulty was to perform abdominal section, and be guided by what was found as to what should be done further.

This I accordingly did; and, finding a huge mass of cancer intimately and closely adherent to an extensive surface of the abdominal wall, the removal of which, with any prospect of success, seemed to us all to be impossible, I simply closed the wound again, feeling that nothing more could be judiciously attempted. The incision healed by first intention; the operation appeared to have in no way influenced the patient's condition. She made a good recovery so far as the operation was concerned, and left again for home, apparently in just the same condition as that in which she came to us. But, after all, from the story of the sequel, which has been given me by her medical attendant at home, the gall-bladder must, I think, have been in some way involved in the heap of cancer; for one night a portion of the wound was found to have opened up again; her bed was saturated with discharge, and ten or eleven gall-stones were found in it in the morning.

Now this leads me to the question of diagnosis, which is often a matter of extreme difficulty. The size of the tumour is often very misleading. Thus, in Ziemssen's *Encyclopedia of Medicine*, vol. ix, p. 646, Professor von Schueppel mentions one case "which occupied almost the entire abdomen," and had grown to that size in eight months. Another, reported in the *Lancet*, March 16th, 1878, p. 383, reached the iliac fossa in a downward direction, and two inches beyond the linea alba in the transverse; and a third, an empyema, is spoken of as being "as large as a man's head." Size, therefore, is clearly very little to be depended upon. The feeling communicated by the tumour is also very deceptive, seeing that it is sometimes very hard, at others very soft, sometimes "fluctuating," sometimes "elastic;" and the shape is almost as unreliable, for though at first it is necessarily pyriform, yet as the distension advances it loses more and more of that characteristic, until it may be quite globular, or even irregular, in shape and outline. Some patients remember that it was originally pear-shaped, but the patient's statements on this head cannot often be relied on with any certainty. Position is said to afford a more trustworthy guide; and on this head I quote again from Mr. Taylor, of Birmingham, who writes on it to the following effect.

"In many cases of distension of the gall-bladder, there is no difficulty. The history of biliary colic, and the passage of calculi, together with the physical signs, make the diagnosis easy; but, in some cases, especially those in which the obstruction is due to a single calculus, or some other cause, there is evidently very great difficulty. An important aid to diagnosis will, I think, be found in the recognition of the diagonal line in the direction of which the gall-bladder enlarges. This is to be traced from the normal position of the larger end of the gall-bladder (near the tip of the cartilage of the tenth rib on the right side) to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus. In the direction of this line, a distended gall-bladder will, I believe, naturally lie." (*BRITISH MEDICAL JOURNAL*, January 31st, 1885, p. 221.)

Another guiding line that has been given is a line drawn from the acromion process of the right shoulder to the centre of the pubes. Which of these two, or whether either of them, will eventually prove of practical utility, I cannot say; nor should I have mentioned them, seeing that I am unable practically to confirm either of them, if it had not been that Mr. Taylor speaks confidently of the former one, and that, in an operation so novel as that of which I am speaking, we may have reason, from time to time, to be thankful for all the help we can obtain.

There is yet one other point in connection with this operation to which I must refer, before I dismiss it from consideration. In the great majority of cases in which you will see it called for, you will find that the distension has been due to the presence of gall-stones. These, up to almost any number, you will extract with perfect ease; but let me advise you not to close the opening you have made until, by every reasonable search that you can institute, you have satisfied yourself that you have left none remaining. This is very difficult to do for several reasons: 1, they are very apt to become "sacculated;" 2, in consequence of the peculiar "spiral" anatomical construction of the neck of the gall-bladder, they are very liable to lie concealed in the folds of the membrane forming that spiral neck; and lastly, they may have passed so far on their way along the ducts as

to be beyond reach of the searching finger. Remove, however, all that you can find; let instruction be given to those in attendance that diligent search be daily made of every dressing used; and occasionally, let me advise you to probe the cavity of the sac. By these means, in properly selected cases, we have reason to believe that another operation, of infinite promise for the future of surgery, has been added to the list of those available for the relief of abdominal diseases.

In no portion of the domain of abdominal surgery has greater progress been effected than in that of renal surgery. For "floating kidney," for circumrenal cysts, for "abscess of the kidney," for "calculus" impacted in the kidney, for cancer of the kidney, we have now surgical aid to offer; and I do not doubt that, as time goes on, all such means as we now possess will reach stages of higher perfection, that others will be added to the list, and that the kidney will come to be considered as fully subject to the surgeon.

There have been those, and notably Mr. Lawson Tait, who have not hesitated to avow an entire disbelief in the existence of any such condition as "floating," or movable, or "loose" kidney; but even Mr. Tait would now, I think, admit that he has been mistaken in this opinion. That such a condition does exist, is no longer denied, and few surgeons of experience have any doubt upon the matter. At any rate, I have seen the loin laid open, a wandering kidney pressed back into its place, and secured in its normal position by suture, greatly to the relief of a patient, whose life, for no other reason, had become a ceaseless burden.

I have, during the course of my professional career, seen many cases illustrative of the condition; and were one such which I regarded as in any sense extreme now to come under my care, and were the subject otherwise a favourable one, I should not hesitate either to recommend, or to perform, the operation.

It has happened a few times in my life that I have seen cases of what, for want of a better name, we have called "peri-renal cyst"—cases, that is, in which the cellular tissue of the renal region has become converted into a cyst, and has become charged with many pints of fluid, clear, straw-coloured, and closely resembling urine in physical characters, but differing essentially from it in those of a chemical nature. These have generally been the result of accidents, involving heavy and protracted squeezing of the loin—producing, as I have thought, a condition of chronic inflammation, not only of the cellular tissue, but probably of the kidney also; and developing a lining membrane which, like the pyogenic membrane of an abscess, has both a secreting and an absorbing power. To the fluid secreted by this lining membrane there has probably been added, by endosmosis, some of the constituents of the urine, though by no means all. By gradual enlargement, and by pushing all the abdominal viscera forward in front of itself, the cyst makes room for its own advance, and for the accumulating fluid. Such cysts it was formerly our practice to evacuate by trocar; and this proceeding almost invariably converted them into abscesses, even if it did not excite such an amount of constitutional irritation as to end in death; and I can call to mind no single case of ultimate recovery. Of late years, I have not seen such a case; but, if I should do so in future, I should have no hesitation in treating it by free incision and drainage; and, all being conducted under rigid antiseptic precautions, I should look for, and be disappointed if I did not attain, complete success.

Of abscess in the kidney, we have all seen many examples. Few of us are unacquainted with the train of miserable and exhausting symptoms to which they give rise; the wearying, ceaseless agony of pain in the back, the rigors, the high temperature, the constant recurrence of painful micturition, night and day alike, and the slow but steady exhaustion that follows in their train; and I fear you will have many an opportunity of seeing how we now treat them by permanent opening and drainage, under rigid antiseptic precautions. Sometimes you will see that we go further, much, than this: that we proceed to the complete excision of the kidney itself, or so much of it as remains. This is often but a wasted sac, from which all trace of true renal structure has long since been worn away, but which, so long as it is permitted to remain *in situ*, will keep the whole train of mischiefs up, and will wear the patient certainly, though it may be slowly, into the grave.

Fortunate, indeed, it is that the advances made by modern surgery enable us to do this, even if only in the case of the kidneys, as "double" organs; for it gives us the further encouragement, when either kidney is the subject of malignant disease, to sweep it in similar manner away; and thus, though we know that we are powerless either to eradicate or cure the disease, to enable us, at any rate, to stave off death for a while, and to add a little, if only a little, to the span of an afflicted life.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ACUTE INFLAMMATION AND ABSCESS OF THE UNIMPREGNATED OVARY: RECOVERY BY ABSORPTION.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cardiff.

By GEORGE PADLEY, L.R.C.P. Lond., etc.,
Consulting Physician to the Swansea Hospital.

THE first case I have to bring before you is, I think, one of much interest—in the first place, from its rarity; and, secondly, from the course it pursued, and its termination in ultimate recovery. Although extending over many months, its history, in all essentials, may be comprised in a comparatively small compass.

The patient was a lady of very spare habit and great constitutional delicacy. She was about 45 years of age, married, and had had two children; the catamenia appearing with tolerable regularity, but attended with more or less acute suffering. She was attacked somewhat suddenly with acute pain in the right iliac region, followed by some resistant swelling, the part being acutely tender under moderate pressure. The symptoms were referable to the right ovary; and the attack was, I believe, traceable to some exposure to cold and wet during a menstrual period. It was accompanied by febrile symptoms, and the case was diagnosed as one of acute inflammation of the ovary. The swelling increased; the tenderness became greater; and, in course of time, the affected part, which was at first somewhat dense and resisting, became softer, and at length fluctuation was distinctly detected. The swelling became still larger in area, and more prominent, so that it attained the size of a large orange; and the fluctuation became more marked. It was believed that suppuration had taken place (which the sequel proved to be correct); and that there was, in fact, an acute ovarian abscess. It is needless to occupy time with the details of the treatment adopted in the first instance. It was such as was obviously indicated by the symptoms, having regard also to the delicate constitution of the patient.

The swelling became still more prominent; and it was hoped that, adhesion to the abdominal wall having taken place, the abscess would point at the surface, and admit of evacuation in that direction. Vaginal examination failed to reveal any tendency to point there, or to offer any encouragement to expect an opportunity of opening the abscess through that channel. The fear was that the sac might burst into the peritoneal cavity, although there was room for hope that it might make its way into the bowel. The serious, probably fatal, consequences, however, which would necessarily follow the former event, made the case one of great anxiety. At this time, I had the advantage of a consultation with Dr. Priestley. He confirmed my diagnosis as to the case being one of acute ovarian abscess; and, as there were evidences of some adhesion of the sac of the abscess to the abdominal wall, he advised an exploratory puncture, after waiting a reasonable time to see how far it would make its way towards the surface, to which it apparently tended.

As, however, it made but little if any advance, resisted no doubt by the abdominal aponeurosis, I decided to wait no longer, and, relying upon the due amount of adhesion having taken place, I proceeded to make the puncture. Gentle pressure at the margin was used to make the sac more prominent, and the integument more tense; but just as the puncture was being made, the sac seemed suddenly to collapse. I at once withdrew the instrument without entering the sac, which had evidently given way under the slight pressure, and the contents discharged. This was shortly followed by a good deal of abdominal pain and constitutional disturbance, and much anxiety was of course felt as to the issue. These symptoms, however, were much mitigated the next day, and gradually subsided, the general tranquility assuring my mind that the pus had discharged itself in a safe direction, probably into the bowel, and if so, most likely into the ascending colon. Of this, on the second day, we had evidence, from the result of a little castor-oil and an enema, purulent matter having appeared in the evacuations. This shortly disappeared entirely, and the abscess remained for a considerable time apparently inactive, there being but little return of the swelling. The sac, how-

ever, again began to refill, and this was noticed more particularly about the time of the catamenial period. After a long interval, during which the swelling gradually increased, it showed symptoms of a tendency to point in the inguinal region, namely, acute pain and a more distinct fluctuation at that part, the pain being more especially felt there during manipulation of any part of the swelling. I therefore had much hope that the tissues would yield in that direction. The swelling continued to become larger and more prominent about the termination of each monthly period.

I may here state that Dr. West also refers to "a connection that may now and then be observed between the approach of a menstrual period, and an enlargement and increased tension of a cyst, while it once more grows smaller and its walls become flaccid as menstruation passes off."

Scanzoni also "has observed cases where the liquid in the cyst increased and decreased periodically. Just before menstruation, the tumour increased in size, as a result of increased secretion from the wall; when the menses ceased, it diminished again." These observations bear out what I have stated in my patient's case, although here the contents of the sac were no doubt puriform.

The sac did not continue to make any progress externally in the groin, nor internally in the direction of the vagina, so as to warrant the hope of evacuating it at that part. It became a question whether it would be advisable to endeavour to evacuate the pus, which had evidently reformed, through an opening in the abdominal walls, first making an eschar with potassa fusa to ensure sufficient adhesion, followed by a trocar and the insertion of a drainage-tube; or to wait and give it the chance of again making its way through the bowel, which would be the most likely channel of its spontaneous discharge. There would have been little advantage gained by the latter alternative, as the sac would no doubt have refilled, and no progress made, the patient's health meanwhile probably giving way; and there was but little prospect of absorption taking place. Encouraged, however, by the diminution which took place after the catamenial periods, which showed at any rate some absorptive action at those times, I determined to try the application of iodine paint over the swelling, and continued it perseveringly at intervals for some months. There seemed at length to be some slight diminution in area, and, what was more decided and encouraging, in tension and elasticity, with less pain and tenderness, especially in the intervals between the menstrual periods, at which periods the iodine was omitted. During this time, her general health was attended to, and to some extent improved. Opiate suppositories were used two or three nights in the week, alternating with, or sometimes given at the same time as, a dose of chloralhydrate. Both were well borne, and the different properties of these two agents, the one as a hypnotic, the other as an anodyne, acted most favourably. The opiate, although lulling pain and tranquillising the system, appeared to banish sleep, which was secured by the chloral, the one advantageously supplementing the other. Bromide and iodide of potassium were tried, but neither could be borne. She suffered severely on several occasions from the passage through the ureters of spiculated uric acid calculi, also some severe attacks of muscular rheumatism. It would be tedious to describe in detail her varying symptoms, and the treatment adopted to meet them. Suffice it to say that I was encouraged to postpone any attempt at operative interference from the slight, but as time went on more decided, evidence of an absorbent action going on in the swelling; and, as the result proved, had every reason to be satisfied with having done so. By slow degrees, the tumour shrank, fluctuation became less perceptible, and when I examined it several months afterwards, the only remnant of the past was a slight degree of thickening and density in the situation of the right ovary, indicating entire obliteration of the sac of the abscess. I should mention that adhesion to the uterus had taken place, and a lateral flexion of this organ had been produced by the pressure of the abscess. The right thigh had also become to a great extent fixed in flexion, having been kept in this position for so long a period, owing to the pain experienced in straightening it, and perhaps partly owing to rigidity of the muscles within the pelvis. Passive motion and straightening of the leg each day gradually restored its mobility and locomotive power.

The general health having improved, she was carried down-stairs, taken out into the park, and for carriage-drives, and at length for a trip across the channel into Devonshire. For some years afterwards, she took her usual exercise, suffering no inconvenience from her former malady; and, subsequently, passed two winters in the south of France, in consequence of pulmonary symptoms of a threatening character.

In reviewing this case, there can, I think, be no doubt as to its having been in the onset one of acute inflammation of the ovary; that this

resulted in the formation of a large abscess was proved by the sudden subsidence of the swelling, and the nature of the discharge from the bowel; and the history of the attack, and the character, progress, and rapid formation of the tumour, afforded sufficient evidence that it was not an ovarian cyst in which suppuration had taken place. Schroeder, in Ziemssen's *Cyclopaedia*, mentions, "as circumstances favouring the view" of a case being one of ovarian abscess, and not a cyst which has suppurated, "the acute development and rapid course of the tumour after suppression of the menses." Whether the abscess formed in the substance of the ovary, or in the areolar tissue around it, constituting what is called peri-ovarian abscess, it is perhaps more difficult to say; but its circumscribed and globular character, and comparative mobility, as well as its mode of origin, would rather point to the former view. It might be asked, whether its ultimate disappearance might not have been due to a continual or occasional discharge through a small opening into the bowel, either permanently remaining, or occasionally reproduced. Dr. West records such a case, in which, under the continuance of such discharges, the tumour almost entirely disappeared in a fortnight—a little pus having occasionally re-collected in the sac of the abscess, and from time to time discharged *per rectum*—no trace of tumour remaining when the patient was discharged from the hospital, about five weeks after pus escaped from the bowel. In the case I have described, however, the gradual refilling of the sac, its maintenance for a long period (many months) without any apparent change, except, after a long interval, the slight increase of size taking place at the catamenial periods—its very gradual subsidence, and the absence of any observed indication of purulent admixture with the alvine evacuations—would, I think, negative this explanation. If this be so, the disappearance of the abscess must have been due to the absorption of the contents of the sac.

Dr. West alludes to the partial absorption of ovarian cysts, and says, "if the contents of such a cyst may vary from time to time, there certainly can be no reason why, in some instances, the process of absorption may not go on so as to effect the entire removal of the fluid, and the complete cure of the patient. Such an occurrence, however," he observes, "appears to be of extreme rarity, and some most competent authorities have even discredited it altogether." He gives two instances, one observed by himself, and another which came to his knowledge, in which this took place, and all traces of the tumour disappeared. Both had been tapped, and from one a highly albuminous, and from the other a deep amber-coloured glutinous, fluid was removed, the cyst in each case refilling. If such contents could be removed by absorption, I see no absolute reason why a puriform fluid should not be removed in a similar manner, especially as we know that purulent collections elsewhere sometimes disappear in this way. Schroeder, indeed, says, in the article in Ziemssen's *Cyclopaedia* already quoted, "I have myself seen, at the necropsy of a woman dying of puerperal peritonitis, an ovarian abscess in a retrograde stage." How far the application of iodine in my case contributed to the result, I will not positively say, although my impression is that it did so, as the change for the better appeared to take place after its employment was commenced; but, of course, the *post vel propter hoc* may here be an open question.

Of the rarity of this affection, we have the evidence of the eminent authority I have already quoted, Dr. West. "Acute inflammation," he says, "of the substance of the unimpregnated ovary is of such rare occurrence, that no case has come under my own care, and but one has presented itself to my observation." Again: "I have only once met with an instance in which there was reason to believe that the tumour had been from the commencement an abscess, and had not originated in the inflammation of the cyst-wall of a dropsical ovarium." This was the case to which I have already referred, in which the contents of the abscess were discharged through the bowel; in relation to which case, Dr. West also says that, "practically, we gather from the details of such a case, that acute ovaritis, ending in suppuration, may come on without apparent cause." Again, Kiwisch is stated by Niemeyer to have "only twice seen this rare termination in non-ovarian ovaritis." To the same effect, I may quote Dr. Graily Hewitt, who says, of acute inflammation and abscess of the ovary, that "this is a condition rarely met with in practice. Sudden suppression of the menses, from chilled or wetted feet, has appeared to lead to it; but such an occurrence is extremely rare." Again, "Acute inflammation and abscess of a previously healthy ovary is a condition hardly known."

I may briefly mention the sequel of my patient's history. As I have already stated, she continued in her usual health for some years, spending two winters in the south of France, on account of some pulmonary symptoms. Nearly nine years after her recovery from the ovarian abscess, a slightly movable tumour appeared in the abdomen, just above the uterus. This having enlarged, it was removed by Sir

Spencer Wells nearly twelve months afterwards. It proved to be a malignant looking cystic mass, apparently connected with, or formed by, the remains of the right ovary. She progressed favourably until the next morning, when she died somewhat suddenly, it is believed, from embolism.

CASES OF CONGENITAL MALFORMATION OF THE EYES.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By F. RICHARDSON CROSS, M.B., F.R.C.S. Eng.,
Ophthalmic Surgeon to the Bristol Royal Infirmary, and to the Bristol Eye Hospital.

Symmetrical Microphthalmos.—F. L., a female child, four months old, was brought for my opinion as to its power of sight. The child was well grown, the head and face well shaped. The orbits were fully developed, but the lids were small and lay deep in the orbit, giving an appearance as if each globe had been enucleated. The lids were usually closed; when open, a mere chink existed between them. This chink (the palpebral fissure), when more closely examined, was of a good length from side to side, the external canthus being drawn inwards to some extent; the lacrymal passages were well developed, and the caruncle fairly large. Under the lids, imperfect eyes could be recognised, moving sluggishly in the direction of a light, or of objects, or of the mother's voice; and small dark corneæ appeared between the narrow palpebral fissures. There was a distinct tendency to inward squint. The movements of the eye were cramped, but the globes could roll fully from side to side. The lids were separated with some difficulty, the rim of the palpebral fissure being somewhat tense, and with scarcely any vertical separation. Healthy conjunctiva covered much contracted symmetrical eyeballs. The cornea in each had a diameter of two lines, and projected in front of the rest of the globe in natural proportion. A complete blue-grey iris, with pupil, existed in each eye. No further definite examination could be made. But the child seemed to possess very small eyes, of which the various constituents were all atrophied, and in due proportion. Four elder children had been born, quite healthy in every respect, except the third, who died when ten months old.

Dr. Fairbanks, of Wells, writes that, when this third child was born, "the orbital cavities were so small, and the lids so rudimentary, that it was impossible to discover anything resembling an eyeball." He adds: "I have seen the last child, and it is quite a different condition."

When the third child was about two months *in utero*, the mother was very much frightened by an old tramp, who came into her shop and threatened and abused her. This old woman had peculiarly small and sore eyes, which made a great impression on Mrs. L. the whole time she was carrying the child. When the child was born without eyes, the mother at once attributed it to the effect produced on her by the old woman. I consider, from a recent examination of L., that the eyes are growing larger, and the power of vision is somewhat improving. Several cases, both of congenital absence of the eye and of its atrophy, have been put on record; but the microphthalmos seldom seems to be symmetrical, nor is the eye usually so perfect as in this case, whilst the apparently complete anophthalmos of the earlier child, adds to its interest.

Irideræmia.—The subject was Daisy C., aged 2 years, a well formed child. The palpebral aperture was narrowed, a broad fold of skin passing from the upper to the lower lid, hiding the caruncle. There was constant rolling nystagmus, the eyes were well shaped, and perhaps rather small. The child looked towards shining objects (watch, silver pencil-case), but without any power of fixation. It was said to find its way about the nursery, avoiding obstacles; and it was believed to recognise jam on bread, and to choose this in preference to butter; but the power of vision was much impaired. The eye did not seem particularly oversensitive to light. The cornea, sclerotic, and globe of the eye appeared perfectly normal. The iris was entirely absent. Eserin used for several days gave no appearance of an iris; but, without any leading question from me, the father, who is a most intelligent man, volunteered the information that the child had been holding objects more closely to the eye. This statement might be of importance as showing the presence of the ciliary muscle.

Direct examination with the ophthalmoscope showed a perfectly clear red rim round the lens. The lens appeared cloudy in places, according to the direction of the mirror; and the shadow passed in

every direction, as in myopia. The fundus was pale red, with well defined retinal and choroidal vessels. The discs appeared white, with irregular edges, the vessels in the neighbourhood being tortuous. There was no posterior staphyloma, nor atrophic patch. The appearance suggested a former neuritis, but was such as is not unfrequently seen in hypermetropia.

I will not trust myself to speak of the presence or absence of the ciliary processes in this case, as I find no special note of it, and have had no opportunity of repeating the examination. Some authors allege that these processes can be clearly seen in cases of iridæmia; whilst others, on the contrary, assert that they are absent. Their absence is rendered probable by the fact, that they are developed with the iris from the front part of the outer layer of the optic vesicle blending with the mesoblast, which partly passes in front of the lens to form the iris, and partly becomes bent back at the lens-periphery to form the ciliary body and pars ciliaris retinae; whilst the ora serrata is the developed anterior edge of the inner wall of the optic vesicle.

As I am credibly informed, the mother, who had given birth to two other healthy children, asked, directly this child was born, about its eyes. She expected something wrong; for she had been frightened at two months by a dog biting her, and, a little later, by the man-cook, who was trying to stab a servant in the kitchen. In each case, the staring eye was the main impression made upon the mother's mind.

ON THE SURGICAL, PHYSIOLOGICAL, AND ÆSTHETIC ADVANTAGES OF THE ARTIFICIAL VITREOUS BODY.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By P. H. MULES, M.D.,
Surgeon to the Eye Hospital, Manchester.

THE introduction of any surgical innovation is fraught with extreme difficulty, more especially when a new departure is indicated which is bolder in conception than has hitherto obtained, and requires for its successful carrying out strict personal supervision and attention to minute details. The disease of the eye which has specially interested surgeons, and been the subject of what we may term more "speculative ophthalmology" than any other, is known to pathologists as "sympathetic ophthalmitis." It is not my province here to enter fully into the views held by equally competent observers; at the same time, I cannot explain the reasons for the operation indicated above, without touching upon the one that led me to adopt it.

Sympathetic ophthalmia, or disease of a sound eye, caused by injury to its fellow, was brought to the notice of the profession by Mackenzie of Glasgow (*On Diseases of the Eye*, 1840). He referred to it as well known to his colleagues and himself, and, as the name implies, attributed it to nerve-sympathy, or, in modern terms, a "reflex neurosis." This theory held general acceptance until a very late period; and even now there are many believers in the sympathetic origin of the disease. Be that as it may, a school has arisen which refers the disease to "bacteria," having its first point of localisation in the uveal tissue, there producing a specific uveitis with germs. "bacterioid bodies," capable of self-propulsion along the perineural lymph-spaces of the first affected eye, across the chiasma, and down the lymph-spaces of the sound eye,¹ reproducing a similar affection, often with disastrous results. Holding this view, I designed,² for the prevention of sympathetic disease, or, as we now term it, "secondary septic ophthalmitis," the operation of "evisceration of the globe," on the lines hereinafter laid down, to be associated in suitable cases with the use of the "artificial vitreous body."

It is right here to state that the operation of "evisceration" has been occasionally practised by surgeons as an emergency-treatment,³ but the perfecting thereof, and the rules for its safe performance, were placed upon a secure basis by Dr. Gräfe of Halle and myself during the year 1884, working independently of each other. To our illustrious countryman, Sir Joseph Lister, we are indebted for the antiseptic treatment which alone makes this operation feasible. Perfect faith in the bacterial origin of this affection led me to the steps hereinafter named; for it

¹ This has been demonstrated by Max Knies.

² Mules, Hirschberg's *Centralblatt für Augenheilkunde*, 1885.

³ Mules, Secondary Septic Ophthalmitis, Knapp's *Archives of Ophthalmology*, vol. xiii, November, 1884.

⁴ Vide *Transactions of Ophthalmological Society*, meeting in March, 1885; discussion on a paper by P. H. Mules.

⁵ Pamphlet by Dr. Gräfe.

was not enough to eviscerate the intra-ocular contents, and leave only a small button of sclera on which to plant an artificial eye (immeasurably superior as it is to the operation of enucleation); and, following out the logical sequence, that total exemption from the dangers of sympathetic disease being assured by early removal of all the uvea, the introduction of a permanent hollow glass sphere within the denuded sclera could produce no ill effects, the result has fully realised the most sanguine expectations. To attain this end, the following steps, carried out with a scrupulous attention to detail, are necessary. Any eye may be eviscerated, except such as are infected with tubercle, glioma, sarcoma, or any other known malignant growth. Small stumps, when painful, can be opened, cleansed, bone or foreign bodies removed, and the pain and uneasiness disappear, leaving a smaller stump, but safe from danger to the sound eye, except in those instances where bacterioid bodies have travelled beyond the globe. Even then it is a fair assumption that no more harm could possibly accrue than if the stump was enucleated.

The instruments necessary for the due performance of the operations are: 1, a hand-spray; 2, a siphon-tube of India-rubber to flood the eye after or during operation; 3, an ample supply of solution of corrosive sublimate (1 to 1,000); 4, an eye-speculum; 5, fixing and dressing forceps, two pairs; 6, a Graefe's knife; 7, a spoon to evacuate contents (Bunge, of Halle, has devised an instrument, but any scoop answers equally well); 8, needles threaded with chromicised catgut (fine size); 9, artificial vitreous bodies in assorted sizes; 10, dressings; namely, iodoform, wool-wool pads in Lister's gauze, oiled silk, glycerine, boracic or sublimated bandages.

The operation is divided into two parts. The first part, complete in itself, is evisceration. It is conducted as follows.

1. Anæsthetise the patient.
2. Use the hand-spray, and thoroughly cleanse and disinfect the appendages with 1 to 1,000 solution of corrosive sublimate.
3. Transfix and remove the front of the eye with a Graefe's knife at the corneo-scleral margin, cutting round the conjunctiva first.
4. Empty the contents of the globe in any way that is convenient, taking special care to remove the ciliary body and choroid, leaving a clean white sclera.
5. With a thin India-rubber tube (Inst. 2), used siphonwise, run the sublimate solution into the emptied globe; during the performance of the operation, it will help to arrest bleeding.
6. Select the needles, slightly curved, for sewing up, and threaded with gut.

And here, if we please, we may leave the patient, secure in the knowledge that sympathetic disease will not attack the other eye, except under most exceptional circumstances, and that he will possess a movable, though very small, stump on which to adjust an artificial eye; but where a perfect æsthetic result is sought for, and especially in children, for reasons hereafter stated, we advance another stage, and, before sewing up the sclera,

7. Take the glass sphere best suited to the case, slit the sclera vertically, until the sphere will with difficulty enter the cavity. This difficulty only refers to introducing the globe; when it is in, the sclera should unite easily without any tension, and leave no awkward angles; therefore, the largest sphere fulfilling these conditions is the best; finally, sew up carefully with strong chromicised catgut, taking care to get the scleral edges into apposition. Five stitches are generally sufficient. Lastly, draw conjunctiva over, and unite at right angle to the scleral wound.

8. Spread a thick layer of finely powdered iodoform over the whole conjunctiva, and dress with salicylic-wool in a double layer of Lister's gauze.

9. Keep the patient in bed for three days, and dress with hand spray, till all risk of septic trouble has passed over.

Should you succeed in keeping the wound aseptic, the reaction is comparatively trivial; if suppuration ensue, the pain and distress may be severe, the orbit becoming infiltrated, and the sclera may slough away. I cannot lay too much stress upon perfect asepticity. The operation should never be performed without full precautions for its attainment; in any case, it is well to warn the patient that he may have pain in and around the orbit for a week.

Union is in most cases rapid. A firm round globe results, retaining all the associated movements *ad maximum*, and capable of carrying an artificial eye which, when carefully centred and moulded, absolutely defies detection. The stump is insensitive to manipulation, so that it seems impossible that irritation can be set up.

In selecting eyes for an artificial vitreous body, it is obvious that shrunken globes must be passed over, as also those in which the conjunctiva is in a sloughy condition, as after burns, or destruction of the eye from gonorrhœal ophthalmia; but, when the eye is of fair

size, and the conjunctiva healthy, however diseased the contents of the globe, and especially in extensive fresh wounds, where primary enucleation is the alternative, the artificial vitreous body can be advantageously used. Below is a table comparing the operation with that of enucleation.

ENUCLEATION.

1. Complete removal of globe and its contents.
2. Displacement of all muscular relations, and arrest of movement.
3. Cicatricial bands are a frequent accompaniment of enucleation. The introduction of an artificial eye is thus rendered very difficult, and secondary operations necessitated.

4. Contractions, specially towards the orbital apex, occur, making new eyes a necessity, and preventing all chance of a good fit. So, also, the sinking of the glass eye and distortion of the lids is constant.

5. The lower sulcus of the conjunctiva being constantly pressed upon by the lower edge of the glass eye—which, indeed, rests upon it—rough granulation, ulcerations, and thickening occur, which necessitate non-wearing of the eye for lengthened periods, and may induce sympathetic irritation of the sound eye.

6. The removal of an eye is a terrible operation to the mind of the patient, more especially as ill-fitting glass eyes are so common that there is no solace to be gained from their contemplation, many promising lives having been wrecked through the shrinking from publicity caused by the self-consciousness of an ill-fitting glass eye.

7. Arrested development of the orbit in young children.

EVISCKERATION AND ARTIFICIAL VITREOUS.

1. Retention of the framework of the eye.
2. Perfect harmony of muscular relations, and arrest of movement.
3. No bands ever occur after evisceration, unless through burns or other destructive agencies of a similar nature.

4. A definite size of globe being introduced, no change ever occurs after the parts have quieted down, in from six weeks to two months; nor can there be either sinking of eye or distortion of lids.

5. A glance at Fig. 2 will explain that the grave mischance, mentioned in Enucleation 5, cannot exist with the artificial vitreous body, as the concavity of the artificial eye, being kept closely applied to the convex globe by the lids and atmospheric pressure, is lifted up, and rarely touches the inferior sulcus.

6. An artificial eye which defies detection must exercise an important influence over the mental, bodily, and social status of the wearer.

7. Orbital development is successfully encouraged to continue.

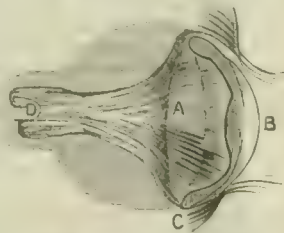


Fig. 1.—After enucleation. A. Cavity of orbit lined with conjunctiva. B. Artificial eye, hung in orbital cavity. C. Lower edge of eye pressing on inferior sulcus; a source of granulation, ulceration, and cicatrices. D. Muscles, nerves, and vessels matted together.

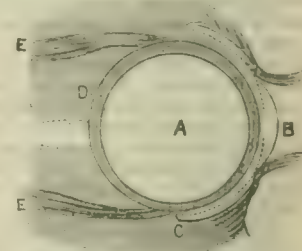


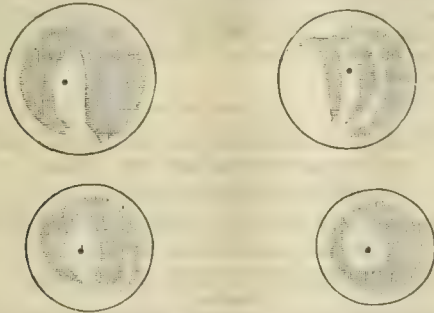
Fig. 2.—After evisceration. Artificial vitreous body in situ. A. Artificial vitreous body. B. Artificial eye, applied over globe. C. Inferior sulcus of conjunctiva, showing freedom from pressure of edge of eye. D. Sclera. E. Muscles in situ.

There can be no doubt that, if only a portion of these benefits can be conferred, the operation above described should be unhesitatingly adopted. To weigh against it, we have: 1, an operation requiring care, dexterity, and careful attention to detail; 2, careful dressings, and more personal supervision from the surgeon; 3, a longer convalescence and a longer time before the artificial eye can be used (the artificial eye should not be used for two months); 4, it may be urged that we have no guarantee that the success will be permanent: time will show. The first case shown at the Ophthalmological Society in March, 1885, has used an artificial eye for eleven months; the

result, so far, is perfect. A second has used it eight months; I have not seen him since, but know he is well, and others of later date.

Let me again point out that, in young children, enucleation is followed by arrested development of the orbit. This is an interesting physiological fact, the importance of which cosmetically cannot be overrated. It is allowed by most competent observers that the introduction of the artificial vitreous body will encourage the normal growth of the orbit, and assist to maintain symmetry of feature. The advantage of the operation is again manifest when I tell you that it may be undertaken at any age from three months to seventy years, with equal facility and absence of risk. Lastly, I look forward to the placing of the pathology of sympathetic disease upon a basis absolutely incontrovertible through the medium of this operation; for I submit that, should we succeed in preventing secondary inflammatory attacks of the sound eye, we shall have reduced the bacterial origin of sympathetic disease to a demonstration.

Note.—The correct fitting of an artificial eye being a point of the highest importance, it behoves the surgeon to see for himself and unhesitatingly reject such as do not fit accurately, and the movements of which are not free in every direction; otherwise the irritation caused by the pressure of an opposing edge, will destroy the benefit likely to accrue to the patient from the original operation. Messrs. Armstrong, of Deansgate, Manchester, have interested themselves much in this matter, and I have suggested to them to keep a supply of assorted sizes of the artificial vitreous body. (See Figs. 3 to 6.)



Figs. 3 to 6.—Artificial vitreous body in useful sizes.

ENUCLEATION OF THE EYEBALL, WITH OBLITERATION OF THE CONJUNCTIVAL SAC.

Read in the Section of Ophthalmology and Otology at the Annual Meeting of the British Medical Association in Cardiff.

By EDWYN ANDREW, M.D.,

Surgeon to the Shropshire Eye, Ear, and Throat Hospital, Shrewsbury.

PAST experience in eye-surgery has never yet caused me to regret removing an eyeball, but, on more than one occasion, to bitterly lament the evil which has resulted from leaving an injured eye, either from mistaken diagnosis of the case, or from the determined opposition of the patient or others.

As the loss of one eye is a slight evil compared with blindness, and as one good eye, except in a few instances, is sufficient for all practical purposes in life, and far better than two seeing eyes, where one is sufficiently defective to render the other less acute; I have been surprised, in consultations, at the desire of some surgeons to watch and preserve such defective balls, and, still more, where such leniency has been continued to a blind eye, which may become destructive to its fellow.

Delay in sympathetic eye-disease is so disastrous, that it is to be deplored that surgeons are still divided in their views on the matter; for, while most surgeons would be agreed as to the necessity of immediate excision in a lacerated wound of the ciliary region, with prolapse of iris, turbid media, injection, pain, almost loss of vision in the one eye, with intolerance and lachrymation in the other eye, and would counsel waiting in a clean incised ciliary wound with fair vision, and the fellow eye unaffected, still, between these two extremes, medical opinion would vary almost as much as the various conditions.

The history of sympathetic inflammation has been most unsatisfactory; the majority of the cases have gone from bad to worse, and all treatment has been of little avail, except prevention by early excision of the exciting ball.

Fortunately, no case has been recorded where some days have not elapsed between the injury and setting up of sympathetic inflammation, thus giving some time for watching the first symptoms, which, should they indicate excision, cannot be done too early.

There are few, if any, good reasons for retaining a damaged eyeball which may become injurious to its fellow. In a child, the loss of the eyeball certainly causes, at times, orbital deformity during growth, but even this disadvantage could not, for a moment, be considered, should dangerous symptoms appear. In a child, sympathetic inflammation is most easily set up, and is most destructive; and, as such young patients too often are unable to explain or estimate their condition, early operation is even more promptly required. Again, in panophthalmitis, the danger of meningitis after excision seems to have been exaggerated; and, in my practice, unless there have been high temperature, I have unhesitatingly excised, with advantage, all such balls, and found excision far preferable, and relief far more rapid, than from an incision through the front of the ball. In such operations, I have generally taken the precaution to carry out the various steps of the operation through a layer of carbolised water or oil. Undoubtedly, symptoms apparently dangerous do yield to ordinary treatment, especially in the well-to-do class, who, by their power of obtaining early advice, good food, skilled nursing, and, by their willingness to keep the eyes at rest for weeks and even months, are able to keep an injured ball in its socket, and, perhaps, cover its deformity, at a later date, by an artificial eye. But, to the working man, any treatment, unless (besides warding off sympathetic inflammation) it restore a damaged eye to an useful condition, is a snare; for too frequently, by such means, weakness is left in both eyes, a greater liability to future disease is incurred, and much time is lost, which can be ill spared by the patient. In this class, unless fair vision can probably be regained, the surgeon should urge, with no uncertain note, excision.

Further, I have yet to learn the utility of preserving any useless ball or stump, whether due to injury or to disease: for, although such balls may never excite sympathetic irritation, I consider they too often have a weakening power on the opposite eye, and render it less able to withstand injury or disease. If they have this injurious influence, the rule should be to remove all such diseased organs when the patient will consent, and not to wait till such balls become inflamed or ossified, and set up sympathetic disease. Even for appearance sake, the substitution of an artificial eye, or the obliteration of the socket, will be an improvement.

Without going into the vexed question whether sympathetic disease is transmitted by the vascular, lymphatic, or nervous system; whether due to septic origin; whether sympathetic irritation is or is not a pure neurosis, and is or is not a forerunner of sympathetic inflammation—one thing is certain, that far too much blindness exists in the present day which could have been prevented by an early excision.

Any symptoms, therefore, which tend to make a more early prognosis, must be advantageous; and it has seemed to me, from the study of a number of cases, although I mention it with some diffidence, that, before there is any marked sign of sympathetic disease, there is frequently a previous stage, indicated by a diminution of distant vision (near sight being unaffected), and by a lessened power of the dilatability of the pupil under atropine.

Having formed this opinion, it has been my habit to examine the distant vision and the dilatability of the pupil by atropine of the opposite eye, at the first visit of all patients with an injured eyeball. The test-solution of atropine has been a weak one—one-twelfth of a grain to an ounce—the influence of which soon passes away; and the effect has been arbitrarily divided into slight, moderate, moderately good, good, and very good dilatation. If, therefore, such a patient, with good distinct vision and dilatability of pupil on the first examination, show, on the second trial, the effect of the atropine having disappeared, a want of power in both these conditions, such deficiency has strengthened my determination to excise, when the proper course of treatment has been doubtful.

The modern operation of excision has been rendered so safe and easy of execution, that I will only refer to some of the directions generally given in the text-books. The usual advice to divide the nerve close to the sclerotic, I think, may be modified. Is there any advantage in keeping it long? We know it forms a pathway for glioma, and probably other diseases, and may become the receptacle of foreign bodies, when the nearer the section to the optic foramen, the better. In three patients, I have found a shot embedded in the optic nerve. In one of these, I removed an old atrophied stump from a gun accident, which was causing sympathetic irritation, thirty-eight years afterwards, when the shot was found to have penetrated one quarter of an inch into the nerve, which was ossified around it. In another, the

specimen of whose nerve I now send around, the shot which pierced the corneo-sclerotic junction, iris, lens, and vitreous body, forced its way half-an-inch down the nerve, where it is still plainly visible. Even if it could be proved, which is not the case, that a foreign body left in the nerve would cause us bad after-effects, the proof of its removal relieves a nervous patient of great anxiety, and is at least a great satisfaction to the operator. To cut the nerve far back, except in recent cases where the anterior part of the ball is merely affected, seems to me a more practical course.

Another direction usually given, to stop any after hæmorrhage, by plugging the orbit with lint or sponge, and tying a tight compress over the eye, is not only unnecessary but painful, and may be pleasantly replaced by a pointed piece of ice, which, by its pressure and congealing power, will stop all bleeding in a most efficient and cleanly manner, in ninety-nine cases out of a hundred.

Further, the recommendation of sutures seems waste of time; as, when there is no drainage, the edges of the mucous membrane, when brought together, remain in apposition, and when there is drainage, the suture becomes an impediment to the flow of the fluid.

No operation hitherto introduced in place of excision, so as to form a better stump for an artificial eye, can be recommended, as any risk run for appearance sake is to be condemned.

Abscision undoubtedly forms a good stump, but the stump is not slightly in itself, and, when covered by an artificial eye, too often becomes painful, excites sympathetic irritation, and requires excision at a later date. This operation I have long discarded, except in the corneal staphyloma of children, where the disease is limited to the front part of the eye, and where it is desirable to keep the ball in its socket. In such cases, where the vitreous humour has been of moderate consistence, to avoid any irritation from introducing stitches into the ball itself, I have found uniting temporarily the edges of the lids with one or two sutures, a sufficient protection.

Some years since, with the endeavour to form a less dangerous stump, I removed the front of the eye-ball anterior to the insertion of the recti muscles, and, with a small sponge on a stick, brushed out the entire contents of the eyeball; but was surprised, in some of these cases, at the difficulty of stopping the bleeding of the small central retinal artery; and also disappointed in others, at the stump on healing becoming painful and necessitating extirpation.

I have lately been planning to preserve the ring of sclerotic to which the recti muscles are attached, cutting away the rest of the eyeball, and in this way forming a better fulcrum for the muscles to act on, and so increasing the mobility of an artificial eye; but the steps to be followed are not yet sufficiently advanced to do more than thus allude to the matter.

Unfortunately, excision, unless aided by an artificial eye, whilst relieving one evil, frequently produces another. In rare instances, the conjunctival sac is too sensitive or puckered to admit an artificial eye; but far more common is the inability of the patient to provide a glass eye; and the imperfect protection of the socket by a shade, rendering the cavity a receptacle for dirt and filth, and the want of support causing the lids to fall in, and the lashes to rub against the lining, are the means of exciting such inflammation, thickening, and pain in the sac, as to irritate the other eye.

In such cases, for years I have recommended, and, when permitted, carried out the plan, of removing the entire conjunctival sac, in addition to excision of the ball; and I thought until recently that I was original in this suggestion, but I find that Mr. Streatfield proposed this course about twelve years ago in the *Lancet*. On referring to his description, I find that, whilst advising the removal of the sac, he points out the great difficulty of dissecting off the conjunctival membrane, and recommends its destruction by chloride of zinc or the actual cautery; but, from the few particulars given, he seems rather to have mentioned the operation as a suggestion, than to have carried it out in practice.

In my operation, no cautery or caustic is used, except rarely at a later date; but the conjunctival sac is dissected off with ease, by carrying out the following directions. An incision is made with scissors into the ocular conjunctiva, half an inch from the corneal margin, and this incision is carried around the ball; the conjunctiva is now freely detached all round, until the edges of the lid-cartilages are reached, when the conjunctiva at the inner angle of the eye, with the caruncle, etc., is most carefully removed, as this is the only part where some difficulty of healing sometimes takes place; the conjunctiva of the outer angle is now similarly dealt with, the edges of the palpebral angles pared, the cartilages entirely dissected away, and a sufficient strip of the free borders of the lids removed, to include all the roots of the lashes, and lastly the ball is excised; the lids are merely brought into apposition, or the palpebral opening may be lessened by one or two sutures at each end, leaving the centre for

drainage. It is advisable that the various steps of the operation should be carried out in this order, so that the bleeding may less obscure these manipulations.

In my first operations, the cartilages were left, with the idea that a better shape of the closed socket would be the result; but it was found, on the contrary, that they generally became puckered, retarded the healing of the lids, and caused the operation to be greatly prolonged, from the greater difficulty of scraping and dissecting off the mucous membrane from their under-surface.

The lacrimal gland gives no trouble; as might have been anticipated, the conjunctiva being destroyed, its function is not required, and the gland, not being stimulated unless from a mental emotion, probably wastes away.

In a few cases, a minute fistula has remained at the inner angle of the palpebral aperture, owing to want of care in removing every portion of conjunctiva at this spot; when this has occurred, the application of a minute actual cautery has quickly obliterated the fistula.

The patients have been most pleased with the results, and express their satisfaction at the great comfort obtained, compared with a painful ball or dirty socket, the advantage of following any occupation and doing away with all covering, without any risk of taking cold.

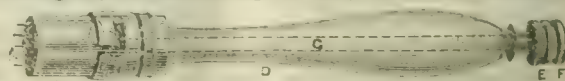
To sum up, I believe the early symptoms mentioned are worthy of consideration; that all useless eyeballs, unless retaining their normal appearance, might be removed with advantage; that any operation, that has for its object the formation of a stump, which may become a danger, is not to be compared with excision; and that the excision of the conjunctival sac, as well as the ball, is a far better operation for a large number of working men, and deserves a place in the operative surgery of the future.

ON THE TREATMENT OF LUMBAGO AND RHEUMATIC PAINS BY THE PERCUSSO-PUNCTATOR.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

By J. BRINDLEY JAMES, M.R.C.S. Eng.

So many more or less ingenious contrivances have been from time to time devised as an addition to the already overstocked armoury of surgery, that it is with no little diffidence that I now invite your notice to a device of my own for the treatment of the above diseases. It is needless to recall the truisms of the distressful obstinacy characterising this branch of therapeutics, of the Protean variety of shape these affections assume, and of the almost despairing difficulties attending their treatment, curative or palliative; so, contenting myself with mere allusion to these hard facts, I will proceed to demonstrate my *modus operandi*. It is of a most simple character—puncture, by means of needles, of the skin over the seat of lesion. The mechanism I employ for this purpose is neither complicated nor cumbersome; in fact, it can be carried complete in the waistcoat-pocket. The diagram submitted to your notice you will find completely descriptive of its construction. Through an ivory handle, designated D in the diagram, and constituting the body of the instrument, runs a



small metal connecting-rod, A, destined to facilitate the passage of an electric current when requisite, and also to protrude or withdraw *ad libitum*, through the perforated plated cap, B, the puncturing needles, collectively designated as A in the diagram. The cap B, as you will see, is connected with the ivory body by a cylinder, C, electro-plated like the cap, and to which the latter is fixed by a lock-contrivance similar, on a small scale, to that of the military plain bayonet. A screw, E, at the further end of the handle, regulates the application of the needles, protruding or retracting them at pleasure; while, finally, a second screw, F, is designed to effect connection with an electric battery when required. My contrivance, as you will see, does not err on the side of complexity, penetrated as I am with the force of the axiom, the simpler the mechanism, the greater its effect. For years I have obtained most satisfactory results by acupuncture, effected through the means of a simple needle; but the very success of this system of treatment has induced me to seek and devise a means of facilitating, and thereby propagating, its application to a

very wide extent. Highly satisfied, as I have had hitherto cause to be, of the results I have obtained by acupuncture, it was the more gratifying to me, when present at the South London District meeting of the Metropolitan Counties Branch of the Association, to hear my own views warmly advocated by no less an authority than Mr. Macnamara, who, among other satisfactory examples culled from his own extensive and distinguished practice, instanced a gentleman who, at the period when Mr. Macnamara attended him, suffered most acutely from a painful lesion of the deltoid muscle, which precluded every action except at the cost of intense pain. In this case, simple acupuncture worked wonders, enabling the patient to put the muscle through most varied action with complete immunity from pain. To revert to my own professional experiences, permit me to instance the cases of several of my own patients.

A man, aged 51, came to me recently, suffering from injuries to the left shoulder and elbow, due to a violent fall on the latter, while alighting from a vehicle, his foot having been caught in the reins. No dislocation or fracture was discernible, but the skin was slightly broken, the fore-arm severely bruised up to the elbow, the ecchymosis extending even a little above this point, while there was acute pain over the deltoid, aggravated and attended by immobility of the shoulder, when the arm was moved passively, and pain, to a lesser degree, in the forearm. Having applied zinc-ointment over the abrasion, I used the percusso-punctator freely, with the satisfactory result of restoring motion to the limb, with scarcely any pain. Three days later, while the same satisfactory progress continued, I employed the same treatment to remove pain from the brow, which was clearly due to the nervous shock which had attended the accident, with no less marked success. It would be difficult to find a more satisfactory instance.

In another case, that of a man over 60 years of age, suffering from pain between the shoulders, aggravated by stooping or straightening the frame, the application of the percusso-punctator, on each side of the spine over the region of pain and stiffness, enabled the patient to perform these motions with ease and comfort.

In a third instance, that of a man, aged 49, who for three months had almost unceasingly suffered from acute rheumatic pains in both arms, immunity from the same, and restored facility of free motion to both these limbs, were induced by the application of the percusso-punctator. I may add, as an instance, that this patient had for months been unable to button his coat; he now can do so with facility.

But, previously to my adoption of my own invention, the percusso-punctator, the satisfactory results which had repeatedly followed the application of simple detached needles, and which had led me to seek, in mechanical contrivance, a surer and easier method of resorting to the same deserves a few words of notice at the present moment. Some months before, I was summoned to a patient suffering from sciatica, whose intended visit to my consulting-room had been precluded by the excruciating pain he was enduring. The application of the needle acted like a charm, enabling him to walk the same day to my surgery. A few days after, the same happy result attended its application to another of my patients, who had been completely disabled from raising his right arm at a right angle; acupuncture soon restored this function.

But it is not only in cases where articular motion is impaired that acupuncture brings such welcome relief. In one of the instances I have referred to, we have seen great brow-pain, induced by nervous shock, removed by this simple application; if time permitted, I could describe many cases occurring in my own practice alone, where vertigo, brow-ague, hemicrania of the most stubborn type, and apparently irremediable nervous headaches, were dispelled by the adoption of this simple expedient. But I fear I have already trespassed somewhat prolixly on the space of time allotted to this subject; and must content myself, in conclusion, while expressing my thanks for the kind attention with which you have honoured me, with warmly commending to your favourable consideration the practical adoption of my contrivance in your own respective practices, feeling deeply confident that its beneficial results will prove gratifying in the extreme.

CHANGES IN THE MEDICAL STAFF OF THE AUSTRIAN ARMY.—During next year, the number of senior medical officers in the Austrian Army will be increased by 1 general staff-surgeon, 1 first-class senior staff-surgeon, 3 second-class senior staff-surgeons, 4 staff-surgeons, and 27 first-class regimental surgeons, while the number of second-class regimental surgeons will be reduced by 36. The military medical course will be omitted, and the saving from this source will nearly cover 65 studentships at 500 florins, and 70 at 300 florins, for candidates for the military medical service.

THE TREATMENT OF RETENTION OF URINE WITH A CAPILLARY CATHETER.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cardiff.

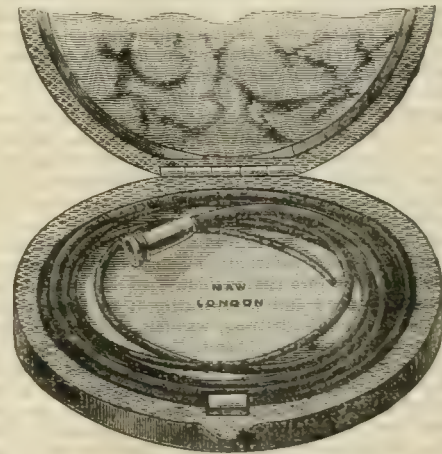
By J. WARD COUSINS, M.D. Lond., F.R.C.S.,

Senior Surgeon to the Royal Portsmouth Hospital, and to the Portsmouth and South Hants Eye and Ear Infirmary.

THE skilful use of the catheter, in a large proportion of cases of retention of urine associated with organic stricture, is followed by immediate relief; but the operation is often prolonged, and always very painful unless performed under the influence of an anæsthetic. Sometimes the urethra is lacerated, and, when this accident occurs, irritation and fever are excited, which soon issue in increased contraction of the strictured part of the canal. Cases of retention in which it is found impossible to introduce into the bladder any kind of instrument are of rare occurrence at the present day. Sometimes, after many trials, I have succeeded at once with a fine catgut or whalebone guide, and a tunneled catheter; but this method requires care, as the spasmodic state of the urethra renders the stricture unyielding, and the guide is liable to double up and bend in the effort to penetrate the constriction with the larger instrument.

In a few cases, the passage of a catheter in any form is an impossible proceeding; and, under these circumstances, provided the condition of the patient demands immediate relief, it is my practice to aspirate the bladder above the pubes for the purpose of tiding over the emergency.

The purport of my remarks on this important topic is to suggest, at the very onset of the treatment, a trial of a capillary instrument, which I have now used in many cases of retention with great satisfaction. The operation is practically painless, and requires no anæsthetic. Like most surgeons, I have often had a wholesome dread of fine catheters, but this perfectly flexible little instrument can really do no injury, even if it fail to do good. Catheters and bougies are now manufactured in so many forms, and of so many materials, that



it is difficult to suggest any novelty in their construction. The capillary catheter is a compound contrivance, consisting of a filiform bougie and a fine catheter, very carefully prepared with woven web and gum-elastic, and possessing great flexibility and toughness, together with a smooth and highly polished surface. The combination is about eighteen inches in length, and exhibits the appearance of the excellent filiform bougie recommended by Mr. Reginald Harrison for the treatment of stricture.

The catheter introduced by Dr. Phillips some years since is a much larger instrument than mine, and the guide-bougie is attached by means of a screw, which may be accidentally unfastened within the urethra by the manipulation of the operator.

With reference to the method of using the capillary catheter, it must always be handled with the greatest delicacy and patience. After injecting the urethra with warm oil, and covering the patient with blankets, the penis is to be drawn forwards with the left hand, and the instrument gently passed down to the stricture. As soon as its progress is arrested, it must be withdrawn two or three inches, rotated between the thumb and finger, and again twisted down upon the obstruction. During the repetition of these manipulations, it

often readily slips into the bladder; at the same time, its free and easy movement in the urethra, together with the sensations experienced by the patient, clearly indicate to the surgeon that the stricture has been overcome, and the catheter coaxed to move on in the right direction. The discharge of a little urine now takes place, the distended bladder is soon relieved, the urethral spasm subsides, and the power of expulsion is re-established. The urine soon flows in successive jets through the tube, and also by its side, and, within a few minutes, the patient is delivered from the torments of retention. In some cases, the flow may be accelerated by fixing to the end of the catheter an ordinary glass-bottle, fitted with a two-way cork and a hand-ball air-exhauster, and the bladder thus evacuated by pneumatic aspiration. After the operation is over, the little tube may be retained for a few hours, or it can be removed, and again introduced in a day or two, and utilised as a guide for a tunneled catheter.

Before all other methods, it is now my plan to give the capillary catheter a fair trial, and I hope other surgeons will consider a preliminary effort to relieve retention associated with organic stricture by this simple proceeding worthy of some consideration. The operation is painless, and the slender instrument, assisted by plenty of warm oil, excites very little straining or spasmodic contraction; at the same time, it cannot injure or lacerate the canal.

The capillary catheter is made by Messrs. Maw, Son, and Thompson, and is supplied in a little case, which can be conveniently carried in the waistcoat-pocket.

NINE CASES OF SUCCESSFUL OPERATIONS FOR RUPTURED TUBAL PREGNANCY.

By LAWSON TAIT, F.R.C.S.,

Surgeon to the Birmingham and Midland Hospital for Women.

SINCE the publication of my last paper on this subject, I have had nine more successful operations, performed for rupture of the Fallopian tube due to pregnancy—an accident which has had in the past, according to all authorities, a terrible mortality. The fact that, out of twenty-three cases, only one, the first, died, and that all the others have recovered and remain well, is quite sufficient proof that this terrible accident is within the curative power of the surgeon, provided that the fatal delay, which has hitherto been the rule in dealing with abdominal and pelvic disease, be eliminated.

The leading features of all the cases in this series have been already described so completely in detail in my previous papers, that I need not do more than recapitulate them here. The history of nearly all is, that the patients have either never been pregnant before, or that a long interval has elapsed since the last pregnancy; that menstruation has been, as a rule, before the occurrence of the tubal pregnancy, of such a character as to lead to the inference that there was some tubal disease; that menstruation has been arrested for a period of ten or twelve weeks before the incidence of the serious symptoms which led to interference; and that, during that time, more or less discomfort, or even serious distress, was felt. Thus, in the case in which I was associated with my friend, Mr. Vickers Whitby, we had, after careful consideration, determined to open the abdomen some days before the catastrophe of the rupture occurred. The tubal rupture took place some few hours before the operation was performed. The symptoms were suddenly and intensely increased in severity; and, when the abdomen was opened, we found it full of blood-clot and serum.

In all of the operations, the hæmorrhage during the proceeding was extremely severe; and, from the lesson which I learned in the first case, that in which I failed, I am quite satisfied that rapidity in performing the necessary manipulations is an essential factor in success. In that case of failure, I was so alarmed by the amount of bleeding, that I did not act with sufficient energy; for I have since found that, as soon as the detachment of the adhesions is complete, a very small amount of sponge-pressure will arrest the bleeding. In this unfortunate case, I proceeded hesitatingly; and the result was, that the patient hardly survived the performance of the operation—certainly never rallied from it; and yet it was not, in its details, in any way different from the other cases. These adhesions occur to everyone of the pelvic viscera; and there can be little doubt that, for success in dealing with them, very considerable experience with the finger-tips will always be necessary, for it can only be after prolonged acquaintance with the sensations which are conveyed by different structures to the fingers, that the adherent tube and placenta can be recognised from coils of intestine, broad ligament, and uterus.

The recoveries of all these cases have been complete and easy, and

no class of operation in which I am concerned has given me so much satisfaction as this. The appearances on the operation-table so forcibly remind me of my old experiences of these cases in the *post mortem* room, that I can hardly doubt that most of them, if not all, are examples of the advantage of the modern doctrine of opening the abdomen promptly in times of serious trouble.

Name.	Age.	Residence.	Medical Attendant.	Operation.	Result.
E. W.	30	Birmingham	Dr. Annie Clark	April 2, 1885	Recovery
E. R.	25	"	Mr. Whitcombe	May 11, "	"
S. S.	34	"	Mr. Vickers Whitby	July 2, "	"
E. W.	42	"	L. T.	" 11, "	"
E. S.	31	Wolverhampton	Mr. Watts	Sept. 2, "	"
N.	26	Manchester	Dr. William Walter	" 6, "	"
E. J.	28	Birmingham	L. T.	" 19, "	"
H. P.	42	"	"	Oct. 23, "	"
C. H.	37	Coventry	Dr. Davidson	" 31, "	"

CLINICAL MEMORANDA.

A CASE OF SEVERE HICCOUGH TREATED BY PILOCARPINE AND SCUTELLARIA.

Mrs. D., aged 25, of middle height, ten stone in weight, hair and complexion of a yellowish red, was seen on July 29th, 1884, with Mr. Cane, of Leeds. She had extremely severe and rapid hiccough; it was impossible for her to take any food or to breathe properly. Only during sleep or under chloroform was a single ordinary respiratory act performed. There was no decisive evidence as to immediate causation, but her constitution was neurotic. Her father, who drank much, died at 45; her mother was of emotional and excitable temper, and the patient was the only survivor of several children. Her teeth were very defective. A fortnight before our consultation, she had dyspepsia and palpitation; in a week, the hiccough began. Married at 18, she had had one child. Prolapse of the uterus followed, but had improved, and now gave her no sensible inconvenience. Under treatment by morphia hypodermically, occasional inhalations of chloroform, and nutrient enemata, the hiccough gradually subsided in ten days. After a week, it returned, and lasted eleven days. In a few days more, it again returned, and resisted the treatment. I now suggested the use of pilocarpine. One-fourth of a grain of the hydrochlorate was injected; in ten minutes, the hiccough ceased. It recurred at intervals of a few days; on every occasion, pilocarpine checked it. From October 9th to 19th, the patient slept very much. Previously, periods of insensibility had alternated with periods of excitement. At the end of December, she became delirious, and continued to be so for six weeks, talking almost incessantly about a theatrical performance which she had recently seen. She also refused food, and gave much trouble in this respect. Soon after the delirium had passed off, the hiccough again appeared. As a test, Mr. Cane injected warm water subcutaneously, but without result. After thirty minutes, he injected pilocarpine; the hiccough ceased in ten minutes. A subsequent attack, caused by a fit of laughter, was similarly checked.

In April, 1885, the spasms returned suddenly, without discoverable cause. Pilocarpine now failed to relieve her; one-third of a grain subcutaneously had little effect of any kind. She was then admitted into the infirmary. The spasms were not so violent as before; only 26 in a minute, and, as formerly, perfectly rhythmic. She felt quite well in every other way, and her face, though slightly livid, wore a cheerful and even smiling expression. Pilocarpine was again tried, but again failed. Morphia caused only a short sleep. Sixty minims of tincture of scutellaria were therefore given every two hours. After the eighth dose, she slept four hours; the spasms next day were much diminished in strength, though not in number. After further diminution, on the fourth day, they ceased suddenly.

So far (December, 1885) there has been no recurrence of them. During the last attack, she had conjunctivitis in the right eye; and she has frequently had it since that time. She has also upon one occasion slept almost constantly for three days.

In another case of hiccough, occurring in a neurotic woman whom I saw with Mr. B. Gray Heald, scutellaria checked the spasms. But from cases of this kind, it is not safe to argue as to the real power of drugs. Scutellaria has seemed to be distinctly useful in some cases of epilepsy, non-rheumatic chorea of moderate severity, insomnia, and of excitability bordering on delirium. In two cases of very severe chorea, however, scutellaria failed entirely; but conium-juice in six-

drachm doses failed also; chloral and bromide of potassium in full doses quickly mitigated the severity of the symptoms in both these cases. The specimens of tincture of scutellaria obtained hitherto have seemed to vary in strength. Scutellarine is advertised, but the only specimen we have yet been able to find somewhat resembled podophylline in appearance, and was certainly not an alkaloid.

T. CHURTON, M.D., Leeds.

THERAPEUTIC MEMORANDA.

CUCAINE IN OBSTETRICS.

I SHALL have great pleasure in trying Mr. Moore's theobroma cones of cucaine and boric acid. At the same time, I wish to add a few remarks, as a supplement to my letter published on September 5th.

I had then tried the local application of cucaine in four cases only, and all of those primipare, and I had used a 12 per cent. solution. I have since modified the treatment in this manner.

1. I have come to the conclusion that the strength of the solution makes little, if any, difference, and I now use only a 4 per cent. solution.

2. Next, I make the solution of equal parts of glycerine and water.

3. I have so far been able to obtain the best results in the thin parchment-like os of the primipara, and, *ceteris paribus*, the less natural lubrication there is the better the cucaine acts.

I should not use it at all save in rigid cases with little secretion, but I cannot agree with Mr. Head that my method, per speculum, necessitates the exposure of the patient.

GEORGE H. R. DABBS, M.D., Shanklin, Isle of Wight.

SURGICAL MEMORANDA.

FRACTURED PATELLA: SWAN'S OPERATION.

So much discussion has taken place regarding the treatment of this very distressing accident, that I am induced to draw attention to the operation frequently performed by my friend, Robert L. Swan, of Dublin. It is evident that the great difficulty to be contended against is the resisting power of the quadriceps tendon; and this is overcome by Mr. Swan's ingenious method of subcutaneous division of the tendon itself. It is of course a matter altogether out of my province, and I allude to it more for the purpose of eliciting some practical details from him, than from the wish to enter upon a subject that is outside my sphere of practice.

ROBERT T. COOPER, M.D., London.

OBSTETRIC MEMORANDA.

THE PREVENTION OF MAMMARY ABSCESS.

IN confirmation of Mr. Miall's note in the BRITISH MEDICAL JOURNAL of November 21st, 1885, I beg to record the following case.

J. B., aged 25, a primipara, was delivered on November 12th, 1885, of a male infant. The first stage of the labour was prolonged, the second stage very short, accompanied with strong expulsive pains, and very rapid dilatation of the os uteri and perineum. Although firmly supported, moderate laceration of the perineum occurred. The nipples were very retracted, and soon cracked. The puerperal condition progressed favourably, excepting factor of the lochia, necessitating irrigation with warm Condy's fluid and water. The lacteal secretion commenced, and continued in a normal manner until the ninth day, when some tenderness was complained of at the periphery of the upper border of the right mamma, towards the sternal side.

The temperature hitherto never exceeded 99° Fahr. On the tenth day it rose to 103.2°; pulse, 112 per minute; headache was complained of; the lochia ceased abruptly; tenderness was more marked at the upper part of the right mamma, and distinct induration could now be felt at this site. The lacteal secretion diminished in the right breast, which swelled rapidly, becoming hot, heavy, and somewhat tense.

At 1.30 P.M., on November 22nd, one ounce of carbonate of ammonia was dissolved in one pint of boiling water. The nipple was protected by a shield, and lint, wrung out with the hot ammonia-solution, was applied over and around the right breast continuously for half an hour, the epithem being renewed every five minutes during that time. Some relief was experienced at once, and the remedy was reapplied in three hours; the patient now expressed decided re-

lief. At 6 P.M., on November 22nd, the temperature was 101°; a third similar application was made during the night. November 23rd, the morning-temperature was 99.8°, and in the evening 99°, and the following morning normal.

No further threatening of mammary abscess occurred, but on one or two occasions some fulness was experienced, and speedily removed by a hot ammonia-fomentation. The tension of the breast was reduced by occasional moderate use of the breast-pump during the three days the infant was not allowed to use it; but throughout the attack the secretion of the left breast remained normal, and the infant suckled it regularly; after three days, it was able to take the right breast as well.

H. CRIPPS LAWRENCE, L.R.C.P. Lond., etc.

TOXICOLOGICAL MEMORANDA.

OPIUM-POISONING THROUGH MOTHER'S MILK.

ON November 17th, I attended Mrs. T. in her eighth confinement, which was natural, although rather tedious in its first stage. She was delivered of a fine healthy female child about 1.30 P.M. I left her a drachm of liquor opii sedativus, to be taken in four doses, at intervals of four or five hours, if required, for the after-pains. On visiting my patient the next morning, I found she had had no sleep, on account of the severity of the after-pains; I therefore sent her six doses, of twenty minims each, of liquor opii, to be taken as before. (I may say that this patient had, on former occasions, suffered in an unusual degree from these pains.) On the 19th, I found, on my visit, that she had had about three hours' sleep, but that the after-pains were still troubling her about every fifteen minutes. I therefore repeated the medicine I had ordered her the day before. On the 20th, I found she had had more sleep than on the previous night, had finished the medicine, but was not at all drowsy, nor under the influence of opium in any way, except the relief it had afforded her from her pains. The milk came into the breasts during the night, and at 4 A.M. the child was put to the breast, and sucked well. It took it again about 7 A.M., but not quite so freely as before. Up to this time, the infant had been fed on milk-and-water and gruel. At my visit, it appeared to be comfortably asleep, so much so, that the nurse had not washed it. At 2 P.M., I was sent for, with the request that I would go at once. I did so, and found the infant very drowsy. On examination, the pupils were contracted almost to the size of a pin's head. The respiration was slow and tranquil. The countenance wore a placid expression, like a child in a natural sleep, and was rather pale. The skin was moist with perspiration. I roused the child with difficulty, but it relapsed at once into its former sleepy state. From these symptoms, I diagnosed the case as one of opium-poisoning, and ordered the nurse not to lay the child down, but to constantly rouse it, and give it frequently strong coffee (with milk) as a stimulant. I also cautioned her not to put the child again to the breast. A few hours later, as there was no improvement, I ordered liquor ammoniac to be dropped on a pocket-handkerchief and applied to the nostrils. I was sent for about midnight, and, on arriving, found the child had ceased breathing. I performed artificial respiration for about half an hour, but without avail; the child was dead.

At the inquest, the coroner informed me that he had never met with a similar case; therefore, I thought it would be interesting to record it as a case of opium-poisoning communicated to the infant through the medium of the mother's milk, and at the same time to put medical men on their guard against allowing an infant to take the breast where it is necessary to give large and continuous doses of opium to the mother.

WILLIAM T. EVANS, M.B. and C.M. Edin., London.

BEQUESTS AND DONATIONS.—Mr. Abraham Altham, of Burnley, has bequeathed £1,000 to the Victoria Hospital in that town—namely, £500 towards erecting a children's ward, and £500 to the endowment-fund.—The Swansea Hospital has received £500, in five bank notes of £100 each, anonymously.—The executors of the will of Mr. James Graham have, in addition to large amounts previously, given £200 each to the London Hospital, the Great Northern Central Hospital, St. Thomas's Hospital, the Royal Hospital for Incurables, and the British Home for Incurables, out of the "residue" of his estate, left for disposal at their discretion.—Mr. John Berners has given 100 guineas towards the "Ipswich Ward" of the Eastern Counties Asylum for Idiots and Imbeciles.—"E. M. E." (per Messrs. G. Armstrong and Sons) has given £100 to the British Home for Incurables.—The Jenny Lind Infirmary, Norwich, has received £100 under the will of Miss Mary Ann Edwards.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE
COLONIES.

ROYAL UNITED HOSPITAL, BATH.

CHONDRIFYING SARCOMA OF TIBIA.

[Reported by Mr. T. PAGAN LOWE, M.R.C.S., late House-Surgeon.]

T. S., aged 18, blacksmith, a well built, healthy looking young man, was admitted in November, 1883, with a lump on the inner side of his right knee. This he had first noticed six months previously, when it was trifling in size, and caused him no inconvenience. In the interval, it had steadily grown, and become so painful that, five weeks before he applied at the hospital, he was obliged to give up work.

The tumour, which was about the size of half an orange, was situated at the inner side of the right leg, just below the knee. The skin over it was red, hot, and tender to the touch; the tumour itself was hard, immovable, and apparently attached to the tibia. There was no history of syphilis. The movements of the knee were only slightly impaired, and there was no glandular affection. The tongue was furred, the appetite poor, and his bowels confined; his evening temperature varied between 100° and 101° Fahr., with slight morning remissions.

Three days after his admission, an exploratory incision was made under ether, and the diagnosis of sarcoma confirmed; but further treatment was delayed, awaiting the permission of the friends.

On November 23rd, a week after his admission, he was put under ether, the growth was thoroughly explored, and amputation through the lower third of the thigh performed.

Recovery was tedious, and complicated, a month after the operation, by the development, along a portion of the wound that had apparently healed, of suspicious-looking granulations. These differed from ordinary granulations in being extremely exuberant, cartilaginous in consistence, and covered with epidermis. About the same time, the discharge from a sinus on the outer side of the stump became dark in colour, and very fetid. In spite of mechanical treatment and due attention to drainage, the granulations increased considerably, and suggested to all interested the strong probability of a recurrence. A portion removed and examined microscopically showed nothing more or less than simple papillary hypertrophy. These granulations disappeared, as their microscopic characters had led us to anticipate. The patient left the hospital in the middle of February, 1884, with a very good stump.

On examining the original tumour, it was found to be a subperiosteal growth, about the size of a large egg, and growing from the inner tuberosity of the tibia, with the periosteum stretched over it. On section, it was solid throughout, and firm in consistence. The deeper layers of bone were not affected. The growth, under the microscope, proved to be a round-celled sarcoma undergoing cartilaginous transformation.

The patient, when last seen, in January, 1885, was well and strong, with no sign of recurrence.

REMARKS BY MR. PAGAN LOWE.—The diagnosis in this case presented some difficulty. The local signs of inflammation, together with the constitutional disturbance, suggested the possibility of a localised periostitis. What means are there whereby an accurate diagnosis can be made between chronic inflammations of bone which simulate tumours, and tumours which present signs of inflammation, except measurements and exploratory incision? And when we consider the grave consequences that might attend hesitation should the tumour prove to be malignant, I believe an early incision in doubtful cases not only justifiable, but strongly indicated.

A NEW DISEASE is reported from Brazil, by Dr. Lutz. The *Berliner Klinische Wochenschrift* summarises its chief characters as follows, from the paper read at the recent meeting of German naturalists and physicians at Strasburg. The disease has a very chronic course, and caused death in ten out of twenty-three patients. Its main features are, gastro-intestinal and respiratory catarrh, cedema of the skin, and a peculiar erythema, which quickly becomes livid and even black, finally leading to a ragged desquamation. The cause of this disease is apparently the use of spoiled maize. The spleen was said to be not enlarged during life, and no anatomical alterations of the viscera were found on *post mortem* examination.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 11TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Aneurysm of the Ascending Transverse Portion of the Arch of the Aorta, Pressure on the Trachea and Bronchi, on the Left Recurrent and (?) Left Vagus: Paresis of the Crico-Arytenoidei Postici Muscles.—Dr. F. de HAVILLAND HALL related the particulars of this case. The patient was a barrister, aged 61. When seen on October 5th, he was found to be suffering from great dyspnoea, and there was some lividity. He had a brassy ringing cough, with purulent expectoration. The breathing was equally stridulous on inspiration and expiration, the voice quite clear. Examination of the chest showed rhonchi and stridulous breathing. There was doubtful impairment of resonance across the upper part of the sternum. The heart-sounds were clear. The pulse in the radials was equal; the pupils were equal. Laryngoscopic examination revealed paresis of the crico-arytenoidei postici. There was a history of shortness of breath for two or three months, much increased the last week. The patient had been previously seen by Sir Andrew Clark and Dr. Semon, and a diagnosis of pressure on the trachea, with implication of both recurrences or of one vagus, was arrived at independently. As regarded the nature of the pressure, the absence of the usual physical signs of aneurysm seemed to exclude that affection, and it was thought probable that the pressure was due to a malignant growth. The patient at first improved under the influence of iodide of potassium, but died quietly on October 8th. The *post mortem* examination, which was made by Dr. Hebb, disclosed an aneurysm on the posterior aspect of the ascending and transverse portions of the arch, about the size of an orange, pressing upon the trachea, right and left bronchi, left recurrent laryngeal nerve, and, possibly, also the trunk of the left vagus. There was a second aneurysm just above the diaphragm, fusiform in shape, and about two inches in length. The lungs were in a state of pneumonic consolidation, and there was some recent pleurisy. Inspection of the larynx showed the cords to be in the position of semi-adduction (that is, nearer the middle line than in the usual cadaveric position). The muscles appeared healthy to the naked eye, but, on microscopic examination, though the striation was good, there was deposit of pigment beneath the sarcolemma. Dr. de Havilland Hall brought the case forward as illustrating the difficulty in diagnosing aneurysms springing from the posterior aspect of the arch of the aorta, in cases in which all the physical signs of aneurysm were absent. He was of opinion that, in the case under consideration, there were at least two factors to account for the dyspnoea, as the paresis of the abductors was insufficient to explain the great shortness of breath. Moreover, the absence of respiratory excursions of the larynx pointed to the chief impediment being below the glottis. He accepted Dr. Bristowe's theory that, in cases in which the trachea was compressed, accumulation of mucus took place just above the constriction in consequence of the mechanical impediment existing to the performance of an effective cough. As regarded the question of treatment in these cases of mixed obstruction to the respiration, the justifiability of tracheotomy at once arose. Dr. Hall quoted Dr. Begbie as being in favour of the operation, and gave in his adhesion to this view. He pointed out the great advantage of large doses of iodide of potassium in cases of aneurysm.—Dr. FELIX SEMON fully confirmed the accuracy of Dr. Hall's description of the position assumed by the vocal cords in his patient; and he entered at considerable length on a defence of the reasons adduced by him some years ago, to explain why this particular condition was assumed in such cases, and illustrated his statements by references to several other cases. Recent observations had been effectual in overthrowing the view, entertained from the time when Gerhardt enunciated it till lately, which explained the disablement of the posterior crico-arytenoid muscles on grounds exactly opposite to the real ones for acceptance; and he felt that his own theory was now fully substantiated by a study of the observations made by other investigators. Gradual interference with the motor nerves of the larynx always affected the abductors first, whatever the cause, whether cerebral or peripheral, acute or chronic. Those muscles degenerated, but the other muscles remained for a time uninjured. He doubted whether Dr. Hall's case could be truthfully characterised as one of paralysis of the vocal cords, because of the period during which the cause had been at work to produce the result. It was, however, clear that the pneumogastric nerve was involved. Unilateral pressure

could not produce bilateral paralysis. On the question of tracheotomy, he was able to speak with an amount of authority derived from an unfortunately large experience of its necessity in paralysis of the abductor muscles; and he advanced three points for consideration in this connection, namely (1), the progress of the case might be arrested at a certain point at which the operation would not be needed; (2) the adductors might be affected subsequently to the abductors, and thus free breathing be once more established by the enlargement of the laryngeal aperture thereby effected; for, though the patient lost his voice when the cords were paralysed, yet the breathing was free; and (3) there might be a second stenosis low down, rendering the operation futile. He thought operative interference would be justified in cases where increasing stenosis rendered breathing increasingly difficult and painful; and, above all, it should be resorted to sufficiently early to be of service.—Dr. OGLE remarked that Dr. Hall had not referred to the condition of the pupils as an aid to diagnosis in his case. Dr. C. J. B. Williams laid stress on this sign. He himself had under his care last year a military man suffering from thoracic tumour, who found much relief from chloroform-inhalations frequently repeated, and from the administration of iodide of potassium, which was prescribed through several months.—Dr. LONGHURST also alluded to the diagnostic value of sympathetic affection of the pupils. He had seen many cases of aneurysm, but never one demanding the operation of tracheotomy, the use of which in influencing the results of nerve-irritation he failed to comprehend.—The PRESIDENT insisted on the necessity of operation in acute cases, as a means of averting death; although in chronic cases it might not be urgently called for. He narrated two cases in his own practice in which the adoption of this measure prolonged life, in one for thirty hours, in the other over several months.—Dr. HALL said the pupils were equal in his case, which was a remarkably acute one. Such examples of acute obstruction due to spasm were, he considered, appropriate for tracheotomy; but he was unable to persuade his patient's friends to accept it.

Suppuration around the Vermiform Appendix, treated by Abdominal Incision.—Mr. R. J. GODLEE read for Dr. T. BARLOW and himself the notes of this case. The subject of the paper was a man, aged 20, whose previous history was unimportant, except that for the last two years he had been subject to attacks of diarrhoea and vomiting. His illness began rather acutely on September 12th, 1885, with loss of appetite, severe abdominal pain, and later, vomiting and absolute constipation. He was admitted into University College Hospital on the 15th, with a temperature of 102.4°, intense abdominal pain and tenderness, intermittent bilious (not stercoraceous) vomiting, and tight distension of the abdomen. There was a small patch of slight redness in the right iliac fossa. The diagnosis appeared to be between mischief about the appendix and constriction of the intestine by a band high up. He was given opium and iced beef-tea, and ice was applied to the abdomen. The temperature fell to normal, and the pulse was about 90, full and soft; the tongue was dry, and the colour good; but, as the symptoms were unrelieved, an exploratory incision was made in the middle line on the night of the 16th. General early peritonitis was found, but lymph only in the neighbourhood of the cæcum surrounding a collection of fetid pus. The vermiform appendix was much thickened. A second incision was made on the right iliac fossa, and a large drainage-tube was inserted through it reaching down to the appendix, a smaller one being placed in the median incision, which was closed with sutures. The peritoneum was first washed out with a solution of corrosive sublimate (1 to 500). The patient made an excellent recovery, the temperature remaining normal, and the pulse about 90. He was fed principally by the bowel for some time; beef-tea and arrowroot were allowed on the twentieth day, and minced meat a fortnight later. No drugs were given, except morphine for the first two days. Thirst was allayed by means of warm water enemata. He had slight albuminuria a day or two after the operation, and a little later a parotid bubo occurred, which did not suppurate. It was alleged that the uncertainty of the diagnosis justified the exploration, and that the early evacuation of the putrid pus rescued the patient from a condition of very great danger, and prevented the matting together of the intestines which would otherwise have occurred. The freedom with which the peritoneum might be treated was pointed out, and the advisability of withholding food from the stomach for a prolonged period in such cases was insisted upon. Remarks were also made upon the absence of peritonitis, and the presence of albuminuria, as points in the diagnosis, and upon the relation between inflammation of the parotid and diseased states of the peritoneum.—Mr. MORRANT BAKER related the case of a man, aged about 29, under his own care some months ago, in whom the symptoms were pain in the

epigastrium, and indistinct fulness in the right iliac fossa. A quantity of offensive pus escaped from an exploratory incision, and much relief was experienced after it. The abscess-walls were formed of coils of intestine. The wound healed, and the patient went out in three or four weeks; but, as symptoms soon returned, the wound was reopened; a little pus escaped, and death occurred. At the *post mortem* examination, a needle was found sticking in the vermiform appendix, one end being coated with adherent feces, which prevented the needle from escaping. Had free exploration been resorted to, this foreign body would have been detected and removed, and recovery would probably have ensued. But Mr. Baker was deterred from such a measure by the fear of disturbing adhesions. In any similar case, however, he would not be discouraged from such a course.—The PRESIDENT related the case of a girl, aged 10, the subject of an abdominal attack of pain in the region of the cæcum, who recovered, but was subsequently again troubled with a return of the same symptoms; constipation persisted for six days, with pain and distension, and evident onset of peritonitis. Deep pressure gave an indefinite sense of deep fluctuation about the centre of the right iliac crest; and an incision in this neighbourhood, one inch from the crest, was made, when a quantity of fetid pus was reached, flatus escaping with it, and thus indicating some communication with the intestine. The incision was then extended forward sufficiently to permit exploration by the finger, and free washing of the cavity with iodine-water; a drainage-tube was inserted, and the part dressed with iodoform-gauze and terebene-oil. The child was convalescent in ten days, and had been well ever since. He would suggest that acute peritonitis was a rare affection in the absence of a local cause; and that it would be a wise precaution for the surgeon in such cases always to explore the region of the cæcum—a practice he regularly adopted himself. He remembered to have heard Sir William Jenner declare, from the presidential chair of the Clinical Society, that he did not believe the vermiform appendix ever became the seat of a foreign body; but Mr. Baker's case proved the contrary.—Mr. SYMONDS was of opinion that Mr. Baker's case would influence surgeons to make careful explorations much more frequently than had been their custom, when called on to deal with abdominal mischief. Diagnosis in these circumstances was always a difficulty, and but little aided by symptoms; and he urged that abdominal exploration should be much more freely performed. He had looked up the statistics of the subject, and found that in twenty-three fatal cases there was a concretion, and only one of a foreign body in the appendix, which was a grain of wheat.—Mr. A. BARKER thought the discussion would lead to more robust surgical interference in such cases in the future. He raised the question of the propriety of operation during the existence of acute peritonitis. He had opened the abdomen under such circumstances in a case of obstruction. The intestines were inflamed and covered with a layer of lymph; and a volvulus of the jejunum was unrolled; the cæcum examined, and found to be healthy; and the intestines were returned, a great extent of the gut having been drawn out during the manipulations. The cavity was washed out, and all went well at first. The wound healed by the first intention; but the patient vomited on the ninth day, and a knuckle of intestine protruded from the wound, and complicated matters, but subsequently the case did very well. He thought that peritonitis itself ought to be taken as a reason for an exploratory operation, and for opening, washing, and draining the peritoneal cavity, as an abscess in any other part of the body would be treated.—Dr. BARLOW was glad that no one had offered adverse criticism on the decision to submit this case to a surgical operation, for Sir Andrew Clark had strongly deprecated the proceeding. It was done at an early period, and recovery had ensued without any thickening of tissues about the right iliac fossa. The after-treatment had been directed to keeping the abdomen absolutely at rest, as it had been contaminated by the pus from the abscess; and a feature of the system adopted was the introduction of nutrient suppositories, whereby the irritation of the rectum and intolerance set up by frequent enemata were avoided. These suppositories consisted of peptonised meat-extract, and peptonised milk, with a basis of cacao-butter; each one weighed 100 grains, and one was used every three hours. Thirst was very effectually overcome by enemata of warm water, about three-quarters of a pint each. The dry and brown tongue was relieved by mastication of half-cooked meat, the juice alone being swallowed.—Mr. GODLEE said his own personal experience enabled him to say that the pain of typhlitis commenced in the right side, and passed over to the left, where, also, it was most acutely felt. Referring to the case under discussion, he admitted it would have been better had the incision been made over the red spot, which attracted altogether too little attention. The history of sudden onset in many of these cases was fallacious, and ought not to be trusted without close

inquiry into all the antecedent circumstances.—Mr. HUTCHINSON said he had never himself opened the peritoneum when evacuating fetid abdominal abscesses, and did not gather that Mr. Bryant had done so.—In reply to a question to this effect, however, the President said that he very much feared he had done so, and, indeed, felt quite certain of the fact.

Living Specimens.—The following were exhibited. By Dr. T. D. SAVILL: A Case of Myxoedema. By Dr. STEPHEN MACKENZIE: 1, a Case of Symmetrical Morphea; 2, a Leprosy-like Syphilide.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 2ND, 1885.

J. B. POTTER, M.D., F.R.C.P., President, in the Chair.

Specimens.—The following specimens were shown. Pyosalpinx, Dr. LEWERS; Corroding Ulcer of Uterus with Microscopic Sections, Dr. JOHN WILLIAMS; Early Extra-uterine Pregnancy, Dr. WALTER GRIFFITH for Mr. STRUGNELL; Pregnancy in Bicorned Uterus, Dr. CAMPBELL POPE; Double Monster, Dr. GALABIN for Dr. LEWIS JONES.

Case of Protracted Pregnancy.—Dr. ARNOLD THOMSON (Amptkhill) read this case. The patient was a delicate woman, not long married, who had had a miscarriage previously, occasioned by a shock. After this, menstruation recurred, and the last period ended June, 1884. Her husband left home a week after, and returned on June 16th, for one night only, on which coitus took place. He left home the next morning, and was away for four months. Soon after the husband's departure, signs of pregnancy appeared. Delivery took place April 13th, 1885, 317 days after the end of the last menstruation, or 301 days from the last coitus. The dates were absolutely certain. The child was not weighed or measured; it was a female, and appeared of full average size and weight.—Dr. GRAJLY HEWITT inquired whether anything was known as to the duration of the menstrual intervals in this case. The late Dr. Tyler Smith was of opinion that a relation subsisted between the duration of pregnancy and the menstrual interval. In Casper's work, it was stated that Cederschjold had observed prolongation of pregnancy in cases where the menstrual interval was unusually extended.

On the Inflammations of Lupus of the Pudendum.—Dr. MATTHEWS DUNCAN read a paper on this subject; the communication included histological observations and remarks by Dr. Thin. The peculiar inflammations occurring in the course of the disease were described, as well as the strictures which also occurred. These conditions were contrasted with such as occurred in connection with malignant disease. Their treatment was also discussed. The histology of the disease had already been briefly described by Dr. Thin, and will be found in the report of the October meeting of the Society. (JOURNAL, October 24th, p. 796.)—Dr. HERMAN had seen two cases of stricture of the female urethra, due to general fibrous thickening of the wall of the canal. For neither of these was there any evidence of lupus, or history of any inflammation or ulceration. Dr. Fleetwood Churchill, in his work on *Diseases of Women*, described, under the title of "spasmodic strictures," two cases which seemed to Dr. Herman to be of the same class.—Dr. MATTHEWS DUNCAN said that the subject was far from being exhausted. He entertained some hope of entering upon and laying before the Society the bibliography of the disease, its nomenclature, and, still more important, its alliances.

A Case of Spurious Labour.—Dr. H. ROXBURGH FULLER read notes of a case where this condition was present. The patient, a short spare woman, aged 31, became pregnant, as she supposed, for the first time in 1882. She had been married over eleven years, had borne four children, and had never miscarried. Her last child was born August 31st, 1881, and she suckled it until August 3rd, 1882. On that day, she noticed a pink discharge, "like a birth-show," and felt the movements of a child. She at once weaned her child. She had never conceived before while suckling, and she had suffered from morning sickness since April, but did not think herself pregnant till she "quickened." From this date, the sickness ceased. On cross-examination, it was found that the sickness was irregular, and occurred at any time of day; also, that the catamenia, absent from the birth of the child till the "show" in August, returned naturally in September, scantily ten days later, and at irregular intervals in October and November. In December, ordinary morning sickness began, and persisted till "labour" began. In December, the catamenia were absent. On January 1st, 1883, "labour" began, with "niggling" pains in the stomach and thighs, which continued during the 2nd and 3rd; but on the 4th true labour came on, the pains becoming strong, frequent, and forcing; the "waters" soon broke, and she sent to St. George's Hospital for assistance. Nine hours later, the student

in attendance sent for Dr. Fuller, as resident obstetric officer, reporting that the labour was making no progress, and that the patient was becoming exhausted. The patient remarked to Dr. Fuller that she thought it was a cross-birth, as she missed the pressure of the child's head. The author found all signs of advanced pregnancy absent. The pains occurred every three or four minutes, and the bearing-down forced the small cervix uteri nearly to the vaginal outlet; while at the same time urine escaped. The pains were typical of the second stage of labour. Dr. Champneys was called to the case, and diagnosed pregnancy of six weeks, which proved to be correct. He also succeeded in convincing her that she was not in labour, her belief in this having been unshaken till then. Dr. Fuller remarked on the belief in pregnancy which persisted in the absence of all signs and of all symptoms except "fetal movements"—on the occurrence of true conception during the progress of the case, which was not disturbed by the "labour." He also alluded to the two classes of spurious pregnancy—(1) in which all symptoms except fetal movements were absent, and (2) the class in which the mammary and other sympathetic signs were more or less marked. The latter class, as Harvey pointed out, are noticed in animals.—Dr. PHILIP JONES referred to a case in which a patient suffered from morning sickness, with cessation of menstruation, for four months, and enlargement of the abdomen. At the end of the seventh month, a severe attack of bronchitis occurred; a week later, the abdomen began to diminish; and, at the end of three weeks, all signs and symptoms of pregnancy disappeared, and the menses returned.—Dr. GERVIS alluded to two cases of spurious labour, in one of which an elongated cervix was mistaken by the attendant for the foot of a child; in the other, the attendant had diagnosed a head-presentation; the uterus was quite small, though the pains were active.—Dr. CAMPBELL POPE related a case in which a patient suffered from morning sickness, felt movements, and increased in size, and had strong labour-pains at supposed full term. The uterus was not enlarged. She was not anxious to have a child, and was with difficulty persuaded that she was not in labour.—Dr. ROUTH said that most obstetricians had seen cases of spurious labour. He referred to two cases, in one of which the pains were regular, strong, and characteristic in locality and regularity. During the pains, the uterus was nearly forced out, and the os seemed to yield slightly to the finger. The pains continued for several hours. It was thought that a miscarriage might be impending, but, as no progress was made, a full dose of opium was given, and the "labour" ceased. Both patients were hysterical.—Dr. HERMAN said that it was quite certain that spurious pregnancy was not simply a hysterical affection (as Dr. Routh said), for it occurred in the lower animals. The question of the labour-pains which occurred was interesting, for the uterus had been seen to contract in cases treated by abdominal section, and it was reasonable to suppose that these pains were of this nature. Cases related this evening showed that, in labour-pains occurring in spurious labour, there were uterine contractions.—Dr. CHAMPNEYS said that well recorded cases of spurious labour were very rare, and Dr. Fuller's seemed to him the best yet recorded. The patient, who was the mother of several children, did not seem at all hysterical, but merely to be possessed by a false idea. An offer on his part to adopt the child if born within four months brought the pains to a standstill. He dared not name a longer time, on account of the signs of early pregnancy. In this case (as in Dr. Gervis's) a malpresentation (in this instance, a face-presentation) was diagnosed by the first attendant. He thought that evidence as to true uterine contractions must be entertained with great caution; and it must be remembered that the true uterine contractions in extra-uterine pregnancy, referred to by Dr. Herman, concerned an uterus which, if not truly pregnant, was that of a pregnant woman.—Dr. GALABIN related a case illustrative of the fact that spurious labour might be misleading in the diagnosis. In this case, pregnancy seemed to have been protracted some weeks beyond term, and fetal movements were said to have ceased. There was a firm irregular abdominal tumour, extending into the pelvis behind, and pushing the uterus forwards and upwards. The part behind the uterus was suspected to be the fetal head, and Dr. Braxton Hicks and he diagnosed extra-uterine gestation. The case had been sent as one of extra-uterine gestation, or missed labour. One evening labour-pains came on; the vagina was relaxed, there was a quantity of glairy secretion, the os was within reach, and appeared to be slightly dilating. Exploration of the uterus found it empty. The diagnosis was thought to be rather confirmed by the spurious labour. As matters were quiescent, the patient was sent home. Three years later she returned, stating that the tumour had at first diminished, then grown. Part of it fluctuated; the round mass behind the cervix remained. It was thought that fluid might have been effused

into the gestation sac, or that it might be complicated by ovarian tumour. Symptoms of collapse suddenly set in; he performed abdominal section, and removed two unruptured ovarian tumours. Recovery followed.

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 7TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

CLINICAL MEETING.

Undescended Testicle in Adult.—Mr. E. H. FENWICK showed a man who, up to forty-nine years of age, had only one testicle in the scrotum, when one day he was seized with symptoms of strangulation in a hernia of four years' duration on the side of the undescended testicle; and these were followed by the descent of the testicle. The patient had been twice married, but by neither wife had he had any children. In the course of a few months after the descent of the second testicle, he noticed increased sexual appetite; and subsequently his wife became pregnant, and gave birth to a healthy child. The testicle last to descend was much the larger of the two.—Dr. ROUTH was of opinion that surgeons often prevented the descent of the testicle by the application of trusses.—Mr. ADAMS mentioned the case of a cadet who was refused on account of an alleged liability to hernia in case of undescended testicle.—Mr. DORAN suggested that the sterility in cases of cryptorchidism was often due to a general imperfect development of the sexual system, of which an undescended testicle was one expression.—Mr. BLOXAM remembered a case where, on opening the abdomen in a case of imperforate anus, he found an undescended testicle.—Mr. FENWICK denied that sterility generally resulted from having one testicle in the scrotum, and instanced cases which proved the contrary.

Case of Trephining: Case of Compound Comminuted Fracture of Skull.—Mr. J. ASTLEY BLOXAM showed a man, aged 37, who, having been struck over the head by a burglar, developed, three months later, symptoms of compression, going on to complete and persistent insensibility, which symptoms immediately subsided on trephining at the seat of injury, opening the dura mater, and pushing a scalpel into the brain-substance, although nothing beyond a little cerebrospinal fluid escaped. The operation was done strictly antiseptically, and the man recovered without a bad symptom. The second case was that of a workman who had been struck by a falling brick, and from whose wound several pieces of bone were removed. This, too, was done antiseptically, and the man recovered. The man was sensible on his arrival, but was paralysed on the right side.—Dr. HUGHES BENNETT called attention to the weakness of both eyeballs towards the left side, together with a perceptible inclination of the head to the right side.

Case of Amyotrophic Lateral Sclerosis.—Dr. C. E. BEEVOR showed a woman, aged 28, who had been the subject of this disease for two years and a half past. It began in the right hand with weakness and wasting of the muscles of the thumb and interossei, and this soon extended to the other hand. There was now marked claw-like deformity of the hands. The tongue was also affected. The reflexes everywhere were much exaggerated.—Dr. STRETCH DOWSE asked what the electric reaction of the muscles was, and said he thought that this disease generally ran a rapid course.—Dr. BEEVOR said that the muscles reacted to the faradic current.

Case of Mixed Paralysis of Ocular Muscles.—Dr. MAGUIRE showed a man suffering from paralysis of the sixth and seventh nerves on the right side, and paralysis of the internal recti on the opposite side.—Dr. DE WATTEVILLE said he had some sections of a tumour in the medulla which might elucidate the case in point. It was remarkable that patients suffering from conjugate paralysis of the eyes—that is, unable to turn both eyes to one side—could nevertheless use their internal recti for convergence. He argued, therefore, and his inferences were borne out by anatomical research, that there was a communication between the centres for the sixth and the third nerves.

Case of Diffuse Lipoma.—Dr. J. K. FOWLER showed a man who presented symmetrical fatty tumours on the shoulders, abdomen, and one on the hip, etc., first noticed when in hospital for acute rheumatism, from which he had occasionally suffered for some years.—Mr. WALTER PYE said he had seen a similar state of things follow an attack of scarlet fever with rheumatism.

MONDAY, DECEMBER 14TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

The Treatment of Hemoptysis.—Dr. SAMUEL WEST read a paper on this subject. He said that, in severe cases, the cause of the hæmorrhage was often the rupture of an aneurysm in a phthisical cavity. As to the treatment, the most important indication was rest, and this

would be obtained partly by keeping the patient in a comfortable position, free from excitement, and partly by the use of sedatives, such as opium. As to the so-called hæmostatic remedies, their action was very difficult to understand, and he was inclined to doubt whether they were really possessed of any influence of the kind ascribed to them. Those drugs which acted by constricting the peripheral arterioles would have an injurious effect, as would all drugs which tended to raise the blood-pressure. Dr. West alluded to the fact that hæmoptysis tended to cease of itself. He thought that saline purgatives, and possibly diuretics, were of value in hæmoptysis.—Dr. SYMES THOMPSON thought that the hæmorrhage itself, in a large number of cases, relieved the condition which set it up, and that harm would be done by checking it as a matter of routine.—Dr. THOROWGOOD approved of opium, but did not like either ergot or digitalis.—Dr. ROUTH was in favour of ergot or oil of turpentine, from the use of which he had seen great benefit.—Dr. GREEN said he remembered a saying, that it was the last drug and the last doctor generally got the credit of the cure.—Dr. T. GALE, of Massachusetts, said he had published an article on the treatment of hæmoptysis by means of ergot in 1847, and nothing had since occurred to shake his confidence in its use. It was much used in the States in full doses.—Dr. ANGEL MONEY thought the quantity of blood lost was of less consequence, as regarded a fatal result, than the rapidity with which it was lost.—Dr. ACLAND wished to ascertain what the views were with respect to the induction of pneumothorax for hæmoptysis.—Dr. FOWLER said the operation in the published case was fairly successful, and it was only undertaken in the presence of symptoms menacing an immediately fatal result.—The PRESIDENT said he had always deprecated the use of the astringent hæmostatics as unreasonable. He approved of the saline aperients and opium, and thought that ergot was certainly of use in the treatment of pulmonary hæmorrhage.—Dr. WEST, in reply, said that hæmorrhage did not come exclusively from aneurysms, but also from lacerated vessels. He did not understand the meaning of the expression "congestive hæmorrhage." As to the induction of pneumothorax, he remembered the case of a patient, who was suffering from pneumothorax, who, notwithstanding, subsequently died of hæmoptysis from the collapsed lung.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 15TH, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Syphilitic Ulcerative Tracheitis and Bronchitis.—Mr. QUARRY SILCOCK showed specimens of syphilitic ulceration of the trachea and bronchus taken from a soldier, aged 32, who died in St. Mary's Hospital, under the care of Dr. Broadbent. The trachea presented a number of small ulcers, some laying bare the perichondrium of the cartilages. The ulceration commenced just below the vocal cords, and extended into the bronchi and their divisions. Both lungs exhibited patches of grey hepatisation. The patient had contracted syphilis in 1877; for a year before admission, he had suffered from bronchitis, which was intractable to treatment. He died from the effects of secondary pneumonia. A parallel case to the present one was published in the twentieth volume of the Society's *Transactions* by Dr. Payne, but in that case there was no history of syphilis, although the condition was attributed to that disease. In all probability, syphilitic ulceration of the trachea and bronchi was much more common than was generally supposed, and perhaps the efficacy of iodide of potassium in some forms of bronchitis might be due to the specific action of that drug. Syphilis as a cause of intractable chronic bronchitis ought, he thought, to be remembered with a view to treatment.—Dr. GOODHART thought that, though it was common to see scars, yet it was uncommon to meet with actual ulceration in the trachea.—Dr. PERCY KIDD thought the wide extent of the ulceration was the most remarkable fact in the case. He had met with one case, where ulceration near the bifurcation of the trachea had caused narrowing of the bronchial tubes.—The PRESIDENT said that, some years ago, he had shown a specimen presenting a somewhat similar condition; he at the time attributed it to tubercle, but he was under the impression that the patient had had syphilis. There was extensive ulceration, and the cartilages were exposed.

Internal Anthrax.—Mr. JOHN POLAND showed specimens taken from a case of anthrax, which, during life, presented symptoms of meningitis, with delirium and tetanic spasms. A short account of this case, with a chromo-lithograph of the intestinal lesion, was given in the *BRITISH MEDICAL JOURNAL* for June 14th, 1884. A bargeman, aged 25, was admitted into Guy's Hospital, under the care of Mr. Bryant, on April 20th, 1884. Three days previously, he had been unloading hides ("Chinese kips"), which gave off clouds of dust. It

was most likely that infection had taken place through the lungs. The same day, he was seized with pains in the head and stomach; the next day, he had diarrhoea; and, on the day before admission, vomiting commenced. On admission, he was drowsy. The pupils were dilated; the temperature 103°, with pains in the front and back of the head. Soon afterwards, he vomited, and rapidly became comatose, with violent convulsive fits, accompanied by tetanic spasms of the extremities. Some of the attacks were accompanied by opisthotonos. Deep coma ensued, and death in ten hours and a half after admission. Cheyne-Stokes respiration was present during the last two hours of life. At the necropsy, an anthracoid affection of the stomach, intestine, and lungs was found, as well as very extensive meningeal infiltration of blood beneath the arachnoid, spinal as well as cerebral. There were also some small hemorrhages at the skin of the back, which would probably have become the seat of "secondary anthrax-pustules." It was the first case, recognised as such, without external lesion, that had occurred in London. A point of much interest was the extensive meningeal lesions, with the accompanying nerve-symptoms. No bacilli of anthrax were found in any of the organs; this was thought to be due to decomposition, which was known to have the effect of destroying these bacilli. In the cases that had died with internal lesions at Guy's Hospital, affections of the stomach, intestines, and lungs were present, and, to a slight extent, meningeal extravasation. At Bradford, affection of the lung was most commonly noted (*Woolsorters' disease*). Since Mr. Davies-Colley had recorded, in the *Transactions of the Royal Medical and Chirurgical Society*, 1882, the seventeen cases that had been observed in Guy's Hospital, thirty-one others had occurred, making a total of forty-eight cases of external anthrax. Of these forty-eight cases, nine died, about 18 per cent.; of these nine, four had characteristic and well-marked internal lesions, and five had oedema of the glottis. In the thirty-nine cases that recovered, the pustule was either excised or thoroughly destroyed soon after admission to hospital; in fifteen of these, constitutional symptoms to a greater or less degree were present, giving grounds for great hopes of recovery in these cases, provided that the internal affection be not too advanced.

Diseases of the Circulatory Organs in Animals.—Mr. J. BLAND SUTTON made a communication on diseases of the organs of circulation in the lower animals, in which he pointed out that they were comparatively rare. Pericarditis might originate in injuries, perlsucht, parasites, and extension from simple or tubercular pleurisy. Horses suffered from rheumatic fever, which was frequently complicated by pericarditis. Mr. Sutton expressed the belief that the hippopotamus, beaver, and other animals which frequent the water, suffered from rheumatism; uncomplicated pericarditis was met with in these animals, and the animals before death appeared to be ill, and to suffer pain on movement. He showed specimens of parasitic pericarditis from a lizard and a peacock; of "rheumatic" pericarditis from a beaver, an antelope, and a monkey; and of pericarditis by extension from a tiger, a coote-mondi, and other animals. According to Rayer, the first case of pericardial effusion described was observed by Galen in a monkey. Mr. Sutton also showed a specimen from a monkey where a mass of lymphosarcoma enveloped the pericardium, and had caused effusion into the pericardium. Cows were liable to traumatic pericarditis, produced by sharp-pointed foreign bodies, which, when swallowed, occasionally penetrated the psalterium and diaphragm, to reach the pericardium. White patches on the pericardium were frequent in some birds and monkeys as a consequence of rickety deformity; the rickety curvature in young monkeys might be so severe that the sternum became flexed, and the heart so squeezed that the muscular substance of the wall of the right ventricle was atrophied. He suggested that this condition might be found in children. Specimens of endocarditis with valvular disease were shown from the sheep, deer, antelope, and bear. Atheroma was found fairly often in the posterior aorta of the horse. Other diseases of vessels were rare. In wild animals, he had only met with atheroma twice (in a buffalo and in a zebu), and aneurysm three times. Vermineous aneurysm did not occur in man, and was confined to domestic animals; it occurred in nearly 90 per cent. of adult asses, and was not unfrequent in horses; the presence of worms in the tunic of an artery was recognised by Ruysch in 1665. Arterio-capillary fibrosis of the medium-sized arteries associated with chronic interstitial nephritis was found in horses and cattle.—Mr. SUTTON said that, in the Museum of University College, there was a specimen of verminous aneurysm in the dog.—Mr. EVE inquired whether verminous aneurysms occurred in the horse. In the museum of St. Bartholomew's Hospital was a specimen which showed several worms in the mesenteric artery of the horse. If all the animals were resident in the Zoological Gardens, that might account for the absence of strain.—Mr. HARRISON CRIPPS said that, in a limited experience, he had met with

aneurysm of the aorta in two foxhounds. He recalled, also, that the celebrated greyhound "Master M'Grath," was said to have died of aneurysm.—Mr. SUTTON suggested that, perhaps, aneurysms in dogs were commonly due to verminous aneurysm. Vermineous aneurysm occurred in horses with considerable frequency. The specimens had been obtained from the Veterinary College, and from the animals slaughtered as food for the carnivora at the Zoological Gardens.

Central Sarcoma of Femur.—Mr. D'ARCY POWER showed a central sarcoma of the shaft of the femur which occurred in the practice of Mr. Langton. Pain had been felt in the limb for a period of four months, and an oval tumour could be felt in the long axis of the thigh. The bone broke whilst the patient, a young man aged 28, was turning in his bed. Amputation was performed, and the patient made a good recovery. The specimen consisted of a portion of the shaft of the femur, which was excavated, without being much expanded, until only a thin shell of bone was left, except on the external surface, where the bone had been thickened by a new deposit, in such a manner as to form an oval swelling. The new growth was a tapering mass, five inches in length by an inch and a half in diameter at its thickest portion. It was very loosely inserted into the shaft of the femur. Microscopically, it was a round-celled sarcoma, which appeared to be undergoing calcification. The tumour appeared to have begun in the centre of the length of the femur, and to have grown upwards toward the great trochanter. The chief points of interest in the specimen were its position, its localised nature, and the slight amount of expansion which the femur had undergone, compared with the large amount of absorption which had taken place in the bone.

Rhinolith.—Mr. STOKER showed a rhinolith removed from a female patient suffering from follicular pharyngitis. The patient was unaware of the existence of the calculus, but after its removal the symptoms disappeared. The calculus was composed of phosphate of lime, and arranged in concentric laminae. The nucleus had probably been a blood-clot. Records of such calculi were rare. Professor Chiari had been only able to collect forty-two cases, but two or three more had been recorded, one by Mr. Clutton.—Mr. CLUTTON said that the rhinolith which he had shown to the Society probably originated in connection with a blood-clot.

Sarcoma of Skin.—Mr. SWINFORD EDWARDS showed a specimen of round-celled sarcoma of the skin. The patient was a woman, aged 45. About ten months before death, which was preceded by pyrexia and a typhoid condition, a small pimple appeared on the inner side of the thigh, ulcerated, and extended so that a large ulcer, occupying the the upper two-thirds of the thigh, was produced before death; several nodules surrounded the ulcer; a few papules were to be seen over the hypogastric and right iliac regions. At the necropsy, the lumbar glands were not found to be enlarged; the sigmoid flexure was constricted, probably congenitally; and the lower part of the colon was dilated. Köbner had recorded two cases of spindle-celled sarcoma of the skin and subcutaneous tissue. (*Arch. für Derm. und Syph.*, 1869.) Hardaway had reported a case of alveolar sarcoma of the skin of the face. Dr. Hyde, of Chicago, had recently published a case of multiple round-celled sarcoma affecting the skin of the body, limbs, and face.—Dr. RADCLIFFE CROCKER thought the case came under the class to which the French applied the term *mycosis fungoides*. There were two forms of the disease, one in which generalisation occurred, and the other in which the disease was local, but more rapid. Vidal and Brocq held that the disease was lympho-sarcoma.—Mr. EVE mentioned a similar case recorded by Dr. Alexander. The sections exhibited showed an unusual amount of tissue between the cells.—Mr. MAKIN related a case, occurring in a middle-aged man, on whom numerous small scattered nodules were present, much resembling keloid. The tumours were removed two and a half years ago, and the patient had not since been heard of.—Mr. BUTLIN suggested that it might possibly be a parasitic disease, of the same class as lupus.—Dr. CROCKER said that micrococci had been found by Rindfleisch and Auspitz.

Primary Melanotic Sarcoma of Liver.—Dr. HALE WHITE showed a specimen of primary melanotic sarcoma of the liver from a man, aged 66. When admitted into Guy's Hospital, he was emaciated, and the liver was enlarged. After death, it was found that the organ weighed 122½ ounces; the left lobe and the greater part of the right was replaced by a firm new growth of greyish green colour, with several black foliaceous bands running through it. Several round black masses were scattered through the organ, and two white umbilicated masses, looking like ordinary carcinoma, were also present. The lymphatic glands in the portal fissure and on the surface of the liver contained black pigment. The skin presented two moles and two warts, but no other lesions were present in any part of the body.

The growth was a genuine carcinoma. In the area of the old portal canals, the fibrous tissue was so marked that the growth there deserved the name of scirrhus; the pigmentation was most marked in the cells in this scirrhus area. The lymphatic glands were enlarged from chronic inflammation, and contained black pigment; the moles and warts were healthy, as were the eyes and orbits. Three cases, at least, of primary melanotic sarcoma of the liver had been recorded, but none of primary melanotic carcinoma. There could be no doubt that the growth was a true carcinoma, and not a malignant adenoma. It therefore disproved Schueppel's statement that melanotic tumours of the liver were always sarcomata.—Mr. SHATTOCK observed that Dr. Hale White had stated that the growths had a green tinge; this suggested that the pigmentation might be biliary, as in the cases shown by Mr. Paul.—Dr. W. B. HADDEN also referred to the colouration of hepatic tumours by bile-pigment.—Dr. GOODHART, while considering the suggestion interesting, could not agree that it applied to the specimen shown, which widely differed from Mr. Paul's cases.—Dr. HALE WHITE briefly replied in similar terms.

Multiple Sarcoma.—Mr. ARBUTHNOT LANE read a note of a case of multiple sarcomata occurring in a feeble old woman who had been confined to bed for some time. She was deaf and blind. No paralysis or mental aberration was observed, and she seemed to die of old age. There was a sarcoma as large as a walnut in the centre of each innominate bone; they occupied the middle curved line, two inches below the iliac crest, and were quite symmetrical in form and position. In the left ischium, immediately above and in front of the tuberosity, was another of the same size. In the ninth, tenth, and eleventh ribs of the left side, three other tumours were seen arranged in a vertical line. In the body of the seventh cervical vertebra, there was a growth which occupied the whole centre of the body of the bone. It had a well defined margin anteriorly, where it encroached on the anterior surface of the body, and posteriorly it had destroyed a portion of the posterior surface of the body and part of the upper articular process. It did not extend along the sixth nerves, nor did it appear to compress the cord. No other growths were found in the body, which was dissected throughout. The growth consisted of round and spindle cells, and was rapidly undergoing osseous change. They did not appear to have affected the duration of life.

Card Specimens.—Mr. E. H. FENWICK: (1) Tubercular Ulcers of Bladder; (2) Contracted Bladder, supervening on Atony. Mr. SHATTOCK: Woody Tumour on Pine Branch, bearing out Cohnheim's theory of the origin of tumours. Mr. MORGAN: A Siren Monster. Mr. BARKER: (1) Cancer of both Breasts (living); (2) Arrest of Development of Humerus, supposed to be attributable to a dislocation in childhood (living); (3) Arrest of Development of Right Femur, due to disease of upper epiphysis (living).

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, DECEMBER 10TH, 1885.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair.

Diabetic Retinitis.—A patient suffering from diabetic retinitis was shown by Mr. E. NETTLESHIP. Scattered over the fundus were a large number of white patches and spots. He considered that they differed in position, mode of arrangement, and colour, from those of albuminuric retinitis; he had noticed differences of this kind in a few other cases of diabetic retinitis. The yellow-spot region of the right side was occupied by a dense irregular mass of the white deposit; there was no tendency to radiate arrangement round the yellow spot. The general tint of the spots was, he thought, yellower than in albuminuric retinitis. The patient was a man, aged 50, with cataract on the left side. The appearances had remained unaltered since January, 1885.—Dr. STEPHEN MACKENZIE pointed out that Lebert had shown that, though the majority of early observers had assumed that retinitis in diabetes was due to albuminuria, retinitis might occur in connection with diabetes independently of albuminuria. He did not think the appearances characteristic; anaemia, cerebral tumour occasionally, and lead-palsy, all produced retinal changes closely resembling those of albuminuric retinitis. In a case reported by Lebert, and in another reported by himself, there were hæmorrhages into the vitreous body. He inquired whether the combination of hæmorrhage into the vitreous body with retinitis could be considered characteristic of diabetic retinitis.—Mr. NETTLESHIP agreed that retinitis with retinal hæmorrhages and white patches, combined with hæmorrhage into the vitreous body, pointed very strongly to diabetes. The question on which he felt doubtful was, whether an eye, in the state seen in the patient, was a later stage of the same condition, and whether the changes were character-

istic of diabetes, as he was inclined to think.—Dr. S. WEST was inclined to agree with Mr. NettleSHIP. He did not think the appearances bore any close resemblance to albuminuric retinitis.—Mr. ADAMS FROST suggested that the changes in the retina in the patient resembled those seen in albuminuric retinitis in the late stage, and that they appeared to be unusual, because patients with albuminuric retinitis seldom survived long enough.—Mr. MCHARDY suggested that diabetes was sometimes overlooked, owing to this resemblance.

Extraction of Chip of Iron by the Electro-magnet.—Mr. NETTLESHIP showed a patient from whose eye a chip of iron had been removed with the electro-magnet. No reaction occurred, but the retina became detached; and it was, therefore, very doubtful whether the eye would ever be useful.

Retinal Detachment relieved by Scleral Puncture.—Dr. W. A. BRAILEY again showed the patient exhibited at the last meeting; the retinal detachment had been treated by scleral puncture, and had disappeared.

Essential Shrinking of the Conjunctiva.—Mr. ANDERSON CRITCHETT and Mr. JULEE showed two patients the subjects of essential shrinking of the conjunctiva (so-called pemphigus of the conjunctiva). One case—that of a farmer, aged 53—was of special interest, as it had been under observation from its commencement. He came under Dr. Felix Semon's care in September, 1884, on account of an affection of the right nostril, which resembled syphilitic perichondritis and periostitis. In June, 1885, he was transferred to Mr. NettleSHIP's care, on account of epiphora and conjunctivitis, with partial obliteration of the lower cul-de-sac. The conjunctiva of the upper lid was marked by scars parallel to the free border. The affection went on progressively from bad to worse in the right eye; and in August, 1885, slight conjunctivitis of the left eye was noticed. The right eye had finally become almost blind. Both eyelids were thickened, and partly adherent to the globe. Both culs-de-sac were obliterated; and, though the globe moved pretty freely, the lids moved with it. The lashes were inverted, and the cornea opaque and vascular. Similar shrinking of the conjunctiva had commenced in the left eye; the lashes were turning inwards; and the culs-de-sac were so much diminished that the lids could not be everted without difficulty. The conjunctiva was red and velvety, but showed no scars. Vision was still fairly good. The man gave a distinct history of syphilis ten years earlier. No sign of pemphigus could be discovered on the body, though the man stated that he had seen bullæ on his palate. Mr. Critchett expressed the opinion that the condition had no relation to pemphigus, but was an essential shrinking of the conjunctiva, similar to that described by Gräfe (*Arch. Oph.*, vol. xxiv) and Bämler (*Monatsblätter für Aug.*, August, 1885).—Dr. F. SEMON said that the patient came under his care in September, 1884, suffering from a muco-purulent discharge from the nose, which was sometimes streaked with blood. Beyond slight superficial ulceration of the mucous membrane, there was nothing to account for the symptoms. At that time, the only part affected was the left nostril. Mercury and iodide of potassium, given separately and in combination, produced no improvement; but, while he was under this treatment, on one occasion, several large bullæ appeared, and the skin of the face was in a brawny condition, resembling erysipelas. This subsided after withdrawing the drug. Conjunctivitis soon afterwards appeared, and some small seriginous ulcerations of the mouth. He had been impressed by the infective character of the malady, and had suggested that it might be a case of very slowly advancing glanders.—Mr. LANG quoted a case recorded by Schweigger, which agreed closely with the patient shown by Mr. Anderson Critchett. Cases of the disease had been seen at all ages, and in many of the cases there was no suspicion of a specific history.—Mr. JULEE was struck by the exceedingly localised nature of the disease in Mr. Lang's cases. In a certain proportion of the cases, no pemphigus was ever observed; while in others, where bullæ were seen, the amount of shrinkage of the conjunctiva was more extensive.—Mr. NETTLESHIP said that, even if the disease were allied to pemphigus, there was a good deal more extensive inflammation than mere conjunctivitis, for there was great thickening of the lid.—Mr. MALCOLM MORRIS thought that the use of the term pemphigus required justification. The presence of a syphilitic history in certain of the cases suggested that the disease was a late syphilitic lesion. The slow progress of the case, the occurrence of new growth, probably inflammatory, in the skin, seemed, however, to show that the disease was more allied to rhinoscleroma.

Compression of Optic Chiasma.—Mr. QUARRY SILCOCK showed a specimen of sarcomatous tumour, springing from the pituitary fossa, and compressing the optic chiasma. The chiasma was elongated and flattened. The patient was a needlewoman, aged 25, who was admitted into St. Mary's Hospital in a comatose condition; she

had been able to do her work up to two days earlier. There had been, so far as could be ascertained, no defect of vision. The optic nerves were inflamed, but there was no evidence of degeneration.

Card Cases.—Mr. W. H. JESSOP: (1) Large Semicircular Retinal Haemorrhage, near the yellow spot; (2) Detachment of Retina (living patient). Mr. JULER: Gumma of Iris (living patient).

Double Optic Neuritis after a Fall.—Dr. SAMUEL WEST related the case of a girl, aged 11, who was admitted into hospital with the history that, one month before, she had fallen and struck her head; that two days later she had a fit; and subsequently, on several occasions, short attacks of unconsciousness, and that she had gradually grown feebler. There was no paralysis, and no objective symptom beyond double optic neuritis; vision was good, Jäger 1 being read with facility. Under treatment by iodide of potassium and mercury, for about ten weeks, the optic neuritis finally completely disappeared. There was no evident hypermetropia. Some conversation, in which Mr. WARREN TAY, Dr. STEPHEN MACKENZIE, and Mr. JULER took part, ensued; and it was pointed out that children, suffering from errors of refraction, appeared to be peculiarly liable to suffer from optic neuritis after head-injury.

Contraction of the Field of Vision in Diphtherial Paralysis.—Mr. W. H. JESSOP had examined the field of vision in a child suffering from diphtherial paralysis when she first came under treatment, and had found considerable contraction of the field; this contraction of the field disappeared as the other symptoms improved.—Mr. LANG had recently examined one case of diphtherial paralysis where there was no limitation of the field of vision. He added that Dr. Uthoff had examined the field of vision in several cases, but had not recorded any limitation of the field.

Neuro-paralytic Ophthalmia.—The Honorary Secretary read for Mr. CHARLES HIGGINS the history of a case of paralysis of the fifth nerve, with corneal ulceration. The patient was a woman, aged 19, who had a large central corneal ulcer, small superficial ulcers on the skin of the temple and forehead, and total anaesthesia of the conjunctiva, and of all parts supplied by the right fifth nerve; wasting of the muscles of mastication occurred later. The eye was brought under the influence of atropine, and carefully covered; the patient was sent to the seaside, and the ulcers of the skin healed within six weeks; the corneal ulcer healed in eight months, leaving a dense leucoma; the anaesthesia still persisted, and there was some ulceration of the nostril, and styes on both eyelids; but the patient was otherwise in good health, and the eye on the affected side appeared to be, with the exception of the leucoma, quite normal.

Retinitis.—Dr. BRAILEY showed a girl, aged 12, the subject of congenital specific disease, in whose left eye were numerous white opaque striated retinal patches, very similar in appearance to opaque nerve-fibres. Since she was first seen, she had albuminuria; he regarded these as due to a retinitis, probably of renal origin; in addition, there were a few minute spots of choroiditis disseminata. The vision of each eye was defective, the left the more so; each was hypermetropic about 7 D, and astigmatic 1.5 D; glasses, however, produced no material improvement. There was long standing extensive suppuration of the bones of the left forearm and of both tibiae; no visceral enlargements could be detected. The case was accompanied by an ophthalmoscopic drawing.

ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.

FRIDAY, NOVEMBER 6TH, 1885.

T. EVELYN LITTLE, M.D., President, in the Chair.

Dr. C. F. MOORE showed an interesting case of herpes zoster.

Pathology of Lead-Paralysis.—Dr. WALLACE BEATTY read a paper on this subject. Having described the lesions found by different observers in the spinal cord, nerves, and muscles, and having discussed the theories put forward to account for the paralysis, he exhibited sections of the spinal cord of a man, aged 31, who was admitted into the Adelaide Hospital, under his care, suffering from lead-paralysis. The man died of uraemia. There appeared to be a marked change in the internal and anterior group of ganglion-cells of the anterior cornua in both the cervical and lumbar enlargements, especially in the latter. The cells were both fewer in number—some sections showing only one or two—and smaller than natural; some stained badly, and in many the processes were not distinct. The ganglion-cells of the lateral groups appeared quite normal. Round the central canal in both the cervical and lumbar enlargements, especially the lumbar, there was a large collection of cells. The number of these cells appeared to be considerably beyond the normal. No abnormality was found in the anterior nerve-roots.

—Dr. HENRY KENNEDY said the late Dr. Todd found lead in the sub-

stance of the brain of a person who died from lead-paralysis.—Dr. WALTER SMITH observed that the evidence, on the whole, pointed in the direction of central lesions, but he was not sure that they should not take into account lesions at both ends of the nerve-systems.—Dr. PURSER said it could not be affirmed that lead localised itself altogether in the centres of the nerve-system. Blue lines in gums were due to sulphide of lead. There were facts showing that lead also localised itself in the muscular system.—Dr. BEATTY briefly replied.

Ulcerative Endocarditis.—Dr. PURSER made a communication upon a case of ulcerative endocarditis, the second he had seen. The patient, a man, aged 22, had had rheumatic fever three or four years previously, and had lately been very intemperate in drink. On admission to hospital, he was delirious, very violent; temperature 104°, pulse regular and strong; he complained of pain in his head and ears. His heart and lungs were carefully examined, and found normal. The only lesion visible on his person was a small recent scar on one knuckle, surrounded by loosened epidermis. There was no glandular enlargement in the arm, nor anything abnormal in its veins or lymphatics. On October 24th, a careful examination could detect nothing abnormal in either heart or lungs, but, on the next day, Dr. Purser discovered a loud systolic valvular *bruit*, which had certainly not been present on the 24th. This determined him to the diagnosis of ulcerative endocarditis. The delirium and fever continued without much intermission till his death, which was preceded by oedema of the lungs, the *bruit* continuing all through. At the necropsy, haemorrhages were found in the brain, lungs, spleen, kidneys, intestines, and retina. The heart and its valves were practically healthy, with the exception of the mitral valve, whose posterior curtain was ulcerated and completely disorganised, the surface of the ulcer being ragged, and covered with a diphtheritic-like deposit. The microscope showed that this deposit, as well as the innumerable small haemorrhages in the various organs (except those in the lungs, in which no micrococci could be detected) were caused by masses of micrococci. Dr. Purser could find no other door of entrance for the micrococci in this case, than the small patch of abrasion on the knuckle. In the former case he had seen, there had been suppuration of one of the vesiculae seminales.—After some remarks by Dr. MACSWINEY and Dr. FRAZER, Dr. PURSER, in reply, said that, some years ago, an interesting paper was published by Professor Axel Key, in which he maintained that acute endocarditis was bacterial, and said that, after acute endocarditis, or rheumatic fever, he had in all cases found bacteria in the valves. He also sought to establish that the way in which the bacteria reached the valves was not by circulating in the blood, and then attaching themselves outside the valves, because, owing to the rush of blood, that was the last place which mechanical force would permit them to attach themselves, but that they reached them through the blood-vessels; and he said that was the reason why the endocardial manifestations commonly occurred at the point where the valves met. In the present case, he (Dr. Purser) could see many of the blood-vessels and valves completely filled up. Supposing that the micrococci entered through the young man's hand during the early days of his illness, while the high fever subsisted, they were circulating through the different parts of his body and plugging up the vessels; and, after a certain number of days, they excited inflammation, and formed the fungous masses, and then the clinical manifestation of endocarditis occurred. This hypothesis would also allow them to suppose that the affections of the distant parts of the body were not so exclusively secondary to the disease of the heart, as that the disease of the heart and of the other parts of the body were concomitant effects of the same cause.

Zonular Cataracts and Dental Malformations.—Mr. STORY exhibited two patients with double zonular cataracts, and teeth presenting marks due to arrest of development. A cast was shown of the similarly depressed teeth of another patient, who also possessed double zonular cataracts; and a fourth patient was present whose teeth exhibited the same defects, but who had had complete soft cataracts in both eyes. The history was given of another case, in which double zonular cataracts and arrested development of the teeth had been observed. Mr. Story alluded to the work done by Arlt, Horner, and Hutchinson, and to the different theories proposed to explain the connection between zonular cataract and dental malformations. He drew attention to the close analogy between the development of the crystalline lens and that of a tooth, and gave it, as his opinion, that any cause whatsoever interfering with the growth of the lens or of a tooth might produce the peculiar zonular cataract in the one, and the defects in the enamel of the other, which had been variously assigned to the action of convulsions, rickets, or mercury, by different authorities.—Dr. PURSER asked how layers of fibres in a state of degeneration could generate fresh healthy fibres. Multiplication of lens-fibres was the same as multiplication of any other epithelial cells.

He thought the case was an example of what was not uncommon in the growth of epithelial structures, namely, a sort of rhythmical change.—Dr. BENNETT would not call the teeth in question "rickety" teeth, because the sign of the rickety affection was reversed in them. He would be disposed to attribute the defect in the teeth to syphilis or mercury.—Dr. HENRY KENNEDY was inclined to look on the whole disease in the case as the result of struma.—Mr. A. BAKER remarked that dentists saw a large number of rickety teeth, and in very few cases did they find them accompanied with zonular cataract. He had seen a large number of cases of mercurial teeth, and had very seldom seen them connected with zonular cataract. The mercurial teeth were generally the six year old molars. The bicuspid teeth were generally free from this infection.—The PRESIDENT said the teeth now exhibited confirmed the observations of Mr. Baker. The bicuspid teeth were intact, while the front teeth had the mercurial characteristics.—Mr. STORY, in reply, said he did not contend that the disease in the teeth exhibited was due to rickets alone, nor did he mean to assert that the peculiar form of cataract which he had brought under notice was caused by rickets. He only used the term "rickety" in reference to these teeth, because it was the earliest expression by which teeth of the kind had been described. Professor Horner had found that, in twenty-five out of thirty-six cases of zonular cataract, teeth of this sort were present, and they also existed in all the cases of zonular cataract that he (Mr. Story) had seen.

MEDICAL SECTION.

OPENING MEETING, FRIDAY, NOVEMBER 20TH, 1885.

F. R. CRUISE, M.D., President, in the Chair.

President's Remarks.—The PRESIDENT (Dr. Cruise) referred to the excellent and comprehensive work of last session, and hoped that of the coming session might equal if not surpass it. The subject of cholera was of burning interest, and had been treated of last session in a paper of great ability. Although so fortunate as to escape a visitation of cholera this year, they knew not when it might arrive from the portions of Europe where it still lingered; and those who remembered the visitation of cholera in the autumn of 1866 would welcome any suggestions to combat so formidable an enemy.

Living Specimen.—Mr. ARTHUR BENSON exhibited a man who had an embolism of a branch of the central artery of the retina.

Specimens by Card.—Dr. DUFFEY showed the following. 1. A dilated and hypertrophied heart, with adherent and thickened pericardium, and general endocarditis, from a boy, aged 17. 2. Tubercular peritonitis. 3. General tuberculosis (?): parts shown: *a*, large fatty liver; *b*, portion of thickened mesentery, showing deposit; *c*, portion of small intestine, showing deposit; *d*, the cæcum and portion of large intestine, showing ulceration; *e*, heart and kidney, showing deposit on the latter. The patient was a female, aged 52.

Suggestions on the Treatment of Cholera.—This was the subject of a paper by Dr. JOHN R. BURKE. After preliminary observations, the subject was divided into two parts—*a*, Prophylaxis; and *b*, Treatment, divided into four parts, according to the stages of the disease, namely, (1) malaise, (2) diarrhoeal stage, (3) rice-water stage and collapse, (4) reaction. The author suggested that the patient should lie on the right side on a bed, to be tilted to that side by blocks under the legs, to relieve internal organs, promote circulation in the liver, and help, by gravitation, to stop discharges, as also to let them drain away into disinfecting vessels, the patient being laid on a water bed or a waterproof sheet, with the edges turned up. Peritonitis being not now so much dreaded as formerly, it was suggested that non-irritating, aseptic fluids should be allowed to gravitate gradually, as absorbed into the abdominal cavity, through a needle or cannula, strapped outside transversely to the abdominal walls, to prevent injury by spasm of the rectum. This would allow fluids to pass direct to the intestines, and spare drain on blood-vessels and tissues.—Dr. HENRY KENNEDY called attention to the use of saline injections into the veins, as adopted during the last epidemic in London. Experiments had been performed in presence of a number of students, and in some cases, after eighty ounces had been injected, the patient recovered.—Dr. H. C. TWEEDY said M. Roulière had recently published experiments on fifty-five cases of cholera in a very advanced stage of collapse, treated in the military hospital at Toulon. He had injected from one and a half to two grammes of serum in each case.—Deputy Inspector-General BURKE then replied.

True Relapse in Enteric Fever.—Dr. J. W. MOORE reported the case of Mrs. Mary B., aged 20, a domestic servant, who was admitted to Cork Street Fever Hospital, under his care, on Saturday, January 24th, 1885, on the ninth day of enteric fever. The area of splenic duiness was enlarged. There were several typical rose spots on the

trunk, and also some bluish spots, and there could be no doubt as to the diagnosis. The bowels were for some days free, but towards convalescence obstinate constipation was a prominent symptom. The pyrexia lasted for twenty-seven days, then subsided by lysis. The patient, in due time, went to a convalescent-home in the suburbs, where, after an apyrexial period lasting twenty-four days, febrile symptoms again set in. These ushered in another attack of true enteric fever, which ran its course in twenty-four days, and terminated favourably. There were rose spots in this second fever, and moderate diarrhoea existed for four days. Towards the close, constipation returned. Mrs. B. left hospital finally on April 15th, nearly three months after her first admission, and had since enjoyed good health. Dr. Moore alluded to two theories as to the etiology of relapse: (1) the recontamination of the blood with the virus of the disease as a result of non-elimination, owing to constipation; and (2) a similar recontamination of the blood in consequence of the commingling in the general current of the circulation after crisis of non-depurated blood, which had lain by in the enlarged and congested spleen, and so had escaped the purification of crisis.—Dr. M'SWINEY said the case presented some obstacles to diagnosis.—Dr. WILLIAM MOORE was under the impression that cases of relapse were more frequent than 10 per cent.—Dr. GORDON had no doubt that the relapses and the second fever arose from the contamination of another set of glands, which probably had not been implicated at first. The important point in the case was, that there was no complication to be dreaded so much in typhoid fever as constipation.—Dr. HENRY KENNEDY said that relapses in typhoid were more prevalent at some seasons than at others.—Dr. FINNY referred to the fact that constipation was now the rule rather than the exception. The danger of constipation might be averted, where the bowels could be moved by enemata. He did not consider a patient well until he saw the spleen reduced to its normal size. In reference to the secondary fever, Dr. Murchison, among other writers, suggested that rash was rare in relapse, and of a darker colour.—Dr. GRIMSHAW said Dr. Murchison did not consider there was *bonâ fide* relapse unless there were spots. Secondary fever could not be considered to be relapse of the original disease, and was extremely rare. He had not himself seen more than a dozen *bonâ fide* cases of relapse.—Dr. J. W. MOORE replied. True relapse was not so frequent as Dr. Kennedy seemed to think. Murchison's experience was 3 per cent. The spleen subsided very considerably after the period of the first attack. He thought Dr. Grimshaw was going too far when he considered the reappearance of rose spots necessary. Typhoid fever sometimes presented itself without a single rose spot. In the first attack, he suggested that the greatest mischief was low down in the ileum, and when relapse occurred it might be inferred that it was other glands high up in the ileum that were involved.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 11TH, 1885.

WALTER DICKSON, M.D., R.N., President, in the Chair.

President's Address.—The PRESIDENT delivered an address, entitled "Notes on some recent Epidemics at Home and Abroad." After paying tribute to the memory of Lord Shaftesbury, Mr. Netten Radcliffe, Inspector-General Thomas Colan, and Dr. Manson Fraser, who had died in the preceding year, and whose deaths had deprived the Society of their co-operation, the author proceeded to comment upon the value of medical service under the British Crown in India to the dusky millions whom Providence had committed to the charge of this country. In striking contrast had been the fate of the magnificent tropical empire acquired by the Spaniards in the sixteenth century, yet, even from this unpromising region, valuable contributions to epidemiology had reached the Society, and in the first volume of the *Transactions* memoirs were to be found on the outbreak of yellow fever and of hemorrhagic typhus in the Andes at abnormally high altitudes, as well as papers on diphtheria in Peru. Further information was wanted as to certain diseases, such as verruga, or the malignant bleeding wart of Peru, an endemic exanthem limited to the western slopes of the Andes. Another, but less formidable disease, requiring further elucidation, was the pinta or mal de los pintos, a cutaneous affection restricted to the West Coast of Mexico, Central America, and to the river-basins in the State of Venezuela and New Granada, and unknown where the mean temperature of the year was lower than 70°. On the eastern coast of South America, a fatal disease had appeared since 1864, which seemed to be identical with the beri-beri of India, but differed in being found far from the coast, and in attacking women. Referring to fevers of abnormal and exceptional type, an interesting account was given of disease

on board Her Majesty's ship *Thalia*, during a voyage to China in the year 1883, and the apparent relation between this affection and certain local unsanitary conditions was indicated. During the same year, a non-fatal epidemic of malarious remittent fever occurred among the crews of vessels ascending the Niger to attack a piratical town, the disease not appearing for some time after they had been dispersed in different directions, but subsequently attacking 268 in a total force of 283 persons. The latter half of that year was characterised by a great augmentation in the number of cases of venereal disease among seamen and marines; the ratio of such cases for the year 1883 being 280 per 1,000, as compared with an average of the previous ten years of 132 cases per 1,000. The epidemic prevalence of cholera in Spain then occupied the author's attention, and the extraordinary freedom of the neighbouring country of Portugal was discussed. In England, the most notable outbreaks of disease were the severe visitation of small-pox in London and its Essex suburb of West Ham, and the wide-spread epidemic of diarrhoea in Hull, where 20,000 persons, or about one-tenth of the population, were attacked with this disease, caused by the intermingling of a sewage-tainted stream with that which supplied the town with water. After reviewing the various circumstances which caused mortality, and especially the varying climatic conditions of England, Dr. Dickson referred to the difficulties which beset the sanitary reformer of the present time; and said that, without any further demand on the already oppressed ratepayer, a far more efficient and economical administration might be devised to supersede the present confused, divided, and perplexing muddle, which could not fairly be called organisation. In such a system, the medical officer should have a firmer and less dependent position than now fell to his lot too frequently, through the ignorant apathy or selfishness of those whose pecuniary interests were opposed to improvement in the dwellings and general condition of the poor.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

THURSDAY, DECEMBER 3RD, 1885.

C. A. NEWNHAM, M.R.C.S. Eng., in the Chair.

Medical Consultations.—Dr. S. A. SMITH (Bilston) read a paper on medical consultations, which subject he considered under three heads; 1. Those consultations held on a dying patient to satisfy the friends; 2. Those held at the request of a fussy relative; 3. Those held at the request of the medical attendant for diagnosis or treatment. After describing these in detail, Dr. Smith said that he thought: 1, that the abuses of the present system would best be remedied by adopting a graduated scale of charges to suit patients of different means; and 2, that consultants and general practitioners should hold the same relation to each other that counsel and solicitors do at present.—After remarks by Dr. LYCET, Mr. MAGRANE, and Mr. STILES, the discussion was adjourned till the next meeting.

Fracture of Base of Skull.—Mr. STILES showed a lad who had recovered from a fracture of the base of the skull.

Fibroma of Back.—Mr. JACKSON showed a fibroma removed from the back of a man, aged 49, and microscopic sections of a small growth removed from the rectum.

REVIEWS AND NOTICES.

SEVENTEENTH ANNUAL REPORT OF THE SANITARY COMMISSIONER OF THE NORTH-WESTERN PROVINCES AND OUDH. For the Year ending December 31st, 1884.

THE report, as usual, opens with an account of the meteorological phenomena for each month of the year. The peculiar features of the year's meteorological record are entered concisely. During certain parts of the year, cholera, small-pox, and fever were present in an epidemic form in some portions of the province. Cholera was most prevalent during the months of June, July, August, and September, in the country west of the Jumna, divided into four districts, the aggregate population of which amounts to 1,957,314. In the above months, 8,042 deaths from cholera were recorded therein, the ratio being 4.10 deaths per 1,000 of the population. The Sanitary Commissioner thinks that a consideration of the meteorological phenomena points to the fact, that the prevalence of cholera may have been influenced by the rainfall, and consequent moisture-ratio.

The fecundity of the population is very striking; and this is becoming more apparent year by year, as accuracy in registration increases. During the last four years, the birth-rate has stood at a higher figure than that of England; and, as the Secretary to the Government remarks, in his review of the report, "every improvement in

registration may be expected to raise it yet higher." The Sanitary Commissioner has occasion to notice, with regret, the want of interest in registration on the part of the district and municipal authorities in Allahabad; and we are glad to see that the attention of the magistrate and president of the municipal authorities is to be called to this matter by the Government of the North-Western Provinces.

The total deaths amounted to 1,555,342; of these, 823,620 were males, and 731,722 females—the ratios per 1,000 of male, female, and total population, respectively, being: males, 35.94; females, 34.52; total, 35.26. The average death-rate during the previous five years was 33.09.

The rise in the mortality was chiefly due to the prevalence of fever. It is a sad fact that years of abundant rainfall, bringing plenty, are also years of increased mortality from fever, due to the water-logging of the soil. The Sanitary Commissioner notes this fact; and unquestionably it is one of immense importance and enormous difficulty, only to be met by a well contrived and carefully carried out system of drainage, which landed-proprietors and farmers, in the comparatively limited area of this kingdom, know to be a costly operation. In relation to this subject, the Secretary to the Government presses on the attention of the Sanitary Commissioner the connection between fever and canals. Dr. Plane, in his present report, remarks that the mean fever-ratio of the twelve districts of canal-irrigation was, in 1884, 35.3, in comparison with the provincial fever-ratio of 24.3; and he is of opinion that, for the extreme difference of mortality from fever denoted by these figures, the only explanation is the excessive surface-moisture resulting from heavy rainfall in land where the spring-level has been permanently raised by canal-irrigation. It is evident that the relation between the prevalence of fever and canal-irrigation is one of extreme interest to the authorities; for the Secretary of the Government expresses something like dissatisfaction with the Deputy Sanitary Commissioner, and even with the Sanitary Commissioner himself, for not giving to the investigation "the attention which its prominence in the orders of Government ought to have secured to it." The Secretary to Government indulges in what we must characterise as a mild sneer at the Deputy Sanitary Commissioner's remark, that, where drainage is efficient, there will be comparatively little fever. "This," says the Secretary to Government, "is not perhaps quite new." No, it is not; but it is very true all the same; and it is just one of those truths that need to be repeated from time to time. "line upon line, precept upon precept," until it is acted upon, as well as understood and accepted as an elementary axiom in sanitation. Canal-irrigation, in such a country as India, is a great food-blessing to the people, but it is not without its dangers; and Dr. Grant plainly hints, in the remark sneered at for its want of novelty, that, unless it be accompanied by a system of drainage to prevent water-logging of the soil, the price paid for it must be an increased prevalence of, and mortality from, fever.

It appears, from a careful investigation made by Dr. Thompson, that cholera in an epidemic form has prevailed for three years in the district of Banda in each hot season. What will Dr. James Cunningham and his followers say to the fact, here clearly established, that the disease was brought to the district by pilgrims returning from the Allahabad Mag Mela of 1882? It lay dormant during the last month of the cold weather, broke out again in April, and increased in intensity until July. In May of the following year, it broke out again in the southern part of the district, attacking, as a rule, the same places that had suffered in 1882, and once more attaining its maximum of intensity in July. In 1884, it is noted that the places that had escaped in 1882-83 suffered most. The virulence of the disease, according to the rule which never varies, "was increased by the unsanitary condition of the towns and villages, and the very inferior water-supply, by which we suppose is meant impure water-supply. But why it should have attacked some places and avoided others, and why it should have been epidemic in one year in villages that entirely escaped in the year before or after, there is not much to show. That the vital importance of a pure water-supply is the question of questions for Indian sanitarians, there is much in this valuable Report to show; and the evidence collected by the Times Commissioner in his report on the cholera in Spain is an additional proof in the same direction.

Here we must pause, not for want of matter, but for want of space. The best thanks of sanitarians all over the world are due to Deputy Surgeon-General Plane for this valuable Report, which is a monument of well applied industry.

MEDICAL MAGISTRATE.—Dr. William Taylor, Alderman and Justice of the Peace for the Borough of Cardiff, has been placed on the Commission of the Peace for the county of Glamorganshire.

ACNE, ITS ETIOLOGY, PATHOLOGY, AND TREATMENT. By L. DUNCAN BULKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital, etc. London: J. and A. Churchill. 1885.

THIS voluminous monograph on the various forms of acne represents, as one may see at a glance, many years of careful observation; and great credit is due to a busy practitioner who devotes his leisure moments to such useful purpose. This disease, in whatever form it presents itself, is generally so refractory to treatment that, although not one affecting life, it constitutes a bugbear to the family-physician who is called upon to cure it. After a few anatomical and physiological considerations, followed by a remarkably copious nosological table, the author attacks the subject of its etiology, and shows to what a large extent acneiform eruptions are indicative of visceral disturbance and impaired health—facts which need to be borne in mind in deciding on the measures to be adopted for its removal. A selection of clinical cases are given in support of the author's views, and carefully executed woodcuts illustrate the more salient features of the different forms as seen under the microscope. The author has added a collection of prescriptions which he has found of service in the medicinal treatment. The book will doubtless be welcome to practitioners, more particularly those who make this branch their more especial study.

NOTES ON BOOKS.

CHRISTMAS BOOKS.

To the list of Christmas books noticed in our last issue may be added a photograph gift album published by T. T. Smith and Downes, 109, Queen Victoria Street, in which the borders surrounding the frames are decorated with a series of pictures in chromo-lithography, which add greatly to the interest and beauty of the book, and of which the designs are selected so as to make an appropriate framing for portraits selected under special circumstances. It is handsomely bound in morocco, and makes a charming addition to the list of seasonable presents. *Beacon Lights for God's Mariners* (E. Bollans and Co., 17, St. Bride Street) is a little book of selected texts gracefully printed in colour on cardboard pages. It is a charmingly executed gift of the serious and religious character.

Khirurgitcheskyy Vestnik (Surgical Herald). Edited by Dr. N. A. VELIAMINOFF. July, August, and September, 1885.—This triple number of the St. Petersburg surgical monthly opens with a paper on the Operative Treatment of Cysts of the Broad Uterine Ligaments (pp. 431-441), by Professor V. V. Sutugin, which contains a detailed account of two interesting cases, and discusses the differential diagnosis between the tumours, abscesses of the ligament, and hæmatocele. Dr. A. T. Bogaevsky, of Kremenchug, contributes a Case of Gastrostomy in Cancerous Stricture of the Oesophagus (pp. 442-47), the patient surviving three months after the operation; and a Successful Case of Laparotomy (Laparokelyphotomy) in Extra-uterine Pregnancy. Dr. A. B. Minin, of St. Petersburg, details a Case of Myxoma of the Thigh (pp. 448-53) in a woman, aged 70, successfully treated by extirpation; and a Case of Fibro-myxoma in the Tibia, growing out of the bone-marrow, in which Gritti's operation was performed. Dr. E. V. Pavloff furnishes the beginning of a Report on Surgical Practice in the Alexandrovsky and Sviato-Troitsky Obshtchinats in St. Petersburg. Dr. V. J. Nebykoff gives a similar Report of Surgical Practice in the Gubernsky Hospital in Mohilev for October, 1881, to August, 1883. Dr. M. Korobkin writes on Local Tuberculosis. Dr. M. A. Vasilieff publishes a series of surgical cases treated by Massage in the Warsaw Clinic. The remaining part of the number consists of correspondence from Vienna and Würzburg clinics, reviews of books, and reports from the current surgical press (forty-three in number, fifteen of them being taken from British and American periodicals).

Meditsinskia Pribavlenia v'v Morskoi Sbornikii (Medical Supplement to the Marine Review). (Edited by Dr. M. O. Perfilieff.) November, 1885.—This number contains Medical Report on Notes on Voyages of the corvet *Skobelev* in 1882-85, by Ship-Surgeon Dr. B. M. Golavsky, with many interesting details about Vladivostok, Sakhalin, and Kamtschatka. The next article is the concluding part of a Report on *Post Mortem* Examinations in the Cronstadt Marine Hospital for 1884, written by Prosecutor Dr. M. A. Lukin, to whose diligence and ability the Russian profession has been indebted for many an interesting case. In the present paper, there may be found cases of round ulcer of the duodenum, cancer of the omentum, perihepatic suppura-

tion in a patient with a single kidney, calcification of the whole spermatic cord, cysticercus of the right cardiac ventricle, poisoning by cyanide of potassium, etc. Dr. S. M. Karst communicates on cases of croupous pneumonia, which came under his observation during last winter in the Morskoi Kalinkovsky Hospital. A fourth and last paper, by Dr. M. N. Popoff, reviews the modern theories of hallucinations.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ODY HODGE AND CO.'S TRUSSES.

THIS firm has recently contrived a few further improvements in the construction of these instruments. The first (Fig. 1) is a modification of Wood's truss. It is contrived so that the pressure can be regulated to any degree, and in order to allow expansion the spring is disjointed at the back. This is very important, as a horse-shoe shaped pad is meant to ensure constant and accurate pressure upon the margins of the hernial opening, on the principle insisted upon by Mr. Wood, without enlarging the opening, as conical



Fig. 1.

pads are apt to do, whilst its resiliency serves to retain it in place, without exerting injurious pressure. The pad is moulded to any shape, to suit individual cases. Messrs. Hodge have also contrived a soft pad consisting of two bags of rubber, inflated with air, to fit at the back of this, or any other form of truss.

The circular hard rubber truss is improved by a spiral pad fitted to the front (Fig. 2). The triangular figure in the middle of the wood-

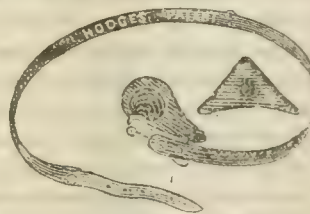


Fig. 2.

cut represents a special moomain or rubber pad for large irreducible scrotal herniæ. It is hollowed to lodge the protruding bowel.

The non-metallic band (Fig. 3) is an improvement upon the moomain lever spring-truss. It ensures a steady even pressure, and the surface of the pad is so formed as to cause it to keep in place, without slipping.

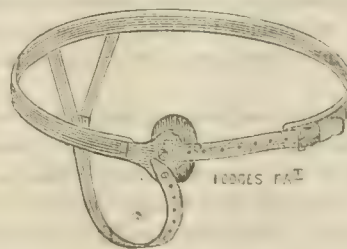


Fig. 3.

We are informed that all these contrivances have met with the high approval of surgeons who have had great experience in the treatment of rupture.

MEDICAL MAGISTRATE.—Dr. James Atkinson has been placed on the commission of the peace for the borough of Crewe.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 19th, 1885.

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THE CASE OF DR. BRADLEY.

THE report, which we publish at some length, of a presentation to Dr. Bradley, of Chesterfield, has deep significance, and will touch the heart of every reader. The trials of medical life are seriously aggravated by the sense of danger which such cases bring home to the minds of the most cautious and the most pure. It is not the first case of the kind; it is much to be feared that it will not be the last. Only recently, a case occurred at Aldershot, in which a like charge, urged before the Criminal Court, was triumphantly and happily refuted; but the dangers are obvious, the attack insidious, and the means of defence imperfect and not always at hand. It is a serious aggravation of these dangers that such charges are not always made out of pure wickedness, but may be based upon delusion; and the hysterical delusions under which these charges originate may be concealed or non-existent until aroused by accidental circumstances. The administration of an anæsthetic, any physical and passing derangement of uterine function, or temporary disturbance, reflex or direct, of the brain, may give rise to such delusions. Impressions thus produced are apt to be detailed, picturesque, and impressive to the public imagination. The mysterious conditions under which they arise cannot easily be explained to a jury; for to appreciate them requires a great deal of medical knowledge, a belief in medical records and opinions, which to the stolid intelligence of average jurymen may seem superstitious and absurd. Lawyers and judges are alike sceptical and incredulous of medical theory and experience, in respect to even the more permanent affections of the mind and their relation to physical conditions. The records of temporary aberrations and delusions often read even to ourselves almost as fairy tales. Hysteria in its manifold manifestations, hypnotism—a new-coined word for a long observed but still unexplained phenomenon—are still biological mysteries, imperfectly investigated, and of which the explanation is mainly hypothetical.

The records of Charcot and his school disclosed marvellous eccentricities, precisely bearing on cases of this character, which, even now, are to physicians of this country partially unknown, and would, unless carefully examined, and though creditably attested, seem incredible to the many. Such cases, when they occur in medical practice, are rare; and even when their phenomena are most striking, their character and meaning are often unrecognised. When they occur as merely clinical incidents, calling for special medical skill and knowledge to unravel them, the ordinary medical observer not uncommonly fails to appreciate their significance, or to trace them to their true cause.

Of this, many instances must be within the experience of practising physicians, and some have come to our knowledge, both publicly and privately. When, however, such delusions first manifest themselves in the form of criminal charges, a fresh complication is introduced, which may lead easily, and has probably often, certainly in some cases, led to direful injustice. The vital interests of the only skilled witness concerned are at once thrown so strongly into the shadow by the circumstances under which he is put upon his defence, that his voice is powerless. Antecedent warnings may have been absent, or the key of them may be in other hands, and rest with those who have neither the knowledge nor the will to aid in unlocking the secrets; or there may be even no preliminary conditions which can throw light upon the case. In such circumstances, it goes hard, indeed, with the medical practitioner, who is put upon his trial, and who becomes the victim of circumstances in which he is an innocent sufferer. The appearances are already against him to the legal mind, and the superficial evidence is such as to leave him no valid legal answer, or one which the judge and jury are unable to understand, so that it fails to carry conviction to their minds. Under such circumstances, the fiduciary position of the medical man seems to add a deeper dye to the offence charged. His personal character, his past life, the esteem with which he is surrounded, go for nothing; all are blasted in one lightning stroke, and even the legal punishment he receives is but a small part of the suffering which he endures and the loss which he encounters: health, reputation, the material means of living, and nearly all that makes life valuable or endurable, vanish in a moment. Hard as the punishment is for the guilty, it is excruciating to the innocent.

It is not surprising that, under such circumstances, medical men are found to rally to the aid of the innocent sufferer, and to do the very little they can to make such reparation as the law refused to make. Dr. Bradley has been so far fortunate, that he has been released under circumstances which free his character from stain. The public and striking testimony, borne by so considerable a body of eminent persons in his profession, and by his surrounding medical brethren, will go far to heal the wounds which cruel fate has inflicted on him. No wonder that he and his wife have suffered in health; such mental agony and such cruel wrongs bring with them a fatal legacy of physical suffering. Let us hope that the part which his medical brethren have taken will do much to repair the injuries inflicted, and to lessen the effect of the unmerited suffering through which he has gone.

There remains the inevitable consideration of how such incidents can be best warded off by the private action of the individual, or how far collective action can be taken to assist those who are threatened with such calamities. It is, perhaps, idle to preach caution and prudence to medical men who are called upon, as most are called upon, to have professional care of women suffering from uterine affections, or to have ordinary medical charge of women. An exaggerated sense of suspicion would undermine the ordinary relations of medical men to their patients, and would magnify individual misfortunes of the most exceptional character into the basis of a rule which it would be hardly possible to carry out in the daily work of the practitioner. Every man's sense of prudence and of delicacy would suggest to him innumerable small precautions, which incidents such as those to which we have referred and such as this misfortune of Dr. Bradley painfully emphasise. No doubt, there are cases which no wisdom can foresee—aberrations which no sagacity can detect; and no doubt, also, there are circumstances in which private malice and

criminal conspiracy may involve even the most innocent in an inextricable net of criminal appearances. It is hard to offer counsel in such cases; but it is impossible not to foresee that they may occur in the future as they have in the past.

It has more than once been suggested that collective means might be taken to establish a fund by which assistance in meeting the cost of such attacks should be always at hand, and at the disposal of a committee or public body. Such a proposal was made in the case of the large fund collected in London last year, under the auspices of Sir William Jenner and Dr. Mahomed, for the defence of a metropolitan practitioner who was subjected to a series of actions in respect to a case of diphtheria, in which he had allowed the parent to apply his lips to the wound after tracheotomy.

The proposition then made was one which was, we believe, very carefully considered, but was not acted on. Great difficulties, it was understood, were foreseen in the administration of such a fund. The calls upon it would often be such as it would at once be difficult for the medical committee to accept, and still more dangerous and injurious for them to refuse. The existence of such a fund, in the hands of persons bound to administer it as a sort of charitable fund on a public basis, would involve them in an arduous and delicate responsibility, and call for preliminary decision as to the *prima facie* merits of the numerous applications which might be made. To undertake cases which proved to be indefensible, would expose them and the whole profession to serious moral reproach. To decline such applications would be at once to reflect a stigma upon the applicant, and to prejudice his future case in a manner which would easily be used against him in the hands of lawyers; this would of itself be so obviously dangerous, that the fear of it might lead to very lax proceeding in the administration of the fund. These, we believe, were some of the governing considerations which induced the influential and independent committee, formed last year, to decline to receive or administer any surplus for the establishment of a permanent fund; and these, no doubt, are considerations which would have to be held in view in any future proposals for the use of funds belonging to the profession, or in the hands of any medical benevolent association. On the other hand, there is an evident movement towards the formation of a mutual defence or guarantee fund of the kind specially established for the purpose, administered by legal hands, and taking the form of a guarantee or defence society. The problem may, perhaps, best be solved in this way. There are some, as the correspondence in our columns has recently shown, who suggest that the British Medical Association should, notwithstanding the considerations mentioned, and the unforeseen burdens which they might impose, undertake this as one of its functions. That is a matter on which we can pronounce no opinion. It is one which has certainly not for the first time presented itself to the minds of the representatives of the Branches. We advert to it only because such a case as this of Dr. Bradley, taken in connection with the correspondence which we recently published, cannot but recall to the mind these suggestions and the various difficulties which surround their practical operation. In any case, there is reason for hearty congratulation that, when any special case of hardship occurs, the members of the medical profession are deeply moved, and are stirred to such a generous support and protest as are recorded in our columns to-day.

DR. L. H. ORMSBY has been placed on the Commission of the Peace for the County Dublin.

THE TITLE OF DOCTOR.

THE anomalous fact that a large proportion of the medical practitioners in England, including not a few of the ablest and most successful general practitioners, have no legal right to use the title of doctor, and, under existing regulations, no reasonable opportunity of obtaining such a right, has at length fairly attracted the attention which it deserves. If parents or guardians possess the necessary foresight or knowledge, the young student is sent to Edinburgh, or to Cambridge, and, if of average diligence, obtains the degree of M.B.; if, on the other hand, attracted by the acknowledged excellence of the medical teaching in London, he enter one of the metropolitan medical schools, he is apt to find himself, after the expenditure of an equal amount of time, money, and diligence, entirely debarred from obtaining a degree, and by so much at a disadvantage.

The student of medicine in London does, as a matter of fact, already enjoy many, and, in the case of a fortunate minority, all the advantages of the collegiate system; yet a large proportion of such students are denied the customary crown of such an education, because the medical colleges do not form integral or constituents parts of an university. The scheme now under discussion at the Royal Colleges of Physicians and Surgeons would meet the difficulty by giving to their conjoint board the functions of an university.

It is a common error to suppose that universities are so called because they profess to teach universal learning. In a small volume full of curious learning, *On the Origin of Universities and Academical Degrees*, the late Professor Henry Malden combated this error just half a century ago. In the language of the civil law, he says, all corporations "were called universitates, as forming one whole out of many individuals;" subsequently, the term was confined to a corporation possessing the power of granting degrees. The University of Paris, probably the oldest in existence, consisted at one time only of the faculty of arts; and it was only towards the end of the thirteenth century that separate faculties of theology, law, and medicine, came into existence. Colleges and hostels were founded at about the same period, and arose out of the efforts of charitable persons to counteract the extortions of the persons who let lodgings. The colleges and hostels were placed under the direction of certain graduates, who at first assisted students to prepare for the university lectures. In certain universities, as at Paris, the colleges gradually became specialised to certain faculties, until, by the middle of the fifteenth century, they had taken up all the teaching functions of the university. The celebrated University of Salerno, also, was a purely medical university; students were required to spend five years in study, of which the first three were devoted to "logic" and surgery. It thus appears that the Royal Colleges need not be deterred by a respect for tradition, or a desire to maintain historical continuity or etymological consistency from taking a step which will redound to the honour of the colleges and their alumni.

But, while demanding a recognition of the just claims of London medical students, it is necessary to keep in view the contention that the value of the degree might be diminished by its careless or too lavish distribution. That the mere increase of the number of medical men holding the degree of M.D. should, or would, depreciate the value of the degree in the eyes of the public, cannot be admitted. So long as it is known to be a guarantee of an adequate knowledge, so long will it be respected. In the framing of any scheme, it is not unreasonable that proper safeguards should be proposed and discussed.

It was this attitude of mind which found expression in the amendment proposed by Dr. Wilks, seconded by Dr. Broadbent, and adopted by the College of Physicians by a large majority; the amendment, which was to the effect that persons examined by the conjoint board, and found duly qualified, either by the ordinary or by an additional examination, should have a degree in medicine and surgery conferred upon them, leaves the question open; but it seems to have been generally understood and intended that some additional test should be imposed. This point is, however, one of minor practical importance; for we have it on the best authority that, even in the case of the University of London, it is not the later examinations in medicine and surgery, but the earlier examinations in preliminary science, that prevent any large number of students from graduating there. At the present time, the regulations of the conjoint board are so framed, as to operate in favour of students who study chemistry and botany before commencing their purely medical studies. The examination in these subjects may be passed at any time after registering as a medical student, and therefore before entering at a medical school. If materia medica and pharmacy were removed from their present anomalous position in the curriculum, it would then be possible for students to complete their preliminary education at some one of the numerous science classes in London or the provinces, and to enter medical schools prepared to devote the whole of their first two years to anatomy and physiology. Under such conditions, there can be little doubt that any additional examination imposed by the conjoint board could have small terrors for the majority of students.

The chief point to contend for will probably be, that the extra test shall be of such a nature as will meet the case of those who are compelled, by pecuniary or other considerations, to enter upon practice at the earliest possible date. It is, above all things, desirable to avoid the creation of a fresh privileged class, into which entrance could only be obtained through a special portal in early youth. Neither can the case of those who already hold the two qualifications separately obtained be overlooked. Justice demands that they should be put on the same footing as those who are now passing the conjoint board; their privileges, if they ought not to be greater, ought certainly not to be less; the additional test, if such be imposed, ought to be adapted to the special circumstances of their case.

As to the other two schemes on foot to improve University teaching in London, the scheme of the Association for Promoting a Teaching University, and that now before Convocation of the University of London, it is impossible to speak with any confidence. The latter body, after a very vivacious meeting, on the 8th instant, appointed a committee to draw up a scheme, to give the teachers of constituent Colleges, whether metropolitan or provincial, a large share in the conduct of the affairs of the University. The Committee, proposed by Mr. Magnus, was in every section very weak, and the medical graduates proposed were by no means representative of the medical faculty. Several names, proposed by Mr. Magnus, were rejected by Convocation, after a rather stormy scene; but there is very little probability that any scheme brought up by a committee so constituted, will be accepted by Convocation. However that may be, the likelihood of the University of London ever willingly introducing such modifications into its constitution as would meet the wants of the medical school has progressively diminished, until now it appears to be reaching the vanishing point. The Association intend to appeal to the Senate, but that body has always shown itself most conservative.

Last, but not least, the scheme of the Association presupposes the command of considerable funds, and we have yet to learn where to look for these. It has been broadly hinted that, if a large reform be carried out in the constitution of the City of London and the livery companies, funds may become available from this source. Setting aside the fact that the new Parliament will probably be too much occupied by internecine political conflicts to attempt to undertake a task certain to excite bitter and determined opposition, it is extremely problematical whether, if the livery companies were disestablished and disendowed to-morrow, the legislature would consider that the best way to dispose of the money thus obtained was to assign a large share to higher University education. There are too many "ifs" in the scheme of the Association for Promoting a Teaching University to warrant any confidence in its final success.

THE SEMILUNAR FOLD OF DOUGLAS.

SINCE James Douglas published his *Bibliographie Anatomique Specimen* in 1715, and his *Description of the Peritoneum* in 1730, anatomists have been familiar with his name, chiefly though the fold of peritoneum which lies between the rectum and the uterus. In the former work, Douglas described another anatomical condition to which his name has also been applied, and is still retained; but, for obvious reasons, it has excited less interest than the peritoneal fold, which has to be taken into account in connection with the surgery of the pelvic organs. We refer to the semilunar fold of Douglas. The rectus abdominis, it will be remembered, is partially encased in a sheath composed anteriorly of the aponeurosis of the external oblique muscle and the anterior of the two layers into which the aponeurosis of the internal oblique divides. Posteriorly, the sheath is made up of the remaining layer of the aponeurosis of the latter muscle, blended with that of the transversalis abdominis. But, to quote the words of Holden's well known *Manual of the Dissection of the Human Body*, midway between the umbilicus and the pubes, the aponeuroses of all the three muscles pass in front of the rectus, so that posteriorly, in this situation, it has no sheath. The lower free border of the posterior part of the sheath, sometimes called the semilunar fold of Douglas, marks the situation where the deep epigastric artery enters the substance of the rectus.

Professor Solger, of Halle, has recently published some observations on this fold in the *Morphologische Jahrbuch*, 1885. He sums up previous opinions on the precise nature of the linea semicircularis. Retzius, supported by Hyrtl, believed in the existence of a preperitoneal cavity behind the lower part of the anterior abdominal walls, designed to receive the bladder as it ascends above the pubes, when filled with urine. The semilunar fold is not, Retzius states, the sharp lower border of the posterior layer of the aponeurosis of a muscle, but the edge of a fold which exists in the posterior wall of the sheath of the rectus. Hyrtl, in his *Lehrbuch der Anatomie des Menschen*, speaks of the posterior layer of the aponeurosis of the internal oblique as being "shorter" than the anterior, and teaches the student that the prevalent idea about the relation of the lateral abdominal muscles to the rectus is rather odd. Henle believes, on the other hand, that the peculiar disposition of the aponeuroses is designed for the benefit of the epigastric vessels, which ascend and enter the sheath of the rectus at the semilunar fold. Solger rejects both Retzius and Henle's explanations. He finds that the explanation lies in the mechanism of the abdominal muscles as agents for effecting

pressure on and support to the abdominal cavity; the subject recently studied, from different points of view, by Landau and Lawrentieff. During inspiration, the thoracic cavity is widened, the ribs rising, and the lateral part of the diaphragm forming an oblique almost level surface. The increase in diameter is greatest in the bony circumference of the lower outlet of the thorax. During inspiration, a square segment of the muscles of the anterior abdominal parietes is drawn into a condition of passive tension. The upper angle of this square lies at the top of the epigastrium, the lower at the middle point of the semilunar fold of Douglas. The lateral angles have their apices at the lowest point at which the lower curve of the ribs remain at the height of inspiration. The tension must be very powerful, and sufficient to resist excessive dilatation of the floor of the thorax. This would be especially the case at the height of forced inspiration, with concomitant closure of the glottis. The tense aponeurosis will then draw the ribs downwards, the viscera yield to the pressure, and the abdominal walls bulge forwards. In this condition, the internal oblique and transversalis are involved in the tension as far as their segments between the crest of the ilium, the linea alba, and the lower ribs, are concerned.

Turning to the lower part of the abdominal walls at the height of inspiration, especially when very forcible, as has just been assumed, then a lower segment of the internal oblique and transversalis will remain almost unaffected by the tension. This segment has its limits at Poupart's ligament, a movable attachment, at the linea alba, and, above, along a line drawn from the anterior superior spine of the ilium inwards. This line passes across, or rather partly consists of, the semicircular fold of Douglas. In violent coughing, the difference in the state of the abdominal walls over this area, compared to the upper and tense segment, is very characteristic, and easy to observe. Above the semilunar fold, the posterior sheath of the rectus, being exposed to frequent tension, is very strong; but below the fold, as the sheath can hardly ever, if at all, be exposed to extreme tension, it is exceedingly thin, and its component fibres finer and less intimately interlaced than above. Hence, according to Professor Solger, the semilunar fold of Douglas does not mark a point where the aponeurosis of the transversalis and half that of the internal oblique pass to the front of the rectus, nor where those aponeuroses cease abruptly, but simply results from the abrupt union of a denser and stronger with a thinner and weaker portion of the aponeuroses.

THE *Gazette*, of Tuesday last, announces that the Queen has conferred the dignity of knighthood upon Dr. James Sawyer, of Birmingham.

THE Library of the Royal Medical and Chirurgical Society will be closed on Friday, December 25th, and reopened on Tuesday, December 29th.

ANOTHER death from hydrophobia is recorded. The victim, a porter, aged 28, was bitten about six weeks ago in the face and leg, and was attended by a local surgeon. On Wednesday last, the symptoms became aggravated, and death ensued shortly after his admission to St. Mary's Hospital.

DR. DANFORD THOMAS, in the course of an inquest on Wednesday, stated that the practice to which young mothers were addicted of overlaying their infants at night, was responsible for the death of about 500 children a year.

THE Belgrade *Videlo* thanks Austria-Hungary, Germany, Russia, England, France, and Roumania, for the sympathy shown by those countries towards the wounded, and for the aid given to alleviate their sufferings. Alluding to England, the journal says the services of the Red Cross Society during the Servo-Turkish war are still gratefully remembered.

THE Board of Delegates of the Metropolitan Hospital Saturday Fund have made awards to the extent of £9,500 out of the sum thus far collected to various hospitals, dispensaries, convalescent homes, etc. It has been also agreed to appropriate the sum of £380 towards the purchase of surgical appliances, etc., to be lent or given to patients requiring them.

THREE men at Winsford, Cheshire, have died from alleged "prolonged exposure, and persistent refusal to drink spirits." The district medical officer is stated, at least, to have reported to that effect, and adds that, being teetotallers, they drank nothing but tea with ginger in it. He was confident that their lives had been shortened in consequence of their abstinence. This is a very extraordinary and eccentric statement, of which it would be difficult to suggest a physiological explanation.

LEADEN ARROWS.

CURARE A CENTURY OLD.

M. LABORDE, at a recent meeting of the Société d'Anthropologie, exhibited some arrows which had been poisoned with curare a hundred years ago. He had wounded a few guinea-pigs with them, and the results were as powerful and as deadly as though the poison had been fresh.

TOY-DISTRIBUTION AT THE LONDON HOSPITALS.

THE sixth annual exhibition of home-made and other toys for distribution among the various London hospitals, workhouses, and workhouse schools, under the auspices of the editor of *Truth*, will be open on Friday and Saturday, at Limmer's Hotel, Conduit Street, Regent Street.

HELEN PRIDEAUX MEMORIAL FUND.

It is proposed to raise a sufficient sum to endow a prize or scholarship in memory of Miss F. Helen Prideaux, M.B. and B.S. Lond., bearing her name. Among those who have already subscribed to the fund, we notice the names of Sir William W. Gull, Bart., 10 guineas; Mrs. Garrett Anderson, £25; Dr. Allen Sturge, 5 guineas; Dr. Matthews Duncan, Dr. Ford Anderson, and Dr. Cheadle, 2 guineas each; and a number of others. Subscriptions may be sent to the Treasurer, the Dowager Lady Stanley of Alderley, 40, Dover Street, W.; or to the Honorary Secretary, Mrs. Garrett Anderson, M.D., 4, Upper Berkeley Street, W.

BABY-FARMING.

It is satisfactory to see that the Board of Works officials are showing some vigilance in the matter of baby-farming. At Southwark Police Court, a married woman was summoned, under the 2nd section of the Infant Life Protection Act, 1872, for unlawfully receiving for hire two infants to nurse under the age of one year. The inspector, who was led to the house through seeing an advertisement, said he proceeded to No. 14, Pear Tree Street, Waterloo Road, and found a small ill ventilated house of three rooms. In the front parlour, a room about eight feet square, were the defendant, her sick husband, two of her children, and two infants, one nine weeks old, and the other three weeks, which was the only room they occupied. In answer to a question about the infants, she said that she had taken them out to nurse. She was in great distress, owing to her husband being ill and unable to work, and she took in the children to add to their earnings. The younger baby she had returned to the mother, and she was about to give up the other. She was unaware of the Act of Parliament. Mr. Slade fined her twenty shillings, and ten shillings costs.

UNIVERSITY COLLEGE, LONDON.

SIR JOHN BARROW ELLIS, K.C.B., presided at a meeting of the members of this college, held for the purpose of considering a motion to the effect that the by-laws be amended by the addition to Section II of the following clause: "The provisions of Clauses 19, 20, and 21 shall not apply to such professors, not exceeding at any time three in number, as may by resolution of the Senate be annually excepted from the operation thereof." The motion was proposed by Mr. Hardy Cozens-Hardy, and seconded by Sir George Young, and in the discussion which followed Dr. Wood, of Lincoln's Inn, the Rev. H. Solly, and Professors Carey Foster, and Croom Robertson took part. The resolution, which aimed at giving the professors, as members of the Senate, a more direct representation on the council, was carried by a large majority.

M. PASTEUR'S TREATMENT OF HYDROPHOBIA.

M. GOMOT, the Minister of Agriculture, has officially visited the laboratory of M. Pasteur. He is so well satisfied with his visit that, it is announced, he will ask the Chambers to enable him to practise inoculation against rabies on a large scale, and to treat human beings suffering from that malady in a special hospital. About forty persons were under treatment when M. Gomot was at M. Pasteur's. One was a Hungarian, sent by his Government; another, a captain in the Russian Imperial Guard, whose hand a mastiff had bitten. He was accompanied by the Czar's medical attendant. There were several children who had received bites in the face. Two patients, whom M. Pasteur alleges that he has saved, gave him between them a donation of £48, which he sent to a night asylum for indigent houseless persons.

RABIES IN LONDON.

It appears from an account, which is published this week, of the results of the Dogs' Home, that, in 1884, there were 14,772 dogs received at the Home, of which 4,274 were restored or sold. Notwithstanding the enormous number thus got rid of, the figures this year, up to the present time, are far in excess of last year. Thus, from January 1st to December 14th, 21,614 dogs have been received, and the year has seventeen more days to run. The collection of dogs has not been suddenly commenced, because the Police Orders have only been gradually extended over the whole of the metropolitan area, one district having been proclaimed at a time. But now the orders extend from the City to Barnet, Chislehurst, Croydon, Erith, and Staines. The final order, issued on the 10th instant, tended to very greatly increase the number captured, and the following figures show the daily return for one week: December 7th, 304; 8th, 253; 9th, 242; 10th, 266; 11th, 353; 12th, 412; and 14th, 468. With regard to the detection of madness in the animals, it is scarcely possible for one, however slightly affected, to escape notice. There are seven keepers, all experienced men in discovering diseases, and a daily visit is made by Mr. A. J. Sewell, veterinary surgeon. There are many kennels set apart for lame or diseased dogs, and several which are wired from top to bottom for the use of supposed "mad" animals. In regard to true rabies, there were 13 cases detected in the Home in 1883, 15 in 1884, and 56 cases were clearly developed in the kennels this year up to the present time. The danger has been checked for the moment, but that the disease has been wholly eradicated cannot be supposed.

THE LONDON MEDICAL CHARITIES.

PUBLIC attention is, we are glad to see, being called, through the medium of the *Times*, by the editor of the *Charity Record*, to the pecuniary position of the London special and general hospitals, whose work on behalf of the sick poor is sadly retarded by want of adequate funds. Increased support, it is observed, is required to prevent wards, and, in the case of the West London Hospital, the building itself, being closed. Taking a few cases at random, there was to be seen the London Hospital with a reliable income of only £14,300, and

a necessary expenditure for its 780 beds of £47,000. Brompton Consumption Hospital, with its two large buildings, had an expenditure yearly of over £24,000, with a reliable income of less than £8,000. University College Hospital: ordinary annual expenditure, £19,000; income, £6,000. Charing Cross: expenditure, £12,000; income, £6,000. An equally bad, if not worse, state of things prevailed at other institutions. The Hospital Sunday Fund was a forcible instance of the falling off in charitable contributions; for, despite the fact that there was this year a special donation of £1,000, and that there were between seventy and eighty additional congregations appealed to, the total of this year's Fund—£34,320—was less than that of 1884 by about £500. The Hospital Saturday Fund had shown a slightly increased collection; but that exception, it was thought, probably only emphasises the general falling off in the contributions of the benevolent.

MR. OAKLEY COLES.

A COMMITTEE has been formed, with Sir Edwin Saunders as chairman, and the following gentlemen as members: Mr. H. Royes Bell, Mr. Edward Bellamy, Mr. Thomas Gaddes, Lord Alfred Paget, Mr. W. Rose, Dr. Brodie Sewell, Mr. Henry Smith, and Mr. J. S. Turner, in order to present Mr. Oakley Coles with a testimonial from his old friends and colleagues on his retirement from the dental profession, which owes so much to his public-spirited labours, and his benevolent sentiments. Contributions should be forwarded to the Treasurer, Mr. Charles Vasey, 5, Cavendish Place, W., before the end of December, 1885.

THE SERVO-BULGARIAN WOUNDED.

THE National Society for Aid to Sick and Wounded in War has been at work in Servia and Bulgaria since the beginning of the month. Major-General Laurie, the Commissioner, arrived in Belgrade on December 2nd, and arranged to take over a hospital with nearly 200 beds in that town; in consequence, three surgeons, Messrs. C. H. Newby, R. J. Boyd, and R. Lake, have been sent out to assist Mr. F. N. Hume, who accompanied the Commissioner. On the other side, Mr. Kennet Barrington, accompanied by Mr. Featherstonhaugh and a sister, after visiting Widdin and Lom Palanka, have arrived at Sofia, to await a fresh consignment of blankets, clothing, medicines, and medical appliances.

PROGRESS OF CREMATION.

LAST week, the third human body was cremated at Woking. By the desire of the relatives, the body was burnt in its elm coffin. The process was very satisfactorily completed in an hour and a half, although the body—that of a lady—weighed fourteen stone. The residual ashes were quite white. The Cremation Society requires the fullest information as to the cause of death from two registered medical practitioners. It reserves the right of refusing the use of its furnace in any case where it thinks fit. Sanitary reformers generally will join in congratulating the Society on the steady progress of cremation in public opinion. In France, a very important advance has been made, as the Prefecture of the Seine has decided to spend £8,000 in the erection of a crematorium in the great Parisian cemetery, Père la Chaise. We trust the Commissioners of Sewers for the City of London will not be far behind the Paris authorities, but will again consider the proposal of carrying out the practice in their cemetery at Ilford. As Sir Spencer Wells put it in one of his speeches, "The choice is between cremation or corruption, purification or putrefaction."

ANKYLOSTOMUM IN MINES.

OUR Paris correspondent writes: M. Raphael Blanchard, during a recent visit to Hungary, observed that in some of the mines the anæmia frequent among miners, and observed a few years since amongst the excavators of the St. Gothard tunnel, was unknown. Pools of salt water were abundant in these mines, and these pools prevented the development of the parasite which causes the disease, the ankylostomum duodenale or dochmius duodenalis. This nematode is

suctorial, and when present in great quantities in the intestine it causes the characteristic anæmia. M. Blanchard also visited two other mines at a distance of fifteen miles from each other. In both, the same careless unwholesome habits and bad hygiene prevailed, and the miners in both were in constant communication with each other, but in one of the mines the men never suffered from anæmia; in the other, on the contrary, the disease was prevalent. M. Blanchard discovered that this contrast was explained by the different geological conformation of the mines. In one, there was a considerable quantity of the mineral known as macassite, which dissolving in the filtration water produced a considerable quantity of sulphuric acid; this was dissolved in the waters of the mine, and formed, to the great benefit of the miners, a bath of sulphuric acid, which prevented the development of the ankylostomum. In the mine in which this favourable geological condition was absent, the local medical officer caused canals to be cut, which the miners, suffering from anæmia, used as privies. The excreta were thus carried a long way out into the stream, and the larvæ were probably destroyed in transit, as the water of the canal farther from the mine was very acid. After this arrangement the miners no longer suffered from the disease.

HOSPITAL NEEDS.

THE West London Hospital is sorely in need of funds, being burdened with a debt of about £8,000, while the cost of its maintenance is about £1,500 a year more than its income. A public meeting, convened for the purpose of considering the position, was held on December 11th, the Marquis of Lorne in the chair, at which it was stated that, if the debt be not cleared off by special donations, and an adequate income provided by fresh annual subscriptions, the only course open to the managing committee will be to close the hospital wholly or in part, or to reduce the rate of expenditure on the present number of beds, which is already considered as low a rate as is consistent with due care for the patients. The meeting passed a resolution expressing its earnest wish that the efficiency of the hospital should not be reduced in any way. The subscriptions promised at the close of the meeting amounted to £1,150. The North-Eastern Hospital for Children (Hackney Road), and the Hospital for Epilepsy and Paralysis (Portland Terrace, Regent's Park), are both urgently in want of funds, liabilities having been incurred by the latter exceeding £1,000. And, indeed, the income of our metropolitan hospitals is this year, we notice in another column, falling far below the average, while their wants are rather greater than less.

NATIONAL SOCIETY FOR AID TO SICK AND WOUNDED IN WAR.

ATTENTION has recently been called, in very strong terms, to the constitution of this Society, and to the exclusive manner in which the large sums at its disposal, the results of public subscription, are managed. We learn with regret that one or two prominent professional members of the Society have been much dissatisfied with some of its proceedings, and have declined to attend its meetings. The mode of government of the Society and management of its income apparently require renewed consideration.

OVERPRESSURE IN SCHOOLS.

A LARGE part of the mischief set down to pressure, we have always felt convinced, is due to underfeeding; and medical men would, we think, do well to keep public opinion fixed on this subject. In an article calling attention to the demands on the public for the support of special Christmas charities, we are glad to see that the *Daily News* remarks that, whether free education is within measurable distance, or whether we are not to pay people to teach our neighbours' children, it is certain that the poor little scholars are often very hungry, and very cold, if they be also very learned. It is not difficult to guess what "little forths give in their heads," as one of them says, when they come to school fortified with a humble slice of bread for breakfast, or, perhaps, without even a slice of bread. Dinner may be that of

the Barmecide, or little better. Now, what well fed citizen could sit down to hard intellectual exertion at the moment when he has been kept waiting ten minutes without even a glass of sherry and bitters for his evening meal? None of us would like work, none of us but the sailors and soldiers (who are used to it) could do their best in the sad circumstances.

NOMENCLATURE OF MENTAL DISORDERS.

IN pursuance of a resolution passed at the Medical Congress on brain-diseases, held this summer at Antwerp, by which it was suggested that local conferences should be held to draw up trustworthy international tables of statistics on insanity, a conference of Austro-Hungarian specialists will be held at Vienna on December 26th and 27th. The invitations have been issued by Drs. Benedict, Gaussens, Leidesdorf, and Meynert, of that city. It is proposed that the conference shall revise and extend the nomenclature of mental disorders.

THE SIMS MEMORIAL FUND.

THE cash subscriptions to the Sims Memorial Fund received by *The New York Medical Record* amount to 8,166.34 dollars, from which is deducted 406.43 dollars for stationery, printing, postage, telegraphing, and commissions for collection. The balance, which remains on deposit with the United States Trust Company, and is subject to the order of the committee, is 7,759.91 dollars. This amount is considered sufficient to erect a suitable bronze statue to Dr. Sims, and the necessary steps to that end will be taken by the committee without further delay.

NUTRIENT SUPPOSITORIES.

A CASE was related by Mr. Godlee, for himself and Dr. Barlow, at the last meeting of the Clinical Society, in which the advantage to be derived from nutrient suppositories was well exhibited. The patient, as will be seen from a perusal of our report of the meeting, suffered from typhlitis. Mr. Godlee opened the abscess-cavity, and allowed a large quantity of fetid pus to escape. The patient eventually quite recovered, without any palpable evidence of the thick bands of inflammatory material which are so troublesome in many cases treated on expectant methods, and had since had no sign in any way of any trouble whatsoever about the cæcum. Dr. Barlow, speaking of the diætic treatment after the operation, remarked "that in this case it was especially desirable to keep the stomach and intestinal tract at absolute rest. For many days, therefore, the very minimum of food, namely, a little barley-water, was given by the stomach, and the patient was fed by the rectum. The thirst was found to be entirely relieved by enemata of three-quarters of a pint of water, which were in all cases absorbed. With regard to rectal alimentation, it is often observed that after two or three days the rectum becomes intolerant of nutrient enemata. To avoid this result, food was given in the form of digestive suppositories. Of these, two very convenient forms were made by Mr. Gerrard, dispenser at University College Hospital. The first was made by diluting a good meat-extract with water, and peptonising it with Bullock's pepsin, neutralising, and then concentrating, to a soft paste. Cacao-butter was then added in fine shavings, and intimately mixed with one-third of its weight of the peptonised meat-extract, and rolled into cones weighing 100 grains. The second was made by peptonising milk with pancreatic solution, boiling and concentrating to a paste, mixing and dividing as in the first case. Peptonised milk being now sold in a concentrated form, it may be used instead of ordinary milk, which saves much time and trouble. The suppositories were certainly absorbed, and kept the patient going for several days. One was introduced about every three hours. His tongue became very dry, and after a time he was given some pieces of underdone chop, which he was allowed to chew and to swallow the juice derived therefrom, but not the fibre. Besides maintaining his nutrition fairly, the patient, who was rather an irritable, querulous subject, was satisfied and comfortable, and the advantage in keeping

his abdomen quite quiescent was very great indeed." If other cases should confirm the favourable impression as to the advantages to be derived from this method of feeding, when contrasted with the failure which in a few days generally results from the attempt to sustain life by nutrient enemata, as the rectum generally soon becomes intolerant of them, there will doubtless be found a wide use for these suppositories in the very large class of cases in which the stomach requires to be kept at rest. Those who employ them may find, too, that the liquid which the system requires daily may be in some cases administered by the stomach; this would, one might suppose, tend still less to the disturbance of the lower bowel, and leave it still more at rest to digest and absorb the suppositories alone.

PARALYSIS DEPENDENT UPON PERIPHERAL NEURITIS.

THE Harveian Lectures of the Harveian Society of London for the present session have been just recently delivered by Dr. Thomas Buzzard, who chose for his subject "Some Forms of Paralysis dependent upon Peripheral Neuritis." He showed that many forms of paralysis which would at first sight point to disease of the central nervous system, are in all probability dependent essentially upon changes in the periphery of the cerebro-spinal nerves. The lecturer gave instances of localised peripheral neuritis, and noted the possibility of its frequent occurrence in the gouty diathesis, and of its being mistaken for a stroke of hemiplegia. He then considered cases of multiple neuritis, in which there is a tendency to rapid and almost universal paralysis. In these cases, the imitation of central nervous disease is apt to be the strongest. He remarked that there was increasing evidence to show that the cause in many of these cases is some toxic influence introduced from without, and that the chief of these are probably alcohol, lead, diphtheria, syphilis, and something which gives rise to the endemic disease of Japan and the shores of Eastern Asia, called beriberi, or kakké. The paralysis in all these cases is immediately due to the change in the nerve-fibre, which again depends upon a cause sometimes, though not always, recognisable. The diagnosis of this class of cases, and their prognosis and treatment, were largely dwelt upon by the Harveian Lecturer, who must have been pleased to remark that these forms of disease, whilst often presenting the most alarming features, might show themselves highly responsive to treatment, and issue in recovery to an extent which could hardly be expected from the grave aspect often presented at the outset of the attack, a favourable prognosis being very often, indeed, justified by the result. It is impossible in a short annotation, such as this must be, to notice a tithe of the points discussed by Dr. Buzzard in his careful handling of the subject. A perusal of the lectures themselves can alone satisfy those who would become acquainted with the complicated problems therein set forth.

SCOTLAND.

HEALTH OF EDINBURGH.

THE city of Edinburgh, which has done so much in the cause of public health, is to be congratulated on the fact that its new convener of the Public Health Committee is a medical man who has devoted a large portion of his time to the important subject of sanitation, namely, Mr. James Alexander Russell, M.B., B.Sc., M.A. Although he has only been a few years in the Edinburgh Town Council, he was last month elected a baillie and convener of the Public Health Committee. In his first report to the Town Council, on Tuesday, Dr. Russell stated that the death-rate for the month of November had been 17.28 per 1,000, which was lower than it had been for the same month during the preceding five years. Some interesting details as to the death-rates in the three subdivisions (into which, for convenience, the city is divided) of the Old Town, New Town, and Southern Suburbs. Thus the death-rate in the Old Town has been rather more than one-

third higher than in the New Town and Southern Suburbs. As to zymotic diseases, however, it was found that fewer cases were reported from the Old Town than from the other two divisions, but the deaths from zymotic diseases had been relatively more numerous than in the other two. More than one-third of all the deaths were from chest-disease.

THE OUTBREAK OF SMALL-POX AT PENICUIK.

FOR some time, notices have been appearing in the Edinburgh newspapers as to the existence of cases of small-pox at Penicuik, a village largely engaged in paper-manufacturing, and situated a few miles from Edinburgh. At a meeting of the Penicuik Police Commission, held on Tuesday, the subject was under special consideration. It appears that the first case which occurred led, through the attentions of sympathising friends, to a considerable spread of the disease; that, in all, twenty cases have occurred; that at present five cases are under treatment; and that the medical men of the district have so acted as to secure the entire approbation of the authorities, who have taken steps to secure proper hospital-accommodation. The last previous case of small-pox which occurred in Penicuik was in 1881, and the disease was speedily stamped out.

ROYAL INFIRMARY, STIRLING.

AT the annual meeting of the subscribers to the Stirling Royal Infirmary, held on Monday, and presided over by Provost Yellowlees, it was stated that 1,782 cases had been treated during the last year in the infirmary and dispensary, of whom 234 were in-door cases and 1,548 out-door cases. Of the 234 in-door cases, 124 were surgical and 110 medical. The total increase of cases treated during the year was 42. As to pecuniary matters, the income was £1,280, and the expenditure £1,011. The income of the year showed a satisfactory increase of £43, and the expenditure a satisfactory decrease of over £8. The reports were considered satisfactory, and various gentlemen were elected managers for the ensuing year.

PROPOSED HOSPITAL FOR INCURABLES, DUNDEE.

AN important step was taken at the quarterly meeting of the Governors of Dundee Royal Infirmary, held on Monday, when the chairman proposed a motion, authorising the directors to apply to the Crown for alteration of the charter of the institution, and for additional powers to enable the Corporation to acquire lands, etc., to erect and establish a hospital for incurables, to be worked in connection with the infirmary. He stated that they had been assured they would get a large sum of money for the purpose mentioned. The motion was agreed to, and the secretary instructed to take immediate steps for getting it carried out. Attention was called to the fact that a legacy of £1,000 had been left to the Convalescent Home. It was also reported that a legacy of £1,500 had been left to the Infirmary by the Misses Strachan, Broughty Ferry, who had given the above mentioned £1,000 to the Convalescent Home; and that Mr. Alexander Gilroy, of Craigie House, had given a donation of 200 guineas to have a cot in the children's ward named after his wife.

IRELAND.

THE medical students of Trinity College, Dublin, resolved this week to enroll themselves as a Medical Volunteer Ambulance Corps.

AT a meeting of the Senate of the University of Dublin, it has been resolved to confer the degree of Doctor of Medicine (Honoris Causa) on Daniel John Cunningham, Professor of Anatomy in the University of Dublin.

DEATH OF DR. BARNEWALL P. WHITE.

WE regret to have to announce the death of an old and respected member of the profession, who held the leading business in the north-west of Ireland for the last half century, Dr. Barnewall White, of Londonderry. He was attacked by acute pharyngitis with rigors on November 28th, and though the throat-affection was conquered, he sank rapidly from exhaustion, and died on the 3rd instant at his residence, St. Columbo. He held the office of consulting physician for the Derry Asylum. He was formerly medical officer to Derry Workhouse, and massed a large fortune in the course of his practice. He was High Sheriff for the county of Londonderry in 1883, and was, we are informed, the only instance of a practising medical man holding such a position in Ireland.

PAYMENT OF MEDICAL WITNESSES.

THE Treasury allow ten guineas per day for medical witnesses giving evidence at ordinary assizes, but, where winter assizes are held, and which include several counties, it follows that a practitioner is often obliged to travel a considerable distance, and it is only just that he should be remunerated accordingly. Last week, at the Wicklow Assizes, a case of this kind was brought under the notice of Judge Johnson, who, having full power to make an order for increased medical expenses, showed his willingness to treat the application by increasing the ordinary tariff.

NURSES' HOME AND TRAINING SCHOOL, BELFAST.

THE annual meeting was held recently, presided over by the Lord Bishop of Down. At the close of last year, there were thirty-five trained nurses; this year, there are thirty-nine, or an increase of four. A night-superintendent of the nursing in the hospital has been engaged to fulfil a long felt want. The training of probationers goes on steadily. Twenty-one were admitted, of whom twelve are now under training. The Belfast Royal Hospital has been supplied with nurses as usual, and a very large number of special nurses were supplied in addition to the staff. The private nurses attended during the year 228 cases. The income was £1,540, which was supplemented by subscriptions amounting to £349. This latter shows a decided falling off, and is to be regretted, as it has been shown that at least £450 a year will always be required, in addition to payments for nursing, to support the training school. Each probationer trained must be supported by the institution for a year, and the more demand there is for nurses, the greater number of probationers must be trained. The Duke of Abercorn has been elected patron of the Home, and the Countess of Shaftesbury lady-patroness.

COLLECTIVE INVESTIGATION COMMITTEE.

LIST OF RETURNS RECEIVED DURING NOVEMBER, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of November, 1885.

Aberdeen Branch: II (2), III, X, XIV, B (2), C (2), J. Mackenzie Booth, M.D.
Birmingham and Midland Counties Branch: Interpenance, G. F. Blake (2).
Border Counties Branch: III, W. H. Alvert, M.D.; VII, XI, J. Mason, M.B.
Cambridge and Huntingdon Branch: XIII, D. B. Baiding, F.R.C.S. (2).
Gloucestershire Branch: Interpenance, G. T. B. Watters (2).
Lancashire and Cheshire Branch: Liverpool District: X, P. M. Braidwood, M.D. (2).
Metropolitan Counties Branch: X, J. Robinson, C. A. Arnold (2); XI, A. R. Hamilton Bland, M.D. (2); XIII, J. Rhys, M. Prickett, M.D.; T. G. Alderton, J. R. Lunn, F.R.C.S. (2); J. Chalmers, M.D.; W. Edmunds, M.D.; Sleep-walking, C. E. Barker.
Midland Counties Branch: Derby District: VII, W. J. Mackie, M.D.
North Wales Branch: X, Rev. J. B. Herbert (2).
North of Scotland Branch: III, J. Lindsay Porteous, M.D.
Staffordshire Branch: X, J. W. Robey.
Worcester and Hereford Branch: X, S. Stretton.
Yorkshire Branch: Interpenance, A. Kibble, J. J. Pickles.

ST. JOHN AMBULANCE ASSOCIATION.—A centre of which His Excellency Raouf Pasha, the Turkish Governor, has consented to be president, is being formed at Jerusalem, the lecturer being Dr. J. H. Ogilvie, Medical Officer of the British Ophthalmic Hospital of St. John. Colonel F. Duncan, C.B., M.P., delivered an address on Monday at Carshalton, to open the winter session there.

PRESENTATION TO DR. BRADLEY, OF CHESTERFIELD.

A GATHERING of medical men took place on Friday, December 11th, at the Wharncleft Hotel, Sheffield, for the purpose of presenting to Dr. David Bradley, of Chesterfield, the circumstances of whose case are well known to our readers, an address and a sum of 400 guineas, raised by subscription from all parts of the kingdom, to compensate in some degree for the suffering he had undergone. The chair was occupied by Dr. de Bartolomé, and the vice-chair by Dr. Martin. Dr. Bradley, the guest of the evening, occupied a seat on the right of the chairman. The company consisted of Dr. Balthazar Foster, M.P., of Birmingham (president of the Council of the British Medical Association); Mr. Lawson Tait (Birmingham), Mr. Wheelhouse (Leeds), Mr. Rice (Derby), Mr. Bluett (Chesterfield), Dr. Dyson, Dr. Keeling, Dr. Cleaver, Dr. Inkster, Dr. W. R. Thomas, Dr. Willey, Dr. Sinclair White, the Rev. J. J. Dyson, Mr. W. Favell, Mr. R. J. Pye-Smith, Mr. J. Benson, Mr. John Hall, Mr. Simeon Snell, Mr. A. Reckless, Mr. C. F. Coombe, Mr. Arthur Jackson (Sheffield), Mr. Browning (Oughtibridge), Mr. E. Skinner, Mr. Leech, Mr. Shea (Chesterfield), Mr. Jeffreys (Chesterfield), and Mr. Johnston. Letters were read from Sir William Jenner, Sir Henry Thompson, and other eminent medical practitioners.

After dinner the loyal toasts were proposed by the CHAIRMAN, and Mr. BROWNING proposed, "The Army, Navy, and Auxiliary Forces," for whom Dr. CLEAVER and Dr. MARTIN responded.

The CHAIRMAN, in introducing the business of the evening, explained that the object which had brought them together had excited such general and universal sympathy in the country that, when it was decided the presentation should take place in Sheffield, it was felt that that fact, and his being appointed chairman for the evening, was a sufficient share in the honours for the local profession, and that representatives from other centres should be asked to make the presentation. He was happy to be able to call upon Dr. Foster, the president of the Council of the British Medical Association, and Mr. Wheelhouse, of Leeds, whom he might be allowed to thank for their presence that evening, as well as Mr. Lawson Tait, who had come at personal inconvenience.

Dr. BALTHAZAR FOSTER, M.P. (Birmingham) said some of those present might have dreamt occasionally of being placed in a position of considerable danger and difficulty, charged with some terrible crime, and have experienced the great relief of waking to find that it was all a dream; if so, they could understand in some remote degree the terrible position in which, in actual reality, the friend whom they had met to honour had been placed. They all felt intense sympathy with a medical man in such a position, because they were all liable, in the performance of their daily duties, to dangers which threatened not so much their lives as their honour. They knew the circumstances under which Dr. Bradley was accused of a serious crime, and that, relying on the improbability of the statements made against him, it was thought unnecessary to call any large amount of evidence in his favour. But probably, through not having gauged quite accurately the attitude of the jury, he was convicted of an attempt to commit the crime charged against him, and there followed the terrible sentence of two years imprisonment. Dr. Foster alluded to the fact that a distinguished officer of the British army, convicted of a similar offence, received only six months' imprisonment as a first-class misdemeanant, and not long ago a member of the Upper House received only a few weeks' imprisonment for such an offence. Hence, even if there had been the most damning testimony against Dr. Bradley, the punishment inflicted upon him was out of all proportion to the verdict given against him. On account, therefore, of the severity of the punishment, Dr. Bradley deserved sympathy and commiseration; but, on an analysis of the evidence, the conviction gradually grew upon the minds of the medical profession that the whole thing was a mistake from beginning to end, and that an innocent brother had been suffering. There was an outcry throughout the country against the terrible indignity to which, as a body, they felt they had been subjected, and a movement arose to endeavour to obtain some relaxation of the judgment, and some restoration to the position which Dr. Bradley had lost. All their efforts for a long time failed, and for more than eight months their brother languished in prison; but at last he was released, pardoned, and restored to his freedom. It was felt that there was something lacking, when the law restored to freedom a man believed to be innocent, but made no reparation for the misery he had undergone. Under these circumstances, the profession determined, as far as it could, to make up to Dr. Bradley the grievous loss and indignity he had sustained. As many as 306 subscribers had contributed to a fund for that purpose, expressing their confidence in his integrity of character, and in his

innocence of the charge preferred against him. Dr. Foster commented on the tendency of judges to look with extreme severity upon medical men charged with offences such as that with which Dr. Bradley had been charged, and complained of the way in which trials were conducted, and the ease with which a case could be got up against a man who was innocent. Without imputing any malice to the lady who made this charge, who was probably suffering under a delusion, the medical profession believed the charge was an unjust one; and the testimonial, which had been raised by a large number of subscribers, was an expression, on the part of the medical profession, of their belief in the integrity and high character of their colleague, of their sincere sympathy with him in the trouble he had undergone, and of their cordial congratulation with him on his happy release. What he had undergone words could only faintly describe, and the present company were happy to see him so well after such an ordeal. They could only hope that this great trouble might tend to the development of his character, and turn his life to nobler and higher aims than he could possibly have conceived before. In the course of further remarks, Dr. Foster observed that there was an aspect of the case in which they were all interested as citizens—in making the law more perfect, so that it should be impossible for an innocent man to suffer wrongfully. The necessity for some reform was shown by a statement of the Home Secretary that, in four months of the year 1869, out of eleven persons convicted of murder, only six were executed, and two were pardoned because they were believed to be innocent. Trials, he feared, were too often hurried through, and the duty now cast upon the Home Secretary ought to be put upon some competent Court of Appeal. Dr. Foster concluded by urging that some State compensation ought to be given to persons who had been the victims of a miscarriage of justice.

Mr. WHEELHOUSE (Leeds) said he was there to hold out, on behalf of his own section of the profession, the right hand of fellowship to Dr. Bradley. He felt sure that, in Leeds and the surrounding district, which, in a sense, he might be said to represent, there were no two medical men who did not believe him to be absolutely and entirely innocent. He argued that the crime of which Dr. Bradley was accused was one alike physically and physiologically impossible under the circumstances given in evidence; and that, not finding Dr. Bradley guilty of the actual crime charged, the jury ought to have completely acquitted him. He referred to certain steps which were taken to bolster up the case, which he strongly condemned; and, whilst he endorsed every word that Dr. Foster had said as to the suffering which Dr. Bradley had undergone, he desired also to add a few words expressive of sympathy with Mrs. Bradley also. He expressed his earnest hope that her health, much broken down, as he learned, by the agony of the trial through which she had been called upon to pass, might soon be thoroughly restored, and that she would accept this presentation as a message from them, and as an assurance that they believed her husband to be absolutely stainless and pure. Might their health, their strength, and prosperity be restored to both; and might such wealth as, under God's blessing, they could attain to, prosper in the future.

Mr. JEFFREYS (Chesterfield) then read the address, which was as follows.

"We present this address to Dr. David Bradley, along with a purse of four hundred guineas, in the name of a large and influential portion of the medical profession, as a mark of deep sympathy with him under the severe and wholly unmerited suffering which he has had to bear in consequence of the miscarriage of justice in dealing with an offensive accusation to which he has been subjected.

"We deeply regret that any court of justice should have thought fit, on evidence so inadequate, to brand the name and blast the prospects of a medical man whose character had hitherto been blameless. Our conviction of his innocence has been largely shared by the medical and public press, Dr. Bradley's cause having been warmly espoused by the *BRITISH MEDICAL JOURNAL*, *Lancet*, *Medical Times and Gazette*, *Medical Press and Circular*, and by other public journals. Petitions in Dr. Bradley's favour have been sent to the Home Office from Birmingham, Nottingham, Sheffield, Derby, Newcastle, and other places, largely and influentially signed, and bearing the strongest testimony to the deep sense of indignation roused throughout the profession by the treatment which Dr. Bradley has received. These petitions have been signed by no fewer than 1,000 names, including those of nearly all the leading men in the districts from which they have been sent. In the neighbourhood where Dr. Bradley was living when this calamity befel him, all his brother practitioners, without exception, have signified their belief in his innocence, and have aided in the efforts made in his favour. From the same neighbourhood a lay petition has also been presented, signed by a large number of the patients, friends, and acquaintances of Dr. Bradley. In London a warm feeling of sympathy has been declared by physicians and surgeons of the highest standing, and manifested by their generous and prompt contributions to the fund raised on Dr. Bradley's behalf.

"In presenting this address to him, we raise our emphatic and indignant protest against the ready credence which the law has given, in his case, to a form of accusation very easy to make, but not always easy to disprove. We do this for our own sake, because medical men in the discharge of their duties, which are often of a delicate character, are exposed, more than other men, to have such charges brought against them. We protest also on public grounds, since it is a detrimental to the interests of society that such duties should be rendered more

difficult than they naturally are, and because it is even more deplorable that the innocent should suffer than that the guilty should escape.

"We are fully aware that the tardy and inadequate measure of justice which has at length been dealt out to Dr. Bradley can in no way atone for the cruel wrong which has been done to him, and we are sensible that no action on our part can make amends to him for the suffering and loss he has had to bear. In offering to him, and to his family, this token of our sincerest sympathy, we, at the same time, declare our full belief in his honourable and unsullied character, both as a medical practitioner and a private gentleman, and we wish him most heartily a happy and successful career in the future. (Signed) WILLIAM JENNER, M.D. (London); BALTRAZAR W. FOSTER, M.D., M.P.; LAWSON TAIT, F.R.C.S. (Birmingham); WILLIAM OGLE, M.D. (Derby); T. CLIFFORD ALLBUTT, F.R.C.S.; C. G. WHEELHOUSE, F.R.C.S. (Leeds); W. H. RANSOM, M.D.; CHARLES BELL TAYLOR, M.D. (Nottingham); M. MARTIN DE BARTOLOME, M.D.; WILLIAM F. FAVELL, (Sheffield)."

Dr. FOSTER then formally presented the address and purse, containing the cheque for 400 guineas.

Dr. BRADLEY, whose health was drunk with musical honours, was much affected on rising to reply. He expressed deep gratitude for the generous support and kind sympathy shown him during the last twelve months, the period of his bitterest troubles. It was to the untiring perseverance and zeal of his medical brethren present in his cause that he owed his position at that moment, and the happiness of the present almost made him forget the terrible experiences of the past. Their true sympathy helped to lighten his burdens, and bear his sad misfortune with a lighter heart. He alluded to the inevitable experiences of prison life, the solitude, the loss of liberty, the coarse food, and the association with felons; and said that, while the prison officials treated him with as much respect as rules would allow, that meant very little indeed. The consciousness of innocence and of their sympathy were his greatest support; but he referred with gratitude to the kindness of the chaplain to the prison—the Rev. Mr. James. Dr. Bradley also explained that, before his trial, Mr. Jeffreys strongly urged him to employ a medical expert for his defence; and he determined to do so, but he was overruled by his solicitor, and he had regretted it ever since; for he believed that, had he done so, he would never have been convicted. Having spoken of the joyous relief which was afforded him by the intimation of his release, Dr. Bradley said the future looked brighter than ever he had expected, and he felt confident that he should soon regain the position from which he had been unjustly removed. He asked them to accept his sincere thanks.

Mr. LAWSON TAIT (Birmingham) proposed a vote of thanks to Mr. Jeffreys for the trouble he had taken in the matter, which was seconded by Mr. RICE, of Derby, and unanimously agreed to, Mr. Jeffreys' health being drunk with enthusiasm.

Mr. JEFFREYS assured them that all he had done had been a labour of love, and spoke of the valuable help he had received from Sir William Jenner, whose letter suggesting the subscription he read, along with other expressions of sympathy from various medical gentlemen.

Votes of thanks were then accorded to supporters and subscribers, lay and professional: to the lay and professional press; and to Members of Parliament who had supported the movement.

The toasts of "The Visitors" and "The Chairman" concluded the toast-list.

HOSPITAL SUNDAY FUND.

DISCUSSION ON THE NURSING QUESTION.

On Tuesday, December 15th, the annual general meeting of the constituents of the Metropolitan Hospital Fund was held in the Egyptian Hall of the Mansion House, the Lord Mayor, as president and treasurer, occupying the chair. Among the attendants were the Earl of Shaftesbury, Sir Sydney Waterlow, Canon Spence, Canon Fleming, the Rev. Dr. Allon, the Rev. Daniel Moore, Rev. Dr. Kennedy, Dr. Glover, the Rev. R. Rhodes Bristow, Mr. R. Moreland, the Rev. Dr. Sadler, Mr. Boodle, the Rev. M. Walrod, the Rev. R. G. Simpson, Dr. Charles Hare, the Rev. G. M. Murphy, the Rev. J. K. Kitto.

THE LORD MAYOR having briefly opened the proceedings, the Secretary (Mr. H. N. Custance) read the notice convening the meeting and the minutes of the previous occasion.

Sir S. WATERLOW (vice-president) moved the reception and approval of the report of the council for the past year, which has been already published in the newspapers. He congratulated the meeting on the very satisfactory character of the report, the amount raised this year (£34,320) being little less than that of the previous year, exclusive of the £4,500 raised at a *fête* at the International Health Exhibition. In the continuance of their contributions undiminished, the public showed their satisfaction with the administration of the fund. That satisfaction was justified by the fact that the cost of management was only 3.474 per cent. on the gross receipts. It was a good sign that

the number of contributing places of worship had increased this year. The largest collection had been made at Canon Fleming's church, the amount being £951; but all the collections, however small, were acceptable, as being not only more or less assistance, but evidence of sympathy with the movement. He trusted that the report of the General Purposes Committee concerning the nursing arrangements of University College Hospital would be unanimously agreed to, the committee having come to the conclusion that matters relating to the internal administration of hospitals were beyond the jurisdiction of the Hospital Sunday Fund. With regard to some comments that had been publicly made relative to providing the clergy with letters of recommendation for distribution, he observed that it was part of the arrangement under which contributions were received, that the clergy should have the means of relieving the poor in their districts. If there was any objection to such arrangement, the remedy was for the hospitals to abolish, as the hospital with which he had been connected twelve years had abolished, the requirement of letters of recommendation. In conclusion, he expressed the hope that the report would be satisfactory not only to the constituents but to the public at large.

The Rev. Dr. ALLON, in seconding the motion, said he would restrict his remarks to the nursing question, which had excited a great deal of feeling, which had not yet been quite allayed. The investigation arose out of a complaint, made prior to July last, that a young woman who had sought admission at University College Hospital as a nurse had been rejected on the ground of Nonconformity. It was found that, in the majority of the London hospitals, the nursing arrangements were identified with definite religious principles; and, although his feeling was strong against the system of nursing complained of, it had become clear to his mind that it would not do for the fund to admit the principle of interfering in the internal arrangement of hospitals, but the proceeds of the collections must be distributed to the various hospitals according to the work done by each. He considered that, if this basis were departed from, and interference in the internal organisation of hospitals begun, the fund must cease to exist.

The Rev. F. HIGGINS (Congregational Church, Greenwich) moved, as an amendment, a proposal to the effect that the constituents, while disclaiming all jurisdiction in the matter, should place on record the expression of a hope that the hospitals benefiting from the fund would seek to banish all trace of sectarianism from amongst them.

Mr. S. R. REES seconded the amendment.

Dr. HARE, as a physician of forty years' standing, and formerly professor at University College Hospital, made an explanation of the facts of the case. He referred to the bad nursing which obtained in hospitals a quarter of a century ago, and dwelt upon the vast improvement which the employment of religious sisterhoods in that service of mercy had produced. The nursing at University College Hospital was in the hands of the sisters of All Saints', Margaret Street. Personally, he did not believe in religious sisterhoods; but he admired the conscientious and painstaking manner in which they discharged their duties. It was laid down as a *sine quâ non* when these sisters took over the nursing at the hospitals, that the religious convictions of patients should not be interfered with, and he had never heard any complaint of a breach of that understanding. The nurses, as members of a sisterhood connected with the Church of England, were necessarily members of that denomination. It was not clear whether the young woman about whom the complaint had been made sought to become a member of the sisterhood, or merely to be taught nursing. If the latter, her application would have been granted without any inquiry whatever as to her religion.

Dr. ALLON, interposing, stated that the person in question had represented that she had applied for admission as a probationer, to be trained as a professional nurse, and was refused solely on the ground of being a Nonconformist.

Dr. HARE pointed out that a probationer would mean a member of the sisterhood; and that was apparently the explanation of the misunderstanding. Having made inquiries at twenty other London hospitals, he found, from sixteen replies he had received as regarded the religion to be professed by nurses, that three only were unsectarian; at two, it was stated specifically that the nurses must belong to the Church of England; at four, either Church of England or Protestant Dissenters; at two, Roman Catholics were excluded; and at five others a declaration of religion was required before admission. From nineteen replies as to religious service in the hospital, he found that, at all but three, the nurses were expected to attend divine service. In conclusion, he asked, where would be the liberality of the authorities of the University College Hospital, if, solely on religious grounds, they discharged a staff of nurses who had faithfully done their duty?

Mr. HAWLEY, as a representative of working men, said he was pained to find that sectarian notions had been introduced into a question of the administration of the fund; and he stoutly maintained that both religion and politics should cease their controversy within the walls of a hospital.

The Rev. T. GUTHRIE (of Caledonian Road Chapel) remarked that he could not understand why Nonconformity, which appeared to be no bar to a young woman being trained as a nurse at University College Hospital, should become an obstacle, so soon as she was proficient, to her continuing in the institution.

Sir S. WATERLOW trusted the amendment would be withdrawn, it being established that no proselytising was carried out at any of the hospitals in connection with the patients. He considered, too, it should not be forgotten that the system of nursing at all the hospitals had of late years advanced by rapid strides, and had achieved a perfection which had not only satisfied, but agreeably surprised, medical staffs.

Mr. HIGGINS, being appealed to by the Lord Mayor, expressed his willingness to withdraw his amendment, the subject having received the consideration to which it was entitled. The original resolution was then put, and unanimously passed.

The Earl of SHAFTESBURY moved a resolution continuing the laws of the constitution of the fund in force. His lordship spoke of the growth of the fund since its establishment in 1873, and insisted on the importance of keeping the sectarian spirit out of the administration of it.

Canon SPENCE seconded the resolution, which was carried.

The Council for the year 1886 having been appointed, on the motion of the Rev. W. OSTAN, seconded by the Rev. W. TYLER, and a vote of thanks given to the Council for its services in the past year, Canon FLEMING moved, and the Rev. Dr. KENNEDY seconded, that June 27th be fixed for Hospital Sunday next year. This was agreed to; and, on the motion of the Rev. R. J. SIMPSON, seconded by Mr. J. LAURENCE HAMILTON, a vote of thanks was given to the Lord Mayor, and the meeting came to a conclusion.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Fellows and Members of the Royal College of Surgeons was held, as announced, in the Theatre of the College, on Thursday last, at 3 P.M. The chair was taken by Mr. Savory, President of the College, and there was a very large attendance. The first resolution, which was dropped, was read by Mr. Kenneth Cornish, and consisted in a request that the Secretary of the College should read the proposed memorial to the Queen in Council, praying that no new charter be granted to the College without the consent of its Members.

Mr. Holmes then put the second resolution, which was seconded by Mr. Gamgee: "That the answer of the Council is, in the opinion of the meeting, not satisfactory, and that the Council be respectfully requested to reconsider the questions—firstly, of the representation of Members; and, secondly, of submitting for approval any alterations proposed to be made in the constitution, or in the relations of the College, or in any of its by-laws, to a meeting of the Fellows and Members." Dr. Ward Cousins, Dr. Joseph Rogers, Mr. Joseph Smith, and Mr. Rivington, spoke in favour of the resolution; Mr. Brudenell Carter and Dr. Haughton opposed it. The resolution was carried by a large majority, and the proceedings terminated in a vote of thanks to the Chairman, moved by Mr. Holmes, and seconded by Dr. Collum. A full report of the proceedings will be given in the next number of the JOURNAL.

THE WIGTON Urban Sanitary Authority recently passed a resolution to reduce the salary of the medical officer of health from £40 to £20 *per annum*. They applied to the Local Government Board (giving their reasons) to sanction it, and have received a reply that they will, under the circumstances, do so; but, as they still consider the salary inadequate, for one year only.

BEQUESTS AND DONATIONS.—Mr. Joseph Stevens, of Nottingham and of Sandiacre, has bequeathed £1,000 to the General Hospital, £500 to the Midlands Institution for the Blind, £100 to the Eye Infirmary, and £100 to the Dispensary, all at Nottingham.—The Brompton Hospital for Consumption and Diseases of the Chest has received a bank-note for £100, "In loving memory of T.B., May 13th, 1883."—Mr. W. G. Brocklehurst, M.P. for Macclesfield, has given £100 to the Devonshire Hospital, Buxton.—The Hon. Algernon G. Tollemache has given £50 to the London Temperance Hospital.

A RICH and valuable stained window, the gift of Mr. Alderman Musgrave, M.P., has been placed in a prominent position at the west end of the principal corridor of the Bolton Infirmary.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 20th day of January, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

[161A, Strand, December 17th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1886.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA, ACUTE RHEUMATISM,
OLD AGE, CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns on Acute Rheumatism be sent in as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HEMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis:—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held on Friday, January 8th, 1886, at the County Hotel, Carlisle. The chair will be taken at 6 P.M. by Mr. C. S. Hall, President. The Secretary will be glad to receive

notices of papers, and morbid specimens for exhibition, or patients, without delay. Supper will be provided in the hotel at 9 o'clock. Members from a distance can be taken in for the night by communicating with the Secretary, H. A. LEDIARD, Carlisle.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting of the above district will be held, by invitation of Dr. Amsden, at the Essex County Asylum, Brentwood, on Wednesday, January 27th, 1886, at 2.30 P.M. Previously to the business of the meeting, Dr. Amsden has kindly offered to escort the members round some of the wards of the asylum. Dr. Elliston, President of the Branch, will preside. Programme and Business Agenda:—1. To arrange the place and date of the next meeting, and to nominate a member of the district, resident in or near such place of meeting, to take the chair thereat, provided the President of the Branch does not attend. 2. To elect an honorary secretary for the year 1886. The following papers have been promised:—1. On the Administration of Medicines by Injection into the Rectum, by the President. 2. On Fits, by W. B. Hadden, Esq., M.D., Assistant-Physician, St. Thomas's Hospital, London. 3. The Treatment of Acute Mania by Hyoscynamine, by G. Amsden, Esq., M.B., Medical Superintendent, Essex County Asylum. 4. The Necessity of a Medical Defence Fund in connection with the British Medical Association, by J. Sinclair Holden, Esq., M.D., Sudbury, Gentlemen intending to be present, or wishing to read a paper, or show a case, are requested to communicate with the Honorary Secretary not later than January 25th.—WM. THOS. JACKMAN, Honorary Secretary, Coggeshall, Essex.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, November 25th; E. C. BOARD, Esq., President, in the chair. There were also present forty members and two visitors.

New Members.—The following gentlemen were elected: C. K. Rudge, M.R.C.S., L.R.C.P., Clifton; J. Michell Clarke, M.A., M.B. Cantab., Clifton; W. Duncan, L.R.C.S. Ed., L.M., Ridgeway; G. C. Helps, M.R.C.S., Bath; A. P. H. Griffiths, M.R.C.S., Bath; J. Pranker, F.R.C.S., Bath.

Medical Advertisements.—Mr. KEALL drew attention to certain facts in connection with this subject; and the matter was referred to the Council, with the request that they would report upon it to the Branch at a future meeting.

Communications.—The following communications were made.

1. Mr. Lockhart Stephens read a paper on Cases of Oesophageal Stricture, and exhibited specimens.—Mr. Penny, Mr. Greig Smith, Mr. Dobson, Dr. Swayne, Dr. Harrison, and Dr. Markham Skerritt joined in the discussion which followed.

2. Mr. W. Keall read a paper on the Treatment of Obstruction of the Lacrymal Ducts, upon which Mr. Cross made some comments.

3. Dr. Swayne related a Case of Typhlitis, which was discussed by Dr. Elliott, Dr. Waldo, Mr. Greig Smith, and Dr. Markham Skerritt.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE autumn meeting was held at Canterbury on Thursday, November 26th; Mr. WHITEHEAD REID, of Canterbury, in the chair.

Election of Chairman.—Dr. Parsons, of Dover, was chosen chairman for the next meeting at Dover in March of next year.

Papers.—The following were read.

1. Mr. RAVEN (Broadstairs) read a paper on Purulent Pericarditis.—The Chairman, and Drs. Bowles, T. Eastes, and Gogarty spoke; and Mr. Raven replied.

2. Mr. KNIGHT TREVES (Margate) read a paper on the Treatment of Large Glandular Swellings. A good discussion followed.

3. Dr. A. DE WATTEVILLE (London) showed some Electric Apparatus, and spoke of the use of Electricity in Diagnosis.

Dinner.—The members afterwards dined together at the Royal Fountain Hotel.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Gastric Bruits Synchronous with Heart-beats.—Regeneration of Tendons by Grafting.—The Zymotic Properties of certain Virus.—The Properties of Manganese.—Stimulation of the Cerebellum.—The Microbe of the Measles of Pork.—The Pyocyanic Affection.—The Dangers of Nitrous Protoxide.—General News.

M. FRANÇOIS-FRANCK, who now replaces M. Marey in his professorial chair at the Collège de France, made an interesting communication at a recent meeting of the Société de Biologie, on *Bruits Gastriques Rythmés avec le Cœur dans un Cas de Dilatation de l'Estomac, avec Adhérence probable du Péricarde* (gastric bruits synchronous with the

heart-beats in dilatation of the stomach, with probable adhesion of the pericardium). Since the time of Laennec, several physicians have recorded metallic cardiac *bruits* in cases of dilatation of the stomach; Skoda, Dechambre, Gerhardt, Leichtenstern, etc., mention several instances of this kind. Korczynski adds to the number, in clinical notes published in 1879 in the *Wiener Medic. Presse*, No. 47. M. François-Franck has likewise met with such instances, but the subject of his communication to the Biological Society differed in some important respects from the phenomena previously met with. The patient did not present a resonant metallic *bruit* resulting from an exaggeration of the valvular sound, in consequence of the stomach being dilated and filled with gases; but a gurgling systolic *bruit* (*un bruit de gargouillement systolique*) similar to that heard when a thick fluid is beaten. The *bruit* was at its maximum in the epigastric region, but was heard at a distance from it. There are two hypotheses to explain these extracardiac *bruits* of gastric origin. The first supposes that at each systole the heart contracts abruptly, and the heart, stomach, or lung receives a shock; the second believes that the *bruit* is the result of the contraction of the ventricles when they empty their contents. This latter theory coincides with M. Potain's exposition of the clinical aspect of the question; he showed that these *bruits* are not systolic, but mesosystolic, appearing at the same moment that the ventricles empty themselves. The extracardiac *bruits* of gastric origin are owing to dilatation of the stomach, to its walls being flaccid, or to an accumulation of fluid or gases in an organ. In addition to these causes, it is possible that violent systolic contraction of the heart may also enter into the question. Adhesion of the pericardium always increases the force of systolic contraction. Extracardiac *bruits*, with contraction of the epigastric surface, synchronous with cardiac pulsation, accompanied by exaggeration of the normal jugular pulse, may be considered as symptoms that indicate with unfailing certainty cardiac symphysis. In the case of M. François-Franck's patient, when the stomach was emptied of its gases and its other contents, the *bruit* almost entirely disappeared. The patient, who had been much inconvenienced by its existence, was the first who perceived its disappearance; nevertheless, auscultation revealed traces of its presence. It reappeared when Vichy water was introduced into the stomach, but the characteristic gurgling noise was absent; this was probably due to the absence of viscosity in the contents of the stomach, which was abundant when the *bruit de gargouillement* was heard.

MM. Fargin and Assaki, with the view of ascertaining the best surgical method for obtaining regeneration of tendons when they are shortened by wounds or in operations, tested upon animals the method which Gluck had applied to human subjects. He joined together, by a bridge of catgut threads, the two extremities of a cut tendon. MM. Fargin and Assaki excised a portion of a rabbit's tendo Achillis, and filled up the hiatus with catgut threads, rigorously observing all antiseptic methods necessary to ensure reunion by first intention. After the operation, the animal slightly dragged the paw operated on; it was killed on the forty-ninth day. On examination, it was observed that the catgut threads were replaced by a fibrous production, and its structure closely resembled that of a tendon, without being identically the same. Another animal was operated on in the same way, and was killed one hundred days subsequently; it was then observed that the newly formed tendon was more fully developed than the one in the preceding experiment. Encouraged by the success, these authors made further experiments. They substituted portions of tendon for the catgut. In one series of experiments, the tendons used for grafting were taken from an animal of the same species as the one operated on; in another series, from animals of a different species. They grafted on a rabbit from the tendons of a sheep, of a dog, duck, fowl, and turkey, and *vice versa*. They observed that reunion by first intention took place rapidly, notwithstanding the difference in the zoological rank of the animals. These results evidently warrant surgeons adopting the method of animal-grafting. When reunion by first intention is impossible, and the loss of tendon-substance must be replaced by a substitute, the chance of success will be greater if the tendon used for grafting be chosen from an animal which is nearest in zoological order to man. Rigorous antiseptic measures are indispensable.

M. Arloing, in a recent communication to the Académie des Sciences, stated that he had made experiments with four different principal viruses, blood from charbon (Toussaint), puerperal septicæmia, gangrenous septicæmia, and bovine, symptomatic charbon. The results are as follows. The anaerobic virus of gangrenous septicæmia, of bovine amphysematous charbon (or Toussaint's charbon) when fresh produces butyric fermentation in most of the fermentable sugars, and in several neuter hydrocarbon substances. Almost the same results are obtained with virus which has been recently dried. When the

virus has been dried for some length of time, or when its pathogenic activity is diminished by the action of heat, these lose their zymotic action, but retain, nevertheless, their dangerous properties. Therefore the deduction follows that the pathogenic properties of virulent micro-organisms is to a certain degree separate from that of their zymotic properties. The latter disappears first, which indicates that it is contained in the mycelium, and not in the spores.

M. Debierre, of Lille, forwarded a note to the Paris Biological Society, stating that manganese has the effect of rendering the process of nutrition slower, and of encouraging the formation of blood-corpuscles.

M. Dupuy stated that if the surface of the cerebellum be stimulated, certain groups of muscles contract. M. François-Franck observed that epileptic attacks are likewise produced.

M. Roux, at a recent meeting of the Biological Society, stated that the specific microbe of the disease known as the measles of pork, is easily cultivated in peptonised broth; it dies at a temperature of 55° Centigrade (131° Fahr.). Cultivation-fluids from which air is carefully excluded during the process, preserve their virulent property a considerable length of time. Rabbits, mice, and small birds die if a little blood of spleen pulp taken from a pig dead from measles is inoculated under the skin. The virulence of the virus is attenuated by exposing the cultivation fluid for some time to the air at a temperature of 37° Centigrade (98° Fahr.), and with it pigs can be inoculated, and thus guaranteed against measles.

At a recent meeting of the Paris Biological Society, M. Charrin stated that he had inoculated some rabbits with some drops of pyocyanin, and thus determined an affection which presents two clinical aspects, one acute, the other chronic. The principal morbid feature is the presence of albumen in the urine; this is followed by diarrhoea, retention of urine, ophthalmia, and paralysis. After inoculation, if portions of the spinal cord, or a small quantity of serum, be cultivated in broth, the presence of pyocyanin is detected. When the micrococci contained in the cultivation fluid are removed by filtration, an enormous quantity must be used in inoculations in order to provoke a pathological condition. Thus it may be concluded that the toxic principle of pyocyanin residing in the microbes manifests itself by provoking nephritis, enteritis, etc.

M. Gréhaud stated before the Société de Biologie that nitrous protoxide does not act as an anæsthetic, but as an asphyxiating agent. Dentists happily describe its action by saying that their patients *vivent*, which means that they turn blue. M. Gréhaud believed that deaths from laughing gas were few, because it was only used for short operations, but it was an essentially dangerous anæsthetising agent, and its use ought to be forbidden. M. Lafont had ascertained that accidents had resulted from its use. An infant died *in utero*; albuminuria returned in a cardiac patient; menstruation was arrested in another; epileptic fits which had ceased reappeared, and sugar reappeared in the urine of diabetic patients who had considerably improved in condition.

MM. Henneguy and Vignal showed, at a recent meeting of the Paris Biological Society, a modification of the Cambridge rocking microtome. In the original model it is necessary to count the notches, in order to ascertain the thickness of the sections; also the direction of the embryo cannot be changed after it is fixed on the instrument. In the instrument modified by MM. Henneguy and Vignal, by the aid of an indicator moving along a graduated circle, controlled by the regulating piece, the thickness of the sections is at once ascertained. By means of a holder, capable of being moved on three different axes, the pieces studied can be moved in any direction.

M. Ranvier, Professor of General Anatomy at the Collège de France, has suspended his lectures this session, and is replaced by M. Malassez, whose works on pathological anatomy are well known. M. Malassez has chosen as his programme The Blood, the Lymph, and their Vessels. M. Malassez's well known researches on blood-corpuscles, in health and disease, are sufficient guarantee of the value of his present course of lectures, which attract a numerous audience of advanced science students.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Christmas Recess.—University Medical Staff Corps.—Sanitary Inspectorship.—City Mortality.—Inspection of Meat-Supply.—Trepahining in Epilepsy.

THE medical classes formally close on the afternoon of Wednesday, the 23rd current, for the Christmas and new year holidays. To meet the convenience of those students whose homes are at a distance, the

day of reassembling has been fixed for Tuesday, January 5th, which will give a break of nearly a fortnight in the work of the session.

Steps have been taken for the formation of an University Medical Staff Corps, in the shape of a fully equipped and trained bearer-company. A largely attended and enthusiastic meeting of university students was held last week in the Physiology class-room to hear a short explanatory address from Dr. Beatson on the subject; and eventually a committee of students was appointed to make all necessary inquiries and obtain definite information as to the conditions of service under which members would be enrolled, and as to how far Government would furnish ambulance material. There ought to be no difficulty in establishing in Glasgow a branch of volunteer work which has been very successful in London and Edinburgh, and has recently been very warmly taken up in Aberdeen.

The vacancy in the very important post of Sanitary Inspector for Glasgow has been filled up by the appointment of Mr. Peter Fyfe, who was recommended by the Health Committee, and their choice has been confirmed by the Council. Mr. Fyfe's most formidable opponent was Mr. Mackay, Sanitary Inspector at Greenock, who is well known as an able and efficient officer. In thus selecting a local man, with an intimate and extensive acquaintance with the city, the authorities have acted wisely, and it is to be hoped that his appointment will be accompanied by such revision of the rules of his department that Dr. Russell, medical officer of health, will really be the supreme authority in all matters connected with the health of the town.

The mortality in Glasgow for the week ending December 12th was 29 per 1,000, the rate during the previous week being 26. It was only to be expected that the severe weather of last week, with its frost and fog, should have made itself felt. There is no further extension of the small-pox outbreak, but Dr. Russell's last report states that there have been twenty-one fresh cases of typhus fever removed from the Industrial School for Girls, making a total of fifty-one cases in hospital from this institution alone. So far, no deaths have occurred among these patients.

I am sorry to see that the recommendation of our Police Board to the Markets Trust to increase the number of inspectors of the food in the dead-meat market has not been accepted. There can be no doubt that many of the animals sold in the cattle-market are in poor condition and unfit for food, as Dr. Russell has very recently stated, and it is the duty of the authorities to take measures for preventing any such being employed as food. If the only way of accomplishing this is by increased inspection, they should insist on this being done. On the showing of their medical officer, the present arrangements are a source of danger to the community, and require amendment.

The subject under discussion at the last meeting of the Medico-Chirurgical Society was that of trephining in epilepsy. It was introduced in a paper by Mr. H. E. Clark, in which he gave some very interesting details of the case of a boy who suffered from epileptic seizures, apparently the result of an old-standing fracture of the skull. The seizures had numbered as many as ninety in a month, but had gradually lessened in frequency after the operation of trephining, and ultimately disappeared. At the same meeting, a patient of Dr. McCall Anderson's was shown, in whose case the question of trephining had been raised, as she suffered from epileptiform convulsions, apparently resulting from a depressed fracture of the skull. If the operation be undertaken, it is to be hoped as successful a result will be obtained as in Mr. Clark's case.

GENERAL ANNOTATIONS ON THE LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The General Election.—Small-pox in Liverpool.—The Death-rate of Southport.—Extension of the Seacombe Hospital.—Hospital Finances.—Death of Mr. Parsons.

FOR the past few weeks, the general election has, as in other parts of the country, been the principal matter of interest in this neighbourhood. The results of the Chester and Southport elections have given great satisfaction. Mr. Pilkington, who, as a Southport practitioner, is well known here, received quite an ovation from the general public, on coming to Liverpool a day or two after his election. He is not the mayor of Southport now, as stated in the JOURNAL of December 12th; but he filled that position during the last municipal year. Apart altogether from party politics, the defeat of Mr. Samuel Smith, who was one of the members for the city in the last Parliament, is regretted by many medical men and others who are interested in his philanthropic schemes. Both the candidates for the representation of Edinburgh and St. Andrew's Universities have addressed meetings

of graduates here. Dr. Wallace presided at Mr. Erichsen's meeting; and the candidate, who was very warmly greeted, delivered a most thoughtful and suggestive address, principally having reference to medical reform, and to those parliamentary and national questions that are of especial interest to the medical profession.

Some alarm has been occasioned by an undue prevalence of small-pox in the city during the last two or three weeks; but the outbreak has not assumed serious proportions, and last week it was reported to be subsiding. The disease has not been confined to any one district, but isolated cases have occurred in various parts of the city. The health authorities appear to be unable to say definitely how these cases have originated; but it is thought that the disease has been brought from Montreal. No ship is examined by the quarantine-doctor on arrival in the Mersey, unless the master reports to the Customs authorities that there is sickness on board; and, although ship-captains are under a heavy penalty (£100) to report all sickness, it is certain that the existence of disease is frequently concealed by them.

Some interesting statistics were brought forward at a recent meeting of the Southport Town Council by the Medical Officer of Health, Dr. Vernon. During the seven years 1872 to 1878, there were in the borough 477 deaths from zymotic diseases, or a yearly average of 68; and, during the seven years 1879 to 1885, there were only 261 deaths, or a yearly average of 37. During the first period, the number of deaths from fever was 154, or a yearly average of 22; and, during the second period, 40 deaths, or a yearly average of 5.7. The death-rate for the last month was 18.61; and of the deaths, 67 in number, 21 were those of persons aged 60 years and upwards.

Last week Captain Cotton, the newly elected member of Parliament for the Wirral division of Cheshire, formally opened the two new wards that have recently been added to the Seacombe Cottage Hospital.

Two more of our medical charities—the Eye and Ear Infirmary, and the Royal Southern Hospital—must be added to the list of those whose funds have been seriously affected by the general depression of trade. Each of these hospitals requires at least £2,000. The treasurer of the Southern Hospital states that the deficiency is owing to the very small amount of donations and legacies received this year, and to the subscriptions having decreased by reason of the long continued depression.

By the death of Mr. D. W. Parsons, a well known figure disappears from medical circles in Liverpool. For many years, he had taken a great interest in the volunteer movement, and many officers and men of the 18th Lancashire Rifle Volunteers, of which corps he was formerly Surgeon-Major, were present at his funeral.

CORRESPONDENCE.

WANT OF MILK FOR VILLAGE INFANTS.

SIR,—In the JOURNAL of December 5th, there is an excellent article on the supply of milk for village infants. I was very pleased to find one of our brethren handle the question in such a masterly way. I practise in an agricultural district, within a few miles of a moderately large town. The farms are all dairy, the milk is sent to town, and even the labourers on the farm have the greatest difficulty in obtaining a small quantity in case of extreme emergency. I have frequently seen new-born infants fed on bread-sop until the arrival of the mother's milk. Why? Because they could not procure cow's milk. It is a sad experience to record such in a place flowing with milk. It is like dying of thirst with a fountain beneath our feet. With regard to tinned milk, there is none available in this district, unless by going to town for it, so that we are really worse off than the townspeople.

If you will kindly give this publication, I shall be obliged.—I am, sir, yours sincerely,

Kinson, Wimborne, Dorset.

S. MONTGOMERY.

FATAL MISTAKES IN TAKING MEDICINE.

SIR,—I observe, under the above heading, in last week's JOURNAL (December 12th), an account of a death caused by the administration of a dose of liniment instead of mixture, some blame being attached to the medical attendant for putting the liniment in an ordinary medicine-bottle. As recommended, I have always given patients

poisonous preparations in blue fluted bottles; but, notwithstanding this precaution, I have found that accidents will occur, as the following case shows.

Some time ago, I gave an intelligent man, who had acute bronchitis, a little croton-oil liniment in a blue fluted bottle bearing a red "poison"-label. One night, being unusually distressed by the cough, he thought he would add to my remedies a dose of his wife's cough-drops—a patent medicine in a strong bottle, with the maker's name in raised letters upon it. As the room was dimly lighted, he took up a bottle which, he supposed, contained the cough-drops, and, feeling its surface rough—due, as he supposed, to the raised letters—he helped himself to a dose. He was not long in discovering his error. Though terribly alarmed, and very ill for a few hours, he was, on the whole, immensely relieved by the croton-oil.—Yours faithfully,

A. EDDOWES, M.D.

Market Drayton.

TREATMENT OF GRAVES'S DISEASE BY GALVANISM.

SIR,—In the JOURNAL of December 5th, Dr. Suckling calls attention to what he appears to consider the extraordinary success which has attended my treatment of a case of exophthalmic goitre by electricity, and seeks to discredit my statement by covertly suggesting that my results are too successful to be true. He says I "reported in this JOURNAL, some time ago, a case cured by Duboisin." Dr. Suckling is inaccurate. I published in the JOURNAL of May 19th, 1883, a case treated with the sulphate of this alkaloid, in which considerable amendment took place in the nervous system. The result of the case, however, went to confirm the generally received opinion of the impotence of drugs to cure this disease. Nevertheless, a remarkable instance of cure is given by de Mussy in his monograph.

The cure of exophthalmic goitre by subaural galvanisation (galvanisation of the cervical sympathetic, as it is most unscientifically and inappropriately termed, implying, as this expression does, that it is possible to single out this nerve for electrical excitation) is not so rare as Dr. Suckling, judging from the results of his own personal practice, thinks. This remedy has been used successfully by Moritz-Meyer, Leube, Von Dusch, Wietfeld, and others. Rockwell, out of nine cases, obtained the following results: four completely cured, one approximately cured, two much benefited, two unimproved in any respect. Ancona cured a severe case after the hundredth application of galvanism; while Bartholow has cured three cases by this agent. With these facts before us, too much therapeutical lethargy, and too much faith in "the wonders wrought by time," are not commendable.—Yours faithfully,

LESLIE PHILLIPS, M.D. BRUX.

3, Lincoln's Inn, Birmingham.

THE MEDICAL DEFENCE UNION.

SIR,—In a letter published in the JOURNAL of December 5th, Mr. Rideal, the Secretary of the Medical Defence Union, asks me if the Medical Defence Association did not "emanate from a solicitor's office in John Street, Bedford Row?" In reply to Mr. Rideal's appeal to "be fair and confess," I have to state that the solicitors were not appointed until some time after the association was formed, as will be seen from the following extract from the minutes of a general meeting of the members, held at the Guildhall Tavern, on December 21st, 1875. "Some discussion having taken place on the question of appointing a solicitor to the association, it was proposed by Mr. Brown, and seconded by Mr. Reid, 'that the question of the appointment of a solicitor be left *pro tem.*, with the Council, and that the Council be requested to report the next general meeting, on the propriety of appointing a solicitor, and standing counsel to the association.' This resolution, after some discussion, was carried. No solicitor or other legal gentleman had anything whatever to do with the formation of the Medical Defence Association, or the sending out of our circulars. If Mr. Rideal has been informed otherwise, he has been misled.

In closing this correspondence, let me assure Mr. Rideal that I entertain no feeling of rivalry towards the Defence Union, or other similar organisation, and I am pleased to hear that he has been fortunate enough to secure the co-operation of such well-known workers for the weal of the profession, as Messrs. Carpenter and Hentsch, and Dr. Rogers, and I trust that the result of their combined efforts will be to fulfil the objects which the promoters of the Defence Union appear to be aiming at.—I remain, yours faithfully,

GEORGE BROWN, Honorary Secretary, Medical Defence Association.

60, Chandos Street, Covent Garden.

DIPHTHERIA AND SANITATION.

SIR,—It appears to me a very dangerous doctrine for the medical officer of health of a thickly populated parish like St. Mary, Islington, to promulgate, that it is a doubtful question whether diphtheria arises from such a cause as defective drainage. I can only account for Dr. Tidy's coming to such a conclusion, by the fact that he has become a scientist, and no longer enjoys those opportunities for clinical observation which can alone decide this question. If there be one point more certain than another as regards this obscure disease, it is its etiological connection with all kinds of defective sanitation, especially with defective drainage-systems. I have been able to trace this connection over and over again.

As the question concerns largely those who are not able to have the assistance of a specialist to examine the matter, I would suggest that some competent outside and independent authority should be asked to examine into the integrity of the drainage-system in the particular houses alluded to in Upper Holloway. Much depends on what is, or is not, considered defective. If a sanitary engineer like Mr. Rogers Field, for instance, were consulted, we might hope for an authoritative and unbiassed expression of opinion, which would be of the greatest utility.

The amount and severity of diphtheria at present in London is not inconsiderable. I should fear it will largely increase, should vestries generally be advised that there is no "ground for attributing it to defective drainage, as alleged."—Yours, etc.,

London.

ROBERT W. PARKER.

PERINEORRAPHY.

SIR,—Dr. Percy Boulton has evidently contrived some operation of his own which, in his own hands, succeeds admirably, and with which he confounds Langenbeck's operation. Taking the description of Langenbeck's operation from Baker Brown's book as indicated by Dr. Boulton, it is a very easy matter to show that in every detail there summarised Langenbeck's operation is absolutely the reverse of my own. When Dr. Percy Boulton follows Baker Brown in translating the word "dedoublement" as "splitting," he falls into exactly the same mistake which Baker Brown did; and from this it is clear that both of them imperfectly understood what Langenbeck's operation really was. Let me briefly take the five points as given by Baker Brown as essential to the operation of Langenbeck, and briefly contrast them with my own.

1. "Vivisection of the free border or spur of the recto-vaginal septum." I do nothing of this kind at all, for it is perfectly unnecessary. It weakens the flaps, and by reason of its destruction of valuable tissue the patient would be thereby so much the worse if the operation should fail. On the contrary, in my operation, as not one scrap of tissue is removed, if the operation should fail, the patient is precisely as she was, and the proceeding may be repeated under no less advantageous circumstances.

2. "The splitting of the septum and the formation of a flap destined to form in the new perineum the anterior side of the triangular space formed by the two canals, vagina and rectum, with the perineum as the base." After the subsequent description of this splitting is read, it will be seen that it really is not splitting, and that the dedoublement means really the stripping off the vaginal mucous surface from the anterior part of the septum. The description given by Baker Brown is very difficult to follow; but this is clearly what is done, and it is proved completely by his speaking of the formation of a flap, whereas in the true splitting which I carry out four flaps inevitably are formed, two being turned into the rectum and two into the vagina, a lozenge-shaped space being formed between them. This is absolutely the reverse of what Langenbach recommends.

3. "Vivisection of the two lips of the laceration." Again, I do nothing of this kind, but some such step is essential by the incomplete splitting process of Langenbach. The one stroke of the scissors by which the whole thing is done in my operation makes all these vivisections absolutely unnecessary, as would be apparent to Dr. Percy Boulton if he saw me operate.

4. "Insertion of sutures." Of the details of this proceeding, my plans are wholly the opposite of those recommended in Dr. Dieffenbach's; being much more easily and rapidly carried out by one needle, when Dieffenbach requires two different kinds.

5. "Two semilunar incisions advised by Dieffenbach." These incisions are wholly unnecessary, and are not used in my operation at all.

I need not pursue the matter further than to say that nothing is used in my operation but a pair of scissors, and a strong-handled needle with the necessary sutures; no kind of dissection is made;

the operation is performed with extreme rapidity, without the loss of any tissue, and that, from the peculiar method of introducing the sutures, it is never necessary to tie any bleeding vessels, so that the whole thing becomes simplicity itself. All the details of the after-treatment as recommended by Diellenbach himself, Verhasghe, and Baker Brown, are as nearly as possible the opposite of what takes place in my own practice.—I am, etc.,

LAWSON TAIT.

THE DANGERS OF CUCAINE.

SIR,—As I was unable to attend the recent meeting of the Ophthalmological Society, whose proceedings are recorded in your columns, will you kindly allow me to add my testimony to Mr. Nettleship's interesting observations on the dangers of cucaïne? I have myself seen two cases similar to those he describes, and a series are recorded in a recent number of the *Therapeutic Gazette*, an American journal.

All solutions of cucaïne are liable to deteriorate by the growth of microscopic organisms, and, unless the tendency be checked, there is danger that the wound with which they come into contact will become infected. I should not think it was safe to use a simple watery solution that was more than a week old, but such dilutions may be protected indefinitely by the addition of carbolic acid, boracic acid, salicylic acid, and bichloride of mercury. Carbolic acid, unless in infinitesimal proportion, is too irritating to apply to the eye. There is evidence that boracic acid alone is not quite so effectual as other preventatives, and salicylic acid, though a first rate preservative, is, unless in extremely feeble solution, also apt to cause surface-irritation. I have, therefore, for some months past, used as a medium for the solution of cucaïne, a saturated solution of boracic acid, containing one five-thousandth part of bichloride of mercury; and, although I have used this preparation in a vast number of cases, I have never, since its adoption, seen any ill results. The immense value of the bichloride as an antiseptic in cases of cataract extraction, seems amply demonstrated by some statistics recently published by Alfred Graefe.

Graefe divides his cases into four categories. In the first, he bathed the eye to be operated on, before and during the operation, with a solution of carbolic acid, two per cent.; of these he lost five per cent. In the second, he used carbolic spray; of these, he lost six per cent. In the third category, he used a saturated solution of boracic acid throughout; of these he lost four per cent. And in the fourth he used a solution of corrosive sublimate, 1 in 5,000; of these, he lost one per cent.

Graefe, therefore, concludes that the corrosive sublimate is by far the best antiseptic. "J'en suis absolument persuadé." Later, however, he has reduced the strength to 1 in 20,000.—I am, sir, your obedient servant, CHARLES BELL TAYLOR, M.D., F.R.C.S. Ed., Surgeon to the Nottingham and Midland Eye Infirmary.

PURE TEREBENE IN THE TREATMENT OF WINTER-COUGH.

SIR,—I observe, in the *JOURNAL* of December 12th that Dr. Murrell, in a paper on the above subject, states that the cases which he relates "were all treated with pure terebene, a substance prepared by the action of sulphuric acid on oil of turpentine," and he adds that "it is not the same as the patent medicine sold under the name of 'terebene.'" As the person who originally brought terebene under the notice of the profession, for disinfecting and other purposes, and as this agent has been for some years made, under my patent, by Messrs. Cleaver and Sons, of Red Lion Street, W.C., I shall be glad if you will allow me to state that terebene, as so made, is manufactured by the method mentioned by Dr. Murrell, which was originally suggested by Deville, with certain modifications of my own. The process is essentially a gradual one, the more or less complete transformation of the whole of the turpentine into terebene being dependent on the careful maintenance of the requisite conditions, of which temperature is the chief. If this is not done the product will be contaminated by a greater or less per centage of unchanged turpentine, and in this sense it may be said to be impure.

I do not know, of course, whether Dr. Murrell refers to the terebene made and sold by Messrs. Cleaver or not; especially as, though its use is patented by me for certain purposes, it is not what is ordinarily known as a "patent medicine." Perhaps he has in his mind an article of a very different kind, known as "terebine," and used by painters as a dryer.

I may add that I have for a long time been aware of the valuable properties of terebene-vapour as a pulmonary astringent and tonic, and devised a little appliance for this, amongst other purposes, under the name of the "trissophial;" but, as I am not in practice, my own opportunities for making observations in this direction are very

limited. Attention has, however, been called to this use of terebene on several occasions during the past few years in the medical journals.

I may add that I have not been able to discover that the presence of a certain percentage of untransformed oil of turpentine in terebene, when used for this purpose, is at all prejudicial. Indeed, I consider that the special effects of terebene, when used in this way, are rather enhanced than otherwise by its containing a certain amount of untransformed oil of turpentine, the astringent properties of which are so well known.—Yours faithfully,

Gloucester.

FRANCIS T. BOND, M.D., F.R.S.E.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FORGING AN UNIVERSITY CERTIFICATE.

J. B. THOMPSON, a medical student, from Belfast, pleaded "guilty," last Wednesday, at the winter assizes for Ulster, held at Omagh, county Tyrone, to the charge of uttering a forged certificate of matriculation in the Royal University of Ireland. Baron Dowse sentenced him to six months' imprisonment, with hard labour; the reasons for this comparatively moderate sentence being the state of the prisoner's health, and the fact that he had made important disclosures to the Public Prosecutor. The offence and its discovery were as follows. Thompson forwarded, six months ago, to the Branch Medical Council in Dublin what purported to be a certificate of having passed the matriculation examination of the Royal University in November, 1881. The attention of the registrar, Dr. Heard, was attracted by the date, "November." October has been the usual time with the Royal University for holding its matriculation examination; but its first examination was held in December, 1881. A further scrutiny revealed other discrepancies. The document was an excellent lithographed imitation of the lithographed forms on which the University issues its certificates, so that the parties to the transaction must have gone to the expense and trouble of forging the lithograph. A close examination of the genuine form and the forgery brought out several minute differences. The signatures of the secretaries of the University are attached to genuine certificates by means of an impressed stamp; but in this case the names were written in an ink resembling the genuine ink. Had the date been correct—and it could have been most easily ascertained—the forgery would, most probably, have escaped detection; another illustration of how often an attempted crime fails through carelessness about some very easy detail. This is believed to be the first case of the kind.

THE PAYMENT OF MEDICAL WITNESSES.

At the Munster winter assizes held at Dublin on December 11th, Judge O'Brien, referring to the stinginess of the Treasury in paying medical witnesses at assizes two guineas a day, said he would not require the services of any medical man under three guineas daily, railway-fare, and expenses. The Treasury, whoever they were, whether clerks in this country or elsewhere, had a great opinion of their own power, and constantly asserted it, but he would assert his also. He instructed the Crown Solicitors to inform the Treasury if they had any fear of being surcharged, that he announced that witnesses must be paid properly, and he would treat as contempt of court any disobedience of his directions. This emphatic declaration should be of great value, and we trust it may form a precedent of extended value.

LUNACY.

JUSTICES Mathew and A. L. Smith have heard the arguments in support of the rule for a new trial of the actions brought by Miss Neave against Dr. Hatherley and Dr. Gardiner, for signing a certificate for her removal to a lunatic asylum, a verdict against her having been returned at the former trial, before Lord Coleridge. The medical men relied partly on statements made by Miss Neave's mother, and counsel contended that they had not taken sufficient care before signing the certificate. Mr. Justice Mathew said that a medical man was not bound to be infallible, and whether he was dealing with a patient suffering from physical or mental disease, his obligation was only to exercise proper care and skill in performing his duty. The rule was discharged, with costs, but execution was stayed with a view to an appeal.

DOVER.—Professionally objectionable as is the circular referred to by our correspondent, we can only regretfully remark that past experience teaches us that a practitioner capable of issuing such would be insensible to editorial or other reproach. Indeed, we believe that such professional immodesty, so to speak, can only be effectually controlled by the strict subjective discipline of the several "licensing bodies" over their respective members, such as has re-

cently been called into action, in the case of an old practitioner in Yorkshire, who, in consequence of his persistent refusal to discontinue a charlatan advertisement, has had his name removed from the membership of the Royal College of Surgeons of England, and his qualification erased by the General Medical Council from the *Medical Register*. Like decisive action on the part of the several Royal Colleges would, we are inclined to think, ere long effectively check such unethical proceedings as our correspondent justly complains of.

With the view, therefore, to stimulate a like healthy collegiate action in such and kindred cases, it may, we think, be well, in the interest of the public, and for the honour and well being of the faculty, to forward a copy of professionally degrading advertisements and circulars for the consideration and decision of the particular colleges of which the offending member may be a member.

NAVAL AND MILITARY MEDICAL SERVICES.

THE VOLUNTEER MEDICAL SERVICE.

SIR,—I am pleased to see that Acting-Surgeon Crockwell has modified his views regarding the regimental system; he now considers "that we should be useless on the battle-field, with the exception of rendering first aid to the wounded." Surely most people will admit that "first aid" is not to be despised "on the battle-field," and therefore I was justified in taking exception to his former charge, for it is obvious that, without prompt "first aid," many cases would never reach the field-hospital.

While defending the regimental system, in your *JOURNAL* of November 28th, I did not imply "that nothing further can be wished for," and it is incomprehensible to me how Acting-Surgeon Crockwell could come to that conclusion from my remarks. Every volunteer knows that, in case of war, field-hospitals, etc., fully equipped would be required, in addition to regimental surgeons and bearers, and the latter would be in their proper places, ready to render first aid and convey the wounded to the rear, to be received by the men of the Medical Corps.

Surgeon-Major Evatt, in his excellent pamphlet on Army Medical Organisation, advocates "a Volunteer Medical Corps," which "would in no wise interfere with the existing regimental bearers or surgeons," and if Acting-Surgeon Crockwell had contented himself with supporting that scheme, no one would object; but his attack on the present system, and his cry for "change," demanded a reply. I regret to notice the sarcasm of his response, and that he is careful to disguise the fact that, while defending the object of his attack, I advocated the Volunteer Ambulance Corps as most desirable and deserving the hearty support of the medical profession.

Let each surgeon not "change from," but stick by his regiment; let him see that his arrangements are complete, and then, in case of necessity, as Acting-Surgeon Coates clearly puts it, "the immediate requirements of the wounded could certainly be attended to." At the same time, let all of us assist in developing the Volunteer Medical Corps, and induce our friends to join and make it a success.—Yours faithfully,

THOMAS M. WILLS, Surgeon 15th Lancashire R.V.

SIR,—The only way to make this service efficient is to assimilate it at once to the Medical Staff Corps. The present system is entirely worthless. A commencement in this work of reorganisation has been made in London by the formation of several bearer-companies in the medical schools there. It is a pity that this movement should be limited at present to London. Every military district should have its bearer-companies. From these, in times of national emergency, the Medical Staff Corps could be augmented, or volunteers could be asked for, to take service abroad for limited periods, as has been recently done with the Post Office Volunteers and certain engineer corps. The regular medical service of the Army would thus be capable of great expansion, even at short notice. The authorities do not seem to give much encouragement to those who are desirous of carrying out this plan. For example, Surgeon-Major Taylor (of the Scarborough Volunteers) is prepared to put 100 bearers in the field if he can obtain the sanction and support of the War Office and the Treasury to form a bearer-company. Dr. Taylor (whose zeal and energy are great) has already half that number trained and certificated, and he has many promises of support if he can get the necessary leave to form his bearer-company. Up to the present, this sanction has not been given. If it be a question of expense, one would think the country could hardly grudge the money, seeing the pressing necessity that exists for providing for the wants of her defenders in case of need. I hope all volunteer surgeons who are in earnest, will continue to agitate till the desired reform is obtained.—I am, yours truly, R. BRUCE LOW, Acting-Surgeon, Helmsley, 2nd Volunteer Battalion Yorkshire Regiment.

POSTGRADUATE, OR SECONDARY COURSE FOR ARMY MEDICAL OFFICERS.

SIR,—I think the officers of the Army Medical Service should be grateful to "I.V.R.C." for the persistent manner in which he advocates reform, which is an absolute necessity. His first letter on this subject was followed by an article which seemed strangely at variance with the usual hearty co-operation which the just demands of the Army Medical Service have received in the columns of the *BRITISH MEDICAL JOURNAL*. I think the statement therein made, that "military medical officers have the same means of improving themselves and keeping up their knowledge as the great bulk of civil practitioners," has been successfully refuted by "I.V.R.C.," in his letter which appears in your *JOURNAL* of December 5th, and he might have added that he considered we should be a step in advance of the great bulk of civil practitioners. It would appear that the *ex cathedra* statements which were evoked by "I.V.R.C.'s" letter, were more the assertions of an offended deity, than the honest criticisms of a letter of one trying to benefit his fellows.

It is not from Whitehall Yard, however, or from the regulations on the subject of leave, either "privilege" or "special," that we must seek for information on the means of improvement at the disposal of the army medical officer, but from the facts of experience, from the actual condition of the relations which exist between those who should be able to give assistance, and those who require guidance.

We all know that consultations with the leading members of the profession are calculated to improve and develop thought, that consultations with specialists are in like manner a source of instruction, as are also the debates of the various societies open to the profession, but where are such open to the

military surgeons? His consultations are "boards," and for information he is dogmatically referred to the code of regulations. Is the improvement to be gained merely by wading through the labyrinth of often conflicting writings recorded in the medical journals? If such be possible, he has such a source occasionally at his command, but only occasionally; for when the time occupied by voyages on shipboard, long marches, field-service, cholera-camp, etc., is deducted, it will be found that there are considerable blanks even in this.

As to leave, the experiences of the writer may be taken as a fair sample. Four months out of twelve years in India; four months' leave in England on return from different tours of foreign service, and other three months' at various times when opportunity occurred—in all, about eleven months' privilege leave during twenty years, generally at times that professional improvement was not available.

The working majority of the Army Medical Service would endorse every word of "I.V.R.C.'s" letter, although favoured officials who spend most of their time in Whitehall Yard would, from want of sympathy with the service to which they belong, probably not do so.

"I.V.R.C." does not appear, however, to have found out that it is mediocrity which is aimed at, which can best obtain that subserviency and humility which prevents friction and possible denunciations from Olympus. In this, we are on a par with the "poor-law" officers who, for the same reasons, have to mollify Mr. Bumblebee, the guardian, and Mr. Alderman Turtle, the civic dignitary.

I agree with "I.V.R.C." that the desired means of professional improvement must come. The desire is far removed from the fanciful requirement of military command, and the baubles of decorations which sometimes flood your pages, and should be supported from within as well as from without the ranks of a medical service which should be, and is not, the best in the civilised world.

—Yours truly,

N. M. I. L.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

		From	To
Dep. Surg.-General	S. B. Roe, M.B., C.B.	Dover	Madras.
Brigade-Surgeon	W. Collis	London	Bengal.
"	H. Knaggs	C. of Good Hope	Winchester
"	G. C. Gribbon, M.B. ..	Aldershot	London.
"	A. J. Ferguson	Woolwich	"
"	A. Allan, M.D.	Portsmouth ..	Bombay.
"	F. Ferguson, M.D.	"	Jersey.
"	J. Y. Donaldson, M.D. ..	Bengal	Shorncliffe.
Surgeon-Major	W. Venour	Clifton	Bengal.
"	J. B. Hamilton, M.D. ..	Dublin	Bengal.
"	C. S. Wills, C.B.	Bengal	Canterbury.
"	J. S. M'Adam	"	Hilsea.
"	C. M. Cuffe, C.B.	Dublin	Bengal.
"	J. R. Greenhill	"	Canterbury.
"	T. M. Kirkwood	Curragh	Madras.
"	J. B. Kelly	Madras	Limerick.
"	R. H. Carew	Bengal	Birr.
"	T. W. Patterson	Aldershot	Bengal.
"	J. R. Croker	York	Aldershot.
"	W. J. Fawcett, M.D. ..	Devonport ..	Clifton.
"	J. M'Namara, M.D. ..	Netley	Sierra Leone.
"	A. W. Bate	Dublin	"
"	R. W. O'Donnell	Curragh	Madras.
Surgeon	John Martin	Egypt	Dublin.
"	H. G. Gardner, M.B. ..	Bull Point ..	Plymouth.
"	A. E. Hayes	Bengal	Shorncliffe.
"	J. L. Peyton, M.B.	York	Leeds.
"	R. T. Beamish, M.D. ..	Curragh	Dublin.
"	K. S. Wallis	"	Colchester.
"	F. R. Barker	Bengal	Aldershot.
"	F. R. A. Clark	Bengal	Aldershot.
"	W. D. A. Cowen	Madras	Portsmouth.
"	C. R. Egan, M.B.	Bengal	Dublin.
"	W. S. Lecky, M.B.	C. of Good Hope	Aldershot.
"	D. L. Irvine	York	Sheffield.
"	E. R. Cree	Gosport	Bengal.
"	S. A. Crick, M.B.	Fleetwood ..	Preston.
"	A. P. Hart, M.B.	"	Colchester.
"	T. F. W. Fogarty, M.B. ..	"	Cork.
"	A. Sharpe, M.D.	Bengal	Belfast.
"	L. W. Swabey	Devonport ..	Bengal.
"	R. Porter, M.B.	Egypt	Dover.
"	G. J. Coates, M.D.	C. of Good Hope	Tipperary.
"	J. Maconachie	Portsmouth ..	Winchester.
"	A. H. Morgan	"	Dublin.
"	J. Osburne	Clonmel	Buttevant.
"	R. C. Johnston, M.B. ..	Dublin	Curragh.
"	R. T. McGeagh, M.D. ..	Devonport ..	Exeter.
"	F. H. Treherne	Egypt	Aldershot.
"	J. M. Stewart	Egypt	Jersey.
"	H. A. de Lom	Egypt	Woolwich.
"	W. C. Beever	Malta	Scots Guards.
"	R. S. F. Henderson, M.B.	"	Portsmouth.
"	C. J. Holmes, M.D. ..	Dublin	Ceylon.
"	W. Turner	"	York.
"	H. J. Fletcher, M.B. ..	Sheffield ..	Bengal.
"	S. H. Lindeman	Shorncliffe ..	Bengal.
"	S. Powell, M.B.	Pontefract ..	Bengal.
"	F. W. C. Jones, M.B. ..	Preston	Bengal.
"	J. W. F. Long	Dublin	Bengal.
"	J. F. Bateson, M.B. ..	York	Bengal.
"	W. H. Bean	Colchester ..	Madras.
"	N. C. Ferguson, M.B. ..	Cork	Bengal.
"	S. R. Willis	Shoeburyness	Colchester.
"	J. H. Greenway	Aldershot ..	Bengal.

	From	To
Surgeon R. G. Hanley, M.B.	.. .. Dublin	.. .. Bengal.
" W. H. Bell	.. .. Aldershot	.. .. Bengal.
" J. H. Brannigan	.. .. York	.. .. Bengal.
" M. O'Halloran, M.D.	.. .. Buttevant	.. .. Bengal.
" W. H. Pinches	.. .. Portsmouth	.. .. Bengal.
" J. H. Daly	.. .. Winchester	.. .. Bengal.
" G. J. A. Tukey	.. .. Shorncliffe	.. .. Bengal.
" H. C. Dent	.. .. Aldershot	.. .. Bengal.
" H. G. Hathaway	.. .. Dover	.. .. Madras.
" T. Daly	.. .. York	.. .. Bengal.
" F. J. W. Stoney	.. .. Dublin	.. .. Curragh.
" J. F. Brooke	.. .. Dublin	.. .. Curragh.
" H. N. Kenny, M.B.	.. .. Dublin	.. .. Curragh.
Quartermaster T. Thompson	.. .. London	.. .. Home District.
" W. Pike	.. .. Home District	.. .. London.
" J. Horn	.. .. Western District	.. .. Devonport.

THE NAVY.

The following appointments have been made at the Admiralty during the past week:—JOHN LAMBERT, Fleet-Surgeon, to the *Ajax*; WILLIAM ROCHE, Fleet-Surgeon, to the *Lion*; W. V. C. BARTLETT, Fleet-Surgeon, to the *Impregnable*; WILLIAM TAIT, M.B., Surgeon, to the Devonport Dockyard for Keyham Yard; H. A. M. RICHARDSON, Surgeon, to the *Cambridge*; Mr. T. J. CROWLEY, Surgeon, to the *Espoir*; MICHAEL FITZGERALD, Staff-Surgeon, to the *Britannia*, additional, for temporary service; G. H. H. SYMONDS, Surgeon, to the *Royal Adelaide*; G. E. J. GREENE to be Surgeon and Agent at Kilmore.

ARMY MEDICAL SERVICE.

SURGEON JAMES MAGILL, M.D., Coldstream Guards, has been appointed Surgeon-Major, *vice* C. C. Read, who has retired. Dr. Magill joined the service on May 3rd, 1876, when he was at once appointed to the Coldstream Guards. He accompanied his battalion in the expedition to the Nile towards the end of last year, and greatly distinguished himself at the battle of Abu Klea, where he was severely wounded. It is said that, on that occasion, Dr. Magill, after being struck, actually removed the bullet from the wound himself during the progress of the action.

Inspector-General J. E. WILLIAMS died on July 7th last. He entered the service as an Assistant-Surgeon, May 11th, 1827; became Surgeon July 23rd, 1841; Surgeon-Major, October 23rd, 1849; Deputy Inspector-General, July 20th, 1855; and Inspector-General, May 4th, 1860. He retired on half-pay November 17th, 1863. Mr. Williams had received the Turkish medal and the fifth class of the Order of the Medjidie.

Surgeon-Major EDWIN WILKES died at Jersey on November 1st in the 49th year of his age. His commissions were dated:—Assistant-Surgeon, December 1st, 1858; Surgeon, March 1st, 1873; and Surgeon-Major, January 21st, 1874. Mr. Wilkes had no war-record.

Brigade-Surgeon A. J. FERGUSON has been granted retired pay with the honorary rank of Deputy Surgeon-General. His commissions are dated:—Assistant-Surgeon, September, 1st, 1868; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1875; and Brigade-Surgeon, November 1st, 1884. He was engaged in the recent war in Afghanistan, and took part in the operations in the Muzena Valley. He received the Afghan medal.

Surgeon-Major A. W. BATE, M.D., has also been granted retired pay, with a step of honorary rank. He entered the service March 31st, 1865; became Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1877. He does not appear to have seen war-service.

The surname of the gentleman appointed Surgeon in the *Gazette* of June 16th last is J. H. GREENWAY, not Greenaway, as there stated.

Mr. J. I. M'ARTHUR, M.B., has been appointed Acting-Surgeon to the 1st Banff Artillery Volunteers.

Honorary Assistant-Surgeon D. M. SUTHERLAND, M.D., has resigned his commission in 1st Caithness Artillery Volunteers, which he joined December 1st, 1866.

Surgeon J. COOK, M.D., of the 3rd Middlesex Artillery Volunteers, is granted the honorary rank of Surgeon-Major.

Acting-Surgeon G. P. ENGLAND, of the 2nd Volunteer Battalion of the Lincolnshire Regiment (late the 2nd Lincoln Volunteers), is promoted to be Surgeon.

Surgeon and Honorary Surgeon-Major W. JOHNSTON, of the 1st Stirling Volunteers, has resigned his commission. He is permitted to retain his rank and uniform.

Mr. WALTER ROSSER, M.D., is appointed Acting-Surgeon to the 1st Volunteer Battalion of the Queen's Royal West Surrey Regiment (formerly the 2nd Surrey Volunteers).

Surgeon W. G. MACPHERSON, M.B., who is at present serving in Bengal, has passed the examination for the higher standard in Hindustani.

Surgeon C. R. TYRRELL, serving in Bengal, is appointed to the civil medical charge of Muttra district.

Quartermaster W. JOSEPH has been placed in charge of pay-duties at the Depot and Training School at Aldershot.

Surgeon R. J. FALVE, doing duty at the station-hospital, Madras, is directed to do duty at the station-hospital, Secunderabad.

Surgeon J. I. ROUTH, doing duty at the station-hospital, Secunderabad, Madras Presidency, is ordered to do general duty in the British Burmah division.

Surgeon H. W. MURRAY, M.B., doing duty at the station-hospital, Poonamallee (now at Madras), is to do duty at the Madras station-hospital.

Surgeon-Major F. FALWASSER has been appointed for general duty in the Mhow Circle, Bombay Presidency.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON H. COOK, M.D., Bombay Establishment, First Physician to the Jansejee Jejeebhoy Hospital, and Professor of Medicine and Hygiene to the Grant Medical College, is gazetted Deputy Surgeon-General (superannuated).

Surgeon E. CRISTIN, Bengal Establishment, is appointed to the permanent medical charge of the 1st Native Infantry, *vice* Surgeon J. C. Fullerton, transferred to permanent civil employ.

The services of Surgeon C. L. SWAINE, M.B., Madras Establishment, Medical Officer of the 2nd Infantry Hyderabad Contingent, are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces to officiate as a Civil Surgeon in those provinces.

Surgeon-Major E. A. FITZGERALD, Bengal Establishment, second class Civil Surgeon, is transferred from Bareilly to Meerut.

Surgeon-Major H. GRIFFITH, Madras Establishment, Senior Civil Surgeon of Rangoon, is appointed to the medical and sanitary charge of the British Burmah State Railway.

Surgeon H. ARMSTRONG, Madras Establishment, is appointed Superintendent of the Lunatic Asylum at Madras, *vice* Surgeon Bain, vacated.

The services of Surgeon-Major T. J. H. WILKINS, and of Surgeons H. ST. C. CARRUTHERS and W. F. THOMAS, all of the Madras Establishment, are placed at the disposal of the Provincial Commander-in-Chief.

The undermentioned gentlemen have obtained leave of absence for the periods specified:—Brigade-Surgeon H. CAYLEY, Bengal Establishment, for 122 days in extension; Surgeon-Major W. R. HOOPER, Bengal Establishment, for six months on medical certificate in extension.

INDIA AND THE COLONIES.

AUSTRALIA.

HOSPITAL SATURDAY AND SUNDAY IN MELBOURNE.—It may not be generally known that Hospital Sundays existed in the Colonies long before the idea was taken up "at home." The annual collection has been made in aid of the Melbourne charities in the various business establishments and workshops of the city, and Hospital Sunday was celebrated in the usual manner, special services being preached morning and evening in all the churches. In the afternoon, a number of military bands played in the Botanical Gardens and other public places, where collections were made. In the Town Hall, where the Rev. Charles Strong, minister of the New Australian Church, preached, £327 was collected. The Toorak Presbyterian Church comes next with £303. St. John's Anglican Church, Toorak, contributed £212; St. Francis Roman Catholic Church, £125; All Saints' Anglican Church, St. Kilda, £109; St. Patrick's Cathedral, £81; the Salvation Army throughout Melbourne, about £100; the Collins Street Congregational Church, £78; and the Australian Secularist Association, £52. The record is one which our English churches will not easily surpass in the cause of charity.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,285 births and 8,633 deaths were registered during the week ending Saturday, November 28th. The annual rate of mortality, which had been 19.4 and 19.8 per 1,000 in the two preceding weeks, further rose during the week to 21.3. The rates in the several towns, ranged in order from the lowest, were as follow:—Leicester, 14.9; Hull, 16.2; Birkenhead, 17.4; Cardiff, 17.7; Oldham, 17.8; Bristol, 18.2; Leeds, 18.5; Blackburn, 18.5; Sheffield, 18.8; Bradford, 19.5; Halifax, 20.2; London, 20.6; Wolverhampton, 21.1; Birmingham, 21.6; Sunderland, 21.6; Newcastle-upon-Tyne, 22.8; Norwich, 22.9; Manchester, 23.0; Liverpool, 23.8; Salford, 24.5; Nottingham, 25.7; Portsmouth, 26.0; Bolton, 26.5; Plymouth, 26.8; Huddersfield, 26.9; Brighton, 28.2; Derby, 28.5; and the highest rate during the week, 34.3 in Preston. In the twenty-seven provincial towns the death-rate averaged 21.9 per 1,000, against 20.6 in London. The 3,633 deaths registered during the week in the twenty-eight towns included 120 which were referred to measles, 90 to whooping-cough, 43 to "fever" (principally enteric), 42 to scarlet fever, 40 to diarrhoea, 33 to diphtheria, and 4 to small-pox; in all, 372 deaths resulted from these principal zymotic diseases, against 310 and 331 in the two preceding weeks. The zymotic death-rate was equal to 2.2 per 1,000. In London the zymotic rate was equal to 2.2, and corresponded with the rate in the twenty-seven provincial towns, among which the zymotic death-rates ranged from 0.0 in Plymouth and in Halifax, to 4.5 in Brighton, 4.9 in Nottingham, and 5.7 in Bolton. The fatal cases of measles, which had steadily increased in the five preceding weeks from 62 to 86, further rose during the week to 120, and showed the largest proportional fatality in Brighton, Salford, Bolton, and Nottingham. The deaths referred to whooping-cough, which had been 42, 69, and 79 in the three previous weeks, further rose to 90, and caused the highest death-rates in Cardiff, Derby, Bolton, and Brighton. The 43 fatal cases of "fever" showed a decline of 12 from the number in the preceding week; this disease was proportionately most fatal in Portsmouth and Newcastle-upon-Tyne. The deaths from scarlet fever, which had declined in the three preceding weeks from 48 to 39, were 42 during the week, and caused the highest death-rates in Leeds and Birkenhead. The 40 fatal cases of diarrhoea showed a slight further increase upon recent weekly numbers. Of the 53 deaths from diphtheria in the twenty-eight towns, 20 occurred in London, and 2 in Manchester. The 4 fatal cases of small-pox recorded during the week included 1 in London (exclusive of a London resident from this disease registered in the Metropolitan Asylum Hospital Ship *Atlas*, moored off Dartford), 2 in Liverpool, and 1 in Birkenhead. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 90, 79, and 74 on the three preceding Saturdays, had further declined to 73. The admissions, which had been 11 in each of the two previous weeks, were 12 during the week. The death-rate from diseases of the respiratory organs in London was equal to 6.1 per 1,000, and slightly exceeded the average. The causes of 71, or 2.0 per cent. of the 3,633 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

During the week ending Saturday, December 5th, 5,961 births and 3,442 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality, which had increased from 19.4 to 21.3 per 1,000 in the three preceding weeks, declined during the week under notice to 20.2. The rates in the several towns, ranged in order from the lowest, were as follow:—Birkenhead, 11.2; Sheffield, 15.2; Huddersfield, 16.1; Plymouth, 16.5; Birmingham, 16.7; Hull, 17.4; Bristol, 17.7; Sunderland, 18.3; Halifax, 18.9; Wolverhampton, 19.1; Leeds, 19.4; Bradford, 19.5; Leicester, 19.5; London, 19.7; Salford, 20.7; Brighton, 21.4; Newcastle-upon-Tyne, 21.5; Norwich, 21.7; Portsmouth, 22.1; Preston, 22.9; Cardiff, 23.1; Derby, 23.3; Liverpool, 23.5; Manchester, 23.5; Oldham, 23.5; Blackburn, 24.1; Nottingham, 26.7; and the highest rate during the week, 31.3 in Bolton. The death-rate in the twenty-seven provincial towns averaged 20.5 per 1,000, and exceeded by 0.8 the rate recorded in London, which, as before stated, was 19.7 per 1,000. The 3,442 deaths registered in the twenty-eight towns included 385 which were referred to the principal zymotic diseases, against numbers steadily increasing from 273 to 372 in the five preceding weeks; of these, 123 resulted from measles, 111 from whooping-cough, 49 from "fever" (principally enteric), 40 from scarlet fever, 32 from diarrhoea, 26 from diphtheria, and 4 from small-pox. These 385 deaths were equal to an annual rate of 2.3 per 1,000. The zymotic death-rate in London was equal to 2.3, while in the twenty-seven provincial towns it averaged 2.1 per 1,000, among which it ranged from 0.0 in Birkenhead and Huddersfield, to 4.5 in Oldham, 4.9 in Nottingham, and 5.1 in Liverpool. The deaths referred to measles, which had risen in the six preceding weeks from 62 to 120, further rose to 123 during the week under notice, and showed the largest proportional fatality in Salford, Nottingham, and Liverpool. The fatal cases of whooping-cough, which in the four previous weeks had increased from 42 to 90, further rose to 111, and caused the highest death-rates in Oldham, Portsmouth, and Bolton. The 49 deaths referred to "fever" exceeded by 6 the number in the previous week; this disease was proportionally most prevalent in Plymouth and Cardiff. The fatal cases of scarlet fever, which had been 39 and 42 in the two preceding weeks, declined to 40 during the week under notice, and showed the largest proportional fatality in Bradford and Leicester. The 26 deaths from diphtheria showed a decline of 7 from the number in the previous week, and included 16 in London, and 2 in Oldham. Of the 4 fatal cases of small-pox recorded in the twenty-eight towns during the week, 1 occurred in London, and 3 in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the four preceding weeks from 90 to 73, further fell to 69 on Saturday, December 5th; the admissions, which had been 11 and 12 in the two preceding weeks, were 13 during the week. The death-rate from diseases of the respiratory organs in London during the week was equal to 5.2 per 1,000, and was considerably below the average. The causes of 74, or 2.1 per cent., of the 3,442 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

SOME difficulty has arisen with the Taunton Board of Guardians, owing to the Local Government Board having declined to sanction the appointment of a gentleman possessing only one registered qualification, and that a surgical one. The Board require a double qualification—surgical and medical. The Guardians, however, have persisted in their appointment of a public vaccinator by an unanimous vote.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed the Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 10th, 1886.

Evans, Charles Hotham, M.R.C.S., Winchmore Hill, N.
Hope, George, M.R.C.S., 8, Spring Gardens, Ventnor, Isle of Wight.

UNIVERSITY OF DURHAM.—At the examinations in Medicine and Surgery, at the College of Medicine, Newcastle-upon-Tyne, Michaelmas Term, 1885, the following satisfied the examiners.

Degree of Doctor in Medicine, for Practitioners of Fifteen Years' Standing.—G. F. Bodington, F.R.C.S., M.R.C.P., E. Eustace, L.R.C.S., L.R.C.P., A. Penningtons, M.R.C.S., L.S.A., L.R.C.P. (Edin.), J. W. Hembrough, M.R.C.S., L.S.A., J. McG. MacCormack, L.R.C.S., L.R.C.P., T. S. Maguire, L.K.Q.C.P., W. Perkins, M.R.C.S., L.S.A., R. J. Shepherd, M.R.C.S., L.S.A.

Degree of Doctor in Medicine (Essay).—F. Spicer, M.B., M.R.C.S. (Gold Medal), D. H. Barley, M.B., M.R.C.S., T. E. Gordon, M.B., M.R.C.S., H. R. Mosse, M.B., M.R.C.S.

Degree of Bachelor in Medicine (Essay).—A. Wilkinson, L.M.

Degree of Master in Surgery.—P. Boobbyer, M.B., M.R.C.S.; G. R. Hall, M.B., College of Medicine, Newcastle; A. H. Hart, M.R.C.S., L.R.C.P., Queen's College, Birmingham; A. Y. Reilly, M.R.C.S., Middlesex Hospital.

Second Examination for Degree of Bachelor in Medicine: First-Class Honours.—None. *Second-class Honours, in Order of Merit.*—A. Whyte, M.R.C.S., College of Medicine, Newcastle, and St. George's Hospital; H. T. Platt, College of Medicine, Newcastle. *Pass-list, in Alphabetical Order.*—W. Baigent, College of Medicine, Newcastle; J. Barker, Edinburgh University, and College of Medicine, Newcastle; W. Biggan, College of Medicine, Newcastle; J. E. Coad, College of Medicine, Newcastle; C. Gayford, M.R.C.S., St. Bartholomew's Hospital; A. H. Hart, M.R.C.S., L.R.C.P., Queen's College, Birmingham; R. Heelis, M.R.C.S., L.R.C.P., St. Thomas's Hospital; J. M. Lazenby, College of Medicine, Newcastle; E. R. Lyth, College of Medicine, Newcastle; J. E. Pantom, M.R.C.S., St. Bartholomew's Hospital; A. Y. Reilly, M.R.C.S., Middlesex Hospital; F. J. Walker, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; F. P. Wightwick, M.R.C.S., L.R.C.P., Middlesex Hospital; J. P. Williams-Freeman, University College.

UNIVERSITY OF DUBLIN.—At the Michaelmas Term Examination for the degree of Bachelor of Medicine (M.B.), held on Monday, November 30th, and following days, the successful candidates passed in order of merit as follows.

R. G. Patteson, H. C. Earl, R. W. Studdert, F. R. Newland, R. B. McCausland, J. Craig and B. D. Dickson (equal), H. M. Brabazon, H. F. Phillips, R. V. B. Smyth, R. C. Bolton, G. Faris, S. G. Edge, G. Hilliard, H. F. Kingston, J. C. Weir, G. W. Trouton.

Passed provisionally.

K. Frazer.

At the Michaelmas Term Examination for the degree of Bachelor of Surgery (B.Ch.), held on Monday, December 7th, and succeeding days, the candidates who passed were arranged in the following order of merit.

W. T. Dobbin, R. G. Patteson, R. W. Studdert, H. M. Brabazon, H. J. Hadden, H. F. Phillips, F. R. Newland, H. F. Kingston, G. W. Trouton, J. Craig, E. W. A. Gray, A. Findlater.

MEDICAL VACANCIES.

The following vacancies are announced.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by December 24th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant for six months. Gratuity, £20. Applications to the Secretary, 24, Finsbury Circus, by January 4th, 1886.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House-Surgeon for six months. Bonus of £10 given. No salary. Applications by December 29th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Junior House-Surgeon. Applications by December 26th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Senior House-Surgeon. Honorarium, 50 guineas per annum. Applications by December 31st.

MIDDLESEX HOSPITAL.—Assistant-Surgeon. Applications by December 22nd.

MONAGHAN DISTRICT ASYLUM.—Assistant Resident Medical Superintendent. Salary, £150 per annum. Applications by January 7th, 1886.

OLDHAM.—Medical Officer of Health for the Borough. Salary, £400 per annum. Applications by December 30th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Applications by December 23rd.

SHEFFIELD FRIENDLY SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary, £170 per annum. Applications to Mr. C. Belk, Fultou Road, Sheffield.

SUNDERLAND INFIRMARY.—Second House-Surgeon. Salary, £60 per annum. Applications by January 4th, 1886.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary, £71 per annum. Applications by December 22nd.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Senior Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon. Applications by December 21st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea.—Second Surgeon on the In-Patient Staff. Applications by December 21st.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard Street, Soho.—Honorary Surgeon. Applications by December 28th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House-Physician. Salary, £100 per annum. Applications to the Chairman of the Medical Committee by January 4th, 1886.

MEDICAL APPOINTMENTS.

BARON, Barclay J., M.B., C.M., appointed Demonstrator of Practical Pathology in the Bristol Medical School.

MACREADY, J. F. C. H., F.R.C.S., appointed Surgeon to the City of London Hospital for Diseases of the Chest, Victoria Park.

NEWNHAM, W. H. C., M.A., M.B. Cantab., M.R.C.S.E., appointed House-Surgeon to the Bristol General Hospital.

NICHOLSON, H. Gilbert, M.R.C.S., L.S.A. London, appointed House-Surgeon to the Middlesex Hospital.

SHAW, Lauriston E., M.D. Lond., M.R.C.P., M.R.C.S., appointed an Assistant-Physician of the City of London Hospital for Diseases of the Chest, Victoria Park.

WARE, George Stephen, M.R.C.S., L.S.A., appointed Resident Physician's Assistant at the Middlesex Hospital.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. R. W. Richardson, F.R.S.: A Case of Aneurysm of the Innominate Artery. Dr. W. B. Hadden: Chronic Poisoning by Bisulphide of Carbon.

WEDNESDAY.—British Gynaecological Society, 8.30 P.M. Specimens will be shown. Adjourned Discussion on Dr. R. T. Smith's paper on Hy tero-trachelorrhaphy.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.—Chelsea Hospital for Women, 2 P.M.
TUESDAY	St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.
WEDNESDAY ...	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2.30 P.M.
FRIDAY	King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London, 2.30 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY ...	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS .—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.
GUY'S .—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE .—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.
LONDON .—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX .—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S .—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9.
ST. GEORGE'S .—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S .—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.50; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.
ST. THOMAS'S .—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE .—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.50; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER .—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDER TAKE TO RETURN MANUSCRIPTS NOT USED.

OPERATIONS IN INDIA.

SIR,—In the BRITISH MEDICAL JOURNAL of October 10th, in your article on Dr. Pringle's paper on The Ancient and Modern Methods of Treating Small-Pox in India, I gather that he said that the high temperature of the plains of India necessitates the suspension of operations during the hot months; in this, I beg to differ from him.

On the Central Provinces plateau of Chhimdevurn and Batal districts, at a mean elevation of 2,000 feet above sea-level, some years ago the experiment was tried of carrying on operations throughout the year; and, when carefully supervised, they were successful. Afterwards, some civil surgeons tried the experiment in the plains, and, for the last eight years, in the hot district of Nimur, I have carried on the work throughout the year with very fair success; but, during the hot and rainy season, closer supervision is necessary, as many cases are then accelerated, and the percentage of success lower than in the cold weather.

Only a short time ago, small-pox was considered endemic in Nimur, the district never being free from the disease. Almost every village had its goddess, "davi mata," with several deities of higher powers, at certain places, to which yearly pilgrimages took place, notably "Snuderdeo" on the Tapti River, in Ghoudwana, where thousands used to collect yearly, in the hot month of April.

From this, some idea may be formed of what the authorities had to contend with in introducing, and pressing on, vaccination; but even the Ghoud and Bheel are amenable to reason when they see benefit to be derived from a new procedure; and, from most strenuous objection, they have come to readily accept vaccination, and some even come long distances, bringing their children to be vaccinated. Thus, whereas six or eight years ago not merely the adult but the infant population would have borne out Dr. Pringle's percentage of pock-marked individuals, I am glad to say the children now growing up present a very different appearance, seeing which the parents, year by year, are becoming more anxious to have them protected.

But the greatest proof of their acceptance of the operation is that hardly a village deo (god) is now maintained; and this year, when I sent my nativesuperintendent as usual to the "Snuderdeo" mela, he returned, and said there were only five or six cases brought, and they were all foreigners from the Bernes. Yearly increasing numbers come from Maharajah Holkar's territory, which adjoins Nimur, to get their children vaccinated, and the educated portion of the community have shown their appreciation of the work. All the municipalities have made vaccination compulsory within their limits, but, unfortunately, have fixed the compulsory age at six instead of at three months. Hence, if vaccination were suspended during the hot season, there would, ere the beginning of the next working season, be numbers of children unprotected, and ready to take the disease.

It is quite certain that good and efficient vaccination can be done in the plains of India during the hot months; but, during the rains, from difficulty in travelling, cases cannot be inspected properly; and hence, at this season, I confine operations to municipal towns and large villages, where the vaccinators can reside, and have their cases close at hand. The chief reason, however, for stopping work during the hot months is that the Government do not pay the vaccinators at the same rate; this is called the non-working season, and their pay is reduced, because they are not supposed to travel about.

I believe that much of our ill-success in India is due to the want of European supervision. The civil surgeon of a district has a dozen or twenty vaccinators scattered all over the district, but his duties at the headquarters-station do not admit of his going out and seeing their work, except, perhaps, for short periods, when but a very small portion can be inspected, and he is obliged to accept their returns, or their own, or the native superintendent's statement. The civil surgeon should have opportunity to see at least some portion of each vaccinator's work, as, by his presence in the villages, and his inspection of the children, the parents are greatly encouraged, and led to put faith in the operations. Hitherto, revaccination has not been favourably received in the Central Provinces, as the natives never heard of reinoculation; they do not, as yet, understand the reasons for it.

There can be no doubt that vaccination is the most important duty of a medical officer in charge of a district, but is, unfortunately, the one to which he can give the least time, as he is hampered with the charge of a gaol, and constant police cases at the headquarters' station. During the cold months he should have an assistant, who could relieve him of all this, and let him give his whole attention to vaccination and district sanitary work; and, in a very short period, it would be found that small-pox was as unrequent in India as among European nations; but this can only be effected by carrying on the operations all the year round.—I am, sir, yours truly, P. CULLEN, M.D., M.C., Surgeon-Major, Cheltenham.

GROWTH OF HAIRS ON THE EYEBALL.

SIR,—Whilst at the house of a patient a few days ago, I was asked to examine the eye of a young bulldog, aged 14 months. I did so, and found a sessile outgrowth on the ball of the left eye. It was situated on the outer side, beginning at the corneo-sclerotic junction, and extending back some distance on the sclerotic. It was surrounded with a fringe of fine hairs, and was about half the size of a pea. The eye itself had a watery appearance. Can you or any of your readers tell me anything of the pathology of this disease? What treatment can be adopted with any probability of success? Are there any special dangers to be avoided or precautions to be taken in the administration of chloroform to the dog?—I am, sir, yours faithfully,

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

TUITION IN NURSING.

SIR,—Can you, or any of your readers, tell me of any infirmary, workhouse, or institution where ladies under twenty years of age are admitted for training and qualifying as nurses?—I am, sir, yours truly, RICHARD HUMPHREYS, M.B. Grassendale, Liverpool.

NEW THEORY ON THE CAUSE OF ASTHMA.

SIR,—On reading Dr. Bulkley's able paper on asthma in your issue of November 21st, it occurred to me that I might throw some light on the subject. I have taught for some years that asthma was caused by a reverse action of the cilia lining the bronchial tract; that, in fact, instead of waving towards the external orifices, they wave backwards towards the lungs, and so obstruct the exit of both air and mucus. I cannot actually prove it; but the fact that chloroform and other strong vapours arrest the action of cilia when taken from the body, and relieve asthma during life, affords strong presumptive evidence of its truth.—I am, etc., M. R. O'CONNOR, M.D., M.Ch., Visiting Physician to Barrington Hospital, Limerick.

BAD DEBTS.

SIR.—Will you allow me space to make a few remarks on a subject which is of no little importance to most men in the profession, and which affects its dignity most seriously.

At the outset, I would repudiate any idea of making a mere trade of the profession, much less of "grinding the faces of the poor," but I think that it is time that our profession assumed a definite protective attitude towards those well-to-do people who systematically ignore their monetary obligations to it. Lacking cohesion as we do, there is nothing to prevent an unscrupulous person in a high social position from going from one to another of us, and flinging each aside with contempt when the *quid pro quo* is asked for. Such people are well aware of two facts; one, that Fellows of the College of Physicians are voluntarily impotent to compel payment; the other that, even if competent to sue, medical men of gentlemanly instincts would shrink from such a course.

Consultants cannot be victimised to such an extent as visiting physicians or surgeons. Even a provincial journey, or an operation, for which £100 is expected, would not represent in the consultant's case a tithe of the time, trouble, and expense incurred by the visiting physician or surgeon, in making his fees up to the same amount.

Suppose neither to be paid. The first loses, perhaps, a whole day, his railway-fare, etc., but the latter loses a large portion of his time for many days, and often nights, and has often to travel, in the aggregate, very many more miles than the consultant to see his patient. Hence his loss is really the more serious.

Is there any valid reason why an honest medical man, who pays his own way often with difficulty, should blandly submit to be victimised and insulted by an unscrupulous person better off than himself? Does such an attitude win the respect of the world, or raise the dignity of the profession? On the contrary, I believe that the English public have been utterly spoiled by the self-abnegation of medical fortuitous atoms, afraid to assert their common rights. The public, or a considerable portion of it, honestly believes that it has a right to command the immediate and unreserved services of any medical man, at its own convenience, but that payment, therefore, is an act of pure goodwill, and it has been taught that the absence of the latter is seldom attended by any inconvenience to itself. And even where payment is made, it is only too often at an unconsciously distant date. Long credit is fast disappearing elsewhere, and it is high time that we made up our leeway in this respect. Is there any way to meet these evils?

My own idea, which I submit with all diffidence, is that an association should be formed for London for mutual self-protection; that it should, through a committee, inquire into all cases brought before it by its members; that it should be guided by duly appointed legal advisers; and that it should, in its corporate capacity, aid its members in the recovery of their dues. A few timely prosecutions would work wonders, and far from lowering us in the eyes of the public, we should gain enormously when it perceived that we could no longer be insulted and cheated with impunity. Most willingly would I devote such time and means as are at my command towards the establishment of so much needed an association. I should like to know the views of others who, like myself, have been

VICTIMISED.

THE DANGER OF FOOTBALL: CLUB RULES.

SIR.—Your JOURNAL has frequently drawn attention to the dangers of football, whether played under "Association" or "Rugby Union Rules." I cannot help thinking that the recent action of the Football Association Committee has materially enhanced the dangers of the game, as the following will show.

Two clubs, competing in the third round for the English Association Cup, fixed last Saturday as the day on which they should play off their tie. Each club was only too anxious to try conclusions with the other, but owing to the ground being in a highly dangerous condition from the severe frost we have just had, it was mutually agreed to defer the match. The Association Committee do not, it would appear, consider a hard and dangerous state of the ground sufficient reason for postponement, as they have disqualified both clubs.

I am one of those who always take an interest in football, but as a medical man I consider that every means should be adopted to minimise the dangers of the game.—I remain, sir, yours truly,

M.D.

THE EXAMINATION AT THE ROYAL COLLEGE OF PHYSICIANS.

SIR.—I wish to draw your attention to a true grievance that the candidates for the next examination of the College of Physicians have. It was always understood hitherto that the examination would be held on the last Tuesday in January, but now we are suddenly informed that the examination will be held on January 5th. This notice has only just been issued, barely seven weeks before the date fixed. I think you will agree that it is extremely unfair to suddenly dock intending candidates of three weeks study for the examination and thus minimise their chances of success. The effect of this alteration will be that no candidate will have his usual breathing time at Christmas, with the additional annoyance of very possible failure on January 5th.—I am, your obedient servant,

A CANDIDATE.

CIDER AND RHEUMATISM.

SIR.—Can any of your west country members enlighten me? Is there anything in the supposed antagonism of cider to rheumatism? I have often heard it stated, and remember in Cornwall a very striking case of relief in an obstinate attack of chronic rheumatism. No medicines gave any relief, but under two quarts of old cider a day the patient rapidly lost his pain. I suffer almost constantly from this work-preventing malady, and from chronic dry eczema. I should be greatly obliged if some men in a cider country would give me their opinions as to the wisdom of my trying so pleasant a medicine.—Yours, etc.,

ECZEMA.

THE COLLEGES AND THE TITLE OF DOCTOR.

SIR.—I am glad to find that Mr. Gubb has directed attention to the importance of the united action of the Licentiates of the Royal College of Physicians at the present juncture, to claim that the title of "Doctor" shall be secured to them, or, in other words, that the action of the united Colleges shall be retrospective as well as prospective. As this is nothing more than just, I shall not occupy your space with any arguments in support of our claim, but would strongly urge upon every Licentiate the importance of at once writing on the subject to every Fellow and Member of the Royal College of Physicians with whom he is acquainted.—I am, sir, yours faithfully,

13, Liverpool Street, Dover. JOHN MARSHALL, L.R.C.P.Lond., M.R.C.S.

A QUESTIONABLE SOURCE OF HOSPITAL-RECEIPTS.

SIR,—I beg to call your attention to a publication entitled *The Family Doctor*. I should be glad to see in the BRITISH MEDICAL JOURNAL some expression of your opinion as to the "Advice Gratis" columns (pp. 220-1-2). You will observe that the fees obtained for advice given in these columns are divided between certain well known metropolitan hospitals.

I can hardly believe that the authorities of these institutions are aware of the method by which the money is obtained, for bad as times are for hospitals just now, money obtained in such a questionable and utterly unprofessional manner, ought most certainly to be declined by any respectable hospital. The plan of recommending particular surgeons is also most objectionable and degrading to the profession.—I am, sir, yours faithfully,

R. D. H. GWILLIM, L.R.C.P.Lond.

141, Millbrook Road, Freemantle, Southampton.

. The dangers of thus "prescribing by letter" in answer to written accounts by patients of their own view of their complaints are well known. We feel sure that the medical officers of King's College Hospital, Charing Cross Hospital, University College Hospital, London Temperance Hospital, and West London Hospital, will, when their attention is called to this page in the *Family Doctor*, feel the professional and public objection which our correspondent expresses to a practice so dangerous; and they will, no doubt, state to the hospital authorities their objection to even indirect complicity in it by any public institution, such as is involved in their consenting to accept money derived from it. They are probably at present unaware of the facts to which attention is now called.

THE CASE OF MR. HEALD.

SIR,—I notice a letter from Mr. Allbutt, of Leeds, in the JOURNAL of November 12th, suggesting a subscription being raised towards defraying the legal expenses of Mr. Heald, who was acquitted at York Assizes of the alleged indecent assault. I was present at the trial, and feel certain no unprejudiced person in the court doubted Mr. Heald's innocence. I shall be glad to give £5 towards this object, and know of several others who will quickly respond if you will agree to open a subscription-list.—Believe me, sir, respectfully yours,

W. G. BECK.

P.S.—Dr. Hollingworth, colleague with Mr. Heald, police-surgeon, has kindly promised £3 3s.

. It would be better, if a subscription-list be opened, that a local committee of practitioners and non-medical persons be formed, as in the case of Dr. Bradley, and that they appoint a treasurer and honorary secretary.

EXTIRPATION OF UTERUS PER VAGINAM.

SIR.—Judging from the discussion at the Obstetrical Society on extirpation of the uterus for cancer, the report of which appeared in the JOURNAL of February 7th and March 21st, the operation seems to have few defenders, and it behoves all who think well of it to give their experience, lest a measure of the greatest possible benefit to the unfortunate sufferers should fall into disuse.

I have now operated four times at the Prince Alfred Hospital in Sydney, and in each case successfully. The first operation was done about sixteen months ago. The woman is alive still, but the disease returned six months after removal. The second was nine months ago. She had been losing blood every day for nine months; and, on admission, was weak and exhausted. I saw her five and a half months afterwards. She was as well and fresh looking as at any period of her life. She had no return then, and no complaints of any kind. The third was done about six months ago. This case had been bleeding for eleven months, and the destructive process had extended so high, that scraping to stop it was out of the question, and she could only have lived a few days longer in such a condition. Though the uterus was fixed, and the pulse 110, with a temperature of 102.6°, I could not see her die without giving her a chance; so I removed the uterus, and kept the patient in the general ward. She was allowed to get up ten days after the operation, and two months afterwards was seeking for employment as housekeeper. The fourth was removed a fortnight ago; she got up on the eleventh day, and is now feeling very well; some discharge, no pain, locomotion good.

Three cases of cancer have been treated, by the ordinary method of scraping and caustics, during my connection with the hospital, two under my own care (too advanced for removal), and one under another surgeon. My first lingered miserably for three months; it was a relief to herself and those around her when she died. The second died suddenly, three days after scraping, from embolism. The third lingered about three months, never able to get up out of bed.

Surely, the two methods speak for themselves. If the disease return, in all cases of removal, the contrast is great; the patient is able to go about for months relieved of her suffering and consequent discomfort, able once more to enjoy life. The risk to which they have been put I regard as slight, the chief danger being septicæmia; this is carefully guarded against by the constant use of the irrigator during the operation and afterwards.

The first three cases have been published in the *Australasian Medical Gazette*. So I will not weary your readers here by repetition. From what I have observed, I am convinced that, if we only get the cases before the neighbouring parts are infiltrated, the ultimate results would be far better than the removal of cancerous breasts. If a case be too fixed for removal, I leave it alone. In future, I shall always extirpate where it is possible to do so.—I am, etc.,

J. FOREMAN, M.R.C.S., Obstetric Medical Officer,
Prince Alfred Hospital, Sydney.

215, Macquarie Street, Sydney, New South Wales.

P.S.—Since the above was written, I have operated on another case, which I consider will be the most successful as to ultimate results. She got up on the twelfth day. The cicatrix was thin; there was no discharge; locomotion was good, and she had no pain.

THE WEIGHT OF NEWBORN CHILDREN.

SIR.—Several gentlemen have recently reported cases of children, whose weight at birth has been under three lbs. A reference to the *Medical Digest*, section 1541:1, will show that infants have been born, and reared, weighing from one lb. upwards.—I am, etc.,

RICHARD NEALE, M.D.Lond.

RUSSELL MEMORIAL FUND.

We have received the following letter from the Honorary Secretaries of the Fund.

DEAR SIR.—It will probably be within your knowledge that, upon the resignation of his post at the General Hospital, it was decided by the students that a testimonial should be presented to the late Dr. Russell. Numerous subscriptions were received from past and present students, and the address was about to be placed in the illustrious hands, when Dr. Russell's illness caused a delay in the plans formed. Since the fatal termination of his illness, the project of a testimonial has, of course, been abandoned, and it was decided at a public meeting that the money collected should be placed to the account of a fund for promoting an annual prize in Queen's College, to be called The Russell Memorial Prize. It is suggested that this prize should be offered annually after examination in some definite group of Medical Diseases, to be announced a year previous to the examination. It is earnestly hoped that past and present students of the Queen's College, and members of the medical profession in the Midland counties, will subscribe or increase their former subscriptions, and thus enable the committee to found a suitable memorial in the College to Dr. Russell, whose long and honourable connection with the Birmingham Medical School seems to them well worthy of such recognition. Subscriptions may be sent to any of the honorary secretaries, to Professor Windle, Chairman and Treasurer, or to any member of the committee. Committee: B. C. A. Windle, M.A., M.D., Chairman; C. Greene, Esq.; C. G. Hutchinson, Esq.; C. St. Johnston, Esq., Honorary Secretaries; J. Bryce, Esq.; J. H. Blakeney, Esq.; H. T. Blakesley, M.R.C.S.; A. E. Clay, M.R.C.S.; J. Hall Edwards, Esq.; A. Foxwell, M.B., M.R.C.P.; W. C. Garman, M.B.; J. Grinling, M.B.; A. Harvey, M.B.; B. W. Housman, Esq.; J. F. Jordan, Esq.; C. E. Purslow, M.B.; J. Leslie Phillips, M.D.; R. M. Simon, M.B., M.R.C.P.; C. W. Suckling, M.D., M.R.C.P.; E. Teichmann, Esq.; Hugh Thomas, M.R.C.S.—We are, dear sir, yours faithfully,
C. GREENE, C. HUTCHINSON, C. ST. JOHNSTON, Honorary Secretaries.
Queen's College, Birmingham, October, 1885.

ERRATA.

IN the JOURNAL of December 5th, page 1008, column 1, line 3 from bottom, between "is" and "generally" insert "not only," and between "be" and "objectionable," insert "most." Line 2 from bottom, for "entails," read "to entail."

[RECEIVED] NOCTURNAL INCONTINENCE OF URINE.

A COUNTRY MEMBER would be greatly obliged for a prescription likely to benefit speedily a girl, aged 14, who has suffered for several years with nocturnal incontinence, and in whom the only discoverable abnormality is marked acidity of the urine. It may be added that the girl has not yet commenced to menstruate; and "Member" would be glad to know if the prognosis is affected thereby.

[RECEIVED] ALL TO GO: INCOME-TAX AND PROFESSIONAL PROFITS.

SIR.—Referring to a letter in the JOURNAL of December 5th, allow me to mention a fact little known. It is, that income-tax, when deducted from any source of revenue, can be claimed back from the Government when the income is under £150, or, in part, when it is between £150 and £400. Another fact, not generally known, is that premiums paid on policies of life-insurance can also be claimed back in a certain measure. Full directions for making the claims will be found in a little book *Income-tax and How to Get it Refunded*. Let me give your readers my experience. I expended sixpence out of mere curiosity. On reading the directions, it struck me that I might be entitled to some repayment. I wrote full particulars to the Income-tax Repayment Agency, 16, Artesian Road, W.; by return of post I was informed I had no claim on that score, but that I had on another. I put the matter entirely in the hands of the Agency; and about a week ago I was agreeably surprised at getting the sum of £5 19s. 4d., and in another month I shall be entitled to £2 14s. 8d. more. I may add that for twenty years I have been paying this tax, and should have gone on paying it had not Mr. Chapman's book fortunately fallen into my hands. —I am, sir, your obedient servant,
M.D.

POISONING BY BICHROMATE OF POTASSIUM.

SIR.—In a recent number of the JOURNAL you record a case of poisoning by bichromate of potassium, which had been sold in place of the common bicarbonate. During my pupil career, a similar occurrence took place, when probably the buyer (an elderly man) was as much to blame as the seller. A dose, about ten grains, was taken about 7 A.M.; and, in half an hour, sickness and diarrhoea came on, and continued for some time. An antidote of magnesia oxide suspended in water was all that was used; and after two days' rest in bed the patient recovered his former strength, and was able to go about again. In this case, the sufferer had used bicarbonate of potash many times before, so that one would imagine he must have known that a red crystalline substance forming an orange-coloured solution could not be right. —I am, yours faithfully,
230, Great Colmore Street, Birmingham. F. H. ALcock.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. E. A. Manning, London; Mr. G. O. Mead, Newmarket; Mr. Hardy, Oakham; Mrs. Sargeant, Camberwell; Mr. Hodge, London; Dr. Thin, London; Dr. G. H. R. Dabbs, Shanklin; Dr. Churton, Leeds; Mr. Horder, Cardiff; Dr. Styrup, Shrewsbury; Dr. R. T. Cooper, London; Our Cairo Correspondent; Mr. R. Clements, Tunbridge Wells; The Health Officer of Calcutta; Dr. Maxwell, Woolwich; Mr. C. Midgley, Manchester; Dr. Foulis, Edinburgh; Mr. Chalmers, Guildford; Dr. W. A. Duncan, London; Mr. Wagstaffe, Sevenoaks; Mr. J. S. E. Smith, Sleaford-Broadford, Skye; Dr. Robert Rentoul, Liverpool; Mr. W. H. C. Newham, London; Dr. Champneys, London; Mr. Gubb, London; Mr. P. Best, Louth, Lincolnshire; Mr. J. Cleasby Taylor, Longton; Mr. C. M. Kempe, New Shoreham; Messrs. Street and Co., London; Dr. B. Rake, Trinidad; Mr. H. N. Custance, London; Messrs. Bais, Brothers, London; Mr. J. B. Burr, London; Dr. Ormsby, Dublin; Mr. J. Chestnutt, Howden; Messrs. T. J. Smith and Donnes, London; C. W. C.; Dr. Wallace, Parsonstown; Mr. G. J. Roberts, Festiniog; Mr. H. Gilbert Nicholson, London; Dr. Fancourt Barnes, London; Mr. J. W. Batterham, Wolverhampton; Mr. A. Y. Marton, Drymen; Mr. Holdsworth, Birmingham; The Misses Creichman, London; Mr. Michael J. Petts, Uffculme, Devon; Mr. Steele, Liverpool; Mr.

J. W. Burke, London; Mrs. E. D. Bauer, London; Mr. Joseph Taylor, Brighton; Dr. Richard J. Purdon, Belfast; Our Liverpool Correspondent; Mr. J. W. Palmer, London; Mr. C. O. Elkerton, London; Dr. R. M. Simon, Birmingham; Mr. J. Colby, Aberystwith; Miss Marian Marshall, London; Mr. G. E. Williamson, Newcastle-on-Tyne; Mr. Shirley F. Murphy, London; Professor Attfield, London; Dr. Spencer, Exeter; Dr. Balthazar Foster, Birmingham; Mr. C. Spurway, Rome; Dr. J. Rogers, London; Mr. O. H. Lead, London; Dr. J. L. Steven, Glasgow; Mr. Mackenzie, Farworth; Dr. R. Barnes, London; Mr. E. A. White, Wolverhampton; Mr. G. S. Ware, London; Mr. R. T. Robertson, Oldham; Messrs. W. Collins and Co., London; The Secretary of the Hospital for Diseases of the Chest, London; Mr. C. Innes, London; Dr. Percy Boulton, London; Mr. H. Phillips, Bolton; Dr. Collio, London; Mr. C. Young, Bridgewater; Mr. Tobin, Dublin; Mr. W. G. Beck, Leeds; Dr. J. W. Moore, Dublin; Mr. H. E. Spencer, York; Mr. C. J. Rideal, London; Mr. S. Montgomery, Wimborne; Dr. N. Kerr, London; Mr. T. B. Shaw, Hull; The Honorary Secretaries of the Hospitals Association; Dr. A. T. Myers, London; Dr. T. D. Acland, London; Mr. Simeon Snell, Sheffield; Mr. F. W. Saunders, Cambridge; Messrs. Vesey and Co., Kilburn; Mr. George Harvey, Wirksworth, Derby; Dr. J. T. Faulkner, Stretford, Manchester; Mr. Graham, Brussels, Canada; Dr. J. Dunbar Dickson, Great Marlow; Mr. R. D. H. Gwillim, Freemantle, Southampton; The Secretary of the Royal Medical and Chirurgical Society; Mr. George J. Robertson, Oldham; Dr. D. Noel Paton, Edinburgh; Mr. Robert Jones, Liverpool; Mr. J. F. Briscoe, London; Mr. John Cochrane, Monaghan; Dr. Tatham, Manchester; Mr. T. Lawrence Gill, Whitton; Mr. E. C. Green, Derby; Dr. Fitzgerald, Fulkestone; Dr. F. T. Bond, Gloucester; Mr. C. Otto Langey, Herne Hill; Dr. Cordwint, Milverton; Dr. Wylie, London; Mr. J. Brindley James, London; Our Glasgow Correspondent; Our Paris Correspondent; Our Dublin Correspondent; Mr. W. Hardy, Thistleton; Mr. W. E. Green, Sandown; Mr. J. Byrne, Derry; Mr. J. Hutchinson, jun., London; Dr. W. Alexander, Streatham; Our Manchester Correspondent; Dr. Cranston Charles, Streatham, etc.

BOOKS, etc., RECEIVED.

Orient Line Guide. New Edition. Edited for the Company by W. J. Loftio, B.A., F.S.A. London: Sampson Low, Marston, Searle, and Rivington. 1885.
The Science and Art of Midwifery. By W. Thompson Lusk, A.M., M.D. Third Edition. Illustrated. London: H. K. Lewis. 1885.
Handbook of Therapeutics. By Sydney Ringer, M.D., F.R.S. Eleventh Edition. London: H. K. Lewis. 1885.
Unconscious Memory in Disease. By C. Creighton, M.D. London: H. K. Lewis. 1885.
Von Ziemssen's Handbook of General Therapeutics in Seven Volumes. Vol. IV. London: Smith, Elder, and Co. 1885.
The Treatment of Disease by Climate. By Hermann Weber, M.D. London: Smith, Elder, and Co. 1885.
General Balneotherapeutics. By Professor Otto Leichtenstern. London: Smith, Elder, and Co. 1885.
Four Diaries from Collins, London. 1885.
Chemistry, General Medical and Pharmaceutical. By John Attfield, F.R.S. Eleventh Edition. London: J. Van Voorst and Co. 1885.
Surgical Diseases of Children. By Edmund Owen, M.B., F.R.C.S. London: Cassell and Co. 1885.
Surgical Diseases of the Kidney. By Henry Morris, M.A., M.B., F.R.C.S. London: Cassell and Co. 1885.
Fractures and Dislocations. By T. Pickering Pick, F.R.C.S. London: Cassell and Co. 1885.
Strength and Happiness. By R. A. Procter. London: Longmans, Green, and Co. 1885.
Lectures on Obstetric Operations. By R. Barnes, M.D. Fourth Edition. London: J. and A. Churchill. 1885.

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Post Office Orders should be made payable to the British Medical Association at the West Central Post-Office, High Holborn. Small amounts may be paid in postage-stamps.

RETROSPECT: 1885.

IN accordance with the custom of previous years, we give, in the concluding number of the BRITISH MEDICAL JOURNAL for 1885, a summary of events of interest to the profession.

THE BRITISH MEDICAL ASSOCIATION.

THE course of prosperity which has for many years attended the British Medical Association has been maintained during the present year. At the last annual meeting, the number of members was reported to be 11,249; and a good number have since been added by the Council of the Association and the Councils of Branches.

The annual meeting, held this year in Cardiff, under the presidency of Dr. W. T. Edwards, was highly successful. The President, heartily supported by his professional brethren in South Wales, spared no pains to make the meeting a source of enjoyment as well as of instruction; and their endeavours met with a success which was highly appreciated, and will not soon be forgotten. The addresses in Therapeutics, Surgery, and Public Health, by Dr. William Roberts, Mr. Marshall, and Dr. Paine, were able and instructive; and the work done in the Sections, where several discussions took place in important practical subjects, was highly valuable.

We have already in a previous number referred to the cordial invitation to hold the next annual meeting at Brighton, under the presidency of Dr. Withers Moore.

An addition has been made to the Branches of the Association, by the formation of a new Branch at Oxford; and an application has been received by the Council from medical men practising in Ceylon, for authority to form a Branch in that distant part of the British empire.

An alteration has been made in the by-law of the Association respecting special general meetings. For many years, it has been competent for fifty members to call a special meeting; but, in view of the great increase in the Association since the by-law was first adopted, it has been decided that a requisition to hold a special meeting must be signed by at least one hundred members.

The funds placed at the disposal of the Scientific Grants Committee have been apportioned to various workers in the field of medical science. Several of the reports presented to the committee by the gentlemen to whom grants were made have appeared in the JOURNAL, and others have been received for publication. The report of the committee was published in the JOURNAL of July 25th.

The report of the Parliamentary Bill Committee, published in the same number, gives an account of the useful work done by that body. The chief matters under its consideration have been: the Lunacy Acts Amendment Bill, the Poisons Bill, the Burgh Police and Health (Scotland) Bill, the Local Sanitary Bills dealing with notification of infectious diseases, the Medical Relief Disqualification Bill, and the Housing of the Working Classes Bill.

THE GENERAL MEDICAL COUNCIL AND THE COLLEGES AND UNIVERSITIES.

General Medical Council.—This Council has held two sessions during the year. No changes have taken place among the members. The first session was held in May, and lasted eleven days; the second in November, and lasted five days.

A considerable portion of the time of the first session was occupied in the discussion of the regulations regarding preliminary examinations. In the previous year, the Council had made certain proposals with regard to these, which were submitted to the several universities and licensing bodies in the kingdom. Exception was taken to certain portions of them by the Universities of Oxford, Cambridge, and Dublin; and it was agreed by the Council to accept as heretofore the examinations in general education conducted by the universities, provided that, if these did not include elementary mechanics, the student should be required to pass a special examination thereon. A proposal made by Mr. Marshall that the first principles of physics, chemistry, and biology should be regarded as branches of preliminary scientific training, and that an examination in them should be passed before the commencement of professional study, was rejected. The subject again came before the Council at its session in November, principally with reference to the resolution regarding an examination in mechanics previously to registration as a student, which, it was alleged, had taken many students by surprise; and it was reported that the Executive Committee had agreed to make a relaxation of the stringency of the resolution. The question of the recognition of the preliminary examinations of the Queen's College of Ireland, which had been withdrawn, also came before the Council, and it was agreed to replace these examinations on the list of those recognised by the

Council. It was also decided at the meeting in November, that the resolution respecting the passing of an examination in elementary mechanics before registration should be referred to the Branch Councils, for opinion as to the feasibility of enforcing it.

A great portion of the time of the first session was also occupied in the discussion of the recommendations regarding professional education and examination. The following were the chief results. It was decided that the course of professional education should be five years, unless a satisfactory examination in elementary physics, chemistry, and biology, had been passed; in which case, the period was fixed at four years. It was also decided that at least four winter and three summer sessions must be passed at a recognised school or schools. The list of subjects of professional education and examination underwent revision. Diseases of women and children were specified as coming under the head of midwifery; and vaccination, hygiene, and mental diseases, were added to the curriculum. The recommendations as to the division of the professional examination were withdrawn, but the Council retained the recommendations that the examination should be conducted in such order as would insure due continuity and sequence of study, and that the final examination should not be passed before the termination of the full period of professional study. With regard to written examinations, it was decided to recommend that a candidate should not be rejected at a written examination, unless his answers had been submitted to at least two examiners. Several other alterations were made, consisting in great part of the omission of matters of detail, which the Council apparently regarded as matters that might be left to the discretion of the examining bodies.

The Council, at its first session, adopted a proposal, made by Mr. Marshall, for the formation of a committee to superintend the compilation of statistical returns relating to the medical profession; and, at the meeting in November, the Committee presented an interim report, and was authorised to continue its labours.

A proposal to reduce the registration fee from £5 to £3, was negatived at the meeting in May; as was also a proposal made by Sir Henry Pitman, that a portion of the accumulated funds of the Council should be applied to the promotion of scientific research.

The Local Government Board having submitted to the Council the question whether the license of the Apothecaries' Society of London was a qualification to practise both medicine and surgery, a discussion on the subject took place during the meeting in November; and the Council decided that it was not competent to express an opinion whether or not the Society, by adding surgery to its examination, had rendered its license a legal qualification in both medicine and surgery.

Other matters which occupied the attention of the Council during its session were, the removal of names from the Register; the sanitary condition of the Council-room, and the visitation of examinations.

Royal Colleges of Physicians and Surgeons.—The regulations for granting the licences of these colleges under the conjoint scheme have come into full play. In connection therewith, a question of much professional interest has arisen, in the form of a proposal that steps should be taken to provide that the passing of the examination should confer the right to the title of "doctor." Our pages have contained a considerable amount of correspondence on the subject; and it is generally known that the authorities of the two Colleges are endeavouring to carry the proposal into effect. It is a disputed point, however, whether, under the circumstances, the Colleges could rightly confer the title of M.D.; but at least they seek to legitimise the use of the title "doctor," which, held on the one hand to be properly an academical distinction, has, on the other, become the popular designation for practitioners of the healing art.

University of Oxford.—Some important changes have been made in this University. Up to the present year, medicine had formed a part of the Faculty of National Science, and had received but imperfect recognition. It has been decided to create a special Faculty of Medicine apart from that of Natural Science, and a series of regulations to be observed by candidates for the degree of Bachelor in Medicine have been laid down. A lectureship in human anatomy has been instituted, to which Dr. Arthur Thomson, lately science demonstrator of anatomy in the University of Edinburgh, has been appointed.

University of London.—During the present year, this body has attracted a large share of professional attention. It has been strongly felt that medical students in London desirous of obtaining degrees in medicine are placed at a great disadvantage in comparison with their brethren in Scotland and Ireland; and that the degrees of the University of London, greatly valued as they are as evidence of medical education of a high class, are rendered inaccessible to a large number of students, especially by the severity of the preliminary

scientific examination. The subject was taken up energetically by the Council of the Metropolitan Counties Branch of the British Medical Association, who, after careful and prolonged consideration, prepared an able and elaborate report, which was submitted to and approved by a general meeting of the Branch, held at the Royal School of Mines, in Jermyn Street, on March 6th. It was then decided that steps should be taken to procure an interview between representatives of the Branch and the Senate of the University; and, this being courteously agreed to by the Senate, a large number of members of the Branch, headed by Mr. Macnamara, the President, met the Senate at the home of the University on April 28th. Mr. Macnamara, on behalf of the deputation, urged the adoption of the recommendations contained in the report of the Committee of the Branch: namely, that the University should (1) modify its regulations and procedure, so as to adapt them to the requirements of the medical profession in England; (2) consider and modify the two preliminary examinations; (3) admit as members of the Senate a certain proportion of representatives of the metropolitan medical schools. Subsequently to this, the Senate appointed a small committee to confer with a committee of the Metropolitan Counties Branch; but the result of the deliberations is not yet clearly known. It is plain, however, that while the Senate of the University has modified the stringency of its regulations to the extent of allowing the preliminary scientific examinations to be taken in sections, and has decided to hold that examination twice yearly instead of, as formerly, once, it is not likely to yield to agree to all the wishes that have been expressed for the greater accessibility of its medical degrees.

The Victoria University has this year conferred, for the first time, degrees in medicine on two candidates who passed the necessary examinations.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE year 1885 has been momentous in the annals of the College of Surgeons. The history of the long-standing dispute between the Council and its Fellows and Members is a matter of the present, as well as of the past. So frequently have we had to recapitulate the proceedings of the Council and of the two Associations formed by those who, holding the diplomas of the College, desire a more prominent share in its government, that any extended repetition of this oft-repeated story would infallibly weary our readers, who would scarcely care to follow minute particulars of the disputes over the numerous points at issue.

Briefly, then, we may note that, at the date of the first Council meeting in January, the College found itself in the thick of its dispute with the Associations of Fellows and Members concerning the election of Presidents and Vice-Presidents, the claims of Members of the College for a vote at the annual Council election, the relations between the Council and the College examining-boards, the appointment of honorary Fellows, the length of tenure of office of Members of Council, and several minor questions. Above all, there was the most important demand on the part of the Associations, that no new law or by-law should in future be passed without the consent of the Fellows and Members, given publicly at a special annual meeting. The proceedings at this and at several subsequent meetings of the Council bore a somewhat uninteresting resemblance to one another. The Council received reports of special committees, delegated to meet deputations from the two Associations, or to report upon the requests and recommendations of the Fellows and Members, expressed and given at the deputations, or by means of letters from the secretaries of the Associations. The upshot of long deliberation was the refusal, more or less complete, of the proposals of the Associations. A glance through our reports of Council meetings will show that there is a great similarity in the personal composition of the special committees, and that the distinguished Presidents, Vice-Presidents, and other heads of the profession, of which they were composed, have not proved themselves ardent champions of progress, but rather appear to have cut themselves adrift from active sympathy with their less gifted or less fortunate brethren. Have the latter shown personal spite thereupon, or have they only persisted manfully in their just claims? That they have persevered, the history of the past fortnight bears witness; that they have shown no malice against exalted obstructives, the elections of July, 1885, will amply prove. For then there were three vacancies to be filled on the Council, and a well-known metropolitan advocate of reform, Mr. Macnamara, with a distinguished provincial surgeon, Mr. Pemberton, were elected. So strong, however, was the sense of honour of the Fellows, that they sent in, at the head of the poll, Mr. Savory, who was a well-known opponent of the desired changes. The Fellows wished to do justice to a gentleman whose great talents they

respected, however much they knew him to be their opponent; and they went so far as to impress upon each other, before the election, that any attempt to unseat him would be ill-advised and impolitic.

The Council, however, summoned a general meeting of Fellows and Members for October 29th, after preparing a special report of the transactions of the Council from July, 1884, to July, 1885, with statistics of examinations and a financial statement. At the meeting, the lead was taken by the Association of Members. Mr. Gamgee moved a resolution that the 16,000 Members of the College should be granted a share in the administration of the College; this was seconded by Dr. Collum, put to the vote, and carried by a large majority. Mr. Swain then moved, that in future no alteration in College-laws should be made without the consent of the Fellows and Members, expressed at a general meeting. This was seconded by Dr. Danford Thomas, and carried unanimously. It was rightly urged that the Fellows and Members wished to learn the deliberate opinion of the Council upon their demands within a reasonable period; in fact, a proposal was made to adjourn the meeting. The Council did not directly agree to this, but the matter was compromised by an arrangement on the part of the President that a general meeting should be called shortly after the next meeting of Council. The Council met, and, as was expected, the resolutions were rejected, and the President and Vice-Presidents were delegated to prepare a report explaining the reasons why the resolutions were set aside. The report was received at an extraordinary meeting of Council, and then followed another extraordinary meeting, when it was agreed that the report should be submitted to a general meeting of Fellows and Members convoked for December 17th. At that meeting, the Fellows and Members maintained a firm attitude, and requested the Council that the two questions involved in the rejected resolutions should be reconsidered. The full report of the meeting will be found in the present number of the JOURNAL. It is highly satisfactory to mark the progress of the College of Surgeons towards becoming a truly representative body, as shown by the three meetings of Fellows and Members which have been held since the beginning of 1884. Unceasing energy, combined with patience and tact, cannot fail ultimately to ensure the victory to the party of progress.

Having thus reviewed the disputes between the Council and Fellows and Members, we will now turn to other subjects which came within the work of the Council during the past year. In January, a petition was read from the Northern Provincial Schools, praying that arrangements should be made, under the scheme, so that the written part of the examinations might be conducted at the schools themselves, and candidates might thus be saved from the necessity of remaining for several days in London. The request of this petition has not as yet been granted, the Council deeming it prudent to wait for a year or more in order to ascertain how many students from the Northern Schools are likely to present themselves as candidates. Should the average number be very few the Council will not, we understand, consider it advisable to make any change in their regulations. The Council, after due deliberation, agreed that a bust of Sir Erasmus Wilson, executed in marble by Mr. Brock, A.R.A., should be set up in the College in memory of that distinguished surgeon. There was some discussion in the course of the spring regarding vaccination certificates granted to students of Queen's College, Belfast. As students were not permitted to vaccinate there, they failed to fulfil one of the conditions required by the English Local Government Board; and the Council, being bound to adhere to a special arrangement with that Board, could not, therefore, accept such certificates. In February, Mr. John Marshall delivered the Hunterian oration. Much of the time of the Council has been devoted to work in relation to the conjoined Board and the co-operation which the new arrangement demanded between the Colleges of Physicians and Surgeons. One remarkable feature in this direction has been the formation of joint committees to discuss the practicability of conferring a degree, or, at least, of allowing the title of doctor to holders of the double diploma. After failing to secure a plot of ground in Long Acre, the two colleges secured the lease of a piece of land facing the Embankment gardens, for ninety-nine years, at a ground rent of £2,200 per annum. This hazardous expenditure did not fail to attract the attention of the Associations of Fellows and Members, who urged that so serious a step should not have been taken without their consent. The Council, in answer to a letter from the secretaries of the British Association for the Advancement of Science, agreed to give any possible facilities in the way of granting the use of apartments for meetings of sections in the event of an international Scientific Congress being held in London in 1888, although it was not prepared to give any opinion as to the practicability and utility of such a congress. In the summer, the Council undertook proceedings against certain individuals who held its diploma, of which they were

deprived. A pleasing feature of college work during the past year is the completion of the catalogue of the pathological collection in the museum. This important piece of work was commenced by Sir James Paget, Dr. Goodhart, and Mr. Doran in 1878, and concluded, with the assistance of Mr. F. S. Eve, in the spring of the present year. The Council awarded a special vote of thanks to Sir James Paget, and Mr. Marshall gave a special notice of motion, that the Council should, by some permanent record, show their appreciation of the voluntary services of Sir James Paget for over forty years in the museum of the College. It has since been agreed that a bust of that distinguished surgeon, executed by Boehm, should be set up in the College.

SCIENTIFIC PAPERS IN THE BRITISH MEDICAL JOURNAL.

THE subjoined is a classified list of the original contributions to the Science and Practice of Medicine, which have been published in the JOURNAL during the year 1885.

Lectures and Addresses.—The following lectures have been published: Lectures by Mr. C. G. Wheelhouse, on Pent-up Secretions, on the Surgery of the Epiphyses, and on Recent Advances in Abdominal Surgery; Dr. Lauder Brunton's Lettsomian Lectures at the Medical Society of London, on Disorders of Digestion; a lecture by Dr. S. Wilks, on the Diagnostic Differences between Bronchitis and Heart-Disease; Mr. Victor Horsley's Brown Lectures on the Thyroid Gland, Goitre, and Myxœdema; Mr. F. Treves's Lectures at the Royal College of Surgeons, on the Anatomy of the Intestinal Canal and Peritoneum in Man; Dr. W. Osler's Gulstonian Lectures at the Royal College of Physicians, on Malignant Endocarditis; Dr. Hermann Weber's Croonian Lectures at the Royal College of Physicians, on the Hygienic and Climatic Treatment of Chronic Pulmonary Phthisis; Sir Andrew Clark's Lumleian Lectures at the Royal College of Physicians, on Some Points in the Natural History of Primitive Dry Pleuritis; Mr. A. Hill's Lectures at the Royal College of Surgeons, on the Relation of the Grey Masses of the Cerebro-spinal System (abstract); Dr. Brailey's Lectures at the Royal College of Surgeons, on Some Points in the Anatomy and Physiology of the Eye (abstract); Mr. E. Lund's Lectures at the Royal College of Surgeons, on Injuries and Diseases of the Head and Neck, the Genito-urinary Organs, and the Rectum (abstract); Mr. John Wood's Lectures at the Royal College of Surgeons, on Hernia and its Radical Cure; Mr. E. A. Schäfer's Lectures at the Royal College of Surgeons, on Secretion (abstract); lectures by Dr. Theodore Williams on the Compressed Air-Bath and its Uses in the Treatment of Disease; Lectures on Spinal Abscess and its Treatment, by Mr. G. Cowell; on the Treatment of Ringworm, by Dr. J. F. Payne; and on the Consequences of Long-continued Constipation, by Dr. J. S. Bristowe; Lecture by Mr. J. Greig Smith, on Laparotomy for Intestinal Obstruction (abstract); Lectures on Chronic Laryngitis and Chronic Pharyngitis, by Dr. D. Newman; on Spinal Caries, by Mr. R. Davy; on Torticollis and its Treatment by Tenotomy and Neurotomy, by Mr. F. A. Southam (abstract); on Bougies, by Mr. F. Swinford Edwards; on Lead-poisoning, by Dr. Thomas Oliver; Dr. J. F. Goodhart's Bradshaw Lecture at the Royal College of Physicians, on Morbid Arterial Tension; Mr. John Wood's Bradshaw Lecture at the Royal College of Surgeons, on Antiseptic Surgery; Dr. Hughlings Jackson's Bowman Lecture at the Ophthalmological Society, on Ophthalmology and Diseases of the Nervous System.

The following special addresses have appeared in the JOURNAL: an address to the Midland Medical Society by Mr. Lawson Tait, on One Thousand Abdominal Sections; an address to the Dublin Branch, on Medical Reform, by Dr. Lombe Atthill; Mr. John Marshall's Hunterian Oration at the Royal College of Surgeons; an address to the Clinical Society by Mr. Thomas Bryant, on the Necessity for Precision and the Advantage of Co-operation; an address by Dr. Alfred Meadows on the British Gynecological Society, its Foundation and Objects; Dr. Humphry's Oration before the Medical Society of London, on Old Age and the Changes Incidental to it; an address to the Metropolitan Counties Branch, by Dr. Walter Dickson, on the Geographical Distribution of Disease, and the Preservation of Health in Various Climates; an address to a combined meeting of the East Anglian, South Midland, and Cambridge and Huntingdon Branches, by Mr. H. T. Butler, on the Investigation of the Causes of Cancer; an address to the Border Counties Branch, by Mr. C. S. Hall, on the Aspects of Medicine as a Profession (abstract); the addresses delivered at the Annual Meeting of the British Medical Association, namely, the President's Address, by Dr. W. T. Edwards; the Address in Therapeutics, on Feeding the Sick, by Dr. W. Roberts; Mr. Marshall's Address in Surgery, on a Forty Years' Retrospect; the Address in Public Medicine, on the Sanitary History of Merthyr Tydfil, by Mr. T. J. Dyke; Dr. S. Wilks's Address in the Section of Medicine, on Some Causes of

Disease and on Reparative and Destructive Processes; Dr. E. H. Bennett's Address in the Section of Surgery, on Injuries of the Skeleton, and the Value of Accumulation of Specimens; Dr. H. Gervie's Address in the Section of Obstetric Medicine, on the Death-rates from Childbirth and Cancer, and the Value of Antiseptics in Midwifery; Mr. David Davies's Address in the Section of Public Medicine, on Various Important Topics; Dr. D. Yellowlees' Address in the Section of Psychology, on the Causes and Prevention of Insanity; Mr. H. Power's Address in the Section of Ophthalmology and Otology, on Progress in Ophthalmology; Dr. T. R. Fraser's Address in the Section of Pharmacology and Therapeutics, on the Progress of Pharmacology and Therapeutics; introductory addresses, at the opening of the Medical Department of the Yorkshire College, by Mr. J. Hutchinson, on the Uses of Knowledge; at University College, by Mr. E. A. Schäfer, on Medical Education; at St. George's Hospital, on Medical Education, by Mr. T. Holmes; Dr. R. Quain's Harveian Oration at the Royal College of Physicians, on the History and Progress of Medicine; an address to the Medical Society of London, by Dr. W. M. Ord, on the Heat of Fever; an address to the Midland Medical Society, by Dr. S. Wilks, on Medical Treatment.

The following Reports of the Scientific Grants Committee of the British Medical Association, have been published in the JOURNAL: On the Cholera-Bacillus, by Mr. Watson Cheyne; on the Process of Fatigue and Recovery, by Dr. A. Waller; on the Proteids of the Blood, by Dr. W. D. Halliburton; on the Action of Papain, by Dr. S. H. C. Martin; on the Influence of Hepatic Stimulants on the Composition of the Urine, and on the Blood-Corpuscles, by Dr. D. Noel Paton; on a New Method for the Quantitative Estimation of Uric Acid, by Mr. J. B. Haycraft.

Therapeutics: Action of Medicines.—In this department the new local anæsthetic cocaine has been the subject of a considerable number of contributions. Its physiological action has been commented on by Mr. E. Cardwell; its chemistry by Mr. A. Percy Smith; its action on the nasal mucous membrane, by Mr. E. C. Baber; and its toxic action, by Mr. Grosholz; its use in gynecological operations, has been the subject of communications from Dr. C. Godson and Dr. P. Boulton; its employment in various surgical operations has been described by Mr. F. S. Edwards, Mr. F. Pierce, Dr. F. K. Walters, Mr. J. M. Fergusson, Dr. Nall, and Dr. J. A. P. Price, and in dentistry by Mr. M. Hughes, Mr. Smale, and Mr. J. M. Ackland; Mr. M. Morris has commented on its use in pruritus ani, Mr. Wyndham Cottle on its employment in skin-diseases, Mr. P. S. Brito on its use in neuralgia, Mr. J. Gould on its use in senile gangrene; and Dr. W. S. Paget and Dr. J. W. Bull on its action in coryza and hay-fever; Dr. J. Strahan on its use in acute affections of the upper respiratory passages; Dr. R. J. Banning on its use in morphinism; Mr. H. P. Dunn has described a cocaine spray-producer. Dr. Argyll Robertson has called attention to the failure of caffeine as an anæsthetic in operations on the eye. Mr. Robert Black has described an instance of the toxic action of iodoform. Dr. Alfred Carpenter has commented on the place which alcoholic drinks should occupy in the treatment of disease; and the same subject has been discussed by Dr. Norman Kerr in a paper on the question, Ought we to prescribe alcohol, and how? Mr. R. W. Parker has described a glycerine of alum. Dr. E. P. Thurston has described a case of incontinence of urine, cured by large doses of belladonna. Mr. Z. Mennell has advocated the use of jacaranda lancifoliata in gonorrhœa. Mr. J. G. Marshall has described the effects of hydrobromic acid in chorea. Dr. Andrew Mallan has called attention to the value of quinine and some of its congeners as parturients. Mr. A. Kebbrell has commented on the use of tincture of benzoin in influenza and catarrh. The use of carbolic acid in indigestion has been the subject of communications from Mr. J. F. Dixon, Mr. E. Berdoe, and others. Dr. Gilbert Richardson and Mr. J. R. Harris have commented on the use of spiritus pyroxylicus rectificatus in consumption. Dr. Sydney Ringer has given the results of experimental researches on the effect of the saline ingredients of the blood on the contractions of the heart. Dr. Gordon Hill has furnished some remarks on the domestic remedies of the Arabian desert, and Dr. E. J. Waring a paper on some articles of the Indian materia medica. The use of permanganate of potash in amenorrhœa has been the subject of a communication from Dr. P. M. Deas. Dr. E. H. Jacob has published a table of deaths under anæsthetics in 1884. Dr. Ward Cousins has described a new inhaler, and made remarks on open antiseptic inhalation. Mr. James Myrtle has contributed a note on the use of the Harrogate waters. Dr. Prosser James has described a new method of administering pepsin. The action of nitrite of amyl as an eliminator of uric acid has been the subject of communications from Dr. A. D. Macdonald and Dr. Handford. Dr. C. R. Illingworth has recommended solution of biniodide of mercury in potassic iodide as a

remedy for gout. Mr. C. E. Jennings has contributed an article on the intravenous injection of milk, and Mr. Carmalt Jones has described an instrument for the transfusion of defibrinated blood. Dr. J. W. Barman has commented on constant and inconstant tinctures. Mr. T. M. Kendall has advocated the use of bicarbonate of soda in tonsillitis. The use of quinine in the treatment of pneumonia has been the subject of communications from Dr. C. W. Suckling and Mr. J. A. Myrtle. Dr. H. F. A. Goodridge has commented on the use of digitalis in acute febrile diseases. Dr. Talfourd Jones has published a note on the *Liquor Sodæ Arseniatis* of the *British Pharmacopæia*. Mr. G. F. Hodgson has commented on the use of paraldehyde as a hypnotic. Dr. Leslie Allen has advocated Napier in New Zealand as a health-resort. Mr. Charles Roberts has recommended the use of boro-glyceride in skin-diseases. Mr. S. Welch has advocated the treatment of nevus by ethylate of sodium. Dr. W. Murrell has testified to the value of Friedrichshall water in habitual constipation. Dr. R. H. Coombs has commented on the new edition of the *British Pharmacopæia*. Dr. S. Monckton has described a case of lymphadenoma successfully treated by arsenic. Dr. Lauchlan Aitken has contributed a paper on the subcutaneous injection of salts of quinine. Cases showing the value of hypodermic injection of morphine have been described; in puerperal convulsions by Mr. R. F. Frazer, and in uræmic convulsions after scarlet fever by Dr. Scudamore Powell. Dr. Mortimer Granville has advocated the use of nitrite of sodium in epilepsy connected with gout. Dr. Shingleton Smith has described the results obtained by him from intrapulmonary injections in lung-diseases. Dr. D. J. Mackenzie has advocated the use of hamamelis virginica in prostatic disease and cancer of the month. Dr. G. Lorimer has described the use of acupuncture in the treatment of some forms of chronic rheumatism. Mr. G. P. Bidić has described a case of dyspnoea produced by pelargonium grossularioides. Dr. Leslie Phillips has described a case of Graves's disease cured by galvanising. Dr. R. Lord has described a case of diphtheria cured by tannic varnish. Dr. Churton has described a case of severe hicough cured by pilocarpine. Mr. Brindley James has advocated the use of the percussio-punctator in lumbago and rheumatic pains.

Several valuable papers and discussions in the Section of Pharmacology and Therapeutics at the meeting of the British Medical Association in Cardiff have been published in the *JOURNAL*; namely, a discussion on the action of diuretics, by Dr. Long Fox, Dr. Talfourd Jones, Dr. Shingleton Smith, etc.; a discussion on anæsthesia and anæsthetics, by Dr. D. W. Buxton, Dr. Milne Murray, Mr. Chiene, Mr. G. H. Bailey, Mr. Marcus Gunn, etc.; a paper on hypodermic medication, by Dr. Talfourd Jones; a paper on the action and uses of digitalis and its substitutes, with special reference to strophanthus hispidus by Dr. Fraser; and a paper containing the result of investigation on the action of the nitrites and other agents, by Dr. D. J. Leech.

Endemic and Epidemic Diseases.—In this department, the first paper is a description of experimental researches on diphtheria by Dr. C. J. Renshaw. Cases of periostitis following typhoid fever have been described by Dr. J. D. Hayward, Dr. E. Mackey, Mr. Edward Jackson, Dr. H. W. King, Dr. J. O. Affleck, and Mr. T. P. Gostling. Mr. Arthur J. Campbell has advocated warm douching of the head and neck in the insomnia of continued or eruptive fevers. Dr. Ezra M. Hunt, of New York, has described the methods to be adopted in preventing the spread of epidemic diseases. Dr. Collie has contributed an additional paper on the etiology of enteric fever. Mr. H. C. Alderton and Dr. T. H. Sawtell have reported series of cases of diphtheria. Dr. E. W. Hope has commented on the latent period, infectiousness, and mortality of typhus fever. Dr. T. F. Pearse has described a febrile disorder communicated from calves. Mr. J. J. Lamprey, Surgeon Army Medical Staff, has described an outbreak of yellow fever in Sierra Leone. Mr. Watson Cheyne has described the pathology of "foulbrood," a disease infesting bee-lives. The summer-diarrhoea of children was the subject of a paper by Mr. F. Vacher, read and discussed in the Public Medicine Section at the annual meeting of the Association; and in the same Section a paper on infectious pneumonia was read by Mr. J. Lloyd Roberts. Cholera has been the subject of several communications. Dr. David, of Geneva, has described, and Dr. Marcet has commented on, a case of cholera, illustrating the successful effect of precautionary measures in preventing the spread of the disease. The comma-bacillus of cholera has been the subject of communications from Mr. G. F. Dowdeswell, Mr. Francis Fowke, Dr. E. Klein, and M. J. Berdez. Cholera was the subject of three interesting papers and a discussion in the Public Medicine Section at the annual meeting of the Association; namely, by Surgeon-Major R. Pringle, on its prevention and treatment; by Dr. H. J. Paine, on cholera on other diseases in their relation to sanitation, practically considered; and by Dr. L.

Aitken, on the results of the International Sanitary Conference on Cholera lately held in Rome.

Diseases and Injuries of the Head, Neck, and Throat.—In this department, Dr. J. H. Stowers has contributed a paper on the treatment of vascular hypertrophy of the nose. Mr. Morton Smale has described a case of chronic suppuration of the antrum of Highmore, successfully treated by injections of carbolic acid. An operation for removal of naso-pharyngeal polypus has been described by Mr. Furneaux Jordan. Dr. G. Hunter Mackenzie has discussed the causes and treatment of nasal asthma. Mr. A. W. Sinclair has described a case in which a leech was removed from the posterior nares. Mr. Crosswell Baber has described a case of renal concretion or rhinolith. Mr. W. J. Tivy has advocated, in reply to Mr. Horsley, the treatment of goitre by injection of iodine. Dr. Hale White has commented on atrophy of the thyroid body following pressure on the recurrent laryngeal nerve. Mr. Ashby G. Osborn has called attention to non-penetration of the false membrane as a danger in tracheotomy. Mr. Joseph Thompson has described two cases of foreign bodies in the œsophagus, and Mr. Thomas Symptom has described a case in which a dental plate was successfully removed from the œsophagus. Mr. S. T. Griffith and Mr. N. F. H. Fitzmaurice have called attention to the association of tonsillitis and follicular pharyngitis with rheumatism. Mr. A. W. Sinclair has described a case in which a leech was removed from the posterior nares. Dr. A. Mantle has described a case of infectious sore-throat in which rheumatism played an important part. The use of galvanism in exophthalmic goitre or Graves's disease has been the subject of communications from Dr. L. Phillips and Dr. C. W. Suckling. Mr. G. Wherry has described the sequel of a case of trephining.

Diseases and Injuries of the Brain and Nervous System.—Chorea has been the subject of two papers; one by Dr. Dyce Duckworth on its pathology; the other by Mr. C. R. Straton, on the prechoreic stages of the disease. Dr. J. K. Spender has commented on the importance of shampooing and gymnastic exercises in the treatment of epilepsy. Acute meningitis, in connection with disease of the nose, has been the subject of communications from Dr. F. Ogston, Dr. J. McNaught, Mr. Spencer Watson, and Mr. Percy Walker. A case of aphasia, in which the supramarginal and angular gyri were affected, has been described by Dr. Samuel West. Dr. Churton has described a case of syphilis, with unusually early appearance of ataxy and other nervous disorders. Dr. T. F. Tannahill has described a case of tetany, with comments on the cause and pathology of the disease. Mr. John Turner has described the pathological changes found in a case of word-deafness. Dr. W. Budd has described a case of periostitis of the spine, with tetanic spasms. Dr. De Watteville has contributed a paper on the cure of writer's cramp by Wolf's method. Mr. Chauncey Puzey has described a case of progressive paralysis of the ulnar nerve, successfully treated by operation. Mr. H. T. Tomlinson has described a case of acute idiopathic partial spinal myelitis. Dr. W. R. Huggard has commented on the standard of sanity. Dr. P. J. Cremen has described a remarkable case of morbid somnolence.

Diseases and Injuries of the Eye.—A convenient ophthalmoscope has been described by Mr. A. H. Benson; and Mr. G. Hartridge has described the examination of the eye by means of an ophthalmoscope having behind it a strong convex lens. Mr. Simeon Snell has published some additional instances of the use of the electro-magnet in ophthalmic surgery. Purulent ophthalmia has been the subject of several communications. Mr. Edgar Browne has advocated permanent antiseptic irrigation, with solution of trichlorophenol; and Mr. J. Tweedy and Mr. J. Vose Solomon have commented on the use of alum in this affection. The occurrence of gonorrhœal rheumatism in infants in connection with ophthalmia has been the subject of communications from Mr. Clement Lucas and Mr. R. G. Fendick. Mr. H. B. Hewetson has advocated the use of Mr. Mayo Robson's eucalyptus spray and dry dressings in operations on the eye. Dr. J. R. Wolfe has discussed the question whether the position of the section in cataract-operations influences suppuration of the cornea. Mr. T. F. Tannahill has described a case of diabetic cataract, in which spontaneous resolution took place. Dr. W. A. Brailey has commented on the advance of the periphery of the iris in glaucoma; and has described some cases of stretching of the supratrochlear nerve. Dr. L. Werner has described a case of detachment of the retina, with cholesteroline in the subretinal fluid. Dr. P. H. Mules has described a case of convergent concomitant squint with consecutive amblyopia. Mr. Jabez Hogg has commented on colour-blindness among merchant-sailors. Mr. J. V. Solomon has commented on the occurrence of chance of the eyelids in infants. Mr. J. M. Ackland has described a case of epiphora and slight ectropion, cured by removal of the buried root of a canine tooth. Mr. Arthur H. Benson has commented on the

causes of atrophy of the optic nerve, other than glaucomatous. Mr. Simeon Snell has commented on the effects of general anæsthesia on the mydriasis of cocaine. Mr. C. Higgins has described an operation for conical cornea. Mr. Richardson Cross has described a case of symmetrical microphthalmos, and one of iridemia. Dr. P. H. Mules has described the advantages of an artificial vitreous body after evisceration of the eye-ball; and Dr. E. Andrew has commented on enucleation of the eye-ball, with obliteration of the conjunctival sac.

Diseases and Injuries of the Ear.—The following communications have been made in this department. Dr. Thomas Barr has described two cases of sudden and extreme loss of hearing on both sides, from disease of the nervous structures of the ear, which were materially improved by the use of pilocarpine. Mr. Walter Pye and Mr. H. W. Phillips have described cases in which the whole bony labyrinth became necrosed and was separated as a sequestrum in children. Dr. Ward Cousins has described a new aural inflator, evacuator, and injector. Syphilis as a factor in ear-disease was the subject of a paper read in the Section of Ophthalmology and Otology at the annual meeting of the Association by Dr. E. Woakes, and of a discussion. Professor Lucae, of Berlin, contributed to the same section a paper on conduction of sound through the bones of the head, as a means of diagnosis of the seat of ear-disease; and Mr. H. B. Hewetson commented on the improvement of hearing following division of cicatrices of the membrana tympani.

Diseases and Injuries of the Lungs.—Dr. G. C. Kingsbury has described a case of asthma produced by a linseed-poultice, and Dr. Thorowgood a case produced by the smell of a cooked hare. Mr. P. Warner has commented on the relations between asthma and urticaria. Mr. F. S. Watson has described a case of emphysema of the cellular tissue, due to asthma. Dr. L. D. Bulkley has called attention to the relation between asthma and disease of the skin. Dr. E. J. Edwardes has commented on the question whether pneumonia is an inflammation. Dr. D. B. Lees has described two cases of bronchopneumonia, treated by bleeding and ice. Dr. E. Penny has described the influence of dry air on septic pneumonia. Dr. Burney Yeo has commented on some points in the etiology of phthisis; and Dr. J. C. Thorowgood and Dr. W. B. Hadden have made remarks on the communicability of the disease. Dr. J. E. Morgan and Dr. T. Hawksley have commented on the use of parasitocides in the treatment of phthisis. Dr. R. Robertson has made remarks on the induction of pneumothorax as a remedy for hæmoptysis. Mr. C. R. Fraser has commented on the prevention of consumption. Dr. T. Churton has described a case of pleural effusion containing crystals of cholesterine. Dr. Sidney Copland has contributed a paper on gangrene of the lung. Dr. J. D. Thomas has described the treatment of pulmonary cysts by large openings into the sac, and free drainage. A case of abscess of the lung from swallowing a piece of grass has been described by Dr. R. Petch. Dr. W. Murrell has advocated the use of pure terebene as a remedy for winter-cough.

Diseases and Injuries of the Heart and Blood-vessels.—In this department, Mr. T. Raven has described a case of purulent pericarditis, treated by aspiration, with a fatal result. Dr. J. Finlayson has described and commented on the occurrence of a diastolic murmur of aortic origin, apart from aortic incompetency or aneurysm. Mr. H. Nelson Hardy has described a case of spontaneous rupture of the heart. Dr. A. Money, Mr. F. W. Jordan, and Mr. J. Ferguson, have commented on the occurrence of rheumatic nodules in heart-disease. Dr. J. Strahan has contributed a paper on puzzling conditions of the heart and other organs dependent on neurasthenia. Mr. C. J. Bond has described the influence of the position of the body on the position of the heart and on intracardiac pressure. Mr. Joseph Thompson has described a successful case of ligature of the external artery for femoral aneurysm. Dr. W. C. Maclean has commented on the treatment of aneurysm of the aorta by the introduction of wire into the sac. Mr. W. Rivington has described a method for ligature of the first part of the axillary, subclavian, and innominate arteries. Mr. J. E. Fry has commented on the cure of caries by excision.

Injuries and Diseases of the Abdomen, including Hernia.—Numerous contributions have been made in this department. A case of chylous ascites has been described by Dr. W. Whitla, and a case of peritonitis from perforation by Mr. Norman Reid. Mr. T. Holmes has summarised and commented on Professor Loret's description of dilatation of the orifices of the stomach. Dr. James Russell has described the progress of a case of non-malignant disease of the pylorus, in which a siphon-tube was used for five years. Mr. G. J. Robertson has described a case of fibrous stricture of the pylorus treated by enterostomy. Dr. P. Tytler has described a case of dilatation of the stomach treated by the postural method. Mr. R. Halpin has described a case of hæmorrhage from the bowel treated by hazeline. Cases of foreign

bodies in the intestines has been described by Mr. F. Kinneir, Dr. Spencer Smyth, and Mr. J. L. Stretton. Mr. F. Treves has commented on the treatment of intussusception. Mr. W. W. Wagstaffe has described a case of intestinal obstruction treated by enterotomy. The treatment of intestinal obstruction was the object of a discussion in the Section of Surgery at the annual meeting of the Association, when papers were read by Mr. F. Treves, Mr. J. Greig Smith, and Mr. Mayo Robson; and, on the same occasion, Mr. R. N. Fughe described a case of obstruction by the vermiform appendix successfully treated by abdominal section; and Mr. Stanmore Bishop read a paper on enterorrhaphy, with a description of a new form of suture. Dr. G. H. Hume has commented on colotomy with delayed opening of the bowel; and Mr. T. Simpson has described a case of the same operation. Mr. Walter Whitehead has described a case of excision of the cæcum for epithelioma. Mr. C. Farmer has described a case of pelvic abscess of obscure origin, opened through the rectum. Dr. D. Lowson has described and commented on a case of excision of the rectum, and Mr. C. B. Ball a case of melanotic sarcoma of the rectum, treated by operation. Mr. Swinford Edwards has called attention to the use of cocaine as a local anæsthetic in operations on hæmorrhoids. Dr. Mackenzie Booth has described a case of papillary tumour of the anus. Professor G. Buchanan has described a case of strangulated hernia in a child, in which he operated for relief of symptoms and for radical cure. The radical cure for hernia has also been the subject of papers by Mr. W. D. Spanton, Mr. Vincent Jackson, and Mr. C. B. Keetley. Mr. F. A. Southam has commented on the treatment of irreducible intestine in herniotomy. Mr. Howard Marsh has published some remarks on the treatment of strangulated hernia and the use of Dupuytren's enterotome. Mr. F. S. Eve has described a case of strangulated hernia into the fossa intersigmoidea. Dr. Ward Cousins has described a new washable truss, and has commented on the treatment of congenital hernia in children. Mr. W. H. Folker has described a case of strangulated umbilical hernia, in which six inches of intestine were successfully removed; and Mr. A. E. Barker has described two cases of operation for the radical cure of umbilical hernia. Mr. Lawson Tait has summarised the result of 1,000 abdominal sections. Mr. W. Fearnley has described the place of the exploratory incision in abdominal surgery. Mr. H. W. Seager has described a case of displacement of the liver. Dr. J. Oliver has described a case of cirrhotic enlargement of the liver in a female. Cases of cholecystostomy have been described and commented on by Mr. J. W. Taylor and Mr. Lawson Tait. Dr. J. McV. Gaston, of Atlanta, U.S., has described an operation suggested for cases of obstruction of the gall-duct.

Diseases and Injuries of the Kidney.—Mr. H. A. Reeves has described a trocar for nephrotomy. Mr. Henry Morris has commented on some points in the surgery of the kidneys. Dr. James Oliver has described the *post mortem* appearances in a case of movable kidney. Mr. R. H. B. Nicholson has described a case of nephrotomy for calculus.

Diseases and Injuries of the Bladder and Urethra.—Mr. Mayo Robson has described a case of extroversion of the bladder in a child, treated by operation. Mr. Reginald Harrison has commented on the diagnosis and treatment of tumours of the bladder, in a paper read in the Section of Surgery at the annual meeting of the Association, and followed by a discussion. Mr. C. R. Thompson has described a case of rupture of the bladder, in which death was caused by hæmorrhage. Dr. James Murphy has described a case in which a patient removed forty-three calculi from his own bladder. Mr. Charles Williams has described a case of stone, operated on a second time. Mr. C. B. Plowright has given statistics of the distribution of calculous disease in Norfolk. Dr. de Forest Willard has described a case in which the bladder was distended with 464 ounces of urine. Mr. E. W. Forster has described a case of total obliteration of the urethra in a new-born child. Mr. Mayo Robson has given an account of traumatic stricture of the urethra cured by excision. Mr. Lawson Tait has described a case of saccular dilatation of the female urethra. Dr. M. R. J. Behrendt has described a case of gout, diabetes, and renal colic, with impaction of calculi in the urethra. Mr. Reginald Harrison has commented on the treatment of urethral stricture by urethrotomy. Mr. D'Arcy Power has described a case of partial laceration of the urethra successfully treated by continuous dilatation. Mr. F. Cadell has called attention to the occurrence of urethral discharge in secondary syphilis. Dr. Ward Cousins has advocated the treatment of retention of urine by a capillary catheter.

Diseases and Injuries of the Inguinal and Perineal Regions.—The cure of phimosis without operation has been the subject of communications from Mr. Berkeley Hill, Mr. H. N. Oglesby, and Mr. A. R. Macdougall. Surgeon-Major Dr. J. B. Hamilton has described a case

in which a testicle became retracted into the abdomen. Mr. H. Percy and Mr. Arthur Cooper have commented on early syphilitic epididymitis. Mr. T. M. Kendall and Mr. Sidney Davies have reported cases of hydrocele containing milky fluid. Dr. James Murphy has described a case of imperfectly developed penis improved by operation.

Diseases of the Skin.—Dr. J. H. Stowers has commented on the treatment of lupus. Dr. Magee Finny has described a case of double or bilateral herpes zoster; and Dr. D. R. Pearson and Dr. Saundby have commented on the symmetrical distribution of the disease. Dr. Tom Robinson has commented on acne rosacea. Ringworm and its treatment have been the subject of communications from Dr. Alder Smith, Dr. James Foulis, and Dr. Henry Browne. Dr. Thin has continued his remarks on certain new methods in the treatment of diseases of the skin; namely, lupus, ringworm, and lichen ruber. Dr. J. K. Spender has contributed a case of multiple xanthoma. Mr. Jonathan Hutchinson has described a case of cure of lupus erythematosus. Dr. Morrell Mackenzie has described a case of rhinoscleroma. Mr. P. S. Brito has commented on vitiligo and its treatment. Dr. T. Robinson has described a case of alopecia areata, parasitic sycosis, and ringworm of the body in the same individual. Dr. W. E. Buck has commented on the treatment of erythema nodosum. Dr. A. J. Harrison has described a method of treating tinea tonsurans. Dr. William Bruce has described cases of eczema treated by the Strathpeffer waters. Dr. R. E. Carrington has commented on the macular or pigmentary syphilide. Dr. C. F. Moore has described a case of molluscum fibrosum seu simplex; and Dr. H. Snow has commented on the same subject. Mr. M. Mackintosh has described a case in which herpes followed the external use of belladonna and atropine. Mr. T. G. Parrott has described a fatal case of pemphigus.

Diseases of Bones and Joints.—Mr. W. J. Spence has described a case of subastragloid dislocation of the foot inwards. The treatment of fracture of the patella by wire suture has been the subject of communications from Mr. Joseph Hinton, Mr. P. M. Davidson, and Mr. C. Lammiman. Mr. Jonathan Hutchinson and Mr. F. Shearer have described cases of arrest of growth of one humerus. Dislocation of the metacarpal bones has been the subject of communications from Mr. J. H. Morgan, Mr. G. W. Steeves, and Mr. T. F. Raven. Mr. William Adams has published some observations on the so-called congenital dislocation of the hip-joint. Mr. S. W. Hope has described the treatment of fracture of the thigh in children by the "steadle-splint." Partial dislocation of the head of the radius in children has been the subject of a communication from Mr. S. H. Lindeman. The treatment of caries and curvature of the spine has been the subject of papers by Mr. Bernard Roth, Mr. E. Owen, Mr. H. E. Clark, Mr. W. J. Walsham, Mr. Walter Pye, Dr. F. R. Walters, and Mr. Noble Smith. Mr. E. Thompson has suggested some improvements in excision of the knee-joint. An intermittent painful affection of the hands and feet has been described by Dr. A. Hess. Mr. C. W. Mansell Moullin has commented on chronic sprains. Dr. A. S. Myrtle and Mr. Noble Smith have commented on the treatment of Dupuytren's contraction of the palmar fascia. Mr. V. G. Webb has described a case of hysterical drop-wrist. Mr. F. T. Paul has described a new splint for the treatment of talipes. Mr. Annandale has given an account of an operation for displaced semilunar cartilage. Dr. R. Sinclair has described a case of spina bifida successfully treated by Morton's method. Mr. John Croft has commented on hip-joint disease and its early treatment. Notes on the division of digital tendons in pianists have been contributed by Mr. Noble Smith and Mr. E. Bower. Mr. R. Barwell has described a cheap form of artificial leg.

Obstetric Medicine and Diseases of Women.—The contributions which may be arranged under this head have been numerous. Cases of conception in which menstruation had not appeared have been recorded by Mr. E. A. Wright, Mr. W. Duncan, Dr. A. Oakes, and Mr. G. A. Rae. Cases of pregnancy in young girls have been described by Mr. A. E. Legat and Mr. W. H. Allen. A case of pregnancy complicated with prolapsus uteri has been described by Mr. G. B. Masson. Dr. A. Duke has called attention to the advantage of abdominal support during pregnancy. Mr. Lawson Tait has described cases of successful operation for tubal pregnancy. A case of severe vomiting during pregnancy has been described by Dr. P. Horrocks, and one due to alcoholism by Dr. A. W. Edis. Dr. A. D. Macdonald has described a case of retroversion of the gravid uterus; and Mr. W. Fearnley a case of *post partum* retroversion. The treatment of shoulder presentation has been the subject of comments by Mr. A. Shannon, Mr. J. Thornley, Mr. W. Donaldson, and Dr. H. Burdon. Dr. W. G. Lowe has described a case of breech-presentation, in which delivery was obstructed by a hydrocephalic head. Mr. J. L. Stretton

and Mr. H. Thompson have described cases of spontaneous expulsion of the fetus, with presentation of the arm. The case of a woman in whom several abnormal presentations occurred consecutively has been described by Mr. W. L'H. Blenkarne. A case of consecutive twin-pregnancies has been described by Mr. G. Hannay. Mr. B. R. Johnston and Mr. S. Deakin have described cases of twin monstrosity. Dr. R. E. Burgess has described a case in which labour was mistaken for a bilious attack. Cases of unusually small children have been described by Dr. S. J. Scott and Dr. P. Boulton. Dr. A. Bryden has described a case in which rupture of the membranes occurred long before labour. The management of the third stage of labour has been the subject of communications from Dr. W. J. Smyly, Mr. G. Smith, and Dr. D. B. Hart. Dr. K. N. Macdonald and Mr. J. S. Nairne have commented on the means of preventing septicæmia in cases of morbidly adherent placenta. Mr. W. J. Beatty has given a summary of 1,000 cases of midwifery without a death. A case of Cæsarean section has been described and commented on by Dr. T. M. Dolan; and a successful case has been described by Mr. H. A. Hunter. Dr. Clement Godson has published a supplementary table of cases of Porro's operation. Dr. Fancourt Barnes and Dr. F. Imlach have described unsuccessful cases of the operation; and Dr. F. Imlach a case in which the operation was successfully performed in a case of pregnancy in double uterus. Dr. S. H. Owen has recommended an antiseptic lubricant for the hands in midwifery cases. Dr. Braxton Hicks has directed attention to a condition of the inner surface of the uterus after labour, of practical importance. Cases of rupture of the uterus have been described by Mr. Walter Buchanan and Mr. W. H. O'Meara. Dr. G. Robertson has described a case of bipartite placenta; and Mr. B. Strachan a case of lateral placenta prævia. Mr. T. W. Buckley has described a case in which delivery by a novel method took place at sea. Mr. R. F. Frazer has described a case of puerperal convulsions successfully treated by hypodermic injections of morphine. Dr. J. Mulvaney has described a case in which renal hæmorrhage during pregnancy simulated labour. Mr. J. Hunter and Mr. A. C. Miller have described cases of emphysema of the cellular tissue due to labour. A case of dystocia from rigor mortis in the fetus has been described by Mr. B. Jones. The prevention of laceration of the perineum in primiparæ has been commented on by Dr. D. P. Gausson. The use of strychnine for preventing *post partum* hæmorrhage has been advocated by Dr. A. Walker and Mr. Joseph Thompson. Mr. J. H. Neale and Mr. W. E. Green have described cases of great dilatation of the bladder in females. Dr. W. S. Playfair has published a paper, read and discussed in the Section of Obstetric Medicine at the annual meeting of the Association, on the occasional latency and insidiousness of grave symptoms in connection with the puerperal state. Dr. J. R. Kealy has described a case of septicæmia following labour. Mr. T. F. Raven has presented a note on the urine of weaning women. Dr. Thomas Oliver has published some clinical remarks on a case of parovarian dropsy. Mr. Skene Keith has summarised the results of fifty cases of ovariectomy. Mr. G. Padley has described a case of inflammation and abscess of the ovary, in which recovery took place by absorption. Dr. Sinclair Coghill has described a new form of vaginal pessary. Dr. Thomas Keith and Mr. Knowsley Thornton have recorded and commented on cases of hysterectomy, and its application in uterine myoma has been the subject of communications by Mr. Lawson Tait, Dr. W. Walter, Dr. H. R. Bigelow, and Dr. W. A. Duncan. Mr. H. A. Reeves has suggested a modification of the operation of hysterectomy. Dr. Imlach has described a case in which recovery from diabetes followed removal of the uterine appendages. Dr. Thomas Savage has summarised the results of 104 abdominal sections; and Mr. Lawson Tait has commented on the results of 1,000 abdominal sections. Dr. F. Imlach has described five cases of pelvic hæmatocele treated by abdominal section. Mr. D. Biddle has advocated the use of corrosive sublimate and glycerine in epithelioma of the cervix uteri. The operation of shortening the round ligaments for the relief of prolapsus uteri has been the subject of communications from Mr. W. Rivington and others. Dr. Graily Hewitt has described an operation for the cure of sterility in cases of conical and flexed cervix uteri. The local and constitutional treatment of uterine disease was the subject of papers read and discussed in the Obstetric Section at the annual meeting of the Association, by Dr. W. S. Playfair, Dr. Clifford Allbutt, and Dr. Mose Madden. Dr. D. A. Davies has described a case of chronic inversion of the uterus. Mr. J. A. Angus has described a case in which a piece of broken glass syringe was retained seven months in the vagina. The management of vesico-vaginal fistula has been the subject of communications from Dr. P. Tytler and Dr. P. Boulton. Mr. A. R. Anderson has described a case of hydrocele of the labium. Dr. Fancourt Barnes has published a note on twenty cases of perineorrhaphy. Mr. J. H. Morgan has com-

mented on cases of painful mamma in young girls. Dr. A. W. Edis, Mr. P. E. Miall, and Mr. H. Cripps Lawrence, have published notes on the prevention of mammary abscess. Mr. J. S. Nairne has commented on the means of controlling the lacteal secretion.

Diseases of Children.—Mr. Clement Lucas has described a case of gonorrhoeal rheumatism in an infant, the result of purulent ophthalmia. Mr. James Edwards has described a case of diabetes mellitus in a child. Mr. E. Murphy has given an account of a case of gangrene in an infant. Mr. A. H. Boys has described a case of hyperpyrexia in an infant.

Pathology.—Mr. Watson Cheyne has published a paper on the bacillus of tubercle. Professor W. D. Müller, of Berlin, has commented on the comma-bacilli of the human mouth. Mr. C. Kingzett has published remarks on the relation of micro-organisms to disease and the science of disinfection. Dr. J. L. Steven has described the bacillus of leprosy. Mr. M. Sheild and Mr. S. Delépine have described the *post mortem* appearances in a case of death from the action of electricity. Mr. F. T. Paul has commented on the pathology of rodent ulcer. Dr. H. Dunn has commented on the question whether cancer is hereditary. Dr. V. D. Harris has described the condition of the blood in a case of splenic lœkæmia.

Public Medicine.—Dr. W. R. Huggard has commented on the lunacy law and its defects, and has proposed a standard of sanity. Dr. G. H. Savage has commented on the duties of medical men in reference to the signing of certificates of lunacy. Dr. Leslie Allen has called attention to Napier in New Zealand as a health-resort. Dr. Andrew Smart has commented on the alleged prevalence of anthracosis among miners. Dr. D. H. Cullimore has described the climate of Burmah. Dr. E. De la Harpe has described a winter visit to Davos.

Medical Chemistry.—Dr. W. S. Paget has made some remarks on the occasional action of picric acid with urates. Mr. G. P. Best has described a method of testing for albumen in urine. Dr. J. J. Charles has commented on the sources and excretion of carbonic acid in the economy. Mr. W. E. Green has called attention to the practical utility of estimating the quantity of urea passed daily. Mr. J. B. Haycraft has described a new method of quantitative estimation of uric acid.

Poisoning.—In this department, Mr. H. A. Wickers and Dr. Thomas Cole have described cases of poisoning by chlorodyne. Mr. Charles Wood has called attention to the toxic effects of gelseminum and of belladonna. Mr. J. B. Richardson has described a case of poisoning by belladonna and aconite. Mr. J. T. Knight has described three cases of poisoning by hellebore powder. Mr. T. E. Amyot has described a case of poisoning by snowberries. Mr. A. Freer has described a case of jaundice, traceable to wall-papers containing arsenic. Mr. E. H. Moore has described a fatal case of poisoning by white precipitate. Dr. C. R. Walker has given an account of a case of poisoning by corrosive sublimate. A case of opium poisoning has been described by Mr. J. V. Fitzpatrick; and one of opium-poisoning in an infant through the mother's milk, by Mr. W. T. Evans.

Miscellaneous Papers.—The following articles cannot be conveniently classified under any of the preceding headings. Dr. W. B. Miller has described a case of myxœdema. Varicosity of the lingual vein as a diagnostic sign has been commented on by Mr. G. C. Dickson, Mr. J. Whitehouse, Dr. G. A. Atkinson, and Mr. M. Greenwood, junior. Mr. B. Strachan has described a case of equinia mitis. Dr. Sonsino, of Pisa, has commented on the treatment of Bilharzia disease. Dr. Robert Esler has described the health-resorts in Ulster. Dr. W. E. Buck has described a case of recovery from malignant pustule. Suppression of urine in diphtheria has been commented on by Dr. G. C. Kingsbury. The treatment of acute rheumatism was the subject of a discussion in the Section of Medicine at the annual meeting of the Association; and papers on the subject by Dr. J. S. Bristowe, and Dr. W. R. Thomas, with remarks of various operations, have been published. Dr. Milner Fothergill has discussed the question of the mode of death from exhaustion. Dr. W. R. Thomas has commented on the influence of malaria on the progress of other diseases; and Mr. R. H. Browne has made remarks on malaria, and allied neuroses, as occurring in Norfolk. Dr. F. W. Pavy has published a paper on cyclic albuminuria, which was read and discussed in the Section of Medicine at the annual meeting of the Association. Dr. D. W. Finlay has described a case of fatal anæmia, and Dr. B. Rake a case of pernicious anæmia with obstinate headache. Mr. Mayo Robson has called attention to the prevalence of rheumatism in vinegar manufactories. Glycosuria was the subject of three papers, by Dr. Pavy, Dr. Markham Skerritt, and Dr. W. R. Thomas, read and discussed in the Section of Medicine, at the annual meeting of the Association. Mr. Anthony A. Bowlby has discussed the question, in regard to a no-

torious case known as "the Uxbridge tragedy," whether the pistol-shot wounds found in the deceased person were the result of suicide or of homicide. Contraction of the palmar fascia has been the subject of communications by Mr. Noble Smith and Mr. F. R. Fisher, Mr. H. A. Reeves, and Mr. S. H. A. Stephenson. Mr. C. W. Brooks has described a method of making antiseptic gauze. Cases of acute mania following surgical operations have been described by Mr. R. Birch and Dr. M. Collins. Mr. J. A. Francis has commented on the treatment of varicose ulcers of the leg by Martin's bandages and sponge-grafts. Mr. C. B. Keetley has contributed an interesting paper on buried sutures. Mr. Jonathan Hutchinson has commented on excision of both breasts at the same time. Dr. S. T. Smyth has described a case in which a safety-pin was swallowed; and Mr. A. W. Sinclair one in which a leech was removed from the posterior nares. Mr. D. Bain has described a case of suicide by gunshot wound. Dr. Percy Boulton has described a case of lymphadenoma or Hodgkin's disease. Dr. Beaven Rake has described a case of snake-bite. Delay in the development of vaccine vesicles has been the subject of communications from Dr. H. J. Hott and Mr. M. G. Dundas. Surgeon-Major Evatt has described the organisation of the medical corps of the Swiss army. Dr. John Livy has commented on the periods of eruption of the permanent teeth as a test of age. Mr. M. D. Makuna has given a statistical summary of the mortality in England and Wales, and in London during the last three decennial periods. Dr. H. Sutherland has published remarks on the Section of Mental Diseases in the new *Nomenclature* of the Royal College of Physicians. Mr. C. B. Lockwood has discussed the use of the fossa at the lower end of the fibula.

EDITORIAL ARTICLES.

ARTICLES on the following subjects, mostly written by special contributors, in various parts of the kingdom, have appeared in the JOURNAL during the year:

Lunacy and Single Patients; The Royal College of Surgeons of England and its Fellows and Members; the Justification of Vivisection; the Uxbridge Tragedy; the University of London and Degrees for London Students; University Education for Medical Men; the Lunacy Bill; The Royal College of Surgeons and the Northern Schools of Medicine; Cruelty and Children; Flogging in Naval Schools; the Attempt on the Life of O'Donovan Rossa; Dynamite and Panic; the Medical Department of the Local Government Board; a Teaching University for London; the Hunterian Oration; the Royal Commission on the Housing of the Poor; Is a Cholera-Hospital a Source of Danger to the Surrounding Population? Lunacy Trials; the Manufacture of White Lead; the Health of Convicts; Physiology at Oxford; the Colleges and the Study of Forensic Medicine; the Poisons Bill; the International Sanitary Conference; Medical Students and the Study of Chemistry; the Sanitary Regulation of the Milk Trade; Lord Shaftesbury's Resignation; Lord Bramwell on Drink; the Rights of Railway Passengers; Competitions for Appointments in the Army Medical Service; the Patent Medicines Stamp Act; Detention of Pauper Lunatics; Militia Surgeons; the General Medical Council; the Housing of the Poor in Scotland; Disqualification by Medical Relief; Professional Study; Colour-Blindness in the Mercantile Marine; the Annual Meeting of the British Medical Association in Cardiff; a Domestic Problem in Public Health; Practical Classes in the Scottish Universities; the Medical Sickness, Annuity, and Life Assurance Society; the Medical School of Oxford; the Elections at the Royal College of Surgeons; What becomes of Medical Students? the Pel Trial; the Medical Benevolent College; the Political Situation; Medical Education and Apprenticeship; the Chemical Problems of Medicine; the Prevention of Pollution of Rivers Bill; Sanitary and Medical Affairs in Parliament; a Dutch Physician on Consultants; Sounding the Depths of Vice; the Spread of Infectious Diseases; Alleged Overpressure in Board-Schools; the Housing of the Working Classes Bill; the Colleges and the Title of Doctor; the Tenure of Office by Medical Officers of Health; Precautions against Cholera; the Progress of Pharmacology and Therapeutics; Sexual Ignorance; Culture in the Ranks of the Profession; Damp and Diphtheria; Military Titles for Army Medical Officers; the Discussion at Cardiff on Cholera; Medical Practice in the Colonies; the *British Pharmacopœia*; London as a Centre for Advanced Medical Teaching; Science and Education; the Higher Education of Army Medical Officers; Abuse of Medical Charity; Pharmacology and Therapeutics at the Annual Meeting; International Legislation on Adulteration of Food; the Introductory Addresses at the Medical Schools; Karma; the Reform of Local Government; Training of the Senses; Sir Charles Dilke on Local Government Reform; Provincial Medical Schools; Mechanics at the Preliminary Examination; Dr. Quain's Harveian Oration; Our Outpost Defences against Cholera.

the Medical Staff in Egypt and the Soudan; the Ocean as a Health-Restorer; The British Medical Association and its Colonial Branches; the Dietary of the Poor; Leprosy in India; Climate and Health; Mr. Eriksen's Candidature; the *British Pharmacopœia*; Professor Huxley on the Progress of Science; the Supply of Milk for Village Infants; the Annual Meeting of the British Medical Association in 1886; *Proscient versus* Honours to Medical Men; and the case of Dr. Bradley. In addition to the above-mentioned, several articles bearing on the science and practice of medicine have also appeared. Among the subjects have been the following: The Surgery of the Intestines; Uses of Cæcain; the Physiology of Feeding and the Art of Dining; the Organisms of Cholera; the Discussion on Tuberculosis in the Royal Medical and Chirurgical Society; Ovariectomy, Hysterectomy, and Oophorectomy; the Formation of Tails in Human Beings; Noise as a Factor in Disease; Cholecystotomy; the Surgery of the Stomach; New Animal Pigments; Mr. Treves's Hunterian Lectures at the Royal College of Surgeons; Death by Electricity; Dr. Osler on Malignant Endocarditis; the Active Principles of Ergot; Dr. Weber on Chronic Pulmonary Phthisis; the Surgical Treatment of Abdominal Aneurysm; Constipation and its Effects; the Oxygen-Requirement of the Body; Saline Cathartics; Toxic Normal Urine; Diseases of the Fallopian Tubes; Malaria and Pregnancy; the Process of Fatigue and Recovery; Addresses at the Annual Meeting of the Association in Cardiff; the Treatment of Myoma of the Uterus; Tetanus; Hysterical Paralysis and its Treatment; Dr. Goodhart's Bradshaw Lecture; Summer Diarrhoea of Children; the Warnings of Heredity; the Climatic Treatment of Phthisis; Strangulated Umbilical Hernia; Tendon-Reflex; Chronic Metritis and Endometritis; the Bowman Lecture; the Mechanism of Bearing down; Mr. John Wood's Bradshaw Lecture; and the Semilunar Fold of Douglas.

The department of "The Week" has also contained numerous articles on subjects of professional interest; both scientific, social, and political.

SOCIETIES.

THE *Royal Medical and Chirurgical Society* during the past year has received some important papers, and their due consideration and discussion has been greatly helped by the continuance of the custom of distributing a week beforehand printed abstracts of them, which often give an opportunity for drawing together those best fitted to discuss the matter, and eliciting some valuable criticisms, which are now published by the Society in its *Proceedings* separately from its *Transactions*. At the first meeting, in January, 1885, Mr. W. B. Dalby brought forward cases in which perforation of the mastoid cells is necessary, adding considerably to that already full category. Mr. R. Barwell described a case of simultaneous double distal ligation of the carotid and subclavian arteries for high innominate aneurysm, in which he had had marked success. Dr. Lowson, of Hull, described a case where a man aged 75 fell on his head, and got displacement and fracture of the axis which could be felt through the back of the pharynx, but gave no inconvenience for ten years. On February 10th, Mr. Davy introduced a paper on the radical cure of club-foot, with an exhibition of cases, which gave rise to a good deal of discussion on the best forms of operation, especially on the removal of an osseous wedge. On February 24th, Dr. Ormerod brought forward several cases of ataxy in each of two families, corresponding to what is called Friedreich's ataxy, and differing in many points from the common course of tabes dorsalis. Dr. Samuel West collected the statistics of the last fifteen years of the Chest Hospital, Victoria Park, on the subject of fatal hæmoptysis, showing that most of them were due to aneurysm or ulcerated vessels, which were probably distinctions only of degree.

On Monday, March 3rd, the annual meeting was held. The report showed that, on comparing 1884 with 1883, the members attending the meetings had risen from 726 to 750, and the number of speakers from 113 to 145. There had been 520 books added to the library, exclusive of all *Transactions*, journals, and periodicals, and the total reached 29,222, of which 3,429 had been borrowed in the year. The President, Dr. George Johnson, delivered his annual address, containing obituary notices of all the Fellows whom the Society had lost in the past year. It has since been printed and published.

On March 10th, Mr. Treves read a paper advocating in some cases the treatment of acute peritonitis by abdominal section, and Mr. Howard Marsh followed with the narrative of a case in which acute circumscribed suppuration of the peritoneum, treated by abdominal section, had ended in recovery. Many opinions, both surgical and medical, were expressed in favour of a treatment of suppurative peritonitis by opening the abdomen, and it was plain that much experience in that direction had been gained. On March 24th, the most important discussion of the session was begun by the President's

reading a paper on the etiology, pathology, and treatment of cholera. Interest was added to the debate by the imminent possibility that cholera might invade England in the later months, and by the recent return of Dr. Klein and Mr. Heneage Gibbs from their Indian journey to investigate the causes of cholera. Dr. Johnson introduced the subject from the clinical standpoint; Dr. Klein gave a long history of his reasons for opposition to Dr. Koch's view of the comma-bacillus as the cause of the disease, a view which found a good supporter in Mr. Watson Cheyne. The debate, which lasted over two evenings, showed great variety of opinion as to the causes, pathology, and mode of propagation of cholera among many who had had much experience in China, India, and Egypt. On April 14th, Mr. John Lunn and Dr. F. L. Benham described a case of abdominal aneurysm in which, after failure of other attempts at relief, distal compression was kept up for four hours and three-quarters under chloroform. The aneurysm was cured, but the patient died ten days afterwards from gangrene of the jejunum. Mr. Henry Morris brought forward a case of aneurysm of the abdominal aorta, which had become full of laminated clot, but nevertheless produced gangrene near it, and so led to death. Dr. C. E. Boever communicated an elaborate paper on the localisation of motor centres in the brachial enlargement of the spinal cord, showing the different motor functions at different levels, and that the infantile paralysis in a case he brought forward as an illustration resulted from affection of the roots of the sixth and seventh cervical nerves, whereas in his case of progressive muscular atrophy these had been completely spared, whilst the roots both above and below had been affected. On April 28th, Mr. Alban Doran read a paper on so-called non-ovarian dermoid abdominal tumours, which were in women mostly ovarian cysts that had become separated from their pedicles. Dr. Hale White detailed the results of a long investigation of the pathological histology of the semilunar and superior cervical sympathetic ganglia, in more than 100 cases, showing their wide variations within normal limits, and laying a foundation for the study of abnormal conditions. On May 12th, a remarkable paper was brought forward by Dr. A. Hughes Bennett and Mr. R. J. Godlee, on a case of cerebral tumour, in which the diagnosis and localisation had been determined by Dr. Bennett, and the tumour had been removed entirely after trephining by Mr. Godlee. For a month, there was great relief, but after that the patient sank from a secondary surgical complication. Still it went far to prove that hope might be extended to some cases previously classed as desperate. On May 26th, Dr. T. Spencer Cobbold read a paper on cases of hæmaturia due to bilharzia, and showed eleven adult specimens, mostly from Egypt. Dr. Angel Money also brought forward the consequences of his experiments on the production of chorea, and other results of capillary embolism. The emboli had been formed of particles of arrow-root, potato-starch, and carmine; they had produced choreiform results when in the spinal cords, but not the brains of dogs and rabbits. On June 9th, Mr. J. B. Sutton, in dealing with fatty tumours, led up to the conclusion that any of the soft tissues of the body may degenerate into fat, and that this retrograded tissue does, in some instances, assume an autonomy, and grow into a veritable fatty tumour. Mr. Jonathan Hutchinson also gave the history of a case of large lympho-sarcomatous tumour of the tongue, which had grown for twelve years, was then excised, but returned after two years' absence, and proved fatal. On October 27th, Mr. Morrant Baker and Mr. Anthony A. Bowlby presented a paper on diffuse lipoma, and Mr. Walter Rivington described a difficult case of ligation of the left common carotid artery, wounded by a fish-bone which had penetrated the pharynx, and which proved ultimately fatal. He accompanied it by a valuable table of forty-four similar cases, and advised great caution in the use of the expanding probang. On November 10th, an elaborate paper was read by Mr. R. Stevenson Thomson on scarlatinal albuminuria and the pre-albuminuric stage studied by frequent testing. Careful observation showed at least slight albuminuria in 60 per cent. of cases; in many, it was of trifling importance. On November 24th, Mr. A. E. Barker read a paper on a case of anthrax which he had treated successfully, and Dr. John Harley on a case in which there were many small new growths in the liver which he considered tubercular, but in which some other observers recognised the characters of actinomycosis. On December 8th, Mr. Savory described a case in which a sarcoma in the armpit had destroyed the axillary artery, and Mr. Bryant contributed a paper advocating amputation at the knee-joint by disarticulation, and the use of lateral flaps, which was on the whole supported by the surgeons in discussion.

The *Clinical Society of London* has done much good and solid work during the past year. Whether due or not to the change from a medical to a surgical president, the fact remains that the papers read during the year, which have been of surgical interest, have been more

numerous than those contributed by physicians. As in former years, we shall class them in these two main divisions, whilst passing them in review. In January, Dr. Hale White read a paper on lesions of the frontal lobe, and commented upon the paucity of symptoms thereby produced. The communication gave rise to a good discussion. Dr. J. J. Pringle described a case of recurrent hæmatemesis, associated with urticaria. Dr. Althaus gave particulars of a case of hemianæsthesia, from congenital brain-disease, which yielded to the simple faradisation of the skin. In February, Dr. Hale White described the *post mortem* examination of a case of myxœdema, in which all that remained of the thyroid body was the remnants of vesicles that contained much epithelial debris. The same physician was joint author with Dr. R. E. Carrington, of a paper read at the same meeting, on two cases of phlegmonous pharyngitis, both rapidly fatal. Dr. H. Hughes Bennett read notes of a case of locomotor ataxy, without disease of the posterior columns of the spinal cord, in which the posterior roots were implicated in a mass of sarcoma. A case of arrested rickets formed the subject of a paper by Dr. Seymour Taylor. In March, Dr. Charlton Bastian reported a case of thrombosis of the basilar artery, with profound coma and extreme lowering of the rectal temperature, and death in five hours and a half. Dr. W. B. Hadden narrated a case of choreiform movements supervening in infancy, and of congenital origin. In April, Dr. Colcott Fox described a peculiar form of skin-disease, running a chronic course, resembling pityriasis circinnate, and depending upon the presence of masses of micro-organisms. Dr. Sidney Phillips described a case of sporadic cretinism. In May, Dr. W. B. Hadden furnished notes of a case of obstruction of arteries and veins, extending over many years. Dr. Cayley read notes of a case of hæmoptysis, treated by the induction of pneumothorax, so as to collapse the lung, the operation being performed by Mr. Hulke. Dr. Colcott Fox described two cases of Raynaud's disease, treated with the constant current. In October, Dr. Sawtell gave particulars of a case of hæmatemesis and melena, due to ulcers in the stomach, in which death occurred on the second day after birth. Dr. E. Seaton communicated a long paper on a febrile epidemic illness at a school, caused by an inadequate distribution of sewage. In November, Dr. S. West described a case of idiopathic purulent peritonitis in a child, treated by incision; and Mr. W. Morrant Baker contributed another of diffuse purulent peritonitis, ending fatally, in which no cause for the inflammation could be discovered. Dr. D. Duckworth related the particulars of a case of nitric acid poisoning. During the present month, Dr. F. de Havilland Hall read notes of a case of aneurysm of the ascending part of the transverse portion of the arch of the aorta, which pressed on the trachea and bronchi, and the left recurrent and left vagus nerves, and caused paresis of the crico-arytenoidi postici muscles. In this case the question of the justifiability of tracheotomy arose, and was fully discussed by Dr. F. Semon, who gave an account of the explanation, formulated by himself, of the position assumed by the vocal cords in this and similar cases.

The papers of most interest to surgeons have been the following. In January, a case of scrofulous gland-disease with phthisis was described by Mr. F. Treves, who advocated the treatment of the glandular affection by operative measures. Mr. Charters Symonds introduced to the notice of the Society the permanent œsophageal funnel-shaped catheter, which may be worn in malignant stricture of the œsophagus; and the subject was again referred to during the present session, when the surgical treatment of œsophageal stricture was discussed. In February, the new President, Mr. T. Bryant, on taking the chair for the first time, read a short inaugural address on the necessity for precision in the observation of facts, and in the use of surgical terms, and the advantage of co-operation between physicians and surgeons in their highest work. Mr. C. J. Symonds detailed particulars of a case of nephrolithotomy, in which the stone was removed from the commencement of the ureter; and Mr. Henry Morris recorded another case, in which the calculus was taken from the substance of the kidney. In April, Dr. Dickinson described just such another case, in which Mr. Rouse was the operator. All three patients recovered perfectly. In March, Mr. Barwell described a case of ovariectomy, followed by insanity, which lasted about three weeks; several speakers gave other instances of a like kind, which would lead one to suppose that the sequela is not so unusual as it had been considered. Mr. Davies-Colley read notes of three cases of colotomy, in which he had delayed the opening of the intestine for some days after the usual operation, by which the bowel was exposed, with the idea that the risk of inflammation was diminished by not opening the bowel until the deeper part of the wound had become sealed by reparation-lymph. Mr. Mayo Robson, of Leeds, described four cases of spina bifida, which he had treated by excision, with a considerable amount of success. On the last day of last session, the valuable report

of the Committee of the Society, appointed to inquire into the anatomy of spina bifida, and its treatment by the injection of Morton's iodo-glycerine solution, was read. In March, Mr. J. R. Lunn read notes of a case of calculus and tumour of the bladder, treated by lithotomy, and ending fatally. Mr. Barwell narrated three cases of self-inflicted pistol-shot wound, one in the abdomen, another in the chest, and the third in the head. In April, Dr. Lewis J. Marshall recorded ten amputations at the hip-joint by Furneaux Jordan's method. Mr. Jonathan Hutchinson also contributed an instructive paper, which he entitled a plea for amputation at the hip-joint in certain cases of advanced suppurative disease, and in which he stated that the signs of visceral amyloid disease, the sequel to long-continued suppuration, are wont to diminish as soon as the suppurating cavity is removed. Mr. W. J. Walsham related a case of inguinal aneurysm, in which the external iliac artery was ligatured with two kangaroo-tail tendon ligatures, the artery being divided between them; supuration of the sac ensued, with ultimate recovery. In May, Mr. J. R. Lunn described four cases of osteitis deformans. Dr. Cayley's case of hæmoptysis treated surgically by the induction of pneumothorax, narrated in this month, has been previously noticed under the series of medical cases. Mr. C. Symonds described the successful removal of a calculus from the vermiform appendix for the relief of recurrent typhlitis. In December, Mr. R. J. Godlee read for Dr. T. Barlow and himself notes of a somewhat similar case, in which he had also successfully treated suppuration around the vermiform appendix by abdominal incision. In May, Mr. G. Lawson read a report of a successful œsophagotomy, performed for the removal of a dental plate impacted in the gullet; and Mr. Lediard, of Carlisle, contributed another case. Mr. W. Anderson described a case of papilloma of the bladder, successfully treated by ablation of the tumour; and Mr. Barnard Pitts described a similar case, in which a fimbriated papilloma was successfully removed by means of the *ecraseur*. In October, Mr. R. C. Lucas described two cases of strangulated umbilical hernia, which he had treated by excision of the sac and skin covering, with suture of the ring, after reduction. Mr. C. Symonds narrated the particulars of a case of compression by a clot derived from the middle meningeal artery, which he had treated by trephining, and in which there was much difficulty in controlling the hæmorrhage, which, in other cases, he suggested might be treated by compression or ligature of the carotid. Mr. Mayo Robson reported, with full details, two successful cases of cholecystotomy. In November, two cases of suppurative peritonitis, treated by incision, were described, the one by Dr. S. West, the other by Mr. W. M. Baker. Mr. W. Rivington cited two cases of ligature of the external iliac artery for femoral aneurysm. Mr. Barwell reported a case of malignant stricture of the œsophagus, treated by gastrostomy; Mr. C. T. Dent cited a parallel case, treated in like manner; and Mr. J. H. Morgan narrated the particulars of a case of gastrostomy performed in a boy, aged four, for stricture of the gullet, caused by the swallowing of some caustic alkali. Mr. C. H. Golding-Bird related a case in which he had performed jejunostomy for cancerous stricture of the pylorus. Besides the reading and discussing of these various papers, many living specimens, far too numerous for us to mention in detail, have been exhibited to the members of the Society, and have much added to the success of the meetings.

Pathological Society of London.—During the past year the Pathological Society of London has been the means of bringing together a great mass of material. The system of showing specimens, with a written description appended on a card, has grown in favour, and a very large number of valuable and interesting morbid preparations may be seen at nearly every meeting. Mr. J. Bland Sutton has continued to report the result of his examination of the bodies of large numbers of wild and domesticated animals. He has thus dealt with the pulmonary diseases of wild animals; typhoid fever, or a disease closely resembling it, in animals; ovarian cysts, in mammalia; and diseases of the organs of circulation in wild and domesticated animals. In the last paper he pointed out that while aneurysm, due to the presence of parasitic worms, was common in the ass and horse, atheroma aneurysms, of the same nature as these met with in the human species, were practically unknown. Mr. Arbuthnot Lane read several papers on fractures and displacement of bones, and changes in joints, due to laborious occupations or old age. Amongst those papers may be mentioned those on spondylolisthesis, and on displacement of lumbar vertebrae, and others on fractures of the first rib of the hyoid bone and larynx, and on changes produced in various articulations of the extremities by pressure. Among isolated cases those of most striking interest are the cases of atrophy of the adrenal bodies with bronzing of the skin, shown by Dr. Sidney Coupland, Dr. Hadden, and Dr. J. K. Fowler. Dr. Colcott Fox's case of sarcoma of the adrenal bodies in a child, with undue development

of the genital organs and partial amentia, and a similar case described by Dr. Dickinson; and Dr. Saundby's case of atrophy of the adrenals, with only slight pigmentation of the skin, but copious excretion of pigment in the urine. Mr. R. J. Godlee's paper on a case in which a simple fracture of the skull in an infant was followed by the development of a pulsating tumour, raised an interesting discussion, and may serve to call attention to a condition of some practical importance hitherto little recognised. Mr. Alban Doran showed a cyst of the broad ligament, and argued in favour of the view that thin-walled cysts of the broad ligament did not invariably arise in connection with the broad ligament. Mr. Shattock read an exhaustive paper on a subject of curious interest—the nature of iridescent calculi.

The *Obstetrical Society* has, during the past year, fully sustained its old reputation. At the January meeting, Dr. W. A. Duncan read a paper on extirpation of the cancerous uterus, and said that, though the vaginal operation was less dangerous to life than removal of the uterus through an abdominal wound, he could not speak favourably of either, recurrence being rapid, and the risk to life very great. Several leading authorities took an active part in the discussion, which was adjourned till the March meeting, when it was concluded. In February, Dr. McKeown read a very valuable communication relating to ophthalmia neonatorum, with recommendations that practitioners, students, midwives and nurses should be impressed with the fact that it was their duty ever to send all new-born children with weak eyes to an ophthalmic surgeon. The President referred these recommendations to the Council, with a request that they should be embodied in the Society's *Rules for the General Management of Infants*. At the same meeting, the President, Dr. Gervis, drew attention to the questions on the Nature of Puerperal Pyrexia drawn up by the Collective Investigation Committee of the British Medical Association, and encouraged the Society to aid the committee by all means within its power. At this meeting, Dr. Gervis sat for the last time as president, being succeeded by Dr. J. B. Potter. In April, Dr. John Williams read an important anatomical and physiological memoir on the uterine circulation, of which we give a fuller notice under the head of "Gynecology;" and Dr. Bosquet read notes of a case of absence of the uterus and occlusion of the vagina. In May, appeared the first of a series of papers contributed by Dr. J. Matthews Duncan upon his "lupus" of the female generative organs, a subject which appears to have a peculiar fascination for that distinguished obstetrician. All these papers, as might be expected, led to free discussion, the value of which, as far as argument was concerned, was undoubtedly deteriorated by the uncertainty of the more important data, especially the question as to what lupus of the female organs signifies. It is very much disputed whether the disease be in any way lupoid, or homologous to lupus of the face. In the April paper, Dr. Duncan described the ulcerations found in his "lupus." He denied that ulceration formed an essential part of the disease, and warned observers against mistaking an excretion of a lupoid surface for an ulcer. Nevertheless, he had observed very distinct and destructive ulcers, some forming pits and excavations, some involving perforation of important structures, such as the uterine wall or the peritoneum. In October, Dr. Matthews Duncan returned to the charge by discussing the hypertrophy of lupus of the female pudendum. He insisted that ulceration and hypertrophy in this disease were to be regarded rather as alternative conditions than as concomitants. The hypertrophy affected the mucous membrane of the vagina, the connective tissue in its neighbourhood, the clitoris, and the skin, sometimes extending to integuments of the thigh or hip. Dr. Duncan denied the efficacy of drugs, and believed that surgery alone afforded a cure. Mr. Hutchinson, who took an active part in the discussion on this paper, believed that the disease was syphilitic, and at the same time declared that he had himself seen one or two cases of that very rare disease, true lupus of the vulva, lupus, that is to say, of the familiar kind that ravages the face. Dr. Duncan insisted, however, that his cases presented no syphilitic taint. In his third paper, Dr. Duncan dwelt upon inflammation of lupoid growths on the pudendum, and stated that a distinct lupoid leucorrhoea existed. At the same time, Dr. Thin contributed a report of the histology of lupus of the pudendum, stating that he had found a great increase of fibrous tissue, but no cicatricial tissue, nor any of the appearances observed in cancer and syphilis. There was a certain resemblance to elephantiasis Arabum, but the parasite was absent; a low chronic inflammatory process appeared to exist. In June, Dr. J. Williams read a communication on that form of inflammation of the pelvic peritoneum where the serous effusion becomes encysted by surrounding adhesions, the "encysted serous perimetritis" of systematic writers. This provoked much discussion on that interesting subject. Dr. Priestley read a paper on his experiences during a professional

journey amongst the lying-in hospitals of Northern Europe, dwelling particularly on antiseptic midwifery. In the discussion which followed, all the speakers advocated, more or less, rigid antiseptic precautions in hospital and private practice. It is satisfactory to observe (as all who have read our pages for the last few years cannot fail to have observed) how obstetricians of the most diametrically opposed views vie with each other in striving to produce the most satisfactory results in lying-in hospitals, and a more wholesome form of rivalry could not be conceived. In November, Dr. Herman read a contribution on the suppurative of pelvic dermoid cysts. An active discussion followed; it bore chiefly upon surgical considerations. A considerable number of interesting pathological specimens were exhibited at several of the above meetings. We called attention on two occasions this year to the value of communications from practitioners on subjects essentially within the domain of practical midwifery, and noted the manner in which the Society appreciated such communications by awarding their authors the highest compliment which a society can confer, namely, active discussion. We sincerely hope that we may have to record a yet better report of the Society in this respect a twelvemonth hence.

The first meeting of the newly formed *British Gynecological Society* was held on March 11th, when the President, Dr. Alfred Meadows, gave an address explanatory of the objects of the Society. On March 25th, a paper on dysmenorrhoea, especially in relation to stenosis of the os uteri, was read by Dr. Robert Bell, of Glasgow. On April 22nd, Dr. More Madden, of Dublin, read a paper on some points in the treatment of uterine fibro-myoma, the discussion on which was continued at the meeting on May 27th. On May 13th, papers were read by Dr. R. C. Benington, on a case of puerperal tetanus, and by Mr. Lawson Tait, on pregnancy in the left half of a double uterus, with hematomata in the right. On June 10th, Dr. Alexander, of Liverpool, contributed a paper on the operation of shortening the round ligaments for the correction of some displacements of the uterus. At the first meeting of the present session, on October 14th, Dr. Jamieson, of Shanghai, described an operation for ruptured perineum. On November 11th, a paper on the treatment of prolapse of the ovaries by oophorraphy was read by Dr. Imbach, of Liverpool. In addition to these papers, numerous interesting specimens have been shown, and cases described, by the members at the various meetings. In May last, the Council of the Society appointed a committee to report on the subject of menstruation in its physiological and pathological relations, and voted a grant of £50 for the purpose.

The *Ophthalmological Society of the United Kingdom*.—The Ophthalmological Society appears to have been well advised in founding the Bowman Lecture, in order to commemorate the great services of its first President, Sir William Bowman. Last year, Mr. Jonathan Hutchinson gave a most useful practical lecture on the relation of certain diseases of the eye to gout; and this year Dr. Hughlings Jackson gave an exceptionally profound and original address on the constitution of the nervous system, and the necessity for combined study by physicians and ophthalmic surgeons of intracranial and spinal disease. The poisonous effects of the vapour of bisulphide of carbon and chloride of sulphur were fully dealt with in a valuable report drawn up by a committee consisting of Messrs. Nettleship, Marcus Gunn, and Adams Frost. This peculiar toxæmia had apparently never been described in this country until it attracted the attention of Mr. Nettleship; it had, however, been pretty fully investigated in France some years ago. Mr. Jonathan Hutchinson contributed another thoughtful paper on the subject of reflex ophthalmitis, in which he suggested a "bloody theory" to account for its occurrence. The paper gave rise to some discussion. Dr. W. A. Brailey gave the result of an examination of the ciliary nerves in ninety different eyes, and stated that his observations of these cases proved that inflammation of the ciliary nerve was not an essential factor in the production of sympathetic ophthalmitis. Mr. Walter Jessop read an elaborate paper on the action of eucaïne on the eye, in which the physiological properties of the drug, especially its influence on the pupil, as well as its therapeutic uses, were fully studied. A very necessary note of warning, as to the dangers attendant on the use of solutions of eucaïne which had been allowed to become infected by fungous or bacillary growth, was sounded by Mr. Nettleship. The Society took action during the year with regard to the prevention of ophthalmia neonatorum, and approached the Local Government Board, though no action has as yet been taken by that body.

At the *Society of Medical Officers of Health*, on December 19th, 1884, Mr. H. E. Armstrong, medical officer of health for Newcastle-on-Tyne, read a paper on the status of the medical officer of health as a criterion of sanitary progress. In it, he pointed out the disadvantages under which the health-officer laboured, and suggested means of im-

provement. On January 16th, papers were read by Drs. E. T. Wilson, Gwynn, and Tripe, on the question whether small-pox hospitals are a source of danger to the surrounding population. Dr. Wilson held that the hospitals were not necessarily a source of danger; while Dr. Gwynn and Dr. Tripe maintained the contrary opinion. On March 29th, Mr. Wynter Blith discussed the action of disinfectants on micro-zooids. On April 17th, Dr. Thomas Stevenson read a paper on the disposal of sewage.

In the *Epidemiological Society*, several valuable contributions to our knowledge of epidemics, and of the diseases incident to foreign countries, have been made. On January 14th, a paper on the constitutional requirements for tropical climates, with special regard to temperament, was contributed by Surgeon-General W. J. Moore, who has had long experience in India. On February 11th, Surgeon-Major K. Macleod described an epidemic roseola observed in Calcutta. On March 11th, Surgeon A. C. C. De Renzy contributed a paper on the prevention of heat-apoplexy. On April 8th, Dr. G. B. Longstaff read a paper on the seasonal prevalence of continued fever in London; and Dr. Thorne Thorne exhibited some plans of isolation-hospitals. On May 13th, Dr. E. F. Willoughby read a paper on variola, and the varioloid diseases of animals. On June 10th, Mr. Edwin Chadwick made some remarks on ventilation with air from superior layers; and Inspector-General Lawson contributed an interesting paper on outbreaks of cholera in ships carrying coolies from Calcutta. At the first meeting of the present session, on November 11th, the new President, Dr. Walter Dickson, delivered an interesting address on "Some recent Epidemics at Home and Abroad."

In the *West London Medico-Chirurgical Society*, the following proceedings have been reported during the year. On December 5th, 1884, Mr. Spencer Watson read a paper on sympathetic ophthalmia, Mr. R. F. Benham one on the use of sulphide of calcium, and Dr. Thudichum one on inflammation, abscess, and new growth of the ethmoid cells. On January 2nd, Mr. Swinford Edwards read a paper on the treatment of stricture of the urethra. On February 6th, a paper on myxœdema was read by Dr. F. D. Drewett. On March 6th, Dr. Thorngood described two cases of abscess in the peritoneum after enteric fever, and Dr. Herringham showed a child who was the subject of hemiplegia. On May 1st, communications were made on digestive ferments, by Mr. E. Burrows; on latent vesical calculus, by Dr. Fenwick; and on cancer of the prostate, by Mr. Bruce Clarke. The Cavendish lecture was delivered, by Dr. Bristowe, on June 5th, the subject being Hysteria and its Counterfeit Presentments. On November 6th, Dr. Alderson showed three cases of scirrhus of the breast, which had been under observation many years, and also read a paper on cancer of the breast and its relation to riverside habitations; and, at the same meeting, Mr. H. P. Dunn combatted the theory of inheritance of cancer.

The JOURNAL has also contained during the year numerous concise reports of the proceedings of various medical societies in the English provinces. Of these are, the Medical Societies of Cambridge (eight meetings); of Chester (one meeting); of Manchester (eight meetings); of Sunderland and North Durham (one meeting); the Midland Medical Society (ten meetings); the Brighton and Sussex Medico-Chirurgical Society (nine meetings); the Leeds and West Riding Medico-Chirurgical Society (eight meetings); the Sheffield Medico-Chirurgical Society (fifteen meetings). The limits of space at our disposal prevent our giving a categorical list of the subjects brought forward at these meetings; it must therefore be said, in general terms, that numerous interesting cases were described and papers read, all tending more or less to the promotion of professional knowledge.

Abstracts of the proceedings of the several sections of the *Academy of Medicine in Ireland* have been reported from time to time in the JOURNAL.—In the *Section of Medicine*, on November 21st, 1884, a paper on the various forms of lupus was read by Dr. Walter G. Smith, and was discussed on December 19th by Dr. H. Kennedy, Mr. A. Benson, Dr. Corley, Dr. Finny, and Dr. R. McDonnell. On November 21st, also, there was a discussion on a case of prolonged anuria, related by Dr. W. Bernard, of Londonderry. On March 27th, Dr. Magee Finny read a paper on the clinical aspects of very high temperature in rheumatic fever, and Dr. Henry Kennedy one on senile dementia. On May 1st an interesting discussion, commenced by Dr. James Little, took place on the form of pneumonia prevalent in Dublin, and its treatment. On May 29th, Dr. Cruise read a paper on the mineral waters of Contrexéville and Royat-les-Bains; and Dr. Walter Smith showed and described a case of primary sarcoma of the kidney. At the first meeting of the present session, on November 20th, Dr. J. R. Burke read a paper on the treatment of cholera; and Dr. J. W. Moore described and commented on a case of relapse in enteric fever.—In the *Surgical Section*, on December 12th, 1884, Mr.

Thomson read a paper on three successful cases of ovariectomy, which was discussed by Dr. Atthill, Mr. H. G. Croly, Mr. W. Stokes, Dr. Barton, and other members; most of the speakers agreeing that general surgeons were justified in undertaking the operation. On January 23rd, Mr. Swanzy read a paper on the treatment of cicatricial entropion by the transplantation of skin-flaps without pedicle. On January 23rd and February 20th, the surgical treatment of flat-foot was the subject of papers by Mr. W. Stokes and Mr. Kendal Franks, and of a subsequent discussion. On February 20th, Mr. A. Benson described a case of ivory exostosis of the auditory meatus; and Mr. Story read a paper on an operation for entropion and trichiasis. On March 20th, Mr. Wheeler read papers on excision of the clavicle and of the shoulder; and Mr. Swan one on condylotomy with the osteotome for genu valgum. On April 24th, Mr. J. K. Barton read a paper on the surgery of the knee-joint, and Mr. McArdle one on urari (curare) in the treatment of tetanus. On May 22nd, Mr. Thornley Stoker read a paper on the treatment of stricture by internal urethrotomy. At the opening of the present session, on November 13th, the president, Sir Charles A. Cameron, gave an interesting address on the work done by Irish anatomists.—In the *Obstetrical Section*, on March 6th, Dr. More Madden showed five uterine tumours removed from patients in the Mater Misericordiae Hospital, and read a paper on the treatment of uterine fibro-myomata, which was discussed by Dr. Kidd, Dr. Macan, Dr. Atthill, and other members. At a subsequent meeting, a decidua cast of the uterus was shown by Dr. F. W. Kidd; and a demonstration specimen, designed by Dr. Macnaughton Jones, was exhibited. Dr. Macan read a paper on the formation of artificial vesico-vaginal fistula for the cure of chronic cystitis.—In the *Pathological Section*, on December 5th, 1884, Surgeon-Major Hamilton showed a specimen of heart-disease; Mr. A. Baker described a case of osteoma of the upper jaw; Dr. Quinlan one of cancerous stricture of the sigmoid flexure and rectum; Mr. O'Grady a case of strangulation within a hernial sac; Mr. F. A. Nixon showed a calculus removed from a tonsil; Mr. Abraham, a large mammary tumour removed from a girl, aged 12, and also a specimen of lung-disease in a lion. On January 16th, Dr. E. H. Bennett showed and commented on some specimens of the so-called congenital dislocation of the hip-joint; and specimens of cervical tumour and of epithelioma of the toe were shown by Dr. Kilgariff, of large gall-stone by Dr. J. W. Moore, and of obstructed intestine by Dr. Barton. On February 12th, Mr. Abraham described a case of self-mutilation in a lioness. A case of gangrene of the leg from embolism was described by Mr. Wheeler. Mr. Broomfield showed an endocardial calcareous concretion, Mr. M. A. Boyd a specimen of adventitious membrane in the colon, and Mr. Lentaigne, one of aneurysm at the base of the brain. A paper by Dr. Nixon, on pericarditis in a horse, was also read. At the meeting on March 13, Mr. Thornley Stoker read a paper on multiple exostoses; Dr. Ball one on cutaneous ophthalmia occurring among the workmen at a tar-distillery; and Dr. E. H. Bennett one on compound dislocation of the elbow. On November 6th, papers were read by Dr. Wallace Beatty on the pathology of lead-paralysis; and by Dr. Purser on operative endocarditis; and Mr. Story showed two patients with zonular cataracts and malformations of the teeth.—In the *Sub-section of Anatomy and Physiology*, the subjects brought under notice have been, among others, anomalies in the vascular system, by Mr. McArdle, Dr. Brooks, and Dr. Heuston; a musculus sternalis in an anencephalous fetus, an Andaman skeleton, and a case of hermaphroditism in the goat, by Dr. Cunningham.—In the *Sub-section of State Medicine*, among other matters, there have been discussions on the relative rates of disease and death in town and country, and on compulsory notification of infectious diseases.

HOSPITAL REPORTS.

REPORTS of cases of special interest have been published during the past year, from a very large number of hospitals, infirmaries, and asylums, in Great Britain and Ireland, India, and the colonies. A considerable number of these reports have related to operations upon the intestinal canal. Mr. F. Page has furnished a report of a case where a patient survived the operation of gastrostomy for seventy-six days; Mr. Edmund Owen has reported an example of a very rare condition—constriction of the ileum in an infant, due to foetal peritonitis, in which enterotomy was performed; and Mr. Mayo Robson has recorded a case in which enterectomy was performed for acute intussusception. A report of a series of cases of hernia, treated by the operation for radical cure, occurring in the practice of Mr.

Christopher Heath, has been made by Mr. Bilton Pollard; and Mr. Harrison Cripps and Mr. Sidney Jones have recorded cases illustrating the operative treatment of rectal cancer. Mr. Meredith has recorded and discussed a case in which he performed cholecystotomy, for dilatation of the gall-bladder, due to impacted calculi. Mr. George Wright has reported a case of tubercular disease of the bladder and kidney, in which, ten months after an exploratory operation, the kidney was excised, cystotomy having previously been performed for relief of the irritability of the bladder. A case of nephrotomy, for suppurative pyelitis, has been published by Mr. Samuel Knaggs; and cases of nephrolithotomy, by Mr. J. Chiene and Mr. Edmund Owen. Dr. Beaven Rake has sent reports of several instructive cases of leprosy from Trinidad; Mr. J. C. MacMullen an account of a series of cases of beri-beri, occurring on board ship, some of them successfully treated by him in the Auckland Hospital, New Zealand. Mr. Rushton Parker has written on fracture of the neck of the scapula, pointing out the signs by which it may be recognised. An interesting clinical observation is recorded in Dr. Stephen Mackenzie's case of intracranial tumour, in which the knee-jerks disappeared. Two cases of hydrophobia have been reported: one by Dr. E. H. Richardson, of Birkenhead, the other by Mr. F. J. Smith, M.B., from the London Hospital. A case of malignant endocarditis, in which micrococci were present in the granulations, was published by Dr. Sydney Coupland; a case of anthrax, by Mr. Symonds; and a case of acute tuberculosis in a child, eight weeks old, by Dr. Angel Money. Mr. Harding Tomkins reported a case of spontaneous rupture of the heart, in a feeble person suffering from dementia; and Mr. Rose a remarkable case of sympathetic ophthalmitis occurring forty-seven years after injury.

NOTES ADD TO ANATOMY.

General and Comparative Anatomy.—Head, Neck, and Thorax.—Abdomen.—Pelvis.—Upper and Lower Extremities.

It cannot be denied that what some persons almost disdainfully term "coarse" or "naked-eye" anatomy is steadily gaining in popularity, partly because the microscope is no longer considered to be the sole oracle in anatomical science, but has become the instrument of certain highly specialised branches of the sciences allied to medicine, but chiefly because sound men can be found who still believe that inexhaustible mines of anatomical knowledge are to be discovered in the dissecting-room, and who direct their own investigations in conformity with that belief. Once more, as a twelvemonth since, we must express regret that more collective and synthetical work has not been undertaken in this field. It would be well worth the while of some demonstrator or association of demonstrators to collect abstracts of anatomical papers written in the periodicals and society archives published in the British Empire and abroad. This might be done at a comparatively low cost; possibly it would be undertaken by some journal or society. For many reasons, the same kind of work can never be satisfactorily carried out in annual summaries, "periscopes," "retrospects," and similar literary contrivances, useful as they are to general readers.

General and Comparative Anatomy.—We cannot pretend to give anything like a fair summary of the anatomical work of the past year, but will endeavour to satisfy our readers with a few notes upon some papers which appear to us as of unusual interest or importance. In general anatomy, we may award an honourable mention to Mr. Bland Sutton's series of contributions to the *Journal of Anatomy and Physiology* on "The Nature of Ligaments," forming a profound and truly scientific thesis on the morphology of ligaments and tendons. The homologies of these structures are of high interest, thus the semilunar cartilages of the knee-joint are shown to represent muscles in some of the sauropsida and ichthyopsida, whilst a ligament occasionally passing from the scaphoid bone to the os magnum in the human carpus appears to represent the os centrale of some lower vertebrates, just as the fibula or clavicle is sometimes represented more or less by fibrous tissue. We may note, in reference to questions of comparative anatomy more closely relating to man, firstly, that to the "International Scientific Series" has been added Professor Hartmann's *Anthropoid Apes*, an invaluable work for all who may be called upon to discuss, medically or otherwise, the great question of the distinctions between man and the brute creation; and secondly, that the French *Journal de l'Anatomie et de la Physiologie* has confined itself almost entirely, this year, to purely morphological questions, beyond the province of this summary.

Head, Neck, and Thorax.—New researches in the cerebral region, more properly belong to the domains of physiology and psychology, but we will note Mr. Sutton's paper on the human sphenoid bone published this year in the *Proceedings of the Zoological Society of*

London. Want of space entirely prevents us from discussing recent papers on the anatomy of the eye and orbit. We will mention, however, Mr. Lockwood's paper on "The Anatomy of the Muscles, Ligaments, and Fasciæ of the Orbit, including an account of the Capsule of Tenon, the Check Ligaments of the Recti and of the Suspensory Ligament of the Eye," in the *Journal of Anatomy and Physiology*. Dr. H. Virchow has written "On the Structure of the Zonula Ciliaris and the Canal of Petit," in the *Archiv*. Professor Stöhr has published, in the *Proceedings of the Physico-Medical Society of Würzburg*, a memoir on "The Structure of the Palpebral Conjunctiva," and Dr. Koganei has brought out some researches on the structure of the iris, in a Hungarian paper. Dr. Wenzel Gruber, amongst his numerous contributions to Virchow's *Archiv*, writes on the true crico-hyoid muscle, which he believes to have been discovered by Mr. Walsham in 1834, Zagorsky's "crico-hyoid," described in 1809 being, in Dr. Gruber's opinion, simply an outstanding slip of the thyro-hyoid. In a letter to the *JOURNAL*, published December 5th, Dr. Curnow declares that Zagorsky really described a true crico-thyroid, and that he himself discovered another example of that rare muscle, and wrote upon it in the *Journal of Anatomy and Physiology* in 1874. We may just mention that Dr. Gruber has recently described a case of absence of both submaxillary glands in an adult free from malformation (*Archiv*), and that the same anatomist, and also Dr. A. E. Maylard and Mr. Laurence Humphry (*Journal of Anatomy and Physiology*), have written notes of cases where the lobulation of the human lungs departed more or less widely from the normal type. Gruber's two cases, however, were purely teratological; in each, one lung was absent. But teratology should never be divorced from anatomy, and for that reason we mention these cases, nor will we pass over Dr. H. St. John Brooks' two cases (*Journal of Anatomy and Physiology*) of abnormalities in the coronary artery. In the *Archiv für Anat. und Physiologie*, Dr. H. von Meyer has published, this year, a very valuable monograph on the mechanism of the ribs. He concludes that the increase in the lateral diameter of the ribs during inspiration is effected by the entire segments of the external and internal intercostals which lie between the angle of the ribs and their cartilages.

Abdomen.—Early in the course of the year, Mr. Treves delivered, at the College of Surgeons, his important lectures on "The Anatomy of the Intestinal Canal and Peritoneum in Man." It was based upon a careful examination of a hundred bodies, with the result that many theories and statements crystallised in the pages of text-books have been rudely shaken by Mr. Treves's practical researches. A true ratio between the length of the small and the great intestine, and between the entire intestinal canal and the age, height, and weight of the subject, does not appear to exist; and, in respect to the small intestine, Mr. Treves brought forward the important hypothesis that in childhood its growth is greatly influenced by nutrition. The intricacies of the peritoneal folds were studied with great care. The lecturer found the cæcum entirely invested with peritoneum, and free in the abdominal cavity, in all his hundred subjects; nor did he ever find its posterior surface uncovered by peritoneum and held down in the iliac fossa by areolar tissue. Much was said about the relations of the duodenum, the ileo-cæcal region, and the large intestine in general, to the peritoneum; and light was thrown upon the pathology of mesenteric hernia by the discovery of a large tract in the mesentery which is normally destitute of fat and is but scantily supplied with blood-vessels, so that this tract is liable to form a pouch or to become perforated. The relations of the sigmoid flexure and its course towards the rectum were discussed at length by the lecturer, who was at pains to show that this part of the intestine does not form a double curve so as to describe a Roman S or a Greek Σ. Here we may observe that it is advisable for the anatomist to throw aside all literary or philological anatomy excepting to expose fallacies due to nomenclature, and to attend to what he sees in the dissecting-room. In this case, the question whether C or S was the classical or Byzantine Greek equivalent for the letter S assumes, we admit, a certain importance. The sigmoid flexure, Mr. Treves declared, does not, as a rule, occupy the left iliac fossa, but the pelvis; the attachment of its mesentery crosses the psoas muscle at a right angle, and then takes a slight curve upwards, so as to pass over the iliac vessels at or about their bifurcation, so that it does not arise wholly from the iliac fossa, as generally described; and, lastly, the flexure itself forms an omega-shaped, not a sigmoid, loop.

Another important feature in the history of anatomical science during the past year consists in the publication of several works and papers relating more or less directly to the muscular apparatus of the abdominal wall. Dr. Landau, previously celebrated for his work upon floating kidney, has since written a book entitled *Muscle Lines and Periauricular Abdomen in Women*. Putting aside all pathological

and physiological questions, we may note that the work includes a valuable general review of the anatomy of the abdominal walls and the suspensory apparatus of the liver. In Virchow's *Archiv*, Dr. Laurentieff has entered into very minute particulars relating to the abdominal muscles and the anatomical and physiological significance of the varied direction of the fibres in different parts of each muscle. The precise action of the quadratus lumborum was discussed, and the author concluded that the obliquus internus is the strongest of all the lateral muscles of the abdominal wall, and therefore plays the greatest share in aiding the diaphragm and muscles of the pelvic floor to alter the capacity of the abdominal cavity. The significance of these researches in relation to obstetrics is mentioned elsewhere. Professor Solger of Halle, on the other hand, has written a notable contribution to the *Morphologische Jahrbuch*, containing an important modification of accepted views concerning the sheath of the rectus abdominis. He denies that inferiorly the posterior part of that sheath is incomplete, through the aponeurosis of the transversalis and half that of the obliquus internus which compose it, passing to the front. The truth, he declares, is, that these aponeuroses merely become thinner below, the abrupt limit between the upper or thick and the lower or thin part of the sheath explaining the appearance known as the semilunar fold of Douglas. During forced inspiration, the upper part of the posterior portion of the sheath of the rectus is exposed to great tension, from which the lower is exempted, an evident explanation of the necessity for a difference in strength and thickness.

Pelvis.—Professor Turner contributed a paper on "The Index of the Pelvic Brim as a Basis of Classification" to the Anthropological Section of the British Association for the Advancement of Science, the annual meeting of which was held at Aberdeen this year. Dr. Berry Hart's writings on the female pelvis deserve mention in this paragraph as sound anatomical work, but will be more fully noticed under the head of Obstetrics and Gynecology. The same observation applies to Dr. Mary Putnam Jacobi's truly scientific papers on the anatomy and histology of the endometrium, and to Mr. J. Bland Sutton's contributions to societies and journals on the comparative anatomy of the uterine appendages.

Upper and Lower Extremities.—Once more reference must be made to Mr. Sutton's monograph on "The Nature of Ligaments," which has been already spoken of under the heading *General Anatomy*. Of necessity, a large proportion of this paper is devoted to the extremities, and more particularly to the nature of ligaments and cartilages in connection with the shoulder-joint, the carpus, knee-joint, and tarsus. Dr. Wenzel Gruber and others have written largely in Virchow's *Archiv* and elsewhere on anomalies in the tendons of the extensor muscles of the fingers. The above-mentioned writer has also proved the great frequency of a communication between the sheath of the radial extensors of the carpus and that of the extensor secundi interodii pollicis. Much has been written during the past year upon one of those problems which are essentially not so simple as they would at first sight appear. The radius and the ulna are not microscopic structures, nor are they hidden in the recesses of the cranial, thoracic, abdominal, or pelvic cavities, nor are their movements undirected by the cerebro-spinal system of nerves. Yet the question, Does the ulna move round the radius when the radius moves round the ulna? is still greatly disputed. Dr. C. W. Cathcart read a paper on this question at the Worcester meeting of the Association in 1882, and Dr. Heiberg discussed the subject before the International Medical Congress at Copenhagen. Drs. Cathcart and Dwight have written papers during the past year on the movements of the ulna in pronation and supination in the *Journal of Anatomy and Physiology*; whilst Professor Max Flesch has recorded his opinions "On Pronation and Supination of the Hand," in the *Archiv für Anat. und Physiol.*, distinguishing two distinct movements in every act of supination or of pronation, the free rotation of the radius with the hand, and a special movement of the ulna designed to keep that bone out of the way of the radius throughout its rotation. The aim of the movement of the ulna is simply to allow free play to the radius, which would not be the case if the former bone remained fixed under the above circumstances. This view of the subject is, however, by no means universally accepted. Lastly, in the same German publication, Professor Kollman has brought out a valuable article on "The Tactile Apparatus of the Foot of Man and Apes." He lays great stress on the perfection and complexity of the gyrate cutaneous ridges on the bulbs of the fingers in man, and goes so far as to declare that he has succeeded in tracing a certain relationship between the development of those ridges and the development of the cerebral gyri. The gyrate ridges must undoubtedly be, through their arrangement and nerve-supply, powerful agents in transmitting precise tactile impressions to the sensorium.

PHYSIOLOGY.

ALTHOUGH it may be said that no striking discovery has been made in histology or physiology proper during this year, yet the multitudinous papers published in the countries of Europe and America have, in many cases, tended to the advancement of science. A special feature, too, of the researches is, that many were undertaken with the object of elucidating the pathology of disease, and thus are not only instructive, but also practical in their bearing. To give a bird's-eye view of the progress made, the subject will be considered under the following heads: Histology, Glandular System, Respiration and Circulation, Nervous System and Special Senses, Nutrition.

1. In *Histology*, Giovanni has described karyokinesis in the cells of the Malpighian layer of the skin under various artificially produced conditions, such as irritation by iodine, and in regeneration after wounds; there is no dividing of cells in vesicles and pustules of the skin. Bobritzky has investigated the development of capillary vessels; Sandmann and Exner the division of the endings of motor nerves.

2. *Glandular System.*—A chief place must be given to the researches on extirpation of the thyroid gland in rabbits, dogs, and monkeys. Albertoni and Tizzoni (Bologna) have performed total extirpation in rabbits (which recovered) and in dogs, four out of twenty-four of which recovered. The symptoms, after complete removal in dogs, agreed with those described by Schiff—namely, twitchings, convulsions, anæsthesia, wasting, redness of the ears and temporary great heat of the skin, and kerato-conjunctivitis. Dyspnoea, and sometimes albuminuria, were noticed. After death, there was peripheral degeneration of the nerves (sciatic, etc.), a condition explaining perhaps the nervous phenomena. All the changes are considered by the authors to be due to venosity of the blood; whereas, in the normal arterial blood of the dog they found 17.8 volumes of oxygen in 100, after total thyroid extirpation only 8 to 11 volumes could be obtained. Victor Horsley has also worked at the subject, and has found that he could prolong the life of dogs after extirpation of the thyroid by keeping them at a constant warm temperature. During this time they waste; and thus Horsley now describes three stages of symptoms, two of which he had noticed last year, tremors, myxœdema, atrophy. While this author lays stress on the myxœdema following the operation, Albertoni and Tizzoni give a prominent place to the venosity of the blood. Horsley considers the thyroid also a blood-forming organ. It is out of place here to point out the importance of these investigations in surgery, and in the elucidation of the pathology of myxœdema and cretinism.

Two interesting papers have appeared, dealing with the physiology of the kidneys. The experiments were performed with the view of determining the parts played by the glomeruli and the tubules respectively in the secretion of urine; and they were based, of necessity, on the classic researches of Heidenhain and Nussbaum on this subject. H. Dreser states that the tubules have an acid reaction, and he attempted to determine whether they had secretory activity by the subcutaneous injection in frogs of fuchsin, an aniline derivative, which becomes colourless in alkaline solutions and red in acid. He found that it was secreted red in the frog's urine; and, further, that, on histological examination, the convoluted tubules were coloured red (in granules), and the Malpighian tufts were colourless. He concludes, therefore, that the secretion of the latter is alkaline. Methylene-blue, which is discoloured by reducing agents, is passed colourless in the urine, which on exposure becomes coloured; the reduction does not take place in the blood, but in the kidney. Phenolphthaleine and alizarin, which are reduced only in alkaline solutions, are passed coloured in the urine. Adami's researches deal chiefly with glomerular activity. If the renal arteries of the frog be ligatured, and Chrzonszczewsky's carmine or vermilion be injected into the anterior abdominal vein, the colouring matters are seen in the glomeruli as well as in the tubules. The injection of laky blood, in a similar manner, causes hæmoglobinuria, coloured menisci being seen only in the glomeruli, in sections of the boiled kidney. The diuretic effect of urea and of sodium nitrate is ascribed to an effect on the glomerular epithelium, the secretory activity of which is dependent, not so much on the blood-pressure as on the renewal of the blood (rate of flow). The researches of Roy on changes of volume in the kidney are very interesting in connection with this subject. Ellenberger and Hofmeister have continued their experiments on the digestion of the horse. They found that, on a diet of oats and hay, the contents of the duodenum and first part of the jejunum were acid; of the remainder of the intestine, alkaline. The food stays forty-two hours in the cæcum, where most of the carbohydrates are digested. Like Frick, they found that an extract of the mucous membrane of the intestine had no proteolytic, but a slow amylolytic, action. Lewaschew has investigated the formation of

trypsin in the pancreas, and Langley has continued his researches on the paralytic secretion of saliva.

3. *Respiration and Circulation.*—A preliminary notice of some important experiments which bear on the pathology of asthma were brought before the Physiological Society (England) by Roy and Graham Brown. Changes in calibre of a bronchus were recorded on a revolving cylinder by the lever of Roy's oncograph, which was connected by a narrow glass-tube with a bladder blocking a bronchus. It was found that the bronchi had a certain normal tonus, which was removed in one lung by section of the vagus of the same side. Stimulation of the cut peripheral end of the nerve caused contraction of the bronchi in the corresponding lung; in some cases, expansion. The authors conclude that the vagus contains two sets of fibres innervating the bronchial muscles, constricting and inhibitory. (These would correspond in Gaskell's nomenclature to polio-enteric and leuc-enteric.) Ether causes expansion of the bronchi, without paralysis of the constricting fibres; these are paralysed by atropine. Nicotin expands the bronchi. The physiology of the heart and circulation is an ever fruitful source of research, and several important papers have been published, dealing chiefly with the innervation of this system. Kowalewsky has investigated the circulation of the blood in the skin of the ears, nose, and eyelids of white cats. He concludes that the vaso-motor nerves of the skin of the head come down the spinal cord from the medulla on the same side; further, that reflex excitation (as by stimulation of the central end of the cut sciatic nerve) does not always result in dilatation of the vessels of a remote part, but sometimes, as in his experiments, in contraction. The constrictor fibres do not run exclusively in the lateral half of the cervical cord and the cervical sympathetic; the course of these other fibres not having yet been determined. The dilatation of blood-vessels with fall of blood-pressure, caused by curare, is due to a paralysing action on a peripheral mechanism. It may here be mentioned that Gaskell has suggested, as a general law in visceral innervation, that those nerves causing relaxation of involuntary muscle are medullated (leuc-enteric), those causing contraction are non-medullated (polio-enteric). This would apply to the heart and vessels, to the muscular viscera, and to the iris. The innervation of the heart has been the subject of several papers, and the line of research is at present the investigation of the hearts of invertebrata and the cold-blooded vertebrates, with the idea of elucidating the complex phenomena of the mechanism in warm-blooded animals by deductions from the simpler ones of those lower in the scale. Kazem-Bek has shown the existence of a depressor nerve in the tortoise (*Testudo graeca*), a discovery which was independently indicated by Gaskell and Gadow in their anatomical researches. Ransom has investigated the rhythm and innervation of the hearts of numerous invertebrate animals, including the cuttle-fish. McWilliam has studied the heart of the eel and other fishes, and demonstrated many of the phenomena (such as "blocking") previously described by Gaskell; in addition, he has shown that the order of rhythm of the eel's heart may be reversed by applying a stimulus to the quiescent ventricle, the ventricle contracting first, then the auricle, then the sinus. Further, it is noticeable that the application of a weak interrupted current to the beating auricle inhibits it at the spot to which it is applied. The eel's heart is readily stopped by a weak stimulation of the vagus, and reflex inhibition is more readily obtained than in any other vertebrate animal as yet investigated. Thus stimulation of the gills, of the skin of the head and tail, and of the parietal peritoneum, causes inhibition: on the other hand, stimulation of the abdominal organs has no effect. McWilliam's researches on the inhibition of the heart of the newt are also interesting. Yeo and Barrett state that the first sound of the heart is a purely muscular sound, and this they have investigated by listening to the beating excised heart of the dog and cat, when the sound was still heard, though no question of movement of valves could come into play. No reasons are given against the sound being partly valvular.

4. *Nervous System: Muscle.*—Fick has published experiments on the rigor calor of muscle; and Gendre has confirmed Eiselberg's experiments on the influence of the nervous system on rigor mortis. This he did by cutting the sciatic in a frog, which was killed. It was found that rigor mortis occurred sooner in the intact limb than in the injured. Rubner has investigated the influence of temperature on the respiration of muscle; Yeo and Herroun, the summation of stimuli. Rosenthal has found that the time of reflex action varies with the strength of stimulus, and with the locality at which it is applied. Thus a certain stimulus to the foot causes a greater movement than one of the same strength applied to the hip; also an extending reflex motion by stimulation of the lumbar sensory nerves occurs in the motor region of the neck; while much stronger stimuli applied to this latter part cause a local reflex movement. Nitschmann, Gurke,

and Mislewsky, have experimented on the respiratory centre. The first observer investigated the centre for breathing in the cervical cord described by Langendorff (1881). He found that, if such a centre existed, it was bilateral, since an accurate median section of the cervical cord had no effect on the breathing. Mislewsky has described a new respiratory centre towards the middle line from the roots of the hypoglossal nerve; but his results, anatomical and experimental, are denied by Gierke. With regard to the brain proper, but few investigations have been published during the year; and these have dealt chiefly with the cortical centres and the subjacent white matter. Franck and Pitres have found that stimulation of the internal capsule in the dog gave rise to the following movements: opening of the eyelids, with dilatation of pupil; contraction of the platysma; movement of the opposite fore limb, or of both opposite limbs; sometimes movement of the opposite hind limb and tail, and of ear. The authors conclude that in the internal capsule there is a "functional aggregation" of the subcortical white matter. They found the grey matter of the corpus striatum and optic thalamus inexcitable. De Varigny has investigated the excitability of the brain in new-born dogs; Vulpian, the general excitability of cortical centres. Tschich, in examining the relative excitability of the cerebral cortex, noticed undulations on the tracings obtained by connecting a lever with a limb-muscle, and allowing it to write on a revolving drum. Schäfer and Horsley have investigated this subject particularly in regard to voluntary tetanus. They obtained tracings of muscular contraction after excitation of the cerebral cortex, of the subjacent white matter, of the spinal cord, and of the motor nerves. Tracings were also taken of voluntary contractions in the human subject, and of morbid rhythmic movements (epilepsy, etc.). In their results, the authors differ from Franck and Pitres in finding that, with rates of electrical excitation (interrupted current) above twelve per second, the rhythm of contraction following stimulation of the cortex, corona radiata, and medulla, does not correspond with the rhythm of excitation, as it does in a motor nerve, but is, on the average, ten per second. The conclusion drawn is, that the normal rate of discharge of nervous impulses from the motor cells is ten per second; and that, with rates of excitation above this, a summation occurs in the nerve-cells.

Special Senses.—Engelmann has investigated the changes undergone by the cones and pigment cells of the retina, under the influence of light and the nervous system. Holmgren, it may be mentioned, discovered electrical changes in the retina, under the action of light; and Boll, the bleaching of the visual purple and changes in the pigment granules under the same influence. Engelmann has now discovered another change; namely, that the cones of the retina shorten under the action of light, and lengthen in darkness. In some animals, the variations in change are very marked. If only one eye of a frog be exposed to light, the change in the cones and pigment-cells occur in the other; hence there is a communication of the cones and pigment-cells of both eyes by nerve-channels, that is, by the optic nerves. Engelmann distinguishes nerves irritable to light, and retino-motor. An interesting reflex effect can be obtained by exposing only the posterior half of a frog to the light; the changes in the retina occur. Zegliniski has made experiments on the movements of the iris in birds. The iris-muscles, which are striated, are innervated by the oculo-motor and the fifth nerves, the sympathetic taking no part whatever. The absence of the sympathetic supply explains, according to the author, the non-dilating power of atropin on the pupil of birds; he thus concludes that atropin does not act by dilating the blood-vessels, as has been suggested by various observers. Curare is, in birds, a powerful pupil-dilator; nicotin, a pupil-contractor, paralysing the dilating nerve-fibres. Goldscheider and Eulenburg have investigated the sensation of the skin; their experiments deal chiefly with the localisation of the sensation of temperature.

5. *Nutrition.*—Schäfer and Zawarykin have published the results of their investigations into the part played by amoeboid cells in absorption. The former observer describes the changes undergone by these cells (which lie in between the epithelium-cells of the intestinal mucous membrane) after a diet of pure fat has been given to a fasting frog. Not only are they seen, after staining with osmic acid, full of fat-granules, but the inner part of the epithelium-cells has taken these into its substance. The fatty amoeboid cells are also seen in the central lacteals of the villus, and undergo there a process of disintegration. Schäfer suggests that these cells also act as carriers of other substances; digested carbo-hydrates and proteids. Zawarykin has come to the same conclusion as Schäfer. These researches derive great importance from the previous investigations of Metchnikoff, who showed the important part played by the wandering mesoblastic cells of invertebrates in the carriage and absorption of nutrient material.

Riclet has published two important papers on calorimetry. By a

new apparatus, which was more accurate than that used by previous observers, he has estimated the amount of heat given off by various animals, and by children. Rubner has estimated the calorimetric value of the essential principles of food; finding that 1 gramme of albumen is equal to 4.1 calories, 1 gramme of fat to 9.3 calories, 1 gramme of carbo-hydrate to 4.1 calories. From these data he calculates the proportion of the constituents of diet necessary in the old and young, and in workers and non-workers.

PHYSIOLOGICAL CHEMISTRY.

SINCE November, 1884, great advances have been made in physiological chemistry. An attempt will be made here to give a slight sketch of the more important of these additions; but, when it is considered that such a book as Maly's *Jahresbericht über die Fortschritte der Thier-Chemie*, which deals with exactly the same subject, seldom numbers less than 500 to 600 pages, it will easily be seen that, in a short report like the present, the past year's advances can only be briefly glanced at, and dealt with in but a very summary fashion. Those who wish a fuller account will readily find it in the fifteenth volume of Maly's work, which will appear next year.

I.—FOODS, ETC.

Albumins.—Chickoff's experiments lead him to suppose that albuminoids are formed by the reaction of fatty acids with sugar and ammoniac nitrate, water being eliminated. When acted on by ferments, albuminoids yield sugar; and their transformation into fats, under certain pathological conditions, indicates a relation to the paraffinoid acids.

From the study of the silver compounds of albumin, Loew shows that Lieberkühn's formula, $C_{72}H_{112}N_{10}SO_{22}$, must be trebled. The origin of the numerous substances obtained from albumin, he believes to be due, not to their pre-existence as such, but to the mobility of the atoms of albumen. The only product formed in considerable quantity by the moderated oxidation of albumin with potassic permanganate (Maly) is an uncrystallisable acid, containing sulphur and nitrogen—Brücke's oxyprotosulphonic acid.

Gautier is of opinion that the modifications of albumin obtained by the action of heat, the addition of salts, etc., are chiefly due to the alterations in the constitution of the small percentage of salts attached to the organic albuminous radicle; although the dehydration of the albumin must also, without doubt, exercise a certain influence on these changes.

Milk.—Leads gives the following as the average of eighty-four analyses of normal human milk: Specific gravity, 1.031; albuminoids, 1.99; sugar, 6.93; fat, 4.13; solids not fat, 9.13; ash, 0.20; total solids, 13.27; water, 56.73.

Although the amount of solids is greater in human than in cow's milk, nevertheless their specific gravity varies but little; that of human milk, however, being somewhat the higher. Milk from women under twenty years of age is richer in every respect than that of older women; the milk of the first lustrum is also richer in albuminoids, and in sugar particularly, than that of subsequent ones.

Mare's milk has this average composition: Specific gravity, 1.035; water, 90.13; fat, .94; albuminoids, 1.65; sugar, 6.98; ash, 0.30. Mare's milk begins to ferment, during warm weather, in twenty-four hours, the resulting liquid being called *Koumiss*. This gives the following on analysis: Water, 92.42; alcohol, 3.29; fat, 1.20; casein, 0.79; albuminoids, 0.32; peptones, etc., 0.76; lactic acid, 1.00; ash, 0.35.

Although the total yield of milk by cows is slightly reduced in quantity by muscular exercise, yet this loss is compensated for by the increased yield of solids. Indeed, it is advisable that milch-cows, when being stall-fed, should have daily exercise; and the same remark applies to "wet" nurses. It has also been found (Schmöger) that more milk is obtained by milking cows three times a day, instead of twice, there being at the same time a larger total yield of butter.

Sebelein has isolated two albuminoid substances distinct from casein: lactoglobulin, like paraglobulin of blood; and lacto-albumin, like serum-albumin, except in having a lower specific rotation.

Schmidt-Mülheim's statement, that peptones are present in milk, has been denied by Hofmeister, and recently by Dogiel. The latter has further proved the chemical identity of the casein in human and cow's milk, as also the close similarity in the products of their peptic digestion.

Escherich found that milk, drawn direct into prepared flasks from healthy women, could be kept unaltered at 37° Cent. for several weeks; but that the milk of women suffering from puerperal fever decomposed rapidly.

According to Bang, the milk of tubercular cows is alkaline, poor in fat and sugar, rich in albuminoids, and richer in soda, but poorer in the calcic phosphates than healthy milk; it is also dangerous to children, although the danger may be averted by heating the milk to 70° Cent.

Starches.—There are at least two dextrins derivable from starch; the one coloured red or brown by iodine (erythrodextrin), and the other giving no coloration with this reagent (achroodextrin). Both bodies are slowly converted into maltose by the action of malt-extract, and in the pure state are quite devoid of reducing power (O'Sullivan). The body known as achroodextrin has been shown to consist of a mixture of several dextrins; according to O'Sullivan, there being at least three. The starch molecule must, therefore, be regarded as more complicated than is usually supposed; and Brown and Morris consider that soluble starch cannot be assigned a simpler formula than $10C_{12}H_{20}O_{10}$. The complete molecule, according to Musculus and Gruber, breaks down by a series of hydrations and successive decompositions, maltose being formed at each splitting up, together with a dextrin of less molecular weight. Brown and Morris support this hypothesis; and according to them the number of distinct dextrins must depend on the molecular weight of the lowest possible dextrin in the series. The tendency of all starch-transformations, under the continued influence of malt-extract at 50-60° C., is rapidly to attain a state of equilibrium represented thus: $10C_{12}H_{20}O_{10} + 8H_2O = 8C_{12}H_{22}O_{11} + 2C_{12}H_{20}O_{10}$ (dextrin). The whole of the starch-products in a transformation are not simultaneously produced, some hydrolysing faster than others. These dextrins are not directly fermentable by yeast, but require first to be hydrolysed. Besides maltose and dextrin, a third body, malto-dextrin, more soluble in alcohol than the dextrins, makes its appearance when the action of the malt-extract on the starch-paste is limited, which is unfermentable by yeast but convertible into maltose by malt-extract.

Coffee diminishes considerably the proportion of gases in the blood, but does not affect the proportion of carbohydrates consumed. It lessens the activity of the simple combustions producing carbonic acid; but it increases considerably the amount of urea in the blood, and stimulates those complex processes which cause a consumption of nitrogenous foods, such as beef, etc. Coffee, therefore, is a complex aliment, acting mainly by modifying indirectly the phenomena of nutrition, and the general functions. By rendering the organism capable of consuming larger quantities of nitrogenous material, it may consequently be regarded as an indirect source of available energy. (Couty, Niobez, etc.).

II.—DIGESTION AND NUTRITION.

Salivary.—While the ultimate product of the diastatic action of ptyalin is dextrose, yet it is now known that maltose is formed in much larger quantity. As the result of a series of carefully conducted experiments, Chittenden concludes that the influence of free acid, and particularly of acid-proteid matter, on the diastatic action of saliva is considerable. A certain amount of proteid matter, capable of combining with acid, is naturally present in saliva; and up to a certain percentage its presence tends to stimulate diastatic action. Saliva, with its proteid matter saturated with acid, has a greater diastatic power than saliva simply neutralised, provided the percentage of acid-saturated proteids be not too great; the presence of a small trace of free acid, but of only a trace, under the last-named conditions, seemingly favouring the process. In the first stage of digestion, therefore, when there is no free acid, the conversion of starch into sugar can undoubtedly go on, the acid proteids and neutral peptones present being in its favour, apparently even directly stimulating the activity of the ferment; but, as the acid proteids increase in amount, the diastatic action may possibly cease entirely before free acid makes its appearance, the presence of even 0.003 per cent. of free hydrochloric acid almost completely stopping any amylolytic action that may be going on. All the salivary ptyalin is ultimately destroyed in the stomach.

Peptic and Tryptic.—Sundberg concludes that the pure pepsin ferment does not belong to the albuminoid group.

Pepsin is said to act only in acid solutions, and trypsin in alkaline, neutral, or feebly acid solutions. E. Bourquelot, however, finds that the second statement requires modification, since 0.1 per cent. of acetic acid, or even 0.03 per cent. of hydrochloric acid, may be present without stopping the tryptic digestion; and he, moreover, states that gastric juice generally contains only 0.02 per cent. of this acid. Kühne and Chittenden consider that they have proved the existence of a series of bodies intermediate between albumins and peptones, whose composition seems to point to a gradual course of hydrolytic decomposition, and that these forms of albumin are to be considered

collectively as the first hydrates. These different forms of albuminose fall into the anti- and hemi-groups; but the hemi-group by itself consist of several members, which may be classed under the heads of soluble and insoluble albuminose.

The presence of gases in the stomach increases the quantity of secretion, this being particularly the case with carbonic acid, which, besides producing a pleasant effect, stimulates the appetite (Jaworski).

As the result of the artificial peptic digestion of different animal foods that had been steam-cooked, Chittenden and Cummins found that their digestibilities might be expressed as follows, taking that of beef as equal to 100: Raw beef, 142; beef, 100; veal, 95; mutton, 92; lamb, 88; chicken, 87; salmon, 92; mackerel, 86; flounder, 85; haddock, 82; herring, 82; trout, 78; fresh cod, 72; eel, 72; lobster, young, 87; lobster, large female, 79; lobster, large male, 69; crab, 67; frogs' legs, 80. But it should be remembered that age, sex, and other conditions, affect the digestibility considerably.

The activity of tryptic digestion is reduced, both by the addition of free taurocholic acid 0.1 or free glycocholic acid 0.2 per cent., their sodium salts producing less effect. Fresh ox-bile, nevertheless, may be added to the extent of 20 per cent. without the activity being affected; and accordingly it is probable that some other substances are present in the bile, which counterbalance the retarding action of the bile acids. But peptic digestion, on the other hand, is seriously affected by the presence of bile; 1 per cent. retarding its action, and 20 per cent. stopping it completely (Chittenden, etc.).

Pancreatic juice forms a permanent emulsion with fatty matters, ordinary emulsions not being permanent unless kept in a state of agitation.

The hypothesis of emulsification by means of the bile dates from the time of Haller. But according to Robin it rested upon no examination of facts, whether anatomical or physiological, and was founded on the supposition that the bile formed soaps. The bile, however, has in no respect the composition of a soap, although by its soda-salts it may act to a slight degree in like manner.

In experiments as to the relative digestibility of different cheeses, Klenze found that Cheddar digested in the shortest time (four hours), unripe Swiss requiring ten hours. A connection exists between the digestibility and the percentage of fat and degree of ripeness, but not between the digestibility and the percentage of water. He concludes that cheese is the most nourishing of all foods. Fat cheeses are dissolved most rapidly, on account of their greater porosity by reason of the fat in their substance.

If a few drops of the sap of American aloe be allowed to fall on some chopped meat covered with water, and the whole kept at 35-40° C., active fermentation immediately begins, and after thirty-six hours the fibrin is replaced by peptone. Many other saps produce a similar change. It is due to a mucor, which does not lose this power even after repeated cultivations.

Papain was the name given by Würtz to the proteolytic ferment in the juice of *Carica Papaya*, a plant indigenous to the East and West Indies. Digestion by papain is essentially a digestion in a neutral medium, and its action is comparable to that of trypsin, as it digests well in quarter per cent. alkaline solutions (Martin); but, while trypsin is active only in alkaline solutions, papain performs its digestive functions in weakly alkaline as well as in neutral solutions. A similar intermediate or globulin-like body is formed as in tryptic digestion; leucine is generated, and also tyrosine, but only in slight amount.

In researches on oxen and horses, Bihm and Schwenk found that putrefaction of albumin always occurs in the alimentary canal, about 10 per cent. approximately of the proteid of the food being thus lost. Phenol is found present in every section of the canal, traces being recognisable even in the stomach of the horse; indol, in the small intestine and caecum; and skatol in the paunch of oxen and the colon of horses. There can be no doubt that these bodies are derived from decomposition of albumin.

Chaniewski concludes that fat is undoubtedly formed in the economy from carbo-hydrates. Geese were the animals employed, and in two of these no less than 86.7 per cent. of the newly formed fat was apparently derived from this source.

Seegen and Kratschmer, as is known, contend that the sugar formed in the liver does not arise wholly from the glycogen present there. Indeed, Seegen's latest statements are to the effect that the peptones are the real source; and he concludes that the liver-cells, retained in a living condition by the action of blood rendered arterial by a current of air, are capable of forming more or less sugar from peptones. Plösz and Györgyi have certainly noticed a disappearance of peptone in its passage through the liver; but Chittenden has lately obtained results that are wholly in accord with the formation of liver-sugar from the hepatic glycogen, but which give no indications whatever of a formation of sugar from peptones.

III.—THE TISSUES.

Blood.—It has been shown by Plösz that the nuclei of the red corpuscles are very rich in nuclein. Kossel finds in combination with this body another substance, which he names histon. This is a peptone-like body, whose behaviour with ammonia is peculiar: a few drops added to a neutral solution throws down a heavy precipitate, the filtrate giving no peptone reaction, and the precipitate being quite insoluble and possessed of all the properties of an albuminoid.

Two albumins exist in blood-serum: serum-globulin and serum-albumin. According to W. Halliburton, the serum-albumin consists of three separate proteins coagulating at different temperatures. These albumins can be completely precipitated, after the removal of the serum-globulin by saturation with magnesian sulphate, by the addition of sodic sulphate in excess.

Shallefcliff recommends this method for the ready preparation of hæmin: To one vol. of glacial acetic acid, heated to 80° C., add one vol. of fresh defibrinated and filtered ox-blood, and again heat to 80° C.; on cooling, abundance of crystals are deposited, which are to be repeatedly washed with water, collected, and again washed in succession with water, alcohol, and ether.

Nencki and Sieber find amyl-alcohol to be a good solvent for obtaining hæmin from blood. These authors regard the various hæmoglobins as possibly being double compounds of hæmin with albumins.

Hæmatoporphyrin is easily obtained from hæmin by treating the crystals with concentrated sulphuric acid. By the reducing action of tin and hydrochloric acid, a reddish-brown pigment is obtained, which is converted by boiling with alcoholic potash into a body resembling urobilin; but, if the boiling with the reducing agents be long continued, the solution of hæmin becomes quite colourless.

Bunge believes his experiments prove that the iron of the hæmoglobin is derived from iron in a state of organic combination in such foods as milk and yolk of egg, etc., where, he states, a body to which he assigns the name hæmatogen exists, and never from iron taken as such in inorganic combinations; and he affirms that the beneficial effects following the administration of iron in such a disease as chlorosis, result from these inorganic iron salts preventing the decomposition of the organic iron compounds in the intestines.

Seegen continues his investigations as to the sugar in the animal economy. He has shown that its formation is a physiological function of the liver, and that it is independent of the food. His late experiments on dogs indicate that sugar is always present in blood to the extent of 0.1 to 0.15 per cent. The blood leaving the liver contains nearly twice as much sugar (0.23 per cent.) as that entering it (0.119 per cent.). As far as can be ascertained, albumin is the source of sugar in carnivora; and as the sugar is not eliminated as such, its decomposition must be effected in the circulation. According to Otto, normal blood contains another reducing and fermentable substance besides sugar. After the administration of morphine, chloroform, or chloral, the amount of this reducing substance in the blood is considerably increased.

Cartilage.—By boiling cartilage with mineral acids, Bodecker obtained a body which he named chondroitie acid. Krukenberg agrees with Schiff that this body is but a step in the transformation of albumin into carbo-hydrates. Krukenberg, moreover, finds that all the end products of hyaline cartilages are sugars of different compositions, and that hyaline substances are present, not only in cartilage, but also in brain-matter, liver, lungs, etc.—evidences, he thinks, of a process of transformation into pure carbo-hydrates.

Hammarsten points out that there can be no doubt that *mucins* from various sources vary in composition. Their three most typical properties are their toughness and elasticity, the formation of a reducing substance when treated with dilute acids, and their precipitation by acetic acid.

Brain.—Baumstark finds, as the result of some valuable researches on brain-substance, that the soluble salts, albumins, and organic extractives, vary with the percentage of water, and are accordingly more abundant in the grey substance; that the ash and organic constituents are nearly identical in the white and grey, as also the nuclein, combined cholesterin, and lecithin; but that the white substance contains the larger proportion of neurokeratin, free cholesterin, and protagon; while the insoluble albumin and connective tissue preponderate in the grey substance. The aggregate percentage of phosphorus in the fresh brain he finds to be 0.347, or 1.297 of the anhydrous substance. He has further established the identity of protagon beyond all doubt, its constituent cerebin and lecithin being united in its molecule in the closest chemical union; but in no case could he detect cerebrin in the free state. Upon Thudichum's work, he does not apparently place much reliance.

IV.—URINE.

Urea.—North's general results confirm those of Parkes, but they also show that the disturbance produced by severe labour is more immediate and of greater intensity than has hitherto been supposed. A diminution of the nitrogen stored in the system is followed by a retention, and this storage of nitrogen represents the tendency of the organism to economise its resources. North further finds that, unless the exertion be very severe, the elimination of phosphates is not altered, while that of the sulphates is markedly increased. In estimating urea by Liebig's method, Rautenberg follows Pflüger's modification, but with the essential difference that he maintains the urea-solution neutral throughout by successive additions of calcic carbonate. Pfeiffer recommends that, in estimating the correction for sodic chloride, the amount of free acid should be as small as possible, and 0.1 c.c. subtracted from every c.c. of mercuric nitrate used; but in human urine he considers it better to precipitate the chlorine with silver nitrate. When urea is injected in sufficient quantity under the skin, it gives rise to tetanic convulsions, like those produced by strychnin, which are followed more or less rapidly by death. In fatal cases of uremia, it was present in the proportion of 0.21 to 0.41 per cent.

Uric Acid.—In this JOURNAL, December 12th, Haycraft describes a good method for the estimation of this body.

Phosphoric Acid.—The elimination of phosphoric acid is connected with the general nutrition; and, according to A. Mairet, the greater the decomposition of albumin the greater the elimination of the alkaline and earthy phosphates, and at the same time the greater that of nitrogen. The effect of muscular exertion on the discharge of this acid, depends upon the state of nutrition; for, if the exertion be proportionally greater than the amount and quality of the food assimilated, the elimination of nitrogen and alkaline phosphates in the urine is increased, although the amount of the phosphates eliminated is not affected if the diet be rich and abundant. Mairet also finds that the effect of intellectual exertion, like that of muscular exertion, is closely connected with the sufficiency or insufficiency of the diet of the individual. The general result, however, is a diminution in the quantity of the nitrogen and alkaline phosphates eliminated by the urine, the amount depending on the duration of the intellectual effort; but when the diet is insufficient, relatively to the work done, the amount of the alkaline earthy phosphates is increased; and the more severe the intellectual effort, the greater is the increase in the discharge of earthy phosphates, the increase being particularly well marked with a vegetable diet. Phosphoric acid is, accordingly, intimately associated with the nutrition and activity of the brain; and when that organ works, it appears to absorb alkaline phosphates, and to give up phosphates of the alkaline earths. Intellectual activity retards general nutrition. Intellectual and muscular activity produce exactly opposite effects; the former diminishing the elimination of nitrogen and of alkaline phosphates, and increasing that of the earthy phosphates; and the latter diminishing the discharge of earthy phosphates, but increasing that of the alkaline phosphates and nitrogen. Between this theory and the next a marked difference will be noted.

It has been concluded by many authorities, says Politis, that an increased excretion of phosphoric acid denotes an increased activity and decomposition of the brain-substance. This conclusion has been called in question by Voit. Politis has made a series of experiments on dogs fed with beef, with beef and ox-brain, and with brain alone, respectively, but he has obtained no increased elimination of phosphoric acid when the brain-substance was taken as food. And even admitting the increase, he points out that it is unnecessary to attribute it solely to increased brain-activity, as it may also result from muscular activity. That muscular exercise increases the elimination, we should, however, remember, has been denied by Pettenkofer and Voit.

In acute delirium, phosphoric acid and urea are excreted in notable excess; in excitable mania, the acid is in slight excess, the urea being normal, while in simple insanity the urine is normal. During, or immediately after, epileptic seizures, the urine contains a high proportion of phosphoric acid, and a small proportion of urea; although, if the attacks succeed one another rapidly, both the acid and the urea are increased (Lailler).

Albumen.—To determine the amount of albumin and globulin in urine, the specific rotation of the two together is first ascertained, and then that of one of them; the globulin, for example, being precipitated with magnesian sulphate. But, as Hofmeister has found, the albumin is also thrown down when acid phosphate is present. Otto's experiments show that, in the above precipitation, the whole of the albumin remains in solution only when at least half the phosphoric

acid is present as neutral phosphate. In carrying out the above estimation, the acid urine must, therefore, be first approximately neutralised. The turbidity obtained when many albuminous urines are heated is due, according to Stokvis, to the decomposition of the soluble dehydric dicalcic phosphate into monocalcic phosphate, which remains in solution, and tricalcic-phosphate, which is precipitated: $2 \text{Ca}_2 (\text{HPO}_4)_2 = \text{Ca}_3 (\text{PO}_4)_2 + \text{Ca} (\text{H}_2 \text{PO}_4)_2$. On cooling, the reverse occurs, and the precipitate redissolves. (For the pathognomic indications of albuminuria, see previous numbers of this year's JOURNAL.)

Sugar.—Nylander recommends the use of the alkaline bismuth solution as a test, the reduction to which Fehling's solution is subject from the presence of such bodies as uric acid, kreatinin, etc., not affecting its accuracy as an indicator of sugar. The solution recommended is thus prepared: bismuth subnitrate, 2 grammes; Rochelle salts, 4 grammes; soda solution (8 per cent. caustic soda). Filter. It is to be added in the proportion of 1 to 10 of urine; 0.025 gram of glucose is easily detected. If albumin be present, it must be removed. In testing with the copper solution, the blue coloration frequently disappears and passes into yellow, owing to a reduction by kreatinin, which, by combining with the cuprous oxide produced, forms a white granular powder, thus serving as a delicate test for kreatinin. In most cases, less sugar is indicated by the polarimeter than by Fehling's solution. Müller accounts for this by the presence in many diabetic urines of a laevo-rotatory acid substance, probably hydroxylbutyric acid.

Alkaloids are not present in normal and healthy urine, but they are invariably to be found in the urine of patients labouring under even slight indisposition. It is possible that, if in disease these alkaloids be formed more rapidly than they are excreted by the kidneys, they may ultimately be the cause of death. The beneficial action of light drinks in illness may, therefore, be due to their removal being thus assisted.

V.—RESPIRATION AND OXIDATION.

Gruber finds that the absorption of nitrogen is exactly balanced by its excretion.

When the absorption-spectrum of the red light passing between two of the fingers held in front of a light is observed before and after the application of a caoutchouc ligature to their roots, the two bands of oxyhaemoglobin will be noticed soon to disappear; even in the same individual, the time varies. Dennig finds that, at night, it is between 135 and 146 seconds; in the morning, 114 and 152 seconds; and, in the afternoon, 92 seconds—with children the numbers always being lower. While the period is diminished by muscular exercise, warmth, and stoppage of the respiration, it may be increased even to 300 seconds by cold. This diminution of the period was likewise observed to occur in disease.

Lehmann finds that the increase of alkalies in the circulation increases the consumption of oxygen, as also the production of carbonic acid, several per cent; while, on the other hand, the injection of a dilute acid reduced both the consumption of oxygen and the elimination of carbonic acid. It was further shown that the non-nitrogenous matters were rendered more readily oxidisable by the alkalies, and less so by the acids. An increase in the proportion of oxygen has no effect on the absorption of oxygen. When an animal is first transferred from the air to an atmosphere of oxygen, or one containing an excess of this gas, only a temporary increase occurs in the amount absorbed. Respiration can be carried on in an atmosphere rich in oxygen, but containing even as much as 5 or 6 per cent. of carbonic acid; the respiration becoming, however, more or less convulsive; but this dyspnoea is accompanied by a marked increase in the amount of oxygen absorbed; carbonic acid, therefore, in small quantity, acts as a powerful exciter of respiratory combustion.

A relatively larger amount of oxygen is consumed in compressed than in ordinary air, although the absolute amount of oxygen inspired and of carbonic acid expired is diminished. Compressed air acts on the circulation in a twofold manner, producing a more complete emptying of the veins by compressing the surface-capillaries, and changing the distribution of the blood in the system by causing it to accumulate in the abdominal organs. The therapeutic action of compressed air may be exclusively referred to its mechanical action on the organism, and to the increase of partial oxygen pressure; it cannot be considered as facilitating oxidation in sick cases, but more as a saving of effort to the individual.

H. Senator finds that heat raises the blood-pressure, but that this is partly due to muscular movement, as also to nervous irritation. The breathing is at first more rapid and deep, but, at a later period, more rapid only. At high temperatures, albumin appears in the urine.

According to Rubner, the decrease of body-weight in animals is accompanied with a gradual increase of the intensity of combustion in the organism, the high combustion-equivalent in the case of small animals being solely due to their relatively large surface, the decompositions increasing with the increase of surface.

PHARMACOLOGY AND THERAPEUTICS.

It must be admitted that the year now drawing to a close has not been characterised by any special activity in the department of pharmacology and therapeutics. The publication of the new *British Pharmacopœia* has made it necessary to issue revised editions of most of our text-books on materia medica, and this has occupied the time and attention of many of the lecturers and teachers of this subject in the medical schools. The restrictions imposed by an over-zealous legislature have done much to cripple the progress of experimental pharmacology in this country, and it is difficult to find workers with sufficient self-devotion to undertake long and laborious investigations, which bring them no tangible reward, but, on the contrary, expose them to contumely and opprobrium at the hands of an unthinking and ignorant faction. Little by little England is losing its claim to be considered the leader of therapeutic progress, and it seems that we are to be content to sit still and receive the news of great discoveries in the art of treatment from America or the Continent. Many of our most energetic workers are silent, not caring to publish their opinions and results in the present unsettled state of public opinion.

Cucaine.—In the early months of the year, the JOURNAL contained numerous contributions on the action of euca and cucaine, and our readers had an opportunity of perusing a very full account of the researches of Königstein and his pupils. This distinguished observer has shown that, under the influence of a strong aqueous solution of the alkaloid, it is possible to enucleate the eye of a dog without causing the animal the slightest pain or inconvenience. He also demonstrated its value as a local application in the treatment of supra-orbital and other forms of neuralgia, his observations being subsequently confirmed by several well-known authorities in this country. Mr. Malcolm Morris has given the results of his experience with it in the treatment of puritus ani; and Mr. John Watson, as the result of a number of valuable observations made on himself, demonstrated its value in the form of tablets, in the treatment of hay-fever and coryza. Mr. Eber Candwell has shown that in man it exerts a twofold action, being a cerebral sedative in small doses, and a cerebral stimulant in large ones. The attempt to utilise eucaïne for the extraction of teeth has not been a success; and Mr. Morton Smale, with praiseworthy endeavour, has recorded his failures. In America it has been largely used experimentally, its various preparations being put up in a form which adds greatly to their portability and increases their popularity.

Hyoscine has been fully and systematically worked out by Dr. H. C. Wood, of Philadelphia, who has shown conclusively that it is to this alkaloid that the characteristic hypnotic and calmative action of henbane is due. It seems probable that it acts on mammals chiefly as a spinal depressant, and that it produces death by asphyxia, the result of an action on the respiratory centres. It exerts but little effect on the circulation, and does not paralyse the pneumogastries. Dr. Wood, speaking from a large clinical experience, points out that it is of little value in relieving pain, but, on the other hand, quickly allays spasm. It is best administered in the form of the hydrobromate.

The value of *permanganate of potash* in the treatment of amenorrhœa and other allied conditions has again formed the subject of discussion in the columns of the JOURNAL, and we have published various articles and contributions bearing more or less on this point. The question in dispute seems to be as to the best mode of administration; some contending that, if given in a concentrated form, it produces untoward results, whilst others maintain that it may be administered at all times, and under any circumstances, not only without fear, but with the certainty of benefiting the patient.

The introduction of *cascara sagrada* into the *Pharmacopœia* has called renewed attention to a valuable remedy for habitual constipation, which is almost universally used in America. The various natural mineral waters possessing aperient properties, have been carefully studied, an impetus having been given to this branch of investigation by the publication, in book-form, of Professor Hay's well known work on the action of saline purgatives. It is difficult to say to which member of the group the palm of popularity should be awarded, but the Friedrichshall water is most commonly prescribed by physicians. The difficulty of obtaining a thoroughly reliable laxative was long experienced, both by patients and their medical advisers.

Probably the most remarkable therapeutical contribution of the year was the paper on *Strophanthus Hispidus*, read by Professor T. R. Fraser

before the Section of Pharmacology and Therapeutics at the annual meeting of the British Medical Association at Cardiff. The introduction of this new remedy serves to commemorate, in a way that would otherwise be impossible, the centenary of the first employment of digitalis. *Strophanthus* has not as yet come very largely into use, in consequence of the difficulty experienced in obtaining a sufficient supply; but this will soon be obviated, and we may congratulate ourselves on being in possession of a remedy of first rank both as a cardiac stimulant and as a sedative.

Nitro-glycerine has steadily made its way to the front, and has now an assured position as a therapeutic agent. Quite recently, Burzhinski has published a valuable paper on its action in nephritis, showing that under its influence the urinary albumen eliminated by the kidneys is diminished, whilst the quantity of urine is increased. Rossbach examined the action of nitro-glycerine, nitrite of amyl, and the nitrites of potassium and sodium, and gave a decided preference to nitro-glycerine, speaking of it as an "excellent remedy" in interstitial nephritis, and one "calculated to prolong life." Its power of dilating the blood-vessels is so marked, that it is now used in the treatment not only of angina pectoris, asthma, and Bright's disease, but for warding off shock in all forms. In America it has been proposed as a substitute for alcohol.

Hamamelis virginica has again been attracting notice as a remedy for checking hemorrhage, attention having been directed to the subject by the publication of Mr. Halpin's remarkable case of hæmorrhage from the bowel, treated by hazeline.

The sodium and ammonium salts are now largely used, and threaten to supersede many of the old potassium compounds. Bromide of sodium and bromide of potassium are constantly prescribed in the treatment of epilepsy, hysteria, and sleeplessness. The monobromide of camphor is equally useful, and is well spoken of by competent observers.

Hydrochlorate of Apomorphine has been made official, and will probably take high rank as an emetic, especially in cases in which an immediate action is imperative, as, for example, in opium-poisoning. It is best given hypodermically, the tabloids being well adapted for the purpose, as solutions soon spoil by keeping.

Pyridine, one of the constituents of tobacco-smoke, is recommended by Professor Germain Sée, of Paris, in the treatment of asthma. It is a colourless fluid, having a peculiar characteristic odour, and, when inhaled, is said to cut short dyspnoic attacks with remarkable promptness and certainty.

Dr. Dujardin-Beaumez has published a painstaking lecture on *Antithermic Medication*, in which he gives the results of a large practical experience, extending over many years. He points out that resorcin possesses such powerful toxic properties, and is such an irritating medicament, that it is unsuitable for internal administration—a conclusion amply confirmed by investigators in this country. Kairin he thinks dangerous, because it produces its antithermic effects by destroying the hemoglobin and profoundly altering the constitution of the blood—conditions to be especially avoided in infectious febrile diseases. Antipyrin is toxic in action, but less so than resorcin, and it has little effect on the blood or circulation. It is undoubtedly a valuable remedy, and is now largely employed both here and on the Continent.

The *turpentine group* has been investigated by competent observers, and there seems good reason to suppose that, in pure terebene—which must not be confounded with the patent medicine sold under that name—we have a specific for chronic bronchitis and winter-cough. It is an antiseptic, and, being a palatable medicine, with an odour like that of fresh sawn pine-wood, is likely to become a favourite with patients. Some difficulty has been experienced in obtaining it, but we are informed that there is now an ample supply. Terpene-hydrate has also received some attention, but the rules for its administration have not yet been formulated.

Dr. Lander Brunton's Lettsomian Lectures, taken in conjunction with the publications of Sir William Roberts, of Manchester, have given an impulse to the study of the various digestive ferments, to which it would be difficult to attach too much importance.

Jequirit, concerning which much was written last year, seems not to have maintained its position; but there has been a revival of the interest taken in euonymin, and other hepatic stimulants. Iodoform is now so firmly established that nothing is likely to shake its hold on the profession. Modifications in its mode of manufacture have recently been introduced, which have resulted in the production of much finer specimens, admirably adapted for local application. Eucalyptol and eucalyptine—made from eucalyptus globules—are undoubtedly of much value, and a thorough investigation of their properties is a desideratum. The time is probably not far distant

when State aid will be invoked for work of this description; meanwhile, we must hope for the best, trusting that the race of scientific observers will not become extinct in this country.

MEDICINE.

Evolution in Medicine.—The steady progress which medicine has made from year to year for the last half-century has transformed the physician's art, and contributed largely to diminish the weight of human misery and disease; of this we are not unfrequently reminded by veteran physicians who can look back for this period, and to whom the subject, as published addresses and orations show, has an irresistible attraction. To trace the upward course from year to year, to lay a finger upon this fact or that, and say here is something known now but not known a year ago, is less convincing; for the science and art of medicine does not advance by leaps and bounds, but by a slow process of accretion strictly analogous to organic growth. The tendency of medicine in this generation is primarily towards analysis; the analytical method has been applied to every department, and a minute accuracy and precision of observation has been cultivated.

Neuro-pathology.—In no department has the analytical method been carried to greater perfection than in that of neuro-pathology. Yet it is in this that the greatest advance towards a synthesis has been made. Dr. Hughlings Jackson has done a service to medicine larger, it may be suspected, than can be perceived at the present moment, by calling in the evolutionary theory to afford at least a working hypothesis for the understanding of the nature of the nervous system, and the process of nervous disease. His suggestive views on this head have formed the subject of many profound essays published during the last decade; they have again been put forward in the Bowman Lecture which was recently published in these columns, together with editorial comments which may have served to make its aim clearer to those unaccustomed to the technical terms which Dr. Hughlings Jackson has introduced, or adopted from the writings of Mr. Herbert Spencer. Apart from this, however, we have to signalise chiefly a continuation of minute investigations already in progress. The investigations of MM. Charcot and Féré with regard to the nature of hysteria, hystero-epilepsy, and allied states, have continued to attract much attention, especially in Paris. The address given by Dr. Gowers, and the clinical work of Erb and Westphal, of M. Charcot's pupils, and of Dr. Angel Money, have contributed to a clearer comprehension of the diagnostic importance of the so-called "deep reflexes;" further research having shown that the nature of the phenomena had been mistaken by those who first studied the subject.

It is only within recent times that we have begun to appreciate the importance of pathological changes occurring in peripheral nerves. MM. Déjérine and Leloir, and MM. Pitres and Vaillard, have been the chief workers in this field; and the last two observers have recently published some observations which appear to throw light on that rare and most curious disease, symmetrical gangrene, sometimes called Raynaud's disease, after the earliest writer who drew special attention to it. They have found that the nerves supplying the part are in a condition of advanced degeneration. The absence of disease of the organs of circulation, and of obstruction of the vessels, in these cases has been noted as a most remarkable phenomenon; and a hypothesis, attributing the gangrene to vaso-motor disturbance, has been put forward. The demonstration of the existence of degenerative changes in the nerves of the part, appears to afford ground for a more satisfactory conjecture. It seems probable that the nervous degeneration brought about such a change in the nutritive balance of the part as favours, if it do not determine, the gangrene. Examination of other cases of gangrene due to embolism or thrombosis did not reveal degeneration, and it is therefore safe to assume that the degeneration is not produced by the gangrene.

Increased attention has been called to the occurrence, in children, of paralysis with wasting, resembling ordinary infantile paralysis, but due to cerebral lesion. It is attributed by Strümpel to an acute poliomyelitis of the motor area of the cortex; but the distribution is described as always hemiplegic, both arm and leg on one side, and sometimes the face, being involved. The hemiplegia is noticed after an acute febrile illness. Recovery, which is always imperfect, takes place in the leg before the arm; the growth of the limbs is checked, but there is no true atrophy of the muscles as in acute poliomyelitis, and the muscles are tense with exaggerated myotatic irritability. A similar or identical condition is said to be rarely produced by thrombosis or embolism, and by congenital syphilis. Further, Gaudard states that it not unfrequently follows pneumonia and acute zymotic diseases.

The intimate dependence of mental states on general somatic conditions has been well illustrated by a short research carried out by

Dr. Rutherford Macphail, at Garland's Asylum, Carlisle. It is not surprising to be told that an improvement in the mental condition was produced, or at least attended, by an improvement in the general health, evidenced by an increase in weight and in the richness of the blood; but, as affording a scientific basis for treatment, the facts are interesting and instructive. Dr. Macphail estimated the number of blood-corpuscles and the percentage of hæmoglobin. He found that anæmia was often intimately associated with mental disease. In dementia, and in general paralysis, there was distinct anæmia; in epilepsy it was slight; but in periods of excitement, as in the active stage of general paralysis, it became greater. Improvement in the blood and gain in weight were found to go *pari passu* with mental amelioration. Bromide of potassium did not increase the anæmia; iron diminished the anæmia; it acted better when combined with quinine, and best when strychnine also was added.

Bright's Disease.—Professor Rossbach has made the observation that nitro-glycerine increases the bulk of urine excreted in granular contracted kidney, with a pulse of high tension and uræmic symptoms: as nitro-glycerine diminishes vascular tension, the observation tends to show that the cardiac hypertrophy of chronic Bright's disease is not purely compensatory. On the other hand, Dr. Goodhart, in his Bradshaw lecture, afforded evidence that the hypertrophy must be regarded, in large part at least, as compensatory; he was able to show, from an examination of the records of necropsies made at Guy's Hospital, that hypertrophy occurs with considerable frequency in chronic parenchymatous nephritis, the group of cases commonly called "large white kidney," though including some in which contraction occurs. Hypertrophy of the left ventricle of the heart was noted in 56 per cent. of these cases, and in 66 per cent. of the cases of granular contracted kidney. Dr. G. Baumgarten also has pointed out that, even in acute nephritis, some cardiac dilatation and hypertrophy occurs. The cardiac hypertrophy in granular contracted kidney is a progressive change; and this character must apparently be due to some persistent condition of the systemic circulation, such as that described by Sir William Gull and Dr. Sutton, or by Dr. Johnson. The occasional occurrence of albumen, in quantity sufficient to be recognised by ordinary tests, in healthy persons, has of late years attracted a good deal of attention. Senator, who, from his prolonged study of the subject, speaks with great authority, has made an important contribution (*Berl. Klin. Woch.*) during the past year. He emphatically confirms the statement that albumen can pass through animal membranes, and appears to hold that it invariably escapes from the glomeruli in health, but in such minute quantities as to escape recognition. Alterations in the composition of the albumen of the blood may lead to the excretion of an increased quantity of albumen in the urine; so may disturbances of the renal circulation leading to high pressure and scanty excretion of urine; in this way the albuminuria of fever may be accounted for. Structural alterations in the kidneys may lead to albuminuria in two ways; by increasing the ease with which albumen can pass through the membranes, or by increasing the extent of membrane through which it can pass, as may be brought about by denudation; the denuded epithelial cells themselves add to the bulk of albumen in the urine. Senator has observed that in nearly all cases of albuminuria, both serum-albumen and globulin, which occur together in the blood, are present; that, when serum-albumen is injected into the blood, albumen alone appears in the urine; when globulin is injected into the blood, globulin alone appears in the urine. These observations, taken together with the increased importance which must now be attributed to scarlatinal nephritis as an element in the production of chronic kidney-disease, tend to show that more and more importance must, in the future, be assigned to the condition of the blood as a determining cause of albuminuria.

Dietetics.—It is not rash to conjecture that facts of considerable practical significance may before long come out of researches of the kind above indicated. That particular articles of food, or certain beverages in common use, may have an influence on the production of chronic disease of the kidney, has long been suspected; but want of knowledge as to the exact nature of the products of digestion under ordinary circumstances of diet and digestion has prevented more than empirical attempts to deal with the subject. The great value which would now attach to a more precise study of dietetics as a science has been perceived by many acute observers, and one of the most interesting developments of recent times has been the increased attention given to systematic experimental study of the process of digestion of ordinary diets in ordinary life. Leube, Buchner, Riegel, Schelhaus, Fraser, and others, have published researches bearing on this subject; but the most philosophic and comprehensive essay on the subject has been furnished by Dr. William Roberts, of Manchester, who, both in his address in Therapeutics at the meeting of the British Medical Associa-

tion at Cardiff, and in a small volume of lectures separately published, has not only given the result of a series of laboratory experiments, but has insisted on the general principles which ought to govern the arguments deduced from them. He has found that most of the beverages in common use, sherry, port, hock, claret, tea, and coffee, all retard the digestion of food in the stomach. Buchner's results, obtained by removing the contents of the stomach six hours after a full meal, confirm Dr. Roberts's results, but serve, also, to show that the retardation is much less marked in the stomach than in a laboratory; doubtless for the reason that, in the stomach, all soluble bodies are rapidly absorbed. Sherry, which has a very marked power of retarding peptic digestion conducted in a test-tube, may have, and probably has, a different effect in the stomach when taken in small quantity. In all probability, it will stimulate the stomach to increased activity and increased secretion of gastric juice; the increased movement and secretion would tend towards more rapid digestion, while the direct retardation produced by the sherry would not have much appreciable effect on the rapidity of digestion, owing to its quick absorption. With sherry in larger quantity than one or two glasses, and with hock, claret, and beer as usually used, however, there must be, as, indeed, Buchner's experiments show, some delay. Dr. Roberts argues that, since the practice of using beverages which retard digestion is universal amongst civilised races, the retardation must serve some useful purpose; and he points out that longer delay of food in the stomach may be of advantage in permitting more complete exhaustion of the nutritive qualities of the food, and by rendering the supply of material to the blood from the stomach more regular and prolonged. Dr. Lauder Brunton's most admirable Lettsomian Lectures on disorders of digestion have also served to direct general attention to cognate subjects.

Zymotic Diseases.—The presence of cholera in the Latin countries has afforded fresh opportunities for a study of its nature and treatment, and Dr. Ferran's supposed discovery of a method of vaccination for a time attracted more attention than it deserved. The greatest interest has centred on the researches made as to the nature of the micro-organisms present in the disease, a subject already discussed. Dr. Farrell Easman has contributed an interesting account of the "Blackwater Fever" of the west coast of Africa, a disease heretofore very imperfectly studied, and generally classed as one of the so-called bilious fevers.

Epidemics of jaundice have from time to time been described by German writers, but the total number recorded is small. Lüdemann has added an interesting but inexplicable example. Within a period of seven months, 200 cases of jaundice occurred among the men employed in an iron-factory and ship-building yard at Bremen. The sanitary arrangements in the works appeared to be excellent, and the epidemic attacked all ages and all grades. The earliest symptoms were those of gastric catarrh, generally accompanied by constipation; after an interval of about a week, jaundice, accompanied by violent diarrhoea, set in. The feces were clay-coloured for a few days; the urine contained bile-pigments; the liver was not enlarged, and there was no fever. The only suggestion that could be made as to the cause of the epidemic was that the workmen had been recently vaccinated. Of 1,339 workmen vaccinated at the works with human lymph preserved with glycerine, 191 had jaundice; of 87 workmen revaccinated, but not at the works, and of 500 workmen taken on after the period when the vaccinations were made, and therefore not revaccinated, none became jaundiced. No death occurred, though in other epidemics a few patients have died with acute yellow atrophy.

Diseases of Respiratory Organs.—Sir Andrew Clark, in his Lumleian Lectures, has again brought prominently forward the part occasionally played by dry pleurisy in the production of phthisical pulmonalis. The point of chief pathological interest is the fact that, in these cases, the phthisis is not tubercular; consequently, the prognosis is entirely different, and, *ceteris paribus*, very much better. The importance of making a correct diagnosis is self-evident, since the prognosis, which is widely different, depends upon it. The characteristic points of non-tubercular phthisis secondary to dry pleurisy are that it is unilateral, progresses slowly, without regular fever or emaciation, and occurs commonly in persons who have no hereditary taint; the sputa contain no tubercle-bacilli. Sir Andrew Clark's views have not obtained universal acceptance, because the fact that tubercular phthisis with secondary chronic pleurisy may become quiescent cannot be doubted, and because the question whether patients who suffer from phthisis secondary to dry pleurisy are liable to tubercular infection, has not been answered. The general experience is, we believe, that such cases are extremely rare; and this fact alone may serve to account for the difference of opinion with regard to the class of cases which Sir Andrew Clark has made the subject of a most admirable and instructive clinical study. Meanwhile, the conviction cannot be

avoided that the phenomena observed in these cases, as well as in bronchiectasis, when fully investigated, only tend more and more to confirm the view that ordinary phthisis is an infective process; that is to say, a tubercular process dependent for its extension in the individual upon an infective material. For the majority of pathologists, especially in Germany, this infective material is the bacillus tuberculosis; though the infective nature of tuberculosis may be admitted by those who, like Laënnec, Buhl, and Villemin, do not entertain the bacillary view. In this connection it may not be out of place to mention that Dr. John, of Dresden, has described a case which appears to show that tuberculosis may be contracted *in utero*. The observation was made on a calf, the cow having been killed at the eighth month of gestation on account of advanced pulmonary tuberculosis. The liver in the calf was studded with miliary tubercles, while the lungs were but slightly affected. It seemed probable that the specific poison had traversed the placenta, probably through the agency of leucocytes, and had then been arrested in the portal capillaries; the presence of bacilli in the giant-cells was demonstrated. Whether bovine tuberculosis is the same disease as human tuberculosis may be doubted; and Dr. Klein, in the reports of the medical officer to the Local Government Board, has given expression to the doubt. The suggestion may be hazarded whether future investigation may not show that human tuberculosis, which, with a fundamental unity in its phenomena, yet presents many diversities in their order and development, be in reality a congeries of nearly allied but distinct diseases; such a hypothesis seems, indeed, to be probable on *a priori* grounds.

A discussion which took place at the German Medical Congress served to bring into comparison the various theories as to the etiology, nature, and treatment of true asthma, the so-called bronchial asthma. The two most important physical conditions in an attack of asthma are, on the one hand, the acute emphysema and low level of the diaphragm probably due to contracture, and, on the other hand, the sibilant rhonchi. It appears necessary to assume, therefore, that there are a simultaneous spasm of the diaphragm, and hyperæmia of the bronchial mucous membrane. When the peripheral end of the vagus is stimulated, the bronchioles contract; and it is said that when its central end is stimulated, spasm of the diaphragm is produced. In all probability, true asthma is produced in all, or at least in the vast majority of cases, by reflex irritation; and cases were mentioned which seemed to show that the starting point of the irritation might be a diseased condition of the nasal mucous membrane, treatment directed to relieve this condition having been attended by cessation of the asthma. In other cases, and these probably the majority, the starting point of the irritation is probably the bronchial mucous membrane itself; the prognosis in the latter case is unfavourable, because the chronic inflammation of the minute bronchi which is present is not readily amenable to treatment.

The use of compressed air in chronic pulmonary disease has been admirably discussed by Dr. Theodore Williams, whose lectures cannot fail to attract a larger share of attention to this neglected method of treating certain diseases, especially pulmonary emphysema, bronchitis, and asthma.

Malignant Endocarditis.—The Gulstonian lectures delivered at the Royal College of Physicians by Dr. William Osler were unusually important and interesting; they dealt with a somewhat novel subject in a manner which was at once thorough and original. They were the more valuable, because the fact that the subject is one of practical significance, and not merely a pathological curiosity, is only just beginning to be recognised. Malignant endocarditis (better known by the less correct term "ulcerative endocarditis"), according to Dr. Osler, is not a single form of disease, not a pathological entity, but a special manifestation in many affections. The term, in fact, appears to be interchangeable with infective endocarditis; its products are infective within the organism, and Dr. Osler shows reason for supposing that, when associated with certain diseases, at least, it is essentially a mycotic process. The micro-organism may vary, but the clinical results, broadly looked at, are the same. Such a conception of a disease presenting marked clinical features is almost a novelty in pathology, and, a few years ago, it would have been scouted as absurd. Malignant endocarditis may be grafted on to rheumatism, diphtheria, dysentery, typhoid or scarlet fever, variola, ague, pneumonia, or pyæmia; while antecedent chronic endocarditis seems to be the remote cause in a large proportion of cases. The disease occurred in relation with pneumonia in no fewer than half the number of cases collected by Dr. Osler. This most important observation is rounded off by the statement that endocarditis occurred in 15 per cent. of over a hundred cases observed by him at Montreal.

Dochmiosis.—Professor Leichtenstern, of Cologne has recently

given one of the best descriptions of the symptoms produced by the *anchylostoma duodenale*, and has applied the term *dochnmiosis*, derived from the alternative name of the parasite (*dochnmios duodenale*) to the condition. The earliest symptoms are abdominal oppression and diarrhoea. Extreme anæmia is eventually produced, unless the parasites are expelled; the anæmia is in direct proportion to the number of worms; the female worms are three times as numerous and considerably larger than the male, and abstract blood from the intestinal mucous membrane, by means of a suckorial mouth and a circle of teeth. One patient may harbour over 600 worms, and the quantities of ova passed with the feces in such cases is prodigious; Leichtenstern estimates that as many as two millions may be contained in one stool. The extreme anæmia which is in time produced is, therefore, not surprising. Large doses of male fern kill the parasites, which, if not thus removed, appear to live in the intestine for from two to five years.

Diseases of Stomach and Intestines.—The treatment of dilatation of the stomach by washing the organ out through a long œsophageal tube appears to be gaining ground; it is said to yield excellent results in the chronic gastritis of drunkards, as well as in pyloric constriction; where putrid materials are produced by the fermentation of the retained food, an antiseptic, such as boracic acid, or charcoal-powder, may be added to the fluid, which is injected by siphon action; where much irritability is present, chloroform-water, or, according to Dr. Dujardin-Beaumetz, carbon-disulphide-water, may be used. After washing out and before withdrawing the tube, a small quantity of easily digestible food, such as meat-powder, may be given. This method has also been recommended in intestinal obstruction, on the ground that it relieves vomiting and allays intestinal spasm, and that, by emptying the stomach, allows more room for the movement of the bowels, and, perhaps, by removing a source of reflex irritation in the stomach, favours the resumption of natural peristalsis. It has also been urged that, as the pylorus is generally incompetent, some of the contents of the intestines may be removed in this way; and it must be confessed that clinical facts appear to make the method at least worthy of trial, since fecal vomiting may occur in complete obstruction; by washing out the stomach, and possibly by that means unloading the small bowel, it may fulfil an indication given by Nature. Dr. Bristowe, by a paper in this JOURNAL, has called attention to one of the consequences of neglected constipation. He points out that prolonged impaction of feces may cause dilatation of the colon, owing to accumulation of feces, and ulceration of the mucous membrane. Drastic purgatives in such cases are useless, or worse than useless, because the colon, in spite of the hypertrophy which it undergoes, is unable to contract upon the great mass of feces with sufficient force to overcome the resistance at the point of impaction. It is necessary, therefore, to resort to mechanical means for removing the obstructing mass.

SURGERY.

A REVIEW of the work done by surgeons at home and abroad during the year shows much activity directed to subjects of practical import, and especially to the extension of the domain of operative treatment. Much of the progress that has been made may be summed up as the successful application of Listerism to a bold and radical treatment of visceral lesions, and to perfecting and extending, as far as possible by the aid of the antiseptic method, such modes of surgical procedure as we owe in great part to the teaching and practice of Spencer Wells, Marion Sims, and the late Simon of Heidelberg.

In dealing, in the first place, with contributions on general subjects relating to surgery, we have to refer briefly to the valuable Brown Lectures of Mr. Victor Horsley, especially those on traumatic fever and on the operative treatment of goitre, and the relation of the thyroid gland to the pathology of myxœdema and cretinism, and to the lectures delivered by Mr. Treves at the Royal College of Surgeons, on the anatomy of the intestinal canal and peritoneum in man, both of which courses of lectures were reported, early in the year, in the BRITISH MEDICAL JOURNAL. Among the few contributions of importance on surgical pathology may be mentioned a series of papers read at Berlin, in April, by Volkmann, on the surgical aspects of tuberculosis, and a lecture (Volkmann's *Sammlung*) by Schuchardt, of Halle, on the origin of cancer in chronic irritation and inflammation of cutaneous and mucous surfaces.

Prophylaxis of Hydrophobia.—Much interest has recently been excited by the reported discovery by Pasteur of a prophylaxis against hydrophobia, which has been applied successfully to animals, and, it is thought, will very probably act with equal success in man. This prophylactic method consists in the primary inoculation of the spinal cord of a healthy rabbit with a small portion of the cord of a rabid dog, and in successive like inoculations in a series of from seven to

twenty rabbits. The true value of this method has yet to be learnt from more detailed and scientific statements; and the possibility of affording such protection to man can, of course, be decided only by prolonged and extensive observations.

Removal of Cerebral Tumour.—On May 16th, an elaborate report was made to the Royal Medical and Chirurgical Society on Dr. Hughes Bennett's case of cerebral tumour, in which Mr. Godlee, at the end of November, 1884, had trephined, and removed the growth after incision of the brain. The fatal result, which occurred after an interval of four weeks, seems to have been due to local septic influences; and certainly, after the operation, the general health of the patient improved, and all the painful and distressing nervous symptoms at once disappeared. In the course of the discussion on this paper, Dr. Macewen directed attention to some of his own cases, in which severe and extensive intracranial lesions had been accurately diagnosed, and treated by operation with complete success. Notwithstanding Dr. Macewen's good results, however, and the encouraging features in the case recorded by Dr. Bennett and Mr. Godlee, no further experience has yet been gained in this branch of surgery, a fact very probably due to diagnostic difficulties, and the dread of hemorrhage during the operation, and of a subsequent cerebral protrusion.

Paracentesis of Pericardium.—Among the few contributions of interest that have been made during the year to the surgery of the chest, are to be included some records of paracentesis of the pericardium. Dr. Ekaterina Mikhailova, a Russian lady, has reported a case of purulent pericarditis, of traumatic origin, which was treated by tapping of the pericardium, and injection into its cavity of a solution of boracic acid. The patient, though much relieved for a time, died eighteen hours after the operation. In a case of purulent pericarditis reported by Gussenbauer, the operative treatment, though more heroic, was attended with better success, as the patient, a girl, aged 13, recovered after excision of a portion of rib, free incision of the pericardium, and stitching of the cut edges of this membrane to the external wound. Dr. T. G. Stewart, of Edinburgh, has also reported a case of pericardial tapping, in which he removed two ounces of fluid, with immediate relief and ultimate recovery of the patient.

Treatment of Hæmoptysis and Induction of Pneumothorax.—In the spring, Dr. Cayley brought under the notice of the profession an interesting case of profuse hæmoptysis in which pneumothorax was induced on the left side, with the expectation that the great diminution of the circulation through the collapsed lung, together with the pressure exercised by the air, would arrest the bleeding. Whether such treatment is likely to be beneficial, remains to be determined. The result of Dr. Cayley's case was not very satisfactory, as the patient, who was suffering from acute miliary tuberculosis, died on the fifth day after the operation.

Laparotomy in Abdominal Aneurysm.—A very remarkable case, in which laparotomy was performed in the surgical treatment of abdominal aneurysm, has been reported by Professor Loreta, of Bologna. The large pulsating tumour, which was situated in the epigastrium and left hypochondrium, having been fully exposed and punctured by a fine trocar, two yards of silvered copper wire were passed into the cavity, and the puncture, together with the surrounding tissues, very lightly cauterised with pure carbolic acid. On the twenty-first day, the *bruit* had entirely disappeared; and in a month from the operation, the tumour seemed quite consolidated, and had diminished to a quarter of its former size. The patient was discharged as cured on the seventieth day, but died rather suddenly, from rupture of the aorta, ninety-two days after the operation. Mr. Lunn and Dr. Benham have recorded a case of aneurysm of the abdominal aorta cured by distal compression, but which terminated fatally through subsequent gangrene of the jejunum; and Mr. Morris a case of abdominal aneurysm which caused gangrene of the right lower extremity, partly by embolism, and partly by pressure on the inferior vena cava (*Medico-Chirurgical Transactions*). Mr. Barwell has given the results of a sixth case under his care, of double simultaneous distal ligature for innominate aneurysm, followed at first by much improvement, afterwards by relapse, and ultimately, six weeks after the operation, by disappearance of the aneurysmal tumour. Two successful cases of consecutive double ligature for innominate aneurysm have been recorded by the Hon. J. G. Beaney, of Victoria.

Antiseptics in Abdominal Surgery.—In no other department of practical surgery have the results of the revolution effected by the antiseptic method been more decidedly and beneficially manifested, than in that dealing with the operative treatment of injuries and diseases of the abdominal cavity and its viscera. The clinical records of the year teem with cases of laparotomy performed for the removal of new growths and wounded organs; and instances have been reported in which the surgeon did not hesitate to open the abdomen

simply for exploration, or, as in a case recently under the care of Mr. Fenwick, of the London Hospital, as a means of facilitating reduction in ordinary herniotomy. One of the most important contributions on this subject of abdominal surgery is that of Mr. Treves to the Royal Medical and Chirurgical Society, in which he, supported by the record of a successful case, advocated abdominal section with irrigation of the peritoneal cavity and subsequent drainage, in the treatment of acute peritonitis depending upon sudden perforation by ulcer, or by gunshot or other wound, or due to the bursting of an abscess within the abdomen. On the same evening, an instance was reported by Mr. Howard Marsh of successful abdominal section for circumscribed, but still very extensive peritonitis, supposed to have been set up by the escape of pus from an abscess formed in the mesentery round old suppurated glands. A very remarkable addition to the series of successful cases is that brought under the notice of the New York Surgical Society by Dr. D. T. Bull. In this, a case of gunshot-wound of the abdomen, seven perforations of the intestine were exposed on abdominal section, and closed by suture, and the bullet, which had partly penetrated the intestinal tract, was removed from under the peritoneal coat of the sigmoid flexure. The patient—a male, aged 22—was quite well three weeks after the operation. Dr. Hamilton, of Washington, also has recorded this year a case of pistol-shot wound of the abdomen, treated successfully by abdominal section and by suture of perforated intestine. These cases are of special interest, as the treatment successfully applied in them to such deadly lesions was evidently suggested by conclusions derived from experimental research. The results reported last year of a series of experiments made on dogs by Dr. Parkes, of Chicago, as is well known, indicated strongly the advisability, in cases of gunshot-wound, of resorting to abdominal section as a measure of both diagnosis and treatment. Even in cases of perforative peritonitis, with abundant outpouring of faecal fluid into the serous cavity, abdominal section with enterotomy may, as has been lately shown by Oberst, of Halle, be applied with prospect of success.

Gastrostomy.—Notwithstanding the fact that the immediate dangers of gastrostomy have of late been very much reduced, many surgeons are evidently beginning to doubt whether this operation can ever be considered justifiable in cases of cancer of the œsophagus. In the *Revue de Chirurgie*, M. Lagrange argues against the operation in such cases, and says that it is not needed in early stages of the disease, and is useless when the cancer has advanced so far as to cause complete obstruction, for then the patient, under any circumstances, must soon die. At a recent meeting of the Clinical Society, similar objections were made to gastrostomy in late stages of cancer of the œsophagus, and much favour was shown by some speakers to the use, in the earlier stages, of funnel-shaped œsophageal tubes passed into the stomach. At the same meeting, two cases were reported—one by Mr. Golding-Bird, the other by Mr. Pearce Gould—in which the jejunum had been opened, and a fistula established for the purpose of feeding the subjects of advanced cancerous stenosis of the pylorus. Although the results in these two cases were not successful, there can be no doubt that jejunostomy, as it has been called, deserves further trial as a palliative measure, being less difficult than opening the duodenum, and not so dangerous as Wölfler's operation of gastro-enterostomy. Resection of the pylorus for cancerous disease has not gained any favour in this country. It is still occasionally performed by some German surgeons, and is advocated by Gussenbauer, who has recently reported a case in which the patient was living and in good health three years after the operation. Attention has again been directed by Lauenstein, of Hamburg, to the risk in this operation of subsequent gangrene of the transverse colon, as a consequence of dissection and removal of considerable portions of the meso-colon that have become adherent to the malignant growth. Another danger to which Gussenbauer refers is the great difficulty in preventing, in the course of the operation, the passage of the contents of the stomach into the peritoneal cavity.

Treatment of Stenosis of the Orifices of the Stomach.—In the *BRITISH MEDICAL JOURNAL* of February 21st, Mr. T. Holmes brought under the notice of the profession in this country two very interesting pamphlets by Professor Loretta, on the treatment of non-malignant stenoses of the pylorus and œsophagus by dilatation, after abdominal section and incision of the anterior wall of the stomach. The first pamphlet is on digital dilatation of the pylorus as a substitute for resection, and the second on instrumental dilatation of the œsophagus as a substitute for gastrostomy. Such treatment is, of course, proposed only for simple or fibrous stricture, and, in the case of the œsophagus, for cicatricial contraction after injury. Professor Loretta, who reports four cases—two of pyloric and two of œsophageal obstruction—in which this treatment was successfully employed, has found

that many cases diagnosed as cancer of the stomach have proved, on *post mortem* examination, to be merely instances of a slow inflammatory process in the pylorus, causing sclerosis and stricture.

Surgery of the Intestines.—The following may be mentioned as some of the remaining more important contributions on intestinal surgery that have been made during the year by English surgeons: a paper on the Treatment of Intussusception, read before the Medical Society of London, by Mr. Treves; a clinical lecture on Five Cases of Laparotomy for Intestinal Obstruction, by Mr. Greig Smith, of Bristol (*BRITISH MEDICAL JOURNAL*, June 13th); a case of Excision of Cæcum for Epithelioma, by Mr. W. Whitehead, of Manchester, also reported in the *JOURNAL*; and a case, read at a meeting of the Clinical Society, by Mr. Charters Symonds, in which, at the suggestion of the late Dr. Mahomed, a Calculus was successfully removed from the Vermiform Appendix for the relief of Recurrent Typhlitis.

Cysts of the Pancreas.—In a valuable paper on the Surgical Treatment of the Pancreas (*American Journal of the Medical Sciences*), Dr. Senn, of Milwaukee, states that such growths are best dealt with by the formation of a pancreatic fistula, under proper antiseptic precautions. Extirpation of the growth, as has been practised by Bozeman, is objected to on account of the deep position of the pancreas, and the shortness or absence of the pedicle.

Cholecystotomy.—On this subject, a contribution was made early in the year by Witzel, who laid down at full length the indications and contraindications for the operation, and advocated its performance in cases of fluid distension, especially empyema, of the gall-bladder. Turner, a Russian surgeon, has reported a case of successful removal of a large number of small biliary calculi. On the other hand, the operation has been opposed by M. Bœckel, of Strassbourg, who holds that it is suitable only in cases in which there are biliary fistule; and also by M. Thiriar, of Brussels, who is disposed to regard with more favour Langenbuch's operation of cholecystectomy.

Surgery of the Kidney.—Although during the year nephrectomy has been frequently performed with varying success, very little information has yet been gained to assist the surgeon in establishing clear indications for this operation. One of the most important of recent contributions on this subject has been made by Dr. Gross, of Philadelphia, who, by a careful analysis of all recorded cases, has endeavoured to make out the cases in which the operation should be performed, those in which it would be better to postpone it for a time, and those in which it is contraindicated. The lumbar incision, which has been strongly advocated in this country by Mr. Morris, is decidedly in favour with most surgeons, and Dr. Gross holds that it is much safer than the abdominal operation. M. Péan, of Paris, has removed with success by the latter method a large cancerous kidney weighing twelve pounds, and has reported that the patient was quite well fourteen months after the operation. During the year, three successful cases of nephro-lithotomy were reported to the Clinical Society by Mr. Morris, Mr. Symonds, and Dr. Dickinson and Mr. Rouse.

Tumours of the Bladder.—At the annual meeting of the Association, a discussion of some interest on the diagnosis and treatment of tumours of the bladder was opened by Mr. Reginald Harrison. In operations for the removal of such growths, as in nephrectomy, there is much discussion as to the place of incision. Mr. Harrison thinks that the perineal method, advocated and first proposed by Sir Henry Thompson, is to be preferred, on several grounds, to the suprapubic operation, to which favour has been shown by some French surgeons. In the course of this discussion, some remarks were made by Dr. A. W. Stein, of New York, giving a record of his own experience of the pathology and treatment of vesical tumours, and also the results of a study of 57 recorded cases of operations on 56 males, and 47 on 46 females. Dr. Stein had already declared himself in favour of the high operation (*New York Medical Record*). External perineal urethrotomy he regards as an useful step for the purposes of exploration and diagnosis, but holds that, in the removal of a tumour, suprapubic cystotomy should be performed. In the former method, the surgeon, it is argued, has to work in the dark. Moreover, sessile growths in the bladder cannot be well manipulated through a perineal opening, and, in fat subjects with deep perineum, and in the subjects of prostatic disease, the perineal operation is likely to be attended with great difficulty. On the other hand, the claims of the latter method have been advocated by Mr. William Anderson in a report (*Clinical Society's Transactions*) of a case of papilloma of the bladder successfully removed by operation. In another case of papilloma of the bladder treated in St. Thomas's Hospital, Mr. Bernard Pitts removed the growth effectually by the use of the *caraseur*.

Suprapubic Cystotomy.—The claims of suprapubic cystotomy as the preferable operation for the removal either of vesical tumours or very large calculi, are the results of improved methods of procedure based

on the experiments of Braune and Garson, and quite recently of Fehleisen of Berlin. This last named author found, on examination of frozen bodies, that whilst fluid distension of the bladder alone has very little influence on the prevesical fold of peritoneum, and whilst with considerable distension of the rectum, the bladder containing but a small quantity of fluid, the fold is raised to a point about one inch and a half above the upper margin of the symphysis pubis, when both bladder and rectum are fully distended, the prevesical fold is raised above three inches and a half above the symphysis. Fehleisen agrees with Petersen that, in the suprapubic operation, it is necessary to distend both bladder and rectum, but holds that it is necessary to inject much more fluid into the latter cavity. After the rectum has been distended by about 450 cubic centimetres of water, an injection of about 200 cubic centimetres into the bladder will suffice to raise the prevesical fold about one inch and a half above the top of the symphysis. The bladder is thus not only raised, but is also elongated in a vertical direction, rendered more accessible, and placed in the most favourable condition for direct surgical examination of its interior.

Rupture of the Bladder.—M. Pousson has recently endeavoured, in the *Revue de Chirurgie*, to account for accidental rupture of the bladder during preliminary injection. This calamity has, without doubt, not unfrequently occurred of late, even at the hands of very skilful and experienced surgeons, and in Pousson's paper four recent cases are reported in which the hypertrophied and irritable bladder was ruptured during the injection of fluid as a preliminary to suprapubic cystotomy. It is held by Pousson that the bladder, having undergone a morbid change by which the resistance of its walls is increased, may rupture through its own contraction, and, therefore, that the accident in question may be attributed to vigorous and irregular spasmodic contraction of the intrinsic muscles, excited by the contact of fluid injected, it may be in small quantities, into the vesical cavity.

Treatment of Tuberculous Joint-Disease.—Valuable papers on the treatment of tuberculous joint-disease have, in the course of the year, been published by Ollier and Volkmann. The French surgeon, whilst allowing that resection and amputation are indicated in certain cases, advocates, in most cases of articular tuberculosis in children and young adults, simple removal and destruction of the tuberculous products, without sacrificing the healthy osseous and ligamentous structures immediately surrounding them. Volkmann's contribution contains a full description of what is called arthrectomy, which is stated to be especially applicable to cases of advanced gelatiniform degeneration, and consists in the free exposure of the interior of the joint, and careful abscission of the whole of the diseased structures, the epiphyses usually being left intact. After such treatment, when successful, the length and shape of the limb are maintained, and no arrest occurs in the growth of the long bones.

Cucaine.—The value of cucaine as a local anæsthetic in general surgery has recently been proved by Landerer, of Leipzig, who prefers this agent injected subcutaneously to anæsthetic ether, and has thus used it with success in extracting needles and excising small tumours. Otis reports well of the use of cucaine in urethral surgery, and others have applied it satisfactorily in cases of avulsion of the toe-nail, fistula in ano, and removal of epithelioma of the lip.

PATHOLOGY.

THE year that is just over has not been marked by any special pathological novelties. Even the supply of new microbes seems to have fallen short.

Hydrophobia.—M. Pasteur's alleged discovery of the virus of hydrophobia in the spinal marrow of rabid dogs, and his pretensions to prevent hydrophobia by inoculating bitten persons with the dried spinal marrow of rabbits dead of rabies, constitute, undoubtedly, the sensational part of the year's pathology. Time will show how much or how little real utility exists in this extraordinary development of the so-called "Jennerian theory."

Cholera.—Ferran's cholera-inoculations have never impressed the scientific world with any belief of their trustworthiness. His methods have appeared too crude, and his data too impossible to verify, to bring the matter fairly within the range of scientific investigation. Moreover, we must remember that it has never been shown that one attack of cholera affords subsequent protection from the disease, so that the *a priori* arguments in favour of this procedure are wanting.

Mr. F. Fowke has pointed out the historically interesting fact that Drs. Brittan and Swayne described and figured the cholera-bacillus of Koch, in their paper on the Micro-organisms of Cholera, in 1849.

The report of the Cholera Commission has been published, but it is

practically that of Drs. Klein and Gibbes, and their results are already well known. Most English pathologists are of opinion that Koch's arguments and facts have not been finally disposed of by this report.

Diarrhœa.—The subject of infantile summer diarrhœa was discussed at the annual meeting of the Association; but, although one of the speakers was Dr. Ballard, who has been for some years engaged in a special inquiry for the Local Government Board into this disease, it cannot be said that the discussion elicited any additions to the facts previously known, or modified in any appreciable degree the views previously current.

Gastric Microbes.—Mr. G. C. Dickson has related a case of acute gastric disorder, characterised by the presence of peculiar bacilli in the vomit. No sarcinæ or torulæ were observed. A few doses of sulpho-carbolate of soda effected a cure.

Micro-Organisms, and their Place in Pathology.—Virchow, in an excellent address on the relationship of micro-organisms to the study of pathology, has pointed out that, while these interesting forms occupy a very large share of attention in the present day, they by no means fill the whole field of pathological inquiry; and that, when the various specific micro-organisms shall have been all identified, classified, and named, we shall still have to study the tissue-changes to which they give rise, and the special conditions under which their development becomes possible.

Ulcerative Endocarditis.—Dr. William Osler's Gulstonian Lectures on Malignant Endocarditis did not add much to our knowledge, but summarised in a very effective manner those data to which the author had been a chief contributor.

Myxœdema.—By no means the least interesting or important researches which have thrown light on pathology, have been those of Mr. V. Horsley on the structure and functions of the thyroid gland. He has shown that the structure of the gland suggests that the mucinoid contents of the spaces are secreted from the blood by the lining epithelium, and that reabsorption is effected by the lymphatics. Excision of the gland, moreover, is followed by increase of mucin in the tissues, increased activity of the mucous glands, impoverishment of the corpuscular elements of the blood, and nervous symptoms indicating changes throughout the brain. These results explain the hitherto obscure relationship between atrophy of the thyroid body and myxœdema, and confirm the remarkable and alarming statement of Kocker that thyroidectomy is, as a rule, followed by the development of myxœdema.

Chorea.—Dr. Wood, of Boston, U.S.A. (*Boston Medical and Surgical Journal*, May 28th, 1885) has attempted to review the pathology of chorea in children, in the light of researches on chorea in dogs. He found that section of the spinal cord of choreic dogs modified, but did not prevent, choreic movements; and he observed, in the cords of dogs killed at various states of the disease, degeneration of the motor cells. He believes that some functional alteration of the same cells is at the bottom of the disease in children, and that capillary emboli are not in any way the cause of the motor disturbances. Dr. Angel Money has succeeded in initiating chorea by producing capillary embolisms of the spinal cord, but he does not think these results upset the reasons given for locating the lesion in the human subject in the brain.

Tubercle.—Tcherning has reported an undoubted case of accidental inoculation of tubercle in the human subject; the sufferer being a strong healthy girl, who wounded her finger with a piece of broken china from the spit-cup of her phthisical master. The results of inoculation were studied anatomically in the finger, which had to be amputated five months later for severe tubercular disease spreading up the sheath of the tendon. M. Sittier has related five cases of local infection of the genito-urinary organs with tuberculosis. MM. Malassez and Vignal have described zoogloia-masses, which they regard as tubercular; and M. Nocard, of Alfort, has found these masses in the viscera of tubercular fowls. Mazzotti has described tubercular affections of the œsophagus in two forms; in one, pulmonary cavities or lymphatic glands open into the œsophagus; in the other, ulcers form primarily in the œsophagus. Simple tubercular ulcers give rise to no clinical symptoms whatever.

Lungs.—M. Thaon has described a form of infectious broncho-pneumonia, in which he found an organism identical with that discovered by Löffler in diphtheria. He believes there are three classes of broncho-pneumonia in children; 1, tuberculous; 2, diphtheritic; and 3, that due to measles and whooping-cough. He urges the importance of isolation in the case of children affected by any of these primary diseases. Dr. Saundby has related a case of chronic interstitial pneumonia, where the physical signs exactly resembled those of pleural effusion. The absence of breath-sounds was apparently due to the pressure of a small aneurysm on the bronchus. He attributes

the pneumonia to this cause, which eventually proved fatal by hæmorrhage.

Addison's Disease.—At the last meeting of the Pathological Society for the session of 1884-85, some valuable contributions were made to the pathology of Addison's disease. Dr. Hadden showed microscopic sections of the suprarenal capsules from a typical case, where the lesion consisted of atrophy of these organs following chronic inflammation. Dr. Saundby related a very remarkable case where the capsules were extensively atrophied without any evidence of inflammatory action, while the spleen was enormously enlarged. The result of the discussion was to indicate the probability that any destructive lesion of the capsules may give rise to Addison's disease.

Dr. Wickham Legg has described a case of Addison's disease where the right suprarenal capsule was represented by a shred of tissue, and the left was black, of natural outline, but completely wasted, and as thin as paper. Dr. McMunn has indicated the probability that the suprarenal capsules are the seats of the formation of a substance which he regards as an excretory product resulting from the downward metamorphosis of blood-pigment, a suggestion which throws light upon their relations to Addison's disease. Krukenberg, however, finds the pigment to be a pyrocatechin compound, one of the aromatic series, and has some support in the analogous fact that the urine in Addison's disease has often been found to contain large quantities of indican.

Diabetes.—Dr. Grunes has obtained positive results by the experimental introduction of acetone subcutaneously in rabbits and guinea-pigs, with symptoms said to resemble closely those of diabetic coma.

Le Nobel has discovered a new and trustworthy test for acetone in the urine, by the purple reaction given by nitro-prusside of sodium with strong solution of ammonia in the presence of this substance. (*Archiv für Exp. Path.*, Band xviii, Heft 2.)

Mincowski's researches have shown that oxybutyric is present in large quantities in the urine of diabetics, and Walter has obtained results resembling diabetic-coma by the experimental introduction of acids into the blood of herbivorous animals. It has, therefore, been suggested that the symptoms may be due to de-alcalisation of the blood and tissues. (*Archiv für Exp. Path.*, Band xviii, Heft 2.)

According to Janovsky, butyric acid and its salts, when injected into the veins, cause albuminuria and hæmoglobinuria, and, in large doses, a kind of intoxication with stupor.

The chronic changes in the kidney occurring in diabetes, and with which pathologists have long been familiar, are usually attributed to the irritation of the saccharine urine; but Albertoni and Pisenti ascribe them to the elimination of unaltered acetone, which is separated and secreted by the epithelium of the convoluted tubules.

Kidney.—The relationship of nephritis to various acute diseases has been now well established, and its occurrence as a sequela of scarlatina and typhoid is commonly recognised; but Dr. Hôgyes has shown that it may occur after variella. The unity of Bright's disease has received further support and confirmation from Ducini (*Virchow's Archiv*, Band xciii, p. 286). Langhaus has published the results of further researches on the changes in the glomeruli in nephritis. According to him, in ordinary nephritis, the glomeruli and tubules are equally affected. In nephritis after measles and scarlatina, the glomeruli are almost exclusively affected; while in the nephritis of icterus and some toxic conditions, the kidney-lesion is almost exclusively confined to the tubules. D'Espine has found that there is a great accumulation of potassium-salts in the blood during attacks of uræmic eclampsia; and his results afford some support to the views of Feltz and Ritter, who attribute uræmia mainly to this cause. Professor Salvioli has been able to determine hydræmic œdema in dogs by ligaturing the renal and mesenteric vessels before injecting the saline solutions; and his investigations lead him to the conclusion that the localisation of the œdema in subcutaneous tissue in the hydræmia of nephritis in man, is due mainly to the function and structure of the human skin. Kottmayer has shown pretty conclusively that the precipitate formed by mercuric chloride in urine, which does not contain albumen with ordinary tests, probably consists of mercuric uræa. Von Recklinghausen has described a hyaline degeneration of smooth muscular fibres, identical with that described by Zenker in striated muscles.

The proposed discussion on tumours of the brain at the Pathological Society next spring may be looked forward to with every prospect of a large amount of new material being brought forward, and some interesting results should be obtained.

OBSTETRICS.

Porro's Operation.—Dr. Francis Imlach has reported a case of Porro's operation, necessitated by extensive epithelioma of the cervix. The patient was in her fourth pregnancy. The operation was per-

formed under the carbolic spray. The patient died towards the end of the seventh day. The child, a male, survived.

Tubal Pregnancy.—Mr. Lawson Tait has reported several cases of tubal pregnancy, in which the Fallopian tubes had ruptured, and in which he opened the abdomen, removed the dilated ruptured tubes, tied the pedicle, and closed the abdomen. Out of nine cases of this kind, all have recovered, with the exception of one. The bold treatment adopted by Mr. Lawson Tait in these cases has been so successful, that obstetricians generally will not hesitate in future to follow the same line of treatment.

Medicated Vaginal Tampons.—At a meeting of the British Gynaecological Society, Dr. Fancourt Barnes showed some medicated vaginal tampons, composed of absorbent cotton-wool and elastic fibre enveloped in sublimated gauze. In the centre of the wool, is a small hermetically sealed glass capsule, containing a drug in concentrated form. The advantage of this arrangement is that, before applying the tampon to the vagina, the capsule containing the drug is broken by pressing the tampon between the finger and thumb, thus liberating the contents, which diffuse themselves through the tampon. In this way, iodoform, eucaine, eucalyptol, or any other drug, can be preserved intact and ready for use until required.

Cæsarian Section.—Dr. T. M. Dolan has performed this operation in a small dwarf, under antiseptic precautions, but with a fatal result. A male child, however, was saved. Comparing the results obtained in the Cæsarian section with those by Porro's operation, we find that out of 134 Porro's operations there were 59 recoveries, and out of 136 Cæsarian sections only 25 mothers survived. In the face of these striking figures, we think that the obstetrician who does not discard the old classic operation for the modern method inaugurated by the great Italian professor, takes upon himself a grave responsibility.

Puerperal Tetanus.—Dr. Benington has contributed an interesting paper on this question. The patient was a secundipara, the child was delivered by forceps, the perineum torn up to the sphincter. The patient appeared to be doing well until the seventh day, when lockjaw set in. She could swallow nothing, frothy foam issued from the mouth, and the slightest touch about the head, neck, and shoulders, caused a paroxysm of pain and a feeling of strangulation, accompanied by emproctothotos. The attacks became more frequent and severe, and the trismus more marked. Death ensued in twenty-four hours from the first seizure. This case is a most interesting one, and raises the question as to the part played in the causation of this fatal disease by the retention of placental debris in the uterus. Whatever the cause or causes may be of puerperal tetanus, it is only too clear that at present we are in a state bordering on Cimmerian darkness as to its true nature.

Antisepsis in Midwifery.—In his address at the Section of Obstetrics of the annual meeting of the British Medical Association at Cardiff, Dr. Gervis has travelled over the well worn path of the mortality in childbed. He points to the generally accepted mortality throughout the kingdom of 1 in 120 deliveries, and ventures to say, without hesitation, that before many more years have passed, this mortality will be still further distinctly reduced. Antisepsis during labour has, he states, been sought in Germany by the conduct of labour under the spray. This, he thinks, is not easily practicable; and, even if it were, is not absolutely satisfactory as a safeguard, although he admits that during the course of labour the principle of antisepsis should not be lost sight of. He appears to be unaware of the fact that patients have been delivered under the carbolic spray in the British Lying-in Hospital since the year 1880, with the result of a mortality not exceeding 0.6 per cent. Dr. Priestley has also read a paper on the same subject, in which he details the various antiseptic precautions used in the lying-in hospitals at Copenhagen, Helsingfors, and St. Petersburg. These precautions are, however, similar to, if not identical with, those in use in most lying-in hospitals in this country, and really only represent the antiseptic system introduced ten years ago by Professor Tarnier in his pavilion in the Maternity at Paris.

Recent Publications, etc.—During the year new editions have appeared of Playfair's *Midwifery*, and Barnes's *Obstetric Operations*. The second volume of a *System of Obstetric Medicine and Surgery* by Robert and Fancourt Barnes has also been published.

GYNECOLOGY.

It is gratifying to be able to record the publication of several books and monographs, wherein subjects of gynaecological interest are discussed in a truly scientific spirit by writers who are conversant with anatomy, histology, and pathology. Reference to gynaecological work of importance will be found in other parts of this retrospect. We will first allude to an important contribution read by Dr. John

Williams, before the Obstetrical Society, in April, and bearing the title, "On the Circulation of the Uterus, with some of its Anatomical and Pathological Bearings." He found that the primary branches of the uterine arteries, as well as those of the division of the ovarian arteries which were distributed to the uterus, ran in the muscular wall of the uterus, but very close to its serous coat, and surrounded by a layer of connective tissue. The secondary branches ran straight through the muscular wall towards the mucous membrane, and formed capillary loops in the submucous tissue, communicating with veins which were arranged in a similar manner in that tissue. The blood returned from the veins to venous plexuses lying in the connective tissue containing the primary branches of the arteries, and ultimately entered the vena cava chiefly through the ovarian veins; but the whole pelvic venous system could be injected through any one of its trunks. Dr. Williams found that the capillary loops or circles ran entirely in the submucous tissue, separated from the uterine cavity by the whole thickness of the mucous membrane, only a very thin layer of which was shed and reproduced at each menstrual cycle (menstrual decidua), so that a wide vascular surface was never exposed to danger under normal circumstances. The blood-supply was so contrived as to be protected from mechanical disturbance. From the direction of the vessels running through the muscular wall, the blood-current ran transversely to the length of the uterus, and perpendicularly to its surfaces; so that a ligature might be placed around the uterus without affecting the circulation above and below. To materially affect the blood-supply, both broad ligaments and a portion of the uterus must be ligatured; and this condition was simulated in inguinal hernia of the uterus, or in extreme retroflexion and retroversion which represented a true hernia, the sacro-uterine ligaments constricting the neck of the sac. In procidentia, a similar obstruction to circulation took place. By an experiment, Dr. Williams endeavoured to prove that the acutest ante flexion failed to cause any impediment to the uterine circulation.

Many investigations have been made outside the area of special societies, or submitted to publications not entirely devoted to the anatomy and pathology of the female organs. In his contributions to the *Typographical and Sectional Anatomy of the Female Pelvis*, Dr. Berry Hart has added to our knowledge of the anatomy of the pelvic floor. In previous publications, chiefly in association with researches pursued with the co-operation of Dr. Barbour, he had insisted on the great natural mobility of the pelvic structures which lie in front of the rectum, and maintained that prolapse of the uterus and vagina represented morbid extension of this normal mobility. In his work, above named, Dr. Hart demonstrates that the urethra, vagina, and uterus, are separated from the surrounding parts by a complete circle of loose connective tissue which lies posteriorly between the vagina and rectum, passes forwards on each side between the obturator internus and levator ani muscles externally and the vagina internally, and blends anteriorly with the retro-pubic fat which separates the urethra from the pubis. This tissue appears to increase during gestation, and is constantly subjected to strain during labour, after which latter process it may not recover its former density and power of supporting the viscera which it surrounds. This appears to account to a great measure for many forms of uterine and vaginal displacement. Dr. Hart also declares that the ureters do not run so close to the uterus as is generally supposed. Dr. Schultze, of Jena, has recently published an instructive article in the *Centralblatt für Gynäkologie*, showing that the obturator internus and pyriformis muscles should be taken into account when the pelvis is explored, as when contracted they may readily be detected as solid bodies by the finger, but their true nature may, at the same time, be overlooked. He further notes the ease with which the finger may produce pain by pressing, apparently, upon an inflamed or congested pelvic organ, but really upon one of the sacral nerves. In the anatomical department of this retrospect, some notice will be found of Dr. Lawrentieff's paper on the power and action of the abdominal muscles. He notes that these muscles take a very definite part in any bearing-down effort, and that the changes which take place in the dimensions of the abdominal cavity during pregnancy, alter the curves of the broad muscles of the parietes in such a manner as to allow those muscles to exert a greatly increased expulsive force.

In the *American Journal of Obstetrics*, a series of very valuable papers upon the endometrium in health and disease have been written by Dr. Mary Putnam Jacobi. The subject of endometritis has long puzzled gynaecologists. The most recent observers deny, more or less, its inflammatory nature. Drs. J. Williams and Aveling have insisted upon the deciduous nature of the endometrium in relation to menstruation. Several French authorities describe one extreme of endometritis as consisting in a great hypertrophy of the glands of the endometrium,

ducts as well as acini, with consequent free mucoid discharge, and the other or most severe extreme as degeneration of the endometrium, with total loss of its epithelium, dilatation, and disease of its vessels and sanious discharge. Dr. Jacobi lays great stress upon the relation between pregnancy, menstrual cycles, and the formation, shedding, and reproduction of the endometrium. When once a morbid condition affects the endometrium and the tissues immediately subjacent to it, the return to health is liable to constant interruption through repeated disturbance caused by the recurring phenomena of menstruation, and, perhaps, of pregnancy. In nulliparous women, menstruation alone can disturb repair; the endometrium undergoes the greatest changes just before the appearance of the catamenia; therefore, when endometritis is established, the symptoms become aggravated at that period. In this form of disease, increase of tissue rather than inflammatory change is observed in the endometrium. In women subjected to frequent child-bearing, the endometrium, constantly liable to disturbance, may exhibit different degrees of disease from fungous endometritis, which Dr. Jacobi describes as non-inflammatory, to endometritis affecting the subjacent uterine parenchyma. This is chronic metritis, and she considers that disease to be truly inflammatory. Dr. Jacobi believes in a direct relation between all these affections of the endometrium and concomitant morbid conditions of the ovaries. The relation between tubal, ovarian, and uterine diseases of this class are, indeed, important in relation to disputed methods of treatment.

In the course of the year, Janosik, of Prague, Mr. J. B. Sutton, and others, have brought forward contributions to papers and societies relating to the development of the ovary, Müller's ducts, and the primordial kidneys and their ducts, and to the true origin of broad-ligament cysts. In a paper read before the Royal Medical and Chirurgical Society, Mr. Doran endeavoured to prove that many dermoid cysts of the abdomen that have been described as non-ovarian are really ovarian cysts which have become separated from their pedicles: dermoid cysts of the great omentum are generally of this class. Our pages have contained many interesting articles and discussions on plastic operations on the external female organs, the relative merits of the clamp and ligature in ovariectomy, and many other kindred topics upon which, owing to want of space, we must reluctantly refrain from comment.

THE POOR-LAW MEDICAL SERVICE.

THE following are the most important events which have been related and commented on during the past year.

On January 3rd, we commented on a letter sent us by a rural medical officer of health, who wrote to complain that one of the medical gentlemen in his district had refused to afford him any information as to the occurrence of epidemic disease in one section of the same. We pointed out that, if he expected to get such information, he should secure from the sanitary authority some fee.

On the 10th, we drew attention to a circumstance which had occurred in the Highgate Asylum, belonging to St. Pancras Parish, where it would appear that a woman named Amy Chapman, shortly before sent from the workhouse for treatment, having developed symptoms of insanity, was sent back to the workhouse, there being no accommodation in the asylum hospital for the retention and treatment of such cases. Seven hours after her return, she died. An inquest was held; and, from what transpired thereat, the jury came to the conclusion that the death arose from natural causes—to wit, syncope; and the verdict was accompanied by a rider, that, certain complaints having been made against the officials of the asylum, the jury recommended that the guardians inquire into the same. In accordance with this suggestion, an inquiry was made by the Infirmary Committee, the chairman being Dr. Adams. This inquiry not proving satisfactory, application was made to the Local Government Board to hold an official investigation, when the following very reprehensible statement was introduced: that the chairman, who was a medical man, held the opinion that there were grounds for believing that the woman had died of typhoid fever, and that her death had been accelerated by the removal; this being in direct opposition to the evidence of Dr. Stevenson, the Medical Officer of Health for Paddington, who had made the *post mortem* examination, and who had given the opinion that it had not been a case of fever at all. We never heard that any official inquiry took place, which was hardly to be expected, after the evidence of Dr. Stevenson and the verdict of the jury.

On the same page, we referred to a vexatious charge against Dr. Wylie, the medical officer of the Skipton Workhouse. Having a troublesome imbecile in the establishment, he very properly certified to his condition, and had him sent to an asylum. For thus doing his duty, he was attacked by a section of the Board of Guardians, and

charged with filling up the certificate solely that he might get the fee of ten shillings—an allegation as absurd as it was gratuitously offensive. The grounds for this attack originated from some would-be economists on the board, who held that the man might have been kept more cheaply in the house.

On the same date, we commented on the letter of a correspondent, who wrote to complain that many of the inmates of the voluntary hospital of the town in which he resided were paupers; and, in his judgment, as there was a rate-supported hospital—that is, the workhouse sick-wards—it would be only just to the physicians and surgeons that they should be treated there. Whilst generally agreeing with our correspondent, we showed that it was hopeless to expect any change so long as the workhouse medical officer was only paid £16 a year, with everything to find, for a house licensed for two hundred inmates.

On the 17th, attention was directed to a coroner's inquiry at the Toxteth Park Workhouse, from which it appears that a man, having been taken in a fit, was sent by the master to the infirmary; and, as the return of the resident medical officer was expected, the visiting attendant was not sent for. The man died, and, from the *post mortem* examination, it appeared, from sanguineous apoplexy. In summing up the case to the jury, the coroner commented with unnecessary severity on the action of the master, who, he intimated, would have been open to the charge of manslaughter if it had been shown that medical treatment could have saved the man's life. We pointed out that such remarks would tend to render the duties of the medical attendants most onerous, as they would be liable to be called unnecessarily to every fit, or assumed fit, of illness.

On the same day, we commented on the wholesome action of the Leigh Board of Guardians, whence it would appear that one of the district medical officers, having visited a poor woman, found her to be in a very debilitated condition, whereupon he recommended that two pounds of beef should be supplied. This order the relieving officer simply ignored. The facts having been reported to the board, and the relieving officer having failed to give any satisfactory explanation for his refusal, it was at once moved, and carried, that he be dismissed. We commended this action of the Leigh Board to all boards of guardians, to relieving officers, and to poor-law inspectors, who generally side with boards and officers when the medical officer complains that his legitimate requirements are disregarded.

In February, we drew attention to the case of Mr. W. E. Porter, of the Cuckfield Union, who, after twenty-seven years' continuous service, resigned his office, his health having given way. On making application for superannuation, he had for his reply "that, whilst the guardians acknowledged his services, and regretted the causes which had led to his resignation, the board felt unable to accede to his request, he not having given his whole time to the duties of his appointment;" thereby ignoring the distinct injunctions of the Medical Officers' Superannuation Act, which provides that such superannuation may be granted in cases similar to that of Mr. Porter, even though such officer has not devoted his whole time to the duties of such office.

On the same page, we replied to a correspondent, who wrote to complain that his claim for a fee, not authorised by the general orders of the department, had been refused. We pointed out that it was within the competence of a board to give or to withhold a fee under such circumstances, and that, in applying for a fee in such a case, it would have been judicious to give the reasons why he applied for it.

On February 24th, attention was drawn to a very hard case, where a gentleman had gone to live in the country, and had not apprised the medical registrar of his change of residence. He had applied for, and had been appointed, public vaccinator and district medical officer; but, on applying for some vaccine-lymph at Whitehall, he was informed that, as his name was not on the *Medical Register*, it could not be supplied. On writing to the general registration office, he was officially informed that his name had been removed, and the reason was given. Having paid a fee for the restoration of his name, he thought his troubles were at an end; but, the Local Government Board having apprised the Board of Guardians of the Bingham Union that the election was void, he was, after a second contest, re-elected: but the guardians did not pay, nor did the Local Government Board direct the local board to pay, the salary earned during the three months that his name had been unwittingly removed from the *Register* and he was doing duty.

On March 14th, we drew attention to the case of Dr. Bernard, who for nine years had been the superintendent of the Small-pox Hospital at Stockwell, and who suddenly received a notice determining his appointment. Though we did not succeed in reversing this

decision of the managers, the arguments we brought forward were such as induced them to grant to Dr. Bernard compensation by a gift of £100.

In the issue of March 21st, appeared the first of a series of letters and annotations on the reception of lunatics in workhouses, and their subsequent discharge, if recovered, or their certification, if suited for asylum treatment, where their insanity was prolonged. These letters, etc., originated from the decision of Mr. Justice Wills, in the case of *Hicks v. Bedford* and others, where it was alleged that a woman, an undoubted lunatic, had been improperly taken to, and detained until she recovered in, the female lunatic-ward of the Marylebone Workhouse. Although the action of the parochial officials was in accordance with the rule which had held good in kindred institutions for half a century, to the advantage of the community, yet, under the judge's ruling, the jury gave a verdict in her favour; and the parochial officials, some of whom were absolutely unaware of this woman being in the workhouse, were mulcted in heavy damages. At first, the decision of the judge and jury was hailed by the public as a righteous retribution, the same feeling being exhibited at the Home Office, and at the Local Government Board, those officials having the questionable taste to indulge in observations in the House of Commons which exhibited their ignorance of the reason why such unfortunates had been taken, for temporary safe custody, to the insane-wards of workhouses. After several unseemly disputes had arisen at police-courts, where magistrates ordered, and masters of workhouses, relieving-officers, and others, resolutely refused to obey their decrees, directing that these people should be taken into workhouses, the department that had condemned the Marylebone officials was obliged to bring in a Bill, in the last days of the late Parliament, rendering it legal to admit and detain for a certain time persons alleged to be of unsound mind.

In the same issue will be found an annotation, "Whom can we hang?" It was written consequent on the suspension of Dr. Collie, at the instance of Mr. Pell, one of the nominated managers of the Metropolitan Asylums Board, and ex-M.P. for Leicestershire. A suspicion of grave scandals connected with the management of the Eastern Hospitals having been manifested, abundantly borne out by the subsequent official inquiry, which was continued for several weeks, the managers, who were responsible for the control of these establishments, cast about for a victim whom they might offer up as a sacrifice, to appease the righteous indignation of the ratepayers. The person selected was Dr. Collie, who, though nominally responsible for the management of these hospitals, was in reality, as shown by the evidence, employed on such a variety of odd jobs by the managers, as wholly deprived him of the possibility of his being able to keep an eye on those clerical duties which had been superadded to his sufficiently onerous medical obligations. After being kept in suspense for several months, Dr. Collie received a letter from the Local Government Board, which was the outcome of the report of the inspectors, which acquitted him of all the allegations that had been made touching his personal integrity, and the performance of his strictly medical duties, but which condemned him for failing to overtake the clerical obligations which he never should have been called on to perform, at the same time declining to remove his suspension. What his fate would have been is certainly evident enough. He would have been dismissed, had it not have happened that the British Medical Association, represented by the Metropolitan Counties Branch, in the person of its President, Dr. Dickson; the Medical Defence Association, represented by its President, Dr. Richardson; and the Poor-law Medical Officers' Association, represented by its President, Dr. Joseph Rogers, with a numerous following, applied for an interview with the managers, and, by the appeals then made, a full report of which appears in our issue of December 12th, succeeded in inducing a majority of the managers to reconsider the case, and, subject to the approval of the Local Government Board, to reinstate Dr. Collie in that position from which he had been so unjustly and improperly removed. This case was a striking manifestation of what combined action could secure when a just case is taken up and supported by our profession.

At the same date, we drew attention to the case of Mr. Smith, at Heckfield, Hants. This gentleman, on the order of a relieving officer, had visited a lunatic and certified his insanity; the magistrate declined to countersign the certificate. On sending in a claim for payment to the Board of Guardians, that body refused to pay. Reference having been made to us, we advised legal proceedings. This brought the guardians to a right frame of mind, and Mr. Smith was paid for his services.

In our issue of April 11th, we gave an abstract of the case of *Don Bavand v. Morrison*, tried in the County Court, Croydon. Proceedings were taken, on the initiative of the Council of the Poor-law Medical

Officers' Association, with the object of testing the correctness, or otherwise, of the view held by Dr. Danford Thomas, the coroner for Central Middlesex, who first started the notion, that the provisions of the fifth section of the Coroners' Witnesses Act were such as to preclude coroners from paying a fee for a *post mortem* examination, attendance in a coroner's court, and giving evidence, to a medical officer, in all cases where a person died in a workhouse or workhouse hospital asylum. The judge of this county court, without calling on Mr. Braxton Hicks, counsel for Mr. Morrison, at once decided against the view held by the late Mr. Wakley, to whom the profession is indebted for the Act, his successors, and all other coroners who, until Dr. Danford Thomas, appeared, regularly paid such fees, and that, too, without demur. He also gave costs on the higher scale. The subject, we learn, will be again raised at a convenient opportunity.

At the same date, a reply was given to a correspondent who wrote to complain that he, being a district medical officer, had been directed by the clerk to the board of guardians to attend before the justices, and give evidence as to the state of health of a pauper whom it was proposed to remove, and that, on applying to be paid, his fee was refused. We pointed out that, unless he had specifically arranged to do so gratuitously at the time of his appointment, he was entitled to a fee, which could be recovered through the county court. We also advised that no such duty should be undertaken without a promise of payment beforehand.

In the JOURNAL of April 25th, will be found an annotation on the case of Mr. Bethell, of the Bridgnorth Union. He had been requested to attend a case of midwifery; the friends were unable to pay. Application was made to the relieving officer, who brought the case before the Board of Guardians, who refused to grant an order, although the relieving officer expressed the opinion that it was a case where an order should be given. The result of our comment, published as it was in all the local papers, was such that the guardians were ashamed of the transaction, and ultimately Mr. Bethell was paid; although, when the question was first raised, the board took high ground, and threatened to dismiss this gentleman for applying for his just rights.

In our issue of May 9th, the resolution adopted by the Poor-law Medical Officers' Association, relative to the provisions of the ex-Lord Chancellor's Lunacy Law Amendment Bill, were published. If that Bill had become law, certain additional duties would have been thrown, and unjust disabilities inflicted, on workhouse medical officers. It is true that the Bill was eventually withdrawn, thanks to the opposition made by us and other authorities; but the spirit that drew up that scheme is only scotched, not killed. Fortunately, however, if that or any similar measure be introduced in the existing House, the profession being more largely represented therein, we shall be better enabled to resist any such objectionable clauses as were to be found in the ex-Lord Chancellor's scheme.

In the JOURNAL of June 6th will be found the first of a series of annotations on the case of Mr. T. Davies, district medical officer of the Conway Union, whose story may be thus briefly summarised. This gentleman was appointed, in 1873, at a salary of £75, exclusive of extras, since which date, the population, and with that the duties, have much increased. In his original contract, it was arranged that he might charge for quinine, cod-liver oil, etc. Shortly after his appointment, an attempt was made to compel him to accept a small money payment in lieu of charges for expensive medicines and his extra fees. To this he naturally objected. It was then resolved that he should only write a prescription where expensive drugs were required, this course having led to a largely increased outlay; and another attempt was made to force him to accept a small fixed sum. Mr. Davies having again refused, the board refused to pay his quarter's salary, hoping to coerce him into compliance. At this stage, a question was asked in the House of Commons as to the legality of this procedure, when the board was informed that their action could not be sustained, and that they must pay the money, which they had to do. Since then, another attempt has been made to harass Mr. Davies; a resolution was adopted dividing the district into two very unequal parts; to one, by far the smaller, a stipend of £40 was proposed to be given, and to the larger £45, making together the exact sum the guardians endeavoured to force Mr. Davies into accepting. At the meeting when the resolution was adopted, it was openly avowed that it was intended thereby to get rid of Mr. Davies; for, in the event of refusal on his part to accept the board's terms, the guardians would apply to the Local Government Board to determine his appointment after giving him six months' notice, and by that means he would be got rid of. From what we have seen in the local press, the guardians may find that the scheme they have on hand may not prove so easy of execution as they expect, and with the greatly increased medical repre-

sentation in the present Parliament, it is highly probable that they may be beaten altogether. Altogether, the case of Mr. Davies is one that throws a great deal of light on the powers of boards of guardians in relation to contracts with medical officers' permanence of appointments, and we refer our readers to the abstract of the report of the Poor-law Medical Officers' Association meeting at Cardiff on July 24th, given in our issue of August 8th.

In the JOURNAL of July 4th, reference was made to the question put to us by a correspondent, who desired our opinion as to whether it was competent to a parochial medical officer to refuse to meet a consultant whom the friends of such pauper were desirous of calling in. In our reply, we pointed out that, if the medical officer objected to meet a consultant in the treatment of any pauper under his charge, he would be justified in so doing; that the medical officer was responsible to the guardians, and to no one else, for the proper treatment of such sick person; and that the only way in which a consultant could be called in would be in the case where the friends, or the parties who advised the consultation, took on themselves complete charge of the patient, by paying all charges that might arise, and so relieving the district medical officer of any further attendance.

In the latter part of the session of the late Parliament, a successful effort was made by Mr. Jesse Collings, M.P. for Ipswich, to set aside that section of the Poor Law Medical Relief Act which disqualified persons from acting as electors, who, either by themselves, their wives or children, had received poor relief, in the shape of the attendance, etc., of parochial medical officers. By securing this he assimilated the English pauper with the Irish, who have never undergone any legal disqualification where they have received dispensary medical relief. It will be interesting to note whether such removal of disability will increase the disposition of the lower class of English electors to avail themselves, as happens in Ireland, of gratuitous dispensary relief; because there the abuse of the issue of tickets is carried on to such an extent as to completely annihilate all private practice among the small shopkeepers, tenant-farmers, and others, who in England and Wales have always paid for such medical attendance.

In the JOURNAL of August 22nd, we drew attention to the case of Dr. Thomas Sayer, district medical officer for St. Pancras, who had been summoned before the Marylebone stipendiary magistrate by the Commissioners in Lunacy, for an alleged wrongful description of the place where he had seen the patient, who, by the bye, was an undoubted lunatic. The relieving officer had improperly brought a form of certificate, in which the words "St. Pancras Workhouse" had been printed in red ink. Dr. Sayer filled in the certificate, stating that he had seen the man at 3, Euston Square, and had unwittingly omitted to run his pen through the words "St. Pancras Workhouse." For this clerical error, Dr. Sayer was subjected to the indignity of being summoned before a magistrate, and his name paraded before the public as an offender under the Lunacy Acts. Fortunately, the magistrate took a common-sense view of the case, by declaring that the error had not been wilfully made; whereupon the summons was withdrawn.

At the same date, a case of much interest, which occurred in the Kells Union, was referred to. It would appear that for some months the condition of the workhouse and Fever Hospital had been most unsatisfactory, as most extensive sickness had occurred therein among the officers and inmates, arising from its bad sanitary condition, of which state of things Dr. Ringwood had frequently complained. His reports met with a fierce denial on the part of some members of the Board. Ultimately the state of the house was referred to a committee, who brought up a report that no such sickness had prevailed, and ended by recommending that Dr. Ringwood be called on to resign. The report thus drawn up was so opposed to the known facts of the case, that an amendment was proposed that the report be not received. On being put to the vote, the amendment was lost, and finally it was decided to refer the subject to the Local Government Board (Ireland), but what has resulted therefrom we have yet to learn.¹

At about this date, the district medical officers of Camberwell Union made application for extra payment, consequent on the additional labour thrown on them by an outbreak of small-pox, which had taken place in that union. A resolution, proposing a grant of money, was made by the Rev. A. Drew, one of the guardians; but it was opposed by a medical member of the Board of Guardians, Dr. Sergeant, so determinedly, that it was lost; and, on its being brought up again before the board, owing to the hostility evinced by the same party, it was again lost, though a grant of money for the said extra work, so fiercely denied by Dr. Sergeant, was made to the relieving officers, Dr. Sergeant voting with the majority in their favour.

¹ Since the above was written, we hear that the Local Government Board (Ireland) has given its decision, which is altogether in favour of Dr. Ringwood.

In the JOURNAL of September 26th, attention was directed to the case of Mr. A. H. Martin, of the Evesham Union, Worcester, who made application for an increase of his stipend, which, from the figures put before the guardians, was evidently far below what it should be. Although the facts were indisputable, Mr. Martin failed to get any increase—only one gentleman, the Rev. Canon Amphlett, speaking in its favour; and he, seeing the temper of the board, did not propose any resolution, consequently the application fell to the ground. One of the arguments made use of was that, if the board granted an increase, the other four officers would immediately apply for the same; by no means an improbable contingency, seeing that the scale of payment in the Evesham Union is as low as it can possibly be. By a curious coincidence, at the same time, we drew attention to the resignation of a medical officer in the Risbridge Union, rendering it necessary for this board to advertise for a successor, which they had before done repeatedly. Although the stipend was double that paid to the predecessors of the recent incumbent, it was still insufficient to meet the obligations of the office, or to leave any possible margin for even the smallest income from it.

In the following week, there appeared a further illustration of the wretched payments made to medical officers, exhibited in the story told in a letter to us from Mr. A. I. Evans, district and workhouse medical officer in the Hwarden Union, Flintshire.

In the JOURNAL of October 17th, a resolution adopted by the Poor Law Medical Officers' Association in reference to the action of the two medical members of the Camberwell Board of Guardians who distinguished themselves by their opposition to any additional grant to the district medical officers, was published, as well as a letter from Dr. Rogers, president of the Association, calling attention to the refusal of the guardians of the Warminster Union, Wilts, to grant superannuation allowance to Mr. Isaac Flower, who had held office for forty-nine years. His application met with the most determined opposition. Ultimately, however, it was resolved, by a majority of one, that a gratuity of £50 should be given to this gentleman. This case clearly shows the necessity which exists for making these grants peremptory, instead of permissive.

In the JOURNAL of October 31st, attention was directed to the case of Mr. Skinner, district medical officer in the Sheffield Union, who, having gone at once to an accident which had occurred to a poor woman, whereby she broke her leg, the husband being ill and necessarily out of work, was refused an order by the relieving officer, on the grounds that when the man was in work he could earn £1 a week. The man's illness continuing, eventually the Board granted an order for attendance on the man and his wife. On Mr. Skinner sending in a claim for the fee to which he was clearly entitled, the guardians repudiated their liability. We thereupon advised that an appeal should be made to the Local Government Board, and on their declining to intervene, that proceedings should be taken in the county court.

On November 14th, we again gave, as we have done repeatedly before, an extract from the Pauper Lunacy Acts, showing who alone has the authority to grant a fee for the examination and certification of lunatics; and in the following week we showed what were the qualifications required by the Local Government Board from gentlemen desirous of taking a poor-law medical appointment.

On December 5th, we drew attention to the correspondence that had passed between Mr. A. S. Stokes, of Weldon, of the Oundle Union, and the Local Government Board; from which it appeared that for three years the guardians of the Oundle Union had appointed an unregistered medical man to the said Weldon district, and that, in spite of Mr. Stokes's representations to the central department, the man had been confirmed in such appointment, the salary of the officer having been duly paid; that this person subsequently resigned, whereupon Mr. Stokes was appointed to the vacancy, but finding that the salary, previously too small, had been reduced, he shortly afterwards resigned, whereupon the board appointed a gentleman who resided out of the district, and eight miles away; that, although representation was made to the Local Government Board, they sanctioned the appointment of this gentleman, a course of action opposed to their own general orders, and clearly injurious to the convenience, and therefore to the interests, of the sick poor.

On the 12th instant, we drew attention to the case of Dr. Kenny, of the Killeshandra district of the Cavan Union. This story exemplifies in a striking manner the injustice which is perpetrated in Ireland, by the system which allows every member of a dispensary committee to give a dispensary and visiting ticket to anyone who may apply for it. The result has been that very little or no private practice at all is possible in the rural districts of Ireland, refusal to attend anyone furnished with one of these tickets being held by the Local Government Board of Ireland to be an offence only to be dealt with by dismissal.

It will be seen from our summary that very many events materially affecting the pecuniary and other interests of the Poor-law Medical Service have been dealt with during the past year, in some of which gross injustice would have been perpetrated were it not for the wholesome dread that exists of a searching question in the House of Commons. With the return of an augmented number of medical gentlemen representing important constituencies, it may fairly be anticipated that a brighter era is opening up for a body of medical practitioners who have been subjected by boards of guardians to much injustice for many years past, in which they have too frequently been supported by the inspectors of the Local Government Board. These acts of injustice we have always done our utmost to ventilate, and very frequently have succeeded in mitigating.

PUBLIC MEDICINE.

Report of Royal Commission on Homes of the Poor.—Housing of the Working Classes Act.—Other Medico-Sanitary Legislation.—Reform of Local Government.—Tenure of Appointment by Health Officers.—Management of Metropolitan Small-pox Hospitals.

THE interest of Public Medicine during the year that is past lies abroad rather than at home, for there have been no domestic occurrences at all comparable in importance with the epidemic of cholera in Spain and in other parts of the south of Europe. To this epidemic, and the other matters which arise out of a discussion on cholera, we refer in a separate article. As regards home topics, the one which attracted most general attention was the report of the Royal Commission on the Housing of the Poor.

Report of Royal Commission on the Housing of the Poor.—In May of this year, the Royal Commission, appointed in the autumn of 1883 to inquire into the housing of the working classes, issued its first report, and subsequently a huge volume of evidence upon which that report was based. Looking to the composition of the Commission, it was perhaps hardly to be expected that any very drastic recommendations should be suggested by it; but there was, nevertheless, a general feeling of disappointment at the insufficiency of the remedies proposed for the evils to be grappled with. At the time of its issue, we commented upon the unsatisfactory character of the report (*see JOURNAL*, May 16th, 1885, p. 1003), and no useful purpose would be served by stirring up the mud of the question again at the present moment. The only thing that it is necessary to keep strongly and persistently in view of our legislators, and still more of our administrators, is that evils are not cured by the mere taking of a great mass of evidence, and the making of harmless and ineffective recommendations. The Commission recognised, in fact, that what was wanted was not more legislation so much as more motive power, more activity on the part of local authorities in using the powers which they already possessed, and had not chosen to put into force.

Housing of the Working Classes Act.—One practical outcome of the Commissioners' Report was the introduction into Parliament of a Bill designed to carry certain of their more obvious recommendations into effect. This Bill was originally intended to be introduced into the House of Lords by the Marquis of Salisbury, on whose motion the Royal Commission was issued, and in the House of Commons by Sir Charles Dilke, then President of the Local Government Board. Circumstances, however, prevented the carrying out of the latter half of this arrangement, and the charge of the Bill was assumed in the Commons by the new Home Secretary, Sir Richard Cross. The Bill was introduced by Lord Salisbury on July 16th, in a speech of great interest and clearness. Its passage through the Lords was not difficult, despite some protests by Lords Bramwell and Wemyss; but, in the Commons, much debate arose on two of the clauses, which (1) provided for the purchase, by the Metropolitan Board of Works, of the sites of certain prisons in the Metropolis at a price which would enable them, without serious loss, to appropriate such sites for artisans' dwellings; (2) held a landlord responsible for letting an unfurnished house as in all respects reasonably fit for habitation: a breach of the implied condition of habitability entitling the tenant to recover damages in the event of loss by injury to health or otherwise. Although the principle of the first clause had been the subject of a special memorandum of approval by Lord Salisbury appended to the report of the Royal Commission, it did not commend itself to the financial purists in the House of Commons; and the Board of Works, if they now purchase the prison-sites in question, will have to do so at the "fair market price." As to the second, it was pointed out, with some justice, that the Bill dealt only with artisans' dwellings, and this was a clause which affected all houses, and needed a good deal of consideration, however desirable it might be theoretically. Hence in the Act, as it received the royal assent, the clause was made to apply only

to the dwellings of the working classes; the implied condition was altered so as to provide that the house is, at the commencement of the holding, fit for habitation, and nothing is said as to a penalty.

The other clauses of the Act do not call for any detailed criticism. They are mainly intended to make the existing law as to artisans' dwellings more workable and more general in its operation. Sir Richard Cross' Acts are made to apply to all urban districts, and not only to places with a population exceeding 25,000; the procedure under Lord Shaftesbury's Labourers' Dwellings Acts is simplified and improved; and any local authority may now make by-laws as to tenemented houses. It is to be hoped that the Act may help to secure a better state of things as regards the housing of the poor; but it must not be supposed to be a complete or a final measure. As Lord Salisbury observed in his opening speech, we must proceed by slow and gradual steps, by the application of remedies apparently not far reaching in their character, but judiciously directed to the precise difficulties which arise in each department of the inquiry.

Other Legislation of the Year.—There has been no other medico-sanitary legislation during the year that calls now for special notice. A great deal of political capital was made out of the removal of the electoral disqualification heretofore attaching to persons receiving medical relief at the expense of the poor-rates. At the time of the debates on the subject, this disqualification was very fully discussed in our columns, and it is unnecessary here to re-open a controversy which is now happily no object. The Lunacy Bill of the Lord Chancellor, and the Poisons Bill of the President of the Council, both came to an untimely end in consequence of the change of government, and need not therefore be analysed in detail. Their chief clauses are, however, given very fully in the JOURNAL, and a summary of them and of the other proposed legislation of the year will be found in the Annual Report of the Parliamentary Bills Committee (pp. 172-5). A remnant of Lord Selborne's measure relating to persons wandering at large and deemed to be of unsound mind, was taken up by Mr. Balfour, the Conservative President of the Local Government Board, and duly passed into law. The Act in question provides in substance that if a relieving officer, overseer, or constable, be satisfied that it is necessary for the public safety or the welfare of an alleged lunatic, that he should be placed at once under care or control, the officers may, without further order, remove him to the workhouse of the union in which he is.

Local Government Reform.—The question of the reform of local government has engaged a very considerable share of public attention during the recess, and has been made a prominent plank in the political platform of both parties. There is every reason to expect that, whatever Ministry is in power, a large and sweeping measure of local government reform will, under any circumstances, be introduced in the forthcoming session. The columns of the JOURNAL have for years past been eloquent as to the anomalies and imperfections of the existing system; and, although the subject may appear to some to be a new one, it is in reality by no means so, as the annual reports of the Joint Committee on State Medicine so far back as 1863 will testify. Our more immediate concern in securing the needful reform of local government, is the settlement of a fair and proper system of appointing and remunerating local medical officers of health. At present, these officers are subject to frequent election, not seldom accompanied by reductions of salary; and the remuneration is in many cases totally inadequate for the services to be performed. There is no sort of reason why medical officers of health should not be appointed upon good behaviour, like other local officials; and their scale of pay needs to be settled on some more reasonable and less capricious basis. The public health service is no longer so popular as it used to be; it would be wonderful if it were. The duties of medical officers of health are so important to the community at large, that it is indispensable that the utmost encouragement should be given to the best men to take up public medicine.

Management of Metropolitan Small-pox Hospitals.—The management of the small-pox hospitals, under the control of the Metropolitan Asylums Board, has come in for an unusual amount of criticism. Quite early in the year, some very grave charges of mismanagement and ill-treatment of small-pox patients at the Darenth Camp created much stir. No doubt there was a temporary breakdown, but it was speedily remedied, and much of what was written on the subject was of a very sensational and inaccurate description. More serious and better founded complaints of mismanagement and wastefulness were subsequently made as to the conduct of affairs at the Eastern (Homerton) Hospital, and eventuated in April in the appointment of Commissioners by the Local Government Board, to hold a sworn investigation into the subject. The painful scandals that were revealed at this inquiry will be fresh in the public memory. One of the most

discreditable features of the matter was the attempt to make a scapegoat of Dr. Collie, the medical superintendent, and to visit his omission, under the stress of overwhelming professional work, to perform certain clerical or book-keeping duties, by summary dismissal. As regards the management of small-pox hospitals generally, some very disquieting facts have been brought to light by Mr. W. H. Power, in connection with the experiences of the Fulham Hospital. In 1881, Mr. Power submitted a report, which appeared to show that small-pox had increased in the neighbourhood of that hospital—which had apparently acted in some way, at present undefined, as a focus of infection. His more recent investigations went still further, and he reported that "the excess of small-pox in the neighbourhood of the hospital was quite and especially remarkable, at a time when the total admissions to hospital had not exceeded nine." The conclusions of Mr. Power are now being considered in their practical bearing by the Asylums Board; but, from the medical point of view, there may be something in the remark of Dr. Buchanan, the medical officer of the Local Government Board, that we may have in Mr. Power's recent researches the beginnings of a better understanding of the variable potentiality of infectious disease. This was a fact known to our ancestors, who spoke of the differing ability of small-pox to prevail as an epidemic in a community, as being determined by the constitution of the time, and of its varying power to injure the individual as being determined by the "type" of the disease.

THE CHOLERA.

Cholera in Spain, France, and Italy.—*Precautionary Measures adopted in England.*—*Report of English Cholera Commission.*—*International Sanitary Conference.*

Cholera in Spain.—Cholera appears to have been first reported this year at Jativa, in the province of Valencia, in the last week in March. Following the usual rule, cases of "gastro-enteritis" became suspicious, and were finally acknowledged as "Asiatic cholera." More than usual interest was attached to this outbreak, in consequence of Dr. Ferran's inoculations for the disease, which were eventually prohibited by the Spanish government. It was not, however, till the end of May that the disease began to diffuse itself generally in the Peninsula. By the middle of June, it had overspread the whole of the province of Valencia, and had passed over to Murcia in the south, where it was very fatal, and up to Madrid. The ignorance of the populace, and the attempts at flight of the richer inhabitants, made the task of preventing its spread, never very hopeful in Spain, unusually difficult. By the end of June, the disease had spread to the Pyrenees and Saragossa, as well as to Toledo, and other towns near Madrid. Writing on June 29th, our correspondent at Valencia, to whose vivid letters our readers are indebted for much valuable information of a special and interesting kind, said that at Valencia and Murcia "commerce was dead in every department" in consequence of the cholera. A week later, the deaths at Valencia in one day were 412, and there were 783 attacks. The panic was "indescribable." "People were afraid to go out into the streets, and the better classes simply shut themselves up in their houses, and would neither take in their accustomed newspaper, nor allow the word 'cholera' to be uttered."

All July and August the epidemic continued in Spain. Up to July 31st, the total number of cases reported was 114,740, and of these 33,973 were fatal. These were the official figures, and do not include a great number of deaths which were kept secret, or classed as ordinary deaths. On August 7th, the epidemic appears to have reached its height, for there were on that day 7,000 cases and 2,195 deaths. In the third week of August there were, according to the official *Gazeta*, thirty-two provinces infected with cholera, and the mortality in these was from 1,800 to 2,000 daily. Seventeen other provinces were known to be infected, though not officially so declared. Up to the 26th of that month, there had been 197,547 recognised cases in the Peninsula, and 75,403 deaths. In September, the disease began to decline, but not before it had invaded almost every province in the country, and carried off many thousands of people. Spain has been too much engrossed with domestic and political difficulties to pay much heed of late to the obvious warnings of this terrible mortality. The sanitary state of the country appears to be almost everywhere deplorably bad; and, in its present condition, it is a standing menace to the whole of Europe.

Cholera in France and Italy.—In the beginning of August, cholera was reluctantly admitted to be at Marseilles also, 19 deaths being registered there on the 3rd of that month, and 35 deaths on the 5th. Later in the month Toulon was also attacked, as well as other towns in the vicinity. Early in September the disease made its appearance

in Sicily, at Palermo, and gave rise to manifestations of the most extraordinary ignorance and barbarism on the part of the populace. It also appeared in the province of Parma, though not to any serious extent; and, providentially, Italy generally escaped a repetition of the terrible affliction which befel Naples, Spezia, and some other cities last year.

Precautionary Measures taken in England.—The precautions taken in England may be very shortly summarised. The customary orders prohibiting the importation of rags from certain foreign ports were issued and renewed from time to time. A conference took place on July 16th between the medical officers of the Local Government Board and the health-officers of the metropolis, at which it was generally agreed that, "in the event of cholera making its appearance, the local sanitary authorities should be prepared to do their own duty, not resting too much on what the Asylums Board might be able to do, but depending primarily on their own efforts, alike for removing those conditions which allowed the spread of cholera, and for dealing with the disease if it became epidemic." Meanwhile, the Asylums Board had been quietly collecting information as to available beds; and, in a report drawn up by Mr. Shirley Murphy (who, since his spirited resignation of the health-officership of St. Pancras, has become a sort of general utility man), the accommodation likely to be obtained was set down at about 1,500 beds. Happily, there was no occasion for testing the accuracy of this estimate by the painful experience of an epidemic.

Earlier in the year an attempt had been made, by the Metropolitan Asylums Board, to arouse the local sanitary authorities to a sense of their position in the matter of accommodation for isolation but with the inevitable result that few, if any, of the authorities, took the least notice of the Board's communication, or evinced the smallest desire to help the managers in their efforts to provide proper accommodation of the kind for the metropolis. One of the many anomalies of London government is that the Asylums Board, a poor-law organisation, should be tacitly regarded as the hospital-providing authority for the whole of the metropolitan area, whilst the sanitary authorities contribute nothing whatever to its support. There ought to be established, without delay, a common sanitary fund to defray the expenses of maintenance and treatment of infectious cases in hospital, and similar services performed for the good of the community at large. But a reformed municipality for London is still apparently a long way off.

Report of the English Cholera Commission.—In connection with this prevalence of cholera, the results obtained by the English Cholera Commission, sent out by the India Office to investigate the accuracy of Dr. Koch's bacillar theories, cannot be passed over. These results will be found discussed at length in a quite recent number of the JOURNAL (November 21st, 1885, p. 986), and the briefest reference to them will, therefore, be sufficient. A representative committee, which had Sir William Jenner for its President, and Sir William Gull, Dr. Burdon Sanderson, Professor de Chaumont, Sir Joseph Fayer, and other experts for members, was convened by the Secretary of State to consider the report of Dr. Klein and Dr. Heneage Gibbes, and they arrived at the following conclusions, which, it will be observed, disagree very importantly from those announced by Dr. Koch.

1. Comma-shaped organisms are ordinarily present in the dejections of persons suffering from cholera, but not in the blood, the intestinal mucous membrane, or any other tissue.

2. Comma-shaped organisms of closely allied morphological appearances are ordinarily present in different parts of the alimentary canal in health, and are developed in an unusual extent in certain diseases in which there is copious intestinal secretion; the predominant form in any given case depending in great measure on the nature of such secretion.

3. The comma-shaped bacilli ordinarily found in cholera do not induce that disease in the lower animals, and there are no real grounds for assuming that they do so in man.

4. Sanitary measures in their true sense, and sanitary measures alone, are the only trustworthy means to prevent outbreaks of the disease, and to restrain its spread and mitigate its severity where it is prevalent.

The International Sanitary Conference.—On the invitation of the Italian Government, an International Sanitary Conference was convened at Rome to discuss the question of quarantine, and, if possible, to draw up international regulations on the subject. After many delays, the Conference held its first sitting on May 20th, England being represented by Sir Guyer Hunter and Dr. Thorne Thorne, and India by Sir Joseph Fayer and Professor Timothy Lewis. Amongst the professional advisers of foreign Governments, a satisfactory amount of conversion to English notions on the futility of quarantine was

manifest; for all the members of the Technical Committee, with the solitary exception of the Turkish delegate, accepted without hesitation the utter uselessness of all land-quarantine and sanitary cordons. As to sea-quarantine, the views of Great Britain and the United States were overborne by continental nations; and, in the end, the Conference was prorogued until November, on the ground that many of the representatives were without instructions as to their attitude towards the technical recommendations laid before them. The discussions which took place in the Technical Commission appear to show that a number of European powers were very anxious to get rid of quarantine as it has hitherto been practised, but that even the more advanced members of this school, notably the delegates from France, were not authorised to abandon the system altogether, and that, in their effort to place it on a new footing, they did, in fact, little more than deprive true quarantine measures of their only chance of success. Notwithstanding the strenuous opposition of the British and Indian delegates, a period of five days' observation was recommended. This is simply quarantine in disguise, and is neither one thing nor the other. It was hardly expected, when the Conference met, that the English system of medical inspection would receive any large following; for, although the gathering took place at a time when the futility of quarantine measures had once more been abundantly proved by recent and disastrous experiences, yet the prospect of another impending European epidemic, and the certainty that the sanitary state of their ports and cities was not one to withstand the importation of the infection, were constantly present to the minds of the delegates; and hence they still clung with tenacity to the form of quarantine, although they were prepared to abandon some of its substance. Indeed, it only needed a recurrence of cholera in Spain for France itself to impose the old-fashioned land-system of quarantine, which she herself had previously joined in condemning, and which her delegates declared again this year to be useless. The Conference did not reassemble in November as proposed, and it is doubtful whether it will ever be convened again. Indeed, it is difficult to see what advantage can be gained by Great Britain taking part in entangling international congresses on sanitary questions with the representatives of such countries as Guatemala and Peru, as Chili and Uruguay, as Roumania, Servia, and Greece—nations which have hardly the dimmest notions of preventive medicine and hygienic principles. Some of the nations represented still cling to the old-fashioned quarantine system; others, whilst recognising how useless quarantine has proved itself to be, have not the courage to substitute for it the system which gives real prospect of success; and Great Britain, which finds in this matter the strongest support from the Indian Government, will certainly not turn back from her path of steady progress in sanitary reform. At the present time, therefore, no unity of action amongst the different nations can possibly be expected; and it will perhaps be best that the valuable material collected by the Technical Commission should, in the first instance, be allowed time to diffuse itself amongst the nations interested. If it should hereafter prove that the experiences thus placed on record have had an influence in educating those who are responsible for the health of nations, then will be the time for an effort in the direction of securing international action of a rational sort.

THE ARMY AND INDIAN MEDICAL SERVICES.

New Regulations for the Army Medical Service.—The most important event as regards the medical department of the army, has been the publication of a complete code of revised regulations for its management. Although the new regulations, which were issued in May last, were not preceded by observations on the nature and principles of the changes introduced by them, or on the circumstances which had led to them, as the revised regulations were which were issued in 1859, in conformity with the recommendations of the Royal Commission on Army Hospital Organisation, after the Crimean war, still it has been fully understood that the new code of the present year is, in like manner, in a great measure the outcome of the recommendations which were made by the Royal Commission, over which Lord Morley presided, after the war of 1882, in Egypt. Nearly all the recommendations which were made by Lord Morley's committee, with a view to remedy the defects that were said to have been experienced in the medical administration during the Egyptian campaign of 1882, have been embodied in this last edition of the regulations for the medical department, as have also been some important alterations in the constitution and interior economy of the department, promulgated by special warrants and army circulars during 1884. In the new regulations, the medical officers are styled officers of the "medical staff," and the attendants the "medical staff corps." In these regulations there also appeared an important change in the constitution of

the Director-General's office; for whereas, by the regulations of 1878, the head of the Army Medical Department was to be assisted by three administrative officers, respectively responsible for the medical branch, the sanitary branch, and the statistical branch of the office, the chiefs of these three branches, together constituting a consultative council, as explained in the regulations of 1863, in which the organisation first appeared, by the present regulations the administrative officers and the branches over which they presided are reduced to two. The medical branch is left separate, but the sanitary and statistical branches are amalgamated. The list of executive officers of the medical service, on the other hand, is increased. In the preceding regulations two grades only appeared, surgeon-major and surgeons, while two others have been added; namely, brigade-surgeons and quartermasters. The restoration of the system of examination of medical officers holding the grades of surgeon and surgeon-major, prior to promotion to higher grades, has been made a fundamental principle. A detailed description of the manner in which the examinations are to be conducted, and the subjects to be embraced by them, is given as one of the appendices to the regulations. They differ in no respect from the text of the revised rules on this subject, which were published in the JOURNAL at the latter end of last year.

The new Code of Regulations for the Army Medical Service is much more comprehensive than the code previously in use, and has been well arranged for easy reference, and for the guidance of the medical officers who are required to conform to them. The rules for the education of the men of the Medical Staff Corps, and for the selection of men for promotion to the noncommissioned and warrant ranks, for the methods of conducting the various duties that devolve on them in the hospitals at home and on active service in the field, as attendants on the sick, cooks, storekeepers, compounders of medicine, and in other capacities, form one of the most important sections of the new regulations, and, if properly carried out in practice, ought to go a very great way in preventing causes for any such complaints as were made against the men of the Army Hospital Corps during the campaign in Egypt of 1882. The new Medical Staff Corps is an important body in itself. Its strength was put down in the Army Estimates for the present year at 49 officers and 2,400 noncommissioned officers and men. Although the number appears large, experience has proved that it is not more than sufficient to meet the ordinary wants of the great number of military hospitals which are scattered over the kingdom and in the colonies.

Fault has been found with the new regulations that they do not provide for sufficient expansion of the corps to meet the wants of extraordinary occasions, such as calls to active service. It is obvious that, if unexpected demands should suddenly arise, and no special arrangements have been made beforehand to meet them, notwithstanding the provision which is made in the new regulations for ensuring an adequate amount of skill in the Medical Staff Corps, the men must for a time be underhanded, and will be overworked, as they were at Ismailia and elsewhere in Egypt in 1882. So far as the regulations go, however, every possible precaution appears to have been taken in them to ensure the men furnished for the hospital-service being rendered efficient for their functions; it will depend on others, not on the medical officers, whether the men are provided in numbers adequate to the tasks which they are ordered to perform. Altogether, the new code has consolidated and crowned, as it were, the various changes which have been made during recent years in the organisation of the Army Medical Service, while the provisions embraced by it have been so systematised as to confer a consistency on the department which it certainly did not possess before the publication of the volume.

Army Medical Service in the Field: the Nile Expedition.—At the commencement of the year, a large portion of the expeditionary force in Egypt was still employed on the borders of the Nile, and a considerable number of station-hospitals had been established along the river route. In these, a large number of sick were treated, the prevailing diseases being typhoid fever and dysentery. The occurrence of dysentery was readily explicable by the very great changes between the day and night temperatures to which the men were exposed, the diurnal variation frequently amounting to 40° Fahr.; but the origin of the typhoid fever contracted in the desert, and prevailing in all the stations along the Nile, was very obscure. The disease was of a severe type, and showed a tendency to increase as the hot season approached. It was probably on this account, as well as on military considerations, that towards the end of April, shortly after the hot season had set in, the Government determined to withdraw the troops from the advanced positions on the Nile, and to revert to a more northern line of frontier. In June, the campaign on the Nile was practically brought to a close.

Expedition to the Eastern Soudan.—Towards the end of January, it was found necessary to dispatch a fresh expeditionary force to Suakin, and in February very full medical and sanitary instructions were issued by the Director-General of the Army Medical Department for the guidance of the officers of the medical staff who were detailed for duty in the part of the Soudan over which the military operations were to extend. The force was all collected at the beginning of March. On the 19th of that month, an advance was made, and in the action which ensued, one of the earliest casualties which occurred was that of Surgeon Lane, who met with a fatal wound from a bullet, which passed through his left lung. Other actions and skirmishes quickly succeeded, and the medical department soon found itself with a large number of wounded under its care. The action on Sunday, March 23rd, when the Soudanese made an unexpected attack on the troops under General McNeill, caused an influx of more than 150 wounded into the hospitals at the base. All accounts agreed that the contingency, large as it was, had been well provided for, and that nothing could be better than the arrangements which were made by the officers of the medical staff for the necessary care and comfort of the sufferers. Subsequently to this date, the admissions into the hospitals were chiefly from the effects of diseases, due, in a great degree, to the effects of high temperature and other climatic influences, as well as to unsanitary conditions, which were inherent in the localities occupied by the troops, insolation, typhoid fever, and dysentery being predominant. The labours and exposure of the officers and men of the medical staff were incessant, and there has been the most ample testimony that, whether on occasions of action, fighting with the enemy, or in the trying scenes in the hospital, there was never any skinking from duty and exertion on the part of either. The sick, as well as the wounded, were thoroughly cared for in all respects, and no department was better administered, and no staff more efficient, than the medical department. We wish we could add in our summary that the distribution of honours and rewards to the officers of the medical service was as satisfactory in proportion as the complimentary expressions of praise which were heard on all sides, both while the operations were in progress and subsequently. A supplement to the *London Gazette*, on August 25th, contained Lord Wolseley's and Sir Gerald Graham's despatches relative to the military operations on the Nile and in the Soudan. Lord Wolseley, in his remarks on the work of the medical department, said, "I have never seen the sick and wounded better cared for"; and Sir Gerald Graham observed, "The new organisation was most complete, and its working thoroughly efficient." In the list of honours which followed, a K.C.B. was conferred on Dr. Crawford, the Director-General of the Army Medical Department—a distinction to which, in the estimation of the medical service in general, he had been long entitled—and three medical officers were nominated C.B.'s; while nine other medical officers were rewarded by promotion to a higher grade in rank. Among the latter was Deputy Surgeon-General O. Barnett, C.I.E., who was the Principal Medical Officer of the Soudan expedition under Sir G. Graham, but in his instance the promotion was posthumous, for shortly after his return from Suakin he fell a victim to disease contracted at that station. He was an officer highly esteemed in public and private life, and his death was felt to be a great loss to the department to which he belonged.

In connection with the Egyptian expedition, the fact may be recalled that, on May 16th, the Queen, accompanied by Princess Beatrice and Prince Henry of Battenburg, travelled from Windsor to Netley, and visited at the Royal Victoria Hospital the sick and wounded soldiers who had been invalided there from Egypt. The Sovereign's visit was a source of great gratification to the men.

Medical Preparations for a Campaign on the Frontier of Afghanistan.—Early in the spring, matters on the Afghan frontier assumed such a threatening aspect that it became necessary to consider the arrangement, and to a certain extent to make preparations for the despatch of the medical establishments of an army corps in that direction. A camp of 20,000 troops was formed at Rawal Pindie, and field and base hospitals were organised. In anticipation of great calls being made on England for medical officers, the number of candidates for medical commissions, which it had been intended to send for military training to the Army Medical School at Netley prior to the menacing turn which the affairs in the East had taken, was nearly doubled. This increase would have afforded very limited aid, however, if the differences between Russia and England had terminated in war, as it was for some time feared they would.

Volunteer Medical Staff Corps.—An important public meeting was held in June at the Mansion House, for the purpose of calling attention to the necessity of placing on a firmer footing the establishment of the Volunteer Medical Staff Corps. It was generally agreed that

an establishment of the kind was an essential part of the Volunteer Force, and as necessary to the completeness of its organisation as the Army Medical Staff Corps to the regular army. The Lord Mayor, Director-General Sir T. Crawford, Sir J. Hanbury, Sir William Mac Cormac, Sir Guyer Hunter, the General Officer Commanding the Home District, and many other officers, military and medical, took part in the proceedings. Various resolutions for promoting the interests of the Volunteer Medical Staff Corps were adopted. In the following month, an official inspection of the Corps was made by Surgeon-General Sir J. Hanbury, Principal Medical Officer of the Home District, at Wellington Barracks. Surgeon Cantlie, of the Charing Cross Hospital, was in command. The corps paraded in full strength, and was formed as a battalion of four companies, comprising thirteen officers, and 218 men of all other ranks.

Personal Events and Changes in the Army Medical Service.—Among the more important changes during the year in the higher ranks of the Army Medical Service, has been the retirement of Surgeon-General Sir A. D. Home, V.C., from the post of Principal Medical Officer to the troops in India, after completing five years' service in that capacity. He was succeeded by Surgeon-General C. D. Madden, a medical officer of experience in the Crimean, Indian Mutiny, and Abyssinian campaigns, and who had been recently acting in the capacity of Principal Medical Officer of the Madras Presidency. Surgeon-General O'Nial, C.B., who received promotion to his present rank in recognition of his services as Principal Medical Officer in the Nile Expedition, has been retained as the head of the medical department in Egypt, having relieved Surgeon-General Dr. Irvine, who had been previously acting in that capacity, but had been transferred to Madras. The Army Medical School at Netley, in the early part of the year, lost the services, from retirement, of Professor Maclean, C.B.; and shortly afterwards a highly representative meeting was held in London, to take steps for suitably commemorating the distinguished public services of that officer during his professional career in India, and subsequently in the Army Medical School at Chatham and Netley. The professorship of Tropical Medicine, which had become vacant through the retirement of Dr. Maclean, was offered to Dr. Boyes Smith, an officer of varied and extensive Indian experience, and at that time holding the position of Professor of Medicine at the Medical College of Calcutta. On June 2nd, a very distinguished officer of the Army Medical Department, Sir William Muir, K.C.B., succumbed to a long and painful illness. He had ruled the Army Medical Department as Director-General from April, 1874, to May, 1882; and had previously rendered conspicuous service to the Government while at the head of the medical service in India. The death of Surgeon-General Barnett, C.I.E., which occurred shortly after his return to England from discharging the duties of Principal Medical Officer at Suakin, has been before alluded to.

The Indian Medical Service.—The year 1885 has seen removed the anomalous and vexatious term of "unemployed pay," the application of which had become sanctioned by long usage, notwithstanding that the officers concerned were often very fully employed by the duties which they were ordered to discharge; and the more rational term of "grade-pay" has been substituted for it. Under this new arrangement, the rates of pay have been defined according to grade, and have been closely assimilated to those of the medical officers of the British army of corresponding grades serving in India.

The long talked-of reorganisation of the medical service of India, so far as concerns the amalgamation of the British and Indian medical services, does not appear to have made much advance towards a satisfactory settlement. Early in May, a bulky Blue Book was issued by order of the House of Commons on the subject of "Army Organisation in India." It contained the scheme, one of the latest, for the reorganisation of the medical service, which was framed, at the request of the Government of India, by the present Director-General of the Army Medical Department, Sir T. Crawford, when he was Surgeon-General of Queen's troops in India, in concert with Surgeon-General Dr. Cunningham, then the sanitary adviser of the Indian Government. The arrangements mutually agreed upon, and proposed by the two heads of the medical service in India for adoption by the Government, failed, however, to obtain the approval of the Secretary of State for India, and was equally discountenanced by the Secretary of State for War. One feature in the scheme was the institution of a special local service to which only natives of India were to be admitted, while they were to be excluded from the general medical service. In commenting on the proposed arrangement, the Secretary of State for India laid down the rule that no scheme of medical organisation by which the natives of India were excluded from the commissioned medical service of the country would meet with approval, and, indeed, any such exclusion would be distinctly contrary to the terms of the compact which

was solemnly made at the time the Government of India was transferred to the Crown. The regulations for the British Medical Service require every candidate for a commission in it to be of unmixed European descent, and this discrepancy between the British and Indian military medical services is likely to continue to be a very serious obstacle in the way of their amalgamation.

On March 29th, Dr. Cunningham, having completed five years' service on that date as Surgeon-General and Sanitary Commissioner with the Government of India, took his retirement, and was succeeded by Deputy Surgeon-General Dr. B. Simpson, who at the time was acting as the Inspector-General of Civil Hospitals in Bengal. The Government of India, on Dr. Cunningham's retirement, published, in the official gazette, a very handsome tribute to the eminent and valuable services which that officer had rendered to the State in the sanitary department over a period of twenty years, during fifteen of which he had been the head of that department.

NAVAL MEDICAL SERVICE.

On the Naval Medical Service, we are pleased to learn that it has at length resumed its position with the medical schools, and is now drawing more than enough of candidates to supply its demand; and, from the decreasing number of early resignations, it may be inferred that there is more of comfort for the young officers afloat.

We would, with the outside profession, be pleased to see the key-stone placed to consolidate the structure, and to obviate the dissatisfaction which is known to exist among the rising members of the corps. They complain that the Director-General of the Medical Department of the Navy is not placed on an equal footing, as to emoluments, with his brother officer of equal relative army rank.

It is a pity that official solicitude should stop short at obtaining and fostering the junior grades, who, as they ascend the scale of rank, feel that the sister service is patronised with the highest rewards, enabling its holders to maintain their position, and so afford a stimulus to those below themselves to perseverance. It would be gratifying to all to find provision made for this in the Naval Estimates, now being prepared for the vote of the new Parliament.

The service has had reason to lament its loss of an esteemed member in Dr. George Mason, who, having returned from foreign service with the rank of Inspector-General, in excellent health, was cut short in his career, to the irreparable loss of his family, by enteric fever. He had seen very extended service everywhere, and he gained decorations in the trenches of Sebastopol.

MEDICAL EVENTS OF THE YEAR IN SCOTLAND.

If the year just terminating has been a somewhat uneventful one in Edinburgh and district, it has been one of steady progress, and not marked by any great losses in the profession. In the Edinburgh Medical School there have been few changes. The vacancy in the Principalship of the University of Edinburgh, caused by the death of Sir Alexander Grant, Bart., was filled up early in 1885 by the appointment of Sir William Muir, D.C.L., LL.D., etc. The appointment was received with approbation on all sides, and he has already shown the warm interest he takes in the welfare of the many students who constitute a large part of his charge. Although not in the Faculty of Medicine, the untimely death of the late Professor Fleeming Jenkin (professor of engineering) was a substantial loss to science, considering the great attention he devoted to sanitary matters, and to practical applications of electricity. The Faculty of Medicine in the University, and the extramural school, have made an important addition to their teaching in the inauguration of a regular course of clinical lectures on the Diseases of Children, in the Royal Infirmary, with bedside instruction in the Sick Children's Hospital.

In the Royal Infirmary, formerly, there were three staff-physicians. There are now four, Dr. Affleck, formerly senior assistant-physician, having been raised to the staff. The vacancy thus caused was filled up by the appointment of Dr. Byrom Bramwell to an assistant-physicianship. On the surgical side, the resignation of Dr. Bishop (owing to ill health) caused a vacancy in the assistant-surgeonships, which was filled up by the appointment of Mr. Francis M. Caird. The appointment of pathologist has been made a dual office, the new appointments being given to Dr. G. Sims Woodhead and Dr. Alexander Bruce. The former is also demonstrator of practical pathology in the University of Edinburgh, and the latter lecturer on pathology in the Royal College of Surgeons, Edinburgh.

An important change was made by the action of the managers of the Infirmary and of the Sick Children's Hospital, in determining no longer to receive for treatment, into either of their institutions, cases

of infectious disorder. Under the old arrangement, the maintenance of a separate hospital for such cases cost the infirmaries about £3,000 annually; it also seriously crippled the resources of the Sick Children's Hospital. The municipal authorities, after some discussion and examination of the facts of the case, acquiesced in the changes. Having previously equipped a large fever-hospital of their own, and purchased from the infirmaries their fever-hospital, they now receive all cases of infectious diseases sent from Edinburgh.

There has been a considerable amount of typhoid fever in Edinburgh, but no great prevalence of other infectious diseases. In some other villages and towns, however, there has been a number of cases of small-pox. This is an exceptional state of matters for Scotland. Two of these outbreaks occurred in places where the paper-making industry is a special feature; and attention was directed to the subject in a question in the House of Commons by Dr. Farquharson, M.P., as to the disinfection of the rags used in the said industry.

Measles was so prevalent in Dundee, as to require special action on the part of the Board of Supervision.

The sanitary associations of Edinburgh and of Dundee have spread in their influence, and done much good work.

The Edinburgh Health Society's course of lectures, delivered for the most part by medical men to large and appreciative audiences, not only did much good, but in their published form acquired a large circulation.

Considerable activity has been shown in the matter of ambulance work. Societies have been established in many places; lectures, demonstrations, and practical instruction have been given by various members of the profession, and examinations have been held and proficiency determined; while a special feature has been the instruction of portions of the police force.

The Royal Commission on the Housing of the Poor visited Edinburgh last spring, and doubtless found ample food for reflection in some of the unimproved parts of Old Edinburgh.

The Scottish Branch of the British Dental Association held its annual meeting, under the presidency of Dr. Smith, of Edinburgh, in Dundee, on June 6th.

Proposals have been made for establishing a medical school at Dundee; and in connection with this subject, Professor Gairdner, of Glasgow, delivered a lecture in Dundee in July, in favour of the scheme, and stated that, if carried out, the proposed medical school would be incorporated with St. Andrew's University, that the scientific training of the students would be carried out at University College, Dundee, and clinical instruction would be given in the wards of the Dundee Royal Infirmary.

A Conservative, Mr. J. H. A. MacDonald, Lord Advocate for Scotland, has been returned as Member of Parliament for the Universities of Edinburgh and St. Andrew's. His opponent, Mr. Erichsen, who came forward under exceptionally untoward circumstances, conducted his candidature in such excellent spirit as secured for him the respect and esteem of his opponents as well as of his supporters. He received nearly 2,500 votes, and was worked for most enthusiastically by his committee. We earnestly trust that a man of such high personal character, culture, and scientific attainments as Mr. Erichsen will soon find a seat in Parliament, where his well-earned leisure from professional work will enable him to bestow upon the legislature of the country the fruits of his life-long experience.

In the West of Scotland, as represented by Glasgow, the very marked commercial depression experienced there seems to have made itself felt in the case of the university, by a greater influx than usual into the ranks of the various professions. Looking chiefly to the classes in the Medical Faculty of the University, we find that they have reached a size unknown before, and, in consequence, notwithstanding provision made for moderate expansion, we have the unusual spectacle of the class-rooms of a comparatively new university so inadequate and crowded, that the difficulty can only be got over by some extension of the college buildings. A scheme has been drawn up for this, and will be proceeded with as soon as funds can be raised. The new Bute Hall has witnessed during the year the installation of the Chancellor, Lord Stair, and the unusual spectacle of a rectorial address, delivered by an emeritus professor of the University, it being the first time in the history of the University that one of its professors has been chosen to fill the high post of Lord Rector. The graduation ceremonial in April was marked by the abandonment of all Latin phraseology in the forms of procedure connected with the conferring of the degrees. The changes in the teaching staff of the University this year have been few. Professor Bayley Balfour (appointed to the chair of botany at Oxford), has been succeeded by Mr. F. O. Bower, formerly botanical lecturer at South Kensington Science School.

The new regulations for the medical examinations, under which

students can come forward for their professional examinations at an earlier period than heretofore, have been found to work well.

Three Scotch members were appointed to serve on the Commission, selected by the General Council of Medical Education, for reporting on the examination for degrees in medicine and surgery in all the universities of Great Britain and Ireland. Of these, Glasgow furnishes two, Professors Leishman and George Buchanan, the third representative from Scotland being Dr. George Balfour, of Edinburgh.

Reference must be made to the steps taken by the Glasgow University students to establish amongst themselves a social union, with the objects of promoting friendly intercourse, of acting as a central body for the protection of their interests, and serving as a means of more direct communication between themselves and the University authorities. These latter have looked favourably on the scheme, and it is not unlikely that a site for a building may be obtained in close proximity to the University.

This year has seen settled a scheme, framed by the Educational Endowment Commissioners, for the various Glasgow institutions. Under it, government by trustees is done away with, and the funds of Anderson's College, the Young chair of chemistry connected with it, the College of Science and Arts, Allen Glen's Institution, the Technical College of Glasgow, and the Atkinson Institution, are all amalgamated, and administered by a body of thirty-four members, of whom two are elected by the Senate of the University of Glasgow, and one by the Faculty of Physicians and Surgeons.

After a good deal of litigation, the highest Scotch courts gave judgment in October on the question of the copyright in university lectures. The ruling laid down was that a student, after payment of the class-fee, is at liberty to publish the substance of the lectures without the concurrence of the professor, as the latter discharges the duties of a public office, not for his own benefit, but for that of the students, and, through them, of the public. This decision is in accordance with the Act of 1835, which expressly excludes university lectures from its privileges.

At the general election in November, there was no contest for the representation of the Universities of Glasgow and Aberdeen. Dr. James Campbell, of Stracathro, was re-elected.

The abandonment of the Universities (Scotland) Bill by the late Parliament, has left the status and privileges of these seats of learning unaltered. Glasgow University took up no hostile position to the measure. With the omission of the financial clauses, it would have been satisfied to see it become law. While no actual legislation has taken place, the question of university reform has not been allowed to pass entirely unnoticed. The subject was brought up at the half yearly meetings of the Council, and those most interested in it have followed the example of Edinburgh, and formed an Association of the General Council of Glasgow University.

Coming to matters purely medical, we have to note the formation in Glasgow of an Obstetrical and Gynaecological Society, with Professor Leishman as first president. Another new society is that of Natural History, established in connection with Anderson's College.

The conjoint scheme of examination, commenced last year by the Faculty of Physicians and Surgeons, has worked very well for the past twelve months. At the March meeting of the Faculty, a decided expression of opinion was elicited in favour of compulsory instruction in insanity, and a remit was made to the General Medical Council to that effect.

Although the present epidemic-hospital for Glasgow is extensive, it was decided to increase its size by two additional pavilions, and these have been in progress of erection during the past year. Their completion will give a total of thirteen pavilions, with twenty-six wards, capable of holding 400 adults. With the object of keeping active the interest previously awakened on behalf of a southern hospital in Glasgow, building operations were decided on last summer. The funds at present in hand only allow of a portion of the hospital being finished, with provision for at least sixty patients. Thanks to the large sum of £21,000, raised by a bazaar for the Sick Children's Hospital, the directors have been enabled to proceed with their plan of establishing, in suitable buildings, an out-patient department of the hospital. A new wing has also been added to the Eye Infirmary, and the wards are nearly ready for occupation. Mention may also be made of the Home for Incurables, presented to Paisley through the liberality of Mr. Coats, and of the Cottage Hospital, provided for Dunoon by the joint efforts of its inhabitants.

At the Royal Infirmary, the retirement of Drs. Scott Orr and Ebenezer Watson, after a long and faithful period of service, gave rise to vacancies on the staff of the hospital, which were filled by the promotion of Drs. J. W. Anderson and W. T. Fleming, who had previously acted as assistant-physician and assistant-surgeon respectively.

A decision of some importance was also come to by the directors of this hospital in connection with fever-cases, and that was to decline to receive them, seeing that the municipal authorities are, by law, bound to provide for them at the expense of the ratepayers. This course is in keeping with that now in vogue in Edinburgh and Aberdeen. At the Sick Children's Hospital, the resignation of Professor Leishman, as visiting physician, was followed by the promotion of Dr. Samson Gemmell, and to the vacancy thus created Dr. Middleton was appointed.

The mortality in Glasgow has been from time to time high, but the past year has not been marked by any special epidemic of large extent or severity, and it is only right to say that no effort has been spared by Dr. Russell and his staff, to ensure the health of the community entrusted to his charge as medical officer of health. Nothing has been done in the past year to remedy the polluted state of the Clyde, and the Rivers Pollution Bill of 1876 is practically a dead letter as regards it. The Town Council of Glasgow has not been altogether indifferent to the state of this river. An investigation was ordered to be undertaken by Dr. Wallace, who drew up a valuable report on the subject, which brought out the important fact that a great deal of the pollution was due to the daily entrance into the river of manufacturing refuse in large quantities. With the view of relieving the Greenock authorities of some of the expense that falls on them for sanitary duties, the proposal has been made to establish a general sanitary authority for the Clyde, the expense of which should be shared by the different places in varying proportions.

As the headquarters of the St. Andrew's Ambulance Association, Glasgow must be regarded as the centre of that very necessary branch of work; and it is satisfactory to find, from the last annual report of the Society, that it has made excellent progress. It has affiliated round it now quite a large number of secondary centres in the smaller towns and villages of Scotland, and by a change in its constitution, by which a central executive committee has been appointed on which each centre is represented, a more national character has been given to the Association, and the confidence felt throughout Scotland in it has been strengthened. Every effort, too, seems to have been made to provide the most approved ambulance material and transport.

The Royal Commission on the Dwellings of the Poor did not visit Glasgow, but four witnesses from that place were examined, one of whom was Dr. Russell, medical officer of health. He laid before the Commissioners very important evidence as to the health-statistics of the city, and the various sanitary arrangements that experience has shown to be necessary. So far, nearly £1,600,000 have been expended in Glasgow in the purchase of property for the purpose of improvement. Since the report of the Commission was issued, the Glasgow Town Council has considered the propriety of following the example of the Corporation of Liverpool, and of erecting at the public expense a series of buildings with accommodation for the artisan class.

A brief reference must be made to that other branch of scientific work carried on in the Western Highlands on the summit of Ben Nevis. There has been no abatement in the thoroughness and completeness of the observations made at the observatory; and, in addition to this ordinary routine work, two special lines of study were taken up by Mr. Dickson and Professor Ewing, of Dundee; the former conducting some novel investigations in regard to the temperature and humidity of the air, while the latter was occupied with the registration of earth-movements.

In public health matters there has been no special legislation to record. Some important decisions have been given by the courts, and the Board of Supervision has passed some enactments that are decidedly for the welfare of our large towns. The compulsory registration of dairies and milkshops is an instance of the latter. Instructions were issued as to the special precautions to be taken to prevent the admission of cholera at any of our sea-ports, and happily with a very successful result. In connection with this subject, an instance occurred of the present unsatisfactory state of the law bearing on the question of the disinfection of rags. Although the importation of disease by infected rags was illustrated by an outbreak of small-pox at Aberdeen, it seems doubtful whether, under the Public Health Act, paper-makers can be compelled to disinfect the bundles of rags before being used. The Burgh Police and Health (Scotland) Bill, which passed a Select Committee of the House of Lords, but failed to become law, was an attempt to remedy the defects of the present state of the statutes on public health matters. The measure did not give general satisfaction. No doubt it was extended to consolidate and amend existing legislation, and to deal with the whole of the municipal regulations of towns; but on many points it was at variance with the views of the medical profession. The main objections to it were well summed up by Dr. Russell, of Glasgow, in his letter to Lord Dalhousie, the

chairman of the Select Committee, in which he showed that the dislike of himself and other medical officers of health to the Bill as a health-measure, was based upon the broad principle that the efficiency of sanitary legislation depended not upon elaboration and parade of clauses regarding the subject matter of the law, but in the constitution of the local authorities, the strength of their official executive, and the powers of the Board of Control, so that the administration of the law might be ensured. In his opinion, the Bill multiplied peddling autonomies over insignificant areas, which could not support the machinery of sanitation, either mental or material. No doubt this strong feeling of opposition on the part of men very well qualified to judge of the needed legislation on health-matters led to the abandonment ultimately of the measure.

The yearly report of the Lunacy Commissioners gives the number of insane people in Scotland on January 1st of the present year as 10,918, which is an increase of 169 over the previous year. The conduct of all the asylums was such as to merit approval, and the statistics of recoveries are above the average of the five preceding years, the results of the public institutions standing higher than those of the private establishments. With the object of meeting the overcrowding which exists in many of the existing asylums, a proposal has been set on foot to carry a Lunacy Districts Bill. By its provisions, parochial boards in Scotland, who have as many as one hundred lunatics chargeable to them, would be allowed to provide accommodation for their own lunatics, and be exempted from the general assessment at present levied by the district lunacy-boards.

The past year has in some respects been comparatively uneventful in the medical history of the north-east part of Her Majesty's dominions. No changes have taken place in the staff of the Aberdeen Medical School, but its history is one of marked material and numerical progress; in fact, this year the number of beginners is larger than in any previous year. The fact stands, explain it how one will. Some changes have been made in the arrangement of lectures, whereby medical jurisprudence becomes in future a summer instead of a winter course. This is a decided improvement for all parties. Of special courses of lectures during the year, the Thomson lectures by Professor Ball on Astronomy, those of Professor Stokes, of Cambridge, on Light, and Professor Stirling's on the Physiology of Digestion and Respiration, to students of arts, were the most important. The great event which fluttered the doves of science was the visit of the British Association in September under the presidency of Sir Lyon Playfair. The meeting was one of the most successful meetings that the Association has held—successful numerically and scientifically. One noteworthy feature was the very large number of papers in the biological section, and so numerous were the papers that that section had to be subdivided and redivided. Of course, the whales played a prominent part, and altogether a solid amount of work was accomplished; while the excursions, especially that to Balmoral, on the invitation of Her Majesty, gave great satisfaction. The burning medical question for the last few months has been the Infirmary question. Dr. Angus Fraser, in a speech at a gathering of medical men, sounded a note of warning, which led to a thorough investigation of the whole institution. A special committee was appointed, and this committee went thoroughly into the sanitary state and administrative arrangements of the institution. As a result of these inquiries, a lady-superintendent—Miss Lumsden, of the Sick Children's Hospital—was appointed; and now the question is, considering the state of the infirmary, is it desirable and necessary to have a new institution altogether? Meantime, the settlement of this matter is postponed until another question is decided—namely, whether zymotic diseases shall be treated in the infirmary as heretofore. If they are not, then a certain number of beds will be freed for general purposes. We cannot help thinking that, if funds can be procured at all, a new hospital is what is required to meet the growing wants of the community and the important interests of the medical school. A considerable amount of military fervour has been shown during the present session, and it is likely that an ambulance-corps will be formed, with Professor Ogston at its head; while already a battery of artillery confined to students has been formed, with Professor Stirling as captain, and Professor Trail as lieutenant. The students have floated a scheme, and we believe successfully, to obtain funds for a large recreation-ground near King's College, and last week a bazaar yielded them a handsome sum for this purpose. The University has suffered a great loss in the death of its Principal, Dr. Pirie, in whose place Professor Geddes has been appointed.

THE Princess of Wales has become the patroness of the Chelsea Hospital for Women, Fulham Road, S.W., in succession to the late Duke of Albany.

MEDICAL EVENTS OF THE YEAR IN IRELAND.

Medical Education and Examination.—There have been few matters of medical importance in Ireland to chronicle during the past year. No one expected much good would result from the labours of the Commission of Inquiry into the Queen's College. Indeed, the probability of their report not being an unanimous one was a foregone conclusion. A large number of medical students graduated during the year in the Royal University. But it is too soon yet to judge definitely of the standard of these examinations, or of the effect the facility of obtaining medical and surgical degrees in this University will have on medical education and on the other licensing bodies. The University of Dublin is spending a large sum in rebuilding and greatly enlarging its school of medicine. A portion of this addition, in the form of a new anatomical lecture-theatre, was opened at the commencement of the present session, in the presence of His Excellency the Lord Lieutenant.

The King and Queen's College of Physicians.—The number of candidates coming forward for the licences of this College has considerably increased during the last and three previous years. At the same time, that the standard of the examinations has been kept up, is shown by the high percentage of rejections. Three new Fellows were added to the roll last April, namely, Drs. Horne, MacCabe, and Pollock. At the last annual meeting, Dr. Cruise was re-elected President, and Dr. J. Magee Finny appointed Vice-President. The College has ordered that none of its licentiates, members, or Fellows are to be officially addressed as "Doctors," unless they possess an university degree entitling them to that appellation. Dr. Lyons, late M.P. for Dublin, and a Fellow of the College, obtained leave, in April last, to bring in a Bill to amend the Act of 1858, in order to make the membership of the College registrable. Owing, however, to the action of a certain member of the House, the Bill was thrown out. Under the provisions of the same amending Bill, the University of Dublin and the Royal University of Ireland, would, if it had become law, have been enabled to register the degrees in obstetrics granted by them.

Royal College of Surgeons in Ireland.—A supplemental charter was granted to this Corporation last May. *Inter alia*, it throws open the diplomas of the College and all offices in it to women; it establishes the system of electing the officers by paper-voting by Fellows *in absentia*; and it admits, as candidates for the office of examiners, lecturers in medical schools, provided they are not private teachers. Formerly, there used to be only nine examiners for the letters-testimonial, now the number has been increased to twenty, so that each candidate may be examined by two examiners at each table. Now, too, also, the subjects of examination are allotted to examiners who claim, or are believed, to be specially qualified to act as examiners in each subject. The latter changes, although steps in the right direction, have not proved altogether satisfactory. The mode in which the examinations are conducted has been brought under the notice of the Council, and has led to the resignation of one of the examiners. The President of the College, Dr. Charles A. Cameron, had the honour of knighthood conferred on him in June by the Earl Spencer, then Lord Lieutenant, in recognition of his valuable services in the cause of public health, and of his scientific position as a chemist and sanitarian.

The Conjoint Scheme.—For the fourth time within a comparatively few years, another proposition was made last spring by the College of Surgeons in Ireland to the King and Queen's College of Physicians, to establish a conjoint examination scheme for Ireland between the two Colleges, but that scheme has again lapsed.

Royal Visit.—During the visit of His Royal Highness the Prince of Wales to Dublin in the spring of the year, he was presented with loyal addresses by the medical corporations, and by the Academy of Medicine in Ireland. His Royal Highness also inspected several of the dwellings of the poor in the worst parts of the city, as did also some members of the Royal Commission for Housing the Poor, which held some of its sittings in Dublin.

The Labourers' Dwellings (Ireland) Act.—In last year's retrospect (p. 1307) we recapitulated the points in the legal contest the Irish Medical Association were then waging on the part of Dr. Rogers with the Youghal Board of Guardians, who had refused to pay him, being their medical officer of health, for inspecting, under this Act, dwellings and sites. This was a most important test-case, and had been brought on appeal from one court to another. Finally, this year, it came before the Court of Appeal itself, who unanimously decided that the plaintiff was not bound to perform the duties assigned him for nothing, and gave judgment in his favour. The Irish Medical Association deserves high commendation for the determined way in which it fought the case on behalf of the dispensary medical officers, and is to be congratulated on the success it achieved.

Payment of a Dispensary Medical Officers' Locum Tenens.—Another important judgment was obtained by the Irish Medical Association in a case in which the Loughrea Guardians refused payment to a duly appointed substitute for a medical officer for his services. The words in the regulations under which the guardians contended they had power to refuse remuneration were: "They (the guardians) shall determine the amount, if any, to be paid to the temporary substitute." The judge held that the guardians had not under the words "if any" power to refuse the remuneration; and, further, that the words "if any" meant that "if any" work was done, it ought to be paid for.

The Dublin Hospitals.—Early in the year, Earl Spencer, then Lord Lieutenant, proposed a capitalisation of their Government grant, and an amalgamation of two of the Dublin clinical hospitals in one large new central building. He received deputations from the institutions concerned in such a procedure, and finally appointed a commission to consider the application of the Parliamentary grants to the Dublin hospitals. The commission sat with open doors; and the evidence published in the daily papers has, we regret to say, not been in all cases creditable to the administration of certain institutions. But as the commission has now adjourned *sine die*, without completing its inquiry, we must await the official report before making any further comment. Jervis Street Hospital has been rebuilt and greatly enlarged, and was reopened on October 30th by the Roman Catholic Archbishop of Dublin. The City of Dublin Hospital has also had an annex erected, containing baths, water-closets, etc., of approved construction. Lord Pembroke has defrayed the expense of remodelling and refitting the male medical ward of the hospital, named after his father. There have not been many changes in the staff of the Dublin hospitals during the year. The principal are the appointment of Dr. Nugent to succeed the late Dr. MacDowel at the House of Industry Hospital; and of Messrs. Heuston and Scott to the Adelaide in succession to the late Mr. Warren. Dr. Redmond got the step left by Dr. J. W. Moore, as physician to Cork Street Fever Hospital on the completion of his seven years' tenure of that office, and Dr. Ashe was elected to the vacancy caused by Dr. Redmond's promotion. Mr. Tobin, late of the Medical Staff and Assistant-Professor of Military Surgery at Netley, has been appointed an Assistant-Surgeon to Vincent's Hospital, and Mr. Bewley an Assistant-Physician to the Adelaide Hospital. The City of Dublin Hospital has lost its consulting-surgeon, by the death of Mr. Jolliffe Tufnell. The late Dr. Marcus Eustace, although not a hospital physician, was one of the proprietors of a private lunatic asylum near Dublin, and a highly respected and esteemed man. A new institution, designated "The National Lying-in Hospital," has been added during the year. The originator and master of this hospital is Dr. William Rowe, Professor of Midwifery in the Royal College of Surgeons in Ireland, and for many years Deputy Master of the Coombe Lying-in Hospital, to the Mastership of which, on Dr. Kidd's retirement, Dr. Samuel Mason was elected.

Honours to the Profession.—Although no hereditary honours were conferred by the State on any members of the profession in Ireland, as was expected, during the year, Her Majesty granted the Albert Medal, second class, to Mr. Thompson, Surgeon to the Tyrone Infirmary, for his heroism in endeavouring to save a child's life, after the operation of tracheotomy for diphtheria, by suction of the obstructed tube. The profession itself showed its appreciation of the services and worth of two of its members in Dublin, by presenting an address and testimonial to Dr. Denham, on retiring from practice, and to Mr. Abraham, on leaving Dublin for London.

Health of Dublin.—During the year, the only epidemic of any consequence was one of measles. Six cases of small-pox, two of which proved fatal, occurred in June. These cases were all traceable to one source. Fortunately, the precautions taken to prevent the spread of the disease were most successful.

OBITUARY FOR 1885.

THE deaths of the following members of the medical profession in practice in the United Kingdom and in the public medical services have been reported during the year: Dr. William Marshall, of Crief, formerly resident physician to Her Majesty the Queen; Dr. W. B. Dalby, of Torquay, retired fleet-surgeon, Royal Navy; Mr. John Leigh, of Llangabon, South Wales; Dr. A. F. Graham, of Liverpool; Mr. G. W. H. Cook, surgeon Army Medical Staff; Dr. W. B. Hay, of Hull; Mr. W. H. Ayling, of London; Dr. T. B. Washburn, of Gloucester; Mr. Edward J. Parry, of Shrewsbury; Dr. H. T. Lancaster, of Croydon; Mr. Amiraux Godfray, of St. Helier's, Jersey; Dr. Buchanan Baxter, lately physician to King's College Hospital, and

professor of materia medica and therapeutics in King's College; Mr. John Mann, of Hornsey Rise, a veteran general practitioner; Dr. St. G. Wade Tucker, retired surgeon-major Bengal army; Mr. G. R. Nuttall, late of the Bombay Establishment; Dr. Daniel Noble, a well known practitioner in Manchester; Mr. C. C. Balding, of Sheffield, Bedfordshire; Dr. J. McCosh, late of the Bengal establishment; Mr. Bernard Haldan, for many years in practice at Preston; Mr. Derry Jones, of Upper Street, Islington; Dr. W. A. Davidson, formerly surgeon 65th regiment; Surgeon-General (retired) T. C. O'Leary; Dr. William Braithwaite, of Leeds, founder and editor of the well known *Retrospect of Medicine*; Surgeon G. S. Lewis, Army Medical Staff; Dr. G. A. Smyth King, retired surgeon Army Medical Staff; Mr. J. J. Martin, retired fleet-surgeon Royal Navy; Mr. H. A. Tuxford, of Westham, Sussex; Mr. Marcus Eustace, of Dublin; Dr. Samuel Warren, of Rathmines, Dublin; Mr. G. P. Turner, surgeon Army Medical Staff; Brigade-Surgeon W. H. Colville, formerly of the Bombay Medical Establishment; Mr. Ebenezer Pye-Smith, for many years a much respected general practitioner in Hackney; Dr. W. A. F. Browne, of Dumfries, an eminent authority on the management of the insane; Dr. Henry Kingsley, many years physician to the infirmary at Stratford-on-Avon; Dr. Morison Watson, professor of anatomy in Owens College, Manchester; Mr. W. Martin Coates, many years surgeon to the Salisbury Infirmary; Mr. Samuel Foulis, surgeon to the Chesterfield and North Derbyshire Infirmary; Dr. George Pearce, late director-general of the Madras medical establishment; Dr. Joseph Pope, formerly staff-surgeon Royal Artillery; Dr. James Whitehead, an eminent obstetric physician, formerly in practice for many years in Manchester, and author of several works of merit; Mr. William Wilton, late of North Walsham, Norfolk; Dr. Emily Bovell Sturge, of Nice; Surgeon-Major P. B. Conolly, on service in the Soudan; Dr. R. Fitzgerald, of Tarbert, county of Limerick; Deputy Surgeon-General J. Crerar; Surgeon-General F. W. Innes, M.D.; Dr. Edward Wells, senior physician to the Royal Berkshire Hospital; Dr. Edward T. Tibbits, physician to the Bradford Infirmary; Mr. James A. White, of Pendleton, Manchester; Deputy Inspector-General J. S. Chapman; Mr. John Neill, resident surgeon of Dr. Stevens' Hospital, Dublin; Mr. Henry Davies, late of Morriston, Swansea; Deputy Inspector-General John S. Graves; Mr. John Oldman, of Huntingdon; Mr. William F. Chadwick, of Royton; Dr. Henry Colebrooke, of Southborough; Mr. Percy K. Cree, surgeon Royal Navy; Dr. John Thorburn, professor of obstetric medicine at Owen's College, and obstetric physician to the Manchester Royal Infirmary; Surgeon Robert Lesly, M.D., on service in the Soudan; Mr. J. D. V. Packman, formerly surgeon in the East India Company's service; Dr. J. M. Young, surgeon Bengal Establishment; Surgeon C. P. Turner, and Surgeon O. G. D. Bradshaw, on service in the Soudan; Mr. W. W. Moxhay, of Reading, surgeon to the Royal Berkshire Hospital; Dr. Robert L. Baker, of Leamington; Dr. Samuel Budd, of Exeter, formerly physician to the Devon and Exeter Hospital; Mr. James Moncrieff Arnott, surgeon-extraordinary to the Queen, and formerly for many years surgeon to the Middlesex Hospital, and member of the Council of the Royal College of Surgeons of England; Dr. E. H. Blakeney, retired deputy inspector-general, Army Medical Department; Dr. Joseph Bunny, many years in practice at Newbury, Berkshire; Mr. John E. Dickson, of St. Helier's, Jersey; Mr. Ross Maguire, of Castleknock, county Dublin; Dr. D. Manson Fraser, formerly resident medical officer at the Homerton Fever Hospital, murdered in Borneo; Mr. John Caunt, of Nottingham; Dr. W. Lodewyk Crowther, many years surgeon to the hospital at Hobart, Australia, and a liberal contributor to the Museum of the Royal College of Surgeons, of England; Sir William Mare Muir, late Director-General of the Army Medical Department; Dr. R. G. Rattray, formerly superintendent of and apothecary to the Aberdeen Royal Infirmary; Surgeon-General F. Holton, M.B.; Mr. Montague Grover, of Luton; Dr. T. P. Heslop, formerly physician to the Queen's Hospital, Birmingham, and author of essays on hospital reform and other subjects; Dr. Howard Bendall, of London; Dr. Herbert Davies, consulting physician to the London Hospital; Mr. John Liddle, formerly medical officer of health for Whitechapel; Dr. John Livingstone, of Barnet; Dr. Parkinson Oates; Deputy Inspector-General C. C. Denpster; Dr. Arthur Wood, retired surgeon Army Medical Staff; Deputy Inspector-General E. Howard, Army Medical Service, retired; Surgeon R. G. Cooper, Bombay Establishment; Surgeon-Major E. M. Ross, Madras Establishment; Surgeon-Major Andrew Skeen, Bengal Establishment; Mr. Richard Allen, of Didsbury, Lancashire; Dr. A. B. Shepherd, lately physician to St. Mary's Hospital; Mr. G. Dransfield Brown, many years in practice at Ealing; Mr. Robert Ellis, late of Sloane Street; Dr. Mouritz, medical officer of health for Runcorn; Mr. John L.

Nicholson, of Hull; Deputy Surgeon-General Oliver Barnett, Army Medical Staff; Surgeon W. R. de Morinni, at Suakin; Surgeon D. L. Porter, at Wady Halfa; Surgeon G. M. Russell, at Suakin; Dr. N. Cameron, Army Medical Department, at Sierra Leone; Mr. John E. Beckingsale, many years in general practice at Newport, Isle of Wight; Dr. J. G. French, surgeon-major Indian Medical Service; Surgeon T. W. Beale, Bengal Medical Service; Dr. J. P. Nash, retired surgeon-major Madras Establishment; Dr. McBride, of Gilford, county Down; Mr. William Walker, of Edinburgh, surgeon-oculist to the Queen in Scotland; Dr. John R. Wardell, physician to the infirmary at Tunbridge Wells; Surgeon C. L. Young, Army Medical Service; Dr. W. A. Guy, many years professor of forensic medicine in King's College, and physician to King's College Hospital; Dr. B. G. Macdowell, of Dublin, physician in ordinary to the Queen in Ireland, formerly professor of anatomy and surgery in the School of Physic in Ireland; Mr. T. Leslie Gregson, an old and respected practitioner in Newcastle-on-Tyne; Surgeon Robert Trevor, Army Medical Service; Inspector-General Thomas Colan, Royal Navy; Mr. Charles Hedley, of Welford, Rugby; Dr. James Russell, late physician to the General Hospital, Birmingham, and formerly professor of medicine in Queen's College; Dr. J. A. Fraser, retired Deputy Surgeon-General Army Medical Service; Mr. John Gay, many years surgeon to the Great Northern Hospital; Dr. Francis Harris, consulting physician to St. Bartholomew's Hospital; Mr. Edwin Canton, many years surgeon to Charing Cross Hospital; Mr. T. Shadford Walker, consulting surgeon to the Liverpool Eye and Ear Infirmary; Mr. John Martin, formerly in practice in Liverpool; Dr. Stephen Monckton, physician to the West Kent Hospital; Mr. F. W. Warren, surgeon to the Adelaide Hospital, Dublin; Dr. J. C. Cameron, Deputy Inspector-General, Army Medical Department; Mr. W. Michell Clarke, many years a respected practitioner in Bristol; Surgeon R. F. Cumming, Army Medical Department; Dr. George Mason, Inspector-General Royal Navy; Fleet-Surgeon Henry Richardson, Royal Navy; Dr. John Burn, of Edinburgh; Surgeon-Major G. C. Irving, Army Medical Staff; Surgeon W. M. Hewson, Army Medical Staff; Dr. W. B. Carpenter, C.B., F.R.S., lately registrar of the University of London, and author of several well known works on physiology; Mr. T. Esmonde Cahill, of Ballingarry; Dr. John Cameron, Surgeon-Major Bengal Establishment; Dr. H. G. Bull, many years physician to the General Infirmary, Hereford; Mr. J. H. Lyddon, of Norwich; Mr. Robert Lawson, house-surgeon to St. Thomas's Hospital; Dr. Thomas Andrews, F.R.S., formerly professor of chemistry in Queen's College, Belfast; Mr. T. Jolliffe Tufnell, consulting surgeon to the City of Dublin Hospital; Miss F. Helen Prideaux, M.B., B.S. London; Mr. James Parette, late of Sirhowy, at Bristol; Mr. D. W. Parsons, of Liverpool; Dr. B. P. White, of Londonderry; Inspector-General J. E. Williams, Army Medical Department; Surgeon-Major Edwin Wilkes, Army Medical Department.

In foreign countries, and the United States, the following members of the medical profession, and eminent scientific persons, have died: Dr. W. Darling, professor of anatomy in the University of New York; Dr. Henry A. Martin, of Berlin, introducer of the elastic bandage; Dr. Grimm, one of the physicians in ordinary to the Emperor of Germany, and medical staff-surgeon of the German Army; Dr. M. Popper, of Prague, an active worker in hygienic matters; Dr. Elsberg, of New York, an eminent authority on diseases of the larynx; Dr. F. T. von Frerichs, the celebrated professor of medicine in the University of Berlin, and author of a well known *Clinical Treatise on Diseases of the Liver*; Dr. Gustav Nachtigal, an eminent traveller and diplomatist; Dr. Diomedes Pantaleoni, an eminent and highly respected practitioner in Rome; Dr. Prosper Lucas, of Paris, formerly chief physician to the Bicêtre and the Saint-Anne Asylum; Dr. G. J. Henle, many years professor of anatomy in the University of Göttingen, and a distinguished author of numerous works on anatomical subjects; Dr. Noël Guéneau de Mussy, an eminent Parisian physician, well known to and highly respected by the medical profession in England; Dr. Fehling, of Stuttgart, inventor of the well-known test for sugar in urine; Dr. Aeby, professor of anatomy in the University of Prague; Dr. Oscar Berger, of Breslau; Dr. Albrecht Budge, extraordinary professor of anatomy in the University of Greifswald; Dr. George Hirsch, of Königsberg; Dr. Stratiyevski, medical officer to the hospital at Nikolaiev, Russia; Dr. P. Börner, of Berlin, editor of the *Deutsche Medicinische Wochenschrift* and of the *Reichs Medicinal-Kalender*; Dr. Starke, superintendent physician of the Charité Hospital in Berlin; M. Rabuteau, a well known scientific chemist, of Paris; Dr. M. Schwanda, extraordinary professor of medical physics in the University of Vienna; Professor Julius Minter, director of the botanic gardens at Greifswald; Dr. J. C. G. Lucas, of Frankfurt, author of works on anatomy and natural history; Dr. G. Proscoroff,

formerly professor of veterinary surgery in the Medico-Chirurgical Academy of St. Petersburg; Dr. H. Benezet, chief surgeon of the Kalinkin Marine Hospital at St. Petersburg; Dr. Leonhardt, of Bremen, who disputes with Stromeier the priority of the introduction of tenotomy into surgery; Dr. E. E. Schmid, professor of mineralogy in the University of Jena; Dr. I. Hauke, superintendent physician of the Crown Prince Rudolph Children's Hospital in Vienna; Dr. K. J. von Seydlitz, formerly professor in the Medico-Chirurgical Academy of St. Petersburg; Professor C. Mazzoni, of Rome; Dr. Brodowicz, formerly clinical professor in the University of Cracow; Dr. W. Dunker, professor of mineralogy and geognosy in the University of Marburg; Dr. M. Leisrink, superintendent physician of the Jewish Hospital in Hamburg; Signor Pietro Ripari, chief medical officer in Garibaldi's expedition to Sicily in 1860; Dr. C. T. E. von Siebold, the eminent professor of zoology in the University of Munich; Dr. J. Blazina, emeritus professor of surgery in the University of Prague; Dr. P. L. Panum, professor of physiology in the University of Copenhagen, and president of the International Medical Congress in 1884; Dr. Robert von Schlagintweit, the celebrated oriental traveller and geographer; Baron von Feilitzsch, professor of physics in the University of Greifswald; Dr. Paul Vogt, professor of surgery in the University of Greifswald; Dr. Herman von Boeck, professor of pharmacology in the University of Munich; Dr. Picard, formerly professor of physiology in the University of Lyons; Dr. Landerer, professor of chemistry in the University of Athens; Dr. Karl Uhde, of Brunswick; Dr. H. Haeser, professor of medicine in the University of Breslau; Dr. F. Baekmann, formerly professor of pharmacy and chemistry in the University of Warsaw; Dr. C. P. Robin, professor of histology in the Faculty of Medicine in Paris; Dr. Chandelon, Emeritus professor of chemistry in the University of Liège; Dr. Heynsius, lately professor of physiology in the University of Leyden; Dr. J. Tschischtovitch, formerly professor of forensic medicine in the Military Medical Academy of St. Petersburg; Dr. Ernst Burow, extraordinary professor of surgery in the University of Königsberg.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

A RETROSPECT of the past year would be incomplete which did not include a reference to the condition and success of the Medical Sickness, Annuity, and Life-Assurance Society. The number of members now amounts to upwards of 700. The sum of £1,600 has been disbursed to sick members, and £100 to life-assurance. The expenses of management of the latter branch of the Society having been considerably below the actuarial estimate, will admit of a considerable sum being placed to the credit of the Society in reference to that fund. The reserve-fund of £7,000 has been accumulating. All the departments of the Society are in a most flourishing condition, the demands in every case being less than the actuary's estimate. The management of the fund is entirely unpaid, with the exception of the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W., of whom all particulars can be obtained. The Society is one which has had already a beneficial influence amongst members of the medical profession.

THE Cheltenham General Hospital has lately received the following donations: M. Belcher, Esq., £20; Miss Logan, £100; Surgeon-General Graves, £20; In Memoriam, £100; Messrs. Brydges and Mellash, £31 10s.; and the following legacies: Rev. J. Shulldham, £100; Mr. H. Hunt, £50; Mrs. A. C. Young, £300; E. Frampton, Esq., £50; Mr. W. Watts, £250.

SANITARY ASSURANCE ASSOCIATION.—At the monthly meeting of the Council last Monday, arrangements were completed for the series of free lectures to be given by the Association at the Parkes Museum during January and February next. The first lecture is to be by Professor Roger Smith, on "A Damp House," on Wednesday evening, January 20th; and, on the following Wednesday, Mr. F. B. Jessett, F.R.C.S.Eng., will lecture on "Preventable Diseases."

HOSPITAL SATURDAY AT WOLVERHAMPTON.—The contributions from working men to the Hospital Saturday Fund, the collections for which commenced on Saturday, realised, at the early part of the week, a total of nearly £1,300, in addition to over £200 for the Eye Infirmary. These amounts are an increase on last year, in spite of the long continued depression in trade.

VACCINATION.—A government grant for successful vaccination has been awarded to Mr. W. Sutton Pratt, Medical Officer and Public Vaccinator for the Weedon District of the Daventry Union.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st; and notice is hereby given, in accordance with by-law 5, that Branch Secretaries' subscription-accounts close on October 31st, and all unpaid subscriptions must be forwarded, after that date, to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 26th, 1885.

THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It cannot be denied that the now familiar meetings of Fellows and Members, in the Theatre of the College of Surgeons, are steadily improving in character. Excepting that, once or twice in the course of the afternoon, there were demonstrations that it would have been better to have suppressed, the meeting on Thursday, December 17th, was more business-like than its predecessors; and it cannot be doubted that the proceedings would have been signalled by a dead calm throughout, had it not been for certain ill-timed observations by a Fellow, who spoke in what must be termed a reactionary sense. A firm decision regarding the reply of the Council to the resolutions carried at the previous meeting was manifested by a large majority of the assembly, that reply being declared to be unsatisfactory; and the Council were further respectfully requested to reconsider the question of the representation of the Members, and to agree to the proposition that, in future, any alterations proposed to be made in the College laws be submitted to a meeting of the Fellows and Members. Mr. Gamgee, in seconding Mr. Holmes's proposition, embodying the above sentiment, expressed his satisfaction in noting how the reply of the Council had only succeeded in cementing the union of the Associations of Fellows and Members.

The argument of the Council, with regard to the well known claims of the Members based upon the principle of taxation and representation, have been unanimously disavowed by the Members. A statement furnished in the JOURNAL of December 5th explained the chief reasons why they could not agree with the Council upon this point. The question was virtually debated and settled, in the decision of the Royal Commission on the representation of the profession in the General Medical Council. The Fellows have to pay a fee for their diploma, and subsequently enjoy a share in the government of the College. Their diploma involves an academical honour, and the conventional privilege of being especially eligible for appointments upon the staff of hospitals, although exceptionally some surgeons have obtained such appointments, and distinguished themselves in hospital practice, without that diploma. The Members also have to pay a fee for their diploma, but do not share in the privilege of college government. Their distinction from the Fellows is purely academical at the outset; and, as years pass by, the Member may in many respects become socially superior to the Fellow. The industrious student for the Fellowship generally gains his diploma, yet not rarely fails to prove a shrewd,

common-sense, and capable practitioner in after years. At the best he generally represents, or leans towards, the hospital interest, which is not by any means the interest of the bulk of the profession; yet he alone enjoys the privileges of a voice in the selection of rulers at his own College. The Member, although he must pay when he passes, and although he generally develops into an industrious and experienced representative of some important branch of his profession—and what branch is not important?—is denied any privilege of the kind, on the most insufficient grounds. The question of success is equal on both sides of the equation, and, therefore, may be set aside. The Members form a large and intelligent majority of the practitioners in the United Kingdom, and the College is continually making use of, or proposing to make use of, money chiefly earned by fees paid for their diploma.

There is nothing in the Fellowship which gives any natural claim to the few to exclusive administrative privileges. The distinction of rights is purely arbitrary, and its most ardent defenders can find no logical or philosophic basis for their argument. They rest upon the *status quo* of "privilege."

It is not reasonable to expect that the Members will remain content with no privileges in connection with the College itself, excepting the right of reading in the library when it is open, a boon only to be enjoyed by a few, for geographical reasons, and the advantages derived from study in the Museum. Indeed, this latter subject involves no exclusive favour, since, through the common-sense and public spirit of its conservators, the Museum is opened to any respectable person for four days in the week. The Council can surely afford to be as magnanimous as the conservators; and, as the latter have thrown open the Museum to the public, to the great advantage of science, the former might well hasten to throw open a share in the government of the College to its Members, to the great advantage of the profession.

MR. JUSTICE FRY has been appointed to succeed to the vacancy on the Senate of the University of London, in the room of Sir Henry Maine, resigned.

THE first official recognition of female medical practitioners has just been made in Rome. The recipient of this distinction is Signorina Terne, M.D., whom Queen Margherita has appointed one of her physicians in ordinary.

A PETITION has been presented by a member of the German Reichstag in favour of the introduction of optional cremation. The petition bears over 23,000 signatures, tendered in various towns and cities of the empire, among them being those of 1,942 physicians, 1,046 lawyers, 849 professors and teachers, 361 women, and 13 clergymen.

THE Abernethian Society of St. Bartholomew's Hospital gave, on Wednesday, December 16th, a *conversazione*, with microscopical demonstrations and a smoking concert. In the concert, they were aided by "The Musical Society." The proceedings were very successful.

SMALL-POX is very prevalent in Vienna; and, in consequence, orders have been given for the vaccination of soldiers in barracks; and the municipal authorities have issued urgent appeals to proprietors of schools, workshops, and employers generally, to have the children, servants, or working people under their charge, vaccinated. In Berlin, where revaccination is now universal, small-pox has for some years been almost completely stamped out.

GENERAL LAURIE has been presented to Queen Nathalie of Servia this week by Mr. Wyndham, the British Minister. Her Majesty received the General most cordially, expressing to him, as the representative of the British National Aid Society, her recognition of the assistance afforded to the wounded, and praising the efficiency with which the work had been carried out by himself and staff. The society have now two hospitals established at Belgrade, accommodating 200 wounded.

THE defeat of Mr. Erichsen for the University of Edinburgh signifies a loss of strength in the discussion of medical questions in the next Parliament which is much to be regretted. It was universally admitted that the return of a man of Mr. Erichsen's position, experience, and capacity, would have implied a great addition to the strength of Parliament in discussing medical questions, and all those questions of public importance in which medical knowledge bears a large part. His strength lay in Edinburgh; but, as is always likely to be the case in parliamentary elections, political considerations hold the first place in the minds of a great body of the electors; and it is evident that in one part of the constituency at least, St. Andrew's, the Conservative element greatly predominated, and the moderation of Mr. Erichsen's political views did not save him at the poll.

REWARDS FOR BRAVERY.

At a meeting of the Chapter of the Order of St. John of Jerusalem, held last week at St. John's Gate, Sir Edward Perrott, Bart., presiding, the silver medal for deeds of gallantry in saving life on land was awarded to Dr. Edward Charles Thompson, of Omagh, co. Tyrone, and to Police Constable William Hardwick, of the Kidderminster Borough Police force. Dr. Thompson, who has also received the Albert Medal, saved the life of a child suffering from malignant diphtheria by his self-devotion in sucking the diphtheritic membrane out of the little patient's throat after the operation of tracheotomy had been performed. Police Constable Hardwick rescued, at considerable risk to his own life, a poor woman who had attempted to commit suicide at the Kidderminster Railway Station, by throwing herself in front of an advancing train.

THE HARVEIAN SOCIETY.

THE following is a list of the names of gentlemen proposed as officers of the Harveian Society for the year 1886: *President*: J. Hughlings Jackson, M.D., F.R.S. *Vice-Presidents*: Malcolm Morris, Esq.; C. Vasey, Esq.; *T. Bryant, Esq.; *J. Cavafy, M.D. *Treasurer*: T. Buzzard, M.D. *Hon. Secretaries*: J. Ernest Lane; *E. Clifford Beale, M.B. *Council*: G. P. Field, Esq.; F. Otley Lovell, Esq.; P. Kirkpatrick Picard, M.D.; W. H. Platt, Esq.; Henry Power, Esq.; T. Gilbert Smith, M.D.; John Williams, M.D.; *J. S. Brookfield, M.D.; *Arthur W. Edis, M.D.; *W. Ewart, M.D.; *T. Morton, M.D.; H. W. Page, Esq. (An asterisk is prefixed to the names of those gentlemen who did not hold the same office in the preceding year.)

DIPHTHERIA AND SANITATION.

At the meeting of the Islington Vestry, on Friday, Dr. Meymott Tidy, Medical Officer of Health, was called upon to explain the difference in his and the Registrar-General's returns with regard to the deaths from diphtheria, and also with regard to the number of houses in which diphtheritic deaths had occurred, and in which the drains had been found defective. Dr. Tidy was further asked to explain his remark at a previous meeting, that "in his opinion, there was no connection between drainage and diphtheria." In the first place, Dr. Tidy said, the discrepancy as to figures had arisen through deaths in hospitals and deaths which he did not attribute to diphtheria; and with regard to the latter question, said he was still of opinion there was no connection between drainage and diphtheria, and regretted that he could not explain his theory to account for diph-

theria, for the reason that he had none. Even doubted whether his views upon the subject had arrived at an exalted position of hypotheses. He claimed to be a learner. Was always doubtful of easy explanations to difficulties, and unusuallacneas with which to meet them. There was a charming simplian supposing (as some medical men had) that diphtheria was necesary due to drainage, or typhoid epidemic to polluted milk.

DR. COLLIE.

We see with great satisfaction that the reitement of Dr. Collie as medical officer of the Eastern Hospital is now an accomplished fact. The Local Government Board have ated their statement that nothing had transpired to reflect on Collie's integrity; but they again insist that, as superintendent of an asylum, he was responsible for the irregularities which had oced in the conduct of others in the administration of the establish. In view, however, of the managers having expressed themselves in favour of his management, and of the exceptional circumstances of the case, the Local Government Board have concurred in the reition of his office by Dr. Collie. They desired, however, a further report to be made at the end of six weeks. We maintain the opinion which we have throughout expressed: that Dr. Collie rend the most marked services to the metropolis and to the Board of a period of great professional stress, owing to severe epidemics, whatever may be the force of the observations as to the irreguls which occurred, it was certainly not he who was in any way coed in them, as, indeed, is admitted; and that the responsibility them would rest justly upon other shoulders than his. It woude been disgraceful to have made Dr. Collie a scapegoat for the sinthens; and we trust that, now he has been reinstated to office, his abilities as a superintendent and a medical officer will secure for restoration of the respect and favour of the presiding authorities at Whitehall.

DR. HEYWOOD SMITH.

The conduct of Dr. Heywood Smith in ref to the girl Eliza Armstrong has been investigated by the Royaege of Physicians, who have received from him, and carefully cond, his explanations and apology; and at a general meeting of the ge, held on Friday, December 18th, specially summoned to rethe report of the President and Censors on the subject, the fng resolution was adopted: "The College having considered statements made by Dr. Heywood Smith, and his apology through Censors' Board, while acquitting him of deliberate intent to dedesires to put on record an opinion that he has committed a gn error in connection with the Armstrong abduction case, which brought discredit on himself and the profession to which he gs. The College, therefore, regards his conduct as deserving threst censure, and requests the President to express the views of the College, and to reprimand him accordingly." The President hardly addressed to Dr. Heywood Smith a severe reprimand, varned him to be careful as to his conduct in the future.

MEDICAL HONOURS.

The announcement is made this week of thowal of titles of honour upon two eminent members of the pro in extra metropolitan centres. In both instances, the selectic been made with admirable judgment; and professional opinionully endorse the gracious action of the Crown. Dr. Paget, of (dgc, receives a kindred honour to that recently bestowed on his gne, Dr. Acland, who holds a like position in the University ord. Dr. Paget filled for many years the post of President to the Medical Council with distinction and dignity. He won the esteal his colleagues, and the respect of the profession. He was an oppf many of those reforms in the Medical Council in favour of the opinion of the profession at large has declared itself strongly, has since been ratified by the decisions of the Royal Commissio been introduced

into the Government bills. But the qualities which he showed, and the services which he rendered, were such that his subsequent resignation of the post was felt to be a distinct loss to the Council, and he left behind him a reputation of statesmanlike qualities and presidential skill which are justly recognised by the high honour of K.C.B. He has, however, rendered services of even more permanent and substantial character in the large part which he has taken in the growing and reorganised medical school of the University of Cambridge. That is a monument which is a just source of pride to all who have taken part in rearing it; and it is no doubt as Regius Professor in the University, and as one of the founders of the great medical school which has grown up there in recent years, that Dr. Paget has best earned the honours which the Crown now bestows on him, and will leave an enduring recollection of one who has rendered great services to his University and his profession. Dr. William Roberts, of Manchester, is one of those eminent provincial physicians who have cultivated successfully the scientific as well as the practical side of their profession. His status as a Fellow of the Royal Society was early won, and he has not rested on his laurels; but he has continually enriched medicine with the results of a series of scientific labours, which have not only their place in abstract medical science, but have produced immediate fruit in practical therapeutics. His clinical studies in many branches of medicine, but especially his contributions to our knowledge of renal affections, their causation, symptomatology, and treatment, and his effective study of the physiology and pathology of digestion and of peptic agents, are among the most remarkable contributions of recent date to medical progress. His strength of character and interest in professional progress are well known throughout the British Medical Association, with whose scientific and administrative progress he has for many years been closely allied. In both instances, therefore, the honour of knighthood will be felt to be a small but just recognition of merits universally recognised. Our Manchester correspondent, referring to the report, writes: "The announcement that the honour of knighthood had been conferred on Dr. William Roberts was received with unalloyed pleasure by all sections of society in Manchester. Apart from the compliment thus paid to the medical profession in this city, by honouring one of its most distinguished members, it is felt that, beyond all dispute, the distinction has been fairly earned. It cannot fail to give satisfaction that the coveted honour does not fall simply on the holder of distinguished offices, or merely for success in a professional career; but it falls on one who for many years past has been an original thinker and indefatigable worker, and who has made some very solid and enduring additions to our stock of scientific medicine. It is pleasing also to add that Sir William Roberts gives no sign of retiring on his laurels, but devotes whatever time he can spare from an active practice to his laboratory, in the investigation of digestive ferments and their allies."

SCOTLAND.

ABERDEEN STUDENTS' RECREATION-GROUND.

On the 18th and 19th instant, a grand bazaar was held to obtain funds for a recreation-ground for the students. Already £1,000 has been subscribed, and the bazaar was held to obtain another equal sum necessary to carry out the scheme. The sum obtained at the bazaar was over £800.

COMBE LECTURES IN ABERDEEN.

The last lecture of the present course, on the Physiology of Digestion and Respiration, was delivered by Professor Stirling on Monday. Considerably over two hundred students attended regularly, and certificates and prizes were awarded to the successful competitors by the Combe Trustees.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday, December 17th, a meeting of Fellows and Members of the College was held, for the purpose of receiving from the President and Vice-Presidents a report with reference to the resolution passed at the meeting of Fellows and Members on October 29th. There was a very large attendance. Mr. SAVORY, President of the College, took the chair.

The PRESIDENT said: Gentlemen, although the purpose of this meeting which is held at your request is, according to formal announcement, to receive a statement from the Council, I trust the statement has been in your hands some days. It has seemed to the Council best that their opinions on the grave questions at issue should be carefully examined. Some have expressed disappointment at the silence of the Council at last meeting, and this silence has been misinterpreted; but in reality the Council preferred to do justice to the views then expressed, as a whole, rather than to reply to individuals. The business is made simpler by the unanimity of the Council; and we say to you that these are our conclusions, and we cannot have the least desire to keep back anything. We may, at any rate, ask to have the credit of common sense; and I would ask what we have to gain by withstanding your demands, except in the interests of the College. Here, then, gentlemen, is our decision, and I will now call upon the Secretary to read the statement.

The SECRETARY read the statement. It was published at page 1031 of the JOURNAL of November 28th.

Mr. KENNETH CORNISH moved that the Secretary of the College should read the proposed memorial to the Queen in Council, praying that no new charter be granted to the College without the consent of the Members.

Dr. JOSEPH ROGERS, in seconding Mr. Cornish's motion, said that, in his opinion, it was absolutely useless to appeal to the Council of the College of Surgeons. The only course would be to appeal to the Queen in Council, or the House of Commons.

The motion was put to the vote and lost.

Mr. TIMOTHY HOLMES moved:

"That, in the opinion of the Fellows and Members of the College, the answer of the Council is not satisfactory; and that the Council be respectfully requested to reconsider the subjects (1) of the representation of Members of the Royal College of Surgeons; (2) of submitting for approval any alterations proposed to be made in the constitution or in the relations of the College, or in any of its by-laws, to a meeting of the Fellows and Members."

He said that, in moving the foregoing resolution, he must express his entire dissent from what had fallen from the previous speaker. He felt certain that any well considered alterations in the present arrangement, which would meet with the approval of the profession and at the same time promote the interest of the College, would be passed by the Council; and it was in that confidence that he once more ventured to call attention to the subjects of the memorandum. He felt bound to say that the answer of the Council was not, and could not be, satisfactory, for the reason that it appeared to be directed towards the arguments which happened to have been used in a debate on a former occasion, rather than to the real merits of the question. He attributed that to the one-sidedness of the debate, wherein the members of the Council took no part. This silence on the part of the Council might be convenient in disguising any differences of opinion between them on the subject—differences which they might deem it undesirable to express at the meeting; but the result of it was that the subject was not thoroughly thrashed out, and certain arguments thereby acquired undue prominence. He denied that any claim was made that all the Members should have a vote; but he was nevertheless of opinion that it would be greatly to the interest of the College if, under certain circumstances, the Members became entitled to a vote. Then, as to the contention that the Members got the full value of their money in their diplomas, he thought that was a matter upon which there might well be some difference of opinion; and it was, besides, quite outside the question. Admitting, for argument's sake, that the Member got all he wanted out of the College, did the College get all they ought to get out of the Member? The Members of the College, numbering about 16,500, were among the most intelligent and energetic men in England; and yet, when once they were given their diplomas, they had nothing further to do with the College. The College had just come into a large property, and would doubtless become the great patron of professional research and conduct; and could it be supposed that 16,000 men would stand aside and let twenty-four manage it for them? The change he advocated must and would come at no distant epoch; and the College must cease to be managed exclusively by hospital and consulting surgeons, who would have to

give some place to those who were better acquainted with the daily needs of the profession. Mr. Holmes said he could sketch the heads of a scheme which could be introduced without derogation to the rights of the Fellows, without in any way rendering the Fellowship less desirable than before. He would suggest that a Member of the College should be entitled to vote, say, after ten years' standing; and then, if (ous of exercising his vote, he would have to put himself on the list, the manner of doing which still remained to be settled. With regard to the admission of Members to the Council—a much more important matter than their admission to the vote—he thought, with the further development of the College in view, it would be indispensable to have some on the Council conversant with daily wants of the profession. As to the second resolution, admitted that the wording was such as might easily be misunderstood; but it was by no means their intention to interfere with general control of the Council, but only when matters affecting constitution of the Council were raised; and this point, he was sed to see, had been practically conceded in the answer of the Council which had been read. He must, however, express his surpt at the expression of opinion that Fellows and Members could not judge of what might be desirable in the interests of the College as the Council; and this he was disposed to question. Give an instance where it had been deemed advisable so elicit an opinion on the part of the Fellows on the action of the Council, and where the Council had desisted in consequence. Formerly the action of the Council attracted very little attention; but it would not be the case in future, and anything contrary to the wishes of the profession would certainly meet with effectual opposition.

Mr. SAMPSON GAMGH seconded the motion, said that the mere fact that the medical had unanimously pronounced an adverse judgment on the report was one very great reason why it could not prove acceptable to the profession. To the Council's assertion that the main argument in support of the claim was founded on the analogy between the payment of fees for examination and the payment of taxes, he replied that was not the main argument, but merely one in a series, which he introduced as a collateral illustration. What were the sources of labour, power, and wealth of the College? Its chief material possession John Hunter's museum, was purchased from his executors' winds expressly voted by Parliament. The building investments, other properties of the College were purchased with moneys supplied by Parliament, and by the Members, to the extent, at least, 75 per cent. of the whole; and he submitted that the Members were entitled to an answer from the Council to this question: Why should this College be an exception to the practically univocal, that those who provide the money for the support of an institution which exists for national purposes should have a pronate voice in administering it? But if it were conceded that the Members had contributed the chief material wealth of the College, did anyone doubt to whom it was most indebted for its fame? John Hunter and John Abernethy, Astley Cooper, and Charles other than Members? When it was urged that the Fellows require the exclusive right to vote, he could not but think that scant justice was done to the most distinguished amongst them. To who urged that only Fellows of the College were fitted to sit on Council, he submitted that some of the ablest judges on the bench took silk. He rejoiced to think that the Association of Fellows had no such immunity; and the Members were prepared to rectify their brotherly spirit, by consenting to stipulations which, guaranteeing the principle of representation, would reserve for the Members a clear preponderance in the College honours, powers, and degrees. In claiming representative rights in opposition to the Chf 1843, the Members were only proceeding to take action on a principle repeatedly uttered, on one occasion by no less distinguished person than Mr. George James Guthrie. It was for a redress of a wrong forcibly condemned by one of the most distinguished presidents of the College that the Members pleaded. To those who feared that the Members had the franchise they would swamp the Council, they were prepared to offer the most ample guarantee as such a result. If it were enacted that not more than a quarter of the Council might consist of Members, that would ensure that the Council at least must be, and all might be, Fellows. Again, as an electorate: if only Members of ten years' standing could vote the Council, and that after applying for a voting paper, with titles to be arranged, that would very much restrict the proportion of the voting body, and would ward against a surprise, in respect of the possible appeal of agitators. He was confident that the five of the Members' Association had a sincere disposition to do the best interests of the College and of

the Fellows, while claiming the right of representation for its members. Nothing was further from their intention than to be the agents of a revolution in the history of the College, while claimants for a restoration of valued rights unwisely suspended. In asking the Council to reconsider its decision, they desired to give proof of confidence and respect in the eminent men composing it. In concluding, he suggested that if some members of the Council conferred informally, in confidence and without prejudice, with some representatives of the Fellows and Members' Associations, a way might be discovered which all might pursue, without sacrifice of self-respect, and with a reasonable prospect of enhancing the honour and usefulness of the noble profession of surgery.

Mr. R. BRUDENELL CARTER saw, in the proposals made to the Council, an evidence of the restless desire for change now prevalent. He said that, when a change was suggested with less than usual reason, it was often called a reform, and everybody was expected to sink down before it; but a change, even though it might be dubbed a reform, was not necessarily an improvement. The College, he supposed, could not be governed by tumultuous assemblies, and, consequently, some sort of Council was necessary; and the only question was as to how it should be elected—whether the constituency should be large or small, and the last charter had decided in favour of the more restricted constituency. He said that the result of giving a vote to Members, and of allowing other than personal voting, would be to cause the Council to be recruited exclusively among men attached to the larger schools. The movement, he said, had been promoted to a great extent by the medical journals for their own interests. He warned the movers of these proposals that they were in reality picking the hot chestnuts out of the fire for such men as Dr. Wakley and Mr. Ernest Hart. (Expressions of dissent, which continued for some time.) Mr. Carter, on resuming his speech, said that he had no intention of imputing unworthy motives, but gentlemen engaged in a commercial undertaking would certainly do all they could to further their own interests. In conclusion, he thought he had said enough to show why he intended to vote against the motion.

Dr. WARD COUSINS said he heartily supported the motion, and regretted that the Council could not see their way clear to fall into their views. He objected to the use of the word "some" in the report, as if only a limited number of Members were interested in the movement. As to the rights or privileges of Fellows, he asked when and how far they were asked to express any opinion on matters affecting the College? In conclusion, he would ask the Council to furnish a scheme, which could be met upon and discussed.

Mr. WM. HAUGHTON said the alterations proposed would amount to an abrogation of the charter. He had heard allusion made to the "rights" of Members, but as a matter of fact the charter gave them no legal rights. A moral claim was one thing, and a legal right another. He asked why the supporters did not themselves bring forward a well-digested scheme. He deprecated the personalities in Mr. Carter's speech, and said he thought nobody should be entitled to a seat on the Council unless he had qualified as a Fellow.

Dr. JOSEPH ROGERS said that as a graduate of the University of St. Andrew's, he had always had a voice in the election of the senate.

Mr. J. SMITH denied that the medical press had started the agitation, and stated further that no one connected directly or indirectly with the Press had anything to do with the movement.

Mr. W. RIVINGTON said that, as an independent Fellow of the College he felt called upon to express his opinion. He certainly thought the Fellows and Members should be consulted on matters of interest. He suggested that if the Council doubted the *bona fides* of the movement they should take a poll of the Fellows and Members, and then, if the general opinion were against any change, no one would more willingly be silent than himself. He asked what were the extra advantages afforded by the diploma of membership in exchange for the scale of fees, which was higher than for any other diploma. He denied that a young man fresh from the schools was better able to form an opinion than old and tried Members of the College, and he asked how many men took the Fellowship for the sake of becoming entitled to a vote. He alleged that the Members were for the most part men of culture and refinement, and calculated to reflect credit on the institution, from the management of which they were unjustly excluded.

The motion was then put to the meeting, and passed by an overwhelming majority of the Fellows and Members present.

The meeting concluded by an unanimous vote of thanks to the President, proposed by Mr. TIMOTHY HOLMES, and seconded by Dr. COLLUM.

DIPHTHERIA is said to have caused more deaths in New York two weeks since than all the other contagious diseases together.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 20th day of January, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, December 17th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1886. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 20th, April 14th, July 14th, and October 20th, 1886. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, December 30th, 1885, and March 25th, June 24th, and September 30th, 1886.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE inquiry on CHOREA is now closed, the tabulation of the returns being completed.

Inquiries are in progress on the subjects of

DIPHTHERIA,	ACUTE RHEUMATISM,
OLD AGE,	CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases may be had on application.

It is requested that returns on Acute Rheumatism be sent in at as early a date as possible, as the printing of the Tables is in progress.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared. PAROXYSMAL HEMOGLOBINURIA, ALBUMINURIA IN THE APPARENTLY HEALTHY, SLEEP-WALKING, ACUTE GOUT. Returns on ACUTE PNEUMONIA are still received.

The "Sleep-walking" form may be filled in by a non-medical person if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th. Additional copies of the schedule may be had at once on application.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(a) The influence of residence and occupation; (b) the previous state of the patients' thoracic organs and general health; (c) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Medical College, Madras, on the first Friday in the month, at 4.30 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

BORDER COUNTIES BRANCH.—The winter meeting of this Branch will be held on Friday, January 6th, 1886, at the County Hotel, Carlisle. The chair will be taken at 6 p.m. by Mr. C. S. Hall, President. The Secretary will be glad to receive notices of papers, and morbid specimens for exhibition, or patients, without delay. Supper will be provided in the hotel at 9 o'clock. Members from a distance can be taken in for the night by communicating with the Secretary, H. A. LEDIARD, Carlisle.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting of the above district will be held, by invitation of Dr. Amsden, at the Essex County Asylum, Brentwood, on Wednesday, January 27th, 1886, at 2.30 p.m. Previously to the business of the meeting, Dr. Amsden has kindly offered to escort the members round some of the wards of the asylum. Dr. Elliston, President of the Branch, will preside. Programme and Business Agenda:—1. To arrange the place and date of the next meeting, and to nominate a member of the district, resident in or near such place of meeting, to take the chair thereat, provided the President of the Branch does not attend. 2. To elect an honorary secretary for the year 1886. The following papers have been promised:—1. On the Administration of Medicines by Injection into the Rectum, by the President. 2. On Fits, by W. B. Hadden, Esq., M.D., Assistant-Physician, St. Thomas's Hospital, London. 3. The Treatment of Acute Mania by Hyosciamine, by G. Amsden, Esq., M.B., Medical Superintendent, Essex County Asylum. 4. The Necessity of a Medical Defence Fund in connection with the British Medical Association, by J. Sinclair Holden, Esq., M.D., Sudbury. Gentlemen intending to be present, or wishing to read a paper, or show a case, are requested to communicate with the Honorary Secretary not later than January 25th.—WM. THOS. JACKMAN, Honorary Secretary, Coggeshall, Essex.

SPECIAL CORRESPONDENCE.

EGYPT.

[FROM OUR SPECIAL CORRESPONDENT.]

Veterinary Science and Ignorance in Egypt.—The Kasr-el-Ain Hospital.—The Khedival Laboratory.—Watering the Streets of Cairo.—The Drainage of Cairo.

Cairo, December 7th.

THE native veterinary surgeons who were suspended from their offices until they should show that they were qualified, have been examined as to their professional knowledge. They showed a lamentable ignorance of the anatomy of the horse, and not one passed the examination. Their services were consequently dispensed with. This wholesale reform attracted a good deal of hostile criticism from Europeans and natives, including the Khedive. Surgeon-Major Greene visited the latter, and represented to him that the step taken was greatly to the advantage of His Highness's subjects, and succeeded in removing his scruples.

The Khedive has recently visited the Kasr-el-Ain Hospital, and was greatly struck with the improvements introduced by Mr. Milton. Among them, the bakery specially attracted his attention. A few weeks ago, Mr. Milton was boycotted by the Cairo bakers, and the hospital was one day cut off its bread-supply at twenty-four hours' notice. Mr. Milton immediately proceeded to build a bakery on the premises, in native fashion. This was completed and set working before the need of bread had begun to be felt. The peculiarity of a native bakery is that it consists of one stone-paved chamber, which contains both fire and bread. The bread at Kasr-el-Ain is made of the best flour, and differs from native bread in containing no foreign material in the form of dirt. The Khedive appreciated it so highly, that he ordered some for his private consumption. As a consequence of the Khedival visit to the hospital, Mr. Milton has been decorated with the order of the Osmanieh, 4th class. A new operating room has been instituted in the hospital, with graduated galleries for students, which communicate with a separate entrance, and are divided from the area by a railing. The gallery will hold 100 students. The room is large, lofty, and has an unlimited supply of air. Patients are brought in partially anaesthetised. Chloroform is the anæsthetic used, and a special house-surgeon is detailed to administer it. The list of operations yesterday included suprapubic lithotomy, for a very large calculus in a woman; amputation in the thigh, for elephantiasis and chronic ulcer; amputation of the arm, for disease of elbow-joint in a child, excision having failed; and a plastic operation for recto-vaginal fistula in a prostitute. The amputation of the arm was neatly performed by one of Mr. Milton's house-surgeons, under his direction. About twenty student-spectators were in the gallery, and about ten nurses and house-surgeons in the area. This was Mr. Milton's operating day, but the native surgeons operate as the necessity arises. The leg affected with elephantiasis was examined for filaria, but without success.

The Khedival Laboratory has now been definitely put under the authority of the Sanitary Department. Mr. Ismailun, the late Director, will probably find a post in the Finance Ministry. The spirit of European society in Cairo in reference to sanitary reform may be judged from the fact that, as soon as it was known that Surgeon-

Major Greene had obtained control over the laboratory, it was generally rumoured that he intended to take up his abode there with his family. This is the laboratory in which Dr. Sonsino worked at Bilharzia and filaria, and in which Dr. Schweinfurth still carries on his naturalist researches. Now that there is a prospect of the income of the laboratory being properly applied, it is to be hoped that Dr. Sonsino may return, and that scientific research may be actively carried on by him and other qualified workers.

The cleansing and watering of the streets of Cairo has hitherto been under the control of the Governor of the city. As regards the large thoroughfares, this service has been fairly well executed; but, for the streets in the native quarters of the town, it has depended upon the Sheiks of each small district, and has consequently been very perfunctorily performed. The service has now been relegated to the Sanitary Department, and £35,000 have been voted to cover the expenses.

The much more important subject of the drainage of Cairo is still unsettled, but there is reason to think that this will not be the case much longer. Plans and models of the system proposed have already been prepared, and in the model it works perfectly. The system is Shone's modification of Liernur's aspiration-plan. Small cesspools, with water-tight walls, will be used for each house; and these will be periodically emptied into the desert, their contents being carried through a system of service-pipes by means of force-pumps. The Cairo waterworks have in recent years been the cause of a greatly increased mortality, owing to the large amount of water supplied to each house, without means of carrying off the waste-water. This waste-water falls into the cesspools, infiltrates the ground with sewage, and causes the unhealthy odours which are common in the streets of Cairo. The proposed system of sewage-removal will, it is hoped, obviate this danger by carrying off the waste-water with the sewage.

CORRESPONDENCE.

LEAD-POISONING.

SIR,—On reading the instructive clinical lecture of Dr. Oliver, given at page 731 of the BRITISH MEDICAL JOURNAL of October 17th, on lead-poisoning, I have been more firmly impressed with the idea, entertained for a considerable time, that "plumbism" is more common in India than is generally supposed, and that the cause is not difficult to discover. I felt certain that many medical officers, as well as myself, must have noticed from time to time, amongst Europeans resident for any time in this country, the "retraction of the gums," and the several symptoms so ably and lucidly described by Dr. Oliver as "saturnine encephalopathies," and "saturnine cachexia," etc.

Dr. Oliver, whose experience of "plumbism" has been very great, and whose opinion must be very valuable, remarks that "the evil effects of lead are not due to the swallowing of large doses, repeated for a short time, but are due rather to the entrance into the system of lead in infinitesimal quantities, regularly and for an extended period."

The likely cause of "plumbism" in India is not, I think, difficult to discover. All cooking for Europeans in this country is carried out in copper-vessels, which are periodically tinned. The regulations for European troops ordain that "copper cooking-utensils are to be tinned twice a month, under arrangements made by the commissariat department, but the application of the tin should invariably be effected in the regimental lines, and under close regimental supervision." Then follow instructions as to how the process is to be carried out efficaciously; tin, adulterated with lead, is not to be used for the purpose of tinning, and the tin supplied is to be occasionally tested. Then follow the descriptive characteristic features of pure tin, and three separate tests are given in detail.

So far, troops are immeasurably less exposed to the danger of plumbism than are their officers, and their families, and the general civilian European community, in India.

I have several times tested the tin used for tinning copper vessels, and have even procured specimens from the bazaars said to have been imported direct from England, and I have, in several instances, discovered the presence of lead, even in the latter. On one occasion, a contractor employed by the Commissariat Department, whose tinning I had rejected, declared that tinning material could not be procured without its containing a certain amount of lead. His contract was cancelled, and a fine imposed. I feel convinced that a quantity of the tin used for tinning copper vessels in India, excluding those in use amongst the troops, is adulterated with lead, and furnishes "the

infinitesimal quantities, regularly and for an extended period," required, according to Dr. Oliver, to cause effects.

Can it be that Europeans in India are going slowly but steadily lead-poisoned, through the very means added to preserve them from copper-poisoning, thus accounting for the saturnine "cachectic" look borne by many "old Indians?" Is, perhaps, is a question worthy the consideration of the Collect Investigation Committee. Surely, in this age of sanitary and scientific progress, cooking utensils for India might be supplied, made of a harmless substance, to replace copper vessels, which require a frequent expensive process of tinning, fraught with risk to health.—I am, faithfully yours,

Edw. Boulton, Surgeon-Mr, Army Medical Staff.
Rawul Pindi, Punjab.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following vacancies are announced.

CITY OF DUBLIN HOSPITAL.—House-Surg. Salary, £50 per annum. Applications to the Honorary Secretary of the Medical Board by December 30th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant for six months. Gratuity, £20. Applications to the Secretary, 24, Finsbury Circus January 4th, 1886.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House Surgeon for six months. Bonus of £10 given. Salary, £100 per annum. Applications by December 29th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Junior House-Surgeon. Applications by December 26th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Senior House-Surgeon. Honorarium, 50 guineas per annum. Applications by December 31st.

MONAGHAN DISTRICT ASYLUM.—Assistant Resident Medical Superintendent. Salary, £150 per annum. Application by January 7th, 1886.

MONAGHAN LUNATIC ASYLUM.—Assistant Resident Medical Superintendent. Salary, £150 per annum, with apartments, 1, rations, etc.; age not to exceed 32. Applications to Resident Medical Superintendent not later than January 7th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Dental Surgeon. Applications by January 15th, 1886.

OLDHAM.—Medical Officer of Health for the Borough. Salary, £400 per annum. Applications by December 30th.

SUNDERLAND INFIRMARY.—Second House-Surgeon. Salary, £60 per annum. Applications by January 4th, 1886.

TONBRIDGE UNION.—Medical Officer. Salary, £50 per annum. Applications by January 1st, 1886.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications by January 1st, 1886.

TUAM UNION.—Medical Officer, No. 1 Dispensary District. Salary, £120 per annum, and fees. Election on January 2nd, 1886.

WESTMINSTER GENERAL DISPENSARY, 9, Gard Street, Soho.—Honorary Surgeon. Applications by December 28th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House-Physician. Salary, £100 per annum. Applications to the Chairman of the Medical Committee by January 4th, 1886.

MEDICAL APPOINTMENTS.

CARTER, D'Arcy Bainbridge, L.R.C.P., M.R.C.S., appointed Medical Superintendent of Sir Titus Salt's Hospital, Shipley, Yorkshire, vice William Henry Ellis, M.R.C.S., L.S.A., resigned.

JOHNSTON, Alexander Richmond, appointed Resident Assistant Medical Officer and Dispenser to St. Olave's Union, vice William Steer, who has been appointed Medical Officer of the Infirmary of St. George-in-the-East.

JONES, John Lloyd Thomas, M.B. (Durham), M.R.C. appointed Resident Clinical Assistant to Dr. Savage, Bethlehem Royal Hospital.

MORTON, Alexander Young, M.B., C.M., appointed Medical Officer of Health and Parochial Medical Officer to the parishes of Ichman, Drymen, and Kilmarnock.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

MACGILLYCUDDY—JANASZ.—On November 23rd, at Plochocin, near Warsaw, by special licence, Neil Macgillycuddy, Esq., M.R.S., L.S.A., youngest son of Richard, the late Macgillycuddy of the Reekscillane, to Jadwiga Anna, younger daughter of M. Adolf Janasz, of Plochocin, Warsaw.

DEATHS.

DYER.—At Ringwood, Hants, on Sunday morning, December 20th, Samuel Sumner Dyer, M.D., aged 61.

TRESTRAIL.—On December 20th, at Walmer House, Maidstone, Reginald Michell Girdlestone Trestrail, son of Dr. Trestrail, F.R.C., aged 5.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.—Hospital for Women, 2 P.M.—Chelsea Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 2.30 P.M.—St. Mark's, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY.....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2.30 P.M.—National Orthopaedic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—West London, 2.30 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARGING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A NEW USE OF ATROPINE.

Sir,—We often find it necessary to advise patients not to read, or write, or do any work requiring close attention. In many cases, the patients are equally ready to promise obedience, and to break the promise under slight temptation. Under these circumstances, we may fairly make the necessity for careful ophthalmoscopic examination (always desirable in these cases) an excuse for crippling the power of accommodation by a tolerably strong solution of atropine; the instillation to be repeated as often as necessary. I generally use homatropine to dilate the pupil for merely diagnostic purposes, because the effect of it passes off in a few hours. But in such cases as I have alluded to, atropine is preferable. Of course, this suggestion is obvious enough; but it may be none the less useful for that.—I am, etc., FREDERIC C. COLEY, M.D.
21, Eldon Square, Newcastle-on-Tyne.

DEATH AFTER INJURY: FAT EMBOLISM (?)

Sir,—I shall feel obliged if any of your readers can tell me about the following case.

A carter, aged 50, of intemperate habits, was knocked down and run over by his cart, which, with the load at the time, weighed about a ton and a quarter. His right femur was fractured comminutely, the tibia on the same side obliquely (his leg being bent on the thigh at the time of the accident). The fracture of the femur was simple, that of the tibia compound. Chloroform was given, and the limb fixed up with short and long splints, the wound over the tibia being carefully washed out with carbolic oil (1 in 8). For the next thirty-six hours, he did well, but had no sleep, being afraid, he said, of moving the leg or splints. About this time, he fell into a sort of stupor; and when I saw him six hours later (forty-two hours after the accident), he was in a state of profound coma. His urine, which was drawn off, was free from albumen and otherwise normal, except that it was rather scanty. His bowels had not moved. Croton-oil and pilocarpin were tried with little effect, and he died, ninety-six hours after coma set in (or 132 hours after the accident). I suspect "fat-embolism" as the cause of coma and death, and will be glad of any information on the subject.—I am, etc., C. J. R. M.

SWOLLEN MOUTH AFTER EATING PINE-APPLE.

Sir,—“Pelobates” will find, I think, that his patient, while “carefully peeling the pine-apple,” cut the fruit with the same knife, thereby leaving some of the rind’s juice on the parts he ate. In Queensland and the West Indies, the rind-juice is well known to cause sore lips, the only cure for which is salt.—I am, etc., FRANCIS O. HOPSON, Fellow of the Royal Colonial Institute.
The Chantry, Bishop Stortford.

QUESTION OF TREATMENT.

Sir,—I shall feel obliged if any of your readers will give me some suggestions as to the best way to treat a case of uric acid diathesis, medicinally and dietetically. There is no history of either gout or rheumatism in the case. The patient’s age is 40 years. The attack has lasted about five months, and there is a copious deposit of uric acid on the urine cooling. Medicines, alkalies, and lithia seem to do very little good.—Faithfully yours, L.R.C.F.

BACTERIOTHERAPY.

Sir,—Since, in a recent number of the JOURNAL, reference has again been made to Cantani’s ingenious method of treatment, let me mention some conclusions arrived at as regards the occurrence of tubercular bacilli, after examining a large number of cases of chest-disease during the last twelve months, and, in a certain proportion of cases, comparing the clinical with the *post mortem* results. Gibbs’s double stain was used in all cases.

1. The absence of tubercular bacilli from any sputum, when tested on several different occasions, is no proof that such bacilli do not exist in the lung. For, unless there be considerable disintegration of pulmonary tissue and free communication with a bronchus, the tuberculous *débris* may not be expectorated. Even a comparatively large cavity may be formed in the extreme apex, and it may, *post mortem*, furnish tubercular bacilli in great abundance, yet during life the cavity may never have been evacuated; clinically, the only signs may have been dulness and a few large *râles*; and the bacilli may never have been present in the sputa. This is, doubtless, due to the situation, to the loss of elasticity in the pulmonary tissue, and to the frequent cicatricial contractions. A similar retention of tuberculous matter in the lower portions of the lung (where the expulsive efforts of coughing take greater effect) may be met with in the insane, in cases of advanced phthisis unaccompanied by cough.

2. In some cases of phthisis, in which there is a large hollow cavity (for example, in the intracavicular region) and profuse purulent expectoration, no microphytes of any kind may be present. So is it also in some typical cases of catarrhal pneumonia, and as yet I have not found microphytes in cases of chronic inflammatory congestion with fibrinous sputa, or in cases of chronic bronchitis with excessive mucopurulent expectoration.

3. In many cases of catarrhal pneumonia in adults, and of capillary bronchitis in children, the sputa contain microphytes in great numbers. These may be nontubercular bacilli, of various sizes, or micrococci, solitary, or arranged in chains or sarcinoid groups; and these take up the blue colour only in double staining.

4. In some cases of phthisis, in which there are signs of lobular condensation of the lower parts of the lung with excavation of the apex, the sputa may be free from tubercular bacilli, but crammed with the bacilli and micrococci that take up the blue stain. Yet *post mortem* tubercular bacilli may be found distributed abundantly throughout the lung. In such cases the presence of the nontubercular microphytes with the bronchi and alveoli (?) does not seem to retard the course of the disease.

5. When tubercular bacilli are certainly present in the sputa, I have never found any other commensal microphyte. Whether that can be taken as an indication that tuberculous matter is inimical to the vitality of putrefactive microphytes requires to be proved. Tubercular bacilli do not appear to find a suitable nidus in the secretions of the bronchi, for while blue staining microphytes are often to be seen within, or upon (for example) the flat cells from the lower layer of the bronchial mucous membrane, or large catarrhal cells derived from the alveolar lining, the tubercular bacilli usually float free in the liquor sputi, or are embedded in little irregular masses of a granular material that also takes up the magenta stain. I have never observed such bacilli within cells recently shed, that is, free from granular fatty degeneration. Their occurrence in the sputa seems to be, in a manner, accidental, due to an admixture of pulmonary *débris* with the true bronchial secretion. Accordingly the number expectorated fluctuates, and a numerical diminution cannot be taken, *per se*, as evidence of diminished reproduction. Since a pause in the course of true tubercular phthisis may occur in cases treated with, or without, systematic an-

tiseptic inhalations, I cannot attribute any temporary arrestment in the onset of cases to such intrapulmonary medications. Undoubtedly symptoms may be palliated, and putrefactive microphytes (if present) prevented from multiplying; but I fear the ultimate result is not effected. At least, I have never heard of the absolute cure of a case of phthisis in which tubercular bacilli were expectorated. If antiseptic methods be futile, Cantani’s septic system does not seem more hopeful; the rationale of bacteriotherapy appears to depend on a mere hypothesis; tubercular bacilli may be starved out through the more active bacteria appearing and rapidly decomposing the dead caseous material in which they flourish. If, however, such an antagonism really existed between these microphytes, it would be natural to expect that the hardy and omnipresent *M. terium* should have by this time exterminated the tubercular bacillus in the usual struggle for existence.—I am, yours, etc., W.

COMMUNICATIONS, LETTE, etc., have been received from:

Dr. Spencer, Clifton; Dr. T. Cameron, Toronto; Dr. Crichton Browne, London; Dr. W. Dickson, Elton; Deputy Surgeon-General Hinde, Curragh Camp; Mr. H. Percy DunLondon; Mr. Adolphus J. Richardson, West Brighton; Mr. J. C. Hoey, Lin; Mr. A. H. Benson, Dublin; Mr. P. H. Emerson, Suffolk; Mr. W. PrestLondon; Surgeon-Major Welch, Southampton; Sir Edmund Lechmere, Ldn; Mr. Hodder, Newry; Dr. Cullingworth, Manchester; Messrs. Woodje and Rawson, London; Dr. Ewing Whittle, Liverpool; Mr. A. Y. MortDymen; Dr. D. R. Pearson, London; Mr. G. M. Sharpe, Farnley, Leeds; W. Alexander, Stratham; Mr. C. Jennings, London; Mr. R. J. Collings, Lverton; Mr. William Cox, Winchester; Dr. Stainthorpe, Hexham; Mr. Jones, Liverpool; Dr. Macpherson, London; Mr. E. Gilbert Smith, Birmingham; Mr. W. H. Hughes, London; Mr. Gubb, London; The Secretary of the Harveian Society; Mr. Albert Westland, London; Mr. J. L. Thomases, London; Mr. James Clark, Edinburgh; Mr. J. Farmer, Brackley; W. E. Garraway, Faversham; Dr. F. W. Smith, Leamington; Mr. Laurence Humphry, Cambridge; Dr. Robert Lee, London; Dr. R. Neale, London; M. B. Mackenzie, Manchester; Mr. J. Warthrop, Grifflth, Leeds; Mr. R. C. Pleton, Beverley; Dr. Stray, Shrewsbury; Dr. A. H. Newth, Haywards Hh; Dr. Ward Cousins, Southsea; Mrs. Thorne, Lewes; Mr. C. R. Hodges, Hley-on-Thames; The Honorary Secretary of the South-Eastern Branch, West District; Dr. F. W. Blake, London; Dr. Martin, London; Dr. Cressy Baber, Brighton; Mr. E. Bellamy, London; Mr. Andrew Stewart, Glasgow; C. B. Voisey, Chatham; Dr. Maxwell, Chatham; Messrs. Hodge and J., London; Dr. W. Hale White, London; Our Dublin Correspondent; Our Glasgow Correspondent; Messrs. T. Christy and Co., London; Mr. A. Eddot, Market Drayton; Mr. S. D. Wells, Plymouth; Our Edinburgh Correspondent; Mr. J. Hadley, London; Mr. W. T. Jackman, Coggeshall; Mr. J. Craig, Andudno; Dr. Sym, Edinburgh; Mrs. Garrett Anderson, London; Our Aberdeen Correspondent; Mr. W. Galletly, Elgin; Messrs. Mackey, Mackey and Co., Ldon; Mr. E. Freeland, London; Mr. D. Thompson, Londonderry; Mr. J. Inston, Bradford; Mr. A. G. Young, Whitcross, co. Armagh; Dr. B. Bramw, Edinburgh; Mr. F. Ryan, London; Mr. S. B. Skeleton, London; Mr. C. Houchin, London; Mr. Gamgee, Birmingham; Mr. A. Tones, London; Donald MacAlister, Cambridge; Mr. T. Midgley, Shipley, Yorks; Mr. S. Jo Newark; Mr. William F. Haslam, Birmingham; Mr. E. C. Julian, Newark-on-Trent; Mr. F. G. Heath, Kew Gardens; Messrs. Polethorpe and Postlethwaite, Leeds; Mr. Alexander Thomson, Huntly; Mr. W. Reginald Roberts, Lichfield; Dr. Norman Kerr, London; Sir H. A. Pittman, London; Dr. H. Trell, Aldershot; Mr. G. Birt, Stourbridge; Dr. Tatham, Manchester; Our Birmingham Correspondent, etc.

BOOKS, ETC., RECEIVED.

The Mammalia. By Oscar Schütt. London: Kegan Paul and Co. 1885.

Select Methods in Chemical Analysis. By W. Crookes, F.R.S. Second Edition. London: Longmans and 1885.

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